

# THE ARCHITECTS' JOURNAL



standard contents

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

## NEWS and COMMENT

*Astragal's Notes and Topics*

*Letters*

*News*

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## TECHNICAL SECTION

*Information Sheets*

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*Working Details*

*Questions and Answers*

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*The Industry*

## CURRENT BUILDING

*Major Buildings described:*

*Details of Planning, Construction,*

*Finishes and Costs*

*Buildings in the News*

*Building Costs Analysed*

*Architectural Appointments*

*Wanted and Vacant*

Vol. 134 No. 9

THE ARCHITECTURAL PRESS

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★ A glossary of abbreviations of Government departments and societies and committees of all kinds, together with their addresses and telephone numbers. The glossary is published in two parts—A to I one week, I1 to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, wcl	Museum 0974
AAI	Association of Art Institutions. Secy.: J. H. Holden, College of Art, Cavendish Street, Manchester 15	Langham 5533
ABS	Architects' Benevolent Society. 66, Portland Place, w1	Waterloo 5427/8
ABT	Association of Building Technicians. 156, Waterloo Road, se1	Whitehall 9737
ACGB	Arts Council of Great Britain. 4, St. James's Square, sw1	Mayfair 7501/8
ADA	Aluminium Development Association. 33, Grosvenor Street, w1	Langham 5861
ARCUK	Architects' Registration Council. 68, Portland Place, w1	Langham 5721
BAE	Board of Architectural Education. 66, Portland Place, w1	Museum 5400
BASA	British Architectural Students Association. Building Centre, 26 Store Street, wcl	Welbeck 4185
BC	Building Centre, 26, Store Street, Tottenham Court Road, wcl	Ealing 9621
BCC	British Colour Council. 13, Portland Square, w1	Redditch 716
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, w5	Fremantle 8494
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham	Hunter 1951
BDA	British Door Association. 10, The Boltons, sw10	Temple Bar 9434
BE	Building Exhibition. 11, Manchester Square, w1	
BEDA	British Electrical Development Association, 2 Savoy Hill, wc2	
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, c2	Glasgow Central 2891
BINC	Building Industries National Council. 11, Weymouth Street, w1	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, sw1	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford	Garston 4040
BSA	Building Societies Association. 14, Park Street, w1	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., w1	Mayfair 9000
CABAS	City and Borough Architects Society. C/o S. A. G. Cook, ARIBA, Borough Architect and Director of Housing, Town Hall, High Holborn, wcl	Holborn 3411
CAS	County Architects' Society. C/o J. Hurst, ARIBA, County Hall, Dorchester	Belgravia 6661
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, sw1	Grosvenor 8811
CDA	Copper Development Association. 55, South Audley Street, w1	Trafalgar 8000
COID	Council of Industrial Design. 28, Haymarket, sw1	Sloane 4280
CPRE	Council for the Preservation of Rural England, 4, Hobart Place, sw1	Belgravia 8141
CUC	Coal Utilization Council. 3, Upper Belgrave Street, sw1	Whitehall 0540
DIA	Design and Industries Association. 13, Suffolk Street, sw1	Sackville House, 40, Piccadilly, w1
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, w1	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge	
FAS	Faculty of Architects and Surveyors, 68, Gloucester Place, w1	Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors. 14, Bryanston Street, w1	Welbeck 1781
FIDOR	Fibre Building Board Development Organization Ltd. (Fidor) Stafford House, Norfolk Street, wc2	Covent Garden 3008
FBI	Federation of British Industries. 21, Tothill Street, sw1	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, w1	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Street, sw1	Sloane 1002
FDMA	Flush Door Manufacturers Association Ltd. Trowell, Nottingham	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 33, John Street, wcl	Chancery 7583 (6 lines)
FPC	Federation of Painting Contractors. St. Stephen's House, sw1	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, w1	Langham 4341
GPDA	Gypsum Plasterboard Development Association. 11, Ironmonger Lane, ec2	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, sw1	Belgravia 4321
GG	Georgian Group. 2, Chester Street, sw1	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, sw1	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, sw1	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, w1	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, sw1	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, wc2	Covent Garden 1871
IES	Illuminating Engineering Society. 32, Victoria Street, sw1	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, sw1	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square, w1	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 37, Soho Square, w1	Gerrard 5056

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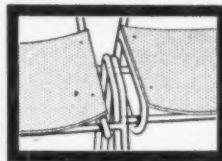
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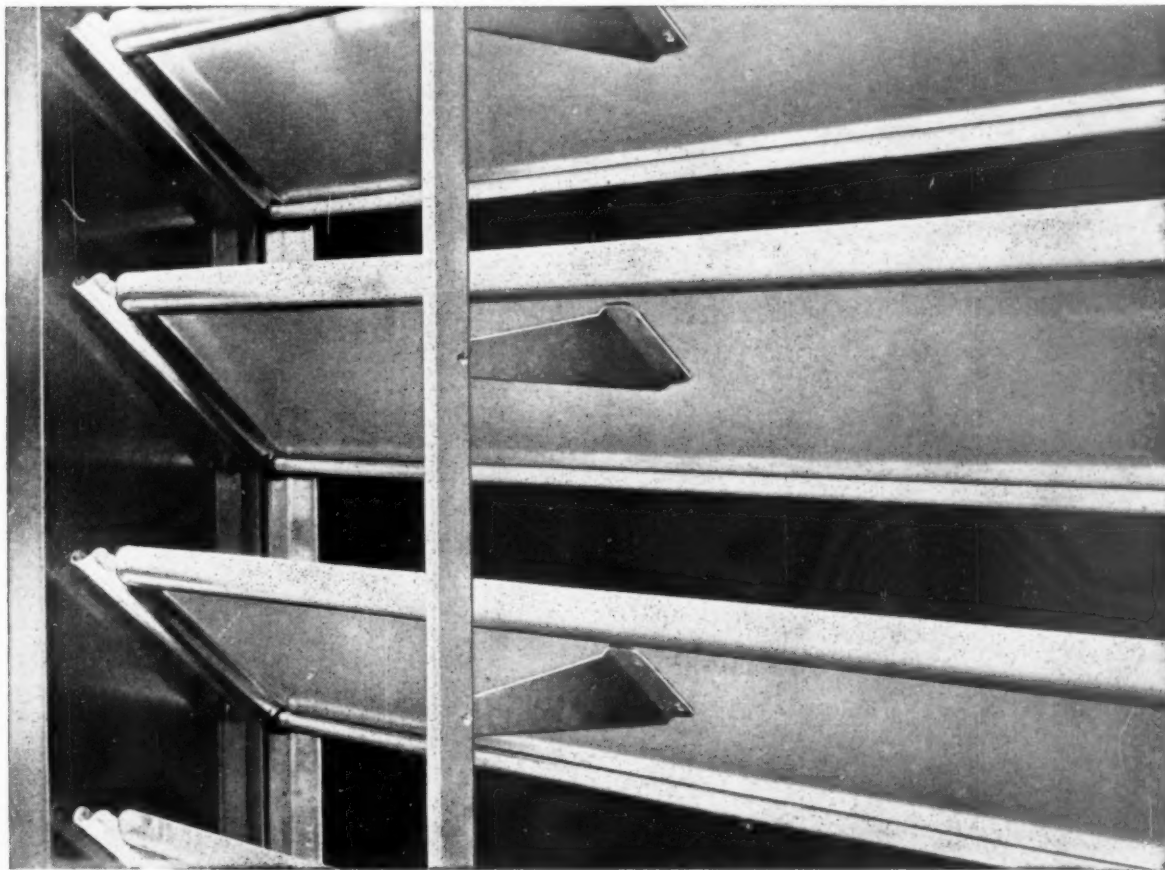
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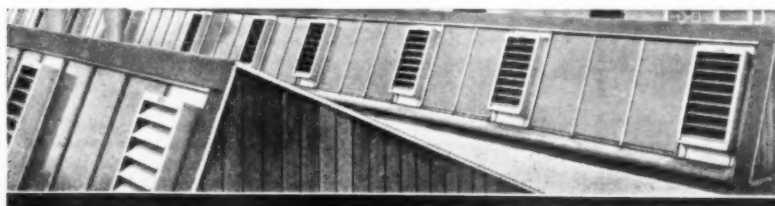
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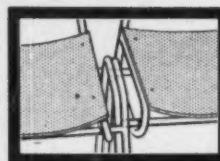
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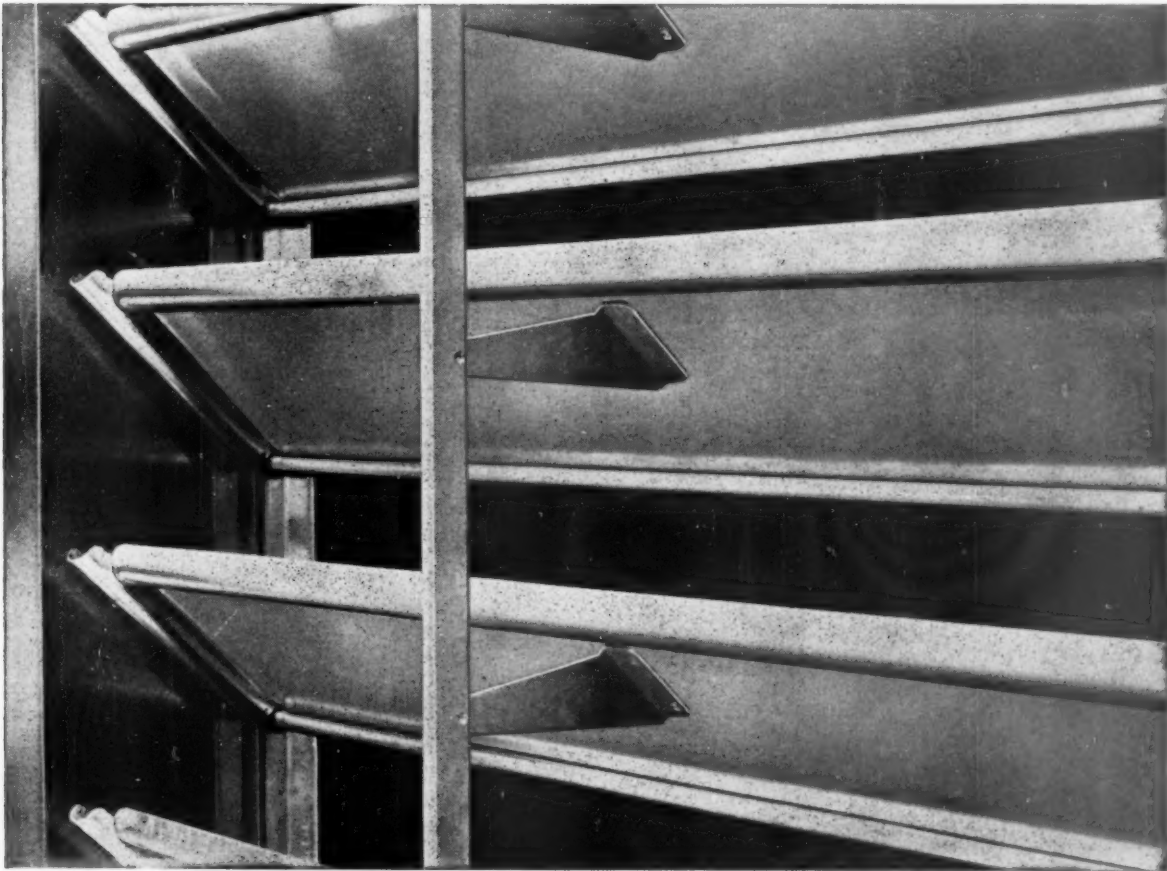
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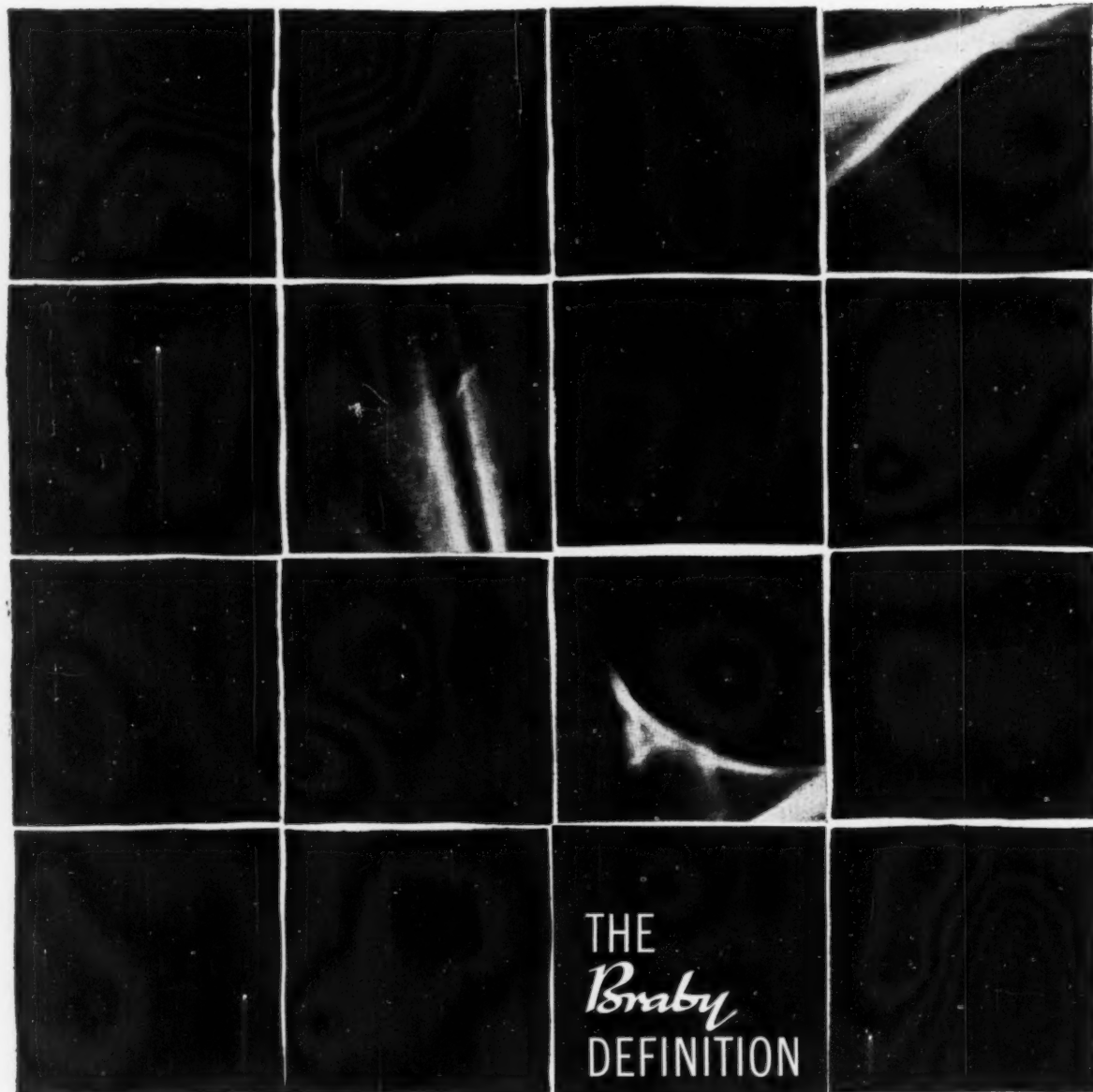
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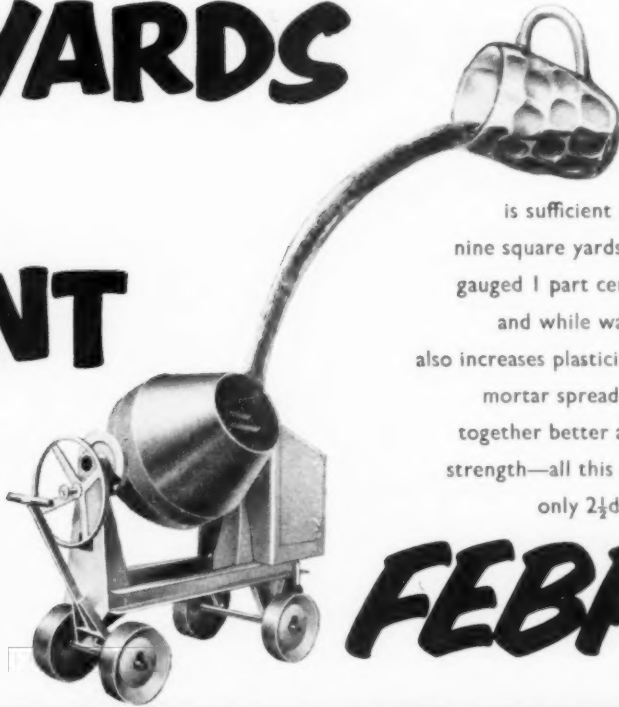
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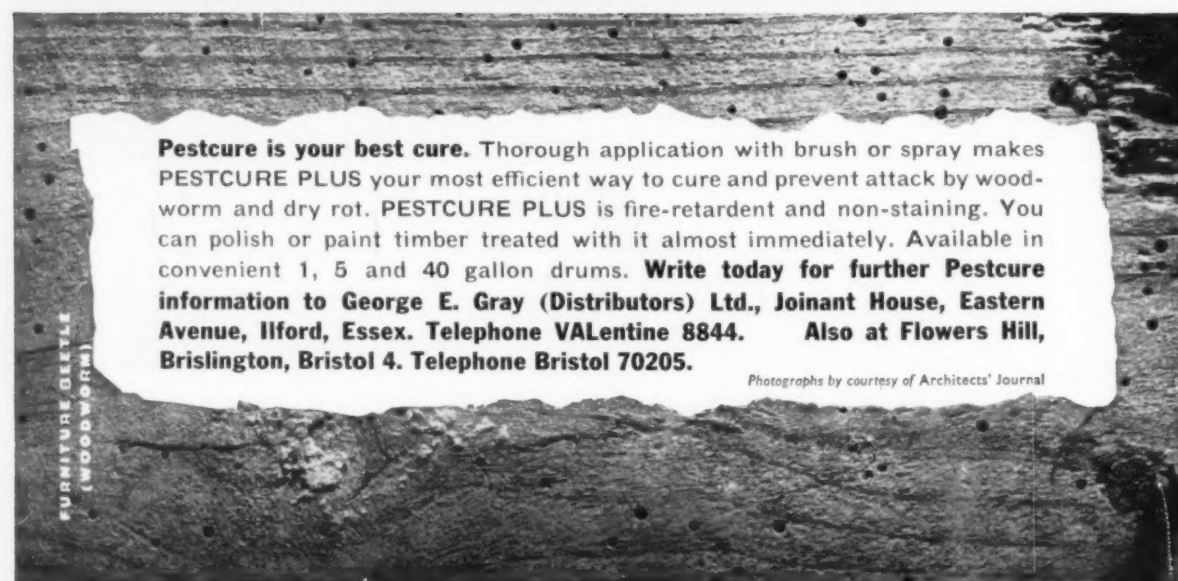
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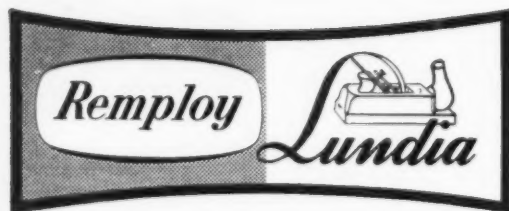


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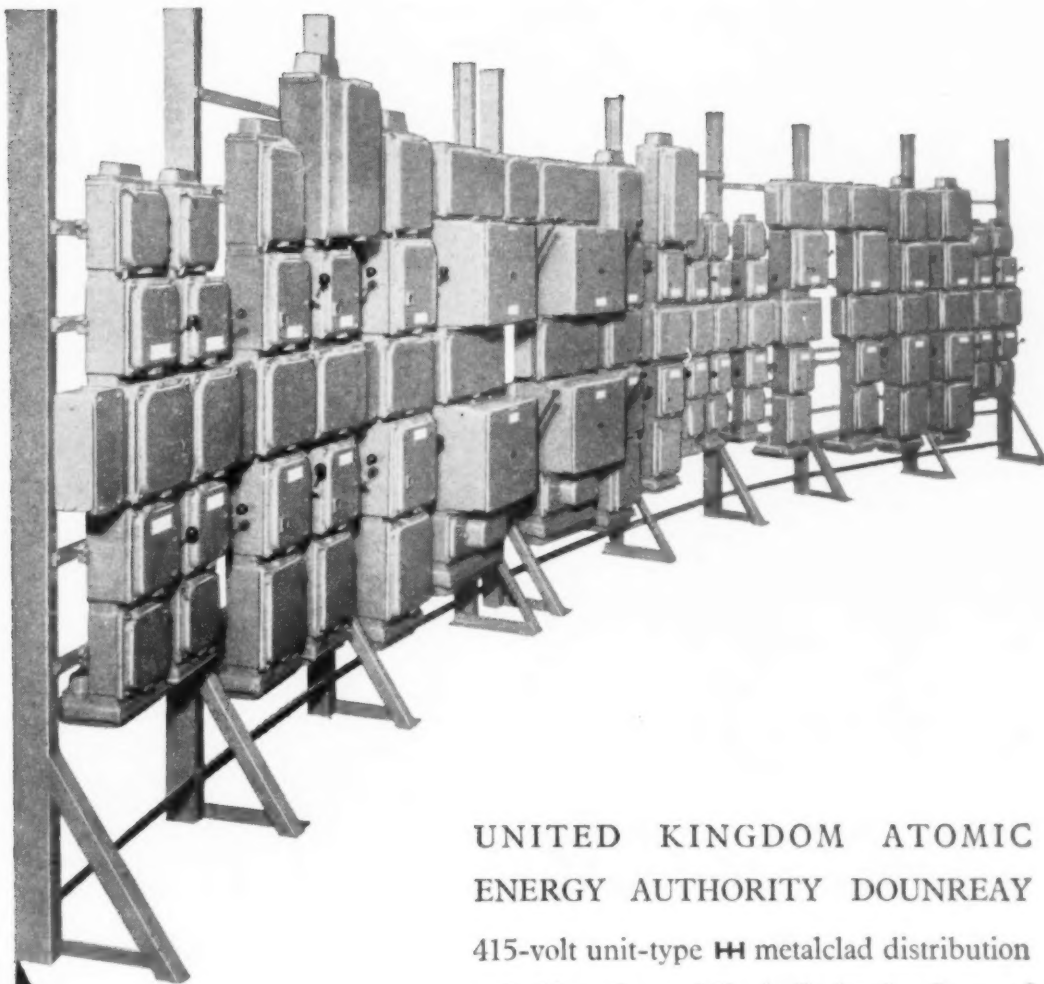
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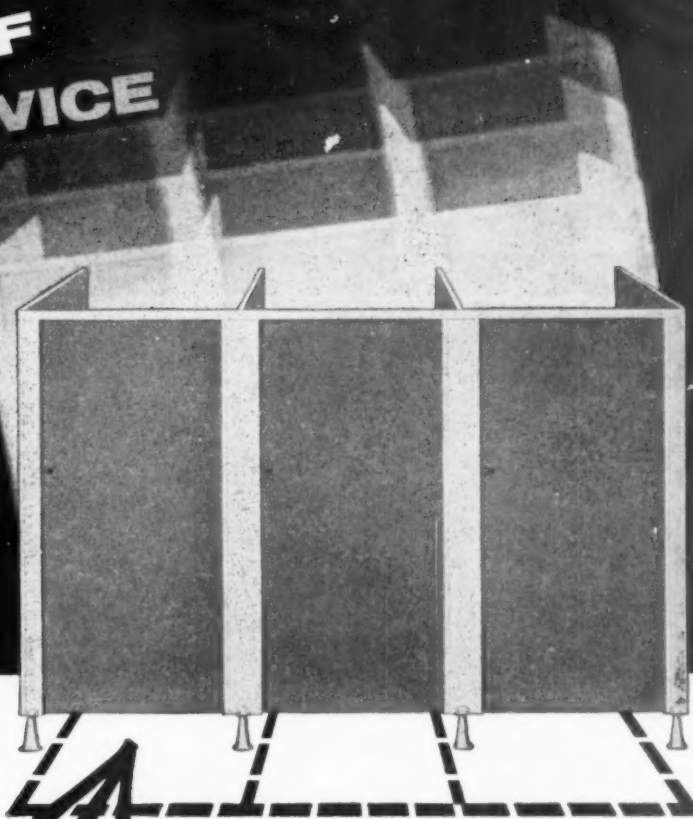
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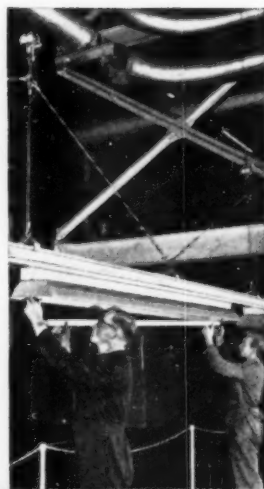
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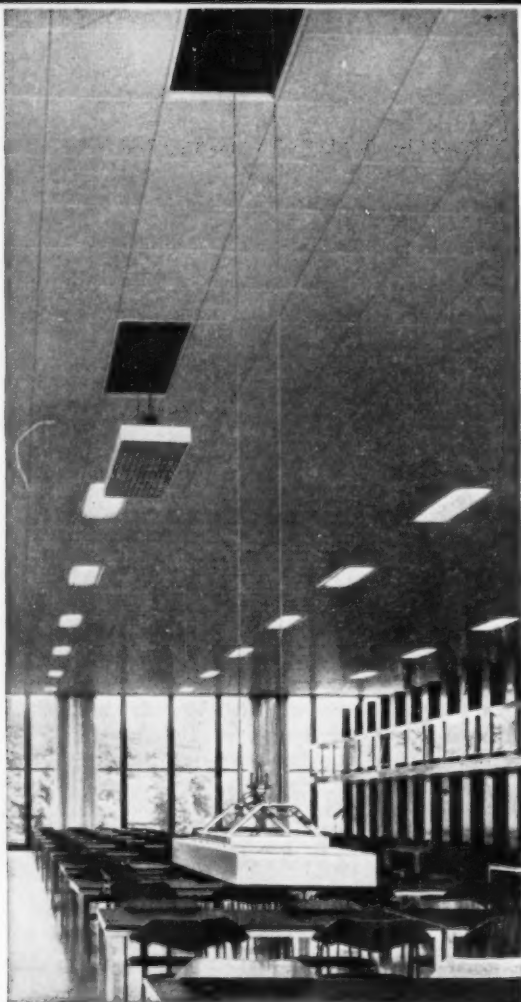
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Above: L.E.F. Gear is installed in the Boiler House at Vauxhall Motors, Luton, to facilitate maintenance of fluorescent trunking.

Left: Modular lighting in the new library at Sheffield University is serviced by means of specially designed L.E.F. Gear.



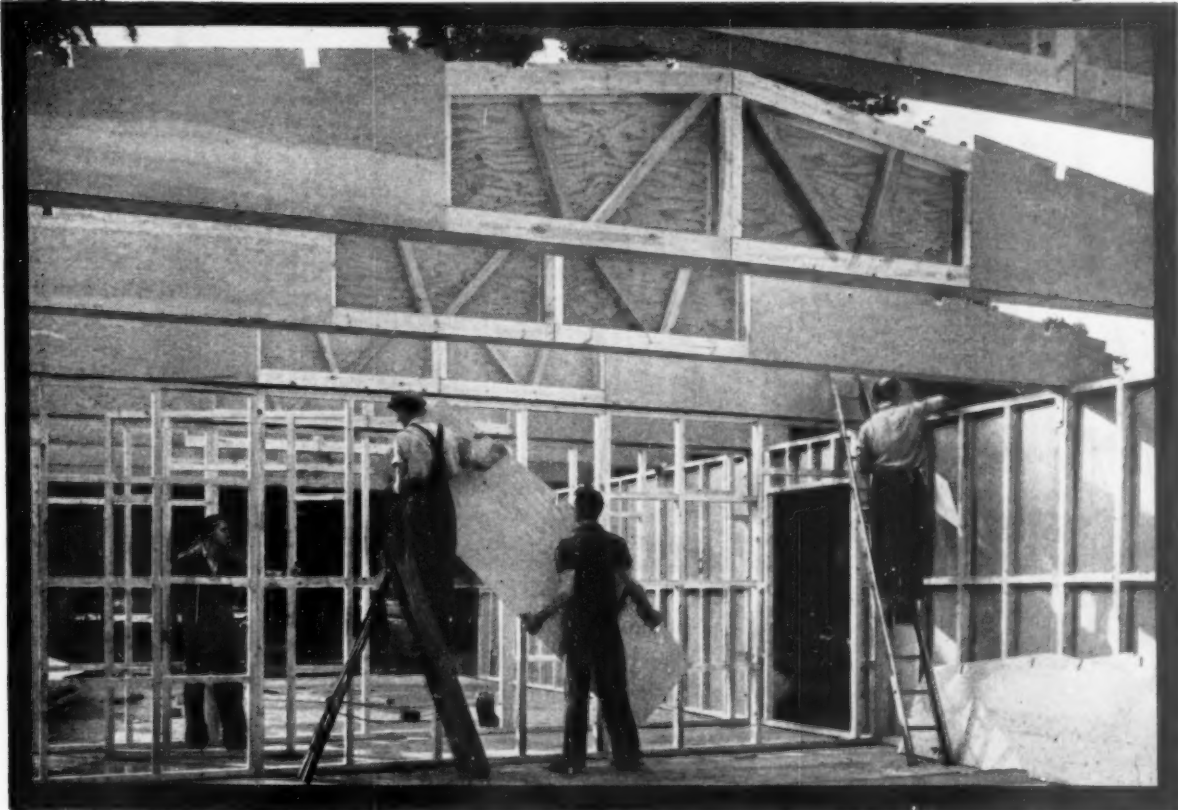
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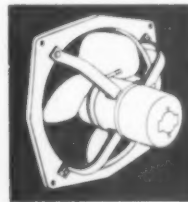
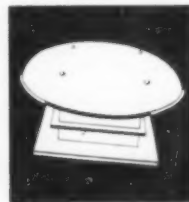
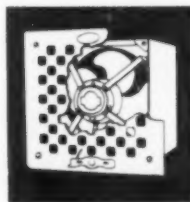
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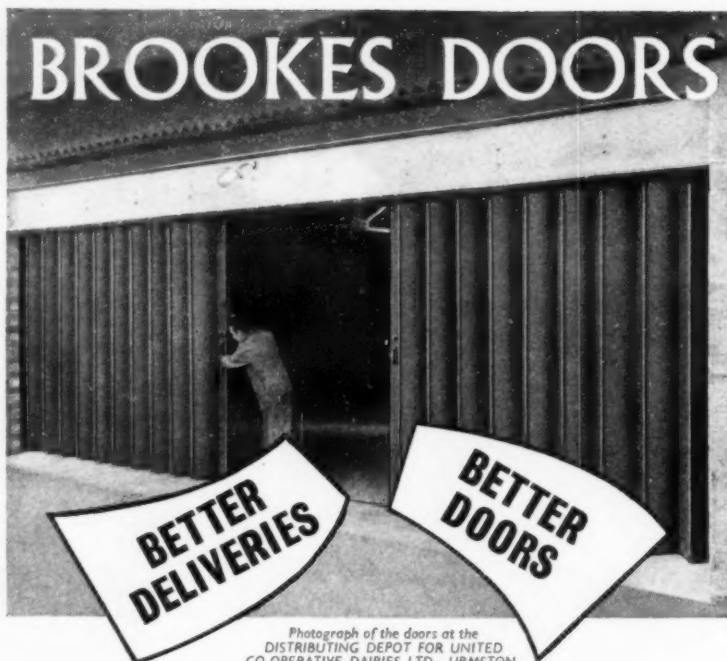
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*Submitted by G. Copcutt, Esq.*

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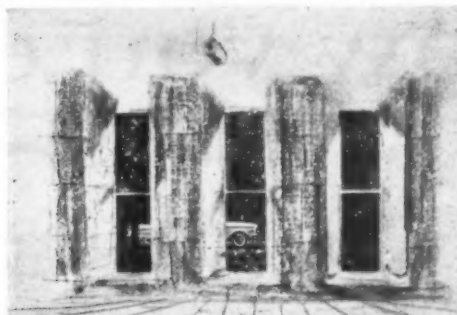
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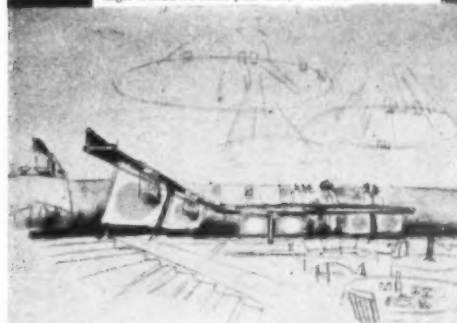
W. F. Martin, Esq.,  
130, Park Road, East Barnet, Herts.

**Highly Commended**

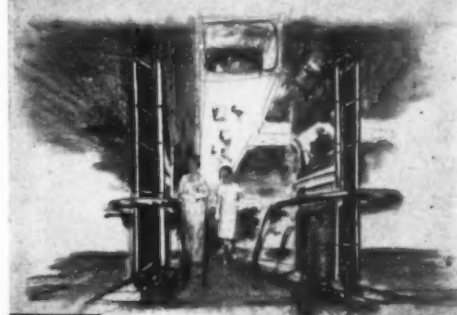
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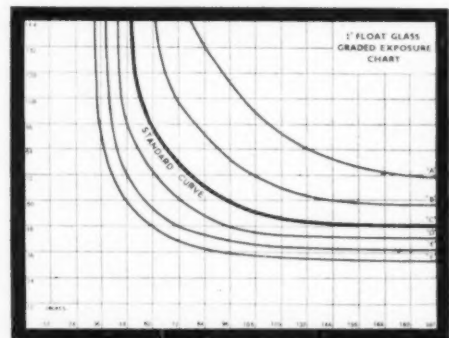
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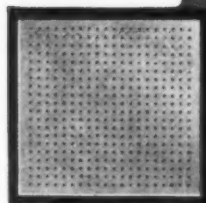
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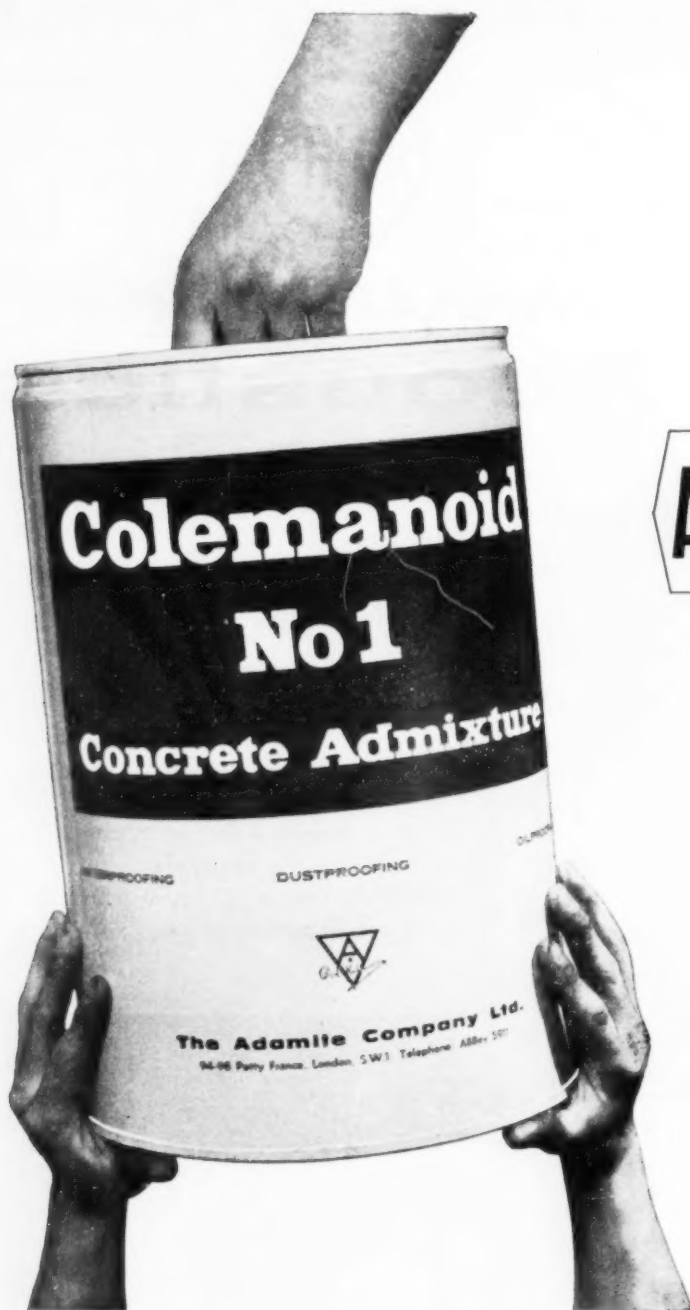
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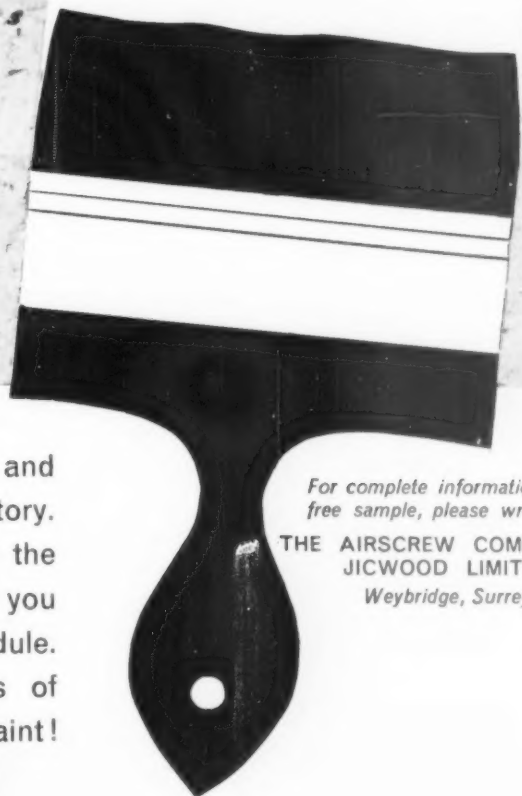
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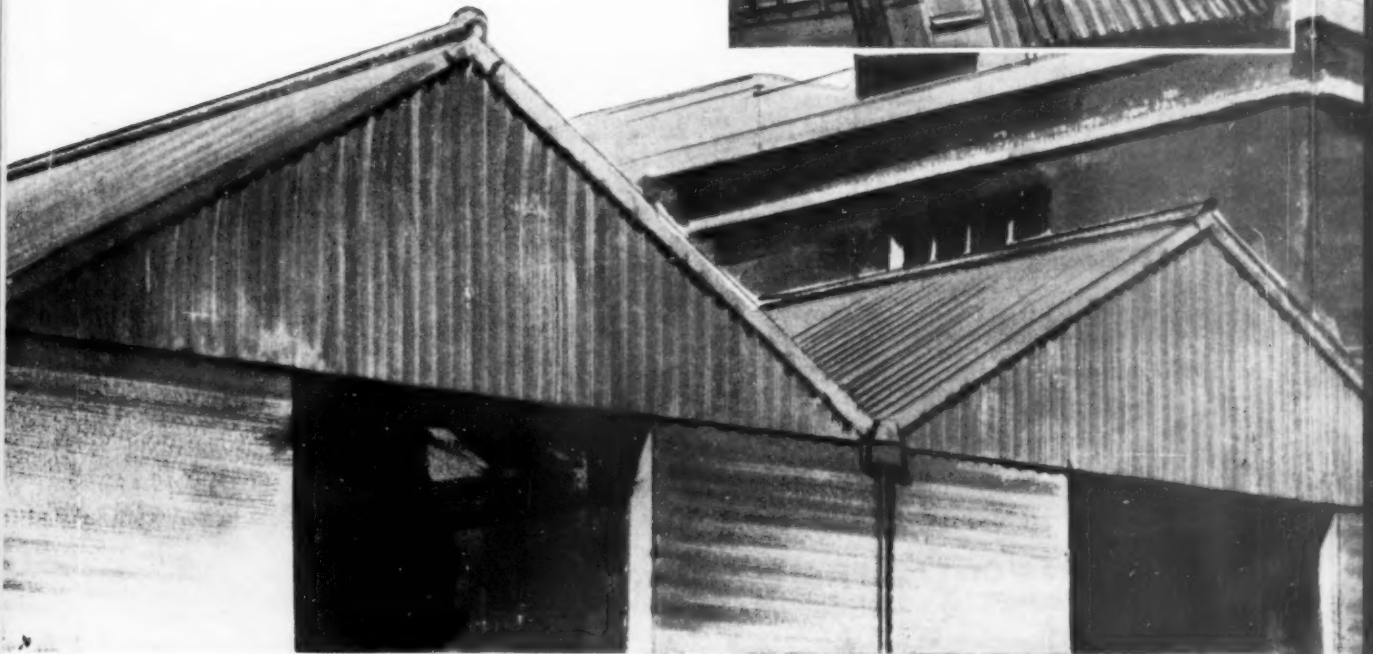
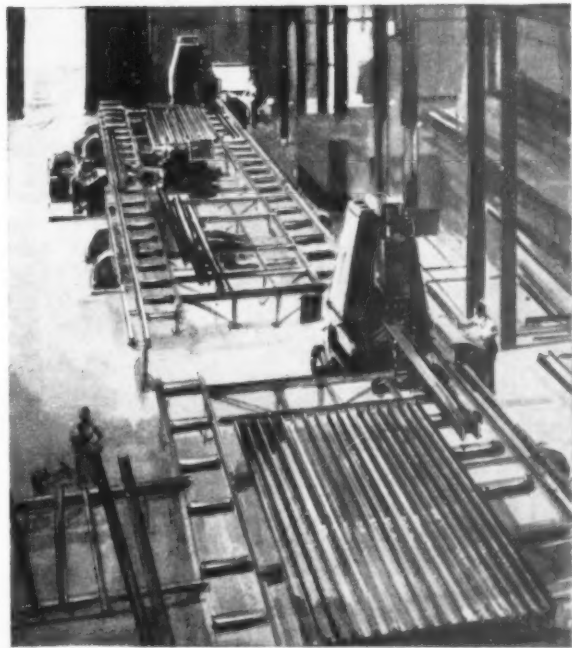
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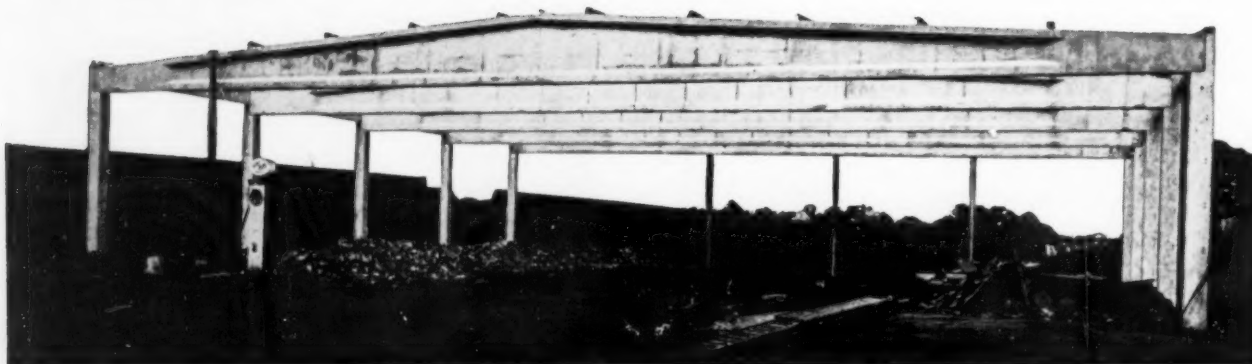


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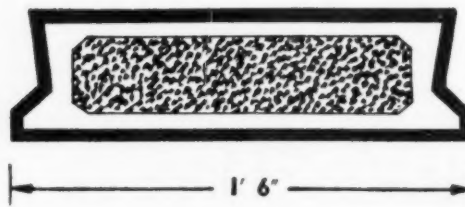
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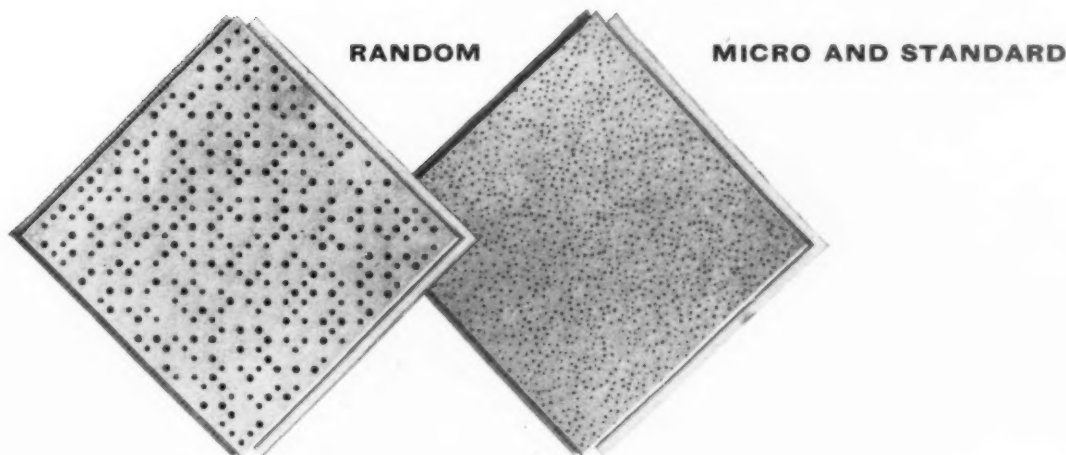


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24in. by 24in. by  $\frac{1}{4}$ in.



**THE TENTEST CO. LTD.**

FIBOARD HOUSE, OAKLEIGH GARDENS, LONDON, N.20.  
Telephone HILLside 8801 (7 lines)



this child is being **POISONED**

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

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

MEMBER OF THE



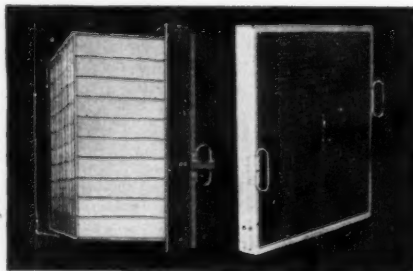
BIRFIELD GROUP

### **INTERMIT LIMITED**

Far-Air Licensed Manufacturers for Europe  
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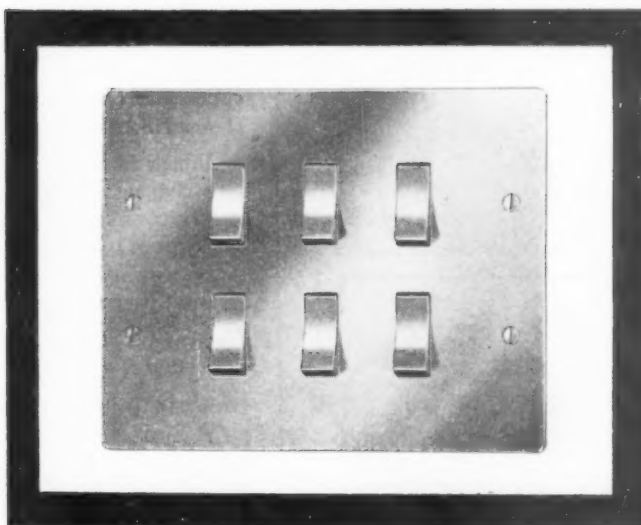


**FIT FAR-AIR FILTERS**



The illustration shows a standard panel filter and an H.P. After Filter

THE MOST  
**MODERN** OF SWITCHES  
WITH THE MOST  
FAMOUS OF FINISHES



Wempress 6-section switch

**The Wempress Switch** is designed with the Architects of today *and* tomorrow in mind. Its clean lines harmonise with the most *traditional* and most *modern* settings—and its superb finish will still look attractive in the 21st century!

The simple yet robust construction of the Wempress ensures a really long and trouble-free life. A metal rocker replaces the conventional dolly for smooth, precise action, and it has a china base and adjustable grid plate.

Metal front plates available in Nickel Bronze, Pastel Silver, B.M.A., Bright Chrome, Satin Chrome, Golden Corn, Bright Silver, Electric Red, Clover Pink, Apple Green, Electric Blue and Ebony finishes. 5 or 15 amp. loading, as required. Metal Rockers: Metal Plates: China Base.

**Wandsworth**

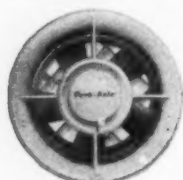
**The Wandsworth Electrical Manufacturing Co. Ltd.,**  
(Dept. AJ.37), Albert Drive, Sheerwater, Woking, Surrey.  
Telephone: Woking 3506.

# FOR BETTER AIR CONDITIONS

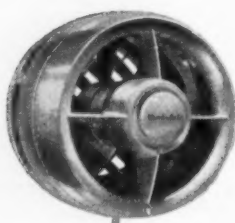
## WINDOW MODELS

*in black or ivory*

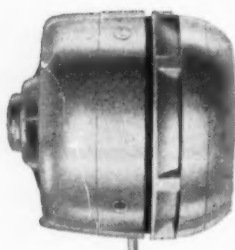
6"



7½"



9"



12"



The Vent-Axia range of elegant window and wall models can be equipped with optional fitments to satisfy a wide variety of ventilation requirements.

- \* Inbuilt automatic shutter to prevent backdraught.
- \* Choice of control : Single Direction (Type SD) or Reversible (Type R), both giving three speeds including boost for extra performance.

*Here is ventilation, just as you want it, at the turn of a switch.*

## Vent-Axia

60 Rochester Row · London SW1

Telephone: VICTORIA 2244

BRANCHES AT GLASGOW · MANCHESTER

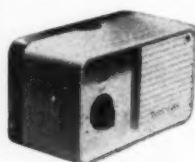
BIRMINGHAM · LEEDS

NEWCASTLE-UPON-TYNE · BRISTOL



A MEMBER OF THE HALL-THERMOTANK GROUP

CONTROL SWITCH  
TYPE R

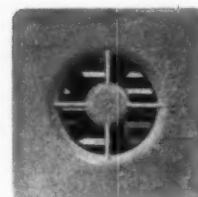


CONTROL SWITCH  
TYPE SD

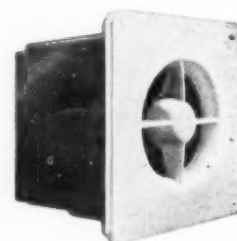
## WALL MODELS

*with ivory fascia*

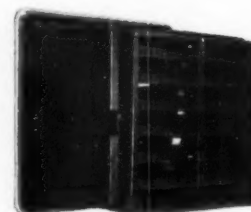
6"



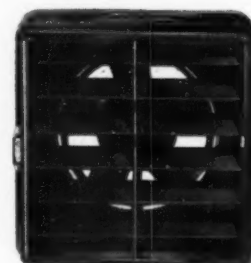
7½"



9"

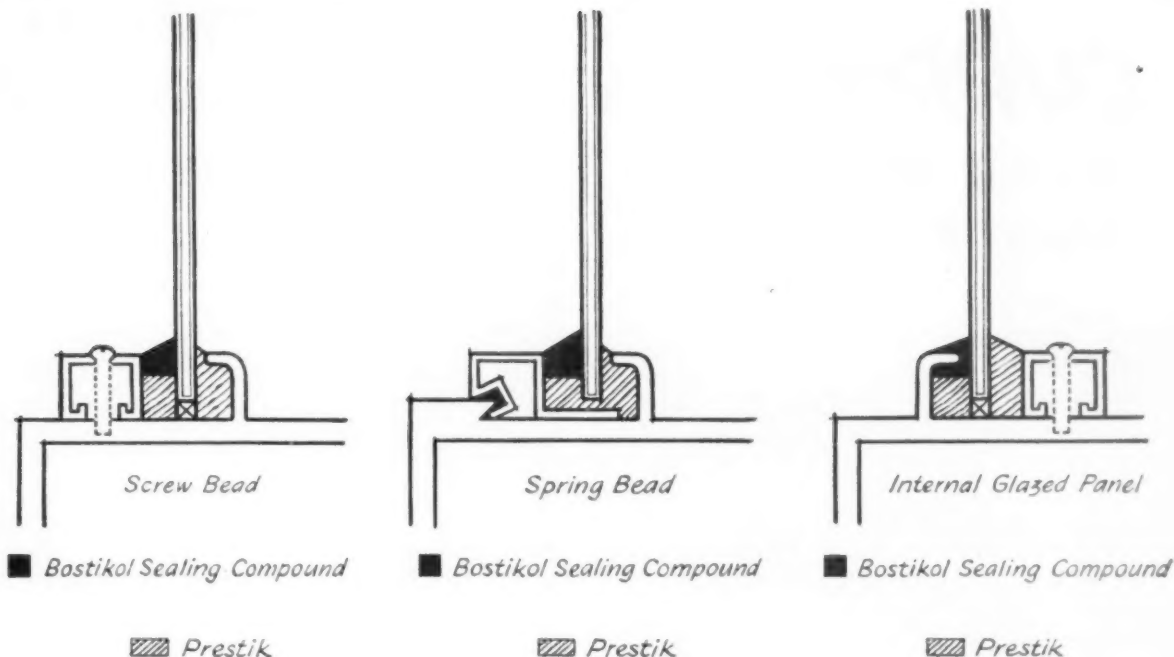


12"



# SPECIFY VENT-AXIA

## NUMBER 1 - GLAZING SEALS



## Finding the right sealing compound

These days it's not easy for the architect or the builder to keep bang up-to-date with the latest improvements. This is especially the case with sealing compounds, where the already large number designed to do specialists' jobs is steadily increasing. That's why 'Bostik', who have just about every sealing compound you require, have prepared these notes on the **four main types** of sealing compound.

**'Prestik' preformed sealing strips** will maintain a flexible seal against years of weathering. They expand and contract with the joint that they're sealing, will not harden, get brittle or shrink. All grades exclude dust, rain and snow: the special grades resist petrol and oil.

**'Bostik' butyl-based mastics** are made from a butyl rubber base which gives permanent elasticity. They have very good ageing and weathering qualities, and strong adhesion to most building materials. Some form a dry tack-free surface in a few hours and a tough resilient seal in a few days, others remain tacky. They will not shrink, crack or slump.

**'Bostik' gun mastic** is based on oils and resins and provides

a good general-purpose, easily applied sealant for joints which will not be subject to large movements.

**'Bostikol' sealing compounds** are based on polysulphide synthetic rubber. Applied in liquid form, they cure in position without shrinking and form a tough, permanent, weathertight seal to resist all arduous conditions met in curtain wall structures. A wide choice of grades provides different physical characteristics to suit different conditions.

*One last word about 'Bostik' research: if you've any problems to do with sealing or bonding building materials, don't hesitate to get in touch with us. It's our job. We may have solved your problem already. And if we haven't, we'll get down to it right away.*

Write to: 'Bostik' Building Advisory Department, B.B. Chemical Co. Ltd, Leicester.

### Bostik

MAN FRIDAY TO THE BUILDING INDUSTRY

The words 'Bostik', 'Bostikol' and 'Prestik' are trademarks registered in the U.K. and many other countries. Manufactured by B.B. Chemical Co. Ltd (the 'Bostik' people), Leicester, England

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## WATER REPELLENT WOOD PRESERVERS



CUPRINOL W.R. Clear and W.R. Green combine water repellency with the preservative properties of CUPRINOL, which have been proved in use for nearly fifty years. By stabilizing movement in timber, they minimise the swelling and shrinking of wood under changing moisture conditions.

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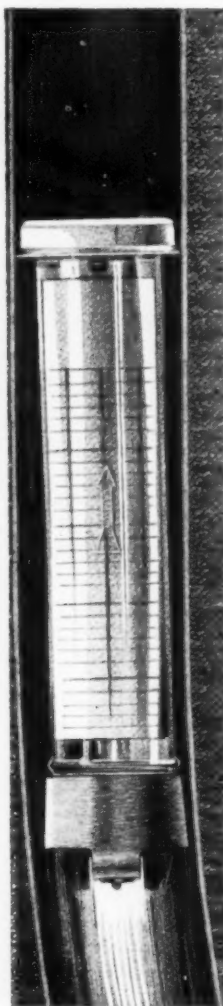
THE CUPRINOL PRESERVATION CENTRE offers technical advice on all preservation problems and can arrange Surveys, Reports and expert treatment of outbreaks of Dry Rot and Woodworm in any part of the country.

**CHECK SWELLING  
AND WARPING**

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## INTERDEPARTMENTAL GUIDED PROJECTILE TRAVELLING UNSEEN AT 30 FT. PER SECOND



A Lamson tube system gives you front line defence against messenger costs and sluggish document handling. There is a system to suit your needs (six sizes to choose from) and a design to serve any number of points in your offices or works. All types of small articles can be carried—here are a few which travel in Lamson tubes somewhere, every day.

**DOCUMENTS  
FILES  
MAIL  
DRAWINGS  
SAMPLES  
(DRY OR LIQUID)  
SMALL PARTS  
AND TOOLS  
RADIO-ACTIVE  
ISOTOPES**

# LAMSON

## Tubes

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A MEMBER OF THE LAMSON INDUSTRIES GROUP



# TRADITIONAL RELIABILITY

The fruits of nearly a century's craftsmanship and experience are incorporated into locks and door furniture by Joseph Kaye & Sons Ltd., providing first class security for many of today's famous buildings.

Shown here are but two of these, Grosvenor House and the Headquarters of the R.I.B.A., both of which have Kaye locks and door furniture to suit their individual specifications.

Consult your Barbour  
Index File No. 198



## FOR EVERY APPLICATION

- Hotel Locks
- Mortice Locks
- Sliding Door Locks
- Emergency Door Fittings
- Padlocks
- Latches
- Rim Locks
- Cupboard Locks
- Stabilisers
- Drawer and Desk Locks

## TECHNICAL PERFECTION

- 4 Lever Locks
- 750 Differ off Levers
- Differs from Levers and Wards are almost unlimited
- Followers are of hard resistant Brass
- Forends are of hard resistant Brass
- Phosphor Bronze Springs to Levers
- The 'K' design, four lever Lock is for greater security
- The Locks can be made in suites with Sub-master and Master Keys

The Range of Products we manufacture is too large to illustrate and mention here, but we will be pleased to send literature on request.

*Photograph by permission of the R.I.B.A.  
Architect: The late Grey Wornum, F.R.I.B.A.  
Architects for additions & alterations: Playne & Lacey.*

Illustrated literature is available on request

# Joseph Kaye & Sons Ltd.,

Established 1864

Lock Works, Leeds 10. Telephone : 20887

London Office : 1-5, New Bond Street, London W.1. Telephone : HYDe Park 2956.



## P.C. sums for boilers..oil and gas



### Where the P.C. sum for an oil-fired boiler is £71.10

The Glow-Matic is a 35,000 BTU-boiler with a reserve for cold weather. With a 30-gallon cylinder it will provide ample hot water for domestic use in addition to about 140 sq. ft. of radiant surfaces. This can be increased by 35 sq. ft. if it is used for heating only. The Glow-Matic is silent, warms the kitchen and is available in a choice of colours.

For small-bore systems, the Glow-Matic is available as a packaged unit, with pump, blending valve and all the fittings within the same casing. Price £117.



### Where the P.C. sum for a gas-fired boiler is £43

The Therm-Glow is a 30,000 BTU boiler, thermostatically controlled, clean, noiseless and fully approved by the Gas Council. A clock control is available as an optional extra for even greater economy. Serving a 30-gallon cylinder, the Therm-Glow supplies abundant hot water for every household need and will heat up to 120 sq. ft. of radiant surfaces. Or if used solely as a central heating boiler it will cope with 166 sq. ft. The Therm-Glow operates at a very high rate of efficiency, and in areas where Gas Boards have a two-part tariff, running costs can be as low as for solid fuel. The Therm-Glow also warms the kitchen in cold weather.

# GLOW=WORM

GLOW-WORM BOILERS LIMITED, 47 Hatton Garden, London, E.C.1.

## Colour at low cost



- BUILDER** "Do you know, this is the best cement colouring compound I have ever used?"
- ARCHITECT** "Which confirms that if the colouring agent complies with British Standard, it must be good."
- BUILDER** "And yet, to get this strong brick-red shade, I am only using 3 lbs. of this Febtone colouring compound per cwt. of cement."
- ARCHITECT** "Yes, what a difference to the colouring compound I previously specified. That needed 10 lbs. per cwt. of cement to form the same shade."
- BUILDER** "Ah! but the colouring agent in that compound didn't conform with British Standard 1014-1942 Type A."
- ARCHITECT** "Yes, there's the difference. To conform with British Standard, the cement colouring material must be free from impurities and extenders."
- BUILDER** "Which gives the answer—the colouring matter of Febtone is obviously pure, unadulterated pigment and so a little goes a long way."
- ARCHITECT** "Which makes you wonder what is in some of the other cement colouring compounds."
- BUILDER** "Well, there's no wondering with Febtone and in addition, the product also hardens and plasticises which is a great help to the Builder."

*You can rely on*

**FEBTONE SUPER PERMANENT COLOURS FOR CEMENT**

(PATENT NUMBER 727280)

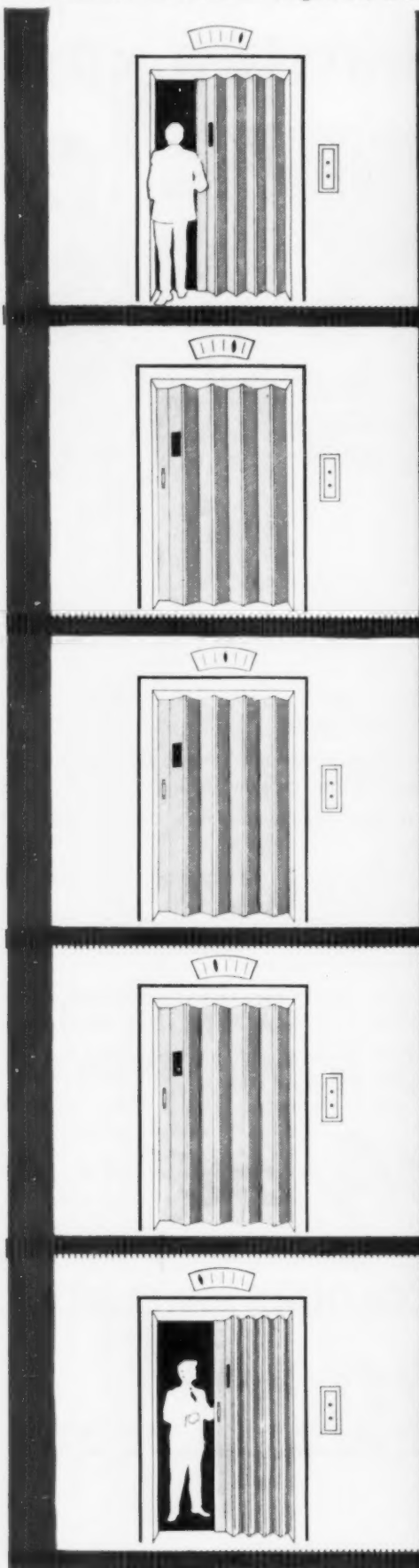


**(GREAT BRITAIN) LIMITED**

102 KENSINGTON HIGH STREET, LONDON, W.8

Telephone: WESTERN 0444

ALBANY ROAD, CHORLTON-CUM-HARDY, MANCHESTER, 21 Telephone: CHO 1063



when

Every lift door we produce embodies a wealth of long, specialised experience in the manufacture of doors and gates for industry and commerce.

you get

The success of Bolton lift doors is therefore soundly based on well-informed design, high standards of craftsmanship and the finest materials.

down

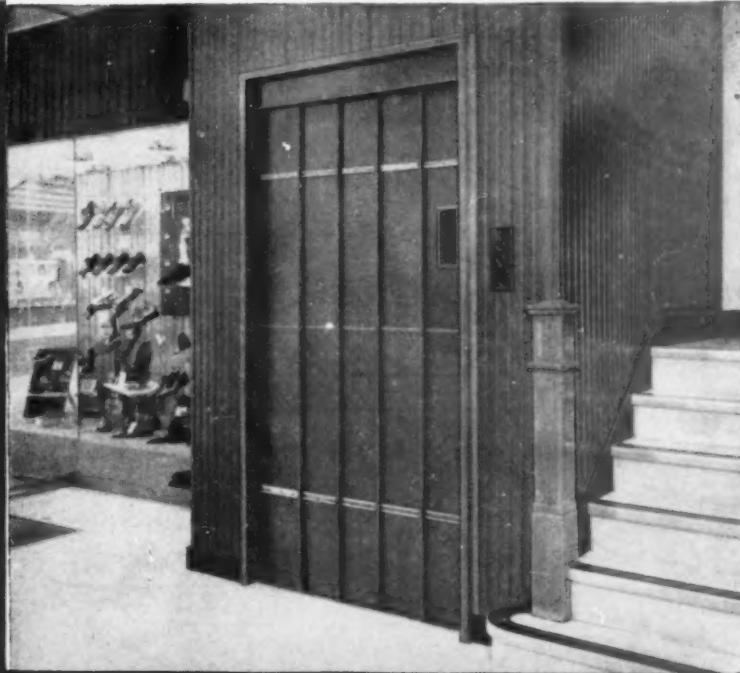
On to this basic superiority are built—in the case of shutter doors—such advanced technical features as totally enclosed tracks, non-ferrous hinging strips and twin ball-bearing pulleys.

to the

These doors look good too, and are available in a wide variety of finishes to suit different decorative backgrounds.

facts...

For appearance, extreme ease of operation, minimum maintenance and long life, specify BOLTON Lift Shutter Doors. They are top on every point.



## BOLTON LIFT DOORS

*come out top at every point!*



Above left:  
The remarkable Bolton  
Multi-Panel Lift Door  
which runs 'round the  
corner' is ideal for  
contemporary settings.

Above right:  
Multi-leaf door.

Below: (left pair)  
Closed and open views  
of a lift shutter door.

Below: (right pair)  
Two-speed sliding doors,  
of which five sets were  
installed in the same  
premises.

As well as the types shown here, the  
**BOLTON** range of Lift Doors includes fireproof  
shutter doors, single panel sliding doors, two-  
panel centre opening doors, and vertical  
sliding bi-parting doors for goods lifts. Read all  
about them by sending for leaflet **AJ 306**

### BOLTON

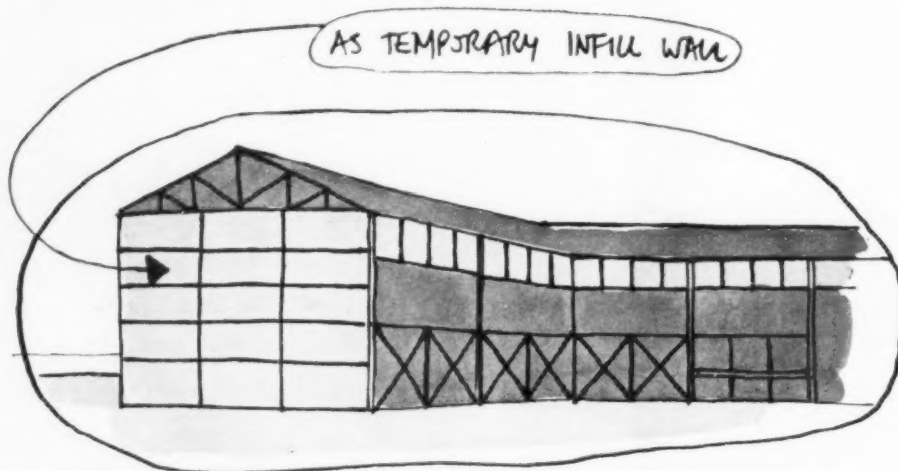
*The Big Name in doors*

**BOLTON GATE COMPANY LIMITED • BOLTON • LANCASHIRE**

Branches at London, Glasgow, Birmingham, and towns throughout the country.



BG.306



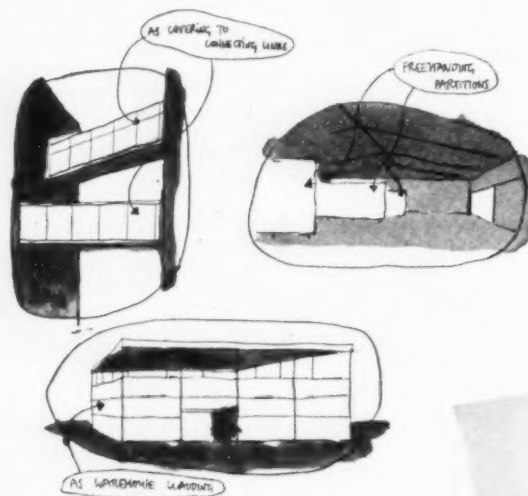
## Pages from an Architect's Notebook

### 4. Daylight from the side

In industry, where lighting from the side is often necessary, the shatterproof property of translucent FILON sheeting is doubly important. It provides a valuable safety factor where goods are moved about or potentially dangerous processes take place. Available as flat sheet or in standard profiles to match corrugated iron, aluminium or asbestos, FILON will withstand heavy impact, vibration and sudden temperature changes without fracture and requires practically no maintenance.

*FILON is approved by the Air Ministry, War Office, L.C.C., J.F.R.O.*

*S. E. Grade (Self-Extinguishing) classified EXT. S.AA. under B.S.476, Part 3, 1958 is also available.*



#### Continuous lengths

FILON polyester resin/glass-fibre sheets are made, in all profiles and flat sheet, by a continuous process and can be supplied in any length, subject only to handling and transport facilities. Thickness, translucency and strength are uniform throughout.

**FILON**  
TRANSLUCENT SHEETING

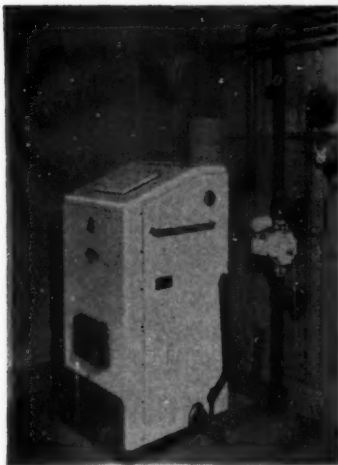
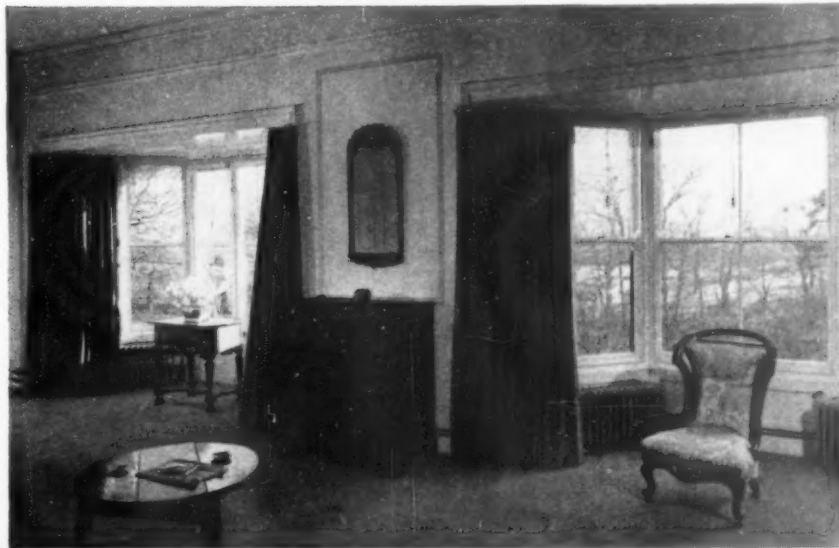
**B.I.P. REINFORCED PRODUCTS LIMITED**

Streetly Works · Sutton Coldfield · Telephone: Streetly 2411 · Telex: 33541

Warmth  
is no  
problem  
in this  
spacious  
country  
house...



BEECHBURN GRANGE,  
HOWDEN-LE-WEAR, CO. DURHAM  
Illustrating the advantages in  
an existing house of installing  
small-bore heating with Sunbrite.  
The piping system is easily installed  
with the minimum of structural  
work and is quite inconspicuous  
in this characterful interior.



A 'Trianco' gravity feed boiler  
rated at 120,000 B.T.U.'s,  
burning about  $3\frac{1}{2}$  cwts of  $\frac{1}{8}$ "  
Sunbrite per week in the winter,  
serves 13 Washington pressed  
steel radiators, a total radiator  
area of 480 sq. ft. and a  
30-gallon indirect cylinder  
for domestic hot water.

## ...with **SUNBRITE** central heating

SEND FOR INFORMATION SHEET No. 1 "Small Bore Central Heating with Sunbrite hard coke". From this you will see that a heating system employing a solid fuel boiler can compete in efficiency with any other fuel system, that using Sunbrite the running costs are lower, and there are no regular servicing charges to meet. Full details are given of modern high-efficiency boilers suitable for houses of all sizes. For these boilers Sunbrite is recommended because it is economical and reliable, and being free from stone and shale enables a boiler to run continuously throughout the heating season without cleaning out.

**TO THE BRITISH COKING INDUSTRY ASSOCIATION**  
74 Grosvenor Street, London, W.1.

Please send me Information Sheet No. 1.

NAME \_\_\_\_\_

ADDRESS \_\_\_\_\_

SL 19

AJ

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FUEL**

More heat  
at less cost  
—and  
it's British

*New office building for:—*

Messrs Marshall Andrew & Co. Ltd

40, Broadway, S.W.1.

*Architects:—*

Fitzroy Robinson & Partners



*Harbour Index File No. 82*

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*with provision for venetian blinds*

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Phone:—ELGAR 7292/7      Grams:—LUXFER HARLES. LONDON

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*Manufacturers of:—*  
CURTAIN WALLING  
METAL WINDOWS  
LANTERN LIGHTS  
FERRO-CONCRETE  
PAVEMENT LIGHTS  
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PARTITIONS



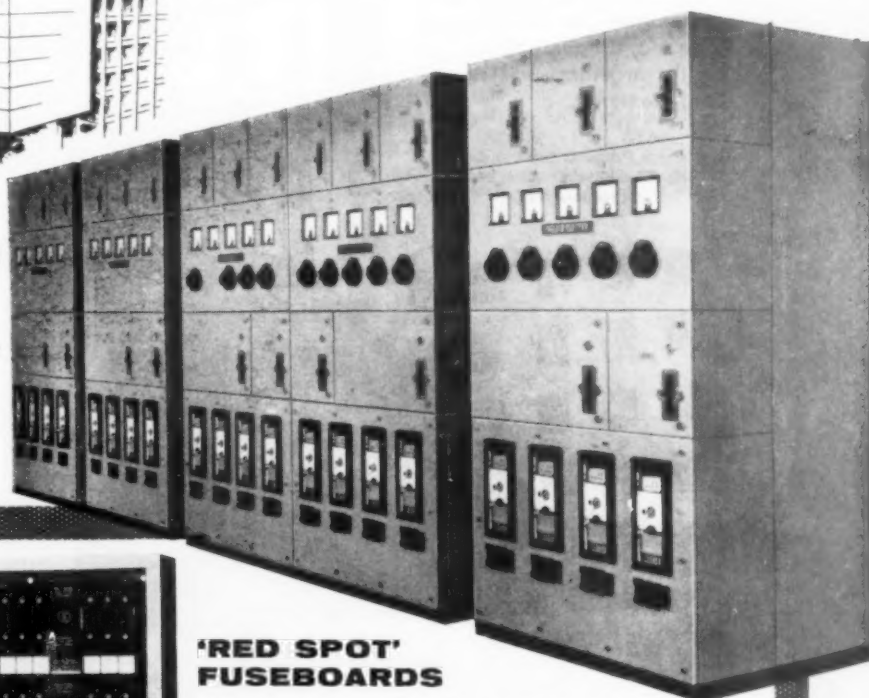
## FOR MODERN BUILDINGS

The continual increase in the use of electric power consuming devices in all types of buildings calls for well designed distribution equipment of proved performance. 'ENGLISH ELECTRIC' meet these requirements with their 'Superform' Switchboards and 'Red Spot' Fuseboards.

**EASY TO INSTALL • EASY TO MAINTAIN**  
**SAFE TO OPERATE • OF PLEASING APPEARANCE**

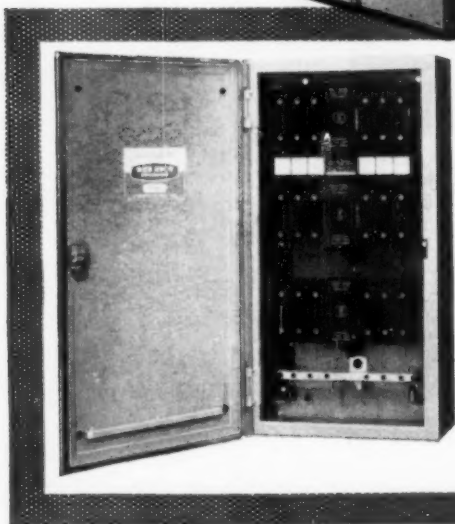
### 'SUPERFORM' SWITCHBOARDS

These switchboards have all the 'live' metal insulated, including busbars, interconnections, cable terminations, instrument and meter terminals, switch contacts and terminal blocks. Thus spare switches included on the switchboard can be cabled up safely with the existing circuits in operation.



### 'RED SPOT' FUSEBOARDS

Designed with concealed hinges and push button door catch having provision for locking by means of a built-in cylinder lock, 'Red Spot' fuseboards have the busbars and incoming cable sockets fully insulated. The fuse contacts and fuse terminals are covered by insulated shrouds. These features provide safety to electrical personnel by enabling spare fuseways to be cabled up with the busbars alive.



# 'ENGLISH ELECTRIC'

## fusegear

FOR DESCRIPTIVE LITERATURE WRITE TO:

The English Electric Company Limited,  
Fusegear Division,  
East Lancashire Road, Liverpool, 10

THE ENGLISH ELECTRIC COMPANY LIMITED, ENGLISH ELECTRIC HOUSE, STRAND, LONDON, W.C.2  
WORKS: STAFFORD • PRESTON • RUGBY • BRADFORD • LIVERPOOL • ACCRINGTON

FG.58

## THE CHANGING SCENE IN BRITAIN OWES MUCH TO TUNNEL CEMENT

Tunnel Cement is playing a big part in today's building programmes, with a range that includes Masonry, White and Coloured, Sulphate Resisting, Rapid Hardening and Water-proof Cements.

The Tunnel Portland Cement Co. Ltd.,  
105, Piccadilly, London, W.1.  
Grosvenor 4100.

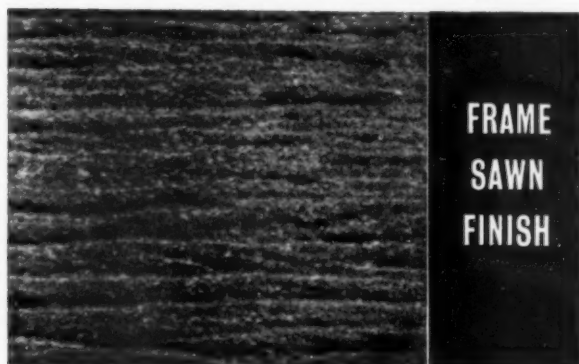


TUNNEL CEMENT



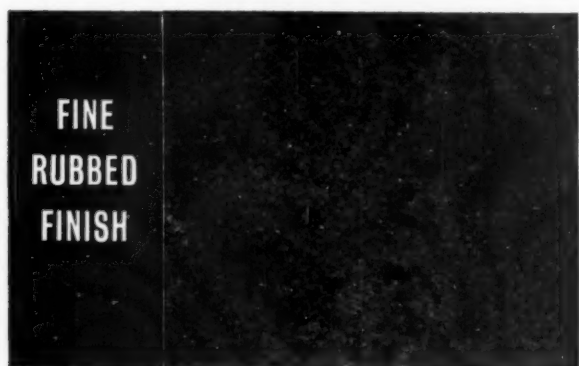
FOR RELIABLE BAG AND BULK DELIVERIES

# Lasting beauty



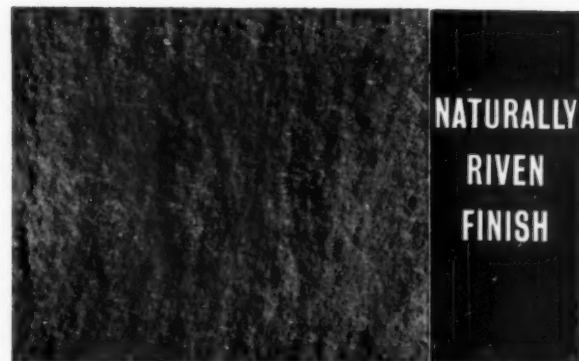
FRAME  
SAWN  
FINISH

## in Broughton Moor



FINE  
RUBBED  
FINISH

## Green Slate



NATURALLY  
RIVEN  
FINISH

Technical pamphlets showing typical methods of fixing are available on application:

1. Flooring
2. Facings.
3. Coping.
4. Cills
5. Riven Face Slabs.

In three distinct colours:  
Light Sea Green, Olive  
Green and Spoutcrag  
(Light Green) Barred

### Broughton Moor

GREEN SLATE QUARRIES LTD.

CONISTON, THE LAKE DISTRICT, LANCS. Tel: CONISTON 225/6



The Architects' Journal

Vol. 134. No. 9 August 30, 1961

9 13 Queen Anne's Gate, London, SW1 Whitehall 0611

Subscription rates: post paid, inland £2 15s. 0d. per annum; abroad £3 10s. 0d. per annum. Single copies, 1s. post paid, 1s. 6d. Special numbers are included in subscriptions; single copies, 2s.; post paid, 2s. 6d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for £1 17s. 6d.; carriage 2s. extra.

### NOT QUITE ARCHITECTURE

## My Son Fred's at the Town Hall

"I reckon that reps come in here trying to sell us every brand of paint except Woolworth's."

"Bill says they expect a load of bricks on his site tomorrow."

"What does he want to do about it? Fetch out the Town Band?"

"Isn't it tea-time yet?"

"Yes, but I was waiting for that paint chap to go."

"Bill says that the last lot of bricks they got weren't meant for his site at all. The driver didn't find out until they were all off the lorry."

"What happened?"

"He's the Mayor's chauffeur now."

\*

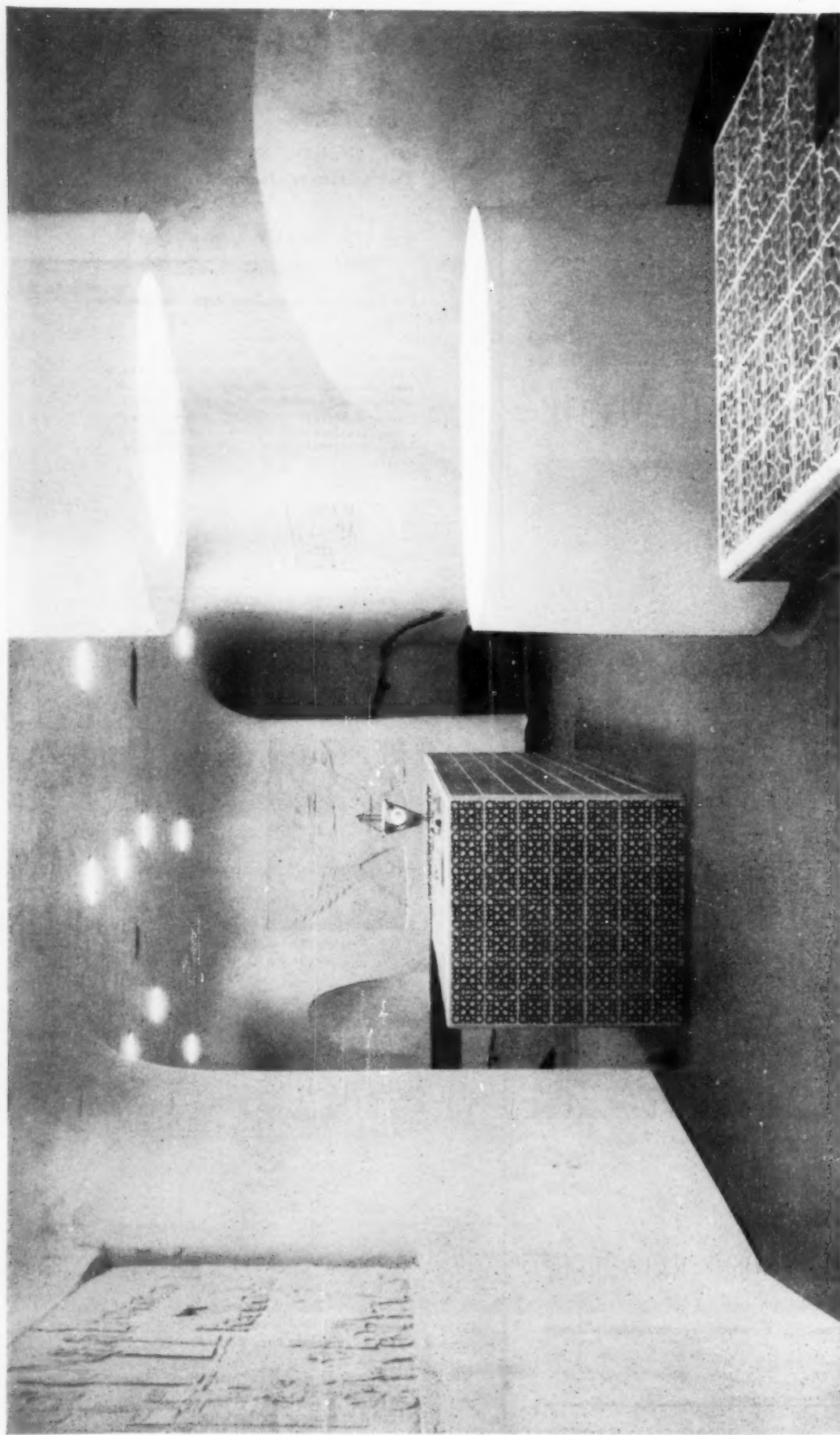
"Soon after I came here I spent half a morning with the old man trying to explain the aesthetic basis to this layout so that he could put it over to the Committee."

"Did he manage it?"

"No, he just told them it was the cheapest way to develop the site. Anyway, they believed him."

"Who wants to see a man from Busby's Enamel?"

"Didn't he come in yesterday?"



## *The Smithsons go east*

Just opened in Piccadilly, only a few yards away from the site for their project for The Economist, is this new enquiry and booking office by Alison and Peter Smithson for the Iraqi Airlines. It starts off on the street frontage as a conventional rectilinear opening (offset by a deep display case sunk flush with the pavement level) soon

dissolving as you penetrate the interior into a quite free spatial complex defined in roughish plaster, decorated with casts from the Assyrian room at the British Museum and the traditional patterns of tiling to the enquiry desks. The circular feature in the middle is not a well, but is intended for display, although not yet in use.

"No, that was Benderlac; they bought Busby's up last year."

"Then why . . .?"

"They're afraid of losing the goodwill."

"Tell him to call back just before Christmas, but not too pointedly."

•

"The site agent at Button Street has just bought a new Jaguar."

"That reminds me, I haven't filled in my car log this week. How many miles is it to the depot?"

"I never go to more than one job at a time. I can't afford to."

"Bill says that he was just about to give up bricks and finish the thing off in rendered concrete blocks. That is, if the planners didn't find out before it was too late."

"I never realised there were so many different sorts of extra large cup on the market until we had to bring in our own."

"Cake again! Who's having a birthday?"

"Miss Carter in the typing pool."

"Poor old dear, I should have thought she'd have tried to hush it up."

"She would have done, but they've got a whole list of birthdays made out from the superannuation file and stuck it on the wall in there."

"The site agent at Button Street says that there are so many general foremen at Cannes this year it's turned the place into a sort of European common Margate."

•

"People outside must think it rather odd that all their letters come from the old man, and all the phone calls come from us."

"Yes, look how many people ring him up to talk to him about letters they think he wrote them."

"If I send a memo to the Direct Labour Organisation the old man signs it, and if the Building Manager writes back to me he signs that one as well. Anyone reading through our files would think he spends half his time writing to himself."

•

"Every morning I'm faced with a dilemma. Should I go straight to the site and have a cast-iron reason for coming in late or sign in at the Town Hall first so that I can claim the car mileage?"

"With all the advances of modern technology you'd think they would have found a way of getting brown rings off tracing linen."

"Try using a saucer."

"Ann says there's another paint man at the counter. Milk-o-lac, the Only Guaranteed One-Coat White."

"I'll see him; I left my sandwiches at home today."

"Honestly, I reckon we get reps coming in here trying to sell us every brand of paint except Woolworth's."

ALAN MCCOMBE

## The Editors

### VALUE FOR MONEY

It can be a harrowing experience for any Government department to have its expenditure examined by the House of Commons' Estimates Committee, and we imagine even the Services feel slightly bruised after dealing with some of those typical questions—"Why did you estimate £<sub>2</sub><sup>1</sup> million, when over £8 million was spent on the project before it was abandoned?" But MOE has been quite unscathed in the Report published last week of the Committee's scrutiny of the Schools Building programme. In fact, it satisfied the examiners that "the search for better value for money has been thorough and continuous."

The Committee gave its blessing to prefabrication, bulk purchase, standardisation of components, serial contracts and the Consortium principle—all matters in which MOE of course can only persuade local authorities and encourage them by example. There is still a great deal of resistance to these techniques by some authorities, but rising costs, and the undeniable economies achieved by CLASP, are beginning to break this down.

In one respect the Committee have come to the wrong conclusion. Despite what they were told by MOE, they are convinced that the answer to glare and overheating from excessive window areas lies in more research. In fact the knowledge is already available; the main problem is that too many schools architects are not calculating their minimum daylight factors, and instead they tend to over-fenestrate to be on the safe side. The best answer to this problem is probably for MOE to publish a Bulletin on Lighting, in which simple methods of calculation could be set out, together with a discussion of the means by which glare and overheating can be avoided.

The Committee have not commented on one fundamental matter—whether the schools programme is getting its fair share of the national expenditure on new buildings. Admittedly they heard some extremely coy and inconclusive evidence from the Treasury as to how the annual sum of £90 million was arrived at (this before the present squeeze, of course). But there is nothing in the report's conclusions about the figures produced by the National Union of Teachers, that the current rate of building is less than 2 per cent of the number of existing schools. As the NUT point out, the result in many parts of the country is a large backlog of essential new projects, which is increasing at an alarming rate. However big, important and successful the schools programme may seem to be, therefore, it has still got to be expanded.

## BRIEFING THE SUB-CONTRACTORS

In March of this year a conference was held at Sundridge Park Management Centre between members of the LMBA and the Federation of Associations of Specialists and Sub-contractors. Its object was to study existing methods of liaison and communication and suggest improvements. A report has just been issued: Architects should read it.\*

When they do they might begin to wonder whether, in fact, they should not have been present at this conference. For, on reading the report, it becomes apparent that any improvements over existing methods require the active co-operation of the architect. Those recommendations of the conference which affect the architect are (i) full liaison between architect and nominated sub-contractor at the design stage, one of the objects of which is to give the main contractor complete information when tendering; (ii) a standard form of invitation to tender to be issued to sub-contractors by the architect which not only gives complete details of the job but also provides for sub-contractors to fill in basic information which the main contractor needs to know when tendering (when they can start on site, time required on site, etc.); (iii) no further negotiations between architect and sub-contractor during main contractors' tendering period; (iv) a briefing meeting convened by the architect and attended by all sub-contractors and the main contractor as soon as has been appointed.

Needless to say, architects should be fully aware of these points, but the contractors and sub-contractors have given a timely reminder and it is to be hoped that all parties get together now to put their recommendations into effect.

\* "Co-operation between Main Contractors and Sub-contractors in the Building Industry," published by the LMBA 2s. 6d.



### ON THE TEEVIE

The Radio Show this year gives the impression of kids playing with dynamite: one of the house-and-home magazines has an exhibit of well-radioed interiors consisting simply of having a telly and a record player in the living room and a transistor set in every other room, including the bathroom. However there are plenty of transistor tellies out in the rest of the exhibition, which means that the Box is going to be domestically inescapable. I picture myself in the future compulsively glued to somebody else's telly in a bus, on a beach, up a mountain. Fortunately at present the price seems high for a 7-in. screen.

As the trade seem convinced that the Pilkington Committee will find in favour of 625-line scanning and colour, it looks as if TV will become an even more complete master of public visual taste than at present—a pretty daunting

situation for the architectural profession, which should be wary of pinning too much hope to the fact that one of the acts in the GEC colour-TV show at the Horticultural Hall last week was Kenneth Robinson interviewing Shirley Conran. Arguments about good and bad design in the cabinet-work of domestic electronics pale into insignificance beside the prospect of advertisers being able to sell colours directly into the home via the Box. A nice little problem for the ginger group who have just done a take-over in the Council for Visual Education—and the best of British luck to them.

### MINISTRY FOR HOLFORD

Guy Oddie recently remarked at a BASA Conference that architects were still so widely regarded as mere beauty specialists that only a handful had even a potential influence on broad national affairs. Now we have a serious suggestion from an intelligent monthly magazine that Town Planning and Roads are the most urgent priority for giving Britain a much needed shot in the arm, and that Sir William Holford should be Minister in Charge. Whatever you may think of the article's other choices for a revitalising government (Sir Oliver Franks for economic affairs, Sir Hugh Foot at the Foreign Office and Sir Geoffrey Crowther Education), it is wonderfully encouraging that Town Planning is at last coming out of the wilderness and in to fashion, and that at least one architect/planner is seen as a national figure of first importance. In case you have never seen a copy of "About Town," the magazine in question, it may be summarised as a lively two-year-old by the New Yorker out of the Queen. It addresses itself to "the above-average young man (aged 20 to 40) used to forming his ideas and judgment ahead of his fellows . . . critical of the established order . . . and anxious to keep up to date." I suspect "above average" applies to bank balance too; so I assume, as no doubt the advertisers do, that the young man about town belongs to the establishment of tomorrow. Two cheers for the 1970's.

### BISON HUNTER

It seems extraordinary now to think that there was a time when we didn't know about Lascaux and Altamira, when prehistoric cave-paintings were not as much part of the cultural grand

tour as the Sistine Chapel. It is equally extraordinary to think that it was the same man who drew the world's attention to Altamira in 1903, and to Lascaux in 1940, and died only last week at the age of 85.

\*

Since most of these cave-paintings are known to us primarily through the water-colour copies made with his own hands—often under appalling conditions of discomfort, which he was still quite capable of tackling up to five years ago, I suppose we must ultimately rank the Abbé Breuil, along with Picasso and Mondrian, as one of the artists who have formed our twentieth-century vision?

\*

Friends in the prehistoric business tell me that his datings and attributions were the subject of sharpish dispute in his later years, but to me this in no way detracts from the achievement of this man, who made the Bison of Altamira one of the best known works of art ever created, and completely upset our previously held notions about the degree of rudeness of our rude forefathers. A splendidly visual programme in his memory could be put on by TV, which recently gave Hemingway the full works in what turned out to be nothing but a critics' symposium.

#### MARKET IN MASTERPIECES

Kent's only remaining London house, 44 Berkeley Square—empty for years and said to be "inconvenient for offices"—is on the market. It is rumoured that Robert Adam's Home House in Portman Square (until now the Courtauld Institute) is looking for a tenant. Both Bridgewater and Spencer Houses are changing hands. The very coincidence of all this monumental activity only goes to emphasise the dangers and difficulties inherent in preserving architecture.

All these houses are scheduled and cannot in theory be tampered with, but the schedule is a negative instrument and neglect can often do as much damage as all the developers to whom any old building on a plot of land in the city or west end of London is an incitement to invest and rebuild.

No. 44 would make an admirable little Lancaster House, as indeed would Home House, and some positive action is needed to ensure that the best use



Barnsley Co-op—before and after modernisation. See "Shopwreck".

is made of both to preserve our personal pleasure and add to our national prestige. Like the Euston Arch, these buildings have a distinct advantage over other art treasures as a national investment—they cannot be stolen.

#### SHOPWRECK

Do the accompanying before and after pictures of the modernisation of the Barnsley Co-op make you feel rather sad? The Society is believed to have fronted its new shop at the beginning of the century with heavy cast iron sections bolted together and bearing the roof and floors so as to assist the local casting industry which was passing through bad times. Another quarter century and this piece of Victorian curtain walling would have been recognised as an historic relic for Barnsley to preserve and enjoy: instead the totally anonymous curtain wall has taken its place as a successful modernisation scheme.

Shops are particularly vulnerable to this kind of misplaced energy, because a modernised frontage is presumed to indicate a profitable enterprise: John Betjeman might do well to keep a special eye on this type of building.

#### A STEAK IN THE SUBURBS

Accustomed as I am to being nasty about commercial interiors, it's a pleasure to point out two worth looking



out for in London and its purlieu—the Smithsons' very cool and sandy offices in Piccadilly for Iraq Air Lines, illustrated as this week's frontispiece, and a nice change from the recent two-penny-bazaar tendency of such premises; and Dennis Lennon's very satisfactory Steak House for Joe Lyons at Wimbledon.

Good design obviously pays in catering—as I hope will become more widely known among caterers: the place has been booked solid and turning customers away every night since it opened, yet it has no gimmicks or "features." The food's good too, so you might take your overseas visitors on there after you have shown them Roehampton.

ASTRAGAL

# LETTERS

**K. W. Dale,**  
AMIHVE, AMInstF, MRSH

**H. C. Jamieson,**  
Technical Director, G. N. Haden & Sons  
Ltd.

**J. P. Bardsley**

**C. Cole**

**John Crowther, APIBA**

**Duncan Pearce, ARIBA, AADipl.**

**Hugh Krall, ARIBA**

## Heat loss calculations

SIR: Your editorial (9.8.61) and "abstract" (23.236) both highlight, from the report you discuss, the discrepancy between the ventilation (air change) rates used by heating engineers and those used by designers of "off-peak" floor heating systems.

The fact that the lower rates used by "off-peak" designers only apply to the night period, when a building is unoccupied, has been ignored in your texts. Until further research in this very difficult component of heat loss has been carried out it would be hazardous to use the lower rates in designing systems which only put their heat into a building during the occupied period.

Over the years a convention has been established in respect of traditional heating systems. This convention, which is not confined to the British Isles, requires the heating engineer to produce a heating system which will maintain an internal design temperature down to a specified outside air temperature (usually 30 deg. F.) whether the building is occupied or not, without assistance from metabolic, sun, lighting or machinery heat gains, and particularly without assistance from other sources of heat.

This convention apparently does not apply if one is to heat a building with "off-peak" electrical systems. The "off-peak" designer is not required to maintain a design temperature. He is permitted a temperature swing (say between 68 deg. F. at the beginning of the occupied period to 62 deg. F. or less at the end of the period). He can only maintain his temperatures within this range if he has heat gains and if the weather is not too severe. The "off-peak" designers' systems have to be assisted by fires or portable appliances.

The report mentioned all these points but they seem to have been overlooked.

The report in fact only confirms what the heating profession has been stating for some time: namely, that it is dangerous to attempt to compare the design and per-

formance of conventional and "off-peak" systems.

Apart from the fact that the report fortifies the need for research, it adequately demonstrates how important it is to ask the right questions of suppliers of the system. For example, an "off-peak" heating company was recently asked to heat a building to 65 deg. F. in office spaces, 60 deg. F. in circulation spaces. The following is an extract from the tender:

"You will note from our technical data sheet that the design temperature requested for the lift lobby areas has not been obtained and, therefore, the loadings put forward for those sections could only be taken as background heat, this however, we feel should be sufficient.

"The entrance and reception area will probably require some additional heat source as a temperature of 57 deg. F. only has been obtained, this being due to the large amount of glass in the external wall structure.

"Should the office areas, which we have already divided by the inclusion of passages, etc., be sub-divided again to make small offices, apart from the thermostatic control being inadequate, any areas positioned on the perimeter of the building would probably under severe conditions not maintain a temperature of 65 deg. F."

Maybe a heating system design in the conventional manner is open to criticism. If after all these years building occupants do not want a system which will provide adequate heat without assistance, heating engineers can provide them with systems which have similar characteristics to "off-peak" system without difficulty. It is my experience, however, that people do expect a heating system to provide all the heat necessary at all times. At best the electrical "off-peak" system can usually only be considered as a background heating system which requires topping up.

It may be that background heating is in some circumstances the economic solution. This is a matter which should be considered for various building types. It is a consideration quite apart from any controversy between the merits and demerits of various ways of heating a building.

K. W. DALE

London, W1

SIR: "What is wrong with our heat loss calculations?" you ask in your editorial which discussed the report on the Heating of Buildings by Off-Peak Electricity Supplies, published by the Heating and Ventilating Research Association. Not much. Certainly not enough to be "highly disconcerting to the IHVE." Indeed the IHVE, as the authoritative body for all forms of heating, can take credit for having been the instrument which has put electric floor heating on a scientific basis for the first time.

The ventilation rate in a building is highly problematical, depending as it does on the unpredictable performances of windows, even when shut, as regulators of air flow. The daytime rates of air change suggested by the report as being adequate are not much below the rates which have been in

common use for many years in the design of heating systems. If they can be safely adopted they will cause only slight reductions in the size of installations. The night-time rates suggested are a good deal lower than have been used in the past in the calculation of seasonal heat loss and can be used for this purpose with no risk to comfort and an appreciable reduction in the estimate of fuel consumption.

It is the seasonal heat loss that the report suggests has been considerably over-estimated by heating engineers, partly because of the effect of night-time ventilation rates but principally because in their designs they have not taken account of the effect of heat gains in a building from sun, lights and people. Designs for electric floor heating installations, being storage systems, must take account of the total daily heat loss. Designers of electric floor heating have often relied on these heat gains to sustain room temperature in the afternoon when heat output from the floor is at its lowest; by doing this they automatically take advantage of these heat gains to lower the fuel consumption. Such an approach does, however, have the disadvantage that in the coldest weather on days when heat gains do not occur (the sun is particularly important) it may be necessary to top up by supplementary direct heating if temperatures are to be maintained.

A hot water heating installation on the other hand attempts to provide heat only as and when it is required, an intrinsically more economical method. It is easy to provide sufficient heating surface so that auxiliary heaters are not required for peak demands and at the same time by means of controls to take advantage of the assistance provided by fortuitous heat gains to lower fuel consumption. Such controls are available and the lesson to be learned from this report is that much more attention should be given to their provision and also to the provision of controls which shut the system down when it is not required at night and in the late afternoon.

It is unfortunate that you give such prominence to the allegation that the seasonal efficiency of heating boilers is 15 to 20 per cent lower than it is supposed to be. While there may be some truth in this for the older installations the implication is that this is also true for present-day plants. The evidence for this low efficiency comes mainly from the BRS "Study of Space and Water Heating in Local Authority Flats 1956-59" and is derived therein from a calculation of the heat loss of the flats concerned on an assumed rate of air change. But as this work says, "the present studies cannot distinguish between the effects of efficiency and ventilation rate." Moreover the heating installations studied were all coal fired with underfeed stokers running continuously.

Present practice would generally be to use oil-fired boilers, which not only have an intrinsically higher efficiency but when operated intermittently would be shut off entirely for a considerable part of the heating season. We do not know what the seasonal efficiency of these boilers is and

there is an urgent need to measure this but there is every indication that it is considerably higher than the 45 per cent mentioned in the report.

Your Information Centre review of the report says "the average ventilation rate in most buildings is less than normally assumed for design purposes, and in floor heated buildings is lower still" (my italics). This is an old shibboleth and is not true. The ventilation rate in a building depends on its structure and not its type of heating system.

H. C. JAMIESON

London, WC1

## A Nuffield for Euston?

SIR: I would venture to suggest the possibility of a fund being opened with a view to saving the Euston Arch and removing it to a site on the Euston Road frontage. In addition to yourselves, *Country Life* has produced a forceful article, while I understand that the matter is also being taken up strongly by the Victorian Society, the Society for the Protection of Ancient Buildings and the Georgian Group, and the LCC—a deeply interested party—are prepared to contribute a substantial amount towards the cost of the Arch's removal and re-erection.

I feel sure that if a fund were opened with this backing, and sufficiently publicised, it would receive generous support not only in this country but also abroad, notably in America, as many tens of thousands of Americans must have passed through and been impressed by the Arch on their way to the Liverpool boat trains.

J. P. BARDSLEY

Royal Commonwealth Society, WC2

*The LCC has not discussed the Euston Arch since the announcement that the Government would not find the money for its preservation, but announced the application for planning permission for the reconstruction of Euston Station last Friday.*

## St. Paul's precinct

SIR: Surely your leader writer in your issue of August 9 is not in possession of the whole picture regarding the latest version of this scheme? Whilst I do not dissent from the view that the Minister's decision regarding the tall block has had unfortunate results, his decision cannot, of course, be reversed by the LCC however long they consider it. As regards other features, my information is that the agenda of the Court of Common Council for July 27, when this matter was considered by the City, contained a long list of conditions to the approval of the scheme, including: Reconsideration of the whole external appearance of the buildings.

Block F should be redesigned and lose a floor.

Blocks D1 and D2 should be redesigned.

Blocks C, D, & E should be reduced by one floor to conform to the height in the Holford scheme.

Recommendations are made that natural Portland stone should be used in place of a cheaper substitute material, that aluminium window frames should replace the

REVISION	No.	INITIAL	DATE
REVISION INDEX.			
This drawing is copyright.			
Contractors must check all dimensions on site. Only figured dimensions are to be worked from. Discrepancies must be reported immediately to the architect before proceeding.			
PARTNER 1/c			
ASSISTANT 1/c			
DRAWN BY			
CHECKED BY			
JOB			
DETAIL			
SCALE			
DRAWING		SERIAL	A1
DATE			
<b>Taylor &amp; Crowther</b> A.R./S.A./B.Arch. (Hons.), A.R.I.B.A. Chartered Architects Martins Bank Chambers Truro Cornwall. Truro TR1 3PL.			

*Standard block for bottom righthand corner of all drawings in Taylor & Crowther's office. See "Size of drawings"*

painted wood, and for the improvement of the external appearance of the buildings. These conditions would result in buildings differing very considerably from those shown on the latest model. They would not correct the proportions of Block R. Only Ministerial action, as you point out, would do this.

C. COLE

London, W8

## Size of drawings

SIR: Further to my letter of July 19 and the replies to that letter from Messrs. Ray-Jones, Wright and Pratt, it appears that there are at least no objections to the adoption of A size drawings for the very many reasons already stated.

From our practical experience, we have found in our small office, that we use equal numbers of A1 and A2 size paper. It, therefore, appears that the adoption of both paper sizes would be advisable. We have found that the A2 size is more easily used on the board.

I am rather worried from the correspondence received, that the value of pre-printed sheets, regardless of size, has not been fully appreciated. I realise that many small firms are afraid that the production and printing costs of specially designed sheets would be exorbitant, and we have again found from practice that this is not so. As a compromise measure Mr. Ray-Jones's ingenious method of cutting a 40 in. roll is

most convenient.

I would suggest, however, that now that it is agreed that the A1 and A2 size sheets are acceptable and practicable, then the RIBA, the AJ or some other interested body should take up this matter with the paper and printing industry in this country and arrange to supply to firms of architects, these particular printed sheets, excluding, however, the actual name and address of the firm of architects. This name can then be either stamped or stencilled or lettered in the blank area reserved at the bottom of each sheet.

I enclose a copy of our A1, A2 and A3 sheets, showing the standard block that we use, which could easily be adopted and probably improved upon, for use in many other offices.

I must apologise for prolonging this correspondence but, I feel that if action is now taken in this matter, a practical solution to this very pressing problem can be initiated.

JOHN CROWTHER

Truro

## Reformation of a reform school

SIR: I was very interested to read the article on St. John's Approved School, Tiffeld (AJ, 9.8.61), but I must correct the statement that it is "the first specially-designed building of its kind in this country."

In 1936, the trustees of "The Boys' Farm Home," at Barnet, which became an approved school in 1921, decided that, in view of the rapid building development in the area, and the need for further extension, to sell the site and move into the country. From the proceeds of the sale a site was bought at Court Lees Farm near South Godstone, and an entirely new school was built and opened in 1938. It is now known as Court Lees School, and an extensive building programme has just been completed to cater for an increased number of boys and to improve and enlarge the practical training facilities.

DUNCAN PEARCE

London, SW1

## Natural stone

SIR: Mr. Thompson's article on natural stone (AJ 2.8.61) is rather distressing. There is no doubt that, used as a facing material, it is greatly respected by architects and has been used in this form since Le Corbusier's Pavillon Suisse in 1933.

If stone is not used as fully as it might be, it is very largely due to the conservative attitude of the trade, which still thinks in terms of block bonded ashlar with brick backing. My own experience has been that there is almost no technical literature on the subject and that any research into methods of hanging, minimum thicknesses and types of stone has to be done by the architect.

If as much research and publicity had been devoted to stone as to curtain walling, Mr. Thompson might find that stone was used as a facing material in this country as much as a matter of course as marble is in Brazil.

HUGH KRALL

London, SW10

# NEWS

## SCHOOL BUILDING

### *Estimates Committee urges extension of CLASP*

The Report of the Estimates Committee on School Building, published last week, puts as its first recommendation for getting further increased value for money, "greater co-operation between local authorities, particularly in the extension of the Consortium principle." It follows this with four other points: 1, further standardisation and bulk purchase of components; 2, greater efficiency in building methods, with an expansion of the use of prefabrication; 3, increased adaptability of buildings to take account of changing educational needs together with greater emphasis on the use of schools as community centres, and, 4, adequate forward planning. In making these recommendations, the Committee comments that it is "satisfied that the search for better value for money has been thorough and is continuing." It is against this background that their recommendations are made.

The Ministry of Education and the Scottish Department of Education are urged to make "continued and intensified efforts . . . to publicise the achievements of CLASP and all other developments in local authority co-operation," and the SED is asked to fall more into line with English school building programme procedures and standards, to review its system of approving plans, its cost control procedure, to investigate "the economies arising from standardisation and bulk purchase," to examine Nottinghamshire's system of serial tendering, and to encourage prefabrication.

The Estimates Committee also recommends that the MOE and the SED, in conjunction with BRS, should start systematic collation and analysis of evidence on maintenance costs as these become available. The MOE explained that, to get accurate information about the maintenance costs of post-war schools required the accumulation of at least 10 years' data. This had now been accumulated, and it was the Ministry's intention to start work on a Building Bulletin on Maintenance, which should be published within the next 18 months.

Open competitive tendering came in for much criticism, a witness from the RIBA commenting that "it is one of those very Victorian ideas," and the report gives a detailed examination of the advantages of the Nottinghamshire system of serial tendering.

Of CLASP the Committee remarks "the success achieved has been remarkable. Nottinghamshire have been able to build schools with high quality finishes, teaching areas considerably above minimum standards and facilities superior to those previously achieved, while still keeping within the cost limits. The whole essence of the system is to have as wide a variety of internal and



*This is the first model photograph to be issued from the Moscow Experimental Designing Research Institute (via APN, a new official Moscow news agency), of a block of flats using light prefabrication methods. Hitherto the Russians have seemed more interested in heavy prefabrication. Picture shows Igor Lagutenko (left) chief of the housing section, with Nikolai Revyakin, chief architect of the project, examining the model of a nine-storey block, which is to be erected shortly at Novye*

*Cheryomushki, Moscow's "experimental suburb." The design uses 8-cm.-thick reinforced concrete panels resting on a concrete "cushion" to form the centre core and stairwell with r.c. floors cantilevered from it, supporting walls of glass and a light-, heat-, and sound-proof plastic, known as stiropor. The ground floor, with set-back glass walls, will accommodate a café, reading room and exhibition hall; the eight storeys above, two-room flats with bathroom and fitted kitchen.*

external finishes as possible and the architect has more time to use his imagination on individual plans. CLASP schools are thus unlikely to incur heavy maintenance costs, are adaptable in design and therefore able to meet changing educational needs. The system is equally effective on stable ground. The speed of building is shown by the fact that primary schools in Nottinghamshire are taking only six months to build.

Of savings in cost, the report notes that CLASP schools "are now eight per cent cheaper than all the schools in England and Wales built in other ways" and the rebate from the manufacturer for the quantity production of steel frame—which is a ninth of the price of the school—is expected to rise to 6½ per cent this year and to 10 per cent when the Consortium's programme reaches £10 million. The 10 per cent allowance from the MOE for precautions against mining subsidence, is entirely saved in the affected areas by the CLASP system (in view of this achievement the committee recommend the reduction of this allowance in future).

"Not the least important advantage of CLASP," the report goes on, "is its ability to undertake research by the pooling of resources." The Committee expressed astonishment that the only Scottish authorities to join the Consortium so far are the SED and Lanarkshire CC, and welcomed the establishment of a second Consortium on the initiative of Shropshire CC. A particularly welcome recommendation is

that in future more attention should be paid to the dual use of school buildings, so that they could provide for local community use out of school hours, preventing duplication of local facilities and being "of particular benefit to village life."

Two criticisms of post-war schools in particular came up for discussion: the most fundamental one made by the teachers giving evidence was of the lack of a separate dining hall, which some witnesses claimed is now "virtually written into the regulations." It was pointed out, however, that a separate dining room can be provided if it is within the cost limits, and a MOE witness pointed out that Hertfordshire CC provide separate dining rooms as a matter of course, and find the money "without robbing any other part of the school."

Another was of "too much glass" with resultant glare and heat, and here the Committee came down against the view of the MOE witness that "all the facts necessary for rational design are in fact available." The Committee points out, however, that research is now being done by the MRC and BRS jointly, into the extent to which improved artificial lighting can be used to supplement natural lighting, and it includes among its recommendations that the Education Departments concerned should make clear to local authorities that lighting regulations can be met without excessive expanses of glass, and that further scientific investigation to avoid glare and heat should be initiated by the Departments themselves.

## BRON-Y-MOR

### *Seaside town project likely to go ahead*

The credit squeeze has not damped the interest of development companies in Bron-y-Mor, the projected seaside town at Towyn in Merioneth designed by John Madin, and illustrated in our frontispiece of July 26. A number of inquiries have been made by would-be developers, and Mr. Madin said this week, "I would say that Bron-y-Mor is a definite project." He expects Phase I of the scheme to begin this autumn and to be completed by the spring or early summer of 1962.

Bron-y-Mor has been planned according to Radburn principles. Credit for this goes to architect John Madin of Birmingham. Originally his clients, Bishton Holdings Limited, envisaged only a row of houses along the promenade. Madin saw the potential of their 40-acre site between the railway and the sea and persuaded them to think bigger. Col. Bishton did so and welcomed plans for 769 dwellings tightly-knit around courtyards, separation of pedestrians and cars and adequate entertainments.

Now Bishton and Madin together await offers of capital from other developers. Three millions should secure completion of the scheme in 3-4 years. However it is planned in sections so that work can proceed by stages if the full sum is not found. Alternatively, if it is, different developers can build different sections at the same time, but all under the control of the freeholders and in accordance with the overall scheme.

Madin has had experience of a large development of this kind at Calthorpe Estate, Edgbaston, but it is noticeable how naturally he commands all aspects of Bron-y-Mor Towyn, surrounded by an unrestricted enclave at the sw corner of Snowdonia National Park, is unique in offering such opportunity for comprehensive resort development. The coastal plain is wide, the railway is near, the beach is good and the nearby mountains are spectacular. The only obstacles are a BBC transmitter on the site (fortunately prepared to move) and a promenade road along the sea. This, in the classic manner of sea-side towns, divides the beach and the adjacent land both visually and physically. Madin plans to set the roadway back behind the hotel and entertainment areas and to sink it in a channel crossed by foot-bridges. Unfortunately this may require an Act of Parliament.

The proposed sea-side buildings include a twelve-floor hotel with 300-350 rooms, restaurants, shops and a pool. They will be set on a raised deck with parking for 400 cars and service entries underneath. A restaurant will be cantilevered over the sands. Since this part of the scheme will be built in reinforced concrete, it will demand the skill of a large construction company.

The houses, on the other hand, will be built of brick with clapboard, hanging slates or colour washed rendering. Local materials will be used when possible. Trim will be simple and modern, white paint will predominate and the Mediterranean affectations of nearby Port Merion avoided. Such work should be within the scope of Welsh builders and so bring employment locally. At present, apart from the promenade, three

roads run across the site at right-angles to the coast. The two southernmost ones will serve the entertainment area and one of them will give boat trailers access to the beach. Lateral culs-de-sac will lead to garages and parking places for the residents. According to Michael Holt, who is working with Madin on Bron-y-Mor, they considered carefully the layout of Willenhall and Paul Ritter's examination of it in the AJ. They concluded, said Holt, "that garage courts were without identity and made individual houses hard to find. This led us to a linear layout so that you can approach the fronts of houses." Parking places or garages will be provided at a ratio of one per house. Density is 16 dwellings and 58 persons per acre.

The footpaths, planned like a fish's backbone will draw walkers away from the access roads and the culs-de-sac towards major and minor spinal paths leading directly to the sea. For part of their course they will lead through courtyards and houses, flats or cafés surrounding the courtyards will use them as "outdoor rooms." Frequent strong winds make such enclosed planning particularly desirable.

Other features of the scheme are a two-floor motel with 100 rooms, a conference hall and visitors' parking space for 2,000 cars.

Outline planning permission has been granted and even the local people of Towyn seem enthusiastic.

## JFRO

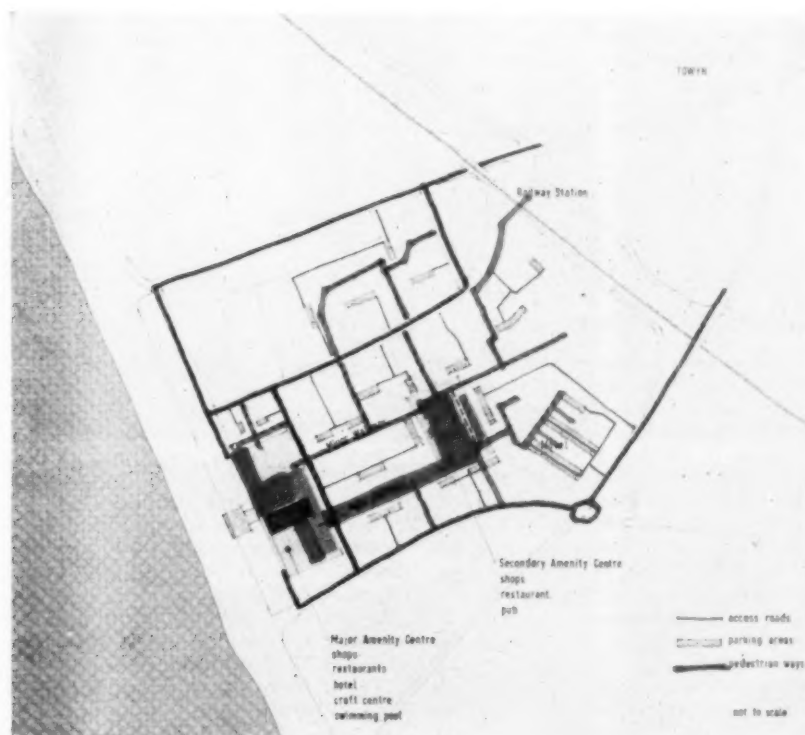
### *Fire Research 1960*

This report of the Fire Research Board (HMSO 5s. 6d.) covers the whole range of JFRO activities, of which research on building materials is just one part. In it a number of tests of general interest to architects and the building industry are described.

A series of tests was undertaken to assess the effect of restraint on the fire resistance of floors. Several specimens were constructed using precast reinforced concrete beams of hollow cross section obtained from Holland. The beams were finished with a 1 in. concrete topping. They were restrained by methods commonly used for load tests on floors.

Loads were applied to the floors to produce similar maximum bending moments with (i) ends simply supported, other edges free; (ii) ends longitudinally restrained, other edges free and (iii) ends under longitudinal and angular restraint, other edges free. Using a limited deflection as the criterion of performance to avoid continuing the tests to the point of collapse, the fire resistance under condition (i) was 51 minutes and under (ii) 74 minutes, nearly 50 per cent more. The test under condition (iii) was terminated by fracture of the webs of the hollow beams which occurred after 20 minutes, resulting in separation of the lower part of the floor from the upper part.

A number of tests on the flame retardant treatments incorporated in expanded polystyrene have now almost been completed. Tests were carried out with the assistance of BRS to determine whether leaching or sublimation of the flame retardant addi-



Sketch plan of the layout of Bron-y-Mor, showing its relation to Towyn and the sea, and the system of access and pedestrian ways and parking areas

tives was likely to influence the resistance of the board to fire propagation. Results so far have shown no significant effect on the performance of the materials, that there was no loss of efficiency and the products could be regarded as equivalent, in the influence they exert on the development of a fire under given conditions, to materials rated as Class 1 in the "Surface Spread of Flame" test of BS 476: Part 1.

Tests were carried out during the year on the perforated v brick developed by BRS. Three types of brick were tested, v5, v6 and v62, the last named being a recent development with slightly thicker cell walls giving it improved strength. Walls were built with the bricks with a plastered face exposed to the fire. The best performance was 4 hours by the v62 with a vermiculite/gypsum plaster. Sand/cement and perlite/gypsum plaster tended to spall from the backing and fire ratings were lower (2 hours for the v6 using sand/cement; 2 hours for the v62 using perlite/gypsum). Results of the tests suggest that walls of either of the types of brick tested without plaster (v5 and v62) satisfy the requirements (1 hour) of the Model Byelaws for external walls of dwellings of not more than two storeys.

Full-scale tests in accordance with BS 476: Part 1 were made on over 40 structural elements, including walls and partitions, columns, suspended ceilings and floors. One test was made on a double sided partition of 4-in. asbestos insulation boards having cavity linings of aluminium foil. This partition obtained a 4-hour rating, thus demonstrating that in some constructions aluminium foil may be used to increase resistance to heat transmission instead of mineral wool or other conventional cavity insulating materials or using thicker facings.

It is interesting to see that there was a steady demand for the "Surface Spread of Flame" test of BS 476: Part 1, and an increase in the demand for the "External Fire Exposure Roof" test of BS 476: Part 3, during the year.

During the year a number of new buildings were completed at Boreham Wood, including laboratories equipped for hydraulic, thermal radiation and chemical engineering investigations. The general increase in the rate of incidence of fires in dwellings of all types (including both post-war and pre-war) suggests that the resources of the Station will be fully taxed. One fact emerging from the statistics in the report should be heartening to architects. The level of fire incidence in post-war permanent non-traditional housing is lower than the level for dwellings of all types (i.e. including post-war and pre-war traditional housing).

## TOWN DESIGN

### *Coventry architects want university research*

The Coventry Society of Architects has drawn up a statement of case for the establishment of an Institute of Advanced Research in Town Design as a department

of the projected University of Warwick, which has been submitted to the secretary of the University Promotion Committee, for consideration by the Academic Planning Board.

The document points out that the growing need of urban renewal, the building of new towns and the impact of the motor car have created the need for "a completely fresh approach to the problems of urban development. . . . Some central research is already desperately needed to guide those who face immediate development problems."

It goes on: "It is envisaged that an Institute of the type proposed would bring together for post-graduate study administrators, architects, artists, builders, economists, engineers, lawyers, planners, sociologists, surveyors, in fact everyone who has something to contribute to town design and construction.

"A series of research projects would provide the basis for analysing the problems in general and in relation to specific towns, so that the results could be of practical value to those concerned with the day-to-day task of dealing with urban renewal and with the design of new towns.

"Advanced post-graduate courses should also, it is suggested, be organised on a national and international basis. These would enable the widest exchange of experience amongst those who participate in the Institute's activities and provide the opportunity for re-examining the aims and objectives of town design and the means of achieving comprehensive development." Coventry the document points out would offer a unique base for field studies.

The proposed Institute, being essentially a post-graduate course with main emphasis on research, "would not compete with the existing schools of architecture and town planning," while it would have the advantage of "a city under construction on its doorstep as a basis for its field studies."

## BRISTOL UNIVERSITY

### *RWA to be incorporated*

After consultations with Sir William Holford, for the RIBA, about the shape that developments in architectural training should take within the University, Bristol is proposing to establish a School of Architecture, in which the Royal West of England Academy would be incorporated. Agreement with the RWA School has been reached in principle, and when negotiations are complete a Chair of Architecture will be established and a Board of Studies appointed to supervise the work of the school.

It is intended that the school should include departments on sociology, town planning, archaeology and other disciplines appropriate to architectural education in a university, and other faculties, particularly Arts, Science and Engineering, will contribute to the full development of the school.

## BTC

### *Building on top of railway termini*

The British Transport Commission has invited developers to prepare sketch plans for buildings on top of the existing railway termini at Queen Street, Glasgow, and the Scottish Regional Board has already accepted plans from Murrayfield Real Estate Company for building above Waverley station, Edinburgh.

## IOB

### *Study group on site management*

The board of building education of the Institute of Builders has set up two study groups, one to examine the functions of site management in major building projects, and one to consider graduate entry into the industry. The terms of reference of the site management study group are "to identify the functions of site managements in respect of major building projects and to define the scope of the responsibilities of those engaged in site direction and control of such projects," and "to examine the existing pattern and adequacy of selection, education and training of such site managers."

The study group on graduate entry is to examine the LMBA's report. "A proposed building course for arts graduates," "to assess the industry's needs for Arts graduates and graduates in subjects other than building and to recommend what provision should be made for their recruitment and their education and training."

Professor Denis Harper is a member of both groups, and Edward D. Mills represents the RIBA on the Site Management study group.

## JUNIOR LIAISON COMMITTEE

### *Conference on building in twenty years' time*

"Building in twenty years' time" is the subject of a week-end conference at Downing College, Cambridge, arranged by the Junior Liaison Committee of Architects, Quantity Surveyors and Builders, from September 15 to 17.

Main speakers at the conference, under the chairmanship of E. D. Jefferiss Mathews, are D. E. Gibson, P. W. Grafton (quantity surveyor), D. E. Woodbine Parish (builder) and John Wood (economist).

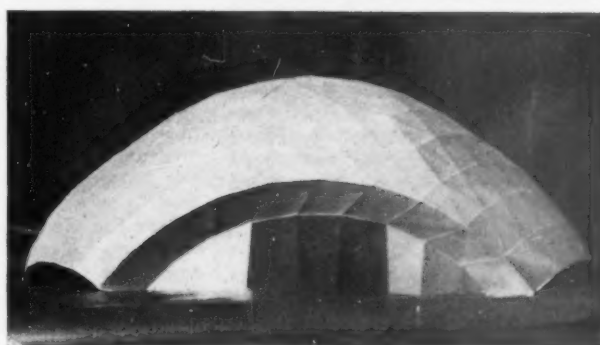
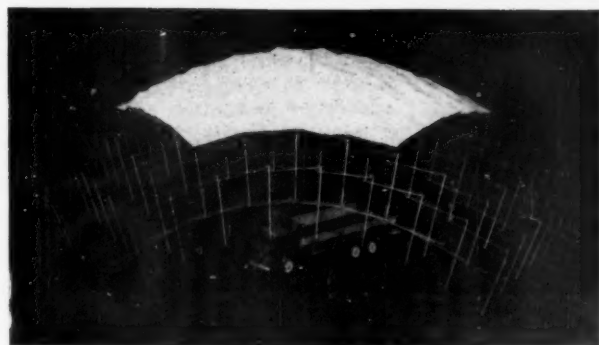
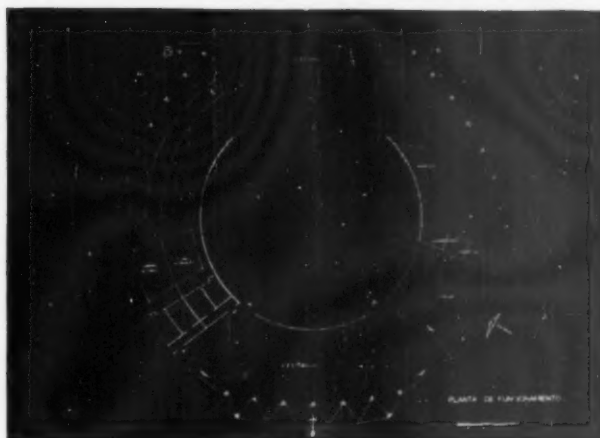
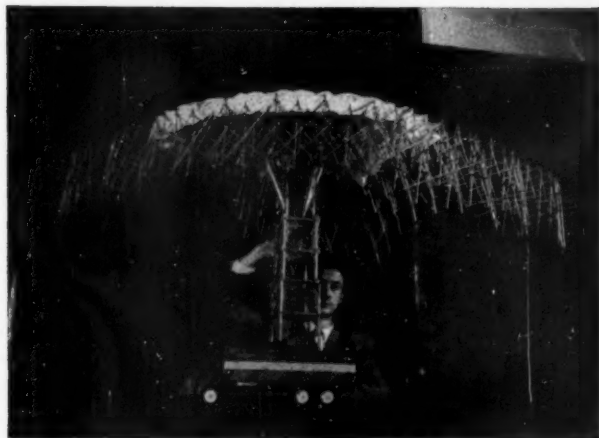
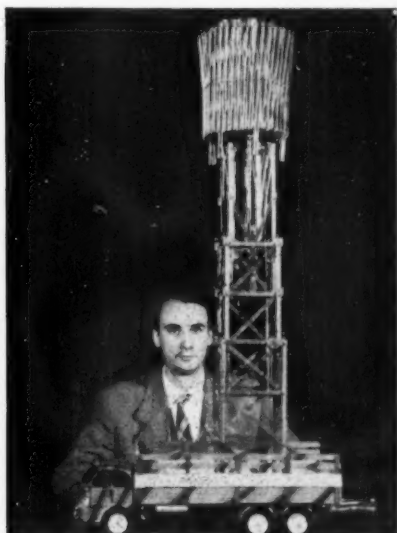
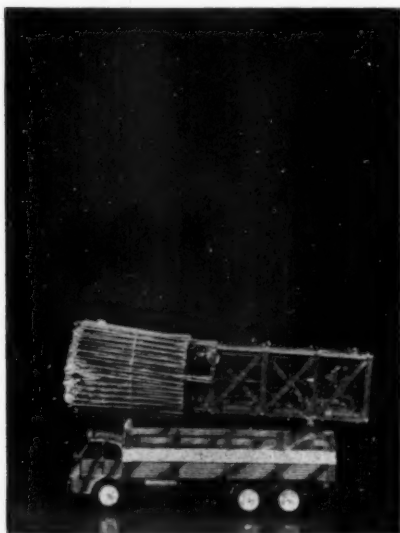
Inclusive cost of the conference is £3 5s., and applications to attend should be sent without delay to J. Mackay-Lewis, c/o Robert Mathew and Johnson-Marshall, 24 Park Square East, London, W1.

## A RETICULAR MOVABLE THEATRE

One of the most exciting of the student designs for a movable theatre which was exhibited at the IUA Congress—and which roused the admiration of Felix Candela—was this project by a Spanish student, Emilio Perez Pinero. The loosely jointed bars (each bar has three axes of simultaneous rotation) which form the folding and unfolding structure are restrained by wire cables of which there are two types: one lot of cables are permanently fixed like nets from tip to tip at the upper and at the lower ends of the rods; a second series of cables are used as diagonals from the

upper joints of the rods to the lower joints. These cables are permanently fixed only at one end, and have to be hooked and tensed to the structure after it has been unfolded in order to restrain it. The open structure spans 30 metres. When the cables are disconnected it retracts into a bundle of bars 3 metres long and 2 metres in diameter. In order to anchor the structure the designer proposes using from six to eight trailers, which will transport theatrical props, to form a platform within the structure to which it is attached. The sequence of photographs shows the flower-like unfold-

ing of the structure from the moment when the lorry arrives with its burden, erects a tower with the rod cluster on top, the rods open out, the canvas cover unfolds and the lorry drives away. The final photograph shows the usual uninspiring balloon that remains when the graceful reticulation has been hidden by its skin. The planning of a theatre within the structure showed (see plan, centre right) the disadvantages of trying to put a theatre into such a simple symmetrical shape.



## THE OFFICE OF CHIEF PLANNER

by DEREK SENIOR

Planning, in the "town and country" sense of the word, comprises three distinct functions, each of which calls for a different kind of authority, a different kind of area unit, and a different kind of planner. In this country we try to get these three functions discharged by only two kinds of authority, neither of which is ideally equipped to cope with any of them. That is why most arguments about planning—particularly inter-professional arguments—tend to be conducted at cross-purposes. That also is why the office of chief planner at the Ministry of Housing and Local Government is so important, and so much misunderstood. The three planning functions may be briefly described as the framing of policies for the use and development of land, the translation of these policies into land-use and development plans, and the implementation of these plans through the control of land use and the design of development.

The first is essentially a political function. It can be properly discharged only at national level, by a Government department whose head is a member of the Cabinet. This is the machinery we have; and if only the Minister concerned were empowered to organise his colleagues' use of land in much the same way as the Chancellor organises their use of money, that machinery would be apt enough for its purpose.

The second function—the translation of policy into plans—can be properly discharged only by people who know and understand the physical, economic and social structure of the unit to be planned, and only if that unit is plannable—if, that is to say, it covers the whole of the region affected by any specific problem of the kind which arises out of the spatial relationships of homes, workplaces and service centres. We in this country have no planning authorities responsible for such units, except in one or two cases where the regional pattern of settlement and communication happens to be much the same today as it was over a thousand years ago, when the county boundaries were broadly fixed.

The third function—the control of land use and the design of development within the framework of a regional plan—is town and country planning in the narrower sense. It is best discharged by a local authority representing the smallest unit that both forms a coherent community and can maintain an adequate staff of design-planners.

The effect of our efforts to make two horses pull these three wagons was quite comically exposed at the hearings of the Royal Commission on Local Government in Greater London. The Commissioners were clearly impressed by the rate at which events had falsified the factual premises on which Abercrombie based his Greater London Plan, and wanted to know whose job it was to keep track of these radical changes over the region as a whole and bring the principles of the plan up to date. Not ours, replied the spokesmen of the nine local

planning authorities concerned: our job is to implement the Abercrombie Plan in our respective areas until the Ministry comes up with a new one. Nonsense, indignantly retorted the Ministry (in the person of Dame Evelyn Sharp): the Ministry commissioned Abercrombie to prepare a Greater London Plan only because there were at that time no major local planning authorities in being. Now that there are, it is for them to initiate any necessary revision.

An American professor of planning observed to me after we had listened to these exchanges: "You seem to have an admirable machine for the formulation of the policies on which to base a plan. You have an excellent apparatus for implementing a plan in your localities. All that is missing is—planning."

Fortunately things are not quite as bad as they look. The machine now works, after a fashion, because the vital function of the non-existent regional planning authority is increasingly being discharged, in effect, by an organised system of liaison between the local planning authorities and the technical planning staff of the Ministry, based on "study areas" which are true regional planning units. The chief planner and his staff do not, of course, exercise any executive powers, but they are uninhibited by the quasi-judicial function of their Minister. Their duty is simply to give the best possible technical advice on any question that may be put to them—for example, on the need for, and the location of, new towns in the West Midlands. Such advice is available to the local planning authorities concerned, as well as to the Minister; indeed, the local planning authorities may be pressed by the Minister to seek it. But the Minister himself remains uncommitted by it, and can thus pass judgment on any objections to ensuing amendments of development plans. This is not, of course, the only (though certainly the most important) duty of the chief planner and his staff. It is their responsibility to see that the Minister and his officers are aware of the significance of trends that have a bearing on planning policies, and to carry out any researches that may be called for by a specific problem, or the calling in of a tricky development application. Since most planning policies owe their formulation to popular sentiments or sectional pressures, quite unsupported by factual investigation or rational analysis, it can make a great deal of difference whether the chief planner is alive to what is actually happening under existing policies and quick to inquire into its implications. He is also responsible, of course, for the interpretation of policy changes, in terms of technical requirements, to local planning officers, and the general oversight of their development plans, which includes giving advice both to the Minister, on the amendments required to bring the plans into harmony with one another and with departmental policy, and to local planning

authorities, on the changes in practice and procedure that would make the combined results of their survey work more usefully informative. Finally, by consultation with his opposite numbers in other departments, he must counteract the chronic tendency of an ill-articulated body politic to keep its right hand in total ignorance of what its left hand is trying to do.

In view of all this, the misgivings that have been expressed about the recent appointment as chief planner of J. R. James seem strangely wide of the mark. Some members of the newly chartered Town Planning Institute, now manfully striving to persuade local planning authorities to stop appointing unqualified planning officers, were understandably chagrined to see the top job in the profession go to someone who had never passed the Institute's examinations.

But for this they must blame the Institute members of a generation ago, who thought of planning in terms of layout design only, and would not accept a degree of geography or economics as an intermediate qualification; few survivors from that generation would question James's pre-eminent suitability for the top job today.

Not so understandable is the complaint that James is not an architect, as his two immediate predecessors happen to have been. More than adequate provision has been made for the minute proportion of the problems of his office which an architectural training might help to solve by the appointment as his deputy of J. L. Parkinson—who is an ARIBA and a full MTP. James is in fact a geographer (Cantab.) who likes to call himself a geomorphologist. His academic training gave him a knowledgeable eye for country, enabled him to rank in his twenties as an authority on the land of Greece, and stood him in good stead with Mountbatten in South-east Asia. But it was his upbringing in the Durham County of the Great Depression, and the bright promise of the Peterlee project, that impelled him to abandon schoolmastering for planning after the war.

There is nothing of the dispassionate academic about his approach to his job. No member of his staff will long be allowed to forget the social purposes of planning, or fall an easy victim to the Ministry's besetting vice of London-mindedness. The Geordie charm of his lean and craggy countenance (to irreverent juniors he is "the poor girl's Cary Grant") conceals a dedicated mind that will not brook complacency, injustice or buck-passing. He will deliberately play Devil's advocate in public, rather than side with woolly-minded angels, and has been known to leap with passionate conviction to his department's defence against misdirected criticism. But he is no organisation man. He is, in fact, a realist, bent on getting done what lies within the limits of the possible.

It is the frankness of his realism that has

prompted the doubts of his more reasonable critics. In the last year or two he has tried to make the trends disclosed by the Ministry's researchers more widely understood; but he has yet to acquire the politician's skill in avoiding statements that can be misconstrued if taken out of context. For example, in a paper read to the Town Planning Institute last year he said that "green belts were never intended as a defensive measure against the reasonable peripheral expansion of urban areas." This was taken to mean that the Ministry was prepared to wink at the nibbling away of established green belts. The burden of his argument was, in fact, that established green belts must be strictly preserved, and that in order to make this possible in a period of rapid urban development, county planning authorities must be dissuaded from misusing the green-belt instrument. The green belt, he contended, is a specific, not a panacea for all the ills of urban development. Its purpose is to shape urban growth in city regions and in places whose special character is vulnerable, not to prevent urban growth everywhere. The choice before us is not whether, but where, urban growth should take place. All this, of course, rests on the premise that urban growth on a substantial scale is inevitable.



*A typical stretch of English countryside, looking towards Corndon Hill, from the Long Mynd, Shropshire, which nobody would want changed, but typical as it is, it is by no means immemorial, but was created in the last 200 years by the changing pattern of agriculture*

## THE TREES IN OUR LANDSCAPE

Country planning has been called the poor relation of town planning, but the more our towns spill over into the countryside, the more the population of this island pours southward, the more vigorously new motorways drive through, the more urgent it becomes that country planning should become a positive and integrated thing, and not merely the defensive reverse side of town planning. At present this does not happen, partly because, as an industrial country, we tend to regard the needs of towns as paramount, but also because the bodies concerned with country planning exist in great variety and do not have a common plan. They include county planning authorities, the Forestry Commission, the National Parks Commission, the Ministry of Housing and Local Government and the Ministry of Agriculture and Fisheries. Collectively they watch afforestation and deforestation, mechanical farming techniques, chemical pest killers, depopulation and so on. Severally, they deal each with their own small part of the whole problem. Their efforts must be correlated if effective rural planning is to take place.

At present the largest measure of planning control belongs to the county authorities, which can if they wish regulate non-agricultural development adequately. They can also control the construction of farm buildings and have recently had their powers to do so increased. Permission is now required to construct single or multiple buildings of over 5,000 sq. ft. unless their parts are separated by more than 100 yards in space or two years in time. Improvements in the design of the buildings themselves are beginning and the competition for the design of farm buildings sponsored by the

Country Landowners Association should result in further progress.

Control over the living part of the countryside is less satisfactory. This applies particularly to trees, the felling of which is regulated while the planting is not. The afforestation of large areas of Exmoor and Dartmoor National Parks in the face of criticism makes this amply clear. Not only does planting proceed irrespective of its effect on amenity: there are subsidies to encourage it.

It is easy to see how this came about. When the relevant Forestry and National Parks Acts were passed, memories of wartime timber shortages were still fresh and British forests severely depleted. Since then the leeway has been made up amazingly (even though the new plantations are still immature) until there are now over four million acres of forest more than half of which is hardwood. The slow return on capital invested in trees justifies the continuation of the Forestry Commission planting and maintenance grants, but what has been happening in the West Country is that companies have used the subsidy for afforesting sour moorland with the object of making a loss to offset profits in other enterprises. Protests in Parliament were fobbed off with a voluntary agreement between the Timber Growers Organisation, the Country Landowners Association, the Forestry Commission and the National Parks Commission to consult together before planting or felling: how this is working it is too early as yet to tell, but in any case the agreement is not effective among non-members of the TGO and CLA. In these circumstances it seems essential that the powers of the National Parks Commission over afforestation should

be extended by legislation.

This would enable the national parks authorities to treat their territories (as Roger Miles suggested at the 1960 Conference of Landscape Architects) to conduct overall landscape surveys (as has already been done for Exmoor) and pursue "a policy which seeks deliberately to influence the design of modern forestry so that it will contribute to amenity. This is much more realistic than a policy of preservation alone."

Control over afforestation in areas other than wilderness is less necessary since the higher cost of land precludes its use for planned tax avoidance. Where replanting is taking place, good silvicultural practice, as much as Forestry Commission licences, dictates the mixing of conifers with broad leaved trees as a fire precaution. Large stands of pure hard wood are also being planted by private foresters. The Commission itself is planting oaks in the Forest of Dean and beeches in the Chilterns and has started to contour its coniferous plantations in the Welsh and Scots uplands. If however a national survey showed that such a practice as planting spruce in the oak lands of the Weald was both common and unwarranted, there would be a strong case for controlling afforestation outside as well as within the national parks.

Meanwhile county planning authorities could start at once and use forestry to improve the productivity and appearance of the countryside, recognising the park and roadside trees within their control as a kind of dispersed forest. Such trees are often large and valuable. The 1955 Report on Hedgerow and Farm Timber stated that in "the largest size class of hardwood trees growing in England and Wales 40 per cent

is contained in the hedgerow and park category," which is "one of the chief sources of supply of the largest size hardwood saw timber." It will be apparent how profitable it could be for county authorities to plant and cultivate more such trees in old quarries, or disused railway embankments and mineral tips, as has already been done sporadically. Forestry Commission grants are available to help pay for such schemes. The snag is that few county councillors care to look 80 years ahead.

The expansion of field sizes to accommodate mechanical farm implements and the consequent uprooting of hedges and trees make energetic replacement planting even more necessary. The present quilted appearance of the English countryside is a product of the enclosure Acts and no more than 200 years old. Changing agricultural methods revolutionised it then and may do so again in the next 50 years. Intensive planting by farmers of all available places (encouraged by Forestry Commission grants) plus county planting beside highways and lanes and in other wasted land would guarantee that the new agricultural revolution does not turn England into a steppe. Trees are important for shelter, windbreaking, nesting birds and amenity, as well as for lumber. The appointment of forestry officers or consultants by all counties, as some, such as Cambridgeshire, Oxfordshire, Gloucestershire, already have done would ensure the provision of trees to meet these needs. A side product would be the bolstering of the rural forestry and lumber industries.

Existing regulations designed to husband growing trees seem to work well. Licences from the Forestry Commission are needed by landowners wishing to cut more than 825 cubic feet of lumber per quarter (trees under 3-in. diameter are exempt). If the timber is of high amenity value only permission to thin is given unless all the trees are mature in which case felling permission is conditional on replanting.

The preservation by order of individual trees or clumps of particular amenity value is now common practice. Unfortunately these TPOs have three drawbacks. They are slow because they require ministerial sanction, they are purely defensive and they treat trees as being static. To overcome this limitation planning authorities are often compelled, money permitting, to buy trees in order to secure their regeneration. This fact highlights the predicament of county planning and national park authorities. They have to wait while woods rot until private interests intervene and then have to block or blackmail to get action in the public interest. Lord Elibank has suggested in the House of Lords that the solution could be through rural land surveys, which would assess tree requirements, the effects of chemicals on wild life and other ecological information and be the basis of a plan for the countryside: all the authorities and both ministries concerned with the country to be represented in the survey and to be bound by its results.

Rural planning would then be in step with, instead of behind, agricultural practice. This would guarantee that as one wood was cut for lumber, or to enlarge fields, another



*Above, a lamentable piece of afforestation in Scotland; below, a good example of tree planting that fits the natural contours of the landscape—from Wales*

would be planted to grow into a wind break and a timber reserve.

Green belts could be treated in the same way, but because they are so vulnerable, there is a case, as A. Roderick Males suggested in a letter to the AJ (in March), for preserving trees in them by blanket TPO's. All felling could then be made conditional on replanting and development licensed only on the condition of replanting.

A preservation test-case which illuminates the inadequacy of present regulations is being fought in Somerset right now. The County Council wishes to preserve 670 acres of forest in Exmoor National Park. The owner wishes to fell and replant with conifers. If the inquiry finds for the Council, who will take care of the preserved trees? The owner may be reluctant to if they are uneconomic.

It has been said, by Lord Lytton, that existing preservation laws create "ye olde worlde pixie woods." What is needed is planning authority to ensure that even the pixiest of pixie woods is continuously replanted and made at once a desirable amenity and a profitable forest.

T. BENDIXSON

## DIARY

BASA Conference, "The Basis of Design," York Institute.

SEPTEMBER 1-3

Lithography: Exhibition of work of the Senefelder Group, at the Arts Council Gallery, St. James's Square, London, SW1.

SEPTEMBER 2-23

4,000 Years of Mexican Architecture: the Building Centre, Store Street, London, WC1. Until SEPTEMBER 19

## FAS

### Week-end school at Oxford

The Faculty of Architects and Surveyors is organising a weekend school at Jesus College, Oxford, from September 22 to 24. On the Saturday morning T. L. Harris, senior assistant engineer with Wandsworth Borough Council, will lecture on "The surveyor and the progress of the road," and Sydney Clough will lecture on "The architect and the effect of roadways on urban development." In the afternoon, the Faculty will make a conducted tour of Oxford. All-in charge for the weekend is 5 gns., and those wishing to attend should write to the Secretary, FAS, 68, Gloucester Place, London, W1, without delay.

## BRISTOL SYMPOSIUM

### Open spaces in cities

The Bristol and Somerset Society of Architects is holding a symposium on October 3 on "Open Spaces in Cities," at which speakers will include Leslie Ginsburg, head of Birmingham School of Planning, Elisabeth Beazley, and G. P. Youngman.

The meeting will be held in the reception room of Bristol University, and an overall charge of £1 per head will cover the provision of lunch and refreshments. Inquiries to the Secretary, BSSA 25 Great George Street, Bristol.

## SPECIALISTS CONFER

### Timber engineering

The first international conference on timber engineering is being held at the University of Southampton from September 18 to 23. Nineteen papers will be presented covering a wide range of problems of timber construction, to be discussed by experts from France, Great Britain, Holland, India, Poland, Scandinavia and the USA.

## HEVAC

An international conference—again the first of its kind—on heating, ventilating and air conditioning is to be held in London, at Olympia, from September 27 to October 4. MOHLG has sanctioned the attendance of "not more than two officers" from county, county borough, metropolitan borough and urban district councils.

Two papers of particular interest to architects and engineers will be on "Heating and ventilating engineering in relation to urban planning," and on "Integrated design of architectural and engineering services for economy of building construction." Other papers will deal with hospital requirements, costing in the contracting industry, contract planning and organisation of site operations, and probable trends in the next 10 years.

## CPRE

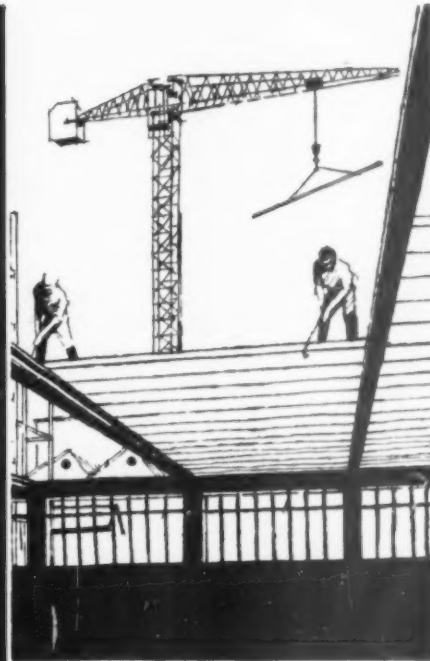
### Annual Conference

The national conference for the preservation of the countryside will take place at Southport on October 12 to 14, its theme, "The impact of industrial development on the countryside."

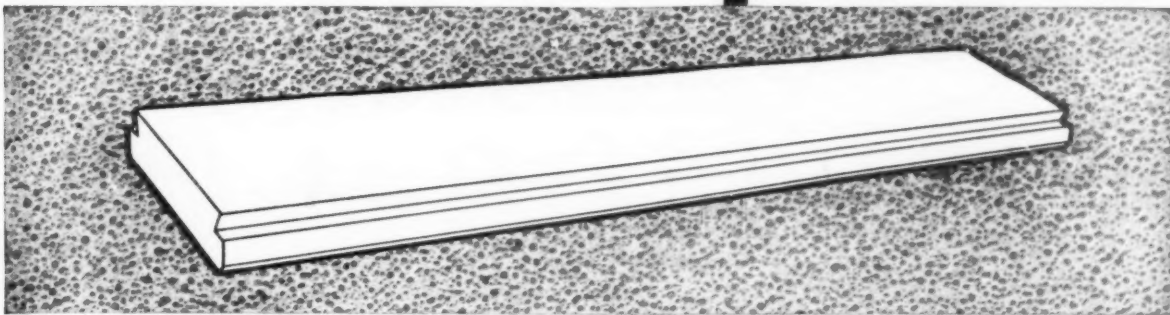
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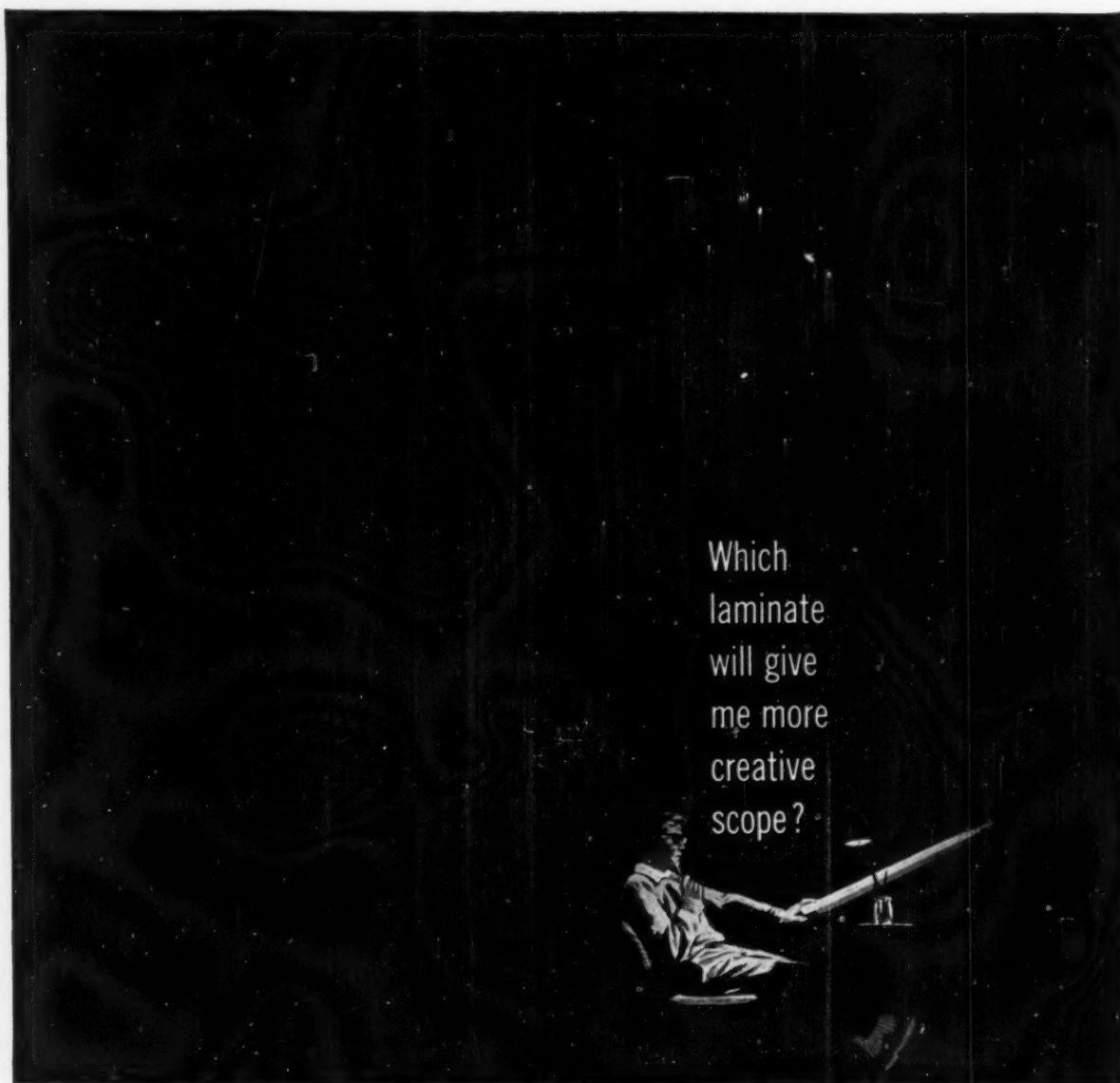


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AJ.15

## THE INDUSTRY

*This week Brian Grant describes aluminium treadplate, a refrigerated shelving unit, a new brochure on playground equipment, electric clocks, a car parking reservation device, data on flushing troughs, woodworm bait and a catalogue on prefabricated tile partitions*

**Aluminium treadplate**

Non-slip aluminium treadplate is by no means new, and has certain advantages in that it is lighter and should also be more durable than conventional steel plate. A new leaflet from Impalco illustrates two patterns, one with groups of small raised lozenges set at right angles to each other and closely covering the whole sheet, the other a conventional diamond lattice pattern to Admiralty specification, standing proud of the surface. Both types have good non-slip properties, though the lozenge pattern should be easier to keep clean and has no enclosed depression to hold water or oil. The main uses of the material are in transport work, but it is widely used in factories and for boiler house flooring as well as for gangways and catwalks. The leaflet (A4) contains four pages of loading tables to show the thickness needed for different spans, loads, and fixing methods, and some interesting application photographs. (Imperial Aluminium Co. Ltd., PO Box 216, Witton, Birmingham 6.)



Refrigerated shelving unit

**Refrigerated shelving**

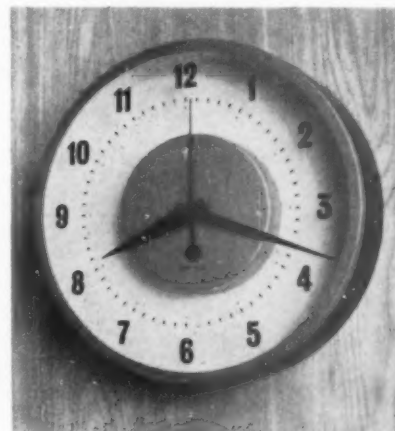
The public is apparently drinking a far greater proportion of bottled beer and other bottled drinks as the years go by, and there is thus a need for greater cooling capacity in pubs and elsewhere. GVE Ltd., produce self-contained refrigerated shelving units, which are made in two sizes with shelves to take 90 or 120 half-pint bottles. The cooling unit is hung below the shelf, and the whole assembly can be slid over an existing shelf, as there is a 2½-in. gap between the cooling unit and the underside of the cooled shelf. Alternatively the whole assembly can be supported on brackets at each end. There is a thermostat to control the shelf temperature and the complete cooler has a 12 months' guarantee. (GVE Ltd., Rose Alley, Park Street, London, SE1.)

**Equipment for playgrounds**

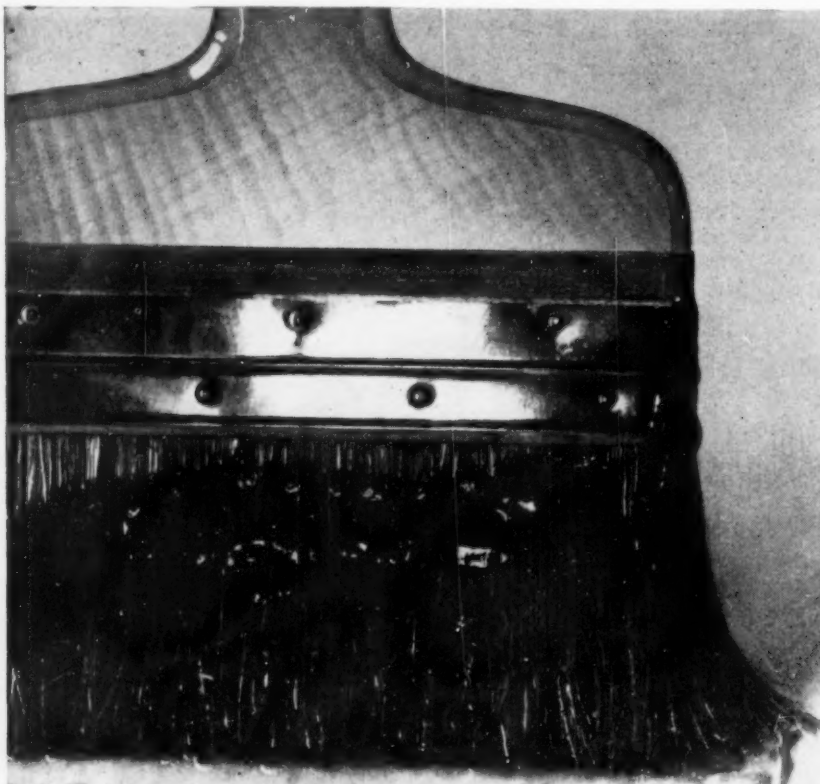
A new catalogue from Wicksteeds illustrates a considerable range of equipment for children's playgrounds, slides, swings, roundabouts, rocking horses and suchlike, all apparently made to last and designed with some care so they shall be safe to use. The catalogue is well illustrated and also contains scale drawings to show the space occupied by the different pieces of equipment. (Charles Wicksteed & Co. Ltd., Stamford Road Works, Kettering.)

**Electric clocks**

The illustration below shows one of a range of 10- and 12-inch-diameter synchronous electric wall clocks for offices, factories and other commercial buildings recently introduced by Westclox. This particular type costs £6 10s. and is available with a black dial and white hands and numerals as well as in the version shown. (Westclox Ltd., Strathleven, Dumbarton, Scotland.)



Westclox electric clock



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### Controlled parking space

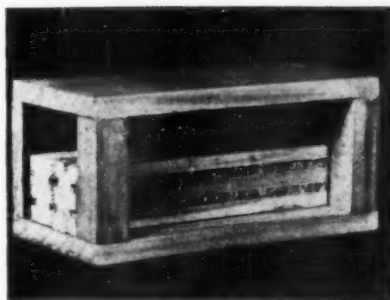
The illustration below shows a method of reserving car park space which has been evolved by Harlow Development Corporation and the Le Bas Tube Company who already make bicycle holders. The device is quite simple and consists merely of a vertical post with a lock controlled hinge in the base. Released by the key, the post folds flat so that a car can be driven over it into the parking space. Although it is nice to think of setting up one's private post in the street, the device is intended for private parks and is certainly an improvement on those spaces outside factories rather woundingly labelled *Directors Only*. There also seems no reason why something like this should not be used in such places as railway station car parks, where users would pay a weekly fee for a key instead of a ticket, and would at least find some space when they arrived. (*Le Bas Tube Co. Ltd., City Wall House, 129 Finsbury Pavement, London, EC2.*)



Car parking reservation device

### Flushing troughs

A two-page (A4) leaflet from Shires sets out the basic data on the firm's continuous flushing troughs, which have been designed particularly for schools, institutions and other public buildings. The troughs are made from 1-in. galvanised steel plate, and have a simple volume control so that a 2-, 2½- or 3-gallon flush can be provided. Both syphon and ball float are in polythene and the 1½-in. galvanised steel flush pipes can be fitted to the syphon outlet. The troughs themselves can be carried on top of the w.c. partitions or on cast iron brackets, and the chain pulls can be either in front of or behind the trough. (*Shires & Co. (London) Ltd., Guiseley, Yorks.*)



Worminator beetle bait

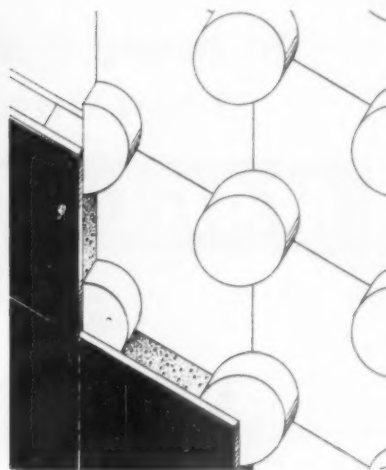
### Luring the woodworm beetle

Impregnating timber with some form of repellent is no doubt one way of preventing infestation by woodworm, but a recently introduced device attacks the problem from a diametrically opposite viewpoint. It is known as the Worminator, and consists of a small timber frame, 6 in. long by about 3 in. square, containing a "trap" of wood chippings and baited with a scent which is claimed to be imperceptible to humans but irresistible to the woodworm beetle, which proceeds to lay its eggs in the scented chippings instead of in furniture or floors. At the end of the egg-laying season the bait is removed and burnt, and the trap refilled for the next season. (*The Worminator Co., BCM/Worminator, London, WC1.*)

### Prefabricated tile partitions

Pilkington Tiles have now had something like two years' experience in the production of prefabricated ceramic tile partitions, and have issued a well-illustrated booklet describing them. The panels are supplied ready made in sizes up to 6 ft. by 3 ft. and are constructed with two layers of glazed tiles fixed together with 3-inch-diameter ceramic spacer discs set with adhesive at the intersections of the tile joints, thus forming a double sided hollow panel. In this form the panels are strong enough for transport and erection, but remain relatively light and easy to handle. After assembly on the site a 3 to 1 concrete fill is poured into the cavity to form a thin wall with considerable structural strength.

The partitions are butted against the walls before the surrounding tiles are fixed, or where they are used freestanding, as in shower cubicles, the walls may be chased to receive them. Metal brackets and ties for joining panels either in straight runs or at right angles are available, as well as tubular supports if the feet of the panels are to be kept clear of the floor. A complete range of metal door frames and posts specially designed for use with these partitions is kept in stock, and the delivery time for the panels themselves is given as



Above: cut-away isometric showing construction of Pilkington tile partition

Below: partition being assembled



a maximum of 14 days. The manufacturers maintain a design service to provide quantities and fixing instructions after the receipt of architect's drawings, but designers should remember that enough headroom must be allowed for the concrete to be poured into the panels after they have been erected. (*Pilkington's Tiles Ltd., Clifton Junction, Manchester.*)

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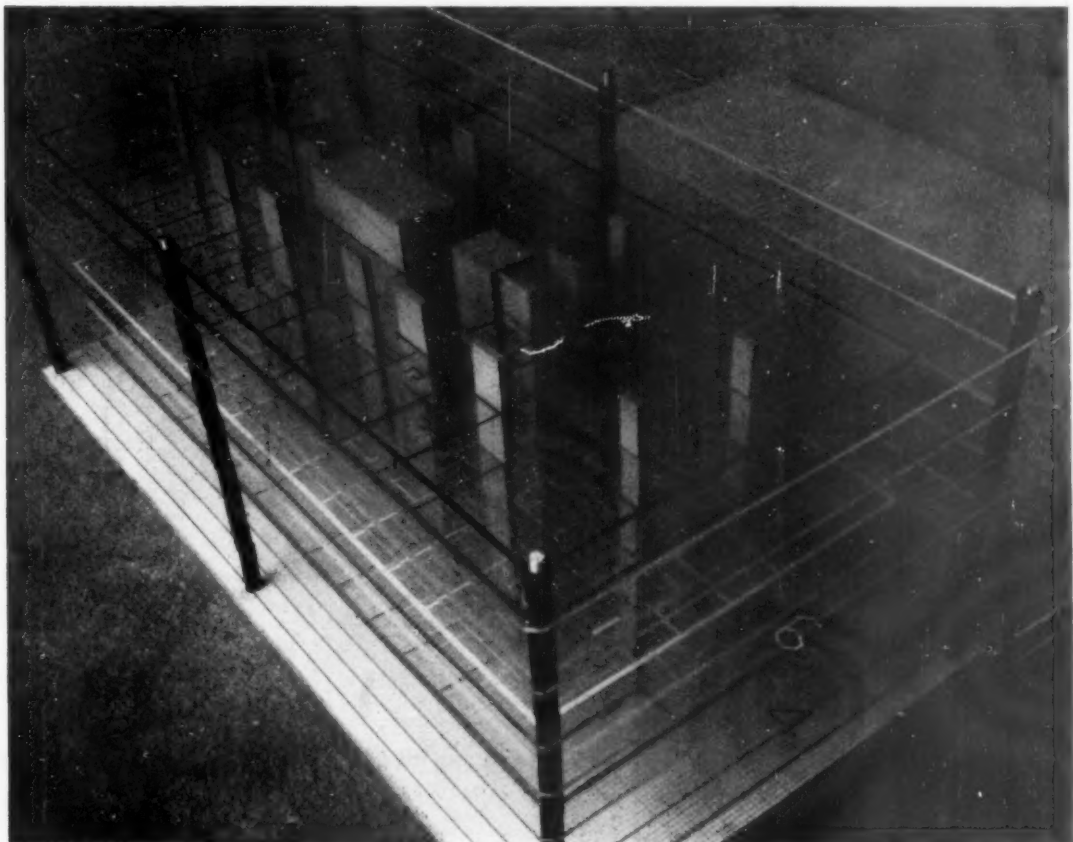
## 7 PRACTICE

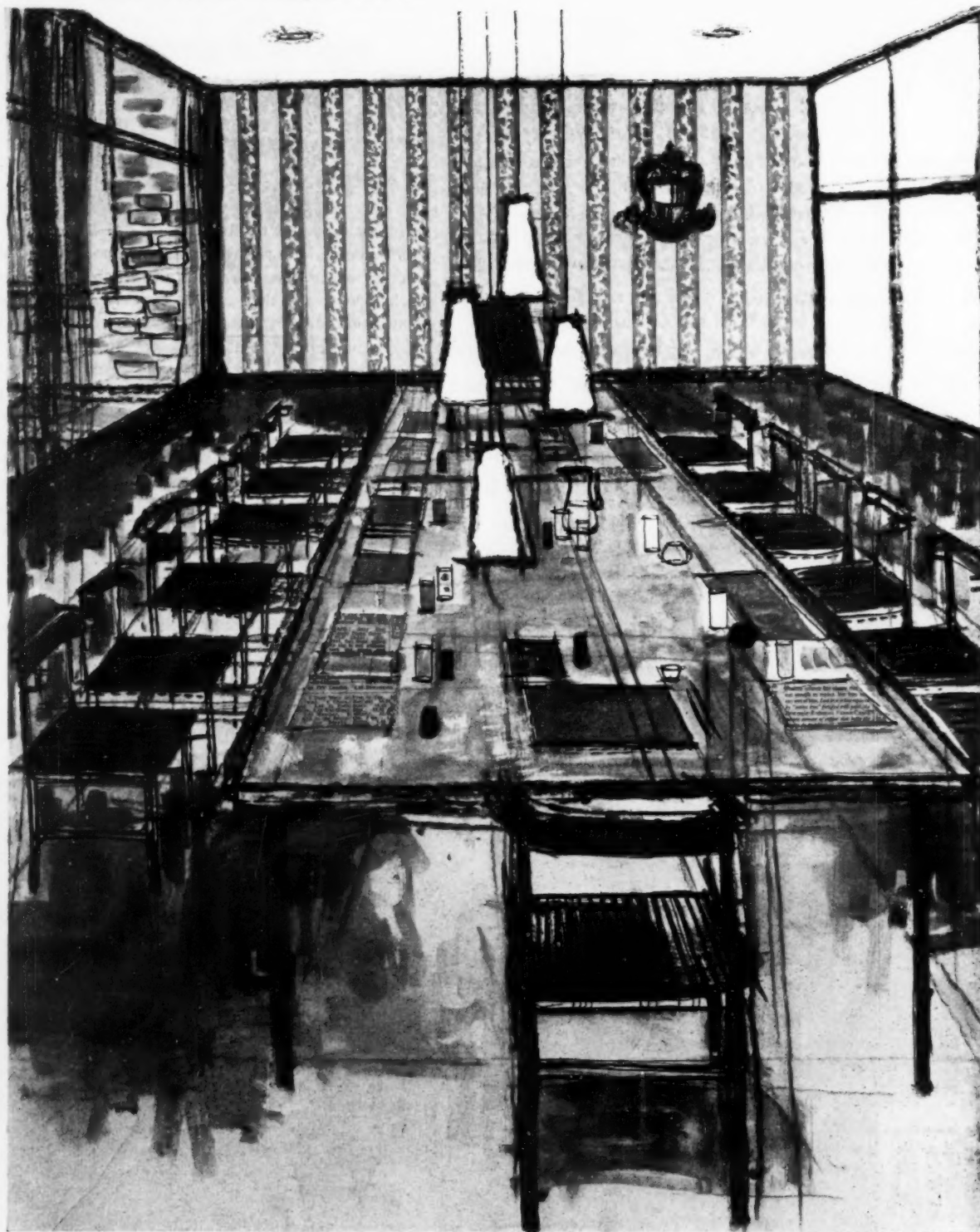
### design techniques for co-ordinating services and structure, 2

This week, A. J. Butler, G.I.Mech.E., and J. F. Eden, B.Sc., M.I.Mech.E., complete their description of BRS work on substitutes for draughtsmanship by describing "preliminary layout models" using Perspex, two kinds of pipework model and the use of photo drawings for alteration work. This article is published by permission of the Director of Building Research.

"Preliminary layout models" are used extensively in industry as aids to plant layout. The basic equipment consists of a number of superimposed gridded Perspex sheets mounted on a gridded baseboard in such a way that they can be quickly erected and dismantled. The Perspex sheets represent the floors of a multi-storey building or plant, the position of walls and other structural details being indicated on them in wax pencil or adhesive tape. Fig. 1 shows the experimental application of this technique to the design of the main distribution and ventilation ducts in a hospital ward block. In addition to floor layouts, all vertical ducts, lift shafts, flues and columns have been included. There has been some difficulty in the development of a satisfactory method of indicating and supporting suspended ductwork, but one answer is to use plastic foam which can be easily cut into strips and bent to the appropriate shapes. Some ventilation duct-

Fig. 1. A preliminary layout model of a multi-storey ward block





*Drawing by Diana Wynyard*



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work modelled in this way is shown in Fig. 1. Preliminary layout models are not suitable for the detailed design of services but are quick and useful aids in the planning stage and enable the implications of architectural changes to be clearly foreseen.

#### Pipework models

Figs. 2, 3 and 4 show models that have been used to determine piping layout in boiler houses, calorifier rooms and service ducts. The usual procedure is to make an accurate model of the structure and equipment to a scale of  $\frac{1}{8}$ -in.,  $\frac{1}{4}$ -in. or  $\frac{3}{8}$ -in. to the foot. In many cases the position of the equipment will have been determined by the use of a "notional" or "preliminary layout model." The model is then "piped up" using brass wire to indicate the centre-line of the pipe, with discs, sleeves, or beads threaded on to show the external diameter. Valves can be indicated by soldering a short length of wire perpendicular to the centre-

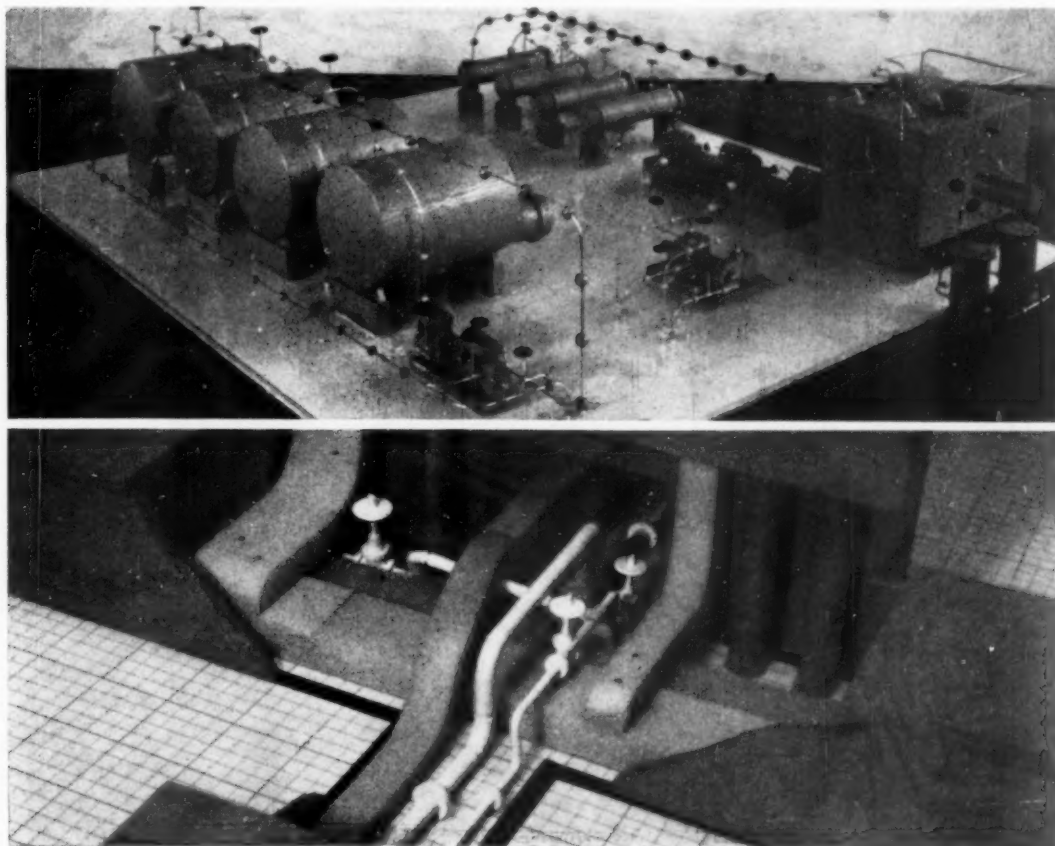
line of the pipe and putting a disc on the end to represent the handwheel, or proprietary model valves in cast metal may be used. This "wire-and-disc" method of indicating pipelines and valves is illustrated in Fig. 2.

An alternative system of running model pipes is the "full-bore" method, which uses proprietary scale components made of a thermo-plastic material. Pipes, bends, tees and valves, etc., are available in a range of sizes and colours. The components clip together and alternative arrangements can thus be studied before an assembly is cemented into position. This method is better visually than the "wire-and-disc" technique but the components are rather more expensive, and it does not always allow the pipework in the centre of a complicated model to be clearly seen (Fig. 3).

Fig. 4 shows a "full-bore" pipework model of a boiler house for a new hospital, which was constructed at the Building Research Station as an exercise in model-making techniques. Constructional details were taken from the tender drawings.

Fig. 2. "Wire and disc" pipework model

Fig. 3. Ventilation ductwork modelled in plastic



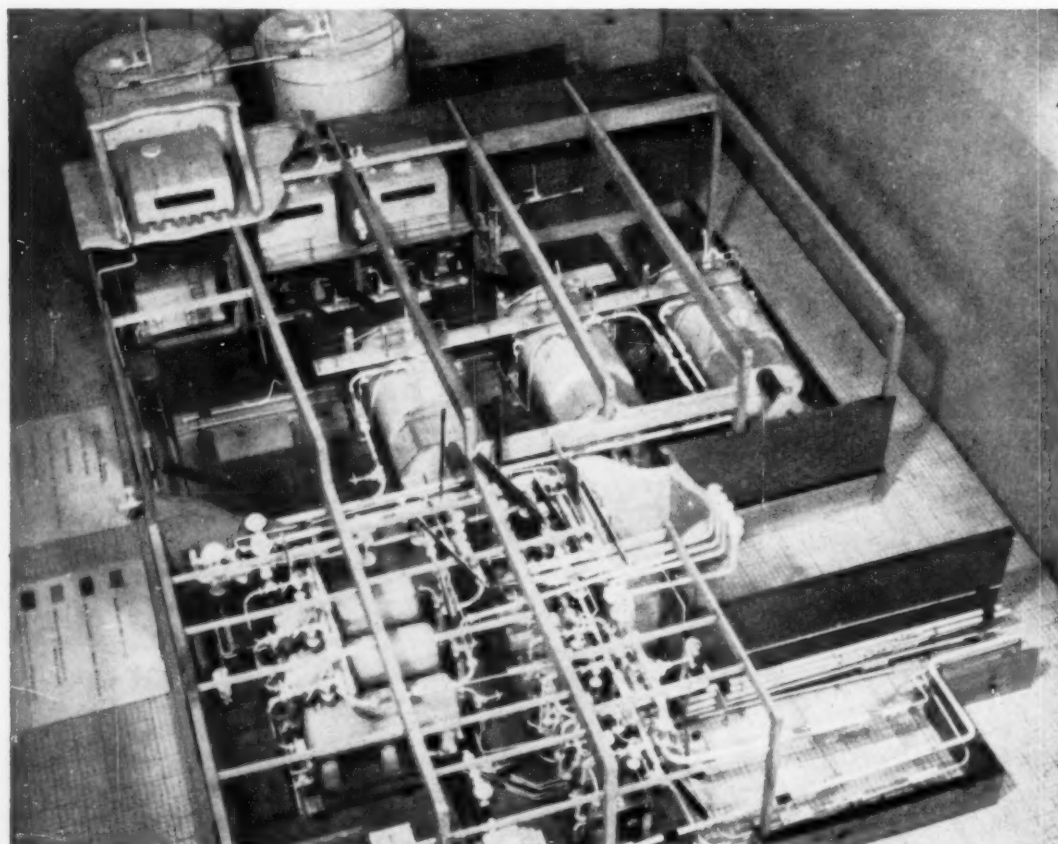
After the model had been inspected by the designer and pipework contractor, the layout of the calorifier room was modified. The new arrangement resulted in a less congested layout with easier access to equipment and valves. The model is now being used on site as an aid to construction.

Whereas the techniques previously described are relatively inexpensive, a pipework model may cost as much as 1 per cent of the value of the items shown. Many engineers claim, however, that this expenditure is more than justified and that design costs are usually not more than when drawings are used. The model, in fact, takes the place of all general arrangement drawings, detailed design information being passed on to contractors and pipework fabricators by means of freehand isometric sketches. The main advantage claimed for pipework models is that clearer visual representation produces better designs, saves time, and leads to lower quotations from contractors. Projects may be put out to tender with photographs of the model,

and schedules of pipework and associated equipment, but without arrangement drawings. Firms which have used this method when inviting tenders say that lower prices result because the contractors have learnt that if a model has been built there will be less trouble and fewer alterations on site. A point worth noting here is that an alteration involving only one pipe on a model would necessitate altering several drawings where traditional methods are used. The models are usually sent to site as an aid to the construction teams, and are then often sold to the client, who keeps them as a record and for training his operating and maintenance staff. The construction of a  $\frac{3}{4}$ -in. or  $\frac{3}{8}$ -in. scale model of a large building would be difficult to justify purely in order to design the engineering services, but pipework models could lead to better, quicker, and cheaper designs for the parts of a building involving a complexity of engineering services. These might include plant rooms, calorifier rooms, and boiler houses, and also operating theatres, where

*Fig. 4. Full-bore pipework model of a hospital boiler house*

*Reproduced by permission of the Controller HM Stationery Office)*



the numerous specialist demands are so exacting and there is competition for space. Fig. 5 shows the application of this type of model to the complication which occurs when service ducts join, cross, or turn corners. It is often difficult to show clearly this type of detail on drawings.

#### Photo-drawing

A time-saving technique used for alterations and additions to existing plant and buildings, "photo-drawing" is illustrated in Fig. 6. No detailed drawings are made of the plant or building to be altered; instead, photographs are taken and greatly enlarged prints made on a translucent sensitised paper. It is possible to draw on this paper with ink or pencil and to take ordinary dye-line prints from it. Enlargements can be produced accurately to any scale, although this is expensive and is unnecessary if the background has a recognisable grid such as tiles or brickwork, or if clearly marked measuring rods are placed at appropriate points. If necessary,

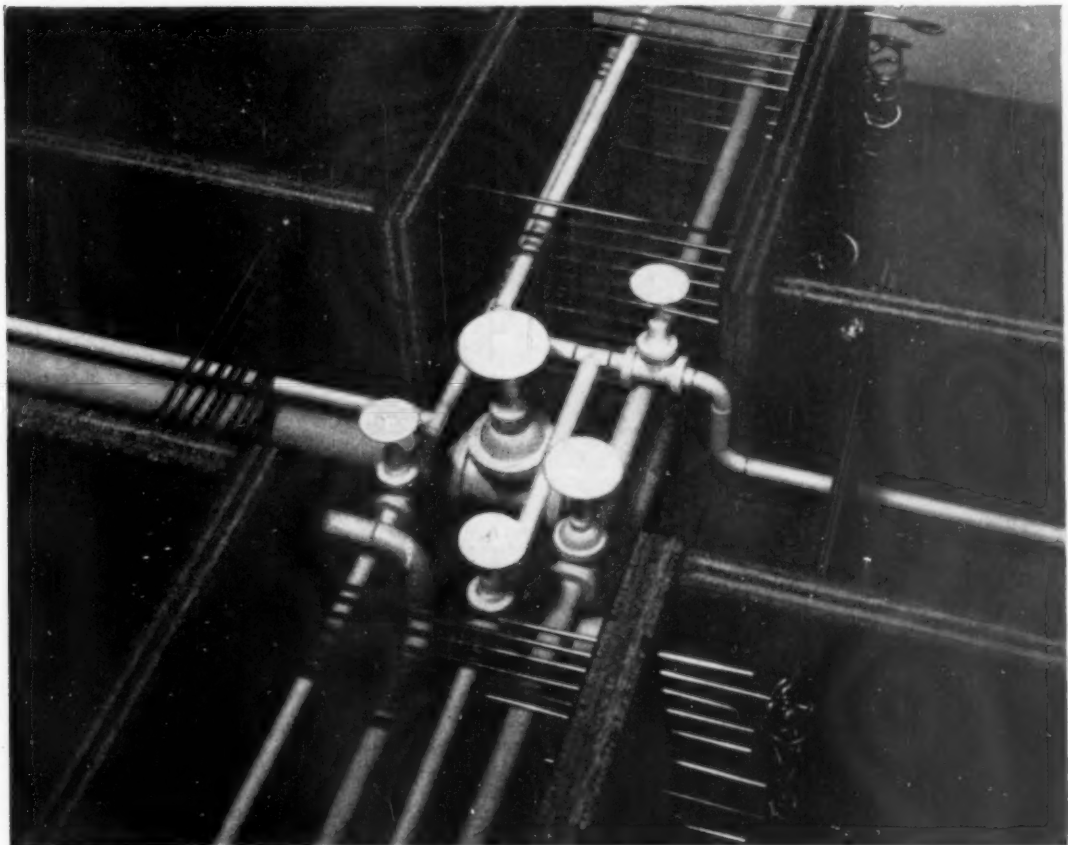
salient dimensions can be measured on the job and marked in on the print. This technique can save a considerable amount of draughtsmen's time on certain types of work and can often give far clearer instructions to the builder or engineer than can be given by drawings.

#### Conclusion

A criticism that is frequently heard is that it is impossible to take a print from a model, although the use of photography should not be overlooked. An additional advantage gained from the use of models is that they will be a focal point of interest and discussion for all who are closely associated with the project. This will lead to closer contact and better communication between client, architect, and engineers—a most important factor if good, functional design is to be achieved.

In conclusion, it must be emphasised that changes in established design procedures should be accomplished gradually, in order to gain experience in

*Fig. 5. Full-bore pipework model of crossing service ducts*

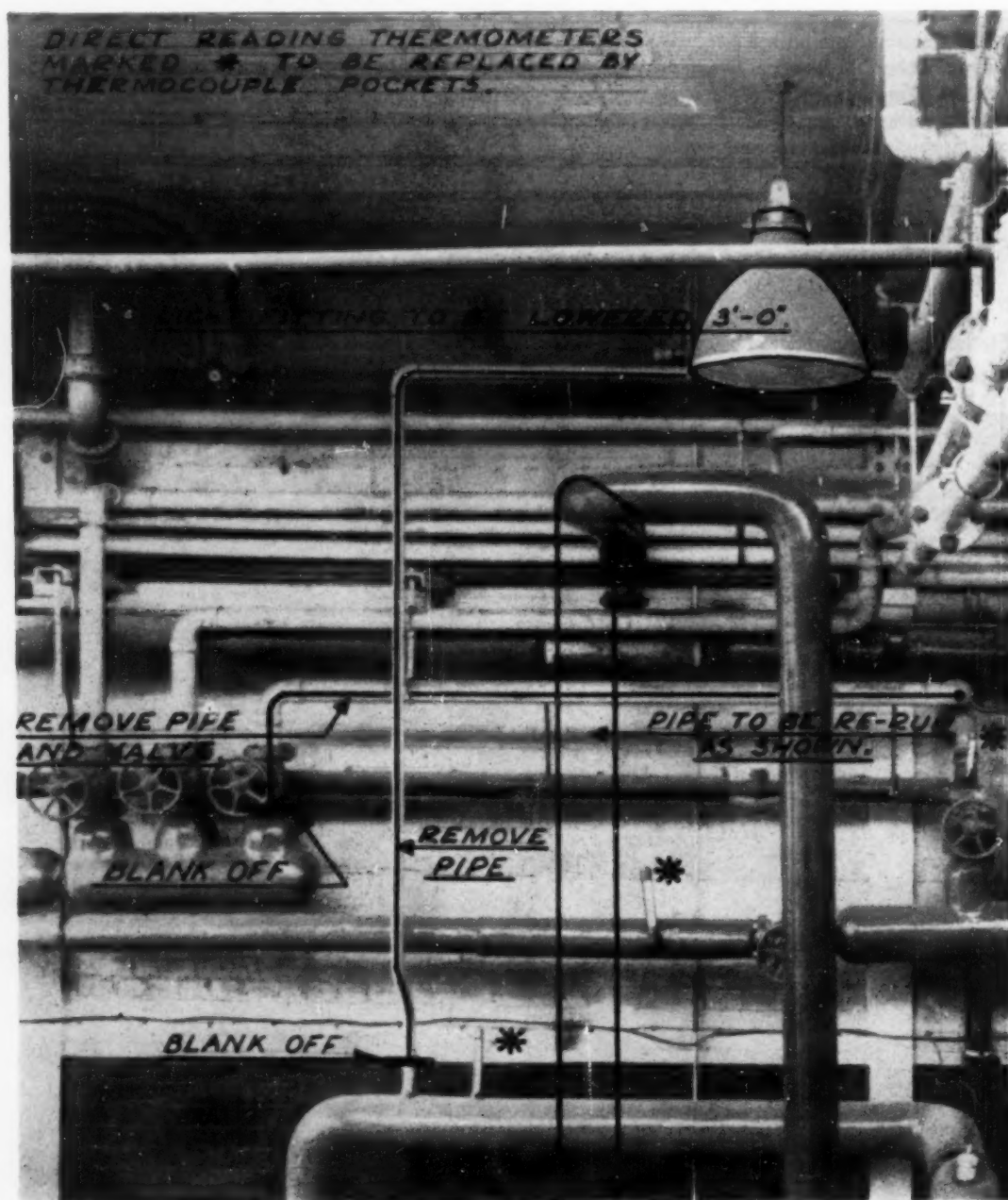


the application of new techniques. Otherwise, improved designs may only be achieved as a result of unnecessary expenditure of time and cost. The techniques described are essentially simple, requiring no special skills, and their application should be well within the capacity of the architect, average project engineer or designer. To obtain the maximum benefits from these design techniques it must be appreciated that they are not merely means of illustrating finished designs that have been developed by normal draughting methods. The final aim must be to replace the old techniques and not just to supplement them. The authors would be pleased to demonstrate these techniques and to

discuss their implication with any architects or designers interested in new methods of design.

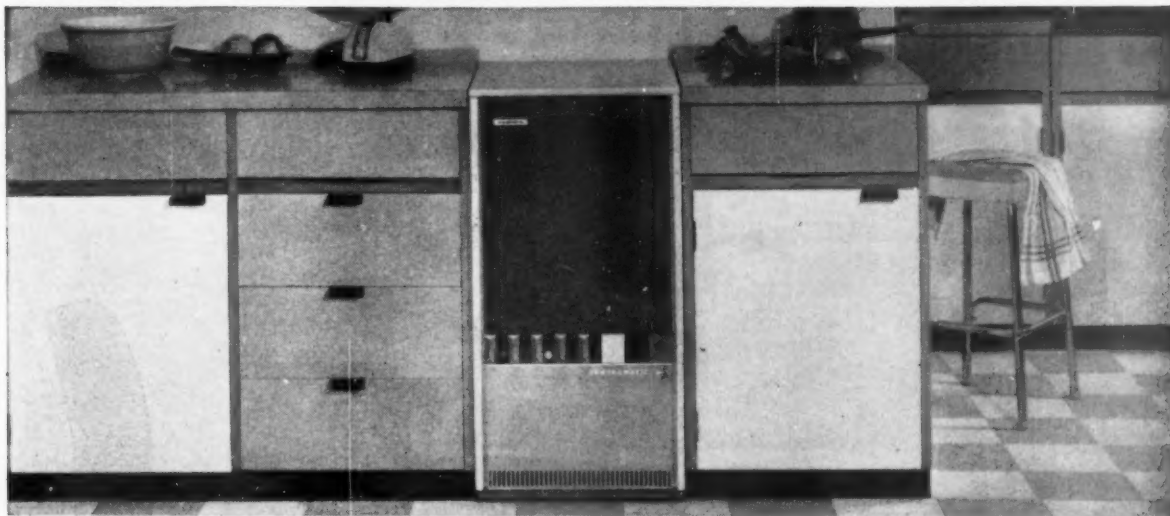
The work described has been undertaken as part of the research programme of the Building Research Board of the Department of Scientific and Industrial Research, and this paper is published by permission of the Director of Building Research.

*Fig. 6. An example of the photo-drawing technique*



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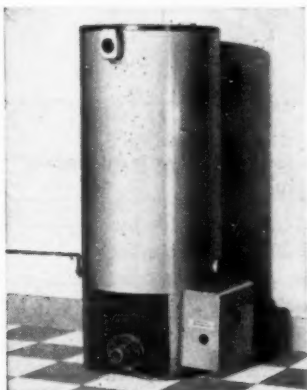
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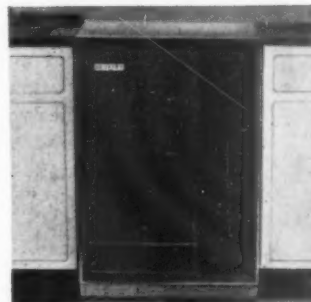
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# Comprehensive School at Freudenberg, Zurich

designed by Jacques Schader

SFB No. (97)

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*Grammar school looking south-west under ramps to entrance hall*

This secondary school is organised roughly along similar lines to a British comprehensive school, and is designed for 1,400 pupils. The layout is in the form of a series of separate blocks for grammar, technical and science subjects, built round and over an existing promontory. Also separated out are a block of three gymnasiums and the assembly hall. The science and gymnasium blocks are built into the sides of this mound, so that a podium is created upon which are poised the grammar and commercial schools. The building, which took four years to complete, is generally in reinforced concrete, faced externally with pressed asbestos-cement sheeting and horizontally sliding aluminium windows.

Considerable attention has been paid by the architect to the development of the sections of the various blocks, to ensure that adequate daylight penetrates into their interiors, especially down to the lower levels, more particularly with the science and gymnasium blocks, which, because of their very unusual siting, are lit from one side only.

The school is so very far removed from current British practice that we invited a Swiss architect, Pierre Bussat, who is in practice there, but has visited this country and is aware of the schools programme here, to give us his frank comments about this design.

*General view from the south.*



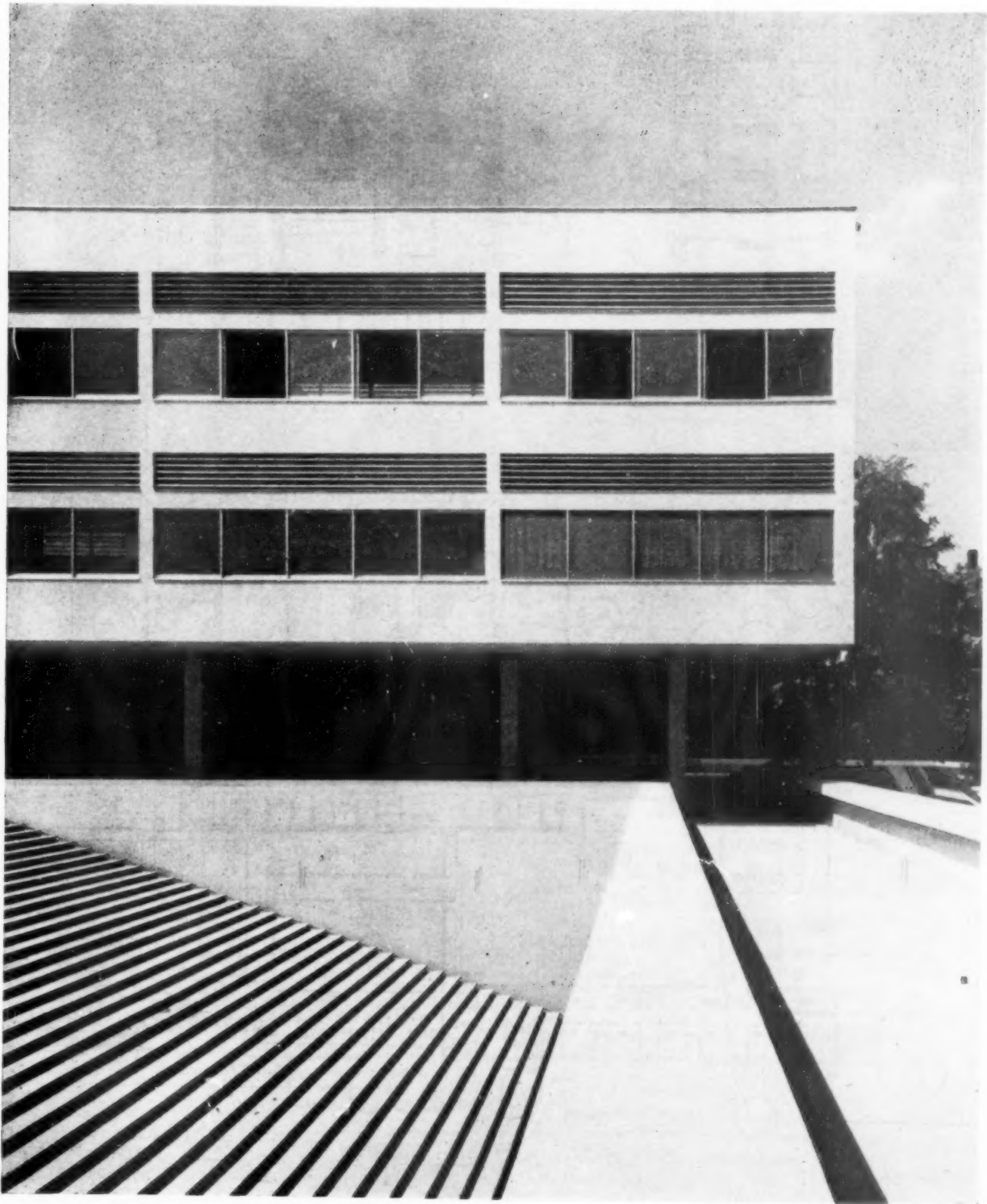
*South-east side of school, from the road*

This design has excellent architectural qualities, but in comparison with the current criteria of British educational buildings it may appear, to say the least, unnecessarily luxurious. But the design is a good example of current tendencies in Swiss architecture (that is to say, as far as one can generalise), especially in the sector of public building. There is a close attention to materials and detailing, and an undoubted attempt to achieve architectonic qualities of real worth, but there is no sign of any attempt at cost control. This particular aspect of design is not unknown in Switzerland, but causes a considerable confusion of mind among architects. The client authority have not, of course, envisaged such a building without fixing a top price, and the architect responsible is not allowed to build to any figure he likes. But, as is generally the case in Switzerland, there is a tendency here to make the primary aim a building which reflects the importance of the programme, and of the authority which has initiated it. This attitude of mind is not very far removed from the ideas behind the monumentalism of the past, which one would have hoped had disappeared a long time ago. This approach is insidious, and more widespread than generally supposed. It diverts the architect's attention away from a proper study of the essential requirements of the building.

At Zurich, as in other parts of Switzerland, it is true that there are building regulations which prescribe the size of classrooms, number of w.c.s, minimum window areas, etc., but in the same way that the problem of planning is put on one side in the pursuit of aesthetics, so the imposed standards only influence certain characteristics of individual interiors. Between this concentration of aesthetics and the details prescribed by regulations, there remains a vacuum which is the origin of all the confusion which exists in school design in Switzerland.

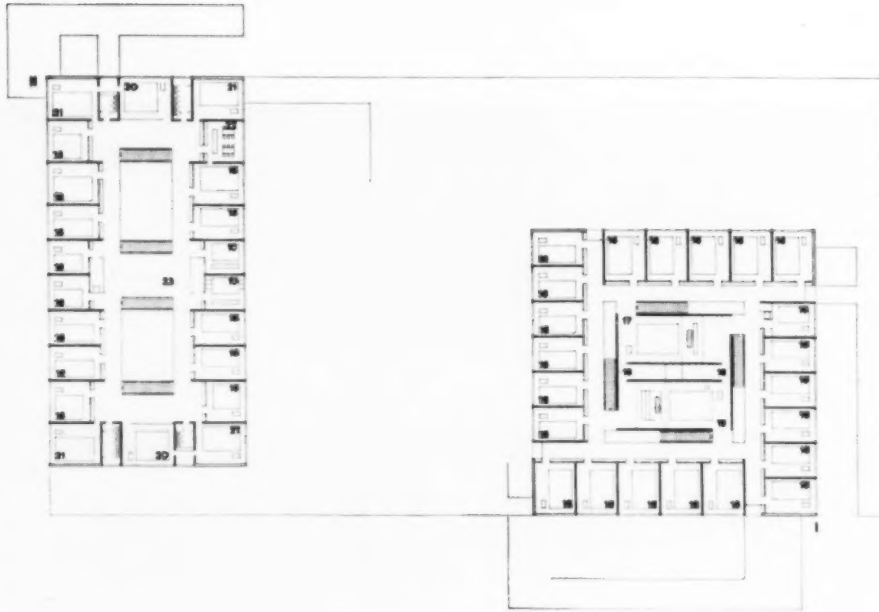
The real and valid question of internal planning is thus left entirely to the architect and to the mercy of his personal

*Commercial school, from roof of gymnasium*

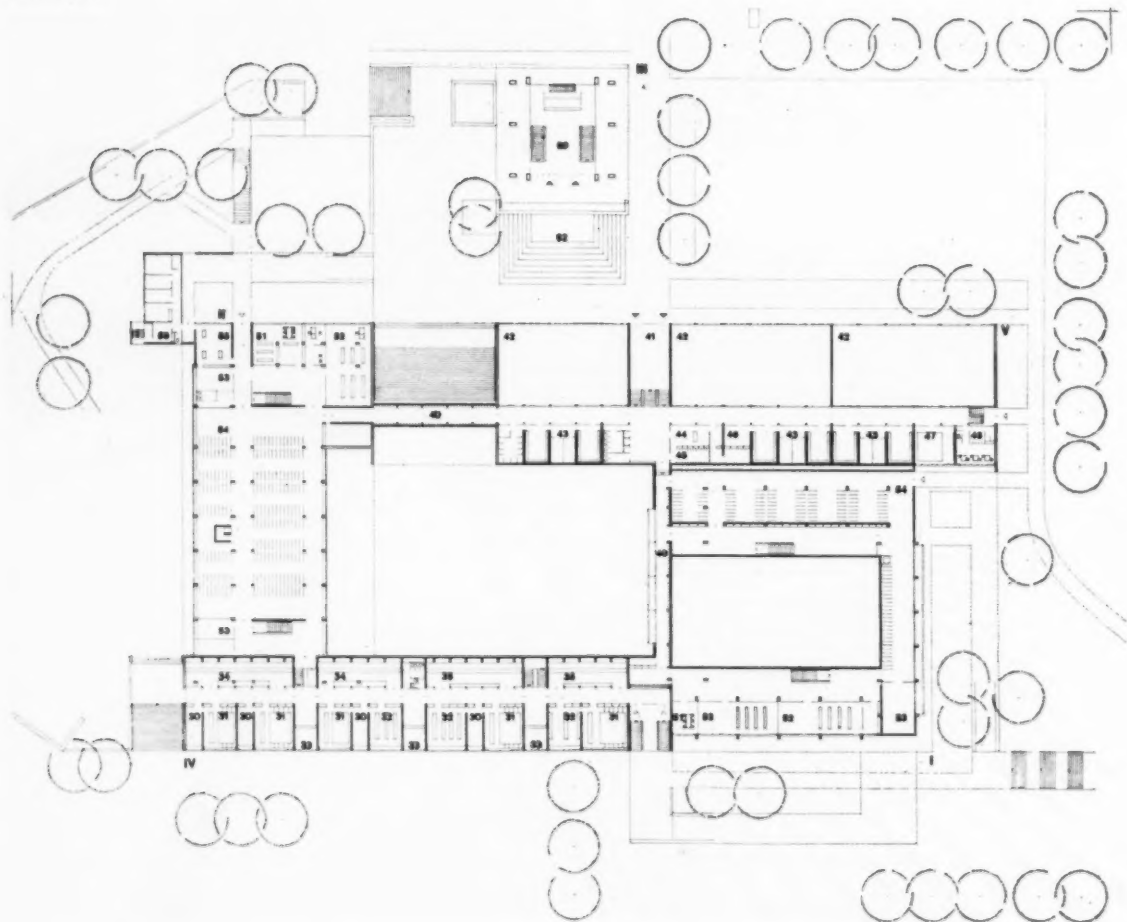




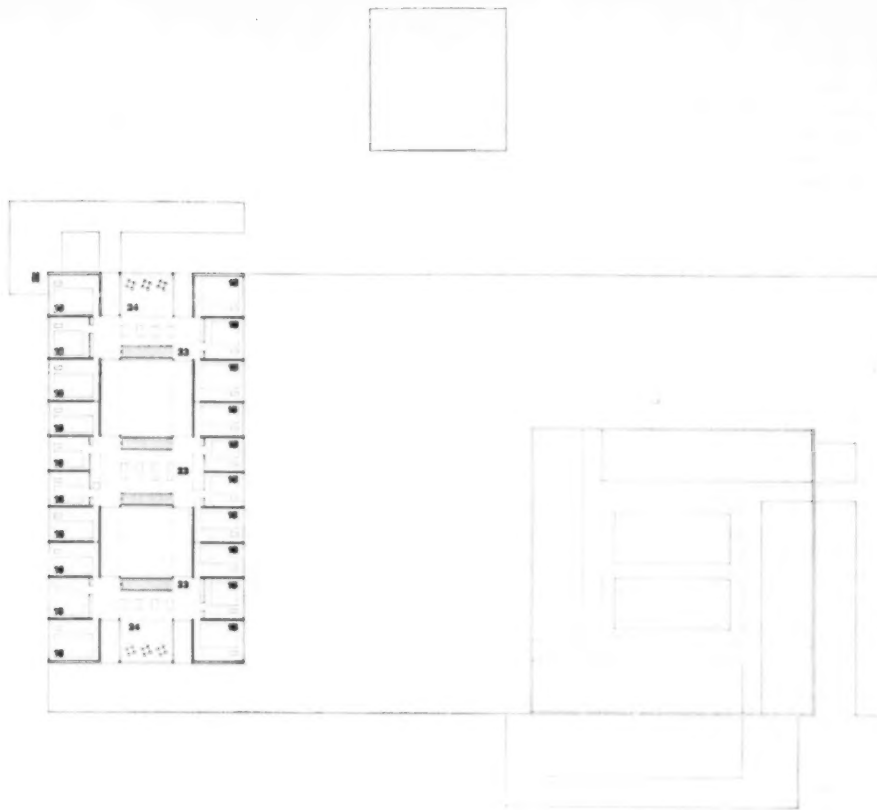
Second floor



Ground floor

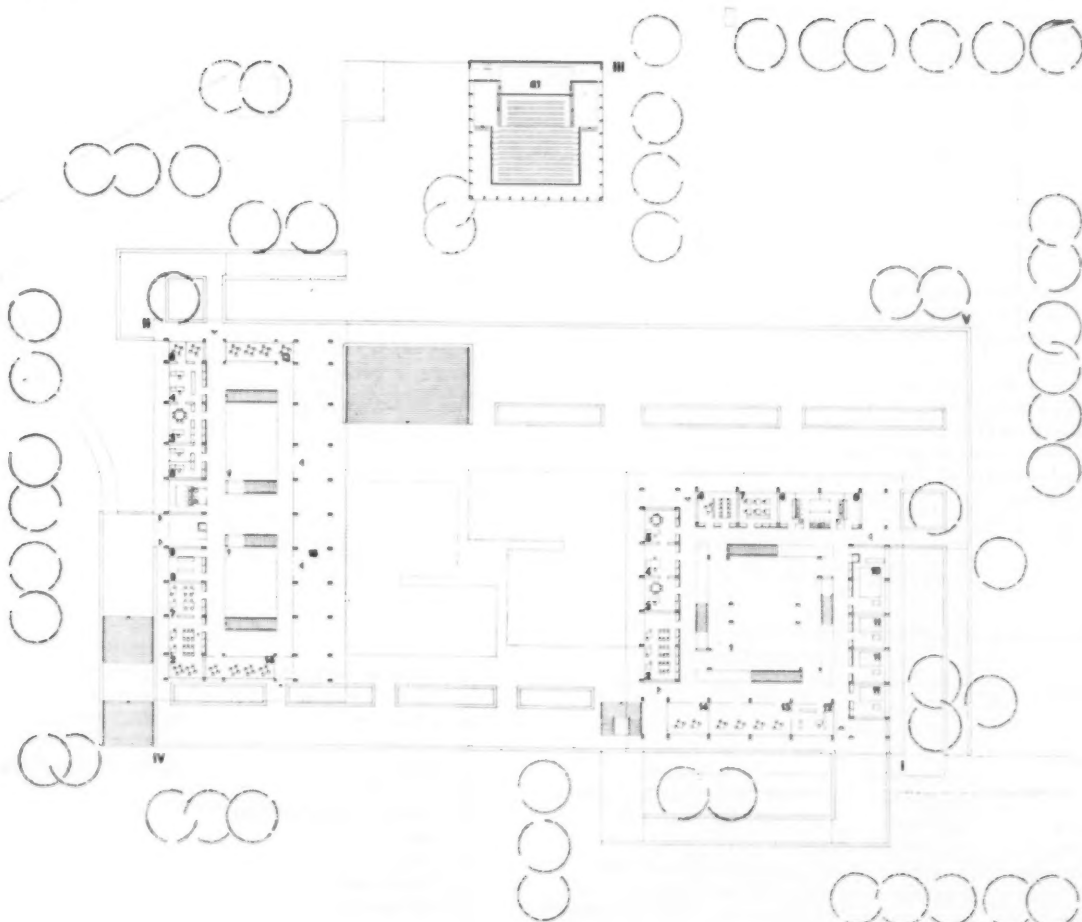


Third floor



- I Grammar school
- II Commercial school
- III Auditorium
- IV Science
- V Gymnasium block

Second floor

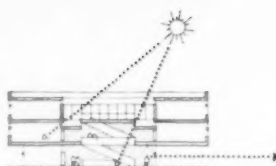


ideas. One cannot really blame him for this because the client side have not made any conscious effort to guide him with any criteria which deal with the essential qualitative and quantitative standards. These can only be created by a methodical and continuous study of educational requirements, and equally by a satisfactory use of some form of cost planning.

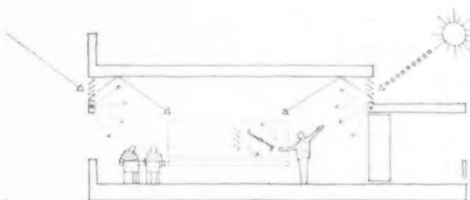
It is true that despite this lack of knowledge the talent of the architect in Switzerland can still be exercised in many directions. In this case, for instance, considerable attention has been given very successfully to the question of natural lighting. Equally the architect may concern himself in the planning with the balance between formal teaching spaces and other areas, in the shaping of the masses on the site and in the refinement of working details and finishes, etc. But all such matters depend solely on his talent and on the importance he attaches to them. If, by mischance, he arrives at a design which is out of balance in terms of cost, for instance, there is no objective method in existence in Switzerland by which such a fact can emerge. No one can object either to the criteria he has established for himself in the design when judging the efficiency of this plan. This unfortunate situation in Switzerland is aggravated by the infinite division of official responsibility. This is apparent generally in the field of building, particularly educational.

If an assessment is made in this particular case of the floor area, there are 1,400 secondary school children, the total area is 204,500 sq. ft., that is to say, an area per child of 145 sq. ft. This compares with the 70 to 75 sq. ft. as a typical figure for the area per child in Britain for secondary schools. Even if certain differences of teaching are accepted, the disparity still remains considerable. But there is no reason for supposing that this school at Freudenberg fulfils its function better than a typical post-war English school. What is happening is probably even clearer if the floor area is compared with British examples: the Freudenberg school has 51 per cent teaching area and 32 per cent circulation in comparison with 64 per cent and 13 per cent respectively as a typical average in British schools.

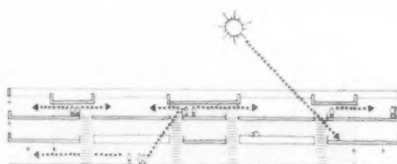
Even if one allows, once again, for a certain difference of requirements, as for instance the presence at Freudenberg of large halls used for circulation (but of no educational purpose) for an integral bicycle store of 12,000 sq. ft., the area of circulation is still large in comparison with the teaching area. Here, therefore, is a striking example of the formalist rigidity imposed by the building regulations, and supported by aesthetic objectives, which overrule the possibility of a more flexible and integrated layout, which might take account of functional purpose. It is characteristic that such a design can present real architectural qualities and reflect the unarguable talent of the architect, but can, at the same time, raise serious doubts as to its validity. These doubts are clear evidence of the lack of a proper understanding of the problems involved, a matter which the Swiss authorities must start tackling without delay.



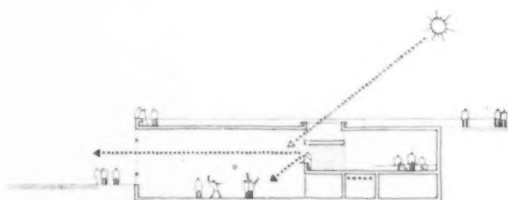
Diagrammatic section of grammar school block



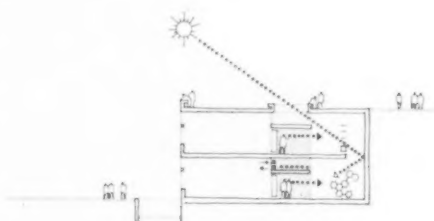
Section through grammar school classroom



Section through commercial school



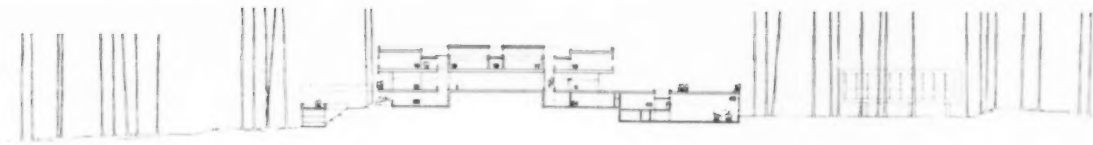
Section through gymnasium block



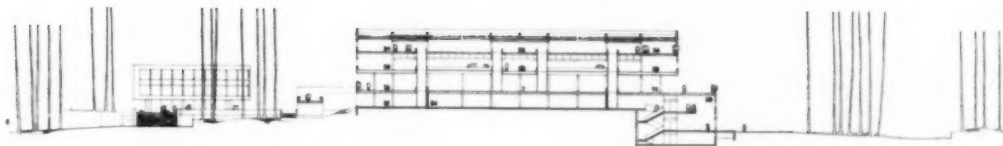
Section through science block

Key to numbers of plans on preceding two pages

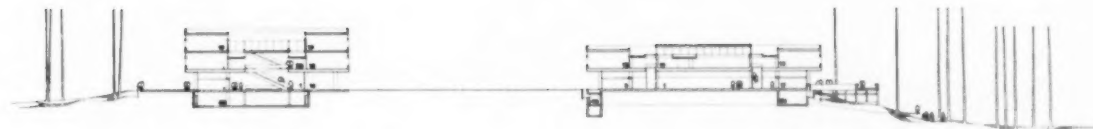
- |                       |                        |                         |                              |                        |
|-----------------------|------------------------|-------------------------|------------------------------|------------------------|
| 1. Entrance hall      | 12. Library            | 23. Circulation         | 43. Changing rooms, showers  | 56. Caretaker's flat   |
| 2. Staff              | 13. Reading room       | 24. Terrace             | 44. Caretaker's office       | 60. Entrance           |
| 3. Principal          | 14. Private study      | 30. Preparation         | 45. Cloakroom                | 61. Hall and stage     |
| 4. Administration     | 15. Covered play area  | 31. Lectures            | 46. Medical                  | 62. Open-air theatre   |
| 5. Bursar             | 16. Classroom          | 32. Practical           | 47. Class                    | 63. Kitchen and dining |
| 6. Lectures           | 17. Drawing            | 33. Void over entrance  | 48. Instruction              |                        |
| 7. Staff library      | 18. Models             | 34. Geography           | 51. Students' committee room |                        |
| 8. Staff cloakroom    | 19. Technical drawing  | 35. Biology             | 52. Library                  |                        |
| 9. Caretaker's office | 20. Typing             | 40. Corridor link       | 53. Store                    |                        |
| 10. History           | 21. Office             | 41. Entrance            | 54. Bicycle store            |                        |
| 11. Division rooms    | 22. Commercial library | 42. Void over gymnasium | 55. Handicrafts              |                        |



*Section through grammar school and gymnasium block, with auditorium on the right*



*Section through commercial school, entrance hall of sciences with auditorium beyond on the left*



*Section through commercial school on the left and grammar school on the right*

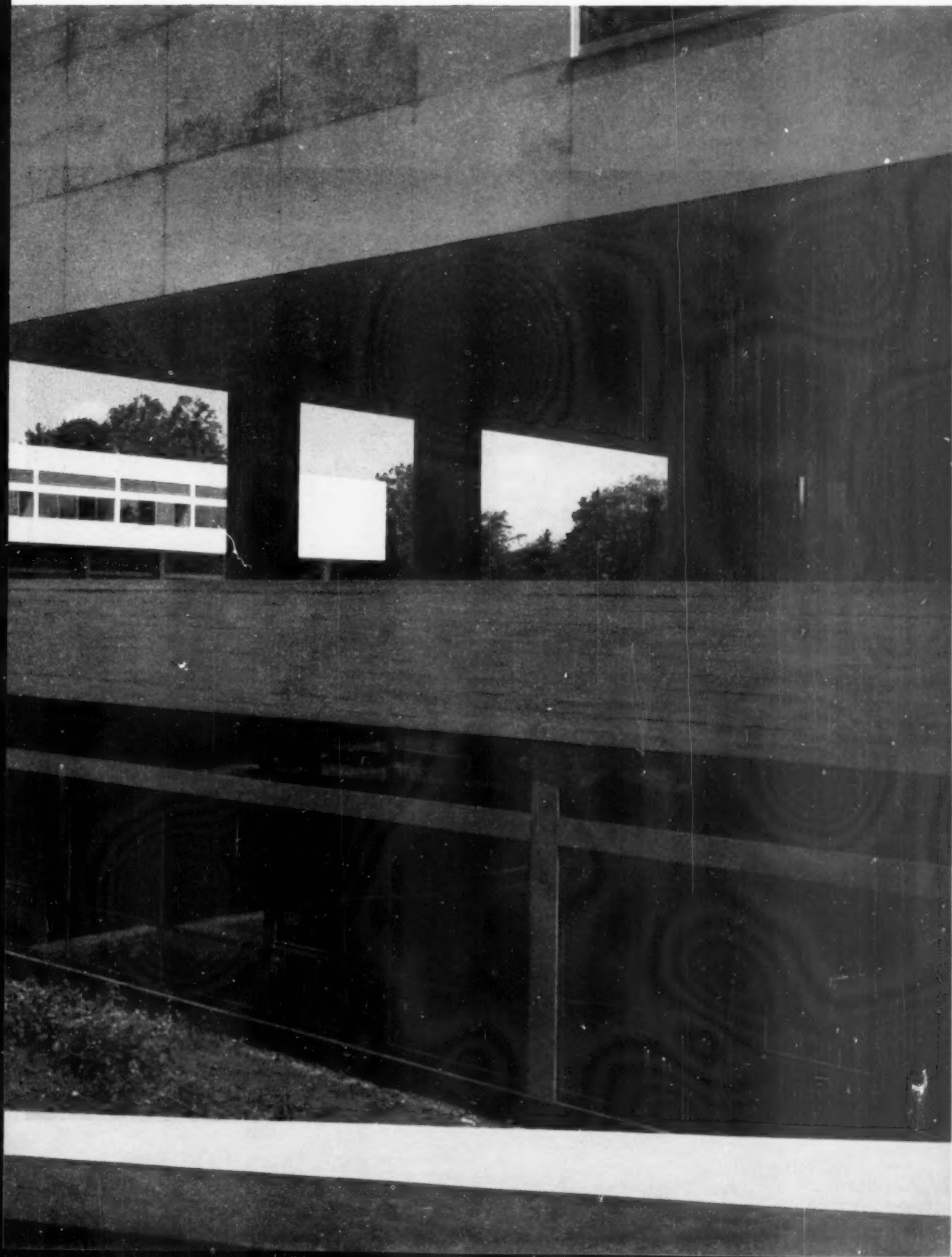


*Section through auditorium block, open air theatre, gymnasium block and science block*

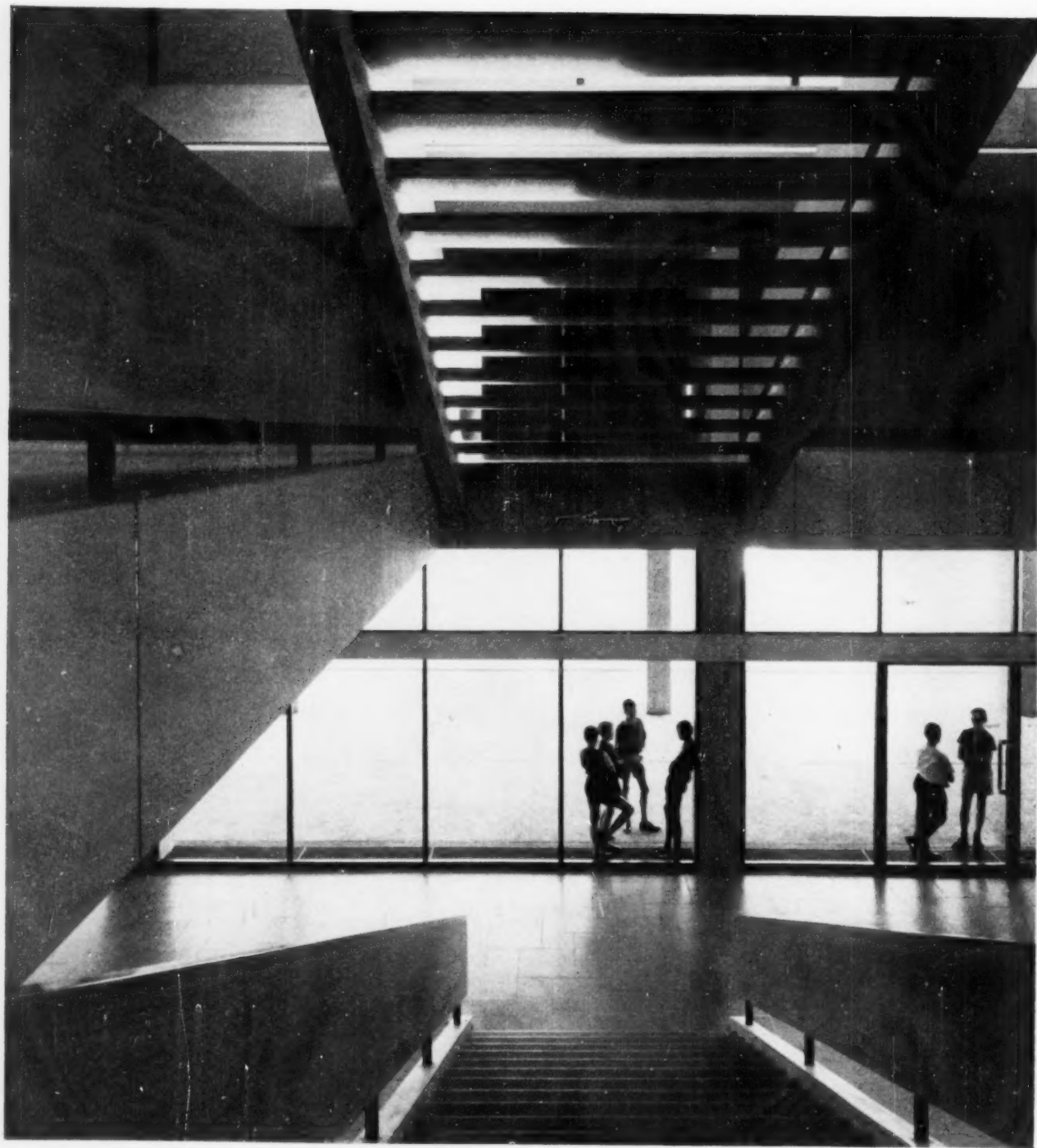
**NEXT PAGE**

*Commercial school on right, grammar school beyond on left. Stairs rise from level of auditorium to the raised podium in the centre of the block*

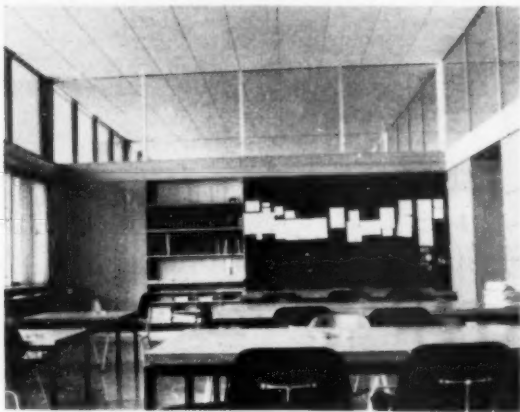
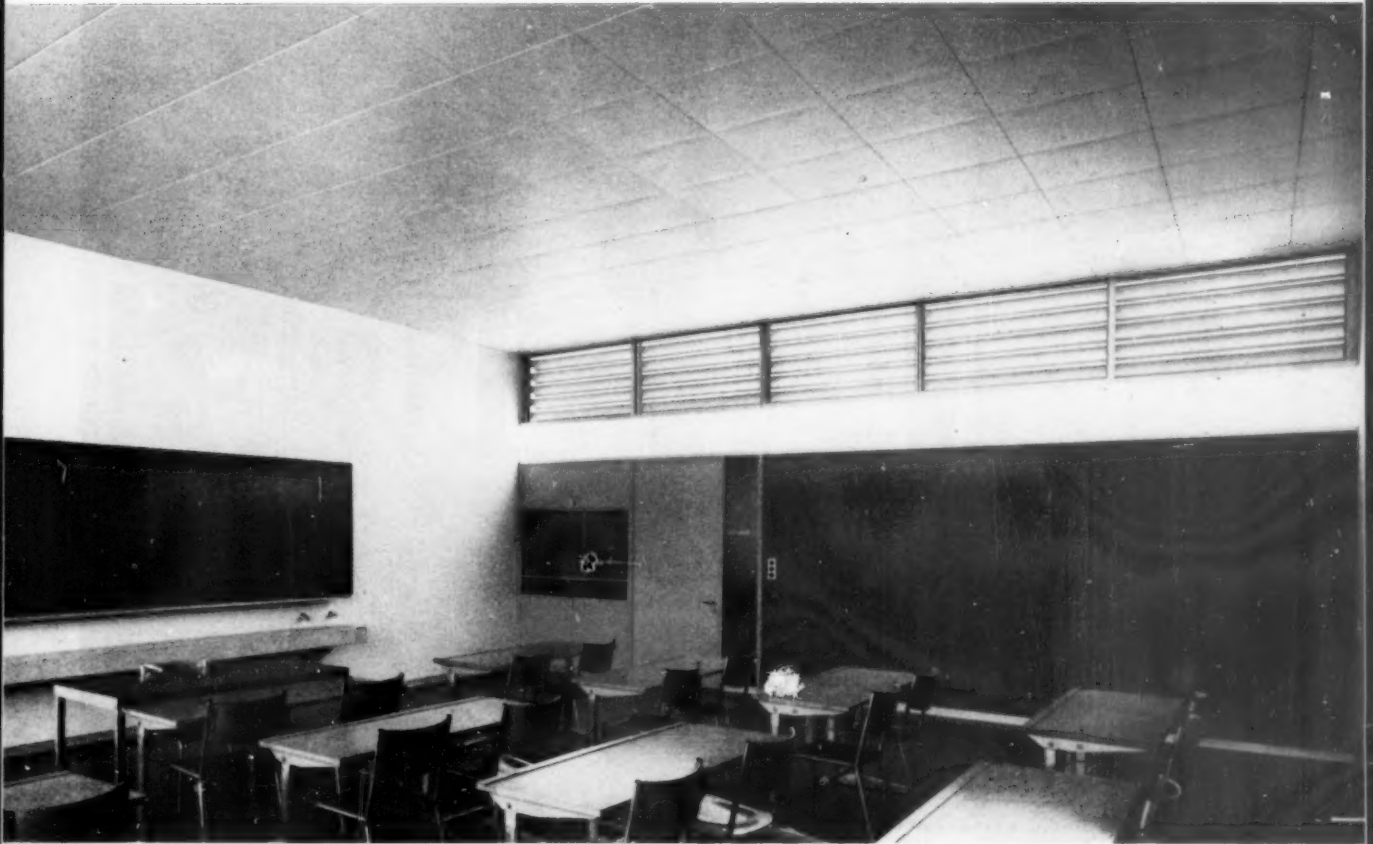




*Grammar school, the main entrance*

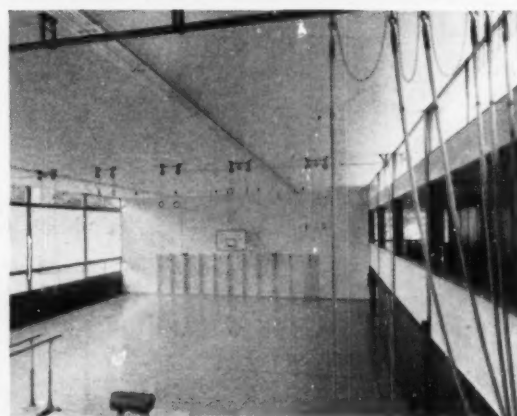
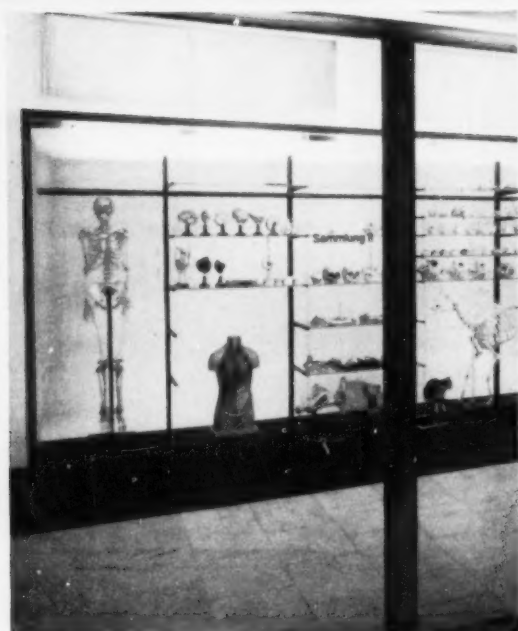
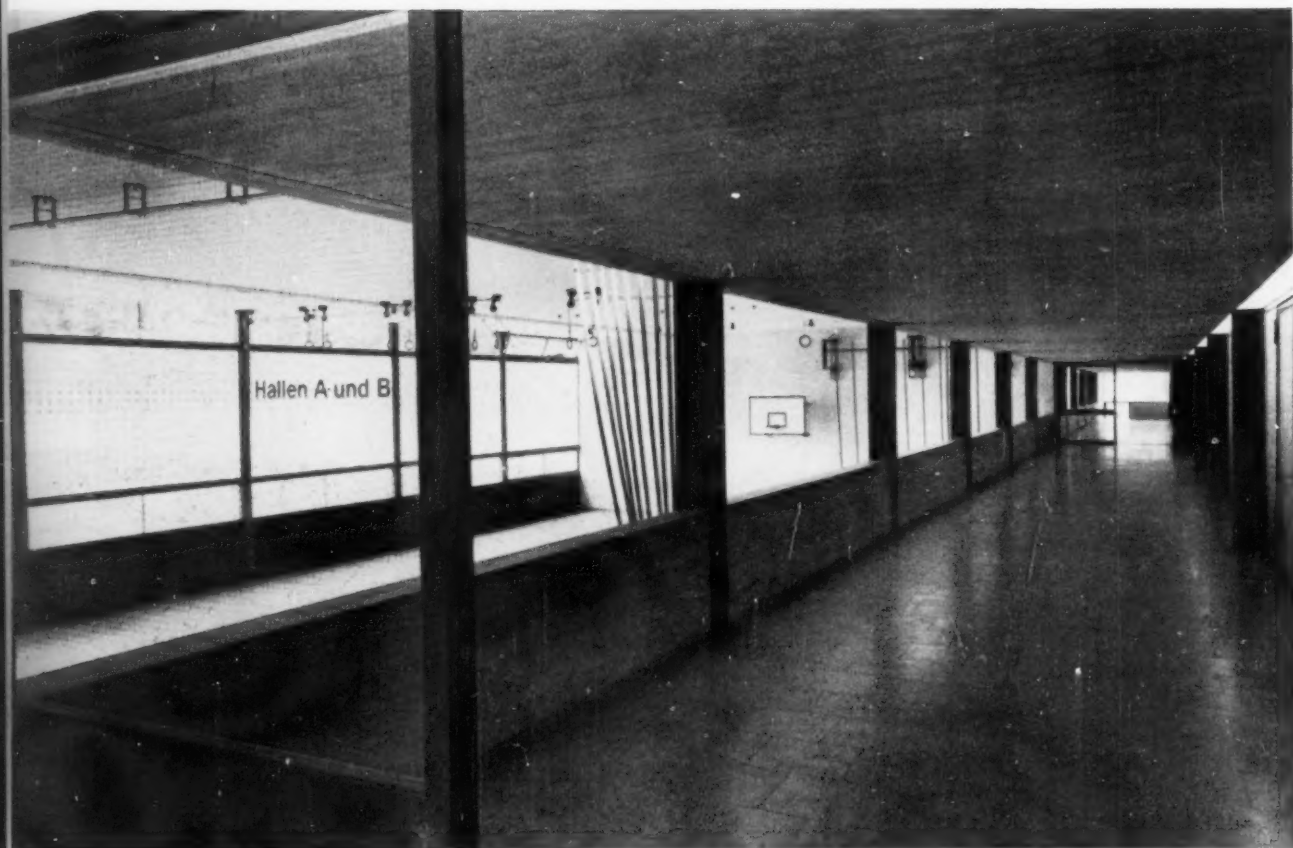


*Typical classroom, grammar school*



*Staff room*

*Gymnasium gallery*



*Gymnasium*

*Science exhibition*

working detail

FURNITURE AND FITTINGS: 118

EXHIBITION SCREENS: COLLEGE IN ST. ALBANS, HERTFORDSHIRE

*G. C. Fardell, Architect to the Hertfordshire County Council*



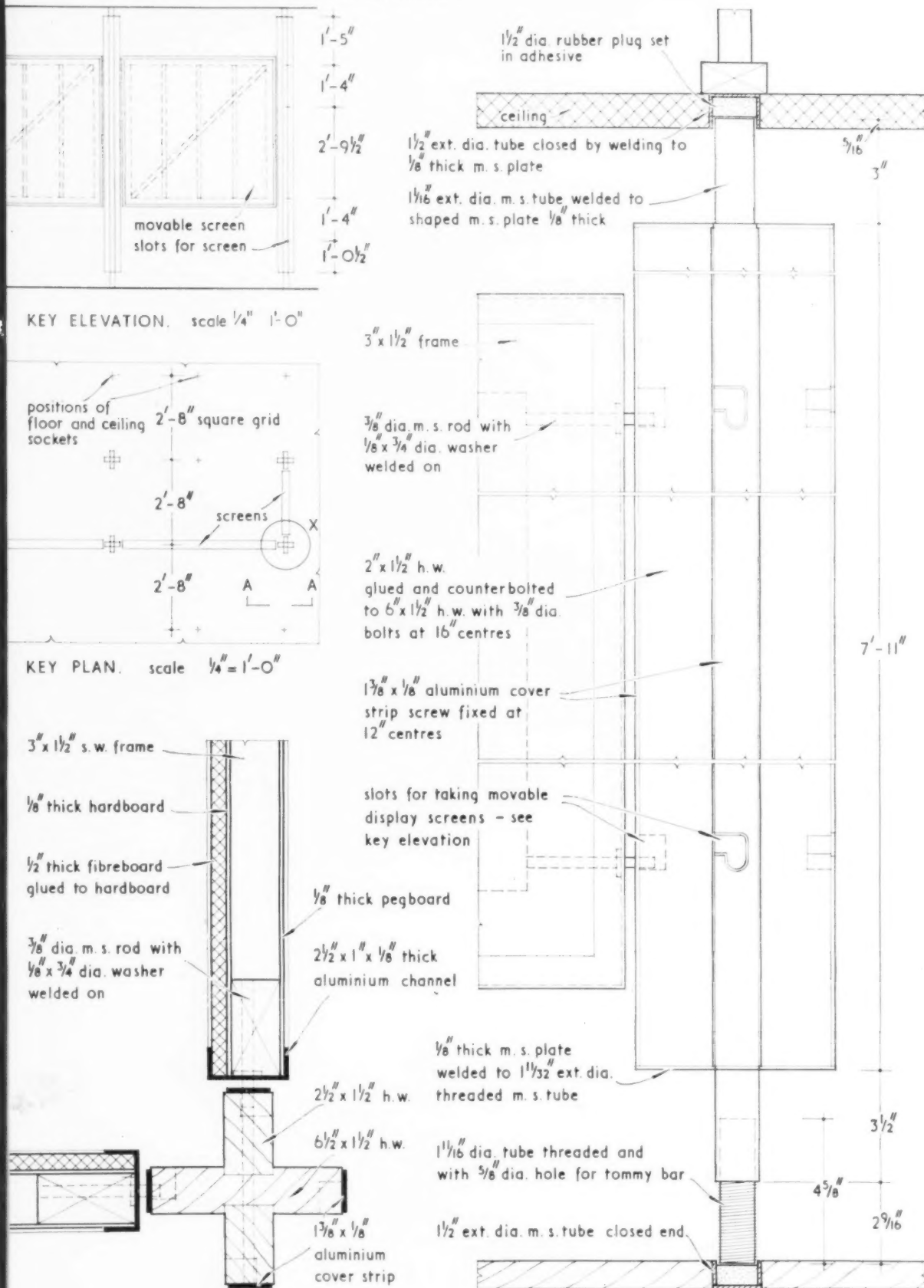
*These demountable exhibition screens consist of vertical members on to which various types and sizes of display panel can be erected in different positions.*

## working detail

## FURNITURE AND FITTINGS: 118

EXHIBITION SCREENS: COLLEGE IN ST. ALBANS, HERTFORDSHIRE

G. C. Fardell, Architect to the Hertfordshire County Council



DETAIL AT X. scale 1/4 full size

ELEVATION A - A. scale 1/4 full size

working detail

FURNITURE AND FITTINGS: 119

CHEMISTRY BENCH: COLLEGE IN ST. ALBANS, HERTFORDSHIRE

*G. C. Fardell, Architect to the Hertfordshire County Council*



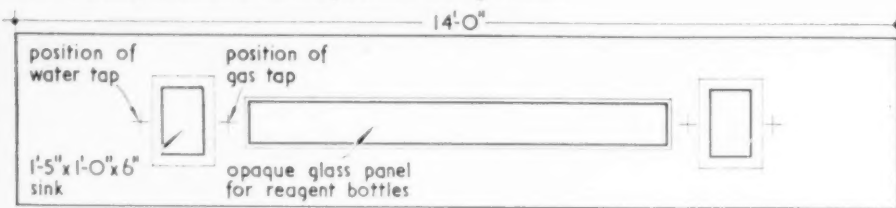
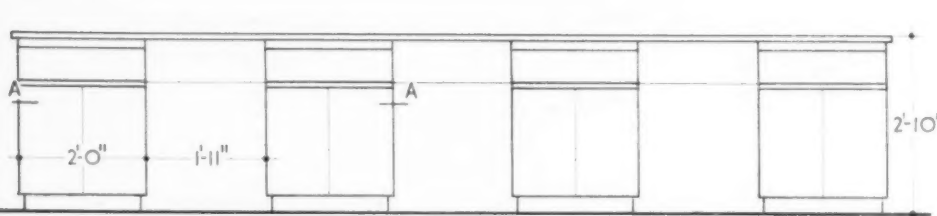
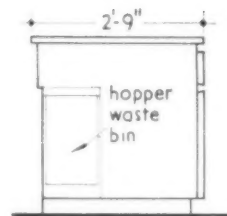
*This standard design is used both for island and perimeter benching. The cupboards allow for the storage of different types of apparatus and equipment. Between them there is generous knee space in which stools can be conveniently stored during experimental periods.*

## working detail

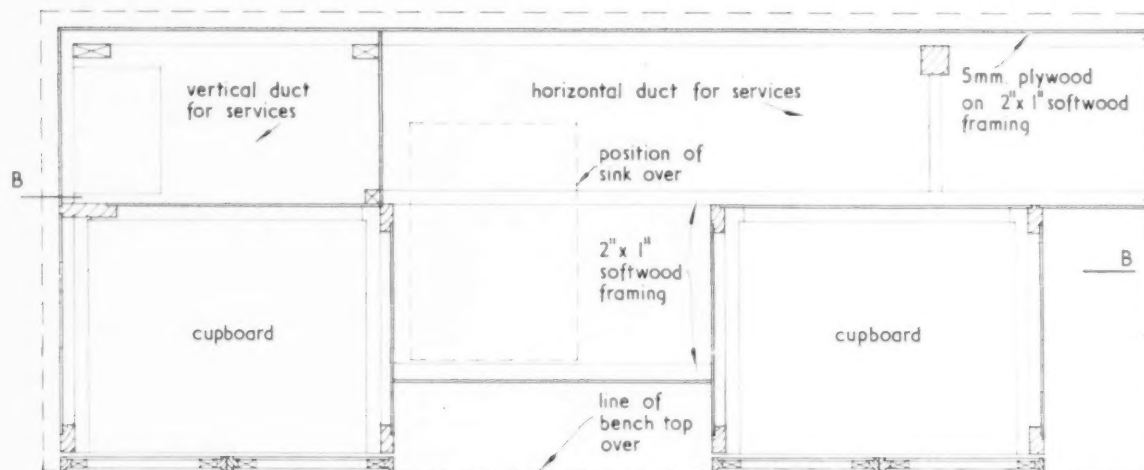
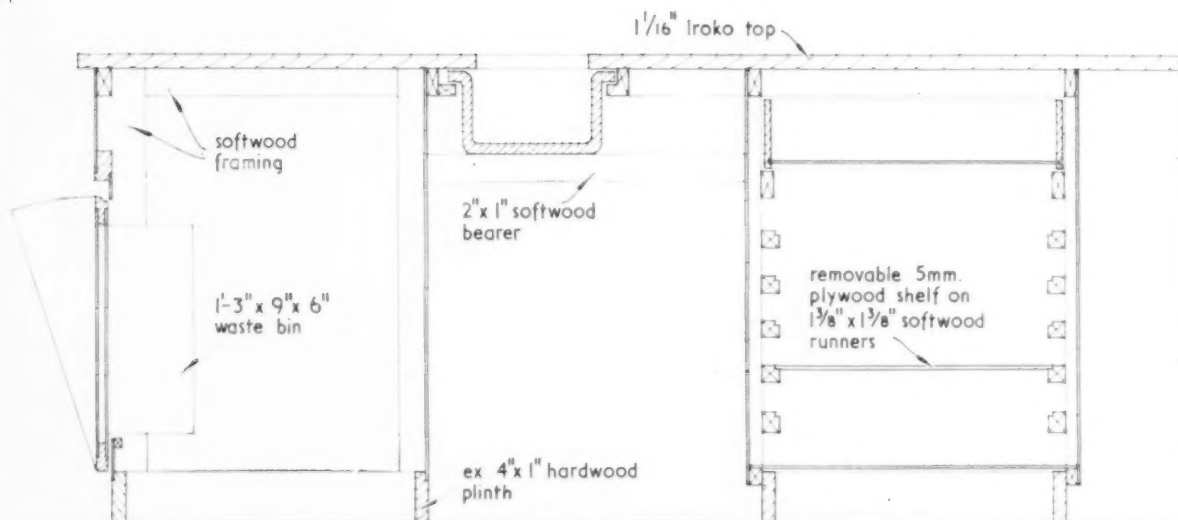
## FURNITURE AND FITTINGS: 119

CHEMISTRY BENCH: COLLEGE IN ST. ALBANS, HERTFORDSHIRE

G. C. Fardell, Architect to the Hertfordshire County Council

PLAN. scale  $\frac{3}{8}" = 1'-0"$ ELEVATION. scale  $\frac{3}{8}" = 1'-0"$ 

END ELEVATION.

PLAN AT A-A. scale  $1" = 1'-0"$ SECTION B-B. scale  $1" = 1'-0"$

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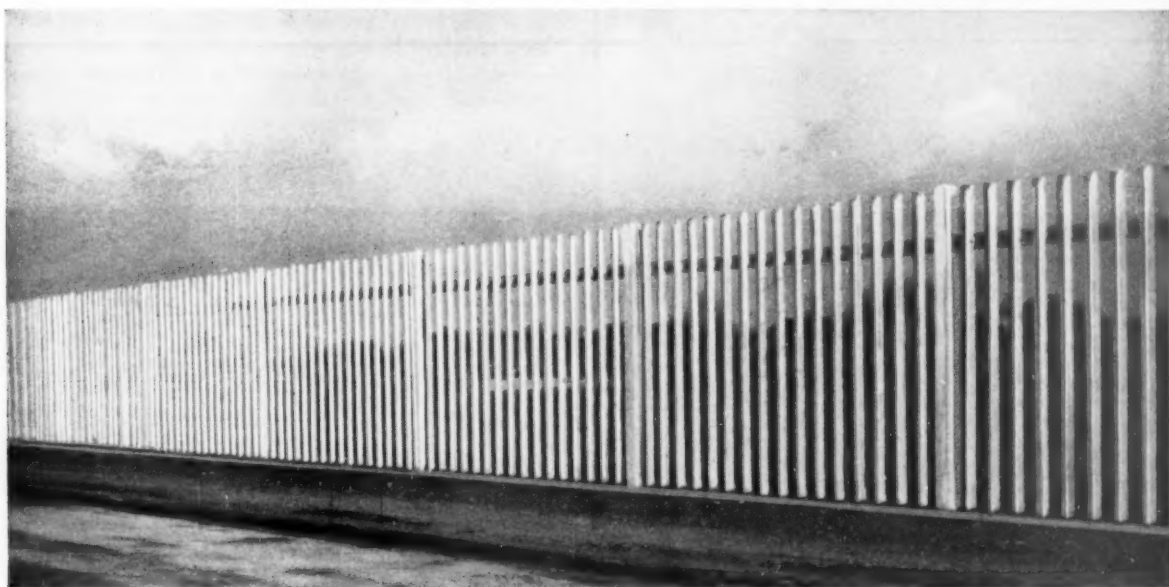
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## Announcements

### PROFESSIONAL

E. Weston Stanley, BA, ARIBA, has been appointed deputy city architect to the City of Leeds, under J. R. Sheridan Shedden. For the last eight years Mr. Stanley has been assistant city architect in charge of the education and general building programmes in Sheffield.

Edward Bell, ARIBA, John Coppock, DipArch, ARIBA, Allan Dorman, ARIBA, T. T. Houston, ARIBA, J. D. McCutcheon, LRIBA, and John Wilkinson, BA, ARIBA, have entered into a group partnership practising under the style of The Design Group at 8, Elmwood Avenue, Belfast 7, N. Ireland (telephone: 30934). The partners will also practise on their own account at their respective offices.

Nigel Biggar and Partners of 18, Parade Road, St. Helier, Jersey (telephone: Central 31391), have taken Geoffrey Myers, ARIBA, AADip, and David Barlow, BArch, into partnership.

David A. Wilkie and Partners are moving to 18, Woburn Square, London, WC1 (telephone: Langham 2593).

Peter Stiles, FRIBA, has taken into partnership Mrs. Mary C. Cree, ARIBA, AADip, of

D. N. L. Cree and Partners, Ashted. The new partnership will practise under the name of Stiles, Cree & Partners from Surrey House, Church Street, Leatherhead, Surrey (telephone: 5280). Trade catalogues should be sent to this address. Peter Stiles continues to practise at Grays Inn Chambers, 20, High Holborn, London, WC1.

James T. Gornall and Associates have moved to temporary premises at 1, Storey's Gate, Westminster, London, SW1 (telephone: Whitehall 8093).

### TRADE

Drycon Ltd. have moved to Williams Deacons Bank Chambers, Corn Market, Derby (telephone 43528).

Austins of East Ham Ltd. have acquired riverside premises for joinery production and storage at London Road, Barking.

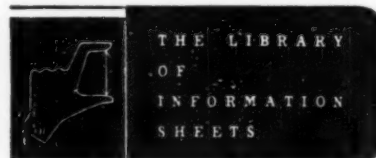
Celcure Ltd. have moved to Kingsway House, Kingsway, London, WC2 (telephone: Chancery 8325).

D. R. Walker, ACCS, has been appointed secretary of the Vitreous Enamel Development Council and the registered offices have been moved to 28, Welbeck Street, London, W1 (Hunter 2237).

Ekco Plastics Ltd. have moved their London offices to 41-47, Old Street, London, EC1.

J. K. Cliff has been appointed managing director of The Tentest Co. Ltd., in place of Anthony Friend, director of the company, who has become managing director of Riordon Cellulose Ltd., an affiliated company.

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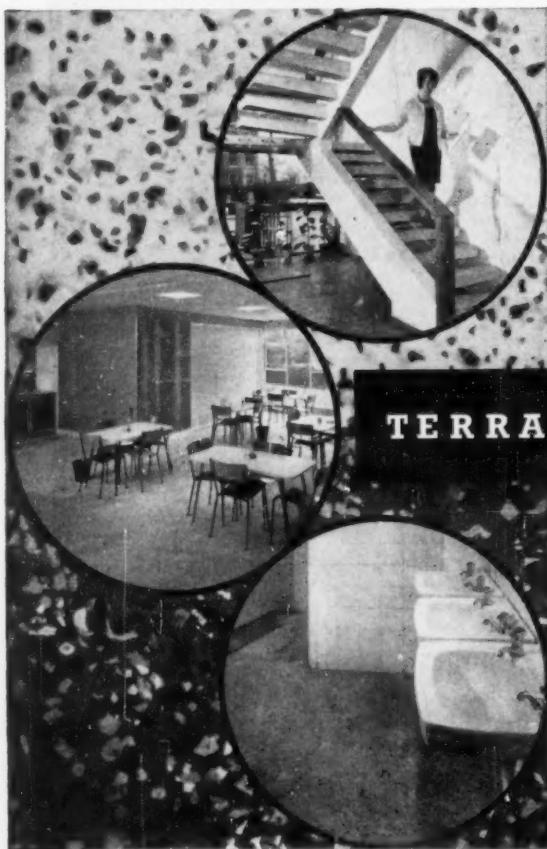
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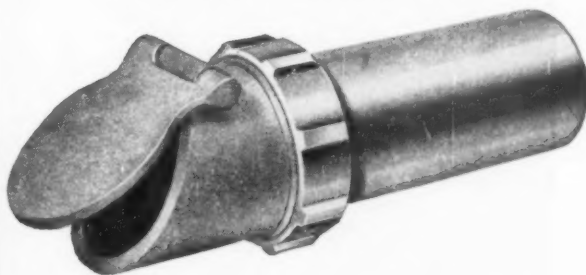
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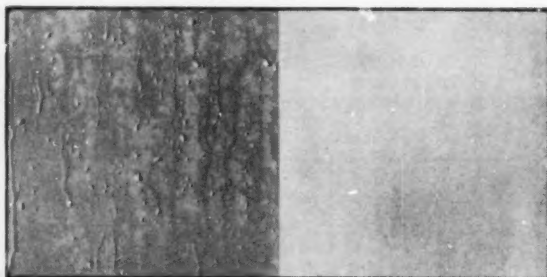
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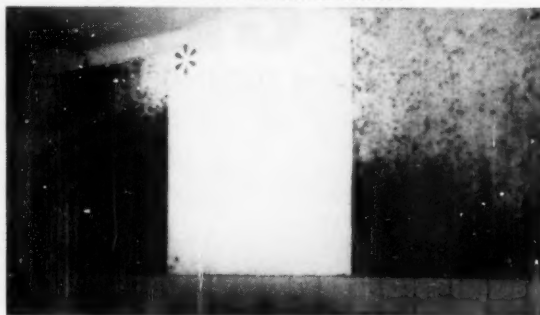
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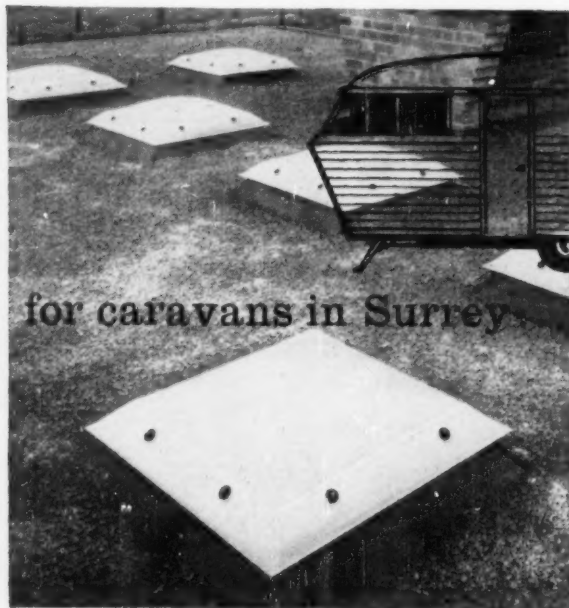
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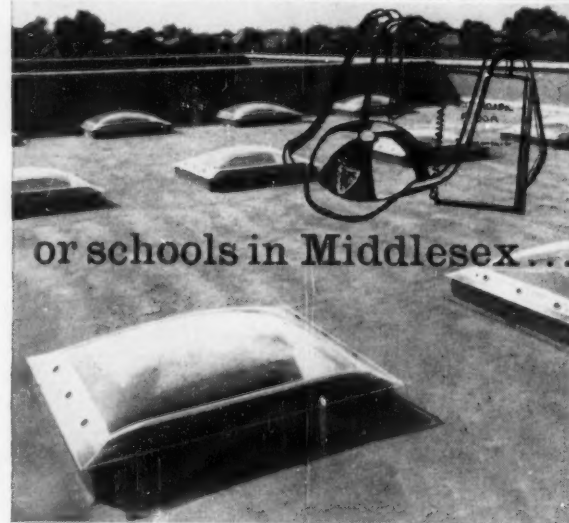
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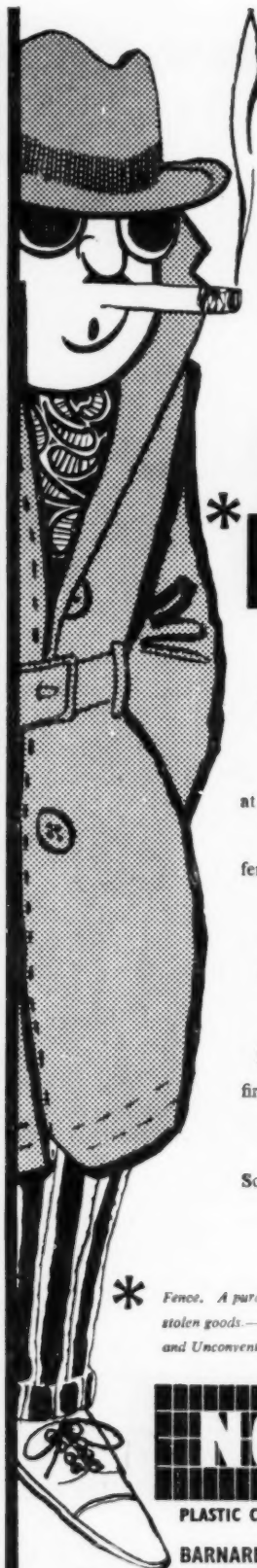
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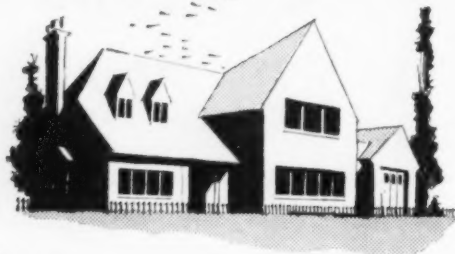
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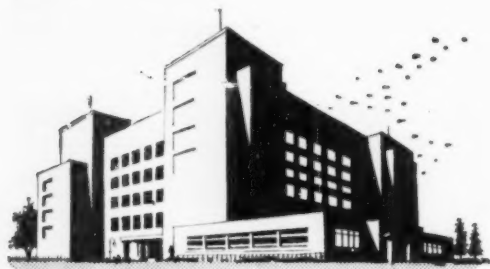
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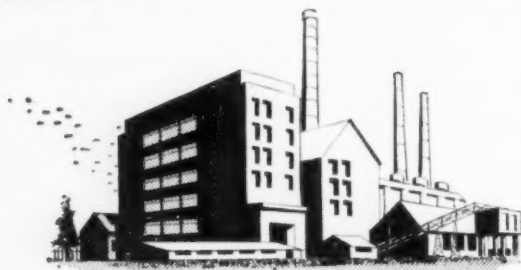
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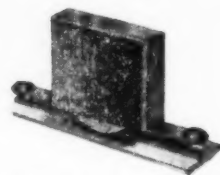
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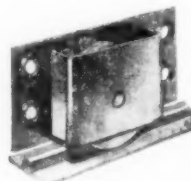
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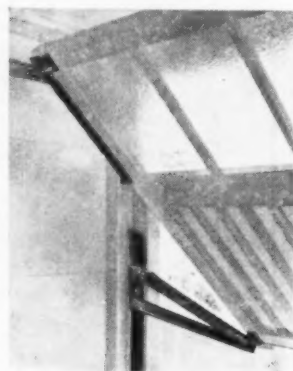
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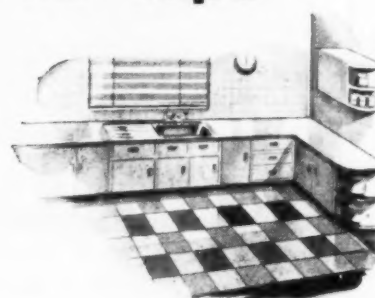
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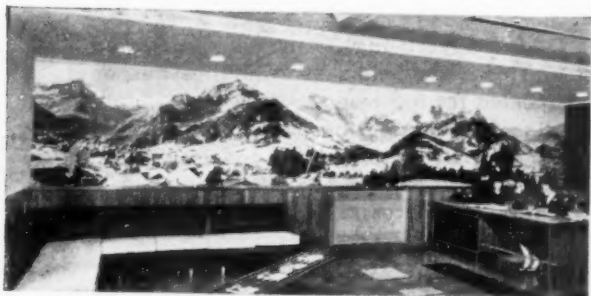
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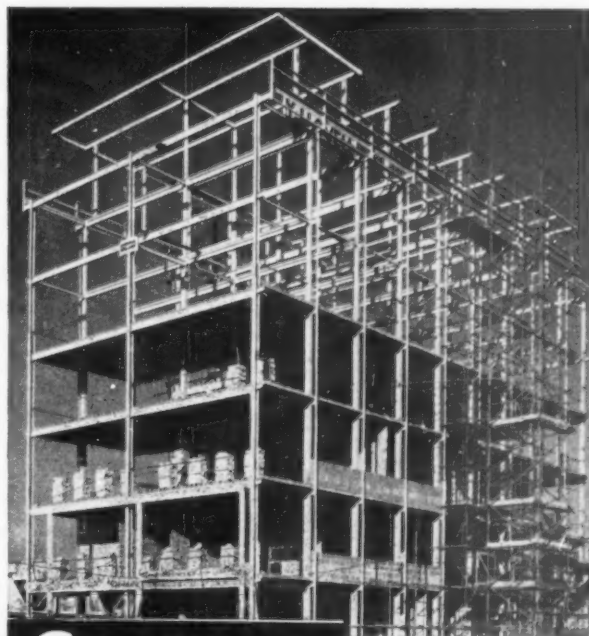
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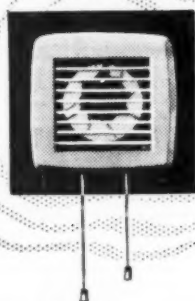
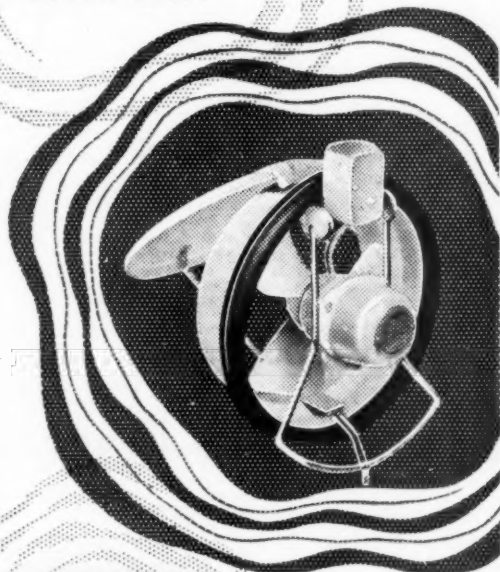
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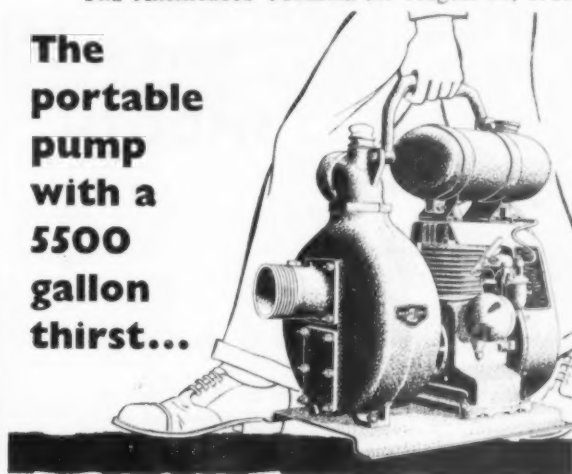
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THE ARCHITECTS' JOURNAL for August 30, 1961

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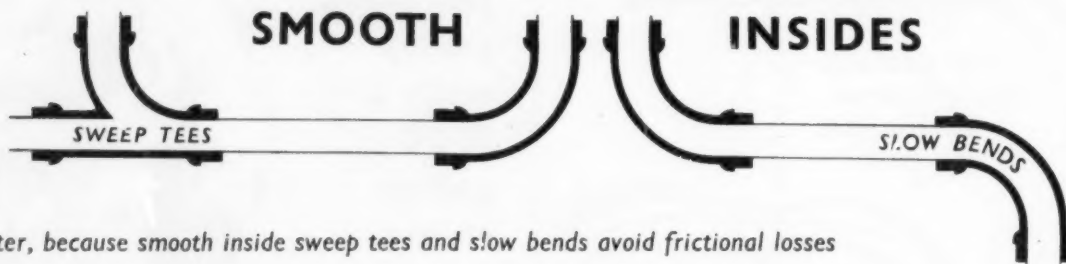
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The Manager,  
**A.B.S. Insurance Agency, Ltd.,**  
66, Portland Place,  
London W.1.  
Telephone: Langham 5533.

WO23

## 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 must reach there by first post Friday morning for inclusion in the following Wednesday'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 each week. The cost of this special service to Overseas subscribers will be 5s. for four weeks (i.e. 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

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

## CITY OF SHEFFIELD

## APPOINTMENT OF

- (a) ASSISTANT CITY ARCHITECT (Central Area).  
(b) ASSISTANT CITY ARCHITECT (Education and General).

Salary: J.N.C. Scale "E" £1,860-£2,120.

An exceptional opportunity occurs for two able and enthusiastic architects to take up these positions and carry the redevelopment of Sheffield a stage further.

In the Central Area Section the major tasks are (a) the design of the new Civic Centre, comprising Town Hall extensions, Law Courts, Police Buildings and Arts Centre and (b) the redevelopment of the Sheaf Valley.

Applicants for this post should either possess a town planning qualification or have a basic town planning approach to building design.

In the Education and General Section there is a continuing programme of major educational buildings, including Training Colleges, Residential Hostels, District Colleges, Secondary Schools, and interesting work for all other Committees except Housing. The person appointed for this post should have a special interest in modern building techniques, materials and programming and should be keen to accept the challenge for greater building productivity.

Full details of the appointments together with forms of application may be obtained from the City Architect, Mr. J. L. Womersley, and completed applications must be sent to the undersigned not later than 11th September, 1961.

JOHN HEYS,  
Town Clerk.

Town Hall,  
Sheffield, 1. S8948

## THE UNIVERSITY OF MANCHESTER

Applications are invited for two posts of LECTURER IN TOWN AND COUNTRY PLANNING. Applicants must be graduates in Planning or in an allied subject and be corporate members of the Town Planning Institute. Salary on a scale £1,650 to £1,850 per annum with membership of the F.R.S.U. and Children's Allowance Scheme; initial salary according to qualifications and practical experience. Applications should be sent not later than September 30th, 1961, to the Registrar, the University, Manchester 13, from whom further particulars and forms of application may be obtained. S8942

## BOROUGH OF RICHMOND (SURREY)

## APPOINTMENT OF

SENIOR ASSISTANT ARCHITECT  
Applications are invited from qualified Architects for the appointment of Senior Assistant Architect at a salary in accordance with Grade A.P.T. IV (£1,140-£1,310) plus London weighting.

Applications should be delivered to the Borough Engineer and Surveyor, King's Road, Richmond, Surrey, not later than 18th September, 1961, giving the names of three referees and stating relationship if any to Members of the Council or Senior Officers.

Canvassing prohibited. No assistance can be given with housing.

CLIFFORD HEYWORTH,  
Town Clerk.

Town Hall,  
Richmond, Surrey. S8925

## ADMINISTRATIVE COUNTY OF LEICESTER

## (a) PRINCIPAL ASSISTANT ARCHITECT,

£1,410-£1,565.

## (b) CHIEF ASSISTANT ARCHITECTS, £1,310-

£1,480.

## (c) SENIOR ASSISTANT ARCHITECTS, £1,140-

£1,310.

Candidates for (a) must be members of the R.I.B.A., have had sound experience and be capable of acting as Group Leaders on an extensive programme of education buildings. Candidates for (b) must be members of the R.I.B.A., have had considerable office experience and be capable of taking charge of contracts from inception to completion. For (c), should be members of the R.I.B.A., have had office experience and be capable of taking charge of small contracts. Lodging allowance and removal expenses may be paid to a married man. Apply on form obtainable from County Architect, 123 London Road, Leicester. TC9044

## BOROUGH OF SOLIHULL

## APPOINTMENT OF CLERK OF WORKS

Applications are invited for the above appointment in the Architect's Section of the Borough Engineer and Surveyor's Department at a salary in accordance with Miscellaneous Grade VII (£210 x £20 (2) x £25 (1)-£275 per annum).

Applicants should have been apprenticed in the building trade and have had considerable experience as craftsman and general foreman. In appropriate cases, housing accommodation will be provided as soon as possible, and the whole of an officer's removal expenses will be paid subject to 12 months' service with the Authority. The usual Local Government Conditions of Service will apply, and appointment will be subject to medical examinations.

Applications, giving full particulars as to past and present appointments, together with the names and addresses of two persons to whom reference can be made, should be submitted to the Borough Surveyor, 90, Station Road, Solihull, not later than Saturday, 9th September, 1961.

W. MAURICE MELL,  
Town Clerk.

16th August, 1961. S8945

COUNTY BOROUGH OF DEWSBURY  
BOROUGH ARCHITECT AND BUILDINGS  
SURVEYOR'S DEPARTMENT

Applications are invited for the following appointments within the scope of the grades stated:-

- (a) TOWN PLANNING ASSISTANT (should be A.M.T.P.I., A.P.T. Grade IV (£1,140-£1,310)).  
(b) ASSISTANT ARCHITECT (should be A.R.I.B.A., A.P.T. Grade IV (£1,140-£1,310)).  
(c) ARCHITECTURAL ASSISTANT, A.P.T. Grade I (£645-£815).  
(d) JUNIOR ARCHITECTURAL ASSISTANT/ DRAUGHTSMAN, General Division (£250-£530).

The provision of housing accommodation will be considered if required for appointments (a), (b) and (c).

Applications for forms and particulars of appointments to A. G. Beckett, A.R.I.B.A., A.M.T.P.I., Borough Architect and Buildings Surveyor, Town Hall, Dewsbury. Closing date 9th September, 1961.

A. NORMAN JAMES,  
Town Clerk.

Town Hall,  
Dewsbury. S8993

COUNTY BOROUGH OF DEWSBURY  
BOROUGH ARCHITECT AND BUILDINGS  
SURVEYOR'S DEPARTMENT

Applications are invited for the following appointment within the scope of the grade stated:-

- PRINCIPAL ASSISTANT QUANTITY SURVEYOR, A.P.T. Grade V (£1,310-£1,480). (This post ranks as Chief Assistant).

The provision of housing accommodation will be considered if required.

Applications for forms and particulars of appointment to A. G. Beckett, A.R.I.B.A., A.M.T.P.I., Borough Architect and Buildings Surveyor, Town Hall, Dewsbury. Closing date 9th September, 1961.

A. NORMAN JAMES,  
Town Clerk.

Town Hall,  
Dewsbury. S8992

CITY OF MANCHESTER  
CITY SURVEYOR AND ENGINEER'S  
DEPARTMENT

## APPOINTMENT OF

## ASSISTANT CITY PLANNING OFFICER

Candidates must be appropriately qualified by examination and must have had considerable experience in the Planning and Development work of a Local Authority.

Candidates are required to state salary required. The person appointed will be responsible to the City Surveyor for the control of the Planning and Development Section of the Department and the duties will include Comprehensive Redevelopment and New Development Work (including overspill), General Development and the location and planning of major highways.

Housing accommodation and removal expenses. Application forms from the Town Clerk, Town Hall, Manchester, 2, to be returned in an envelope endorsed "Assistant City Planning Officer," not later than 11th September, 1961. S8945

## CWMBRAN DEVELOPMENT CORPORATION

## APPOINTMENT OF

## ASSISTANT QUANTITY SURVEYOR

A QUALIFIED QUANTITY SURVEYOR is required for varied and interesting work in connection with the development of CWMBRAN NEW TOWN, the target population of which has recently been raised from 35,000 to 45,000. The appointment is in the salary range of £1,140-£1,310, the point of entry being in accordance with qualifications and experience.

Candidates should be experienced in taking-off, billing and abstracting, site measurements, valuation of work and the preparation of final accounts.

The post is superannuable, and housing accommodation will be made available to rent or buy. Applications stating age, experience, details of present and former employment (together with applicable salaries) and the names and addresses of two referees must reach the undersigned by first post on Monday, 11th September, 1961.

J. C. P. WEST, A.R.I.B.A., M.T.P.I.,  
Chief Architect.

Victoria Street,  
Cwmbran. S8996

## BOROUGH OF LYTHAM ST. ANNES

## APPOINTMENT OF

## CHIEF ASSISTANT ARCHITECT

Applications are invited for the position of Chief Assistant Architect in the office of the Borough Engineer and Surveyor, at a salary in accordance with A.P.T. IV (£1,140-£1,310). Candidates must have passed the Final R.I.B.A. examination. Housing accommodation will be provided, if required. The appointment is subject to the provisions of the Local Government Superannuation Acts and to the passing of a medical examination.

The commencing salary (within A.P.T. IV) will be agreed with the successful candidate.

Applications, giving details of age, education, qualifications and experience, accompanied by copies of two recent testimonials, should be forwarded to the undersigned not later than Friday, 15th September, 1961.

B. A. CORK,  
Town Clerk.

Town Hall,  
Lytham St. Annes. S8971

COUNTY BOROUGH OF SOUTHEAST-ON-SEA  
BOROUGH ARCHITECT'S DEPARTMENT  
ASSISTANT ARCHITECTS

Applications are invited for Assistant Architects to be appointed according to experience within grades A.P.T. IV to V (£1,140-£1,480).

A house will be available and removal expenses paid to successful applicants.

Applications with usual particulars and the names of referees should be sent to the Borough Architect, 30 Alexandra Street, Southend-on-Sea, by Monday, 18th September, 1961.

ARCHIBALD GLEN,  
Town Clerk.

August, 1961. S8904

## CITY OF CARDIFF

## CITY ARCHITECT'S DEPARTMENT

## CHIEF ASSISTANT ARCHITECT

## (CIVIC DESIGN)

J.N.C. SCALE "A", £1,485-£1,565.

Applications for this appointment are invited from qualified and experienced Architects to work under the Assistant City Architect (Civic Design), principally on the redevelopment of outworn shopping, business and housing areas. Experience in similar work and membership of the Town Planning Institute would be considered an advantage.

General Conditions of Appointment may be obtained from the undersigned. Applications stating age, qualifications, past and present appointments, details of experience and the names of two persons to whom reference can be made, should be delivered to me in appropriately endorsed envelopes and must be received not later than the 11th September, 1961.

S. TAPPER-JONES,  
Town Clerk.

City Hall,  
Cardiff. S8905

## BOROUGH OF ILFORD

## BOROUGH ENGINEER'S DEPARTMENT

## APPOINTMENT OF

## SENIOR ASSISTANT ARCHITECT

Grade A.P.T. V.

Candidates must be Associate Members of the R.I.B.A. and have suitable experience in the development of Council housing and multi-storey flats.

The commencing salary will be fixed within the scale (£1,310-£1,480) according to qualifications and experience. London weighting payable in addition. Five-day week.

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

The Council is prepared to consider, if necessary, the provision of housing accommodation. Application forms, obtainable from the Borough Engineer, P.O. Box 7, Town Hall, Ilford, should be returned not later than Monday, 11th September, 1961. S8907

## COUNTY BOROUGH OF SOUTHPORT

Applications are invited for the undermentioned appointments in the Borough Architect and Town Planning Officer's Department:-

- (a) ASSISTANT ARCHITECT-Grade A.P.T. III/IV-Salary £950-£1,310.

Applicants should be Registered Architects and/or Associates R.I.B.A.

- (b) TEMPORARY TOWN PLANNING ASSISTANT-Grade A.P.T. III-Salary £950-£1,140.

Applicants should be capable, with minimum supervision, of undertaking the first review of the Town Development Plan which includes:-Land Use Survey of the Borough, Preparation of Maps and Tables, Revision of Written Analysis and Written Statement.

- (c) TEMPORARY TOWN PLANNING ASSISTANT-Grade A.P.T. I-Salary £645-£815.

The successful applicant will be required to assist on the work of the Town Development Plan review, and should have a reasonable standard of draughtsmanship.

The Council will give favourable consideration to granting a 100 per cent. mortgage on house purchase.

NOTE: Successful applicants for Temporary Posts (b) and (c) will be required for at least two years.

Application forms may be obtained from the Borough Architect and Town Planning Officer, 99/105 Lord Street. Closing date 16th September, 1961. S8908

# CHEADLE AND GATLEY URBAN DISTRICT COUNCIL

**ARCHITECTURAL ASSISTANT, A.P.T. IV**  
Applications are invited for this appointment in the Department of the Engineer and Surveyor. Applicants should be qualified Architects, and have experience in Housing design and construction.

The appointment is subject to the usual conditions of service and one month's notice on either side.

The provision of housing accommodation will be considered.

Applications, including the names and addresses of two referees, must reach the undersigned by 16th September, 1961.

The Urban District is a very pleasant and rapidly growing residential area eight miles south-east of Manchester, the population being 45,000 and the area 5,300 acres.

**RICHARD ROBERTS,**  
Clerk of the Council.

Town Hall,  
Cheadle, Cheshire.  
14th August, 1961. 89015

## MINISTRY OF EDUCATION

requires for its London headquarters **TERRITORIAL ARCHITECTS** with experience in design of school buildings, and preferably age 35 or over. Duties include design consultation with Education Authorities, advisory work within Ministry and collaboration with Development Group. Starting salary normally at minimum of scale £1,516-£2,015. Posts unestablished but possibility of permanent pensionable appointments later. Five-day week of 42 hours; annual leave rising from 25 to 30 working days. Further details of the posts and application form from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1. Please quote J.116/1A. Closing date 18 September, 1961. 9099

## BASINGSTOKE, HAMPSHIRE

47 miles S.W. of London  
18 miles N. of Winchester  
40 miles N.W. of Chichester  
17 miles S. of Reading  
35 miles N.E. of the New Forest  
35 miles from the Coast.

### TOWN EXPANSION

A few key posts remain to be filled in the recently formed technical group whose primary concern is to design and implement a scheme for the expansion of Basingstoke from its present population of 25,000 to 75,000 by 1975.

The Group is organised on a team basis to deal with a wide variety of tasks, ranging from the preparation of basic development plans to the comprehensive redevelopment of the Central Area, and all tasks will be arranged within strict time schedules.

Applications for the following posts are invited from candidates who should hold architectural and/or planning qualifications, and each will be judged on design ability, experience and general architectural outlook. Gradients and commencing salaries to be within the ranges indicated, according to qualifications and experience. Those who are successful will be appointed to the staff of the Hampshire County Council and will work under the direction of the Chief Architect/Planning Officer for Basingstoke, Allan G. McCulloch A.R.I.B.A., A.M.T.P.I.

1. A SENIOR ARCHITECTURAL PLANNING OFFICER—SCALE D-F (£1,710-£2,345) is required to lead the central area design team.
2. ASSISTANT ARCHITECT / PLANNING OFFICERS—SCALE A-C (£1,480-£1,825) are required for both central area and general work.
3. JUNIOR ASSISTANT ARCHITECTS AND DRAUGHTSMEN—A.P.T. Grades I-IV (£645-£1,310) are required for a wide range of work.

The posts are pensionable. Separation allowance and assistance with removal expenses will be paid in approved cases.

Applications, stating full details of age, education, qualifications and experience, including present grade and salary, and accompanied by a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 12th September, 1961. 9100

## STAFFORDSHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

**VACANCIES**  
ASSISTANT ARCHITECTS: £1,140-£1,310.  
ASSISTANT QUANTITY SURVEYORS: £1,140-£1,310.

ARCHITECTURAL ASSISTANTS: £815-£960.  
Intermediate R.I.B.A. required.  
ARCHITECTURAL DRAUGHTSMEN: £555-£625. Four years' experience in a similar capacity is required.

The Architect's Department is a busy and expanding office, dealing with a wide variety of projects, including Fire Stations, Colleges, Schools, Police Stations, Offices, Ambulance Stations, Clinics, Libraries, etc.

Good working conditions, assistance with removal expenses, etc. There is a scheme for loans to employees wishing to purchase their own houses.

Forms of application from P. Woodcock, F.R.I.B.A., County Architect, Green Hall, Lichfield Road, Stafford.

Closing date—11th September, 1961.  
**T. H. EVANS,**  
Clerk of the County Council. 9082

## LINDSEY COUNTY COUNCIL

### PLANNING DEPARTMENT

Applications are invited for the following appointments:—

- (a) SENIOR ASSISTANT, A.P.T. IV, £1,140-£1,310.
- (b) ASSISTANT, A.P.T. III/IV, £960-£1,310.
- (c) JUNIOR ASSISTANT, Misc. II or A.P.T. I, £555-£625 or £645-£815.

Appointment (a) in design section of department—architectural control, estate layouts and central area redevelopment. Appointment (b) in development plan section with junior assistance on county review, town maps and village maps. Appointment (c) general duties, survey and draughtsmanship. Essential users car allowance, 10 n.p. for officers (a) and (b).

Candidates for (a) and (b) should hold final qualifications and have had previous experience in the respective duties of these appointments preferably in a county planning department. Candidates for (c) should hold Intermediate qualification or University Degree in Geography for A.P.T. I or otherwise have received practical training in a drawing office.

Commencing salary within advertised grades in all cases will have regard to qualifications and previous experience.

Superannuation and N.J.C. conditions of service as approved by the County Council. Canvassing will disqualify. Relationship to any member or senior officer of the Council to be disclosed in writing.

Applications, with particulars of age, training, qualifications and experience and names of two referees to County Planning Officer, County Offices, Newland, Lincoln, not later than 16th September, 1961. 89101

## STAFFORDSHIRE COUNTY COUNCIL COUNTY PLANNING AND DEVELOPMENT DEPARTMENT

Applications are invited for the appointment of a **PLANNING ASSISTANT** on A.P.T. Grade IV (£1,140-£1,310 per annum) in the Central Area Planning Office at Stafford.

The successful candidate will be engaged on varied and interesting work on the Development Plan including Town Maps and Village Plans. In view of the amount of field work involved, applicants should be able to drive.

Applicants should either have a professional qualification in planning or a university degree in Geography together with planning experience.

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

Applications, giving details of age, education, qualifications, present and previous appointments, experience and the names of two persons to whom reference may be made should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than the 16th September, 1961. Relationship to any member or senior officer of the County Council must be disclosed. Canvassing will disqualify.

**T. H. EVANS,**  
Clerk of the County Council. 9047

## Huddersfield College of Technology

Principal: DR. W. E. SCOTT, M.R.E.  
SCHOOL OF ART: Headmaster: B. G. COPE, A.R.C.A., F.R.S.A.

Required January, 1962, **GRADE B ASSISTANT (Male) IN ARCHITECTURE**. Degree or Diploma in Architecture and/or A.R.I.B.A. qualification.

Salary (Burnham Scale): £700 p.a. by £27 10s. p.a. to £1,150 p.a. There are additions for approved qualifications and training and the commencing salary may include increments for approved industrial experience.

Forms of application and further particulars obtainable from the Principal, to whom applications should be returned without delay.

**H. GRAY,**  
Clerk to the Governors. 9050

## 10th August, 1961.

### COUNTY BOROUGH OF ROCHDALE

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department.

- (a) QUANTITY SURVEYOR—Grade A.P.T. IV (£1,140-£1,310 per annum).
- (b) ASSISTANT ARCHITECT—Grade A.P.T. IV (£1,140-£1,310 per annum).
- or ARCHITECTURAL ASSISTANT—Grade II/III (£815-£1,140 per annum).

Applicants must be appropriately qualified, the commencing salary will be in accordance with experience and qualification.

Applications stating age, qualifications, present and previous appointments and experience, together with the names of two referees to the Borough Engineer and Surveyor, Town Hall, Rochdale, by 11th September.

Canvassing will disqualify. Relationship to any member or senior official of the Council must be disclosed. Appointments may be subject to medical examination.

**K. B. MOORE,**  
Town Clerk. 9104

Town Hall,  
Rochdale,  
August, 1961.

## STAFFORDSHIRE COUNTY COUNCIL COUNTY PLANNING AND DEVELOPMENT DEPARTMENT

Applications are invited for the appointment of **ASSISTANT PLANNING OFFICER** who will be in charge of the Design and Amenities Section of the Department at the Headquarters in Stafford. The appointment is on J.N.C. Scale "D" (£1,710-£1,975 per annum) and will be made at any point on the scale commensurate with the qualifications and experience of the applicant. Applicants should be corporate members of the Town Planning Institute and the Royal Institute of British Architects.

The Design and Amenities Section deals with all the architectural and aesthetic aspects of the Department's work. It is responsible for the planning of a large number of central and other redevelopment schemes; layouts for new housing areas; landscape design; a number of current reclamation schemes for derelict land; tree preservation and planting; planning for amenity under the National Parks Act within the designated area of Cannock Chase; and architectural control of development generally with special reference to historic buildings and archaeological sites. It is also the responsibility of the Section to organise occasional exhibitions and to undertake other public relations work.

Applicants should have good organising ability and should have a comprehensive and imaginative approach to design problems.

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

Applications, giving details of age, education, qualifications, present and previous appointments, experience and the names of two persons to whom reference may be made should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than 23rd September, 1961.

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

**T. H. EVANS,**  
Clerk of the County Council. 9076

## HACKNEY BOROUGH COUNCIL ENGINEER AND SURVEYOR'S DEPARTMENT

### VACANCIES FOR ARCHITECTURAL STAFF

Applications are invited for permanent appointments of **ASSISTANT ARCHITECTS** AND **ARCHITECTURAL ASSISTANTS** in the Architectural Section of the Department in Grades ranging between A.P.T. I (£645-£815) and A.P.T. V (£1,310-£1,480), plus London weighting allowance.

Grading and commencing salaries will be fixed according to training qualifications and experience.

The department has on hand a heavy and varied programme of Housing Development and other architectural projects.

In appropriate cases the Council will be prepared to consider 100 per cent. advances for house-purchase within or without the Borough.

Application forms obtainable from Town Clerk, Town Hall, Hackney, London, E.8, returnable by 9 a.m., 16th September, 1961. 89046

## LANCASHIRE COUNTY COUNCIL

### PLANNING DEPARTMENT

**PLANNING ASSISTANT** required at BURY, A.P.T. I to A.P.T. IV (£645-£1,310), commencing and maximum salary according to qualifications and experience. Candidates should have an appropriate University degree and/or be studying for or possess a recognised qualification in town planning, architecture, surveying or engineering. Disturbance allowances and removal expenses to a maximum of £125 may be granted in approved cases.

Applications giving age, qualifications, present appointment, experience, etc., and two referees, to the County Planning Officer (A), East Cliff County Offices, Preston, by the 5th September, 1961.

## ST. HELENS COUNTY BOROUGH

### BOROUGH ENGINEER'S DEPARTMENT

#### ARCHITECTURAL SECTION

Applications are invited for the following post:—  
**PRINCIPAL ASSISTANT ARCHITECT, A.P.T. GRADE V** (£1,310-£1,480 p.a.)

Applicants should be qualified Architects with good experience in general Municipal Development. The appointment will be subject to the provisions of Local Government Superannuation Act, N.J.C. Conditions of Service, Medical Examination, and will be terminable by one month's notice. The Council operates a five-day working week. Housing accommodation will be made available if required.

Applications, giving details of age, qualifications, present and past appointments, details of experience and names and addresses of two referees should be forwarded to the undersigned not later than September 12th, 1961.

Applicants must reveal relationship to any member or senior officer of the Council. Canvassing will disqualify.

**M. M. WARD,**  
M.I.Mun.E., M.T.P.I., A.M.I.Struct.E.  
Borough Engineer and Surveyor.

Town Hall,  
St. Helens. 9077

## AYCLIFFE DEVELOPMENT CORPORATION

New Town of Newton Aycliffe

### ASSISTANT ARCHITECT

Applications are invited for the above appointment at a salary within the range of Grades APT IV and VI of the Whitley Council for New Towns Staff salary scales, i.e., £1,140-£1,565 p.a. The commencing salary and grade will be fixed according to the qualifications and experience of the successful applicant.

The principal work for the successful applicant will be in connection with the development of the Town Centre and new forms of housing layout.

Appointment subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Housing accommodation available, if required.

Applications stating age, qualifications and experience together with the names of two referees to be sent to the undersigned not later than Monday, the 11th September, 1961.

A. V. WILLIAMS,  
*General Manager.*

Churchill House,  
Newton Aycliffe,  
Nr. Darlington.

## £800-£1,500

GO-OPERATIVE WHOLESALE  
SOCIETY LTD.

Architect's Department, Manchester  
have vacancies for

### ASSISTANT ARCHITECTS

within the range £800-£1,200 with annual increments of £50. Commencing salary dependent on ability and experience. Vacancies also exist for more experienced staff with a commencing salary up to £1,500 with prospects of promotion to a higher grade.

Five-day week. Three weeks' holiday.  
Pension Scheme.

Apply in writing, with details of age, qualifications and experience to—

G. S. Hay, F.R.I.B.A., Chief Architect,  
Co-operative Wholesale Society Ltd.  
1 Balloon Street, Manchester 4



TAYLOR WOODROW (OVERSEAS)  
LIMITED

require

### Architect

Applicants must have at least ten years experience in design and execution of working drawings for Industrial and Domestic Work. Experience in tropical designs would be an advantage.

Suitable candidates should have R.I.B.A. membership and be between 30 and 40 years of age. Salary, increments and other conditions are excellent. Applications should be sent in strict confidence to:—

Personnel Manager,  
Taylor Woodrow (overseas) Ltd.,  
Western House, Western Avenue, Ealing,  
W.5.

### INDUSTRIAL ARCHITECT

A large engineering concern in the East Midlands requires the full-time services of a suitably qualified Industrial Architect.

His duties will embrace the development and supervision of building and construction projects associated with a rapidly-growing industrial organisation.

The successful applicant will be expected to work with the Company's consulting architects and contractors, and will be familiar with all types of industrial structures, plant layout and the services required to support the undertaking.

This is an exciting and challenging opportunity for a keen man in the age bracket 30/40 to join a virile organisation with considerable expansion potential, both at home and overseas.

The salary envisaged, according to age and experience is £1,750 to £2,500 and this is accompanied by the usual benefits.

Applicants should write giving details of experience specifying projects for which they have been responsible, qualifications and their present salary, to:

WRIGHT ATKINSON LIMITED  
Appointments Consultants  
70 Queen Victoria Street  
London, E.C.4  
quoting reference No. H.6110

The identity of candidates will not in any circumstances be revealed to our Client Company without permission first having been given at a preliminary interview.

**CHEADLE AND GATLEY URBAN DISTRICT COUNCIL**

**ARCHITECTURAL ASSISTANT, A.P.T. IV**  
Applications are invited for this appointment in the Department of the Engineer and Surveyor. Applicants should be qualified Architects, and have experience in Housing design and construction.

The appointment is subject to the usual conditions of service and one month's notice on either side.

The provision of housing accommodation will be considered.

Applications, including the names and addresses of two referees, must reach the undersigned by 16th September, 1961.

The Urban District is a very pleasant and rapidly growing residential area eight miles south-east of Manchester, the population being 45,000 and the area 5,300 acres.

**RICHARD ROBERTS,**  
Clerk of the Council.

Town Hall,  
Cheadle, Cheshire.  
14th August, 1961. 89015

**MINISTRY OF EDUCATION**

requires for its London headquarters **TERRITORIAL ARCHITECTS** with experience in design of school buildings, and preferably age 35 or over. Duties include design consultation with Education Authorities, advisory work within Ministry and collaboration with Development Group. Starting salary normally at minimum of scale £1,515-£2,915. Posts unestablished but possibility of permanent pensionable appointments later. Five-day week of 42 hours; annual leave rising from 25 to 30 working days. Further details of the posts and application forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1. Please quote J.116/1A. Closing date 18 September, 1961. 9099

**BASINGSTOKE, HAMPSHIRE**

47 miles S.W. of London  
18 miles N. of Winchester  
40 miles N.W. of Chichester  
17 miles S. of Reading  
35 miles N.E. of the New Forest  
35 miles from the Coast.

**TOWN EXPANSION**

A few key posts remain to be filled in the recently formed technical group whose primary concern is to design and implement a scheme for the expansion of Basingstoke from its present population of 25,000 to 75,000 by 1975.

The Group is organised on a team basis to deal with a wide variety of tasks, ranging from the preparation of basic development plans to the comprehensive redevelopment of the Central Area, and all tasks will be arranged within strict time schedules.

Applications for the following posts are invited from candidates who should hold architectural and/or planning qualifications, and each will be judged on design ability, experience and general architectural outlook. Grading and commencing salaries to be within the ranges indicated, according to qualifications and experience. Those who are successful will be appointed to the staff of the Hampshire County Council and will work under the direction of the Chief Architect/Planning Officer for Basingstoke, Allan G. McCulloch, A.R.I.B.A., A.M.T.P.I.

1. A SENIOR ARCHITECT PLANNING OFFICER—SCALE D-F (£1,710-£2,345) is required to lead the central area design team.
2. ASSISTANT ARCHITECT / PLANNING OFFICERS—SCALE A-C (£1,480-£1,825) are required for both central area and general work.
3. JUNIOR ASSISTANT ARCHITECTS AND DRAUGHTSMEN—A.P.T. Grades I-IV (£645-£1,310) are required for a wide range of work.

The posts are pensionable. Separation allowance and assistance with removal expenses will be paid in approved cases.

Applications, stating full details of age, education, qualifications and experience, including present grade and salary, and accompanied by a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 12th September. 9100

**STAFFORDSHIRE COUNTY COUNCIL  
COUNTY ARCHITECTS' DEPARTMENT**

**VACANCIES**  
ASSISTANT ARCHITECTS: £1,140-£1,310.  
ASSISTANT QUANTITY SURVEYORS: £1,140-£1,310.  
ARCHITECTURAL ASSISTANTS: £815-£960. Intermediate R.I.B.A. required.  
ARCHITECTURAL DRAUGHTSMEN: £555-£625. Four years' experience in a similar capacity is required.

The Architect's Department is a busy and expanding office, dealing with a wide variety of projects, including Fire Stations, Colleges, Schools, Police Stations, Offices, Ambulance Stations, Clinics, Libraries, etc.

Good working conditions, assistance with removal expenses, etc. There is a scheme for loans to employees wishing to purchase their own houses.

Forms of application from P. Woodcock, F.R.I.B.A., County Architect, Green Hall, Lichfield Road, Stafford.

Closing date—11th September, 1961.  
**T. H. EVANS,**  
Clerk of the County Council. 9082

**LINDSEY COUNTY COUNCIL  
PLANNING DEPARTMENT**

Applications are invited for the following appointments:—

- (a) SENIOR ASSISTANT, A.P.T. IV, £1,140-£1,310.
- (b) ASSISTANT, A.P.T. III/IV, £960-£1,310.
- (c) JUNIOR ASSISTANT, Misc. II or A.P.T. I, £555-£625 or £645-£815.

Appointment (a) in design section of department—architectural control, estate layouts and central area redevelopment. Appointment (b) in development plan section with junior assistance on county review, town maps and village maps. Appointment (c) general duties, survey and draughtsmanship. Essential users car allowance, 10 h.p. for officers (a) and (b).

Candidates for (a) and (b) should hold final qualifications and have had previous experience in the respective duties of these appointments preferably in a county planning department. Candidates for (c) should hold Intermediate qualification or University Degree in Geography for A.P.T. I or otherwise have received practical training in a drawing office.

Commencing salary within advertised grades in all cases will have regard to qualifications and previous experience.

Superannuation and N.J.C. conditions of service as approved by the County Council. Canvassing will disqualify. Relationship to any member or senior officer of the Council to be disclosed in writing.

Applications, with particulars of age, training, qualifications and experience and names of two referees to County Planning Officer, County Offices, Newland, Lincoln, not later than 16th September, 1961. 89101

**STAFFORDSHIRE COUNTY COUNCIL  
COUNTY PLANNING AND DEVELOPMENT DEPARTMENT**

Applications are invited for the appointment of a **PLANNING ASSISTANT** on A.P.T. Grade IV (£1,140-£1,310 per annum) in the Central Area Planning Office at Stafford.

The successful candidate will be engaged on varied and interesting work on the Development Plan including Town Maps and Village Plans. In view of the amount of field work involved, applicants should be able to drive.

Applicants should either have a professional qualification in planning or a university degree in Geography together with planning experience.

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

Applications, giving details of age, education, qualifications, present and previous appointments, experience and the names of two persons to whom reference may be made should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than the 16th September, 1961.

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

**T. H. EVANS,**  
Clerk of the County Council. 9047

**HUDDERSFIELD COLLEGE OF TECHNOLOGY**

Principal: DR. W. E. SCOTT, M.B.E.  
SCHOOL OF ART: Headmaster: B. G. CORE, A.R.C.A., F.R.S.A.

Required January, 1962. **GRADE B ASSIS. TANT (Male) IN ARCHITECTURE.** Degree or Diploma in Architecture and/or A.R.I.B.A. qualification.

Salary (Burnham Scale): £700 p.a. by £27 10s. p.a. to £1,150 p.a. There are additions for approved qualifications and training and the commencing salary may include increments for approved industrial experience.

Forms of application and further particulars obtainable from the Principal, to whom applications should be returned without delay.

**H. GRAY,**  
Clerk to the Governors. 9050

10th August, 1961.

**COUNTY BOROUGH OF ROCHDALE**

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department.

- (a) QUANTITY SURVEYOR—Grade A.P.T. IV (£1,140-£1,310 per annum).
- (b) ASSISTANT ARCHITECT—Grade A.P.T. IV (£1,140-£1,310 per annum).
- or ARCHITECTURAL ASSISTANT—Grade II/III (£815-£1,140 per annum).

Applicants must be appropriately qualified, the commencing salary will be in accordance with experience and qualification.

Applications stating age, qualifications, present and previous appointments and experience, together with the names of two referees to the Borough Engineer and Surveyor, Town Hall, Rochdale, by 11th September.

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

**K. B. MOORE,**  
Town Clerk. 9104

Town Hall,  
Rochdale,  
August, 1961.

**STAFFORDSHIRE COUNTY COUNCIL  
COUNTY PLANNING AND DEVELOPMENT DEPARTMENT**

Applications are invited for the appointment of **ASSISTANT PLANNING OFFICER** who will be in charge of the Design and Amenities Section of the Department at the Headquarters in Stafford. The appointment is on J.N.C. Scale "D" (£1,710-£1,975 per annum) and will be made at any point on the scale commensurate with the qualifications and experience of the applicant. Applicants should be corporate members of the Town Planning Institute and the Royal Institute of British Architects.

The Design and Amenities Section deals with all the architectural and aesthetic aspects of the Department's work. It is responsible for the planning of a large number of central and other redevelopment schemes; layouts for new housing areas; landscape design; a number of current reclamation schemes for derelict land; tree preservation and planting; planning for amenity under the National Parks Act within the designated area of Cannock Chase; and architectural control of development generally with special reference to historic buildings and archaeological sites. It is also the responsibility of the Section to organise occasional exhibitions and to undertake other public relations work. Applicants should have good organising ability and should have a comprehensive and imaginative approach to design problems.

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

Applications, giving details of age, education, qualifications, present and previous appointments, experience and the names of two persons to whom reference may be made should be sent to D. W. Riley, County Planning and Development Officer, 41a, Eastgate Street, Stafford, not later than 23rd September, 1961.

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

**T. H. EVANS,**  
Clerk of the County Council. 9076

**HACKNEY BOROUGH COUNCIL  
ENGINEER AND SURVEYOR'S DEPARTMENT  
VACANCIES FOR ARCHITECTURAL STAFF**

Applications are invited for permanent appointments of **ASSISTANT ARCHITECTS AND ARCHITECTURAL ASSISTANTS** in the Architectural Section of the Department in Grades ranging between A.P.T. I (£645-£815) and A.P.T. V (£1,310-£1,480), plus London weighting allowance.

Grading and commencing salaries will be fixed according to training qualifications and experience.

The department has on hand a heavy and varied programme of Housing Development and other architectural projects.

In appropriate cases the Council will be prepared to consider 100 per cent. advances for house-purchase within or without the Borough.

Application forms obtainable from Town Clerk, Town Hall, Hackney, London, E.8, returnable by 9 a.m., 16th September, 1961. 89046

**LANCASHIRE COUNTY COUNCIL**

**PLANNING DEPARTMENT**

**PLANNING ASSISTANT** required at BURY, A.P.T. I to A.P.T. IV (£645-£1,310), commencing and maximum salary according to qualifications and experience. Candidates should have an appropriate University degree and/or be studying for or possess a recognised qualification in town planning, architecture, surveying or engineering. Disturbance allowances and removal expenses to a maximum of £125 may be granted in approved cases.

Applications giving age, qualifications, present appointment, experience, etc., and two referees, to the County Planning Officer (A), East Cliff County Offices, Preston, by the 5th September, 1961.

**ST HELENS COUNTY BOROUGH**

**BOROUGH ENGINEER'S DEPARTMENT  
ARCHITECTURAL SECTION**

Applications are invited for the following post:—  
**PRINCIPAL ASSISTANT ARCHITECT, A.P.T. GRADE V** (£1,310-£1,480 p.a.)

Applicants should be qualified Architects with good experience in general Municipal Development.

The appointment will be subject to the provisions of Local Government Superannuation Acts, N.J.C. Conditions of Service, Medical Examination, and will be terminable by one month's notice. The Council operates a five-day working week.

Housing accommodation will be made available if required.

Applications, giving details of age, qualifications, present and past appointments, details of experience and names and addresses of two referees should be forwarded to the undersigned not later than September 12th, 1961.

Applicants must reveal relationship to any member or senior officer of the Council.

Canvassing will disqualify.  
**M. WARD,**  
M.I.Mun.E., M.T.P.I., A.M.I.Struct.E.  
Borough Engineer and Surveyor.

Town Hall,  
St. Helens. 9077

## AYCLIFFE DEVELOPMENT CORPORATION

New Town of Newton Aycliffe

### ASSISTANT ARCHITECT

Applications are invited for the above appointment at a salary within the range of Grades APT IV and VI of the Whitley Council for New Towns Staff salary scales, i.e., £1,140-£1,565 p.a. The commencing salary and grade will be fixed according to the qualifications and experience of the successful applicant.

The principal work for the successful applicant will be in connection with the development of the Town Centre and new forms of housing layout.

Appointment subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Housing accommodation available, if required.

Applications stating age, qualifications and experience together with the names of two referees to be sent to the undersigned not later than Monday, the 11th September, 1961.

A. V. WILLIAMS,

*General Manager.*

Churchill House,  
Newton Aycliffe,  
Nr. Darlington.

## £800-£1,500

### CO-OPERATIVE WHOLESALE SOCIETY LTD.

Architect's Department, Manchester  
have vacancies for

## ASSISTANT ARCHITECTS

within the range £800-£1,200 with annual increments of £50. Commencing salary dependent on ability and experience. Vacancies also exist for more experienced staff with a commencing salary up to £1,500 with prospects of promotion to a higher grade.

Five-day week. Three weeks' holiday.  
Pension Scheme.

Apply in writing, with details of age, qualifications and experience to-

G. S. Hay, F.R.I.B.A., Chief Architect,  
Co-operative Wholesale Society Ltd.  
1 Balloon Street, Manchester 4



### TAYLOR WOODROW (OVERSEAS) LIMITED

*require*

## Architect

Applicants must have at least ten years experience in design and execution of working drawings for Industrial and Domestic Work. Experience in tropical designs would be an advantage.

Suitable candidates should have R.I.B.A. membership and be between 30 and 40 years of age. Salary, increments and other conditions are excellent. Applications should be sent in strict confidence to:-

Personnel Manager,  
Taylor Woodrow (overseas) Ltd.,  
Western House, Western Avenue, Ealing,  
W.5.

## INDUSTRIAL ARCHITECT

A large engineering concern in the East Midlands requires the full-time services of a suitably qualified Industrial Architect.

His duties will embrace the development and supervision of building and construction projects associated with a rapidly-growing industrial organisation.

The successful applicant will be expected to work with the Company's consulting architects and contractors, and will be familiar with all types of industrial structures, plant layout and the services required to support the undertaking.

This is an exciting and challenging opportunity for a keen man in the age bracket 30/40 to join a virile organisation with considerable expansion potential, both at home and overseas.

The salary envisaged, according to age and experience is £1,750 to £2,500 and this is accompanied by the usual benefits.

Applicants should write giving details of experience specifying projects for which they have been responsible, qualifications and their present salary, to:

WRIGHT ATKINSON LIMITED  
Appointments Consultants  
70 Queen Victoria Street  
London, E.C.4  
quoting reference No. H.6110

*The identity of candidates will not in any circumstances be revealed to our Client Company without permission first having been given at a preliminary interview.*

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

Applications are invited from Architects for the following posts:—

(a) **SENIOR ARCHITECT** to lead the work of the Town Centre and Industrial Section. Outstanding design ability and experience in the control of large projects is essential for this job requiring a comprehensive approach.

Grade A.P.T. IX. Salary within the range £1,715—£1,975 per annum.

(b) **GROUP LEADER** for a group engaged on design and contract management of Town Centre, Industrial or Housing projects.

Grade A.P.T. VI/VII. Salary within the range £1,305—£1,670 per annum.

(c) **ASSISTANT ARCHITECTS** to join groups engaged on projects as described in (b).

Grades A.P.T. IV and V. Salary within range £1,140—£1,480 per annum, according to ability and experience.

The New Town is about halfway towards its ultimate population of 106,000 and all the posts offer an exciting opportunity for Architects to undertake varied and advanced work on new development schemes.

The appointments are superannuable and subject to medical examination.

A house or flat is available.

Applications giving full details should be returned to the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, by not later than Monday, 11th September, 1961.

9054

**YORKSHIRE ELECTRICITY BOARD  
No. 4 (LEEDS) SUB-AREA  
SECOND ASSISTANT ENGINEER  
(CONSTRUCTION)**

Applications are invited for the position of **SECOND ASSISTANT ENGINEER (CONSTRUCTION)**.

The successful applicant will be required to take charge of the Sub-Area Drawing Office, supervising Electrical Building and Cartographic Draughtsmen, and maintaining liaison with the District Drawing Offices on Drawing Office practice and policy.

Applicants should have a good knowledge of modern drawing office practice and organisation; the ability to design and prepare specifications for all types of building will be an advantage.

Salary: N.J.B. Class L, Grade 7 (Scale 13)—£1,440—£1,610 per annum.

Applications, together with the names of two referees, should be sent to the Manager, No. 4 (Leeds) Sub-Area, Yorkshire Electricity Board, Bramhope, Leeds, not later than 13th September, 1961.

9055

**COUNTY BOROUGH OF BLACKPOOL**  
APPLICATIONS (by 18th September) are invited from **ARCHITECTS, QUANTITY SURVEYORS and DRAUGHTSMEN** in the **ARCHITECTS' SECTION** of the Borough Surveyor's Department on an extensive and varied programme of building work.

Vacancies exist for:—

**ASSISTANT ARCHITECTS, A.P.T. III/IV.** (£960—£1,310).

**ASSISTANT QUANTITY SURVEYORS, A.P.T. III/IV.** (£960—£1,310).

**ARCHITECTURAL ASSISTANTS, A.P.T. II.** (£915—£960).

**ARCHITECTURAL ASSISTANTS, A.P.T. I.** (£845—£915).

**DRAUGHTSMEN or DRAUGHTSWOMEN, MISC. III.** (£555—£625).

A five-day week is in operation in the Department.

The Council do not provide housing accommodation, but operate a Mortgage Scheme under which advances up to 100 per cent. are made in suitable cases.

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

89057

**BOROUGH OF JARROW**  
Applications are invited for the appointment of **CHIEF ASSISTANT ARCHITECT** in the Borough Engineer's Department. The salary to be within Grade A.P.T. IV/V (£1,140—£1,480 per annum) according to experience. Applicants to be A.R.I.B.A. or equivalent.

Further details and application forms obtainable from the Borough Engineer, Town Hall, Jarrow, Co. Durham.

Applications must reach the undersigned by Friday, 8th September, 1961.

**M. L. ROTHFIELD,**  
Town Clerk.

Town Hall, Jarrow.

9061

**STAINES URBAN DISTRICT COUNCIL  
ENGINEER AND SURVEYOR'S DEPARTMENT  
ARCHITECTURAL ASSISTANT, A.P.T. IV**  
£1,140—£1,310 plus London Weighting.

Applicants must have had a good experience in architectural design and building work under construction and should have passed the examination for associateship of the R.I.B.A.

Application form may be obtained from the Engineer and Surveyor, Shortwood House, 240 London Road, Staines, and must be returned to him in suitably endorsed envelope, not later than 5 p.m. on Monday, 18th September, 1961.

**F. ENTWISTLE,**  
Clerk of the Council.

89078

**ROYAL COUNTY OF BERKSHIRE  
ASSISTANT QUANTITY SURVEYOR  
A.P.T. GRADE IV (£1,140—£1,310)**

Candidates should be Associates of the R.I.C.S. (Quantities Sub-Division) or Members of the I.Q.S.

The office is engaged on all types of County Buildings and owing to the rapid increase in population a very full programme lies ahead.

There are a number of staff houses and flats, some of which become available from time to time, and assistance up to 75 per cent. of removal expenses is given.

Application forms obtainable from the County Architect, Wilton House, Parkside Road, Reading, are to be returned by the 5th September, 1961.

**COUNTY BOROUGH OF BURNLEY**

Applications are invited for the appointment of **QUANTITY SURVEYING ASSISTANT** in the Borough Engineer and Surveyor's Department at a salary in accordance with Grade I (£645 to £815 per annum) of the National Scales.

Applicants should have a sound knowledge of building construction and some experience in the preparation of Quantities and Measurement of Work is essential. Five-day week.

Forms of application, etc., may be obtained from the Borough Engineer, 22-24 Nicholas Street, Burnley, to whom applications should be returned not later than Friday, 15th September, 1961.

**C. V. THORNLEY,**  
Town Clerk.

89103

**CORPORATION OF LONDON**

Applications are invited for the following posts in the Building and Architectural Division of the City Surveyor's Office:—

**A. ASSISTANT BUILDING SURVEYOR** (Two vacancies).

Candidates must have passed the final examination of the R.I.C.S., possess a sound knowledge of building construction and the ability to prepare specifications for works of maintenance, and supervise contracts.

Salary range £1,055—£1,310.

**B. ARCHITECTURAL ASSISTANT.**

Applicants must be of Intermediate R.I.B.A. standard with the ability to prepare working and detailed drawings.

Salary scale £990—£1,095.

**C. JUNIOR ARCHITECTURAL OR SURVEYING ASSISTANT.**

Applicants should be studying for intermediate examination of the R.I.B.A. or R.I.C.S. and should possess a sound knowledge of building construction.

Salary scale £630—£990.

Write giving age and full details of previous experience, with the names of two referees, within fourteen days, to **THE CITY SURVEYOR, GUILDHALL, E.C.2.**

9079

**AIR MINISTRY require SENIOR WORKERS** UP in Quantities Division in London. Salary, which is dependent on age, qual. and exp., ranges from £1,045 to £1,188 (max.) on annual incremental basis. Five-day week with three weeks three days paid leave a year initially.

Some promotion and pension prospects. *Quals.*: Applicants, who must be natural born British subjects, should hold O.N.C. or C. & G. (Quantities) or equiv. and be fully competent to work up entire bills of quantities. Financial assistance and time off allowed for recognised courses of study leading to higher qual. Forms from Manager (PE 519), Ministry of Labour, Professional & Executive Register, Atlantic House, Farringdon Street, London, E.C.4. Candidates selected will normally be interviewed in London and certain expenses reimbursed. Only applicants selected for interview will be advised.

88144

**METROPOLITAN BOROUGH OF GREENWICH**

**PRINCIPAL ARCHITECTURAL ASSISTANT** required in Borough Engineer and Surveyor's Department. Salary Grade A.P.T. V (£1,355—£1,525 per annum including London Weighting).

Commencing salary in accordance with qualifications and experience. Candidates should be registered Architects preferably Associates of the R.I.B.A. with experience in housing and other municipal projects.

Application forms from Borough Engineer and Surveyor, Town Hall, Greenwich High Road, S.E.10. Closing date 15th September, 1961.

89080

**CITY OF BIRMINGHAM  
CITY ARCHITECTS' DEPARTMENT**

Appointments within Grades A.P.T. V (£1,310/£1,480) and A.P.T. IV (£1,140/£1,310) are offered to enthusiastic and imaginative qualified ARCHITECTS to take a responsible part in a large and interesting programme of work for the City of Birmingham, which includes housing, educational and other public buildings.

Candidates who have passed Parts I and II of the Final R.I.B.A. Examination or hold equivalent qualifications will be eligible for A.P.T. IV appointments.

Commencing salaries within the scales will be according to capabilities and experience.

Pension scheme. Five-day week. Medical examination.

Applications to the undersigned, stating age, present position and salary, qualifications, experience and names of two referees, to reach the undersigned by 15th September, 1961.

**A. G. SHEPPARD FIDLER,**  
City Architect.

Baskerville House, Civic Centre, Birmingham, 1.

89122

**AIR MINISTRY WORKS ORGANISATION** requires **QUANTITY SURVEYING 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.

Salary, which is dependent upon age, qualifications and experience, ranges from £749 (age 23) to £988 National Rate (max.) in Grade III. There are pension prospects and also opportunities of advancement to numerous posts in the higher grades, viz.

Technical Grade II: £988—£1,128 123 posts

Technical Grade I: £1,128—£1,388 42 posts

Technical Grade B: £1,388—£1,502 6 posts

Technical Grade A: £1,482—£1,747 5 posts

Vacancies occurring in these higher grades are as a rule filled by promotion of existing staff.

Overseas tours for which special allowances ranging at present up to £1,800 p.a. are payable in addition to a higher salary. Financial assistance and time off allowed for recognised courses of study leading to higher qualifications. Five-day week with 18 days paid leave a year initially.

Applicants who must be natural born British subjects, must hold O.N.C. (Building or Builders Quantities) or equivalent and had good experience under Quantity Surveyor or Building Contractor. Knowledge of W.D. Schedule an advantage. Forms from Manager (P.E.2), Ministry of Labour, Professional and Executive Register, Atlantic House, Farringdon Street, 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.

88923

**SOUTHAMPTON  
BOROUGH ARCHITECTS' DEPARTMENT**

Applications are invited for the following permanent posts:

(a) **SENIOR ASSISTANT ARCHITECTS,** A.P.T. Grade V (£1,310—£1,480).

(b) **ASSISTANT ARCHITECT, A.P.T. Grade III/IV** (£960—£1,310).

(c) **ARCHITECTURAL ASSISTANT, A.P.T. Grade II** (£815—£960).

Applicants should possess appropriate R.I.B.A. qualifications and for Post (a) should be fully experienced in the design and administration of major building projects.

Commencing salary within grade according to experience and qualifications.

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

Application forms from the Borough Architect, Civic Centre, Southampton, returnable by 9th September, 1961.

9071

**KENT COUNTY COUNCIL  
PLANNING DEPARTMENT**

(a) **ARCHITECTURAL ASSISTANTS.**

There is interesting work available for a number of architects in the Design Group, dealing with central area plans, redevelopment schemes, and to safeguard the visual character of Kent's towns and villages.

Grades A.P.T. V (£1,310—£1,480) or A.P.T. IV (£1,140—£1,310) or A.P.T. III (£960—£1,140).

Candidates should be corporate members of the Royal Institute of British Architects and the scope of the appointment would be widened if in addition to this the officer holds a planning qualification.

(b) **PLANNING ASSISTANTS.**

Grade A.P.T. I/II (£645—£960) or A.P.T. I (£645—£815).

These appointments are for work in connection with Development Plan or control of development. Candidates must have a University degree or diploma or have passed a recognised intermediate professional examination related to any technical aspect of the work of a Planning Department.

Commencing salary in each case will be fixed according to qualifications and experience. Posts are superannuable. Five-day week. Applications with names of two referees to County Planning Officer, County Hall, Maidstone, by 20th September, 1961.

9065

**LONDON COUNTY COUNCIL  
HISTORIC BUILDINGS SECTION OF  
ARCHITECTS' DEPARTMENT**

**ARCHITECT** to advise on applications under the planning acts affecting "listed" buildings; collection of historical information; dealing with Building Preservation Orders; attendance at public enquiries. Salary up to £1,500.

Application form and further particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/A/2435/9), County Hall, S.E.1, returnable by 29th September, 1961.

89092

**ARCHITECTS  
PUBLIC WORKS DEPARTMENT  
GOVERNMENT OF BERMUDA**

*Duties:* Duties will be those of a thoroughly experienced Architect capable of undertaking a project from the design stage to completion in the office and in the field, including structural design.

*Qualifications:* Candidates, preferably not over 35 years of age, must be A.R.I.B.A. with at least three years post qualification experience.

*Terms of Appointment:* On contract for one tour of three years. Salary £1,600—£1,900 per annum plus a 25 per cent. cost of living allowance. Free passages. Rented quarters. No Income Tax. Write to Director of Recruitment, Department of Technical Co-operation, Carlton House Terrace, London, S.W.1, quoting RC 210/13/03/Eg and giving full names, age, qualifications and experience.

9113

## CITY PLANNING urban renewal in Glasgow

The City's Development Plan includes 29 C.D.As and 4 miles of urban motorway—its implementation demands a substantial increase in the establishment of the **PLANNING DIVISION**

Applications are invited from persons\* qualified by training or experience who feel that they could make a positive contribution towards solving this challenging problem.

The Planning Division is grouped into four principal work teams

- development plan
- comprehensive development areas
- central area
- development control

Opportunities exist for specialisation or for general participation in all aspects of City Planning.

\* **PLANNERS, ARCHITECTS, ENGINEERS, ECONOMISTS, GEOGRAPHERS, LANDSCAPE ARCHITECTS, SURVEYORS**

and those interested or seeking qualification in these fields

**Principal Assistants** Form of Application from  
£1,630-1,770 Principal Administrative Officer

**Senior Assistants** 20 Trongate, Glasgow, C.I.  
£1,345-1,560

**Planning Assistants**  
£850-1,150

A. G. JURY, CITY ARCHITECT AND DIRECTOR OF PLANNING.

## MANCHESTER CORPORATION

## ENGINEERS & PLANNERS

Grades JNC 'B' (£1420/£1670) and APT V (£1310/£1480)

Engineering appointments offer experience in an extensive programme of design and construction work including highway improvements, new major roads and bridges, main drainage, airport extensions and new roads and sewers on housing sites.

The Planning appointments offer practical experience in comprehensive redevelopment schemes in central areas and in large scale new residential development projects.

Applicants must be appropriately qualified.

### *Housing Accommodation and Removal Expenses*

Applications giving details of age, qualifications, and experience, together with the names of three referees, to the

City Surveyor, Town Hall, Manchester, 2



## ARCHITECT

AND

## TECHNICAL ASSISTANTS

To meet increasing demands in a thriving industry

### SOUTH WESTERN ELECTRICITY BOARD

are expanding their Property Section at Bristol to provide new, and improve existing, offices, service centres, stores and depots. The following appointments offer opportunities to hard workers with personality and technical ability

**SENIOR ARCHITECT** (and deputy to the Head of the Property Section)

Salary within the range £1,595 to £1,830 Must be a qualified architect, able to accept responsibility for substantial projects

**TECHNICAL ASSISTANTS** (two appointments)  
Salary within the range £1,130 to £1,325 Must be able, under minimum supervision, to prepare working drawings and specifications for a wide variety of building work, including alterations to existing buildings. Qualifications desirable but not essential

Superannuation scheme. Office restaurant. Good holidays. Applications, stating age, present post and salary, qualifications and experience, should be addressed to

C. F. J. Southcott

SOUTH WESTERN ELECTRICITY BOARD  
Electricity House, Colston Avenue, Bristol 1

## ATCOST

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—the specialist designers and builders  
of modern industrial buildings  
are increasing their staff of

## Qualified Architects and Assistants

IN WARWICKSHIRE · KENT · ESSEX

### ABILITY AND ENTERPRISE OF PARAMOUNT IMPORTANCE

Superannuation and substantial  
bonus schemes in operation

### EXCELLENT PROSPECTS in rapidly expanding organisation

Replies, in confidence, to General Manager  
**ATCOST (FACTORIES) LTD., YORK HOUSE,  
TUNBRIDGE WELLS, KENT**

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## ATCOST

**ARCHITECTURAL  
ASSISTANTS and  
DRAUGHTSMEN**

**All Grades**

Required for heavy programme of building development.

Good working conditions in pleasant surroundings. 5-day week. Progressive salaries commensurate with age and ability. Continuous employment. Pension scheme. Staff canteen.

Interviews to suit applicants.

Write or Phone:—

**District Architect,  
F. W. WOOLWORTH and CO., LIMITED  
1266, London Road, Nurbury, London, S.W.16**

Telephone: POLIards 5050

**BRIGHTSIDE**

**HEATING & ENGINEERING CO. LTD.**

requires a

**QUANTITY SURVEYOR**

well versed in building contract procedure.

The position is progressive and will entail travelling to and from the Company's branches throughout the country as necessary, although based at Ecclesfield, near Sheffield.

Pension and Life Assurance Schemes in operation.

Please write giving full particulars of experience to:—

**THE MANAGING DIRECTOR,  
BRIGHTSIDE HEATING &  
ENGINEERING CO. LTD.  
G.P.O. BOX 118,  
SHEFFIELD, 1**



Capable

**Architectural  
Assistant**

required by

**MOBIL OIL COMPANY LIMITED**

*in their London Division Office.*

The post offers opportunity for neat and experienced draughtsman to take responsibility for the design and supervision of small contracts and to gain experience in the surveying of new and existing sites. Salary in accordance with experience. Luncheon Vouchers, sickness benefits, etc.

*Write quoting AA. 9838 giving full details of age, experience and salary required to:*

**Employee Relations Adviser,  
MOBIL OIL CO. LTD.,  
Caxton House, Tothill Street, London, S.W.1.**

**BUNTING**

**JUNIOR  
ARCHITECTURAL  
DRAUGHTSMAN REQUIRED**

AGE 18-22

Large housing programmes being prepared for North Wales Areas

Site surveying experience an advantage but not essential

Please write stating age, career to date and salary required to

**V. E. MADELEY A.R.I.B.A.  
AREA ARCHITECT,  
BUNTING ESTATES LTD.,  
5 MOSTYN STREET, LLANDUDNO**

CITY OF LIVERPOOL  
ARCHITECTURAL AND HOUSING  
DEPARTMENT

Applications are invited for the appointment of **CHIEF ASSISTANT (STRUCTURAL ENGINEERING)**. Salary £1,560-£1,825 per annum, J.N.C. scale "C". The person appointed will be in charge of the Structural Engineering Sub-Section of the Department. The work concerns the construction of new buildings, including the educational and housing programmes of the City.

Applicants should be Associate Members of the Institute of Civil Engineers or Structural Engineers or hold an equivalent qualification.

Application form, returnable by the 18th September, 1961, is obtainable from the City Architect and Director of Housing, Blackburn Chambers, Dale Street, Liverpool, 2.

The appointment is superannuable and subject to the Standing Orders of the City Council. Canvassing disqualifies.

THOMAS ALKER,  
Town Clerk.  
9112

WEST SUSSEX COUNTY COUNCIL  
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointment:

**ARCHITECTURAL ASSISTANT** at a salary not exceeding £960 per annum. Commencing salary will be according to experience.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom all detailed applications must be submitted by 18th September, 1961.

T. C. HAYWARD,  
Clerk of the County Council.  
County Hall, Chichester. 9120

## BOROUGH OF HARROW

Applications are invited for appointments on the Architectural Staff of the Borough Engineer and Surveyor's Department, which is engaged on a varied programme of municipal building schemes.

**ARCHITECTURAL ASSISTANTS, A.P.T. III/IV** (£960 to £1,310 per annum plus London "weighting"). Commencing salaries will be in accordance with qualifications and experience, but applicants who are qualified will be given additional responsibilities and may be placed in A.P.T. IV (£1,140 to £1,310 per annum). The Council may be able to help with housing accommodation in the light of the applicant's circumstances.

A contribution towards removal expenses will be considered.

The appointments are subject to the Local Government Superannuation Acts and to the National Joint Council's Scheme of Conditions of Service.

Forms of application may be obtained from me, and must be returned not later than Friday, the 22nd September, 1961.

D. H. PRITCHARD,  
Town Clerk.  
Harrow Weald Lodge,  
Harrow Weald,  
Harrow. 89121

## COVENTRY

Applications are invited for Planning Division posts:

(a) **SENIOR PLANNING OFFICER**—Scale "A" (£1,350-£1,565) or A.P.T. V (£1,310-£1,480) according to qualification experience.

(b) **AREA PLANNING OFFICER**—A.P.T. IV (£1,140-£1,310) or A.P.T. III (£960-£1,140) according to qualification experience.

Applicants for post (a) must hold appropriate planning qualifications and should preferably have had experience in Development Control work. The person appointed will act as deputy to the Assistant Principal Planning Officer in matters relating to Development Control and will be concerned with the co-ordination of development control work for the whole of the City.

Post (b) offers interesting duties in development control and enforcement work and preparation of appeal evidence for an area division of the City, with close liaison with the Planning Policy and Redevelopment Groups.

All posts permanent and pensionable subject to satisfactory medical certificate. Housing accommodation recommended in approved circumstances or up to 95 per cent. advance for house purchase. Removal expenses loan. Five-day working week.

Application forms from Department of Architecture and Planning, Council House, Coventry, returnable within 10 days publication. 9072

**LEEDS REGIONAL HOSPITAL BOARD**  
Applications are invited for the appointment of **CLERK OF WORKS** (temporary). The duties of the post are associated with the Board's increased building programme.

Candidates should have had experience of a variety of building projects including alteration works, and membership of the Institute of Clerks of Works is a desirable qualification.

Salary Scale £800-£40 (£1-£1,050) (commencing salary dependent on relevant experience). Applications, stating age, qualifications, present and previous employment and names of two referees to the Secretary, Park Parade, Harrogate, by 9th September, 1961. 9123

## SOUTHAMPTON

## BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the following permanent posts:—

(a) **SENIOR ASSISTANT PLANNING OFFICER** (Landscape), Scale "A" (£1,380-£1,565).

Applicants should be qualified Landscape Architects and preferably members of the T.P.I., to be in charge of small landscape group, with considerable opportunity for preparing and carrying through schemes of urban landscaping.

(b) **ASSISTANT PLANNING OFFICER**, Grade A.P.T. V (£1,310-£1,480).

Applicants should be members of the T.P.I. and preferably R.I.B.A., experienced in the redevelopment of central urban areas.

Commencing salary within grades according to experience and qualifications.

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

(c) **JUNIOR PLANNING ASSISTANT**, preferably with planning and draughtsmanship experience.

Salary according to age and experience within the scale up to £630 per annum.

Day release and financial assistance for study. Application forms from the Borough Architect, Civic Centre, Southampton, returnable by 16th September, 1961. 9124

## LONDON COUNTY COUNCIL

## ARCHITECT'S DEPARTMENT

Town Development Division require an **ARCHITECT** or **ARCHITECT/PLANNER** with constructional experience to lead a design team working on a major central urban renewal and extension project. Grade I vacancy; salary up to £1,700.

Application form and particulars, returnable by 16th September, 1961, from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/A 2438/8), the County Hall, S.E.1. 9093

## CORPORATION OF LONDON

Applications invited for **SITE ARCHITECT**, for partial redevelopment of London Central Markets, including construction of shops, offices, etc. Up to £1,480 p.a. according to experience and qualifications.

Age and experience, with names of two referees, WITHIN FOURTEEN DAYS, to City Surveyor or Guildhall, E.C.2. 9062

MIDLOTHIAN COUNTY COUNCIL  
COUNTY ARCHITECT'S DEPARTMENT,  
EDINBURGH

**QUALIFIED ARCHITECTS**  
Salary Scale £1,135-£1,345-£1,595, placing according to experience and ability. Applications, giving full details of experience together with names of two referees should be submitted to The County Clerk, County Buildings, George IV Bridge, Edinburgh 1 by Wednesday, 6th September, 1961. 9108

## SURREY COUNTY COUNCIL

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

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

Full details, present salary and three copy testimonials, preferably one from present employer, to County Architect, County Hall, Kingston, as soon as possible. 89051

## Tenders Invited

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

## BOROUGH OF EALING

Tenders are invited for the construction of a Covered Way, Lavatories and Printing Room at the rear of the Town Hall, Uxbridge Road, Ealing, W.5.

Details from Borough Engineer, Town Hall, Ealing, W.5, on payment of £2, returnable on receipt of bona fide Tender.

Closing date of Tender: 22nd September, 1961.

E. J. COPE-EROWN,  
Town Clerk. 89118

## Architectural Appointments Vacant

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

**ARCHITECTURAL ASSISTANT.** Man or Woman with some office experience required for interesting country practice. L. H. Bond and R. W. Read, 44, Castlegate, Grantham. TC8851

**LANCHESTER & LODGE** urgently require **ARCHITECTURAL ASSISTANTS** of all grades. Work includes hospitals, laboratories, universities, offices, housing, etc. Write full particulars or ring for interview: 10, Woburn Square, W.C.1. MUS 0845-6-7. TC7248

**A FEW** vacancies still left for experienced and confident **ARCHITECTS** to fill positions of responsibility in a growing and varied practice with industrial and commercial work throughout the southern half of the country. Applicants must have initiative as well as architectural ability to carry through contracts up to £100,000, working directly with Principals but with minimum supervision. Apply in writing to Thomas Mitchell & Partners, 20 Bedford Square, London, W.C.1. TC7443

**BRYAN & NORMAN WESTWOOD** require **ASSISTANT ARCHITECTS**. Salaries up to £1,200. Apply to 21 Suffolk Street, S.W.1, Trafalgar 1106, or 5 Balfour Road, Weybridge, Surrey, 6088. TC8600

**£1,000** / £2,000 p.a. will be paid to experienced competent **ARCHITECTS** by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box TC9360.

**£850-£1,600.** **ARCHITECTURAL ASSISTANTS** required. Long term prospects. Non-contributory pension and life assurance schemes. Five-day week. Telephone or write: Ronald Ward & Partners, 29, Chesham Place, Belgrave Square, S.W.1. Belgrave 3361. TC6106

**ARCHITECTS' ASSISTANT** required, up to Intermediate standard, to work on large and interesting projects. Salary within range £600-£800. Applicants must be good draughtsmen, with sound knowledge of detailing. Please write giving full particulars of experience, age, etc., to: F. W. Beech & E. Curnow Cooke, F.R.I.B.A., 15, Dix's Field, Exeter. TC6706

**WOLVERHAMPTON.** Norman & Dawbarn require an **ASSISTANT** in their Midlands Office. This position could afford useful experience of small and medium size jobs in a young but expanding office, with possibility of later transfer to London Office or overseas if desired. Minimum two years' office experience required if qualified, four years' if Intermediate. Excellent working conditions, five-day week, three weeks' leave, L.V.s. etc. Write or phone 7 Portland Place, London, W.1 (Langham 8011), or Heanton House, Salop Street, Wolverhampton (Tel. 27387). TC8548

**INTERMEDIATE** standard **ASSISTANT** needed by small progressive office for work on wide range of jobs. Offices in pleasant surroundings. 35-hour week ending daily at 4.30. Phone Riley & Glanfield at Chancery 7328 or write to 6, Raymond Buildings, Gray's Inn, W.C.1. TC8624

**HOWARD V. LOBB & PARTNERS** require **ASSISTANT ARCHITECTS**. Salaries would be between £750 and £1,250 per annum. Please write to 20, Gower Street, W.C.1. TC7789

**CAPABLE ASSISTANT**, with ability and experience, to deal with work from sketch stage to final account stages, offered senior position with good salary in London head office of well-established firm. Apply Box TC8816.

**ARCHITECT**, with minimum five years' office experience, competent in design and administration of contracts, required for well-paid position of responsibility in London office. Apply Box TC8815.

**ASSISTANT ARCHITECTS** with Site experience, initiative and design ability, required as **GROUP LEADERS** immediately. Salary according to experience. Qualification, although advantageous, not essential if other qualities are present. Raymond Spratley & Partners, 9, Hertford Street Park Lane, W.1. GROsvenor 7912. TC8817

**LESLIE MARTIN** and Colin St. John Wilson require **JUNIOR ASSISTANT** to work in their office near Cambridge. State training, experience, etc. Box TC8746.

**ARCHITECTURAL ASSISTANTS** of all 21 grades, particularly Intermediate standard, required on varied and interesting projects. High salaries will be paid in accordance with skill or experience of applicant. Lewis Solomon, Kaye & Partners, City 8811. TC5970

**WEST AFRICA.** Qualified **ARCHITECT** with minimum five years experience and considerable administrative/organisational ability, required by Kenneth Scott Associates for their Ghana office. 18-month tours with three months paid leave. Salary £1,700 p.a. plus free accommodation and car. Phone WEL 2915 or write to 81, Wimpole Street, W.1, for interview. 9073

**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 TC5848.

**ARCHITECTS** in Watford, London and Glasgow require **ASSISTANTS** of Intermediate/Final R.I.B.A. standard for work on interesting commercial and industrial projects. Salary range: £800-£1,250. Quarterly bonus scheme. Non-contributory pension scheme. Apply Box TC8120.

**ARCHITECTURAL ASSISTANT**—varied work on airports, industrial buildings, offices, etc., at home and abroad. Age range say 25-30. Intermediate standard to and A.R.I.B.A. Scope for individual architectural ability in a group of architects and assistants working as a team. Please indicate fully qualifications and experience as such will be basis of remuneration. Sir Alexander Gibb & Partners (H. L. Ford, F.R.I.B.A.), Queen Anne's Lodge, Westminster, S.W.1. 9086

**ARCHITECTURAL ASSISTANT** required to carry out design work on large projects. Salary £1,000-£1,200 according to ability. Write giving details of design, training and experience to: W. H. Rogers, 16 Mark Lane, E.C.3. 9085

# **£800-£1,600. LIVERPOOL and YORK offices**

require ARCHITECTS and ASSISTANTS with the experience, drive and design ability to handle Church, College, School and Industrial projects from preliminary sketch to final account.

**WEIGHTMAN & BULLEN**  
76, Rodney Street, Liverpool 1  
and Acomb House, Front Street, York.  
**FIVE-DAY WEEK, BONUS & PENSION SCHEME.** S9097

**ARCHITECTS.** Intermediate standard, and TECHNICAL ASSISTANTS H.N.C. building standard required urgently in expanding and busy Company. Must be capable of carrying out surveys, preparing comprehensive working drawings and details, and have had experience in site supervision. Appropriate salaries are offered to the right applicant. Bonus and superannuation scheme in operation. Reply to P. A. Smith, Technical Manager, Lowton Construction Co. Ltd., Lowton St. Mary's, Nr. Warrington. Tel.: Leigh 73121. S9094

**WATERLOO. COMPETENT AND EXPERIENCED ASSISTANT OF INTERMEDIATE TO FINAL STANDARD INTERESTED IN CONSCIENTIOUS DESIGN DETAILING AND SUPERVISION AND LOOKING FOR A PROGRESSIVE AND PERMANENT POSITION IN A SMALL AND INDIVIDUALISTIC OFFICE, WITH GOOD WORKING CONDITIONS AND SALARY. PLEASE TELEPHONE WATERLOO 4362 3, OR WRITE BOX S9081.**

**FARMER AND DARK** have some vacancies for ARCHITECTS AND ARCHITECTURAL ASSISTANTS for varied and interesting home and overseas work. Five-day week. Apply to Romney House, Tufon Street, S.W.1. Tel.: ABey 6311. S9075

**EXPERIENCED ARCHITECTS** required 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 9096.

**SOUTHAMPTON. ASSISTANT** of at least Intermediate standard required to help with projects in Hampshire and the Isle of Wight. Apply to E. M. Galloway & Partners, F./A.R.I.B.A., 10 Portland Street, Southampton. TC9098

**ARCHITECTURAL ASSISTANT** required by the Zoological Society of London for its extensive re-building programme. Salary dependent upon qualifications and experience. Apply in writing to the Establishments Officer, Zoological Society of London, Regent's Park, N.W.1. S9091

**QUALIFIED ARCHITECT** required for permanent position in Architects Department of progressive Brewery Company. Sound training and experience together with an interest in interior design essential. The Company operates a Pension Scheme with substantial benefits. Five-day week. Write giving age, salary required and full details of training and experience to Box S9105.

**WANTED. ARCHITECT FOR BEIRUT, LEBANON TO WORK WITH FIRM OF CONSULTING ENGINEERS. SHOULD HAVE ABOUT FIVE YEARS' EXPERIENCE AFTER QUALIFYING. SENIOR PARTNER WILL INTERVIEW SUITABLE CANDIDATES IN LONDON EARLY SEPTEMBER. BOX 9106.**

**ASSISTANTS** of ability rather than with qualifications to help in producing architecture. Accommodation may be available. Hand-write career details. Morton Lupton, Wallingford-on-Thames, Berkshire. S9117

**AMBITIOUS ARCHITECTS**—there are interesting vacancies which may attract you in this City of London Office. A fairly free hand will be given in the development of some new projects. L.V.s, State and Non-contributory Private Pension Schemes. Generous salaries. Apply Box 9115.

**CLAYTON, BLACK & DAVIEL** require ASSISTANT ARCHITECTS. Salaries up to £1,250 per annum according to ability. Write to 10 PRINCE ALBERT ST., BRIGHTON, SUSSEX. S9109

**LARGE DEVELOPMENT COMPANY** with office in Kent require an able, qualified ARCHITECT. Varied and interesting projects in hand. We also have a vacancy for an ARCHITECTURAL ASSISTANT of good calibre. Good salary and conditions would be offered to the successful applicants. Apply in writing to Box 9126, giving details of education, experience and when free to commence duties.

**LARGE NEW ZEALAND CONSTRUCTION COMPANY** requires QUALIFIED ARCHITECT, QUANTITY SURVEYOR, WORKS SUPERVISOR. Suitable applicants will be interviewed in London by representative of Williamson Construction Company of New Zealand. Write with copies of references to Box G 294, c/o Streets, 110, Old Broad Street, W.C.2. S9110

**EXPERIENCED ARCHITECTURAL ASSISTANT** required. Francis Pym, A.R.I.B.A., A.A.Dip., Whitehall 0171. S9111

**£950-£1,500. ARCHITECTURAL ASSISTANTS** with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingsway, W.C.2. HOLborn 4071. TC8915

**SEELY AND PAGET** have immediate vacancy in their City Office. Near Final E.I.B.A. standard with experience. Successful candidate will be placed on appropriate scale of salary commensurate with qualifications and experience. Holiday arrangements respected. Write 41 Cloth Fair, E.C.1, or Telephone MET 8511. TC8401

**ERDI AND RABSON** require

INTERMEDIATE to FINAL ASSISTANTS mainly for Hotel, Motel and Public House works, capable of handling job from sketch design to final account.

Salary range £800-£1,200, excellent working conditions, 5 day week. Telephone Cen. 9881.

14-15 Queenhithe, E.C.4.

S8955

**THERE** is more to it than drawing you know! Are you kept pinned to the Drawing Board day in day out? If so, we can offer you much greater scope in gaining all-round experience and carrying through the varied duties of an ARCHITECTURAL ASSISTANT. Responsibility positively encouraged. Holiday arrangements honoured. Write telling us your experience with the usual particulars; it may well be to our mutual advantage (Box TC8416) or telephone MAYfair 9556.

**ARCHITECTURAL ASSISTANTS** required in a Busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 918, c/o 7, Coptic Street, W.C.1. TC5647

**EXPERIENCED ASSISTANT ARCHITECT** required in West End office. Varied work, must be competent designer and administrator. Opportunity for advancement to position of responsibility. Salary according to age and experience. Luncheon vouchers. Five-day week. Box TC8425.

**SENIOR and JUNIOR ASSISTANT ARCHITECTS** required with progressive outlook, for work on a wide range of projects. Office in provincial town, easy reach of London. Salary according to age and ability. Five-day week. Box TC8426.

**ROBERT MATTHEW & JOHNSON-MARSHALL** have vacancies in their London office for ARCHITECTS at all levels of experience for a variety of interesting jobs. Apply to Robert Matthew & Johnson-Marshall, 24, Park Square East, N.W.1. TC6547

**SENIOR ARCHITECTURAL ASSISTANTS.** Large Office has a limited number of vacancies for Senior Architectural Assistants, salary range £900-£1,500, to undertake work of a varied and interesting character. Reply with particulars of experience to Box TC6875.

**SENIOR ASSISTANTS** required immediately. Salary by arrangement. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7236. TC1486

**GEORGE, TREW & DUNN**

Hospitals, University, Prestige Office, Ships. We need your help.

Please write to us at 50, Eastbourne Terrace, W.2. TC8000

**£1,500 TO £2,600. ASSISTANT ARCHITECT** of ability, initiative and with contemporary outlook required to take charge of large flat development schemes. Considerable opportunities for advancement. Apply: Joseph Mendleson & Partners, 71, Wimpole Street, W.1. Telephone HUNter 0361. TC8930

**SCHERRER & HICKS** REQUIRE in their London Office INTERMEDIATE ASSISTANTS with several years' experience. Salary £1,000 p.a. Reply to 19, Cavendish Square, London, W.1. S8916

**ASSISTANT** required. Maidstone. Interesting and varied work. Must be neat draughtsman with Inter. Write stating age, experience, salary, when available. Box S8932.

**READING AREA. SENIOR ASSISTANT** (near Final standard or qualified) required by general practice with small, friendly, progressive office in superb modern surroundings. Salary by arrangement. Write, giving age and brief details of career to date to Box TC8883.

**LARGE FIRM** of Building and Civil Engineering Contractors

HAVE small intimate office in Central London

WANT ARCHITECTS with experience and personality to take charge of jobs

AND ASSISTANTS of all grades with adequate experience to cope with design and detailing on a variety of contracts

WILL pay salaries proper to the job, with pension facilities, five-day week, firm's luncheon arrangements.

RING LANGHAM 4194 for appointment or write Box S8896.

**ROFF MARSH, F.R.I.B.A., M.T.P.I.**, requires qualified staff for a variety of large new projects including housing, commercial and industrial buildings. Enthusiasm and initiative important. Write giving full details to 125/7, London Road, Chelmsford. S8868

**INTERMEDIATE TO FINAL ASSISTANTS** required immediately. Salary from £1,000 onwards and luncheon vouchers. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7236. TC8906

**ERIO FIRMIN & PARTNERS** require ASSISTANT of Intermediate or Final standard preferably with previous office experience for interesting variety of projects. Five-day week. Luncheon Vouchers, holiday arrangements respected. Salary by arrangement according to qualifications and experience. Write to Thavies Inn House, Holborn Circus, E.C.1, or 'phone City 8811. TC8904

**ARCHITECT'S** Department of Brewery Company in Manchester area, member of large organisation, requires SENIOR ASSISTANT. Recently qualified A.R.I.B.A., or experienced technician, to take charge of projects. Contributory Pension Scheme, excellent working conditions. Applications, with details of age, experience and salary required, to Secretary, Box S9033.

**QUALIFIED ASSISTANT ARCHITECTS** required urgently for large projects of contemporary character. Salary range £1,000-£1,400 according to experience. Pension scheme and Life Assurance scheme in operation. Five-day week. Good holidays. Please write giving full particulars of experience to Johns, Slater & Haward, F.F.R.I.B.A., 32, Foundation Street, Ipswich. S9039

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THE BOW SLATE & ENAMEL CO LTD

THE TOWN HALL BOW ROAD E.3

QUARRIES ABERLLEENI NORTH WALES

**LIVERPOOL CATHEDRAL ARCHITECTS**—Intermediate and Final standard, with experience, to work on this interesting project. Write stating age and experience to Frederick Gibberd, 8, Percy Street, W.1. S9022

**SENIOR ARCHITECT**  
A PUBLIC property company with City offices is seeking a GROUP ARCHITECT to take full control of Architects Department handling a variety of commercial projects throughout the country.

Applicants must be capable administrators with considerable experience of Town Planning and development procedure.

Commencing salary will not be less than £2,500 per annum together with appropriate benefits.

Full details to:—  
Box E4165, c/o Whites, Ltd.,  
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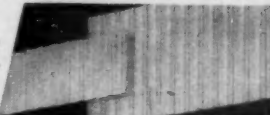


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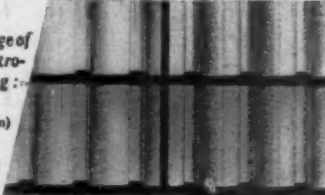


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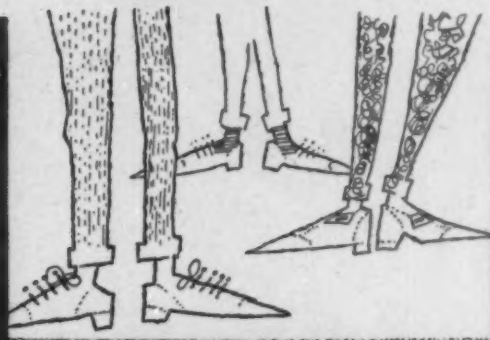
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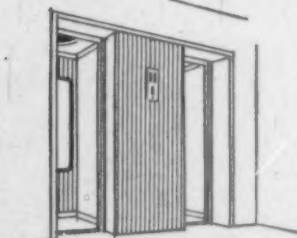
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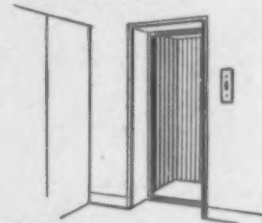


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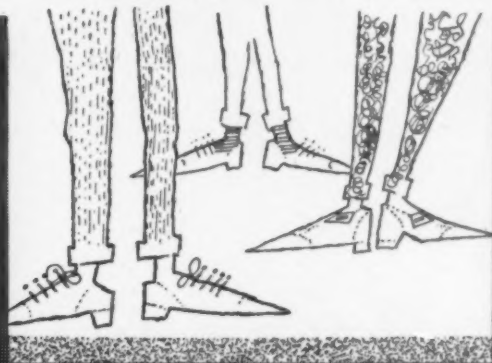
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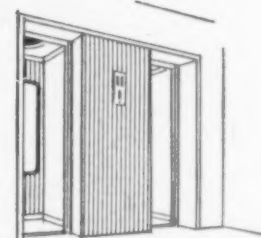
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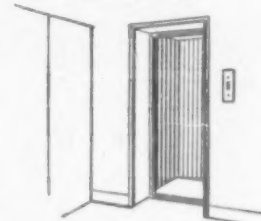
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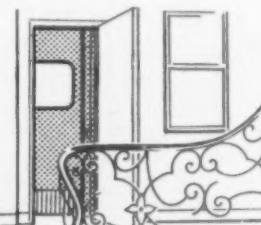
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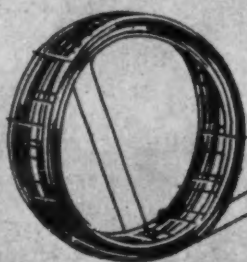
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