

THE ARCHITECTS' JOURNAL



standard contents

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

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Wanted and Vacant

No. 3128]

[Vol. 121

THE ARCHITECTURAL PRESS

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley", Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Reliance 7611, Ext. 1706
BCC	British Colour Council. 13, Portman Square, W.1.	Museum 5400
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Welbeck 4185
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Ealing 9621
BDA	British Door Association. 10, The Boltons, S.W.10.	Redditch 716
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Fremantle 8494
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Temple Bar 9434
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Glasgow Central 2891
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Chancery 7772
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Langham 2785
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Mansion House 9383
BSA	Building Societies Association. 14, Park Street, W.1.	Garston 2246
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 0515
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Mayfair 9000
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon. Newport 5491	Holborn 8146/7
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Newport 5491
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Chichester 3001
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Sloane 5255
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Reliance 7611
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderal, 7, Zurich, Switzerland.	Radlett 5616
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Zurich 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Abbey 7080
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 4280
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Sloane 9116
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reading 72255
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Reliance 7611
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated), 40, Piccadilly, W.1.	Trafalgar 8855
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	Sackville House,
FAS	Faculty of Architects and Surveyors. (Temporary address) 96, Madrid Road, S.W.13.	40, Piccadilly, W.1. Regent 4448
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Riverside 6437
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Abbey 7232
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Melbourne House,
FC	Forestry Commission. 25, Savile Row, W.1.	Aldwych, W.C.2. Temple Bar 4561
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Whitehall 6711
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ilkeston 623
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.	Ulverston 201
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Chancery 7583
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.	Whitehall 3902
GBPA	Gypsum Building Products Association, 11, Ironmonger Lane, E.C.2.	Langham 4041
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Monarch 8888
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 4554
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Sloane 2844
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Whitehall 2881
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Sloane 5615
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Grosvenor 6186
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Whitehall 4577
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Temple Bar 7676
		Abbey 5215

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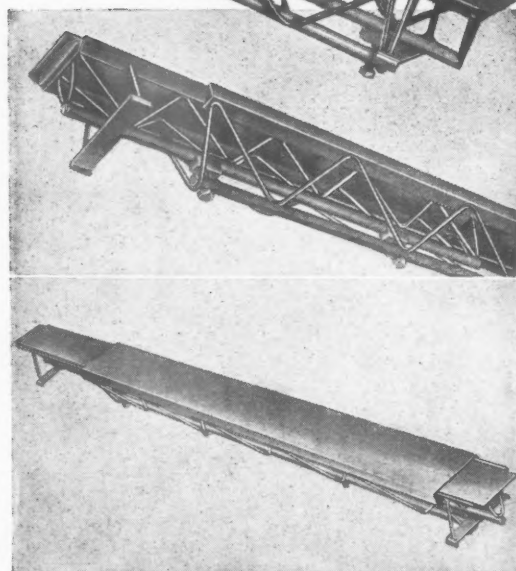
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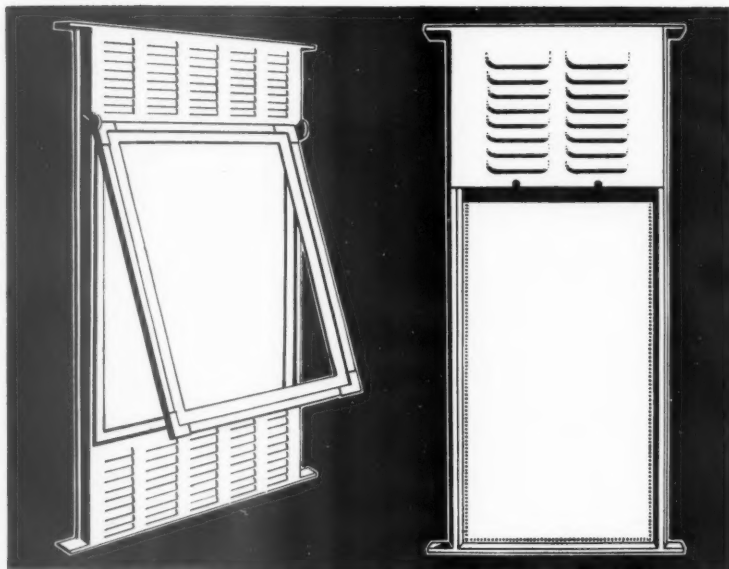


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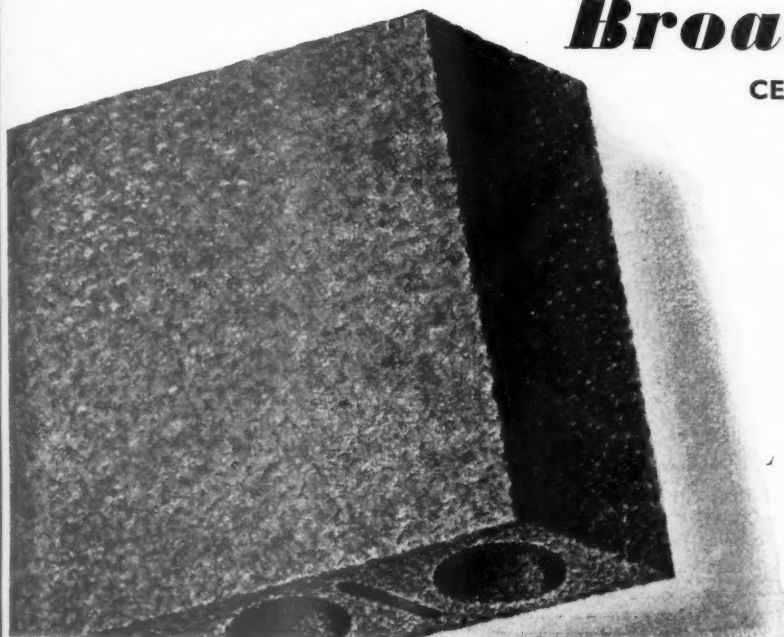
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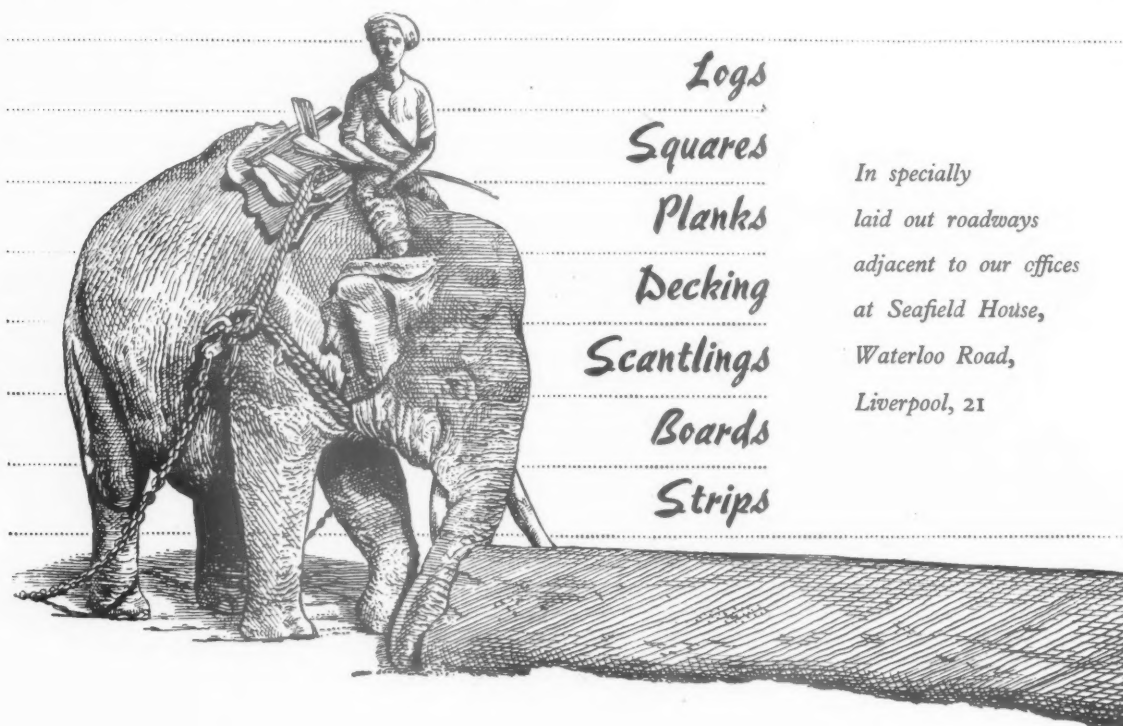
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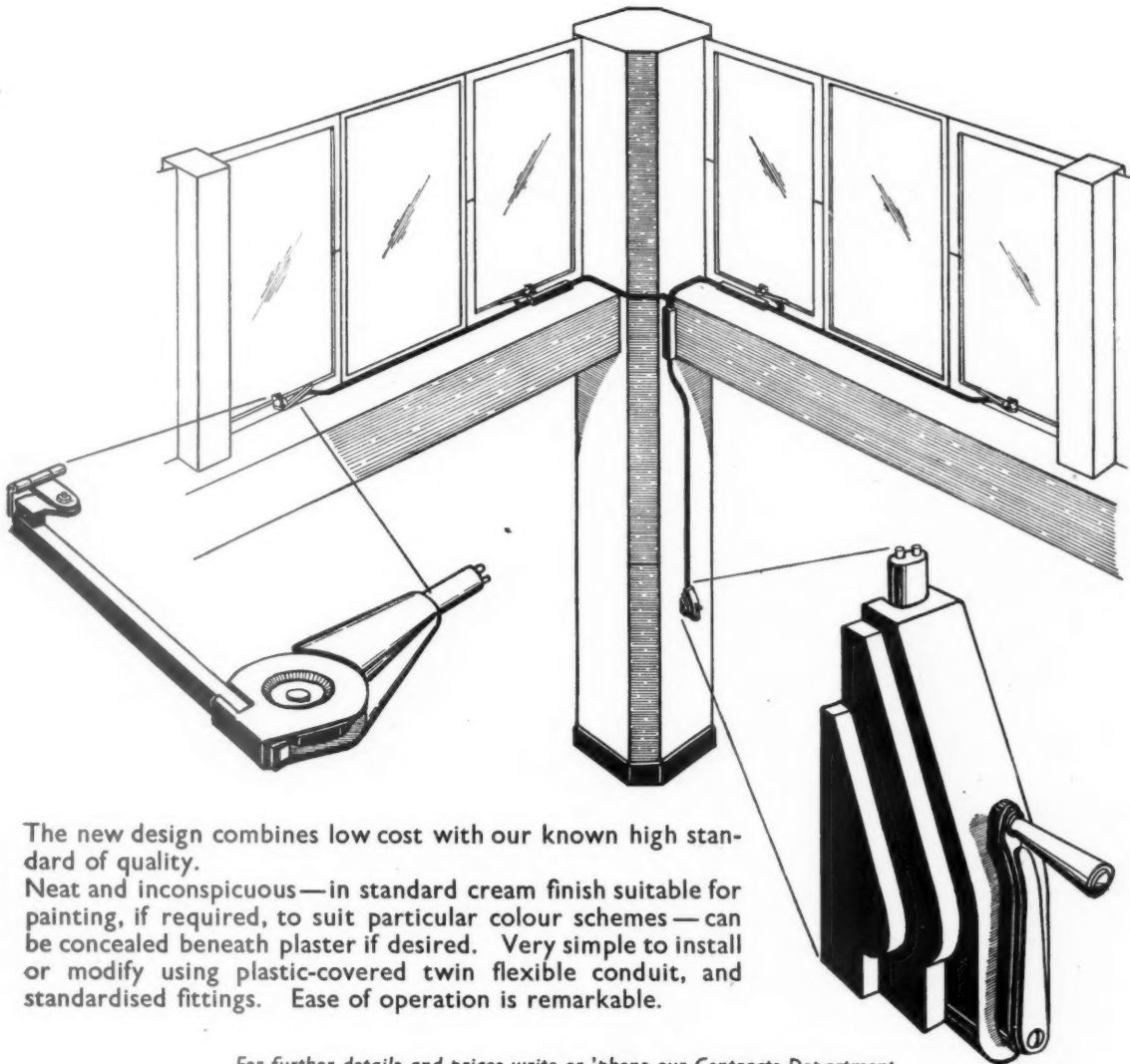
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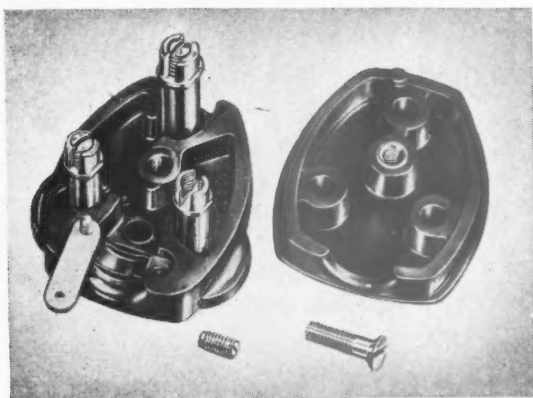
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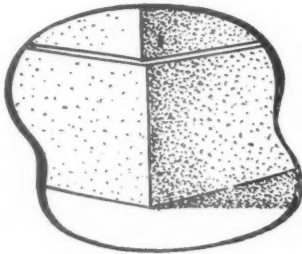
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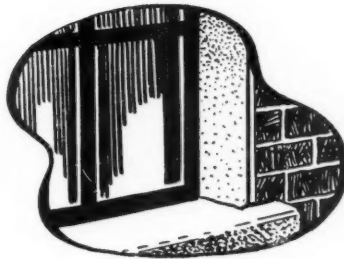
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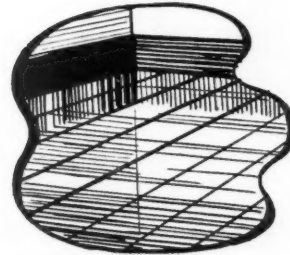
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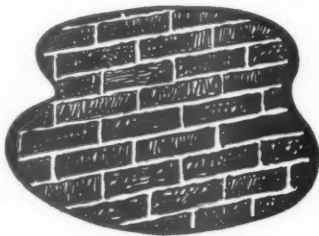
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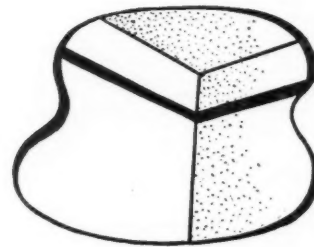
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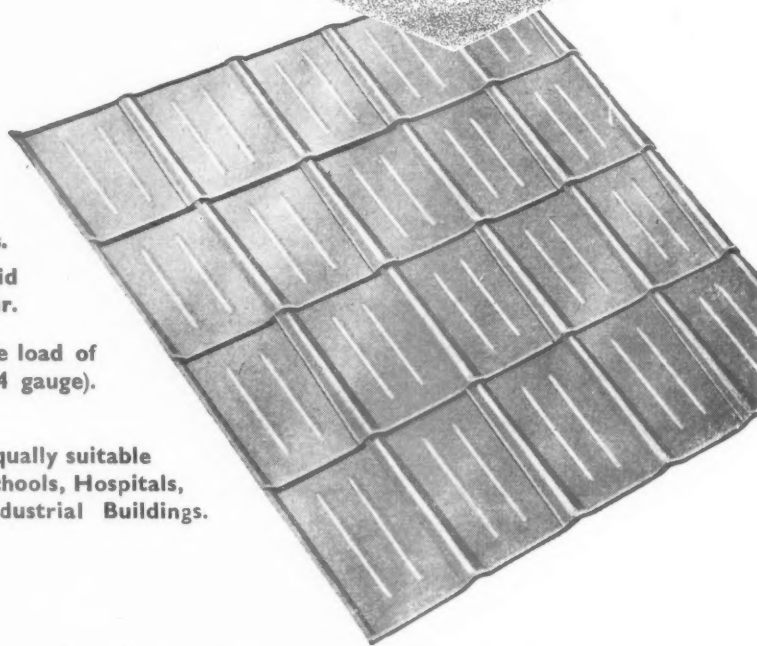
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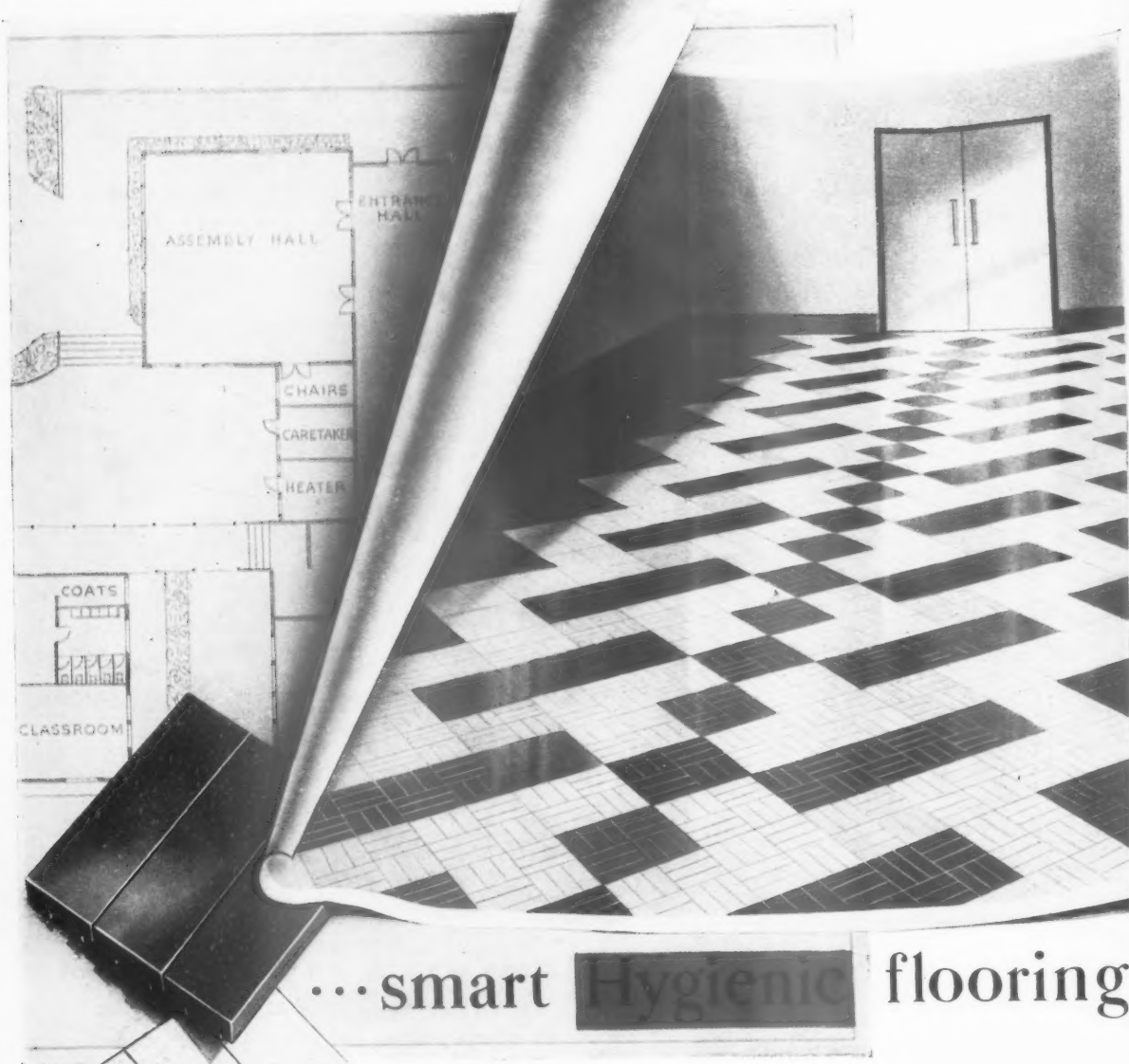
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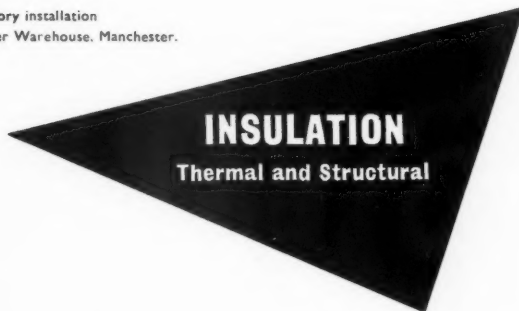
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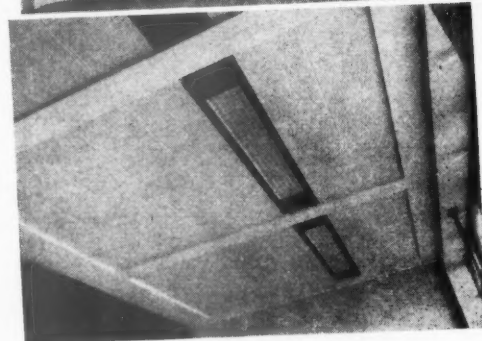
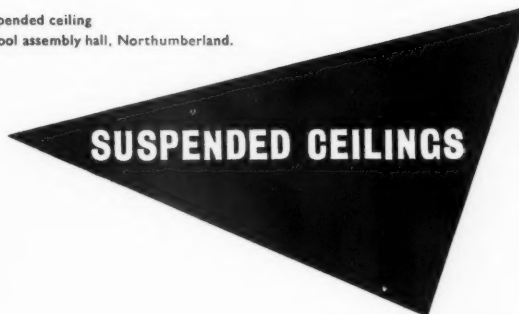
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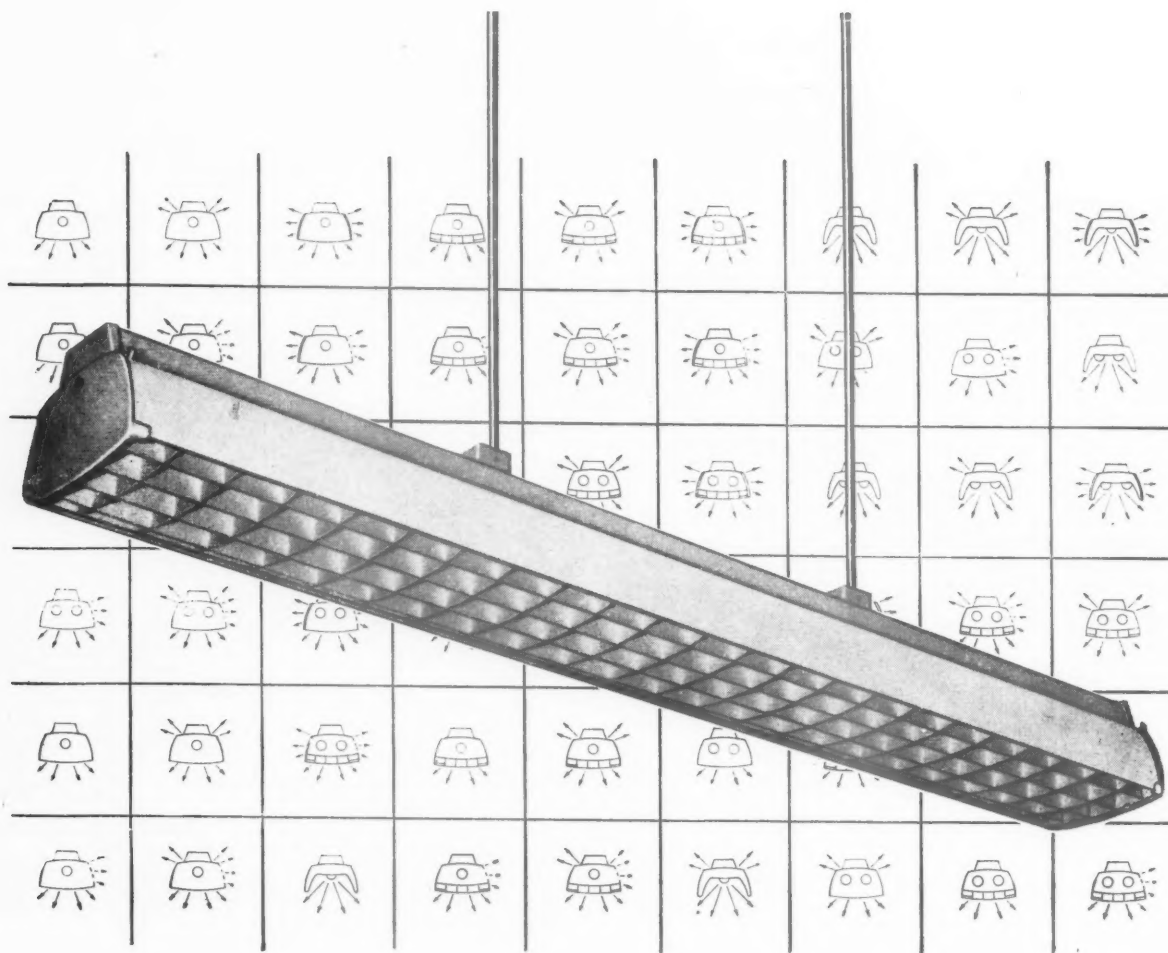
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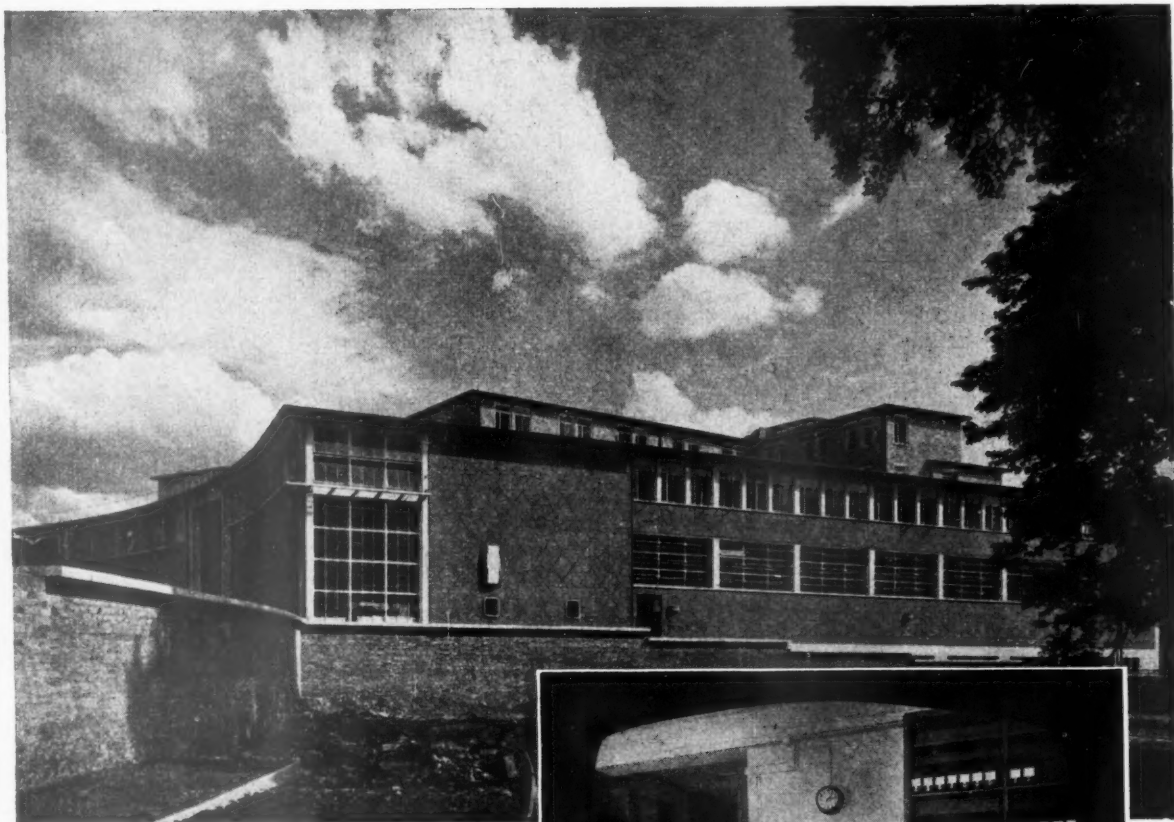
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(Right) "Royal Flush" Swing Doors in the Television Library.

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M. T. Tudsbery, Esq., C.B.E., F.C.G.I., M.I.C.E.,
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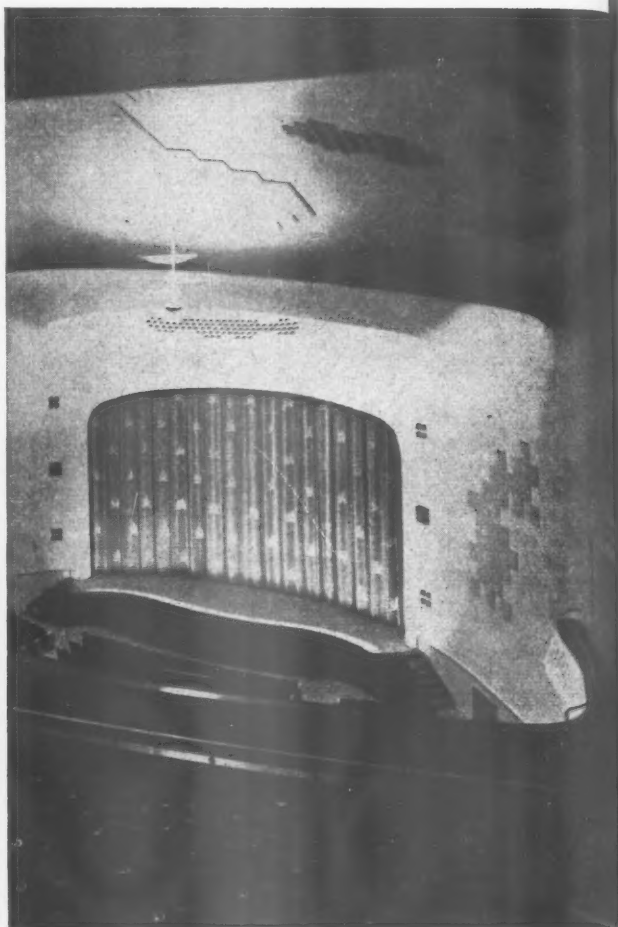
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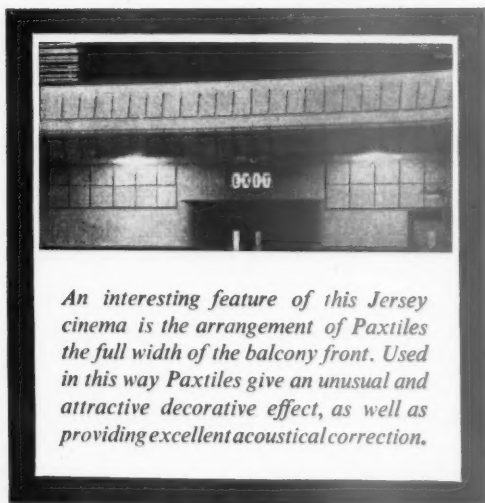
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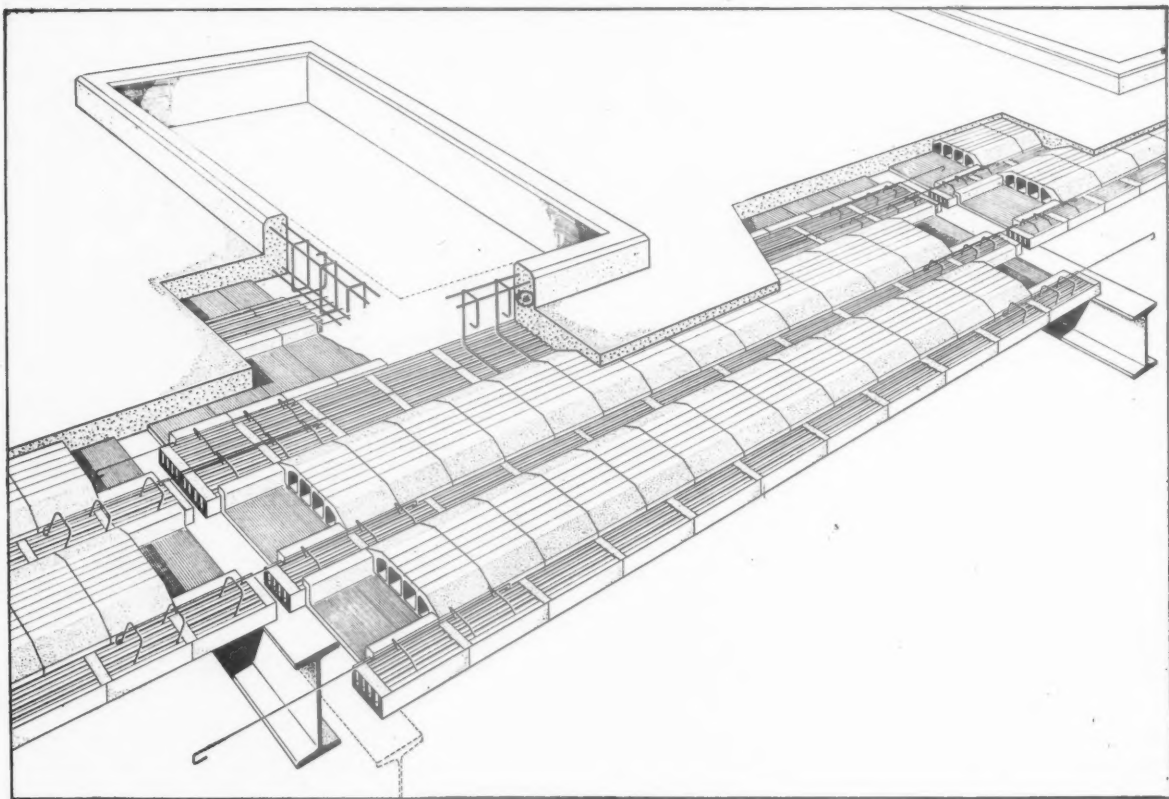
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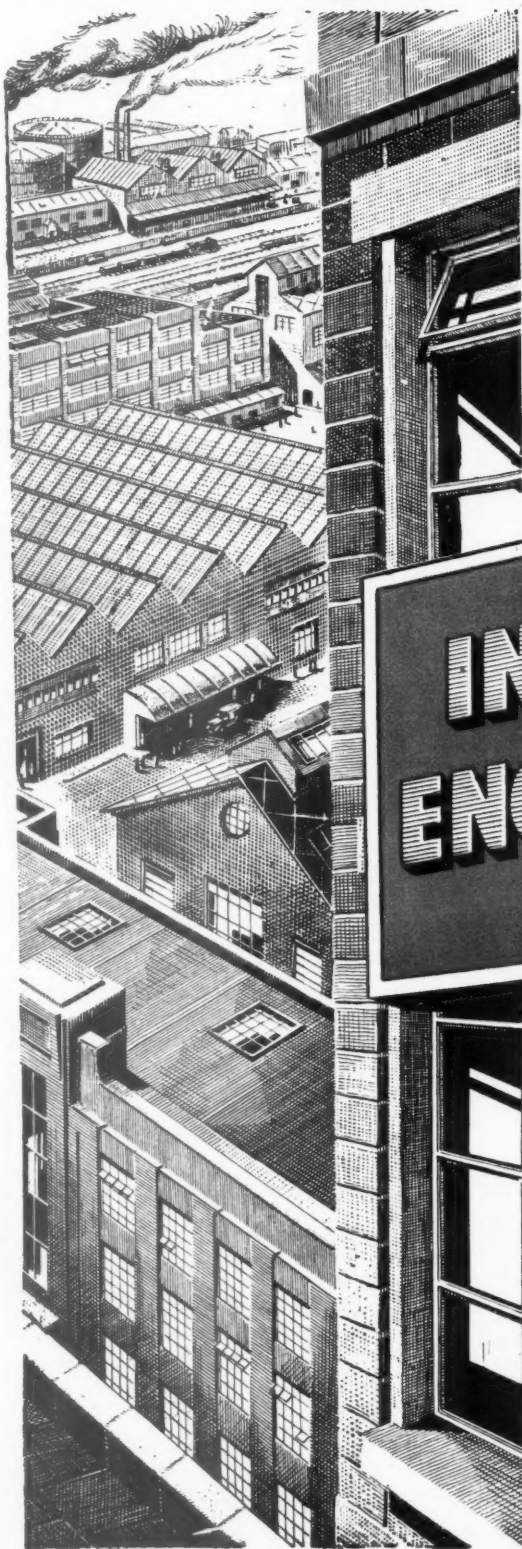
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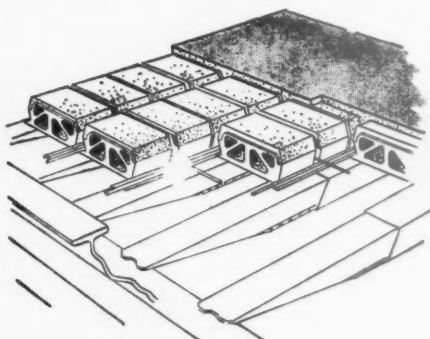
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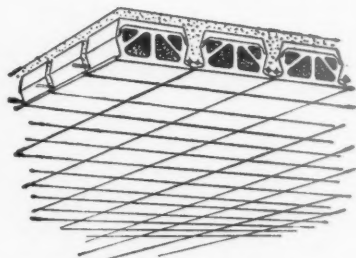
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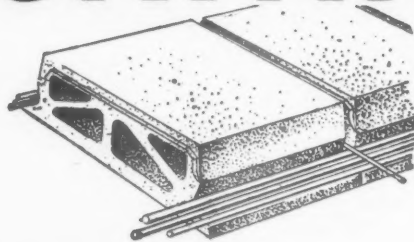
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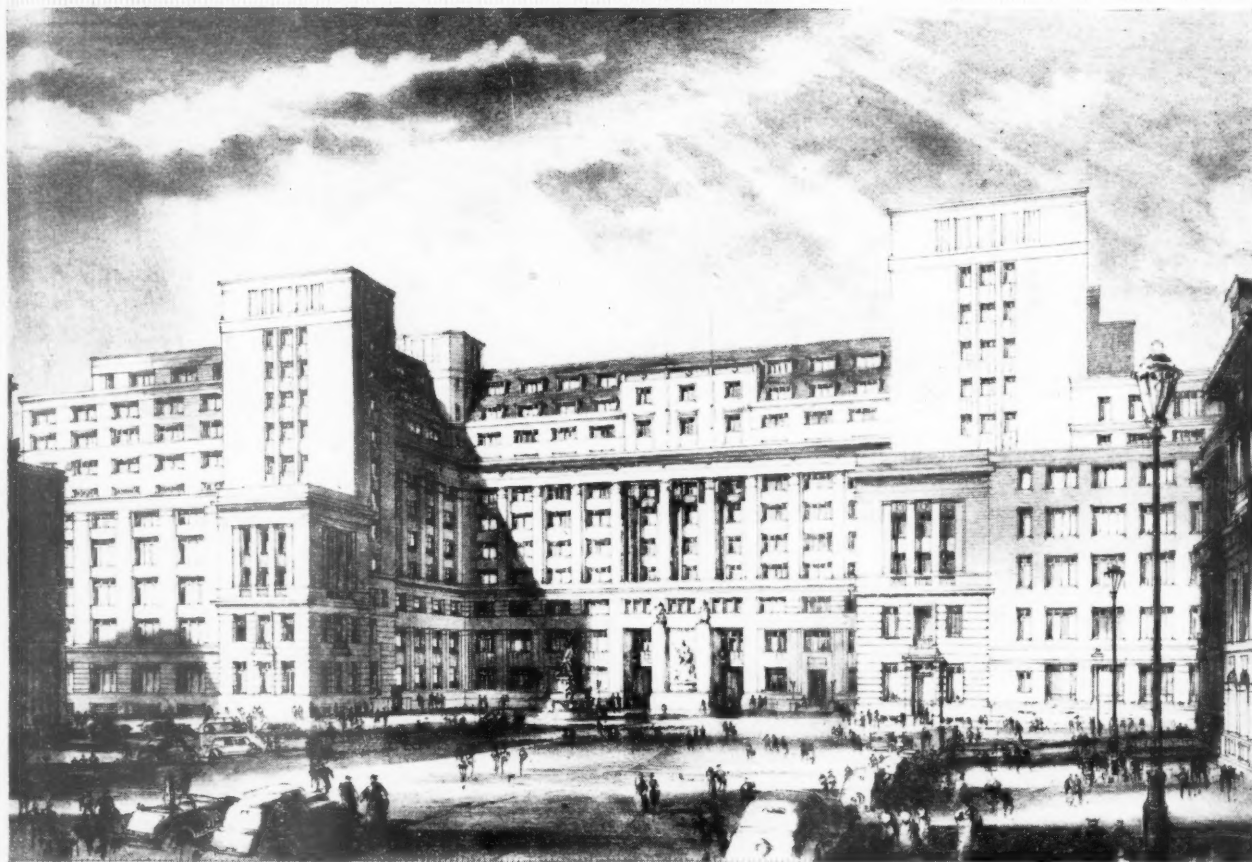
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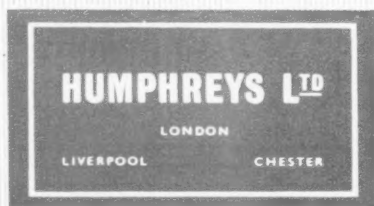




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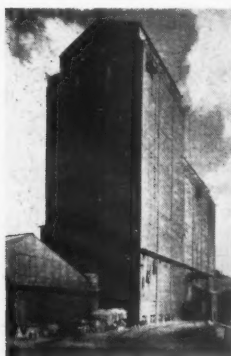
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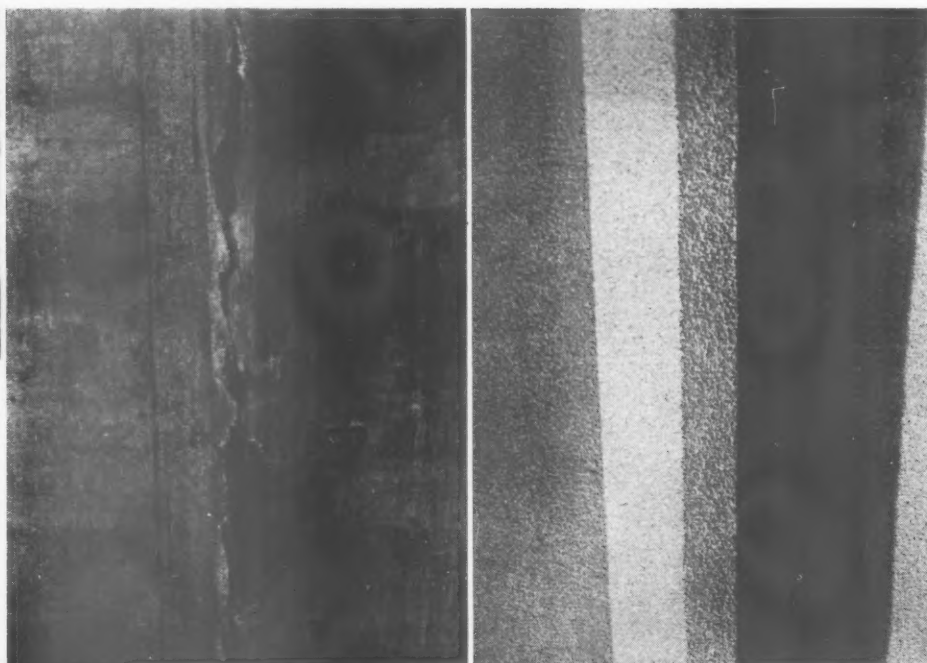
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On the Silcock Silo, steel reinforcement had corroded and disintegration of the concrete was taking place, as shown in the first illustration on the right. At the extreme right the same detail appears after Pyrok was used for protective and decorative treatment. Work was executed by C & T (Pyrok Contracts) Ltd. London



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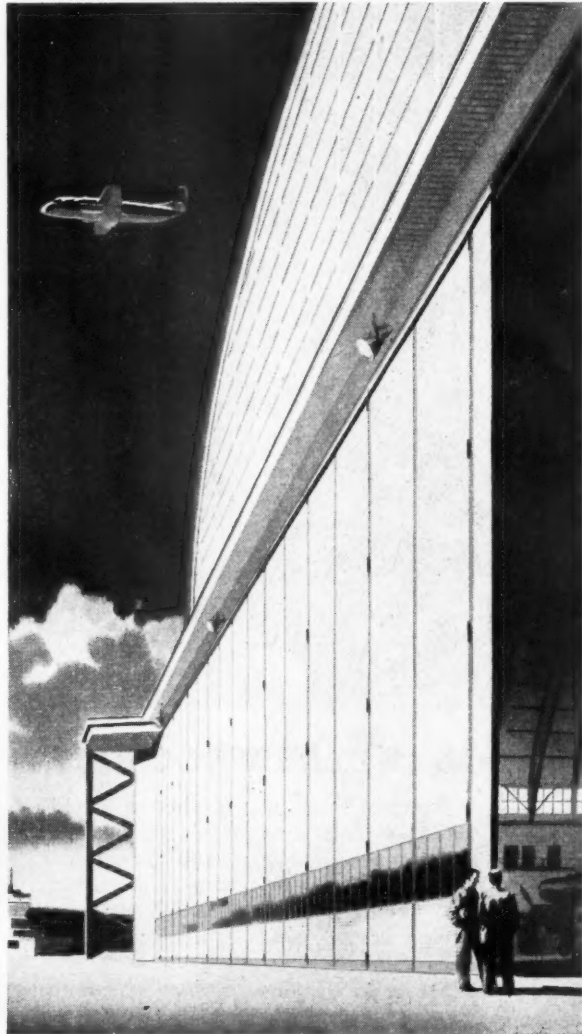
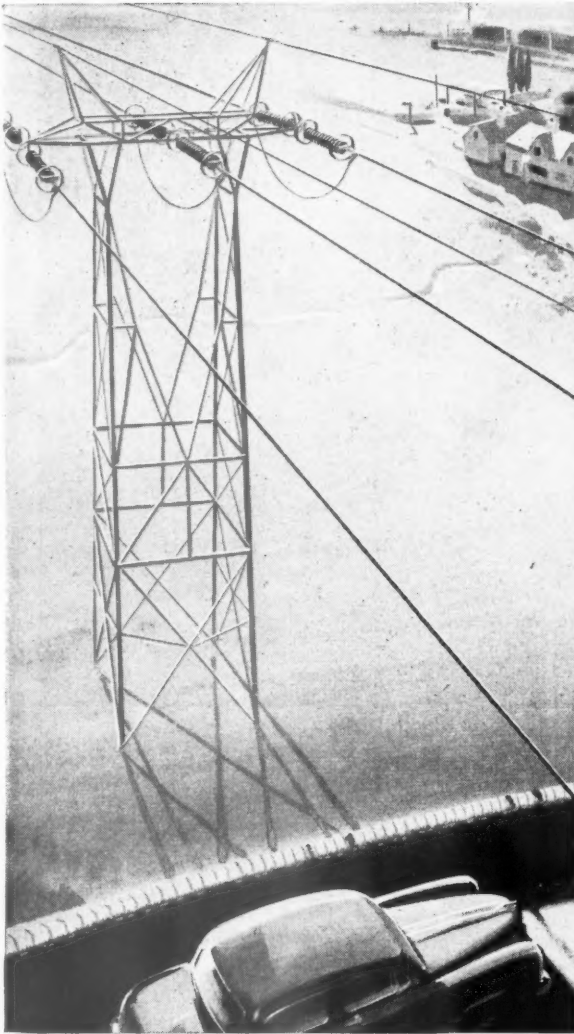
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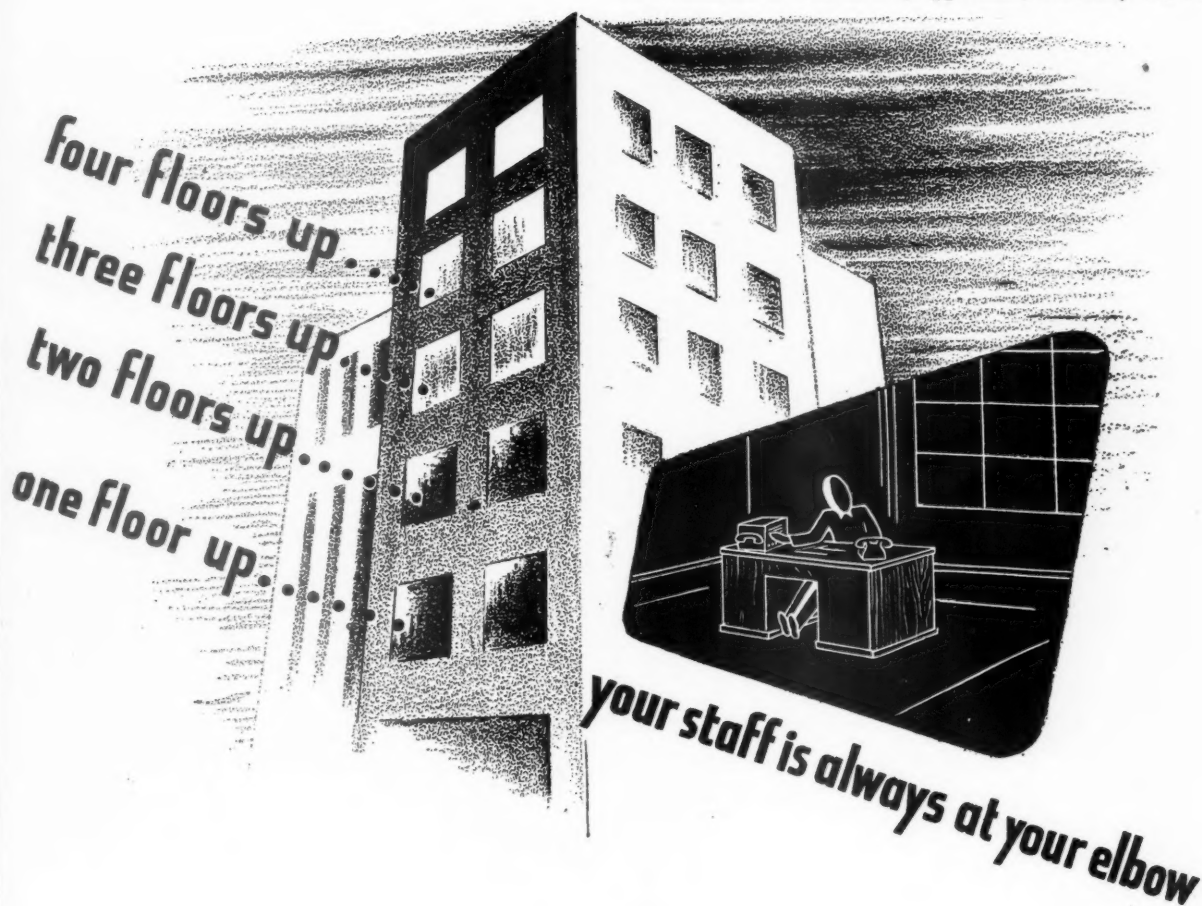
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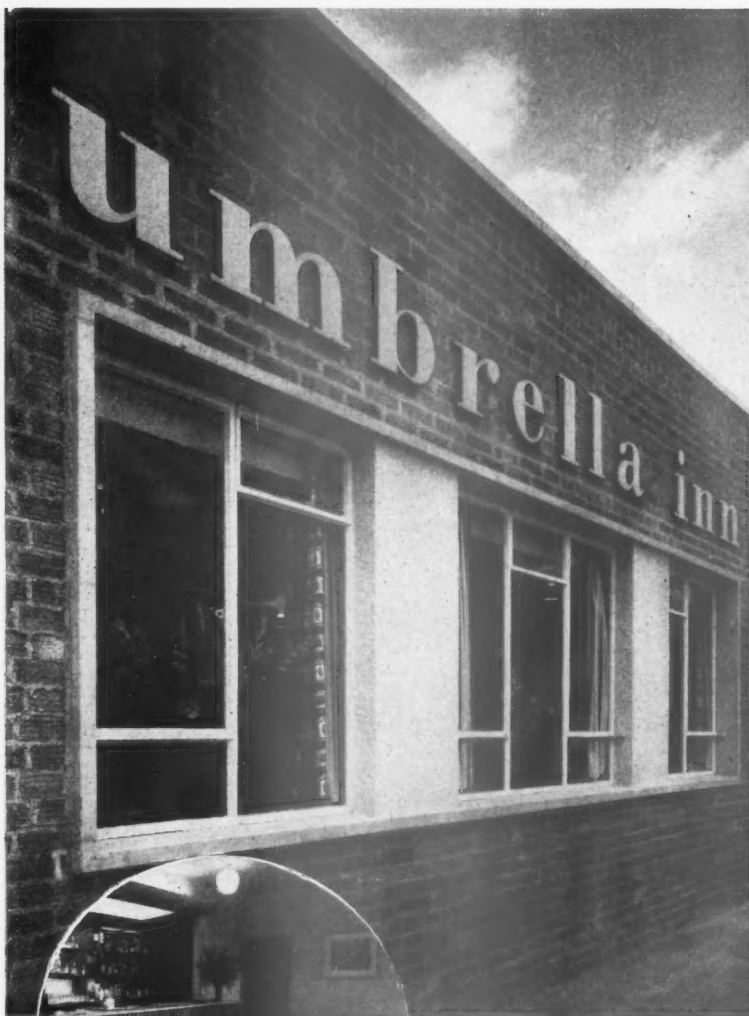
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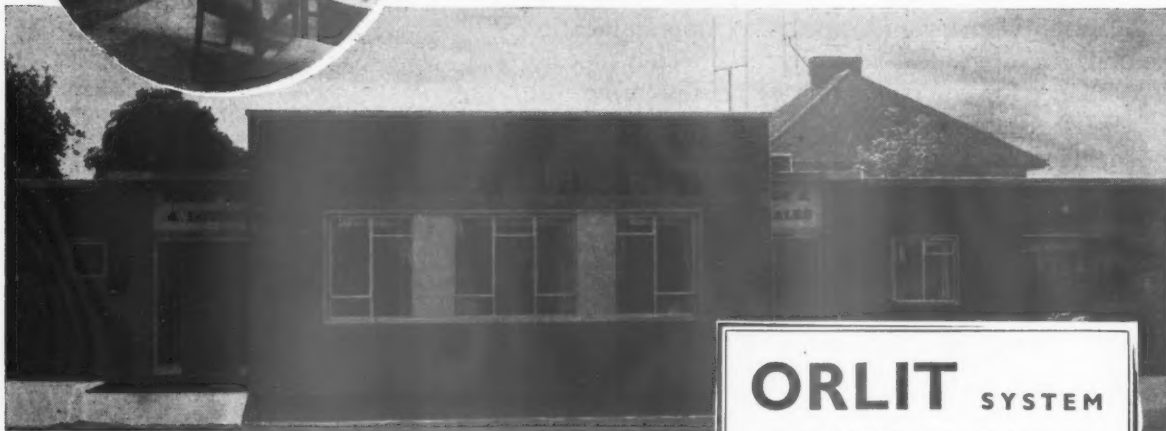
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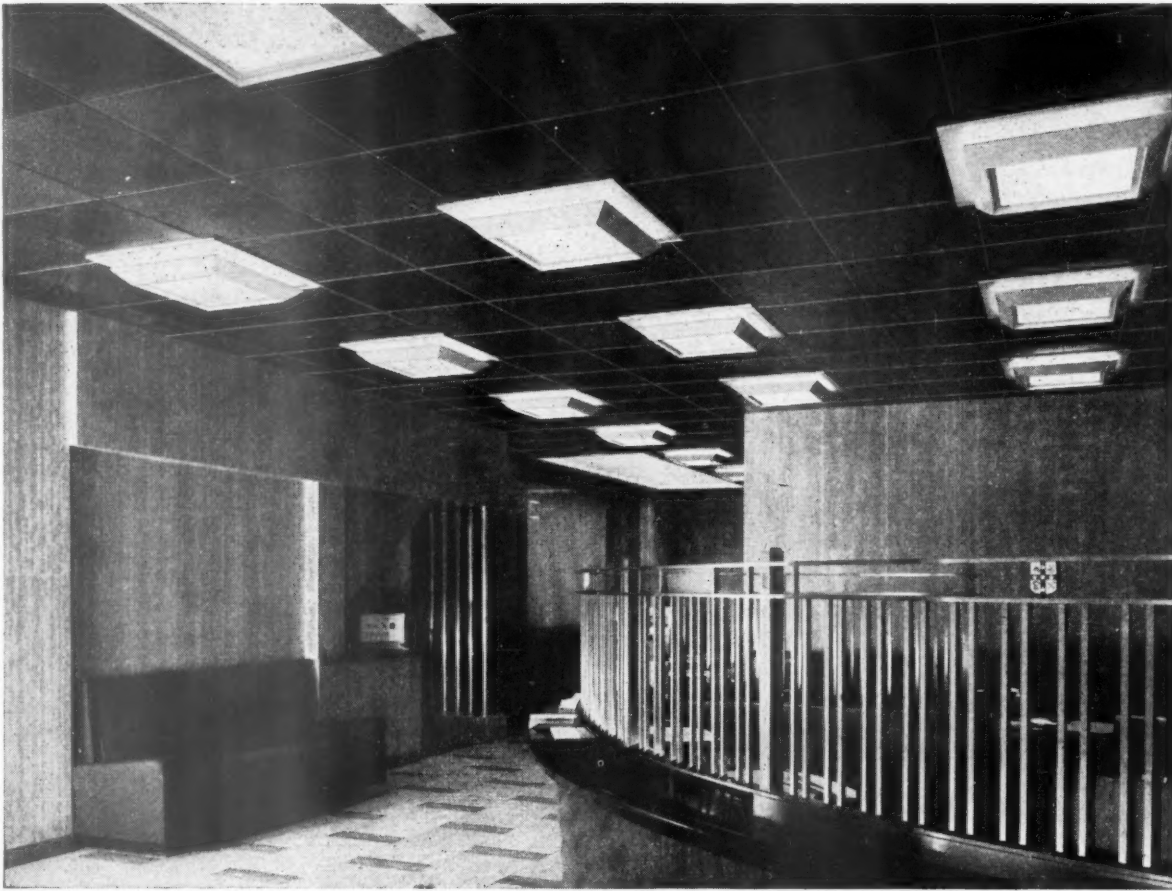
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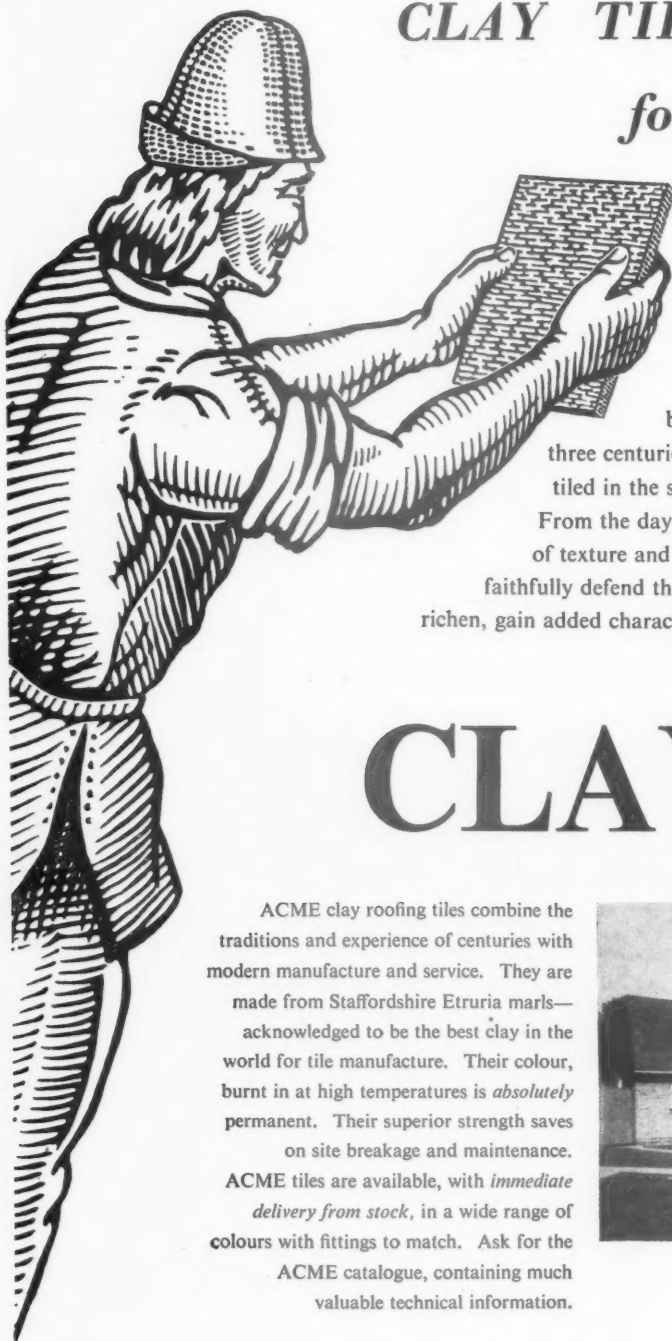
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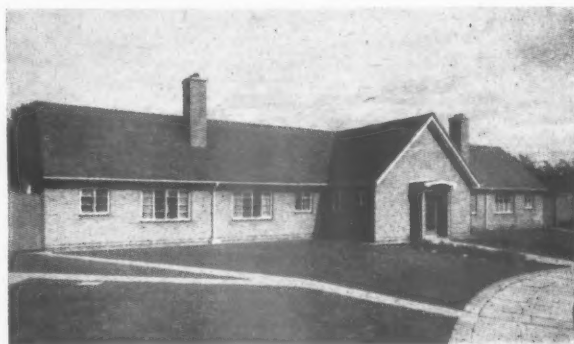
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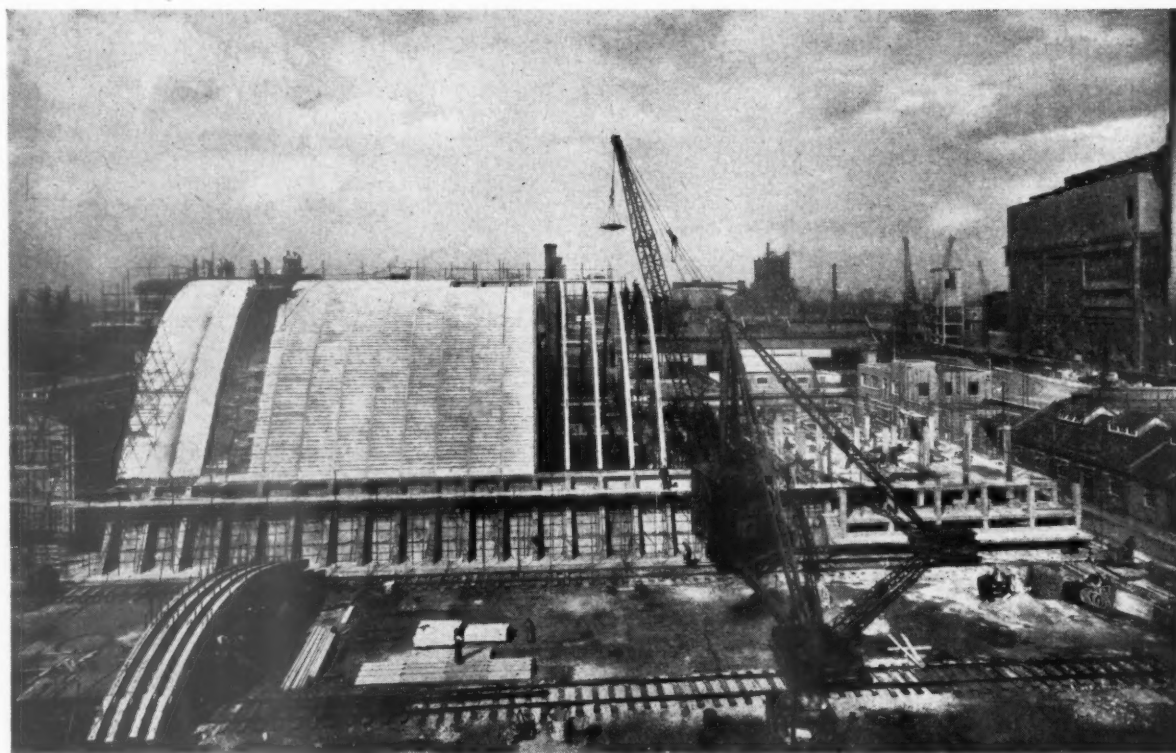


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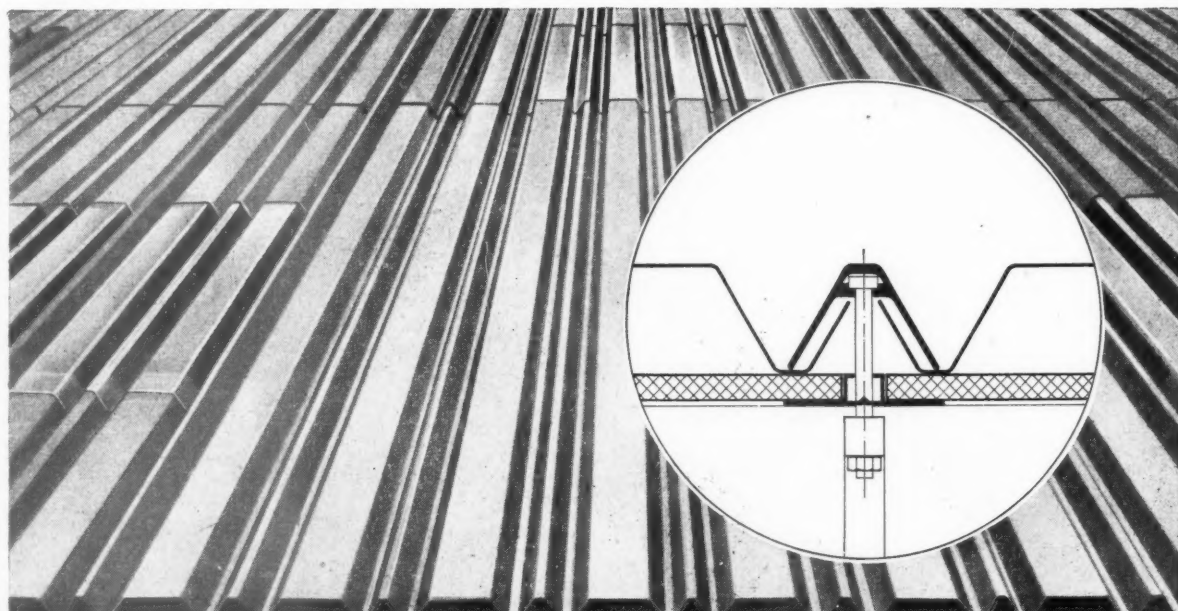
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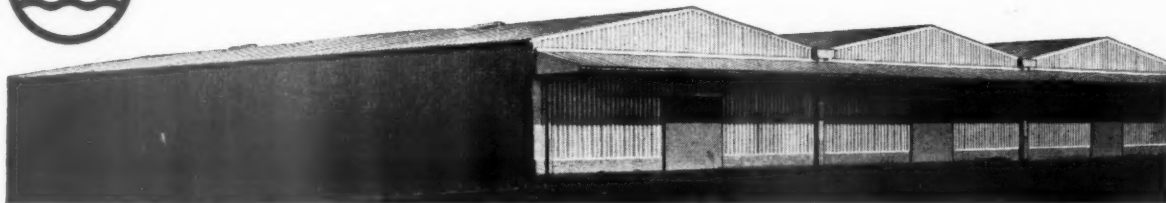
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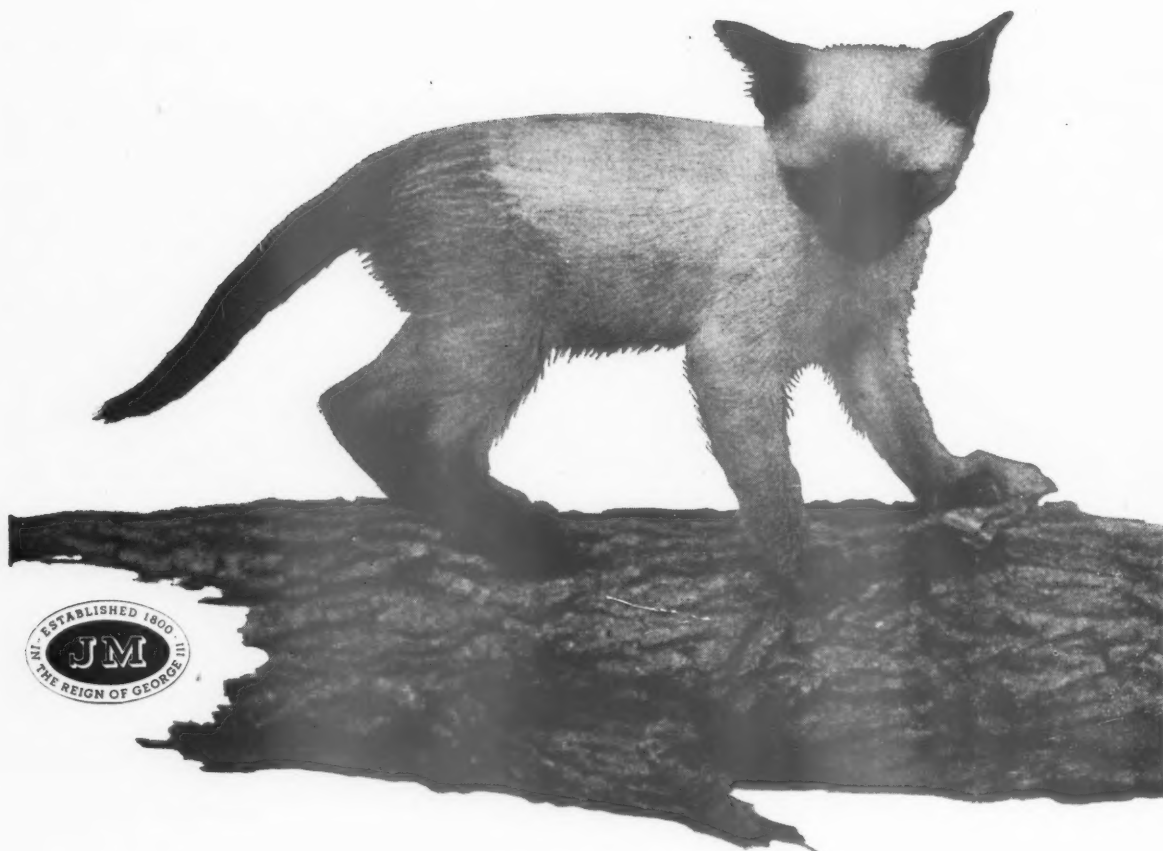
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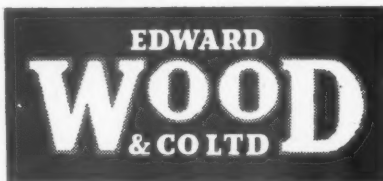


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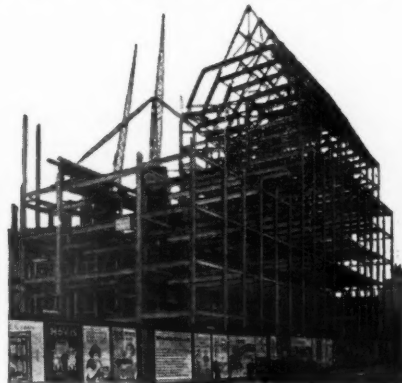
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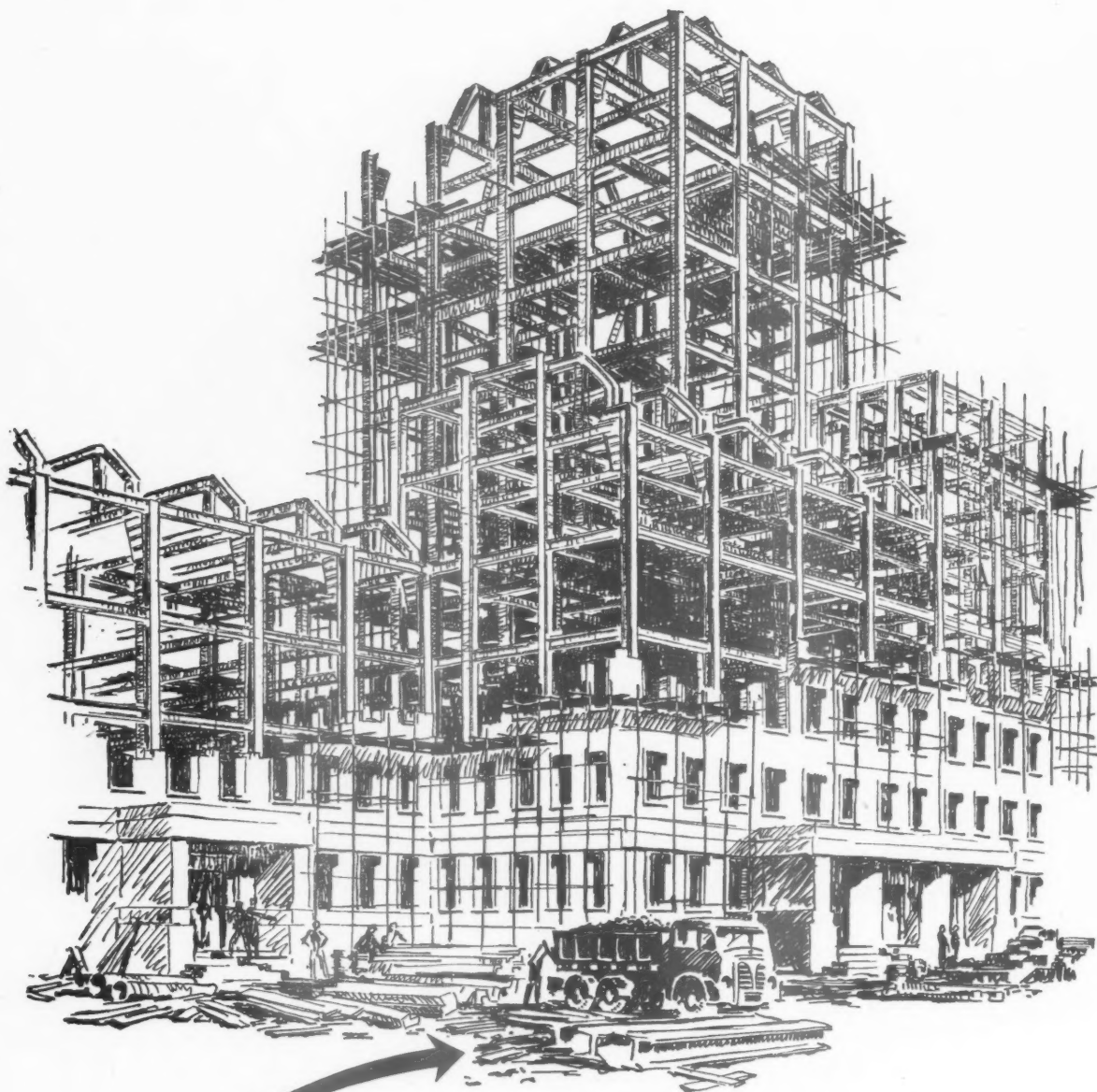
A view of the
skeleton framework
during construction.



Registered Office & Works: **MANCHESTER 17**
Telephone: **TRAFFORD PARK 2341 (10 lines)**

London Office: 68 Victoria Street, S.W.1. Telephone: **VICtoria 1331/2.**

Technical Offices: **Birmingham and Loughborough**



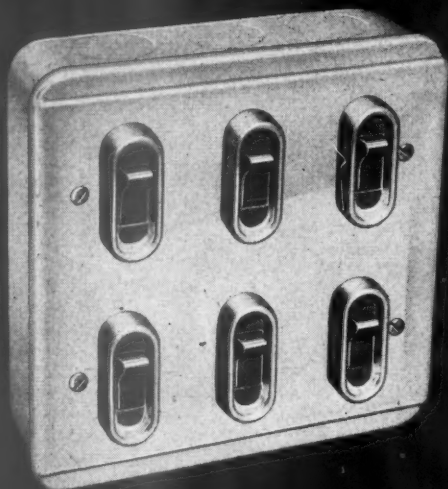
STRUCTURAL STEELWORK
BY
SOUTH DURHAM
for speed, efficiency, economy

SOUTH DURHAM STEEL & IRON CO. LTD.

(Incorporating CARGO FLEET IRON CO. LTD.)

Central Constructional Department, Malleable Works,
STOCKTON-ON-TEES. Telephone: 66117.

MK 105
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One of many
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Removable grids for quicker wiring—easy access
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Industrial switches which you can judge for
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which will be announced in the near future.

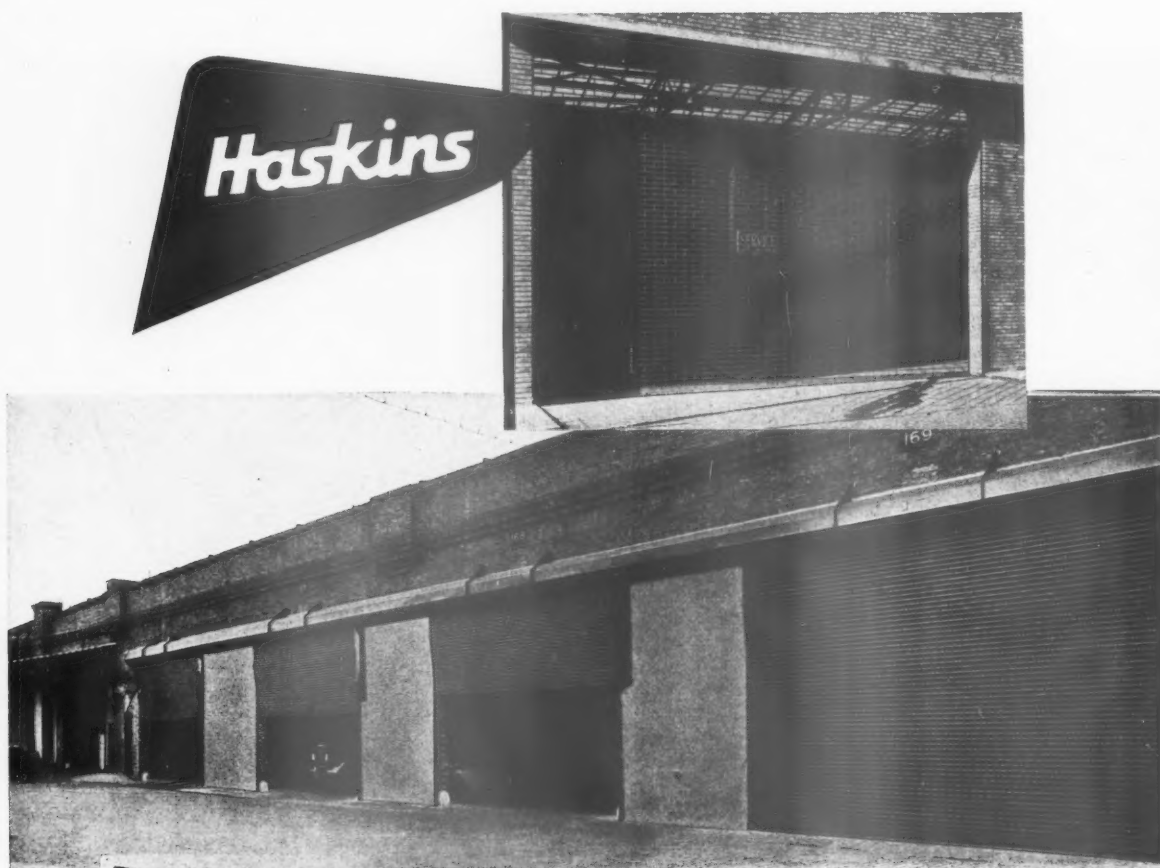
Stand No. 56,

Earls Court, March 15th-19th 1955



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ROLADOR STEEL ROLLING SHUTTERS
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SHUTTER DOORS, SLIDING LEAF DOORS

Manual, Mechanical or Electrical Operation.

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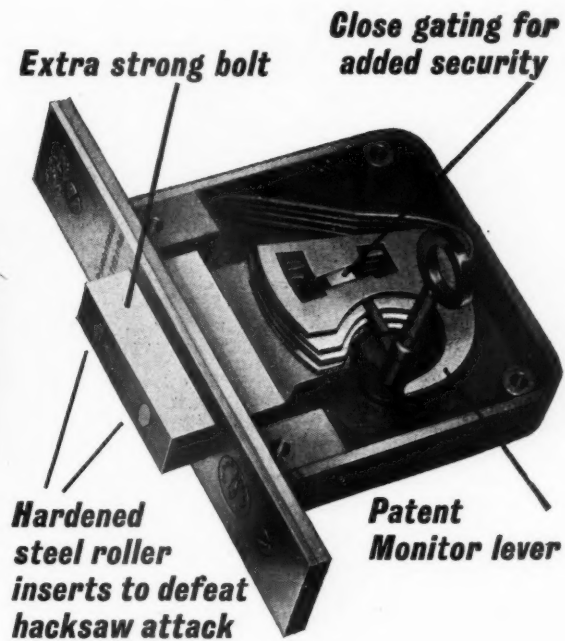
Catalogues containing useful data forwarded upon request.



Haskins

Head Office and Works :
Gnome House, Blackhorse Lane,
London E17
Tel: LARKSwood 2622

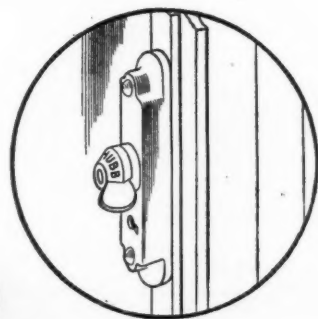
ITEM: One door lock!



JUST AN ITEM. But it can make all the difference to your client—between security, for instance, and serious loss. Most people come to us in the end—it may be too late—for a lock they can rely on. Because Chubb locks are the outcome of a policy of continuous research to ensure the utmost security. So if you are tempted to make small economies by using weak, anonymous locks on back and front doors, please think again, and think of Chubb.

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A recent example of our policy which may be useful to you is a simple lock for securing metal-framed windows. Please ask our representative to call and give you details of these and other Chubb security devices.

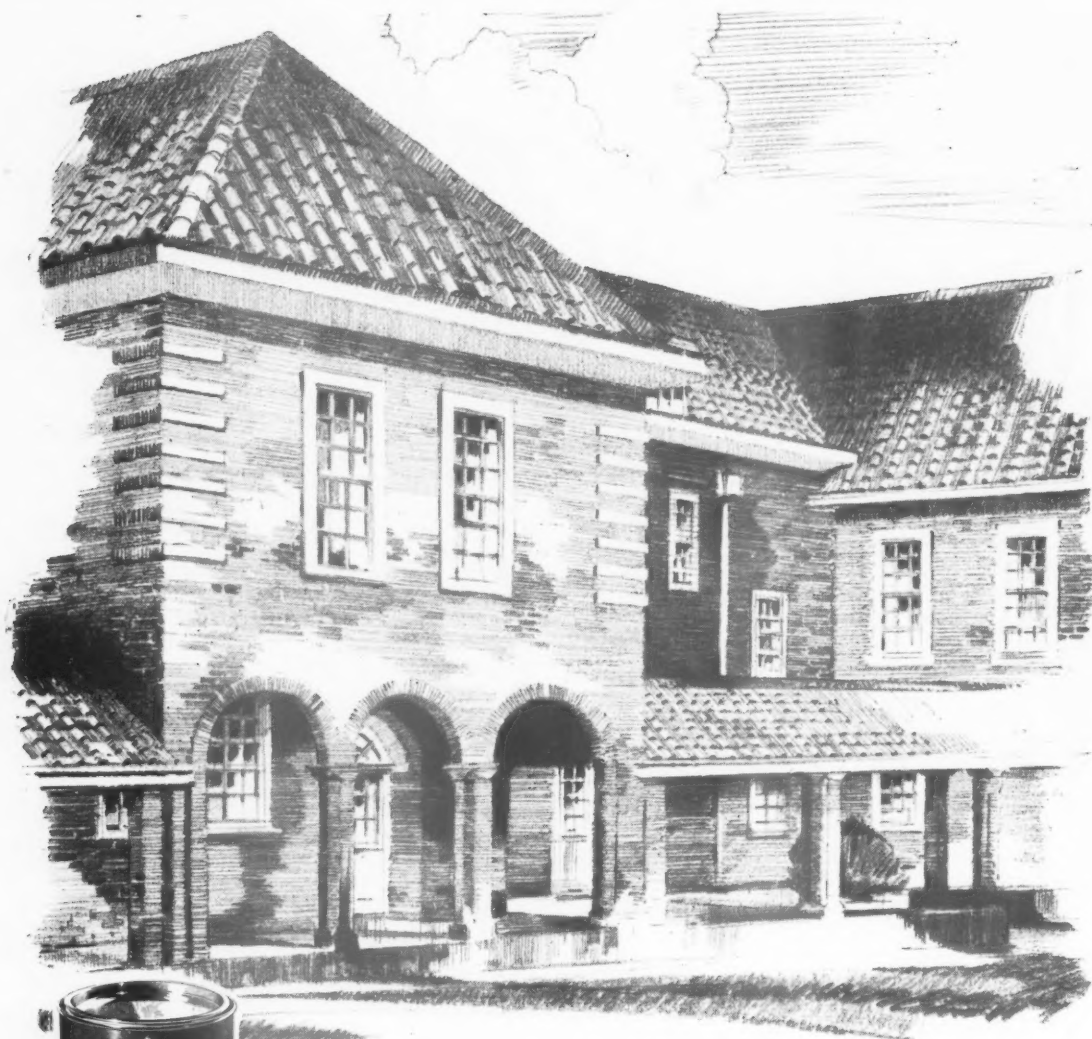


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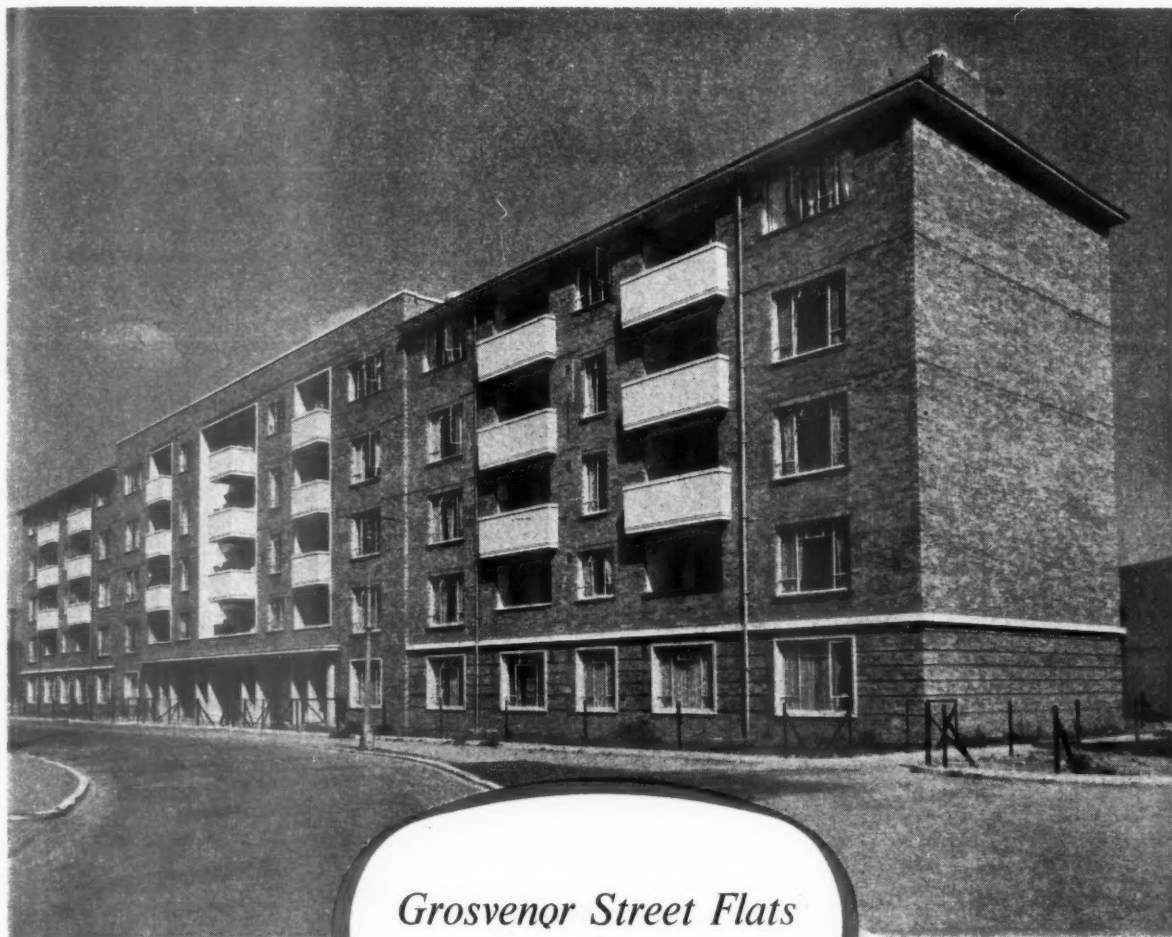


For perfection of finish use paints from the Walpamur range, which includes Duradio Enamel Paint, a durable high gloss finish, Muromatte Flat Oil Paint, a smooth and readily washable matt finish and Walpamur Water Paint, the most popular of flat finishes. In the full range are paints, enamels and varnishes to meet every need.



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Mr. R. Brock, the Electrical Contractor of 135 Brockhurst Road, Gosport, Hants, used BICC House Wiring Cables exclusively in this new block of flats at Portsmouth.

The City Architect was Mr. Frank Mellor, F.R.I.B.A.

BICC have a variety of different types of wiring cables to meet all conditions in factories, offices, homes and farms. May we send you samples?

BICC

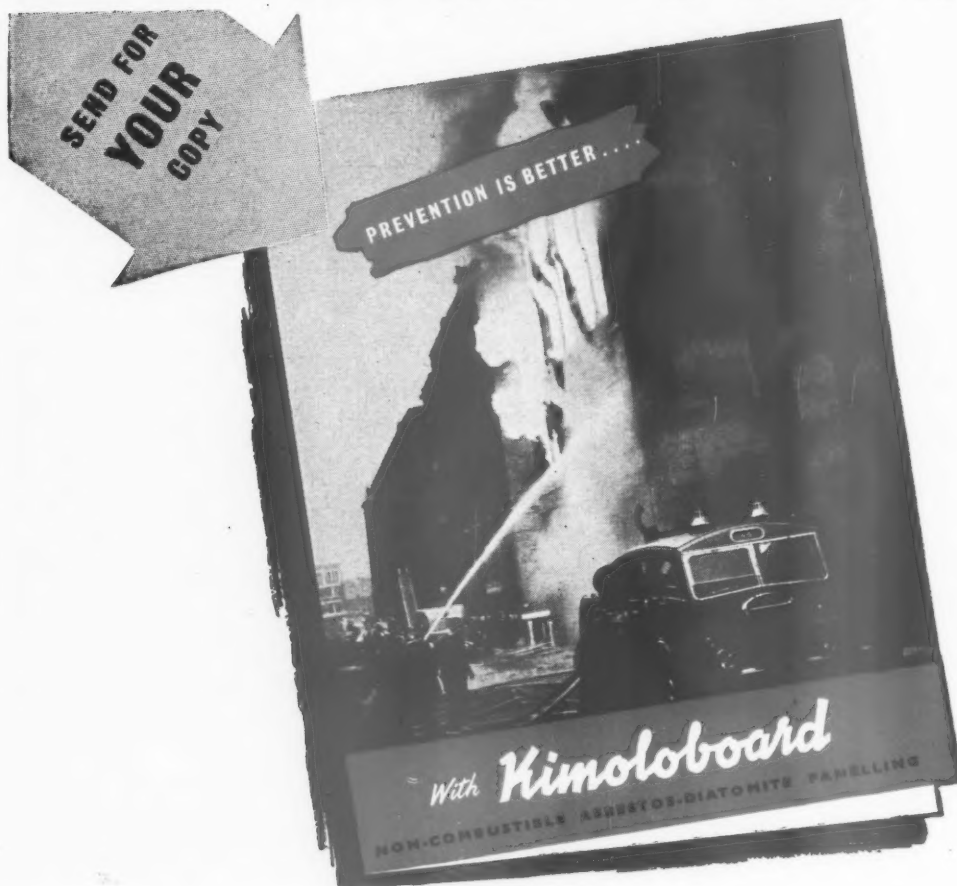
**HOUSE
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THE FIRE BARRIER



PREVENTION IS BETTER...

is the title of a new leaflet that should be read by everyone who is concerned with fire prevention.

Briefly, it shows how Kimoloboard Non-combustible Panelling acts as an indestructible *fire-barrier*, and how, used for partitions, ceilings, flue linings, etc., it can prevent fire spreading.

While there are some boards that do not burn, many of them crack, shatter or warp or (because of organic constituents) give off inflammable gases under intense heat. Kimoloboard is unaffected by the fiercest fire, and so is an invaluable contributor to a building's safety.

Kimoloboard

**NON-COMBUSTIBLE ASBESTOS-DIATOMITE PANELLING
WORKS LIKE WOOD—STANDS FIRM UNDER FIRE**

Please write to :

CELLACTITE & BRITISH URALITE LTD. CELLACTITE HOUSE, WHITEHALL PLACE, GRAVESEND, KENT

'Phone : Gravesend 4911 (6 lines)

Wires : Cellactite, Gravesend



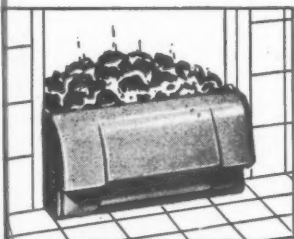
CELLACTITE BUILDING PRODUCTS:— CELLACTITE • KIMOLOBOARD • KIMOLO (MOLER) PARTITION BLOCKS & INSULATING BRICKS • NURALITE NON-METALLIC ROOFING MATERIAL • URSTONE FLUES & DUCTING

TAS/CL. 450



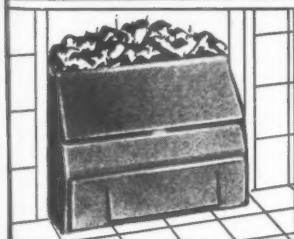
The No. 50 LOWBURN continuous burning fire 2" lower than average

Choice of two detachable extension pieces



1. Standard. With extension piece down, the fire burns more efficiently and with less trouble than any ordinary open fire.

With extension piece up, the fire will stay alight for ten hours or more. It can be left to burn unattended and no live fuel can possibly fall out on to the hearth.



2. Trivet. If desired the combined hook-on trivet and extension piece, as illustrated, can be supplied instead of the standard fitment.

The combined hook-on trivet and extension piece is shown in position for overnight burning.

If the boiler is not used to provide domestic hot water, 45 sq. ft. of radiation surface (including unlagged piping) can be heated.

Hot Water System. The recommended size of cylinder is 30 gallons (direct or indirect).

The No. 25 Lowburn, a continuous burning fire without boiler, is also available. For further information about the No. 50 or 25 Lowburn Fires, write to the Housing Division of:

NOTES:

2 inches lower than average continuous burning fire of this type — and very pleasing to the eye. Low costs — to buy, to install, to run.

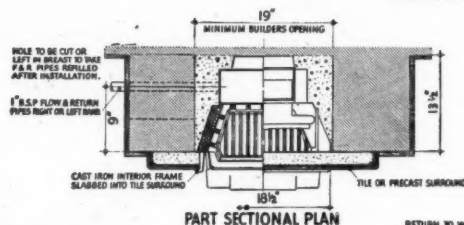
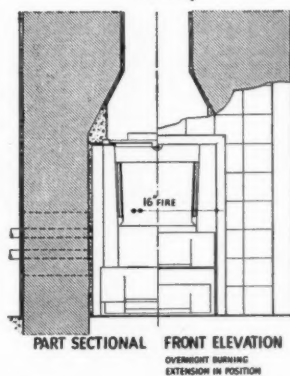
The No. 50 Lowburn Fire is an approved appliance. It burns for 10 hours without attention on all recommended fuels, including coke.

The difference the low front makes

The maximum radiant heat is directed at the lowest possible level.

It is economical because a few lumps of fuel—not a whole scuttle full—are enough to give a cheerful blaze.

INSTALLATION DETAILS



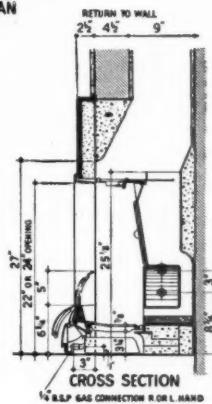
SPECIFICATION:

Vitreous enamel cast iron front with extension for overnight burning. Fire-brick lined fire box, removable bottom grate and adjustable air inlet in fire front.

Wrought welded or copper boiler with 1 in. side tappings right or left hand, and cast iron self-contained boiler flue and damper. Operating tool and mild steel ashpan. With or without gas ignition burner.

The unit can be supplied prepared for, but without boiler.

Colours.—Beige Mottle or Black, Allustre A2, Alisheen Black, Bramble, Bronze or Copper.



Gas Ignition Burner Connections: $\frac{1}{4}$ in. B.S.P. on either hand.

Fuel Consumption:

Average figures are:—

Winter Conditions	..... $1\frac{1}{2}$ to $1\frac{3}{4}$ cwt. per week
Spring and Autumn	..... $\frac{1}{2}$ to 1 cwt. per week
Minimum or overnight rate	..... $\frac{1}{2}$ to $\frac{3}{4}$ lb. per hour

Space Heating Capacity: Full heating up to 1,500 cu. ft.

Boiler Output: Maintainable maximum 9,000 B.Th.U. per hour. Provided the system is compact the boiler can heat a towel rail in addition to supplying domestic hot water.

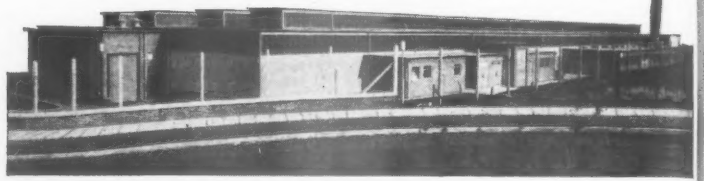
ALLIED IRONFOUNDERS LTD

Makers of cookers, boilers, and fires

28 Brook Street, London, W.1.



Factory at Peterlee, Co. Durham for Jeremiah Ambler Ltd.
Contractors: Bovis Ltd., London, W.1.



For maximum daylight and controlled heating, Patent Double Glazing has been installed in the above modern factory for wool spinning, which process demands a fairly high humidity, together with uniform temperature. The possibility of excessive condensation and fluctuation in temperature through heat loss is minimised by the use of Double Glazing, the insulating properties of which reduce the thermal transmittance by 50%. Fuel costs are reduced considerably, and the required process conditions, together with the improved wellbeing of operatives are thus advantageously achieved.

PATENT GLAZING

for light industries

specify . . .



Write or 'phone for our representative to call: he will be pleased to help you. Information sheets sent on request.

W. H. HEYWOOD & CO. LTD., HUDDERSFIELD. Telephone 6594 (5 lines)

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hey354



YOUR SPECIFICATION'.....

... for lighting will be appreciated even more if you include Siemens "Social Colour" Lamps. The reason in a nutshell is that they have the low current consumption common to fluorescent lighting and yet produce the warm light common to filament lamps. It is filament lighting which everyone regards as pleasant and acceptable. The "Social Colour" Lamp extends the use—and advantages—of fluorescent lighting into fields in which it was not previously accepted. It is, therefore, most successful when used in the home, restaurants, shops; anywhere in fact where people gather and expect to see their friends, and surroundings, in a soft, natural light.

Write for our illustrated leaflet No. 24 which contains full details of the . . .

SIEMENS "SOCIAL COLOUR" FLUORESCENT LAMP



Siemens Electric Lamps & Supplies Limited, 58-59 Upper Thames Street, London, E.C.4.



'ATOMAT' testing

proves the strength of

weyroc
(REGD)
MAN-MADE TIMBER

Maintaining Weyroc's consistent quality means constant testing. But testing used to mean destroying — so we couldn't test a very high proportion of boards! Research confirmed a close correlation between the strength of WEYROC and its density: thus by closely controlling the density, strength may be maintained within acceptable limits. Now, with the aid of radioactive isotopes from Harwell and specially developed electronic apparatus, we can measure the density of our entire WEYROC output. There's no hold-up in production, no destruction of boards—and you can be sure of getting strong, durable material that lives up to its exacting specification.

WEYROC is produced in boards 8' x 4' in $\frac{1}{2}$ " and $\frac{3}{4}$ " thicknesses, and in four grades: plain, paper-surfaced, plastic-surfaced and veneered. For strength, durability, versatility and the economy and ease with which it can be worked, WEYROC is ideal.

EVERY GENUINE WEYROC BOARD BEARS THE WEYROC LABEL

For the slightly more technically minded

The density gauge consists essentially of a source of beta radiation directly opposite to a radiation detector of the ionisation chamber type. Production WEYROC boards, of known thickness, are fed between source and detector, causing a reduction in the ionisation current. Since absorption of the beta radiation depends on the density of the material through which it passes, the ionisation current can be recorded on a meter directly calibrated in terms of density.

**For FLOORING · ROOF LINING · SKIRTING · PARTITIONING · DOORS
STAIR RISERS · SHELVING · WINDOW SILLS · CUPBOARDS, ETC.**

THE AIRSCREW COMPANY & JICWOOD LIMITED · WEYBRIDGE · SURREY

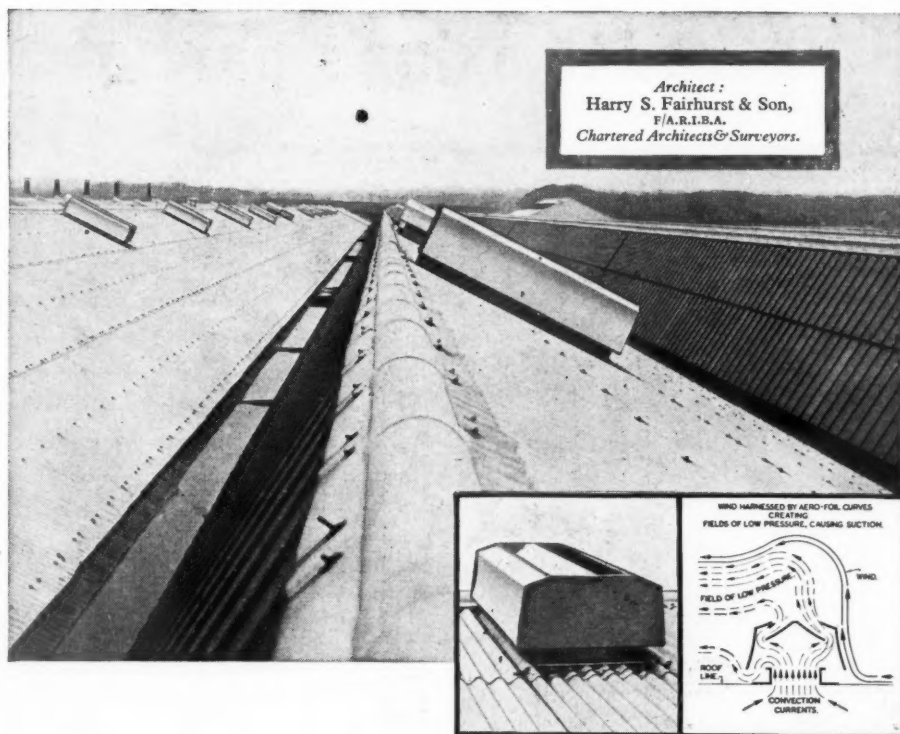
Telephone: Weybridge 1600

Telegrams: Airscrew, Weybridge

**Some of the
Architects who
have specified**

**COLT
ventilation**

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A.M.T.P.I., A.R.I.A.S.
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Thomson, McCrea &
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Nottingham City
Architect
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Nottinghamshire
County Architect
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A.R.I.B.A.
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A. C. H. Stillman,
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A.I.STRUCT.E.
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with natural ventilation planned by

COLT

In considering the ventilation of the giant new factory for Leyland Motors the Architect required a system of air extraction which would not only provide good distribution of ventilation, but would also be maintenance free, fully rain-proof and would not detract from the appearance of the building.

The COLT SRC/3080 Natural Controllable High Duty Roof Extractor Ventilator was selected as it adequately filled all of these requirements and 160 of these ventilators were subsequently installed.

COLT'S wide experience in the ventilation of all types of buildings both new and existing is at your disposal. Why not take advantage of it?

FREE MANUAL, with full specifications of the wide range of Colt Ventilators is available on request from Dept. A34/171



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THE SPECIALISTS IN PLANNED NATURAL

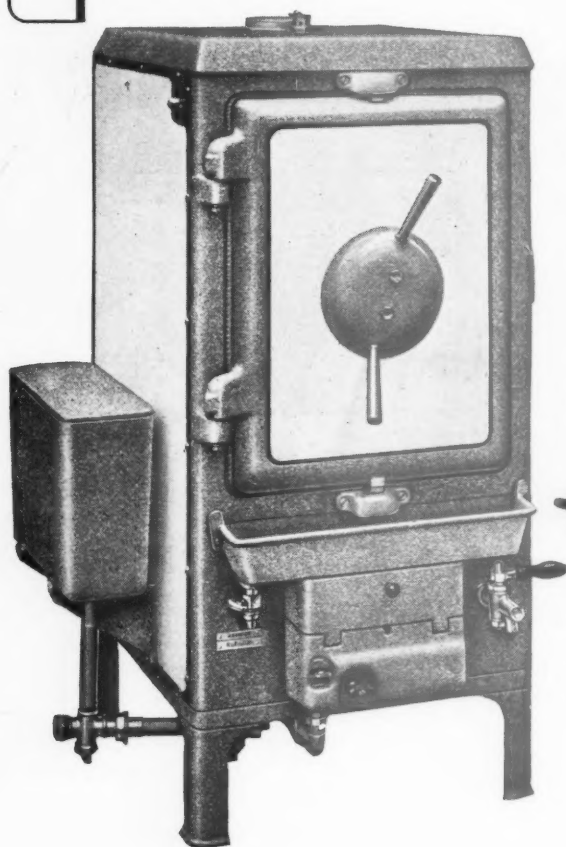
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COLT VENTILATION LTD • SURBITON • SURREY • TELEPHONE: ELMbridge 6511-5

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When plans are being drawn up for kitchen installations—be it the largest range or smallest hot-plate, Radiation can do architects a real good turn. For Radiation Large Cooking Equipment, installed in the best working position, ensures first-class cooking at all times.



For steaming vegetables and puddings, where gas is the fuel, the most useful appliance is the compact, thermostatically controlled **KESWICK STEAMER**. Also available, in various sizes, are **PRESSURE STEAMING OVENS** for kitchens where steam is laid on. Steaming is carried out under 5-lb. pressure, and the door has an effective safety device.



Please consult us on all large cooking problems

WE SHALL BE GLAD TO SEND YOU A FULLY DESCRIPTIVE LEAFLET

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14 in. by 6 in. floor beam (6 days old) during test to destruction. Load as above—5,200 lbs. Beam span 12 ft.

FLOOR & ROOF BEAMS

- ★ HOLLOW UP TO 51 ft. SPAN
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DOW-MAC (PRODUCTS) LTD

Manufacturers, designers, constructors and patentees of normally reinforced and PRESTRESSED PRECAST CONCRETE using the Dow-Mac Patented Process with the largest up-to-date production facilities of their type in the world.

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One of the most conspicuous advantages of a Clay Quarry floor is that it is so easily kept clean, particularly where skirtings of the same material are used. The smooth, dense surface, free from sharp angles or crevices, may be maintained in a spotless condition by simply sluicing or mopping. Further, floors may be rendered **ABSOLUTELY VERMIN-PROOF** by the application of colourful Clay Floor Quarries.

They are the obvious choice for all premises where regulations demand washable floors, and for all other buildings where hygienic conditions are essential.

Clay Floor Quarries are highly resistant to impact and abrasion. They are available in a wide range of sizes, thicknesses and shapes, and in uniform shades of red, blue, brown and buff, or in multi-colours, and actually **COST LESS THAN ANY OTHER FLOORING MATERIAL**

Correctly laid, a Quarry floor will last as long as the building.

For further information, please write to The Secretary, Floor Quarry Association, Federation House, Stoke-on-Trent.

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WOOD — nature's best building material

CANADIAN RED PINE

**a wood remarkable for its versatility...
at once structurally strong and
beautifully grained.**



TYPICAL USES

*Interior decoration,
panelling, stairs, floors,
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ings, trims, cupboards,
built-in furniture*

*Exterior siding, doors,
windows and trim*

Structural timbers

*Railway wagons, flour
and grain-milling equip-
ment, agricultural imple-
ments*

*Boxes and crates, tanks
and silos*

*Telephone poles and
piling (treated)*

SPECIAL ADVANTAGES

*Warm straight grain,
firm red knots*

*Easy to work, holds
screws and nails well,
takes good finish*

*Low shrinkage and di-
mension stability*

*Particularly suitable for
load-bearing members
in house, commercial and
industrial construction*

*Seasons remarkably well
without accompanying
seasoning defects*

FOR FURTHER INFORMATION
concerning Canadian woods contact The
Commercial Secretary (Timber),
Canada House, Trafalgar Square,
London S.W.1

Reproduced here is figure of Canadian Red Pine

**This advertisement is one of a series featuring Canadian Douglas Fir, Spruce,
White Pine, Pacific Coast Hemlock and Western Red Cedar**

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MOON BROTHERS LIMITED



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Directors
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W. H. NICHOLSON
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JASPER MOON
J. L. HARVEY

Celotex Limited,
Stonebridge Park,
London, N.W.10.

13th April, 1954

Dear Sirs,

We feel sure that you will be interested in the savings we have made since our factory was lined last summer with Celotex Insulating Board.

During the period 1st October 1952 - 1st April 1953 - before the lining was installed - our original factory used

14,417 gallons of oil at a cost of £645. 15s. 3d. and
16 coke heaters.

Even with the above, we received complaints from our employees that the factory was too cold and we had severe condensation problems which caused a great deal of damage to our machinery through rusting.

Last summer we had the roof and part of the walls lined in both the original factory and in a new extension of approximately the same area. These linings were installed, without interruption to our production, with the Celotex Metal Fixing System. Our fuel consumption for the two factories, from 1st October 1953 to 1st April 1954 amounted to

16,560 gallons of oil at a cost of £741. 15s. 0d.

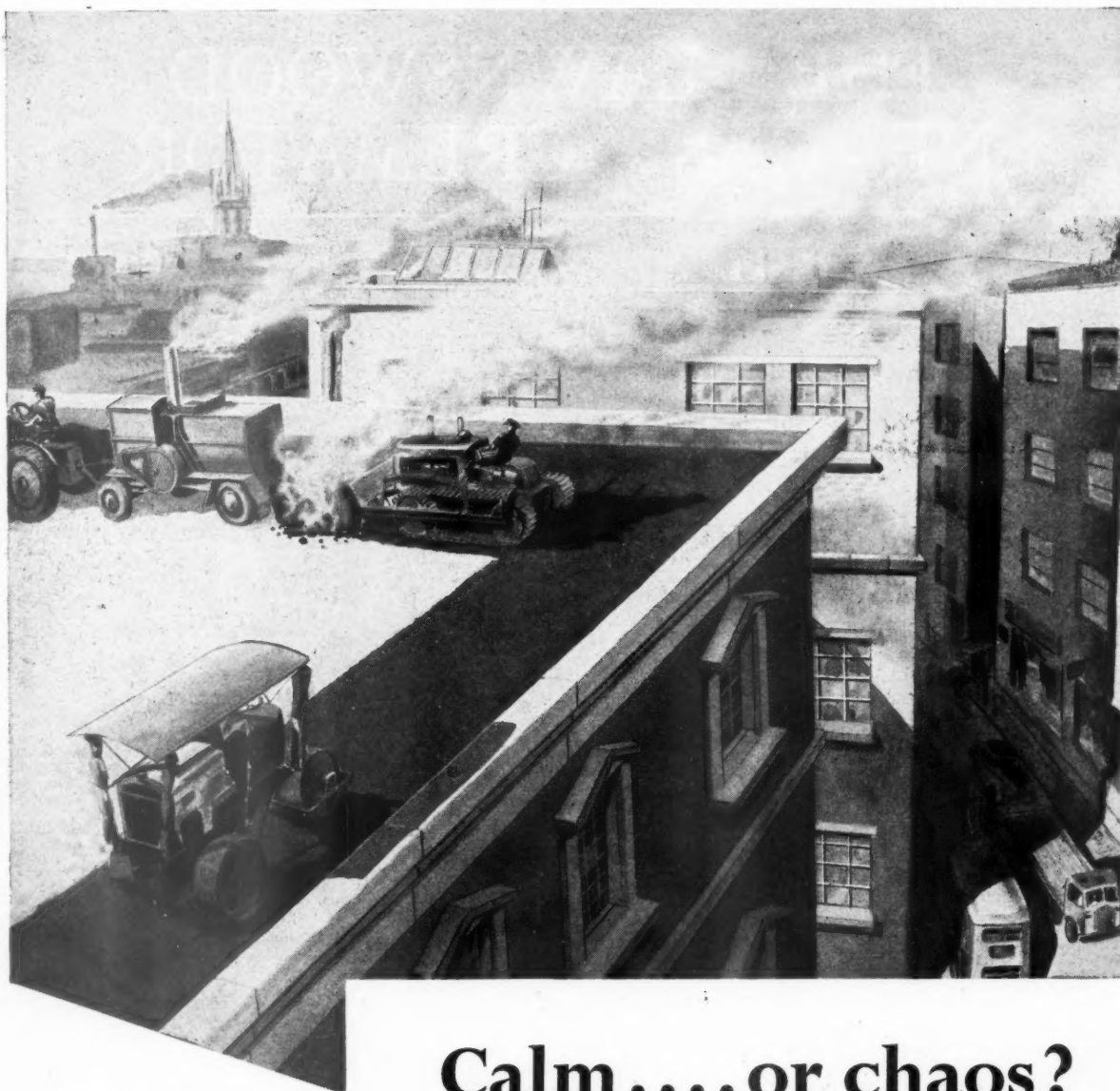
Although we are now heating twice the original area - and maintaining a much higher average temperature - we have been able to dispense with the 16 coke heaters and our fuel costs have been reduced, proportionately, by almost 50%.

In short, we are delighted with the job and it gives us very great pleasure to tell you as much.

Yours faithfully,
for and on behalf of MOON BROTHERS LIMITED,

R. B. Moon

R. B. Moon - Managing Director.



Calm....or chaos?

Occasionally we meet people, bless their hearts, who have some vague idea that the job of asphaltting calls for little more than brute force and ignorance. Swallowing hard, we explain with icy calm that this job calls for immense experience, specialised knowledge and skilled organisation if it is to be done economically and with the complete absence of chaos. Which is why, no doubt, so many enlightened Architects **call in Val de Travers.**

VAL DE TRAVERS ASPHALTE LIMITED

21-22 OLD BAILEY, LONDON, E.C.4

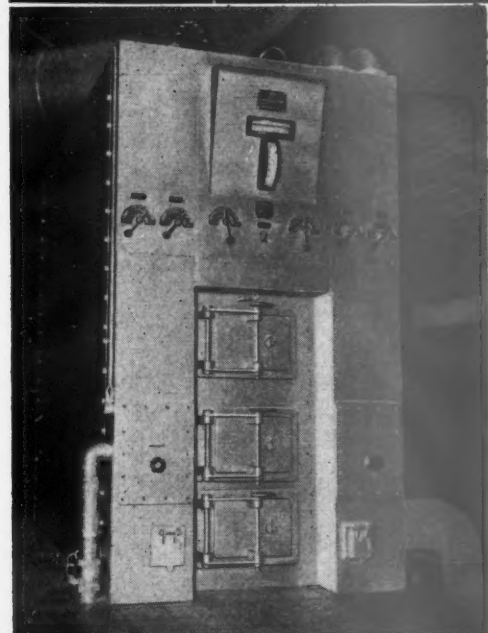
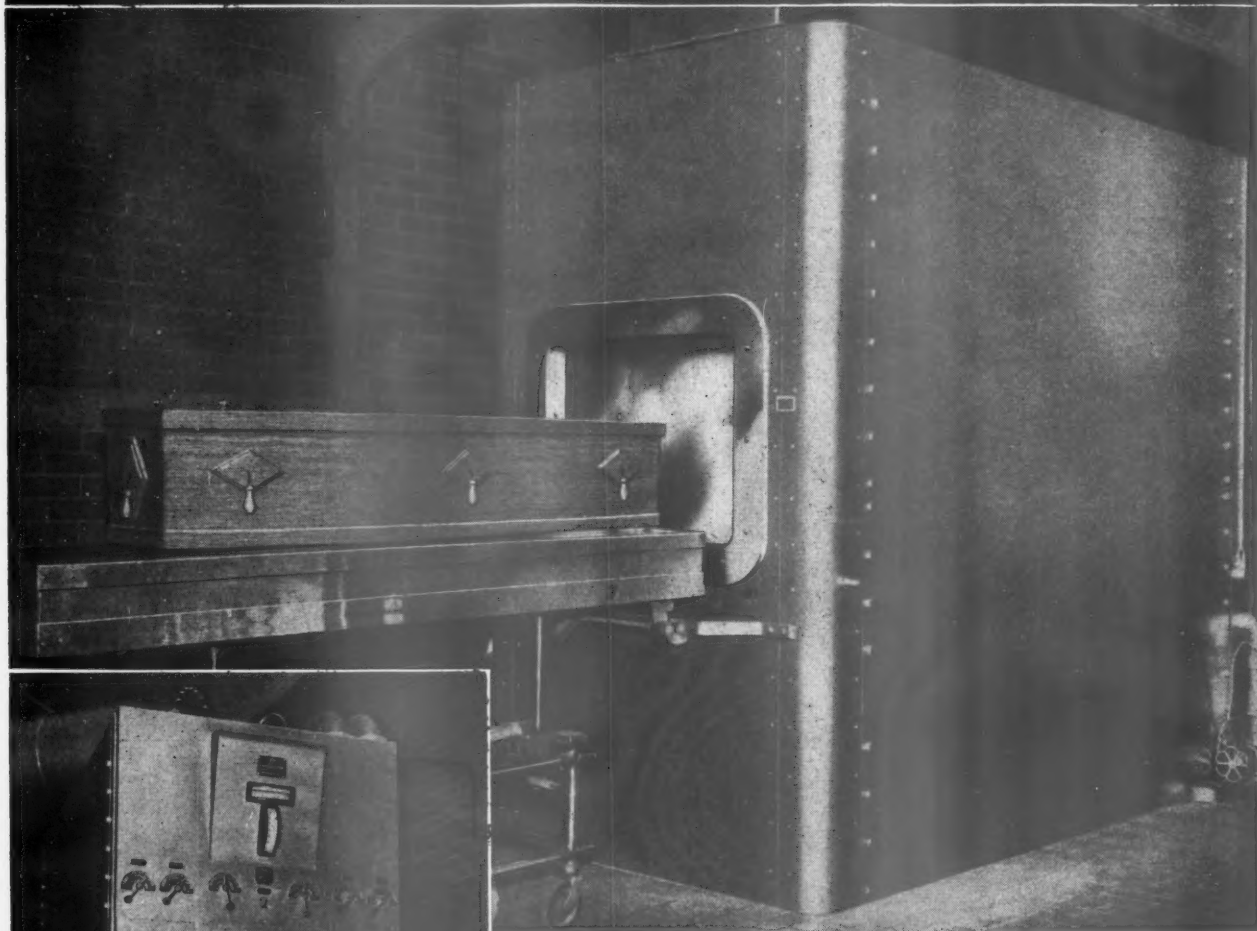
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THE LAWNWOOD NE - GAS CREMATOR



A technical advisory service on the installation and layout of Cremators with their auxiliary equipment is available for Architects preparing Crematorium designs. Many progressive authorities are installing this type of Cremator, which incorporates the latest technical developments, eliminates smoke nuisance and ensures speedy cremation with a minimum gas consumption.



Bulletin No. 9 is available on request

THE DOWSON & MASON GAS PLANT CO. LTD

ALMA WORKS

LEVENSHULME

MANCHESTER

Telephone: HEATON MOOR 2261 (3 lines) Telegrams: Gasify, Manchester 19

Meet Ginger Johnstone, Form 2a.

Though she's not so hot at the moment. Through prayers and Geog, she still had her cycling glow. In Lat she began to feel chilly and now she's so frozen from toes to fingertips, Alg is quite lost on her.



Now meet Ginger in high summer ; but please don't shake her. She dreamed through Geom, drowsed through Arith and now she's gone right off in Eng. The person who ought to be shaken by this state of affairs is the architect who designed the school without Fibreglass insulation.

Yet even now, applied to the roof alone, this inexpensive, everlasting, highly-efficient insulation would make all the difference to Ginger's warmth and well-being in winter, coolness and concentration in summer.

wrap that school in

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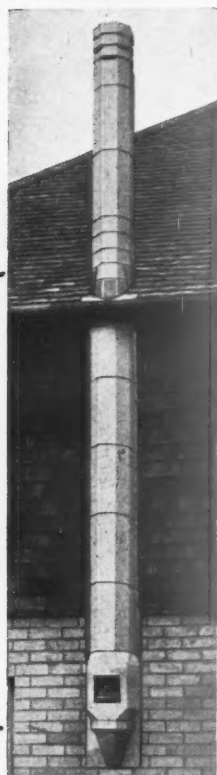
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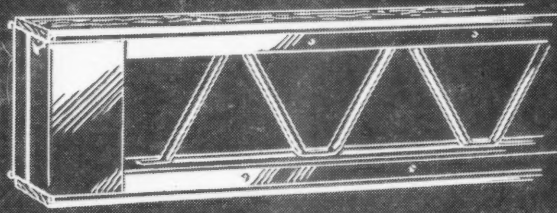
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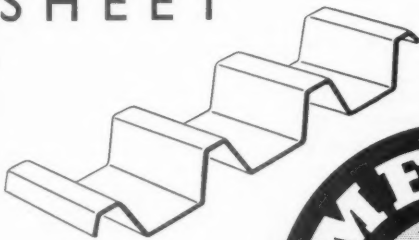
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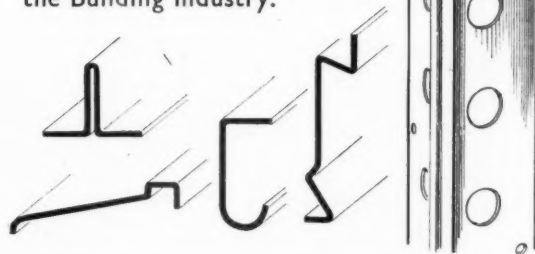
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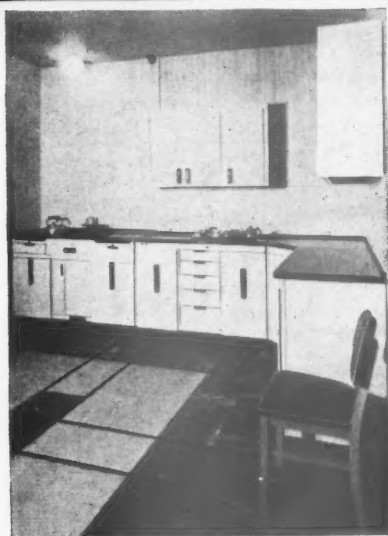
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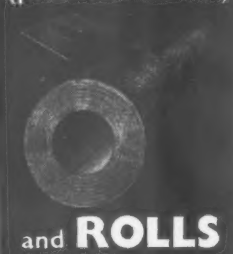
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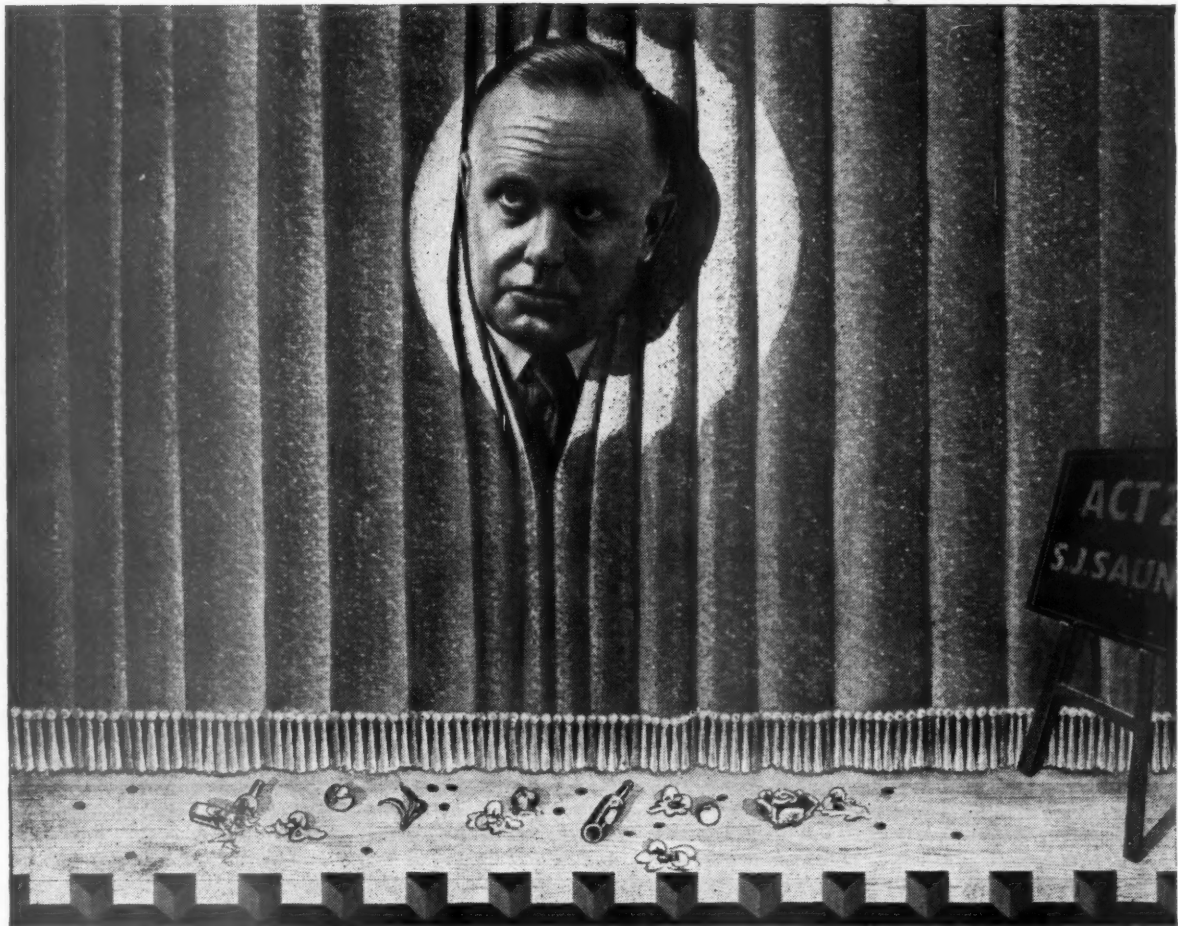
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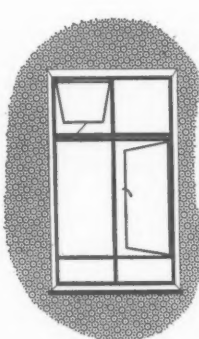
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METAL WINDOWS

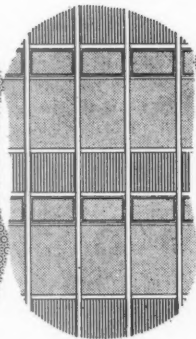
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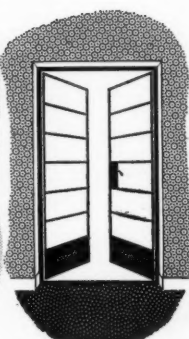
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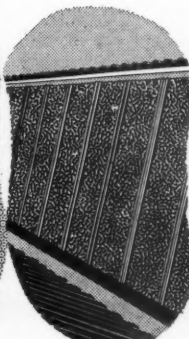
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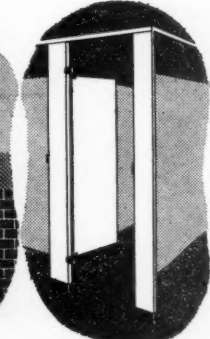
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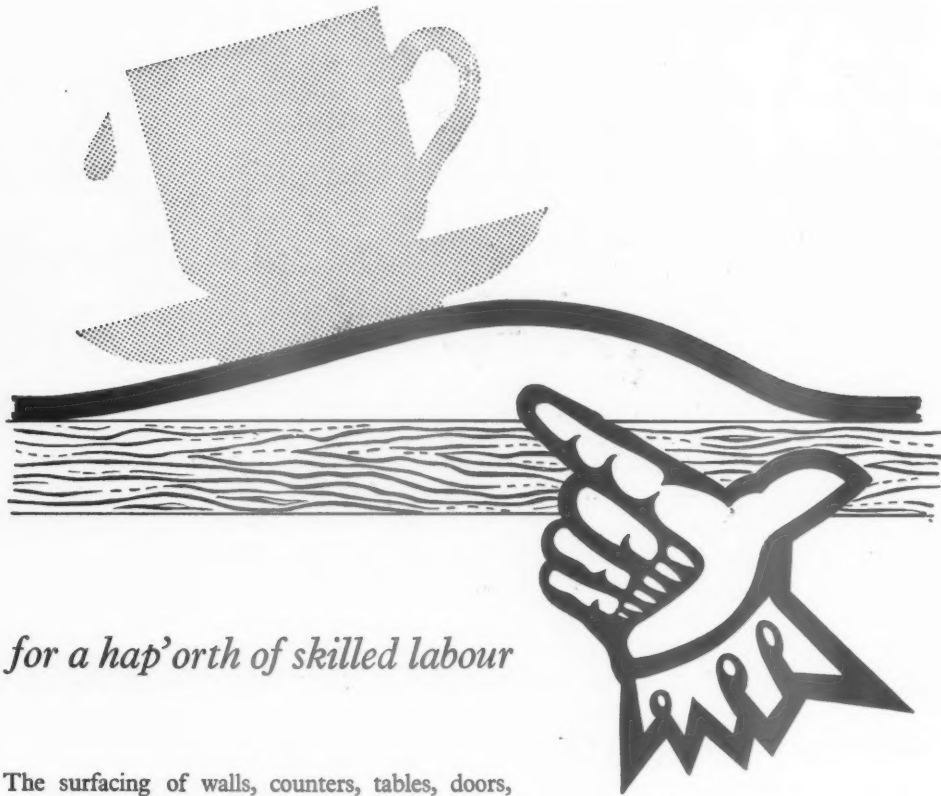


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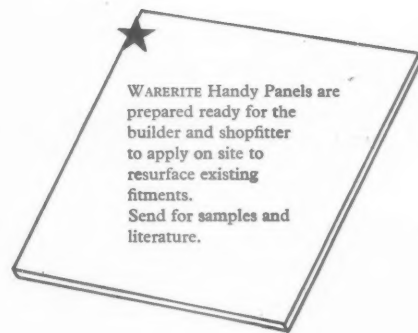
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* To preserve freedom of criticism these editors, as leaders in their respective fields, remain anonymous.

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PRIZE-FIGHT

How could this gossip column be filled each week without the help so considerably given by RIBA Secretary Spragg, his committees and his council? Last week, before the seemingly innocent and simple McMorran report on education was published (and, in passing, what *could* it be that kept them arguing for nearly three years?) 66, Portland Place was the scene of that kind of good-humoured disagreement—in public, which can so often cause a little ill-humour afterwards in private.

*

C. H. Aslin, the President, started the evening modestly enough with his address to the students assembled for the annual prize-giving and criticism.

In what is probably a near-record for presidential and, to some, no doubt, contentious brevity, he recommended integrity and the ability to satisfy the client ("the right price in the right time") as the two basic requirements of an architect. Then followed critic Raymond Erith's comments on the student entries and prize-winners. Scoring laugh after surprised laugh with frequently accurate criticizing of some of the stupid mistakes students so easily make when they copy their elders and worsers, and confusing the issue neatly by assuming that students only designed the way they did because they thought that truth is beauty (parts of his talk are printed on page 193 of this issue) Raymond Erith pulverised his audience like a rejuvenated Richardson. Something, we gathered, was wrong with non-traditional architectural design.

*

When Erith concluded, the now seemingly-reluctant proposer of the vote of thanks, Anthony Chitty, ever the staunch defender of students and modernity, immediately rushed to their aid with a biting, amusing, criticism of Erith's arguments. Professor Edwards, head of the Newcastle School, seconding the vote of thanks, sided with Erith, and the claps which followed barely drowned the boos. Aslin, who spoke next, feeling, no doubt, that these prize-giving parties were hardly the occasion for too tough criticism of tender students capped the proceedings and finally crushed the critic by firmly stating his disagreement with all that Erith had said.

*

Alas! poor Erith—he only spoke his mind. Nothing was unknown about his

ideas on design—at least to those who bother to visit the Royal Academy—so either his public chiding, or his appointment as critic, was unnecessary.

*

However, for the benefit of those young students who were puzzled by the whole affair ASTRAGAL publishes the illustrations on page 185. They are of recent designs, RA-hung, for a factory and a house, by critic Erith, our only Regency revivalist, and a most painstaking and meticulous restorer of Georgian houses. If you bear these designs in mind, you will find Mr. Erith's arguments on page 193 more entertaining.

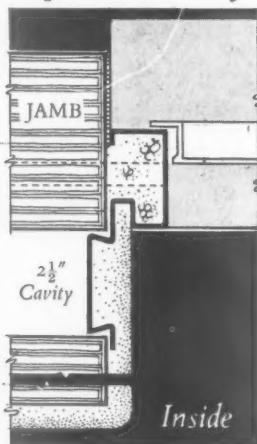
SOUTH WITH WESTWOOD

"And now," said Bryan Westwood, as he moved nearer to the edge of the platform, "I shall plunge straight into the slides." Every Goon-show fan present automatically held his breath—waiting for the appropriate sound-effects—and then continued to hold it because, although Mr. Westwood did not keep his promise to the letter, he did show his audience (at the AA) some remarkably good colour photographs of Italian architecture. Most of the photographs were his own; others were by Joseph Emberton and Felix Samuely, who were with Mr. Westwood on the Italian trip which the Cement and Concrete Association organized last summer. These two gentlemen were invited to interrupt Mr. Westwood whenever they had something to say, but fortunately their interruptions were few. I say "fortunately" because it was obvious that Mr. Westwood, who had been warned about Mr. Bakema's marathon

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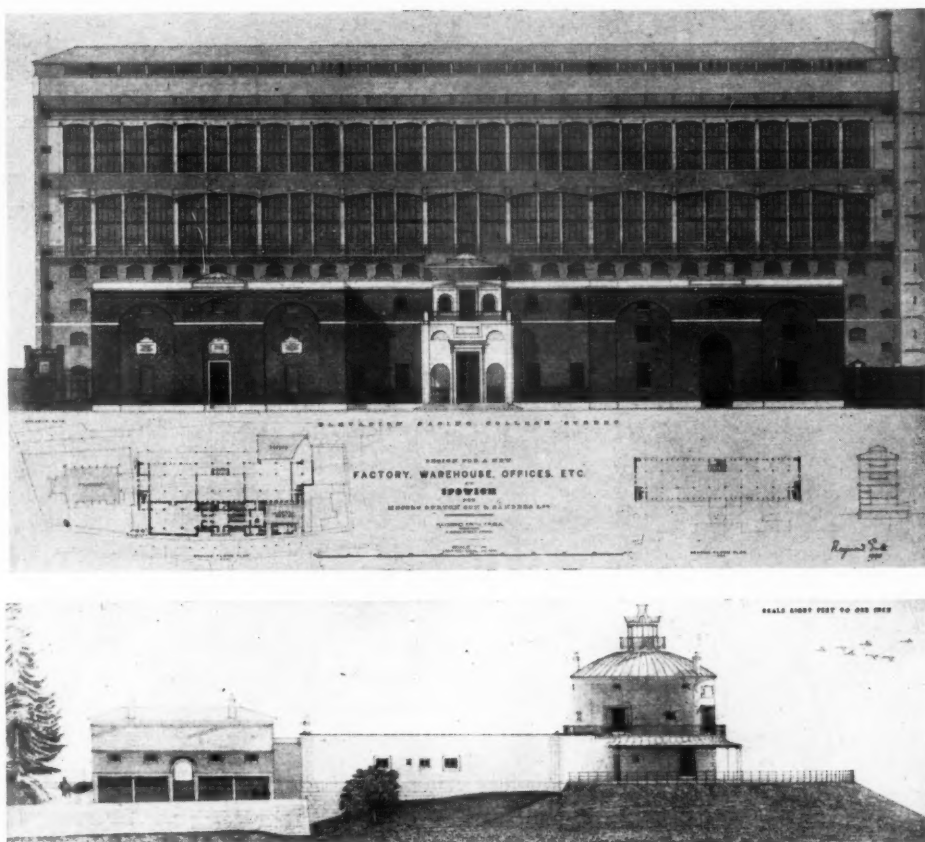
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Students who do not know their way around the Royal Academy's Summer Exhibition, where Raymond Erith is a frequent contributor, may easily have been distressed by the pro-traditional onslaught which Mr. Erith loosed upon his student audience at the RIBA last week. (See first note).

ASTRAGAL is, therefore, happy to publish two RA-hung designs by Mr. Erith, which show how successfully he practises what he preaches. (Right, top: College Street elevation of factory, warehouse and offices at Ipswich. Right, bottom: south elevation of a house in Devonshire, to be called "The Redoubt.")



speech of the previous week, had to go through his slides at a speed that was hardly comfortable for him.

*

ASTRAGAL came away from the AA astonished by the amount of money the Italians are spending on finishes and on the design of special furniture and fittings in their luxury buildings; intrigued by their economies in house-building (they are putting up hundreds of empty shells with holes to take fireplaces—which the occupiers have to finish off themselves); and impressed by the trouble taken by shopkeepers in small towns to lay on well-designed display, even though they have no competitors to outdo in the neighbourhood.

*

I shall not say any more about Mr. Westwood's enthusiastic (and enjoyable) account of the Italian tour, because readers will have a chance of learning something of his impressions next week from an article he has written especially for the JOURNAL. But I must record my appreciation of some of the contributions made by Joseph Emberton and Felix Samuely. Mr. Emberton explained that by building high, towns were able to provide more open space between buildings. (HAVE

YOU UN-DE-R-STOOD THAT, STU-DENT READ-ER?); and Mr. Samuely gave an exciting account of Nervi's Exhibition Hall in Turin, and made some neat architect-engineer wisecracks about one or two of Mr. Westwood's slides.

AN ARCHITECT IN THE HOUSE?

Talking of lantern slides, did you hear of Richard (*A Doctor in the House*) Gordon's remarks about advertising in the medical profession. There is nothing, he said, in the rules of professional conduct to prevent Gregory Peck's rugged features from being plastered with a slide saying: "Doctor X is Needed Urgently." And this message could be laid on, said Mr. Gordon, by a publicity-minded wife with a telephone.

*

You will see, no doubt, what I am about to get at. Just imagine it: the sub-titles on the Italian film at your local arty cinema are whipped away, and in their place—effectively obscuring the cleavage—is your name. "Aubrey Basildon-Jones, ARIBA, Wanted Urgently on the Site." There are, of course, two snags. Some uncouth cinemagoers will not know what the five-letter word means and will substitute something more economical. Others, who know your occupation,

will write you off as a dead loss for wasting your time at a matinee. (It would have to be a matinee, wouldn't it?) But there are certainly possibilities here.

WREATH OF LAUREATESHIP

Before you dash off to see your local cinema manager, to arrange for a regular showing (in a gentlemanly size of lettering) between the R*n*o advertisement and the second feature, you might like to stop being so selfish for a moment and join me in applauding a triumph for architecture in general and Professor Nikolau Pevsner in particular. Professor Pevsner, as you read in last week's JOURNAL, is to give the BBC Reith lectures for 1955. At the present time there is probably no more prominent position from which a finger may be laid on the pulse of intellectual life in Britain and the world, and now that eminent thinkers have drawn our attention to such grave matters as nuclear physics and the tide of world affairs, it will be good to have our attention directed towards something as insignificant and as absolutely vital as the visual arts.

Professor Pevsner's theme will be "The Englishness of English Art." This is a subject on which he speaks



Contemporary Chaos

The Italians have found their own answer to the working-class housing problem: they regard the home as a shell for filling in. Many blocks of flats are made up of living units in which there are few fittings: occupants are expected to supply and instal their own fireplaces, stoves, cupboards and so on. But although these dwellings are stark, they are of a much higher standard than the accommodation from which most of their inhabitants have moved. And in spite of the austerity of these flats, their elevations are often imaginatively designed. The block shown above reflects, in character, the simplicity and gregariousness of the Italian

working man. There is a "matey" quality about this extraordinary collision of balconies and roof lines which is reminiscent of the poor districts where the newly-housed families once lived. "The scale on which such housing schemes are going up is surprising," says Bryan Westwood (who talked about Italy at the AA last week—as ASTRAGAL reports on page 183) "in a country which one had been led to believe was on the verge of bankruptcy after the war." Mr. Westwood, who was equally surprised by the scale on which luxury buildings are going up in Italy, will give his impressions of architecture in that country next week.

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with authority, for he more or less discovered it—and he has held it in high esteem ever since he reached our shores in the early 'thirties.

ARTERIAL MOTIVES

From English art to English roads, whose rolling Englishness has inspired the poet, maddened the lorry-driver and delighted the pleasure motorist. The Ministry of Transport has, at last, decreed that a start shall be made on unrolling some of the roads that bring congestion to our cities and on laying a London-York highway with flyovers, limited access and no scope for the speculative builder, who was allowed to make nonsense of pre-war arterial roads. ASTRAGAL, who hardly dares to pass the 50 m.p.h. mark now that Dr. Eustace Chester—the popular psychologist—has attributed fast driving to “a lack of self confidence,” timidly cheers this fast-road plan, but joins with countless other objectors in protesting against the payment of tolls cases . . . ?”

*

“It's hard enough,” as somebody said to ASTRAGAL, “to raise the toll money—and, anyway, what does the civil service do with all those suitable cases . . . ?”

SHUNTING, HOOTING AND HISSING

And what, by the way, does the civil service think it can give the country in return for those sports which are listed for every engine fan in *Who's Who*—shunting, hooting and hissing? These sounds—beloved by every sensitive ear—are on the way out, according to the report of the British Transport Commission, which is going to exchange steam for diesel and fix continuous brakes on freight cars. But if the ear is to be neglected, what of the eye? There is no reference in the report to standards of design. But the plan outlined in the report has not yet reached a practical stage, and if you try to explain the expenditure of £1,200 m. in thirty-six pages you can't produce much beyond generalizations. We can but hope that there will be plenty of adventurousness in British Railways' doings. And if you are about to swear to eat your hat if the hope becomes anything more than forlorn, let me remind you that headgear of edible popcorn has just been made available in one of the better houses of fashion in Paris.

ASTRAGAL

POINTS FROM THIS ISSUE

The McMorran Report on education	below and page 195
A Layman's View of designing and building procedure	page 188
Conversions: Improving the bye-law street	page 196

The Editors

THE INNOCUOUS McMORRAN REPORT

AS we prophesied in the JOURNAL of January 6 there is nothing very fundamental in the long awaited McMorran Committee report on training and qualification for associate membership of the RIBA. The summary of recommendations are reproduced in full, together with the Council's comments, on page 195.

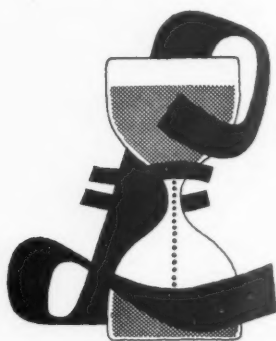
It had been rumoured that the McMorran committee's report would be the spearhead of an attack on architectural schools, following complaints from the older members of the profession that newly qualified architects were ill-equipped as draughtsmen, detailers and assistants, and that therefore part-time training should be encouraged. There is little indication in the report of such reactionary folly. It is concerned with tidying up details and putting a slight polish on standards. Nothing more innocuous could be expected.

It recommends, very sensibly, that architectural teachers be required to have practical experience, and their qualifications and salaries are to be investigated by the Visiting Board. The practical experience period is being lengthened to two years—which makes a total of seven years before qualification for the student—a stiff hurdle, but one which can only increase professional standards and status. And, not unjustly, it is recommended that the standard of schools examinations should be similar to that of the RIBA examinations.

Two recommendations have been put aside for further study: the recognition of part-time courses for exemption from the RIBA examinations and the disciplining of architects who engage juniors who are not educationally fit to become probationers—far less eventual architects.

The final recommendation is the most fundamental: the promotion by the RIBA of “a conference of builders and the allied professions with the object of establishing a standing joint committee on training for all sides of the building industry.” Here possibly is the seed from which a proper educational system for the whole building industry—at a professional level—may grow. Such a system is, however, as yet a long way off.

More immediately, at the end of this year, in fact, the RIBA propose to hold a conference—to be organized by the officers of the Board of Architectural Education—covering the whole field of architectural education. We have already commissioned an article by an eminent architect-educationist who will put forward a fundamentally new approach to architectural education in Britain. We hope this will serve to stimulate opinion on this supremely significant issue.



This is the third article by the JOURNAL Guest Editors (Costs) for 1955 (N. Stanley Farrow, M.I.O.B.; A. W. Cleeve Barr, A.R.I.B.A.; James Nisbet, A.R.I.C.S.; Ivan Tomlin, A.I.B.E.; E. F. L. Brech, B.A., B.Sc. (Econ.), M.I.L.A.). The first two articles (A.J., Jan. 27 and Feb. 3) told the story of a fictitious office building—the events of which were intended to emphasise the cost problem in present-day building. This week we have invited Mr. Brech, as someone outside the industry, to give his own comments on the story. Mr. Brech is by profession a management consultant.

THE COST OF BUILDING: E. F. L. BRECH COMMENTS ON

THE OFFICE BUILDING

I am very glad to be able to respond to the Editor's invitation and with the approval of my fellow members of the Guest Editor team for 1955 to make in my capacity as an outsider to the industry some observations on the office building story. My fellow members feel that it might be of interest if first reactions are those that come from someone not so deeply steeped as they in the traditions of the professions and the industry. To forestall misinterpretation it might be as well if I give a small explanation of the basis from which I comment.

Industry and Management

I have had the good fortune to spend a long career devoted to the advancement of management practice in industries as varied as cotton spinning to the highly complex forms of modern chemical engineering. Time was when the pundits of these various industries agreed that their skills were essentially technological, but that time has long passed, for it is now realized that however highly technological the industrial process concerned, efficiency and economic conduct turns on skills which can be broadly described as managerial. What has been realized in these other industries must be realized—and is, perhaps, now beginning to be realized—in building and civil engineering. However highly technological their content, management skill rests at the basis of efficiency and economical operating.

Spending half a lifetime on management problems and moving from one industry to another has necessarily bred in me what could be aptly described as a spirit of intolerance of those inefficiencies which are remediable or preventable and of the attitude that "it cannot be done." Not that one makes any approach on a harsh or inhuman principle, for management skill is essentially human in its context.

The Building Industry

My first experience of the building industry left me seriously disturbed—not so much by the existence of considerable inefficiencies as by the readiness with which they are

accepted. As I gained wider experience of the industry I found that the standard of management was appalling. The story of our office building seems to me to be typical of what I have seen in the industry, leaving aside, of course, the few firms which have a long-standing grasp of management principles and have gone some way towards emulating the achievements of other industries. I have had sufficient contact with building to be well aware of the difficulties with which the contractor is faced, and I am prepared to agree that he deserves a good deal of sympathy and understanding. He has many authorities and controlling bodies to contend with and professions which are always telling him how to do his job. Even so, it is disappointing that building contractors do not take any steps to put things right—either individually or corporately. One finds, for instance, that management practice does not appear in the professional syllabuses of training for the industry.

Responsibility in Building

The outsider comes to the conclusion that the building industry seeks blame for its troubles anywhere but in its own particular inefficient organization or methods. For example the building contractor blames the architect, the sub-contractors, the weather (that glorious standby of the industry!) the suppliers of materials or, perhaps, just the traditions of skilled trades and of site procedure. I have yet to meet the building contractor who turns round to say: "Of course, the real trouble with my operations is that I myself am not good enough at management." Let me admit that the building contractor *can* rightly apportion blame to some people. For example he depends very much on the architect but if he feels that the architect lets him down what does he do about it? He merely says: "What can I do about it?" In turn the architect blames either the building contractor for being unco-operative or the quantity surveyor. And both the architect and the builder have a first class scapegoat—the client, who is, although they sometimes forget it, the man who makes possible their employment and livelihood.

This passing the buck technique was very clearly brought out in the office building story, which showed that no one stands as the focal point round whom the operations of the contract will be centred. And such a focal point is necessary if the client's wishes are to be met in the most efficient and

economical way. One might expect the building contractor to stand in this position, but the architect is not, of course, likely to agree with this for he (the architect) is the professional adviser of the client, and as such is in control of the building.

THE OFFICE BUILDING STORY



The Client

In the first part of the office building story particulars were given of the client Mr. Gross, who, having acquired a site, was looking round for an architect. Basildon-Jones was appointed, as he had been recommended as "careful and dependable." Thereafter there were meetings—mainly to draw up a schedule of accommodation and cordial relations were established: cordial, that is, except "on one point," because Mr. Gross found that things could not be done as quickly as he would have expected from his own manufacturing industry! In these early meetings and in the attitude of the architect we saw the first source of trouble in the whole story. The basic blame admittedly rested with Mr. Gross, the client, because he had got out only a "rough outline" of the accommodation needed. At this point the architect should have told him to sit down with his drawings and work out more *exactly* what accommodation he wanted and why he wanted it. Let not all the architect-readers immediately rise in protest with the question "Is this our job?" I would reply with a parallel question "Aren't architects the technical advisers on building projects?" "Aren't they paid their professional fee in order to tell their clients how to translate needs into bricks and mortar? Ought it therefore not to be a basic assumption in the architect's approach to his professional work that he doesn't draw plans or let his client ask him to do so, until they have settled together the question of accommodation? I am not saying that the architect ought to know what a client needs or how to turn the client's needs into space with proper layout, appropriate accommodation, etc., etc. What I am saying is that the architect is the only person at this stage in a position to tell the client that he must get it quite clear in his mind first of all what the accommodation is for, how it is to be used, and only then to see how the "clothing" of the accommodation can be designed. We read in the story that it was only after "a good deal of tracing paper had flowed under the benches" that "anomalies and inconsistencies came to light." Some of the later changes in design were of considerable importance: for example, the "additional small offices and another strong room."

Now Mr. Gross must have known very well that in manufacturing he must plan before he can make, and that if his

plans are inadequate he finds himself in difficulties over material supply, inadequacies of labour and the interrelation of process with process, and that in the end his products cost him more than they should do. And he should have been able to translate this into building terms and to realize that he has a considerable job to do in thinking out exactly what activities and services he is proposing to accommodate in his new office block, so that he can determine the best layout of space to provide truly for his needs.

It is a fundamental principle in a sound management approach to organization and methods that it is the layout and flow of work that determines the shape of rooms and accommodation.

The architect may, of course, have to discuss with the client alternative lines of approach to the office design, because the client's ideas—if carried out—would cost too much. He may even have to prepare a general outline of alternative proposals. But there is no excuse at all for any architect getting to a position where he has to start work on design at the risk of having to deal with "anomalies and inconsistencies" in the accommodation and to incorporate "more considerable changes" later on.



The Architect

Basildon-Jones, the architect of our story, was portrayed, to my mind, as primarily the "artist" in character, and I would not for a moment suggest that this quality in the profession should be lost. But let us not forget, in the interests of art, that architectural work calls for more than merely the creative sense.

The architect is inevitably a technical adviser, his clients are laymen, and they look to him for expert advice on many aspects of building techniques. The architect must then have an up-to-date knowledge of materials, of the alternative lines of approach to construction problems, of new methods that are being developed for constructional purposes, of non-traditional approaches that are emerging, of the possible use of preassemblies and so on: but above (and uniting) all these he must have a clear appreciation of costs. "The economics of building" should be an essential item in the curriculum of the professional training of the architect. There is a curious analogy here with the position of the engineering industry between 1860 and 1900. The engineers had regarded themselves as primarily

creators of bridges, men with a high technological standing and knowledge that was concerned particularly with design and the use of this, that and the other material. Costing was regarded as too mundane a matter for their concern, but in the last forty years engineering journals have published pleas—from many sides—for engineers to become cost-conscious in the interests of retaining some position in the expanding world trade. I will leave you the analogy for your meditation.



The Quantity Surveyor

To return to the story: you will remember that Bill Price, the quantity surveyor, was recommended by Basildon-Jones—which implies that his function in the building team is to assist the architect. One feels like asking "In what role?" Is he there simply to price the plans that the architect has drawn up? Or is he able to suggest alternative approaches on more economical lines?

He might argue that his concern is quantities in physical terms and that he is expert at translating specifications, drawings and plans into the units that will be required for sub-contracting and labour engagement. Equally it is these physical units which themselves give rise to the subsequent money values; quantities in themselves have no meaning so far as the efficiency and economics of building are concerned, until they are translated into costs. If the Q.S. is not interested in costs as reflecting quantities, who is?

The basic question that arises, of course, is that of the professional relationship between architect and Q.S. The outsider may be permitted to ask why both of these are necessary or why they are not associated in equal partnership? This comes back to the point made earlier about the nature of the architect in his own eyes. He sees himself as primarily the creative artist, he would not regard himself as essentially concerned with quantities or costs. This may very well be a basic cause of a good deal of the high cost in the design of buildings. This point is to feature again in later articles. One could ask here whether the Q.S. might not be regarded as someone who has, among other things, the task of keeping the architect cost conscious.

In the story of the office building, Bill Price did not make any suggestions for alternative approaches (non-traditional materials or prefabricated assemblies) in the interests of trying to get cheaper building. The relationships of the separate professions to each other are such that one would not expect the quantity surveyor to come forward with suggestions for alternative design even though his figures had been used to give the client the initial general idea of the cost involved in the erection of the building. Here I must ask an important question. On what grounds did

Basildon-Jones choose a steel frame (apart from its inherent cost it later increased cost because of delays in erection) in preference to reinforced concrete or load-bearing brick? Were the factors determining the choice purely technical or artistic? One feels that if the quantity surveyor is to have any real part in attending to the interests of the client—even though he serves only indirectly by being retained on the architect's behalf—his main concern must be costs and economics, and he must have a closer working relationship with the architect.

Sub-contracting is, of course, a crucial issue. Frequently sub-contractors' work forms a big part of the cost, and it makes nonsense of the whole idea of economics in building if the two major professions concerned with the design and measuring of the structure can shrug their shoulders at it.



The Building Contractor

At the beginning of the office story one might have wondered why on earth Boxall, the builder, would have needed even ten months for completion, much less the fifteen months that it actually took to finish the job. But the story gave plenty of reasons why the fifteen months could easily have become twenty.

To begin with, Boxall did very little in the way of preliminary thinking when the job first came up to him. The bill of quantities did not inspire confidence, and because of the pressure of time he could give no consideration to the way in which he could tackle the job if he got it. In any case Boxall himself was sceptical about time spent in this way.

This raises the whole question of the estimating process with all its paraphernalia of rushing around to get numerous sub-contract and material prices from a variety of suppliers and many other avenues of waste of time and energy which, with some forethought could perhaps be avoided. This question of the operational pre-thinking and planning of the building operations is vital to all efficiency and productivity. In the second part of our office story we found (early May) that to placate Mr. Gross, Boxall was required to "hastily erect a foreman's hut and signboard on the site" and presumably to put a chap or two on the site as well. In effect this meant that the architect had got his sights wrongly set.

He was looking at his client's interest the wrong way. He was, in fact, preventing Boxall from doing his own job properly by preventing him from getting together his basic information, data and drawings and the like, and from taking the essential preliminary steps that would subsequently condition the whole carrying-out of the project. Of course it might be that Boxall would not have done these things anyway even if he had been given the time. But the essential point is that neither architect nor building con-

tractor saw fit to bring home to the client that his own interests were best served if he allowed them the necessary time for the preplanning of the operation.

The rest of the story of the office building was no more than a sorry consequence of the failure to recognize planning as an essential element in management and the related failure to recognize that management has any part to play in building operations.

Building Operations

It was clear from the innuendos of the story that Boxall had carried out his work in a way which appears to be customary to the majority of building contractors. Without adequate preparation and planning he was prepared to go on the site and get started. Without adequate technical information of what was involved and without knowing the lines along which he was going to work, except in the somewhat misleading way in which they appeared in the bill of quantities, he was prepared to put plant on the site and to start on the work.

In accordance with the teachings which have appeared in some of the journals in recent years he had prepared a progress chart in suitable bar form which showed the main stages of the operations from strip site to hand-over, scheduling theoretically the quoted period of ten months, heedless of the fact that within the first two or three weeks it was likely to be out of date and when a few more weeks had gone by, quite useless. It would appear that he made no provision for decentralization of planning of operations to the site level, and that he did not plan the integration of sub-contractors' work with his own builder's operations. We found him—early in the story—"disclaiming responsibility for the steelwork delay because the contractor is nominated" and trying to get Basildon-Jones to go along and do something in gingering-up the company concerned. This seems an odd way for the main contractor to be going about a job of planning and progressing the work the control of which ought to be primarily in his own hands.

We also found that his own work ran into trouble and caused a further setback for the steelwork sub-contractor. On this occasion the trouble apparently lay in the shortage of bricklayers in which Basildon-Jones "was not particularly interested" and gathered that it had "something to do with the bonusing scheme that had gone wrong." "That," says Basildon-Jones, "is Boxall's affair, not mine"—bringing out again that lack of a sense of corporate responsibility for the project. One might ask here why, if Basildon-Jones had no responsibility for this aspect of the planning and progress control of operations, he assumed it over other matters? From the contractor's point of view one can easily imagine that absence of any effective planning—particularly short-term planning at site level—could easily wreck a bonus scheme but there might have been another cause in that basically the scheme had been incorrectly designed.

The outsider, looking at the conduct of building operations and the margin of payment by results schemes in recent years, must be forcibly struck by the fact that the building contractors have no idea of the basic features of the bonus scheme and apparently are not even interested enough to acquire it. There are a lot of publications about incentive schemes developed in more than fifty years of experience in a variety of industries, many of them more highly technical

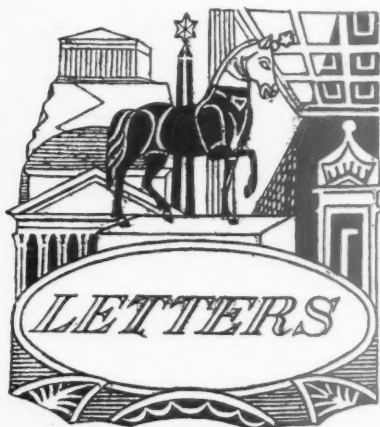
than building. Why is it that none of the builders' organizations have made any attempt to glean from this mine of information, methods that could have made a success of the building industry's approach to incentives rather than the somewhat half-hearted failure that it appears to be?

Turning again to the story and to the professional side of the building fence, there was, if you remember, a time when the architect's representative commented on the concreting arrangements for which a 10-7 mixer and three barrow men were used. It is clear that this particular assistant had never made any study of the requirements of labour balancing in regard to concreting, otherwise he would have realized that the question of balance between the size of the mixer its output and the number of barrowmen is a matter that calls for a close study of methods and quantities and the careful setting up of man-power in relation to distances, technical obstacles at the placing end which determine placing and a variety of other quite simple but, none the less, important features which together will determine the efficiency of the operations. Absence of these matters in the basic training of builder or architect seems to allow their general attitude to be that the concreting operation is a very straightforward sort of affair which involves no more than shovelling some dry materials into one end of the apparatus, adding some water and turning out a sloppy mixture at the other end, which is carried away to be dumped in prepared holes. This is not intended as a facetious comment and it is recognized that much thought is given to the proportioning of the ingredients of concrete to ensure correct strengths, etc. But surely there is an analogy here with the "ingredients" of labour for loading, the machine time, and the labour for placing? Well, it is the mixture of these "ingredients" that could determine whether the concreting is carried out efficiently and economically or not. This whole question of methods of operating and the balance of labour force is vital to productivity and progress in building, but it seems to leave the average building contractor and his professional adviser quite cold. One is sorely tempted to take up the remark of the assistant about the possible use of a tower crane. But I will be content to repeat my comment that a little bit of education in economics would serve the architectural profession well. One last comment may be made about the building contractor in our story. It seemed perfectly clear that the general foreman on the site was one of the good traditional types, no doubt a man who had served his time as a craftsman and had come up through the trade ranks. He probably knew no more about the planning and control of operations apart from what he had heard in the course of his years of service with men like Boxall. He was chosen initially because he was a good craftsman and was thus made trade foreman. He managed very satisfactorily with eight or ten men working under him at one particular trade with good technical instructions and in the light of that success he was promoted to a management job of quite a high order without any further preparation. But had Boxall's general foreman ever been through a training course on planning techniques or method study? Had he ever been taught anything about cost control and the utilization of man hours or had he ever taken refresher courses for new techniques appertaining to concreting or to the possible economics of tower cranes? He had no knowledge of these management

techniques, and because he had no knowledge his inevitable reaction was that he "doesn't believe in them," and there follows the usual succession of reasons why everybody else was at fault in hindering progress and why nothing could be done about it at all. Planning, he said, must be done in your head—with the result that the office block took fifteen months to complete.

This final comment about building contractors is perhaps basic to the question of productivity so far as its contracting aspects are concerned. Boxall let a man untrained in

management take charge of operations, but Boxall himself has had no management training. It is no good saying that he was obviously successful because he had built up a business after years in the trade. Conditions have been very largely in his favour and we have to assume that his business has been moderately profitable. But this doesn't point to skill in management. Rather the failure and lack of skill in management is proved by the extension of the promised ten months for the building of the office block to fifteen months.



E. G. Brisch

Gerard J. Collins, A.R.I.B.A.

Nikolaus Pevsner, *Editor of Pelican History of Art; Slade Professor of Fine Art, Cambridge.*

A. Neville Holt, F.R.I.B.A.

G. L. Thompson, F.R.I.B.A.

"Gremlin"

Mr. Brisch Explains

SIR,—In your very generous comments upon my Building Classification System (AJ: January 27. Page 141) you point out that many properties seem to be gathered under the same number, but I respectfully submit that there is no weakness here, as you say. You have overlooked the fact that each number can be qualified by up to eight others, like co-ordinates in a graph, which sub-divides at will the apparently large categories.

At the same time the consistent number of digits in each symbol facilitates the use of modern methods of sorting and selection, such as punched card or electronic devices.

E. G. BRISCH.

London.

Nothing To Hold On To

SIR,—I notice an increasing number of staircase details which omit balustrades and handrails.

May I ask through your columns what happens to the person who is coming down stairs for the first time after two weeks in bed with flu, or to the good wife who has been carrying trays of food up and down stairs during the fortnight in question, or

even to the young child who considers the stairs a legitimate play-area?

In my opinion this detail is an example of design irresponsibility which should be discouraged.

GERARD J. COLLINS.

Middlesex.

A Revised Art History

SIR,—ASTRAGAL recently referred to the intensity of present research into Elizabethan and Jacobean architecture and to Mr. Summerson's volume of the Pelican History of Art. So intensive indeed is the research and so much is Mr. Summerson in the centre of it that the second edition of his volume, which is due to appear in a few months, will present the Elizabethan and Jacobean chapters largely rewritten.

NIKOLAUS PEVSNER.

London.

Restoring Wood Work

SIR,—I was glad to find, in a recent issue of the JOURNAL, Eric de Maré's plea that the original glazing bars should be put back in the beautiful Georgian windows in The Circus, Bath. They should be put back "where they were, and as they were" (as they say in Italy)—we should not try and attempt any "improvements" by substituting large sheets of plate glass; they are not called for, here at any rate.

The Woods work was all most carefully executed, and should be given the same careful treatment in its proper restoration, as in its original execution. This would be true humility, a thing sadly lacking, unfortunately, today, in our hard and uncouth "plate glass age," the age of "progress"—at as little initial cost as possible, of course!

A. NEVILLE HOLT.

Liverpool.

The Employee-Employer

SIR,—I wonder whether any other architect has had this experience? Today I was making a routine inspection of some council houses in course of erection. To my surprise one of the bricklayer's labourers stopped work, and came to greet me. I recognized him. He was a client! He proceeded to give me some instructions in connection with a small house for which he had commissioned me.

Incidentally, it is very encouraging to find that the working man is now a patron of the architect. I have one or two clients in this category.

Selby.

G. L. THOMPSON.

A Criticism of BRS

SIR,—Your editorial on the Building Research Station (AJ: December 30) is a timely one, but I believe it avoids the major

issue. Any research results can be out-dated by more advanced research, but this does not render the original research any less valuable, provided that it produced at the time better results than no research at all.

Has the BRS a clear conscience in this respect? Daylight protractors can, I suppose, claim the discredit for vast sums of money spent on excessive school lighting, etc. It seems fairly certain now that the necessary quality and quantity of daylight can be obtained by one-side lighting only. Would it be wrong to suggest that the BRS has hindered the architect reaching this conclusion sooner?

I feel that there is some tendency to use methods of research which are not always suited to producing practical results for the industry. Instruments, however helpful, can never completely simulate human experience. The instrument is bound to record one thing in the laboratory, and human senses something slightly or greatly different in "the field."

Page 16 of the Building Research Technical Paper No. 28 says, about glazing: "the time is not yet ripe for the formulation of a standard of dirtiness." I would translate this as an expression of wistful regret that the BRS deal in terms of bricks and mortar rather than atoms and molecules.

I suspect that the BRS are never happier than when they can label anything with a number, or express an opinion in terms of formulae or mathematical abstractions. This attitude, whilst an understandable one for scientific theoreticians, will not produce the results and recommendations needed by the building industry.

The recent BRS report entitled "House and Housework" is a first-rate example of research for the sake of research. The BRS set itself a problem which hardly exists, and amused itself by trying to solve it in the most technical manner possible. What, of practical value, has this research revealed that any self-respecting architect does not already know? First-year students realize that the housewife spends a lot of her time in the kitchen, but do they need to know that the actual average time of 10 housewives (average age 34.7) all with children (average age 9.1) was 1,325 minutes out of 1,815, and all the other rigmarole of statistical data? Is the 0.8 per cent. of the housewives' time spent in the toilet, sufficient evidence for reducing the toilet width from 2 ft. 7 in. to 2 ft. 6½ in.?

If the BRS is to be of continuing service to the industry it must conduct its researches in a manner which will give recommendations of immediate and practical value, presented in a straightforward and intelligible way, for application by virtual non-technicians.

I would respectfully suggest two first steps to this end:

(a) Throw away at least half the slide-rules and computers.

(b) Lay all the statisticians end to end.

"GREMLIN."

Newcastle-upon-Tyne.



RIBA

New Colour Range

Visitors to the RIBA, writes a correspondent, can now inspect the new standard range of colours which has been agreed between the RIBA and the Paint Manufacturers' Co-operation Committee (see *ASTRAL* January 13). The range comprises 101 colours listed according to the Munsell Atlas and arranged on ten cards. One card is devoted to greys, one to very strong colours and the remaining eight carry through the spectrum and are arranged in a double column with main wall background colours to the left, and "fairly strong" colours for decorative effect to the right. From a rapid inspection the choice of colours seems well founded, though it will be interesting to see if architects will sense a gap in the red-purple and purple-blue sections, and if they will be reconciled to the choice of the pink which figures as 21 (Munsell number 5.0 R 7/8). Another point which calls for comment is the apparently haphazard mixing of matt and gloss finishes: it would seem to be preferable to have all the same. These are small matters and the RIBA and all concerned are to be heartily congratulated on their initiative. The range will remain on view till February 26, when it will pass to BSI for incorporation as a British Standard. In the meanwhile it may also be seen at the Building Centre, at BSI, at the Manchester office of BSI and at the Scottish Building Centre in Glasgow.

News in Brief

A. G. Sheppard Fidler and Frederick Gibberd have each received the RIBA Award for Distinction in Town Planning.

The Public Relations Committee of the RIBA is preparing a contribution for the National Factory Equipment Exhibition, to be held at Earls Court from March 28 to April 2.

Architectural departments of local authorities should be set up as independent departments, under architects as chief officers, says the RIBA's Salaried and Official Architects' Committee. A memorandum prepared by the Committee gives reasons why this move is favoured. It has been approved by the Council and may be obtained from the secretary, 66, Portland Place, W.1.

Should arrangements be made for the exchange of information between the architectural profession and the building materials industry? The RIBA's Science Committee is forming a sub-committee to discuss this question of an interchange of facts about

developments in technique and material resources with senior men in the key building industries.

CUC

Warmth for Old Schools

With their customary promptness (writes a correspondent) the CUC have issued a brochure staking a claim for the use of approved solid fuel appliances in the Minister of Education's drive for the rehabilitation of rural schools. The brochure contains little that the average architect does not know already, though it does give a few quick-shot answers on cost (such as that it takes £250-£300 to instal central heating in a two and three room school) which he may find useful fodder for a Schools Committee.

NFBTE

New Officers

The new president of the NFBTE is Harvey G. Frost. Nigel Hannen is the senior vice-president.

The "Do-It-Yourself" Danger

In the NFBTE's annual report there is a warning about the spread of the "Do-It-Yourself" movement and of the expansion of the direct labour departments of some local authorities' industrial concerns. This, says the report, indicates that the public is seeking other methods—which very often prove in practice to be less economic—of reducing its expenditure on building.

BRS Trials on the Site

The NFBTE's annual report contains a reference to the scheme, already in operation, for developing co-operation between BRS and building firms. It is said that a large number of members are interested in the scheme and are willing for BRS to carry out tests on buildings they are constructing.

Private Housing

"There has been considerable criticism in some sections of the technical Press," says the NFBTE's report, "of the standard of design of privately-built houses. While there may be justification for this criticism in some cases, the general level of the design of private enterprise houses is higher than it was before the war and it is a fact that the proportion of such houses which are built to architects' plans is increasing. The Federation is anxious to co-operate with the architects in the encouragement of higher standards of design, but this co-operation will not be fully effective until the members of the profession are able to convince the industry that they can design houses with due regard to economy in construction."

It is pointed out in the report that officers of the Federation were last year invited to discuss with representatives of the RIBA "ways and means of encouraging the more general use of the services of architects in private house-building and also a draft scale of fees for the design and layout of private housing estates. A report of the discussions was fully considered by the Council and General Purposes Committee, who came to the conclusion that the adoption of the scale of fees suggested by the RIBA would not materially assist towards attaining the desired objective, namely, the wider use of architects' services."

CORRECTION

Arthur Ling and Coventry

Last week it was stated in the *JOURNAL* that Arthur Ling was leaving the LCC this month to become City Architect and Planning Officer of Coventry. We understand that this is incorrect and that he is unlikely to take up his new appointment before the end of April. The post which Mr. Ling holds in the Department of Town Planning, University of London, was also given incorrectly. He is, in fact, the Senior Lecturer. We regret that this incorrect information was given.

P. L. NERVI

Lecture Cancelled

Professor P. L. Nervi, who is ill, will be unable to give his advertised lecture at Central Hall, Westminster, on February 24.

RIBA

Raymond Erith criticizes Students' Work

Last week Raymond Erith, who describes himself as "one of the few survivors of the now almost extinct school which believes in the old tradition" gave a criticism of work submitted for prizes and studentships (1955) at the RIBA, 66, Portland Place, W.1.

"If anyone is responsible for what I am going to say," said Mr. Erith, "it is more likely to be Chambers or Alberti or Vitruvius than someone more recent. All the same I have managed somehow to keep in touch, by which I mean I sometimes read the first half of the articles in the *Architectural Review*, and I am aware of the general trend of ideas in the world of contemporary architecture.

"For the Owen Jones Studentship there were only two entries. Neither of the competitors submitted work of the required standard, either of quality or quantity, and therefore the jury regret they cannot award the studentship. VALERIAN, however (Mr. Antony Francis Sealey [A]), is awarded a certificate of honourable mention and 10 guineas. The other competitor sends a better essay—drawings and captions not so good, so the jury could not discover their point.

"The Jury were very much disappointed with the result of the Owen Jones Studentship competition. As they said, there has been a revival of interest in colour since the war and therefore it is difficult to understand why there were so few entries. I think the reason is that to the students Owen Jones seems a bit out of date.

"I am not sure that Owen Jones himself is not partly to blame for that state of affairs. Listen to this. In Proposition 5 of his Principles he says: 'That which is beautiful is true; that which is true must be beautiful.' Now I am not going to argue about the exact meaning of this statement but to simple minded, practical people like architects it must mean that truth is beauty. If you can swallow that, and I think most of you have swallowed it whole, then how can you say that red is *more* true than blue or green or, for that matter, any colour other than the natural colour of concrete or steel or whatever the building is made of? You cannot say red looks better because looks are not the criterion; truth is; you are concerned with a matter of fact, not judgment.

"And that is one of the greatest troubles with nearly all the work submitted for these prizes. Because you have swallowed

Owen Jones's dictum (or was it Keats's?) you are all far too much concerned with facts; or, perhaps it would be more accurate to say, with what you take to be facts, or with what you would like to be facts. You do not sufficiently realize that judgment matters. You have judgment, of course, but you do not *value* judgment unless you can support it with facts; and, because of that, you often try to support your judgment with facts which are so unlikely that, I suggest, your judgment ought to reject them. In other words, what you are trying to do is first to make beauty out of truth and then, when that does not work, you try to make truth out of beauty. The result is that you tend to have your own special brand of truth and your own special brand of beauty which cannot, I think, be appreciated by ordinary people.

"You will never get anywhere with architecture until you understand its theory. When the Vitruvians said that architecture depended on three things, construction, utility and beauty, or as Vitruvius himself called it strength, utility and grace, they meant three things, not two. They did not mean, as so many of you seem to think they meant, that architecture depends on construction and utility, and that beauty follows as a by-product; they did not mean that, any more than they meant that architecture depends on construction and beauty with utility as a by-product. They meant that architecture depends on, and must take account of, three separate things. And it is important to see that these three separate things are in balance. Therefore, if what I have said induces anyone to see the error of his ways, I hope he will not jump to the conclusion that beauty is *more* important than construction and utility, because it is not. You must not neglect construction and utility any more than you may neglect beauty. The important point is, that if you neglect or over-emphasize you will distort the others. And when that happens you will build distorted buildings."

In reviewing the Intermediate Design Prize for "A Museum for Old Motor Cars," Mr. Erith said that "either, by some freak of chance, 398 exceptionally stupid people happened to enter for the Intermediate Design Prize this year, or else there is something wrong somewhere. Eventually the Jury did decide to award the prize and chose IDLER (Mr. Angus Rainage Gilmour). I do not think IDLER's design is particularly beautiful or useful and I am not exactly wrapped up with his construction, but I think it is the best design; and out of 398 starters that is something."

"I am reasonably sure I can tell you why IDLER did not succeed in making his building beautiful. It is, of course, because he is not so much interested in beauty as he is in what he thinks are the ingredients of beauty. In other words he has a theory that he can make beauty out of construction and utility, and the theory does not work. Why so many people believe in that idea I cannot understand. What is the evidence for it? I know that some useful and well-constructed buildings are beautiful, but surely that is no reason for saying that all useful and well-constructed buildings must be beautiful. The fact is that they are not. Often people point to ships and aeroplanes to support this idea, but, although I will agree that ships are more often beautiful than buildings, the facts again do not support the argument; some ships are beautiful, others are not. Actually, I think you ought to be very wary indeed of the analogy, but I will say this about the designers of ships. They are not primarily interested in beauty but they are primarily interested in construction and utility. Therefore at least they get construction and utility right, which is more than IDLER and practically all the other competitors have done. What IDLER has done is to assume that construction and utility can supply beauty and then he has tried to knock construction and utility

about until they jolly well deliver the goods. If IDLER made a better job of it than the others he can thank Mies van de Rohe."

Mr. Erith said that he was not very much impressed with the measured drawings. "There is a tendency," he said, "for competitors to measure only just enough to make their drawings plausible. They are not always concerned, as they should be, to make a complete and accurate record. Even the winner's set, for instance, is not complete; he does not show what happens on the flat part of the ceiling, beyond the cove. And what is worse, if you look at some of the survey notes you will often find that the dimensions do not add up right and that the mouldings have not been fully measured. For people who think a Corinthian or a composite cornice is a bit of rubbish which comes out of a book, and one is the same as another, I suppose this sort of thing is all right; although what satisfaction they find in half-measuring rubbish I don't know. But if you take traditional architecture seriously you ought to be able to see that all composite cornices are not the same; they can sometimes be quite deadly and they can sometimes be extremely beautiful. Indeed, there is often great beauty in the details of old buildings, and sometimes almost the whole beauty of an old building may lie in its detail."

"Occasionally one can see this demonstrated; for instance, when the owner of one of the houses in a terrace strips off the cornice and a few other apparently unimportant mouldings and shows that what was once a beautiful building is, in its essence, only a rather uninteresting hulk. I think that in the old art of profiling and applying mouldings there is a clue (I don't say the clue) to beauty in architecture, and I am sure it is a clue you neglect. Therefore, I say, measure the mouldings properly, both for the sake of making an accurate record and to see if you can learn something."

Later Mr. Erith told his audience that they had rejected tradition. "Tradition restricts you negatively," he said, "and it restricts you so effectively that you have not got room to turn. It is not only in little things, such as windows, that you have to avoid all traditional forms and proportions; it is in big things, too, the really important things. I do not think you even begin to realize what you have done for yourselves in rejecting, for instance, symmetry, which is as natural for architecture as the law of gravity. Many of you, I dare say, do not even realize you are restricted: some of you were even born in the cage. But whether you realize it or not, the fact as I see it is that in rejecting tradition you have left yourselves with so little, and especially with so little that is good, that you have not got enough to make a new architecture. A few very gifted people—Mies van der Rohe if you like—manage to do something. . . . I think that what you are doing is misguided and I am afraid I have said so without much tact or consideration for your feelings. I do not, however, think that what you are trying to do is wrong. I think it is right. Architecture should move with the times, and I think you could make it move with the times if you knew what it was that you wanted to move. I have therefore tried to tell you what architecture is, not just as I see it, but as all the great architects of the past saw it, and I have tried to explain how and why you have gone wrong. I have simplified the problem, naturally. I have, so to speak, ignored what the soil scientists call trace elements, which are important; but, by and large what I have told you is what any architect from Soane back to Vitruvius would have told you if he had had the misfortune to see you doing what I see."

"My advice to you is not to go straight back to the Orders but to accept tradition in principle and certainly to stop avoiding

traditional forms and methods. Before you can do that, however, you must change your basic ideas, and you *must* make the change because the rejection of tradition is a dead end that is leading nowhere and can lead nowhere. The only course which can possibly have any future is to accept the broad stream of tradition as a whole and then enlarge and expand it. If you do that you may one day, perhaps quite soon and perhaps quite suddenly, get the architecture you want."

The President's Address to Students

Before Raymond Erith had given his criticism of students' work, C. H. Aslin, the RIBA President, had the following to say:—

"This is an occasion upon which the President is supposed to give to the students, gathered here at the annual criticism of drawings sent in for the various RIBA prizes, some words of wisdom which give advice about the single and direct way or the various ways of making rapid progress in the profession when you go out into the world of practice."

"I am not at all sure that I am qualified to do this except in very general terms which you will probably decide are too indirect to worry about. In due course it will still be entertaining, but not very profitable, to continue to argue about tradition, prefabrication, or whether this, that or the other is in the appropriate stream of architectural development."

"To ease the soul in this direction, all male students should marry women architects, or, if they cannot find women architects, women who are so blinded to their defects that they will gladly listen to their architectural fallacies from morning to night."

"At times, when you are working and not just talking, the secret of success in the profession is, I am sure, integrity. Your client is the man who really matters, and you must satisfy your client, whether he is small or large, with a building which fulfils his requirements, at the right price and produced in the appropriate time. I am quite sure that this is essential to your own happiness and to the production of architecture. You may rarely or never produce architecture, but in my view you will never do it if you do not satisfy the requirements which I have stated, first and foremost. In other words, if you do not produce for your client what he wants, at the right price and in the right time, you have no hope whatever of producing architecture."

"The days of producing what used to be called architecture—that is, pretty pictures, patterns, elevations—without much regard for the essentials, are gone. If you rely primarily on integrity you will not only produce a satisfactory life for yourself; you will enhance the profession of architecture, and you may even have the good luck to produce something of architectural quality."

"I am quite sure that the real answer for all of you, whether you have won prizes or not, is integrity in architecture. If you follow that course and do not mind those who make a great deal of money or do not make anything or have ideas they cannot sell, I am quite sure that you will produce a satisfactory life which will be the real basis of what you ought to have. If you have a life which you follow, which you like, which you love, which you live morning, noon and night, I am quite certain that out of that you will produce architectural quality. If you pursue any other course, you will have no satisfaction whatever."

"I am quite sure that this is the shortest presidential address that has ever been given to students, and I am equally certain that you will forgive me for it."

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The McMorran Report

The McMorran Report on education—known to fewer people as the Report of the Architectural Education Joint Committee on the Training and Qualification for Associate Membership of the Royal Institute of British Architects—has now been published. (It appears in full in this month's *RIBA Journal*). We give below some extracts from the Report and the complete summary of recommendations:—

The Architectural Education Joint Committee were appointed in April, 1952, to enquire into architectural education, and to report with the following Terms of Reference:—

1. To investigate the various means of attaining the qualifications for Associate Membership, and to prepare an advisory memorandum to give guidance on (a) the various methods of training, (b) the minimum standard of knowledge and attainment considered necessary, and (c) the means by which such minimum attainment can be achieved by the various methods of training.

2. To consider under what conditions courses based on part-time office and school attendance can be accorded recognition for exemption from the RIBA Final Exam.

An Interim Report was submitted to the Board of Architectural Education in June, 1953, recommending certain changes in the examination requirements for the Associateship RIBA. The Council RIBA accordingly decided, on the advice of the Board, to reaffirm the principle that all candidates for the Associateship RIBA should be required to pass examinations in uniform lists of subjects.

In accordance with the instructions of the Board the Joint Committee have continued their enquiries into the matters covered by their Terms of Reference, including the subjects of the examinations, and now submit a Second Report for the consideration of the Board. If approved, this Report could form the basis of an advisory memorandum for general publication.

The Council approved a recommendation of the Board that any advisory memorandum for general publication should be drawn up by the Board with the advice of the Examinations and Schools Committees, and further, that this memorandum should take account of the views expressed in the report of the Special Committee on Architectural Education 1945.

SUMMARY OF RECOMMENDATIONS

1. Requirements for Probationership. That drawings and sketches should no longer be required to be submitted with applications for Probationership RIBA.

Approved.

2. Standard of Attainment in Exempting Examinations. That for the purpose of exemption from its examinations the Royal Institute should require a minimum level of attainment, and that this standard should be similar to that required of candidates in the RIBA Examinations.

Approved.

3. Practical Experience Period. That as from January 1, 1960, the minimum period of practical experience to be gained by candidates for Associateship RIBA should be two years, of which at least one year should be subsequent to the Final (or equivalent "recognized") Examination (except the Examination in Professional Practice and Practical Experience), and that an announcement to this effect should be made as soon as possible.

Approved with the amendment that the words "as from 1 January 1960" be deleted and the words "in order to give six years' notice" be added to the end of the recommendation.

4. Qualifications of Architectural Teachers. That architectural teachers (as distinct from specialist lecturers who are not architects) should have gained at least three years' experience of architectural practice before starting to teach, and that the whole subject of all teachers' qualifications should be investigated by the Visiting Board, in relation to the recognition of Schools.

This recommendation was approved in the following modified form: "That architectural teachers (as distinct from specialist lecturers who may not be architects) should normally have gained three years' experience of architectural practice before starting to teach, and that the whole subject of all teachers' qualifications, salaries and employment should be specially investigated by the Visiting Board in relation to the recognition of Schools and with particular regard to the relationship between teaching and practice, and to the desirability of transfer from one side to the other for temporary periods."

5. Duties of Visiting Board. That the duties of the Visiting Board should be more clearly defined.

Approved.

6. Reviews of Recognized Schools. That the provision and distribution of Recognized Schools should be subject to review every five years with greater emphasis on efficiency than on geographical location.

The principle of this recommendation was approved, but the Council placed it on record in the following wording: "In the interest of students the provision of recognized schools should be reviewed every five years, the Royal Institute being prepared to extend recognition in suitable cases, or to withdraw it where an adequate standard is not maintained; the efficiency of a school being regarded as of greater importance than its geographical location."

7. Exemption from Testimonies of Study. That "Listed" Schools, and Schools recognized for the purpose of exemption from the Intermediate Examination, should be eligible to apply for exemption from the preparation of Testimonies of Study or the submission of equivalent studio work, subject to certain conditions.

Approved.

8. Conditions of Recognition of Part-time Courses. That the Board should adopt certain conditions for the purpose of recognizing part-time courses for exemption from the RIBA Examinations.

This recommendation to be given further study. See footnote at end of recommendations.

9. Engagement of Junior Staff. That it should be laid down in the Code of Conduct that Members who engage juniors (other than clerical staff) without the necessary general educational qualifications for Probationership are not acting in a proper professional manner.

This recommendation was referred for study jointly by the Executive Committee of the Council and the Practice Committee.

10. Full-time Training. That the Board should investigate the possibility of more candidates for Associateship RIBA receiving at least two years' full-time training in a Recognized School.

Approved.

11. RIBA Examinations. That the RIBA Examinations should be designed to guide the studies of external candidates as far as possible on the lines adopted in Recognized Schools.

Approved.

12. Publication of Revised Syllabuses. That revised syllabuses and other relevant documents for the RIBA Intermediate and Final Examinations should be published and that they should be subject to regular review, as a guide to students and teachers, and for reference by external and internal

examiners and members of the Visiting Board.

This recommendation was approved, subject to the following comment by the Board, which the Council accepted: "The Board accept the Syllabuses as covering the general body of knowledge that an architect is expected to have, subject to their being edited by the Examinations Committee and the Schools Committee with the assistance of the Co-ordinating Examiners for the RIBA Examinations." See also footnote at end of recommendations.

13. RIBA Examinations in Architectural Design. That the Design Examinations, for candidates taking the RIBA Examinations, in their present form should be discontinued and replaced by a new form of examination based on the Testimonies of Study.

The Board suggested that the Examination in Design should not be eliminated, but possibly reduced to one day only. This matter is to be given further study. See footnote at end of recommendations.

14. Joint Training Committee. That the Royal Institute should promote a conference of builders and the allied professions with the object of establishing a standing joint committee on training for all sides of the building industry.

Approved.

NOTES ON RECOMMENDATIONS

A Sub-Committee has been convened on which the Council and the Board of Architectural Education are equally represented, to give further study to the matters raised in recommendations 8 and 13.

With regard to recommendation 13, the Council appreciated that if the final decision were to retain the Design Examinations, some modification to the revised Syllabuses proposed and referred to in recommendation 12 might become necessary, owing to the need to reconcile the subject matter on which candidates were examined with the length of the Examinations.

DIARY

Structural Prestressing. Talk by Felix Samuely. At the ISE, 11, Upper Belgrave Street, S.W.1. 5.55 p.m. FEBRUARY 10

Symposium on High Flats. Introduced by Duncan Sandys, Minister of Health and Local Government. Chairman: Dr. J. L. Martin (architect to the LCC). At the RIBA, 66, Portland Place, W.1. 10 a.m. FEBRUARY 15

School Heating. J. B. Dick. At Institution of Mechanical Engineers, Birdcage Walk, S.W.1. 6 p.m. (Sponsor: IHVE.) FEBRUARY 16

Teamwork in the Industry. Course of six lectures by James C. Kennedy. At the BC, 26, Store Street, W.C.1. 6.30 p.m. 1: *The Job—the Importance of a Good Start.* February 14. 2: *The Experts have their Say* (guest speaker, A. Medley Richmond, F.I.L.A.). February 16. 3: *Facts and Figures* (guest speaker, E. L. Galloway, A.R.I.C.S.). February 17. 4: *Further Preparations* (guest speaker, J. W. J. Leslie, M.I.E.E., M.C.O.N.E.). February 21. 5: *Now for the Site Work* (guest speaker, A. E. Le Fort). February 23. 6: *Was it a Good Job?* February 24.

New Homes from Old Houses. Exhibition of flats furnished by the WVS for the MOHLG Harles Street exhibition. At the Geffrye Museum, Kingsland Road, E.2. Tuesday to Saturday, 10 a.m.—5 p.m. Sunday 2—5 p.m.

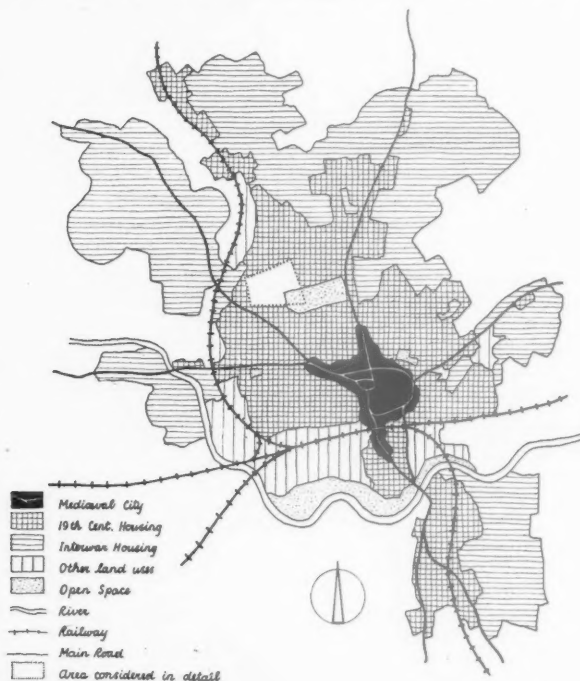
UNTIL END OF MAY

This final article in the Conversions series (which has been written or supervised by the JOURNAL's Guest Editor for 1954, Felix Walter), is in two parts. In the first part an architect, John Ratcliff, shows how town planning can gradually eliminate bye-law street monotony. In the second part, H. F. Clark, landscape architect, considers "ways and means of humanising localities by the introduction of colour and movement, to back streets and courts." The sketches are by Gordon Cullen.

IMPROVING THE BYE-LAW STREET



This street is typical of many large areas in our towns. The houses are too solid to pull down for many years, but some improvement can be made in their environment.



In this island, town and country planning is concerned with the right use of land. That is to say, there is not enough land to go round in order to satisfy the needs of all would-be users. This is not the place to explain in detail the reasons for this broad general statement, but suffice it to draw attention to the criticism of the farmers to the development of new towns and the expansion of existing towns on good agricultural land. There is substance in this criticism, and the planner must think hard, therefore, before consenting to the loss of any more land on the periphery of towns, for as likely as not, this land will be of value for food production. At the same time, we are painfully aware of the overcrowding of our cities and the pressures to reduce the density of population in the older parts of them—with which we are concerned here. In considering the land budget as a whole, therefore, the planner must draw a balance between these conflicting pressures, and must see that the land already developed for housing is used to the best advantage. But apart from the question of losing agricultural land for house building, we know that in some of our larger cities, politics apart, the rate of new building only just keeps pace with the rate of decay of existing dwellings, and even if this is too sweeping a statement to apply to our towns in general, it remains true to say that it will be many years before the need for new houses is met. Furthermore, redevelopment of the older housing areas has proved to be a slow process in the past, and after the gap of the war years is only just being considered anew.

It follows, therefore, that many families will have to remain perforce in old properties which we cannot afford to pull down yet. Now it is not enough, surely, to improve the interiors of these old houses to bring them up to a minimum standard, and if people are likely to have to remain in them for 20 years or more, something must be done to improve their general environment.

The incidence of this problem is not generally realized. The diagram on page 196 shows a fairly typical English town of 50,000 or more population. The growth of such a town has usually been in the form of concentric rings, starting with a

The diagrammatic map (left) of a typical provincial city shows the high proportion of its housing which was built in the 19th century (see photograph opposite). One part has been selected for detailed consideration in the following section on townscape.

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Left, : one improvement might be to introduce pedestrian ways at right angles to the streets. This is no new idea, but, of course, can be done better than it is here. Centre: small areas of open space will have to be introduced into streets like these. Preference will have to be given to the needs of young children and old people, who cannot so easily go to the existing parks. Right: another problem is to break up the monotony of the skyline; for instance by taller blocks of flats.

mediaeval core, from which roads have radiated and which form the spines of later development. This mediaeval town is irregular in street layout, forms about 10 per cent. of the whole area of the town, and is now largely devoted to commercial uses, although there may still be a smattering of dwellings. The next stage of development is the "byelaw-streeted area," covering the period from the back-to-backs up to World War I, and comprises about 45 per cent. of the whole housing area of the town. Then comes the area containing the houses built between the wars, amounting to about 30 per cent. of the whole housing area, and lastly the post-war housing, which, if the town is lucky, will make up the remaining 15 per cent.

Of these broad areas, the inter-war and post-war are fairly new, and we must expect many years service out of them yet. The old mediaeval core is quite small in extent, and is mainly commercial. We are therefore concerned with the 19th century *byelaw-streeted areas*, which form a high proportion of the total housing areas in our town.

In the process of preparing their Development Plan, Local Planning Authorities will have collected already a mass of information about these 19th century housing areas. This will have included the number of persons living in a given area, together with the amount of accommodation available in that same area in terms of "habitable rooms." Thus there should be already a broad picture of any overcrowding, together with the existing capacity of a given area to house people at reasonable standards. But in the development plan, however difficult it may be to find land on which to build houses, it is unlikely that there will be a reduction in the existing population in these 19th century areas. This reduction will have been arrived at taking the town as a whole, by estimating the population which each type of housing area—19th century, inter-war, post-war, etc.—can take, and also having in mind the rate of new house construction and redevelopment of slum areas, both of which will depend on the local labour force available and financial factors, such as the charge on the rates.

In estimating the population which the 19th century byelaw-streeted areas can take, the Planning Authority will have relied on its survey of the life of existing housing,

based on an objective assessment using, say, a points system for the various factors. There is no doubt that, leaving aside repairs and improvements, the structural life of much of this sort of housing is often considerable, and we cannot afford to ignore these assets: but, of course, the layout of streets, lack of open space, etc., is usually deplorable.

Information will also have been collected about the amount and distribution of open space and the provision of social facilities, such as shops, public halls, cinemas, etc. In the case of open space, some of these byelaw-streeted areas may be lucky enough to be near an existing town park, but the chances are that they will be woefully deficient in this respect, when compared with newer housing areas, and most certainly when compared with a desirable minimum standard. Conversely, as far as social facilities are concerned, the byelaw-streeted areas may be relatively better off than the inter-war housing, not only because they are older, but also because they are nearer to the town centre. Now the Development Plans, submitted for the Minister's approval, if not already approved, have been based on a 20-year period, fixed for reasons of practical politics. In practice, therefore, they will not include any major upheavals affecting the older housing—such as new roads—unless they are agreed to be very urgent. But every Local Planning Authority has its bottom drawer, containing its pipe-dream plans, and these will be brought out for reconsideration at each statutory review of the Development Plans every five years. They must, therefore, be taken into account in dealing with the byelaw-streeted areas. Any such major proposal must, however, have been related to the number of persons which it is desirable shall remain housed in these areas, and to the need to preserve existing communities as entities.

Owing to details within the framework of the Development Plan, the problems are various. The most obvious is the need to break up the byelaw-street pattern. Methods of achieving this are described in detail in the following section, such as the introduction of pedestrian ways at right angles to the general direction of streets. Then there is the need to remedy the lack of open space, so far as is practicable within the limits of finance and other factors. Whilst

something can be done to provide small areas, it must be accepted, reluctantly, that any additional parks, gardens or allotments, and playing fields will have to be provided elsewhere, such as on the edge of the town, involving transport to and fro. Thus preference must be given to the needs of young children and old people, who cannot so easily travel. The next problem is to break the monotony of the skyline, and here it may be possible to redevelop certain areas with flats ahead of the general programme, seizing any opportunities presented by blocks of property in bad condition, or alternatively to vary deliberately the densities of rehousing in a given area. In any proposals for redevelop-

ment, regard must be had to the capital locked up in the form of existing streets and underground services, as this factor may vitally affect the financial aspect. If handled imaginatively, however, this limitation could become a source of inspiration rather than a hindrance.

Lastly, there is the problem of controlling other uses; the distribution of social facilities, such as local shops; service industries, such as builders' yards, clubs, etc. In this connection, a constant watch must be kept to see that adjoining areas of industry or the town centre do not spread into the housing areas, and this, of course, is achieved by the system of planning control which we all know.

the byelaw-street

townscape design

In this part of the article on "Improving the Byelaw-street," M. F. Clark, a landscape architect, discusses the changes that took place in street composition between the eighteenth century and the mid-nineteenth century and the changes for the better that could take place now if good use was made of vacant and derelict sites once occupied by dwellings (bombed) or factories and workshops (either bombed or evacuated). "We could," says Mr. Clark, "without jeopardizing our material prosperity, plant trees once again on sites that were originally considered too valuable for such unrealizable assets."



The effect which town planning can have on the gradual elimination of byelaw-street monotony has been discussed in the previous article. There now remains to be considered ways and means of humanising localities by the introduction of colour and movement, even gaiety, to these back streets and courts. Purists might maintain that there are streets where stone, or bricks and mortar, are in themselves all-sufficient and where trees or flowers, for example, would be an irrelevance. In such cases, one can experience pleasure entirely from a recognition of the qualities of scale and proportion of buildings as well as from the less tangible effects of atmosphere and association. But this kind of townscape is an exception in this country where green plants are taken to be the natural complement of buildings. This is not necessarily because some of our urban scenes do not have the qualities I have mentioned. It is due partly to tradition—the

town square, grassed and planted with trees is a familiar unit in English townscape—and partly to the relatively low intensity of light of our Northern climate which makes it necessary to use the comparatively sharp and intense green of grass and leaf to quicken the colour of brickwork and the leaden foreground of street and pavement.

The tradition of town building and street composition was, in this country, probably at its best in the late 18th and early 19th centuries. The builders of those periods, using an architectural vernacular which was late Georgian and Regency in origin, composed their streets and squares with trees and open space used as a foil to facades and buildings in mass. This was done largely because their clients required that it should be so. These were of two kinds, those who were exiled from the country and who wished never to be far from the sight of trees and grass, and those who wished to retire to

the country and required tokens of the joys to come. The result was aesthetically satisfying and also paid dividends—for the builder speculator sold his products.

But times changed. Behind these pleasant facades the mid-19th century industrialists built street after street of barracks to accommodate the "hands" required for their factories. These houses were built tightly and cheaply and street plans were determined solely by the rising cost of land and the greatest number of houses which could be built in the smallest possible space—this was the simple answer to a simple problem of economics. Trees and green squares were therefore a poor investment.

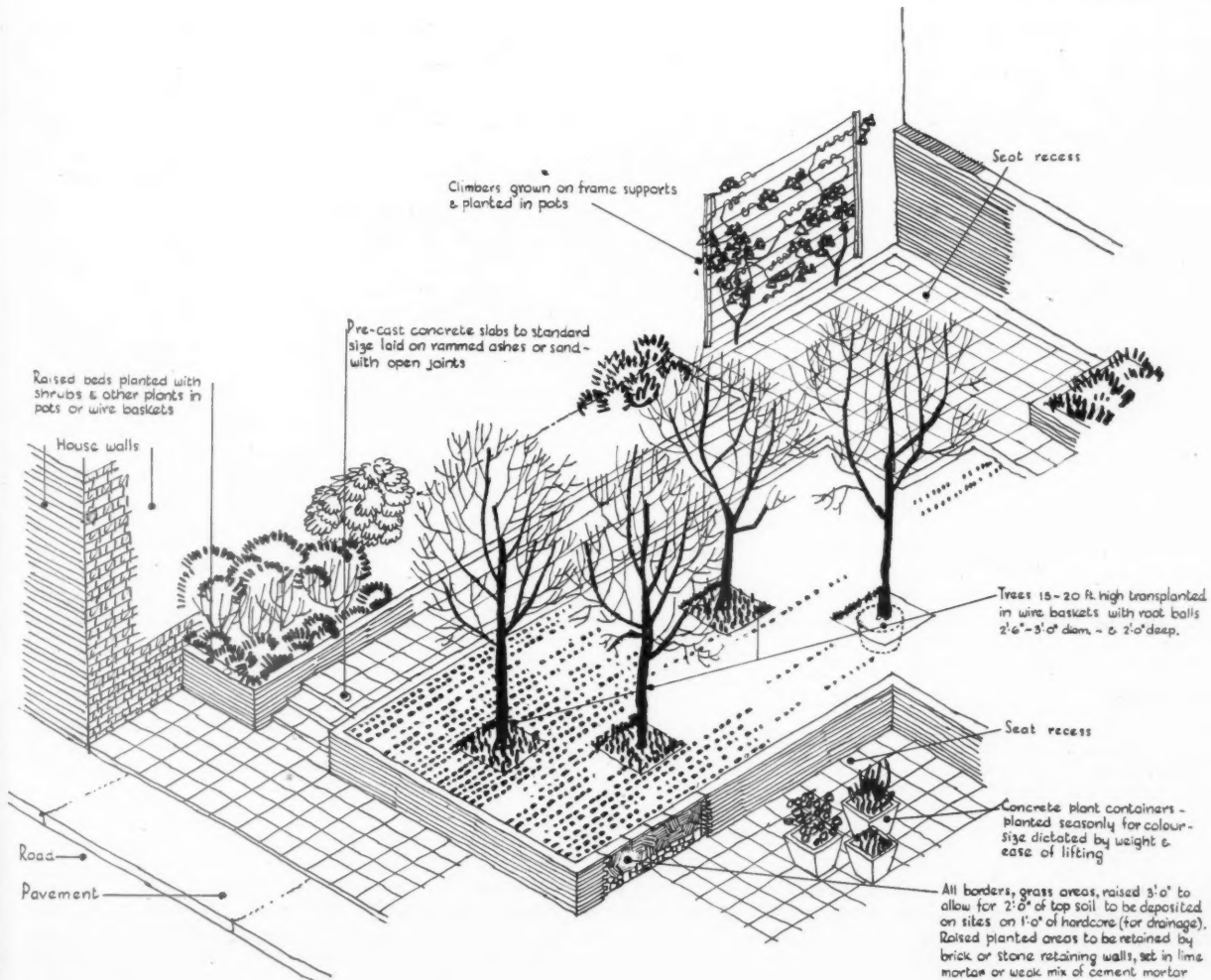
And so it is that such periods expressed, in these two extremes, the different social and economic values of their times. Today the problem of the improvement of the waste lands of 19th century industrialism can be studied not

of view. The soil will be panned hard by constant wear and neglect—it will in some cases be overgrown with elder and other weeds and there will be mounds of rubble. It is suggested that site preparation need consist only of the cutting and burning of perennial weeds leaving elders, buddleia and other self-sown shrubby plants to form part of the planting scheme. Brick rubble may be left on the site to form foundations of new levels and for under-drainage of soiled areas. The temporary planting scheme will be superimposed on the site; soil, plants and surfaces being laid over existing formation. It will be unnecessary therefore to face the expense of digging over and reconstituting the old soil.

The units of such a demountable garden and the materials used are illustrated as is a diagram of the treatment of a typical site. In costing such work, allowances would have to be made for wastage in clearances, particularly of soil, the loss of a small percentage of plants and trees, also a certain amount of turf. At the present time such a demountable garden might cost between £2 and £3 per yard square for materials and labour. But it must be



There is clearly a case for using empty sites such as the one above and improving it by the technique of the demountable garden. The drawing below shows a combination of demountable landscape techniques in the construction of a garden amongst existing housings.



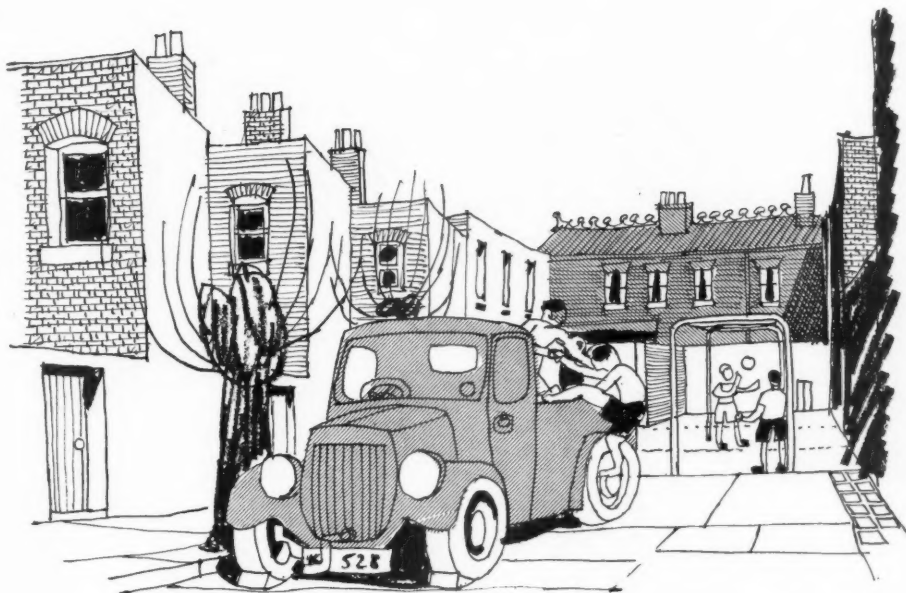
Botanical name	Popular name	Deciduous evergreen	Root system shallow, medium, deep, extensive	Age at maturity	Height at maturity	Spread at maturity	Growth	Soil preference all listed are tolerant of all soils but preference given	Other preferences given	Characteristics
<i>Acer Platancides</i>	Norway maple	decid.	medium	75 yrs.	60 ft.	60 ft.	fast	rich loams	—	Compact growth, handsome in Spring and Autumn.
<i>Acer Platancides</i> var <i>Schwedler</i>	Purple Norway maple	decid.	medium	75 yrs.	60 ft.	60 ft.	fast	rich loams	—	Leaves and young growth dark purple.
<i>Aesculus plantierensis</i>	Chestnut	decid.	deep	50 yrs.	50 ft.	40 ft.	slow	rich loams	—	Does not fruit in this country.
<i>Aesculus carnea Briotti</i>	Chestnut	decid.	deep	50 yrs.	40 ft.	40 ft.	slow	rich loams	—	Red flowered chestnut.
<i>Ailanthus glandulosa</i>	Tree of Heaven	decid.	deep	55 yrs.	80 ft.	70 ft.	fast	rich loams of acid tendency	—	Good foliage.
<i>Alnus glutinosa</i>	Alder	decid.	medium	60 yrs.	60 ft.	30 ft.	fast	moist condition	—	Dark foliage, rusty red catkins in Spring.
<i>Betula verrucosa</i>	Silver birch	decid.	shallow	70 yrs.	80 ft.	40 ft.	fast	light loams	Preference for acid or neutral soils	Slender graceful tree.
<i>Betula verrucosa</i> var <i>fastigiata</i>	Fastigate silver birch	decid.	shallow	50 yrs.	70 ft.	20 ft.	fast	light loams	Preference for acid or neutral soils	Upright growth and graceful in form.
<i>Carpinus betulus</i> var <i>pyramidalis</i>	Hornbeam	decid.	medium and extensive	80 yrs.	70 ft.	40 ft.	slow	gravel overlying heavier sub-soil	—	One of the most perfectly pyramidal of trees.
<i>Fagus sylvatica fastigiata</i>	Fastigate beech or Dawyck beech	semi-decid.	medium and extensive	100 yrs.	70 ft.	40 ft.	fast	light loams	Preference for chalk	Columnar in habit.
<i>Fraxinus ornus</i>	Manna ash	decid.	Shallow and extensive	60 yrs.	50 ft.	40 ft.	fast	alkaline soils	—	Compact form abundant flowers in May.
<i>Liquidamber acrifolia</i>	Liquidamber	decid.	medium	80 yrs.	70 ft.	40 ft.	slow	moist soils	—	Pyramidal and fine autumn colour.
<i>Malus Lemoinei</i>	Flowering crab	decid.	medium	35 yrs.	30 ft.	20 ft.	fast	ordinary soils	Preference for limestone and chalk subsoils	Erect in growth, wine red flowers
<i>Malus prunifolia fastigiata</i>	Siberian crab fastigate form	decid.	medium	35 yrs.	30 ft.	15 ft.	fast	ordinary soils	—	Red fruits
<i>Malus spectabilis</i>	Crab apple	decid.	medium	35 yrs.	30 ft.	20 ft.	fast	ordinary soils	—	Flowers deep rose in bud.
<i>Prunus avium</i>	Gean	decid.	deep	40 yrs.	55 ft.	55 ft.	fast	ordinary soils	Best on alkaline soils	White blossom in spring, good autumn colouring.
<i>Prunus amygdalus</i>	Almond	decid.	medium	25 yrs.	25 ft.	20 ft.	fast	light loams	—	Good flowering tree for towns.
<i>Prunus padus</i>	Bird cherry	decid.	deep	30 yrs.	30 ft.	30 ft.	slow	ordinary soils	Best on alkaline soils	White sprays of flowers in May, good shaped tree.
<i>Platanus acrifolia</i>	London plane	decid.	deep	90 yrs.	90 ft.	90 ft.	medium	light loams if sufficiently deep and neutral	—	More suitable for squares than streets because of its scale.
<i>Robinia pseudo-acacia</i>	False acacia	decid.	shallow and extensive	50 yrs.	70 ft.	70 ft.	fast	light poor soils	—	Graceful feathery foliage white flowers in June, requires shelter from winds, suitable for squares rather than streets.
<i>Salix Alba</i>	White willow	decid.	shallow and extensive	40 yrs.	60 ft.	45 ft.	fast	light and moist valley loams	—	Tall and graceful with grey foliage.
<i>Sorbus aria</i>	Whitebeam	decid.	medium	70 yrs.	40 ft.	40 ft.	slow	light loams	Preference for chalk	White flowers in May and red berries in autumn.
<i>Sorbus intermedia</i>	Swedish whitebeam	decid.	medium	70 yrs.	45 ft.	30 ft.	slow	light loams	Preference for chalk	More upright in growth than the native whitebeam and an excellent street tree.
<i>Sorbus aucuparis</i>	Rowan	decid.	medium	30 yrs.	30 ft.	15 ft.	slow	light loams and soil of acid reaction	Preference for chalk	White flowers, good show of berries decorative for small and confined spaces.
<i>Sorbus discolor</i>	Service Tree	decid.	medium	35 yrs.	30 ft.	15 ft.	fast	light loams and soil of acid reaction	—	Fruit and flowers not conspicuous but good autumn colour, good street tree.
<i>Tilia euchloru</i>	Lime	decid.	deep	80 yrs.	50 ft.	40 ft.	fast	moist loams	Not suitable for dry soils	A lime not subject to infestation by aphids, good street tree.
<i>Tilia platyphyllos laciniata</i>	Cut-leaved lime	decid.	medium	80 yrs.	50 ft.	40 ft.	slow	moist loams	Not suitable for dry soils	Smaller than type without leaves.
<i>Tilia platyphyllos rubra</i>	Red-twigg'd Lime	decid.	medium	80 yrs.	60 ft.	40 ft.	fast	moist loams	Not suitable for dry soils	Young shoots bright red in winter, erect form suitable for street planting, thrives in industrial areas.
<i>Ulmus parvifolia</i>	Chinese elm	semi-evergreen	medium	60 yrs.	40 ft.	25 ft.	fast	moist loams	Preference for alluvial silt	Autumn flowering and small leaves.
<i>Ulmus stricta</i>	Cornish elm	decid.	medium and extensive	90 yrs.	80 ft.	40 ft.	fast	ordinary soils	Preference for alluvial silt	Pyramidal form and suited to narrow town streets.
<i>Ulmus Wredei</i>		decid.	medium and extensive	80 yrs.	60 ft.	30 ft.		ordinary soils	Preference for alluvial silt	Broader leaved than above, golden yellow in colour, pyramidal in shape.

NOTE: Root systems. Much depends on soil conditions. Roots travel extensively towards sources of water. A light dry soil will encourage shallow surface roots, a deep moist loam will produce downward travelling roots. Average root lengths—1.3 x tree height. Average depth of root system—4 ft.

Table showing trees suitable for street planting. Desirable qualities in trees for streets and squares are: compactness of growth and root system, a light leaf fall, tolerance of smoke, smog, droughts and draughts.



The provision of amenities is not only a visual but also a social problem. Children need play lots to keep them off the streets. Derelict motor cars, old lorries, and sections of sewer piping can stimulate play at less cost than merry-go-rounds, slides and see-saws.



remembered that the materials are reclaimable and re-usable and that once a stock of plants, containers and so on, suitable for this kind of work has been assembled, then only the labour cost for assembly and taking down is expendable. Maintenance will be an additional charge. And it will have to be taken into account that watering, the replacement of plants and wear on turf will most certainly be higher in such a case than is normal.

The point is however that this technique is by no means difficult and is familiar to most Park Superintendents, who will have used it for temporary exhibition displays—and to most nurserymen who assemble exhibition gardens at horticultural shows. All that is new is the adaptation of this form of “accelerated” landscape to a new use.

new purposes for old sites

The provision of amenities is however not only a visual problem. Improvement must include the satisfaction of a variety of social needs, the principal and most urgent one being the provision of play space for children. Children need play lots if only to keep them off the streets and to lessen the rising number of street fatalities. But if we are to compete with the pleasure of playing in the street, these play lots must be sited, designed and equipped with imagination.

Sites must also be found for casual use as sitting spaces—and also for new footways by-passing traffic intersections.

children's play lots

The derelict site is in itself an attraction to children and dump or junk playgrounds have for this reason been a success in countries where they have been tried out, notably in Denmark. These have been copied in this country but have not been found suitable or desirable. The success or failure of the junk playground depends however very largely on the character of the play-leader who must be a good companion and not an autocrat and it

is also essential that he should be a man in whom the children will have confidence. A description of one of these Danish playgrounds is given in a MOE report published by HMSO called *Out of School* (1948). This section and the rest of the report is worth reading. Though the Danish experiment has not been found a success here, the idea has had a noticeable influence on the design and equipment of playgrounds which have been constructed in this country recently, particularly in London. Partly too because of the rising cost of standardized equipment, derelict motorcars, old lorries, sections of sewer piping, commando nets and old barrels are taking the place of merry-go-rounds, slides, jungle-gyms and see-saws. The point is that playgrounds on cleared sites can be designed to stimulate imaginative play with materials that cost little money. A dump of sand, a hard surface and a play wall, with perhaps an old lorry, with its working parts removed, cemented on to the site, will be as great a draw as an orthodox playground and at a quarter the cost.

sitting spaces and planted areas: tree planting

The derelict site also supplies space for sitting spaces, for groups of trees and other planted areas. The construction of this kind of landscaping has been discussed in the paragraphs describing the demountable garden. It has also been said that there is a tradition for such amenities, that they are in demand and that sites can be found for them. Cost and opportunity apart, there are still the factors of atmospheric conditions in towns, the micro-climate of the area and soil conditions to be taken into account.

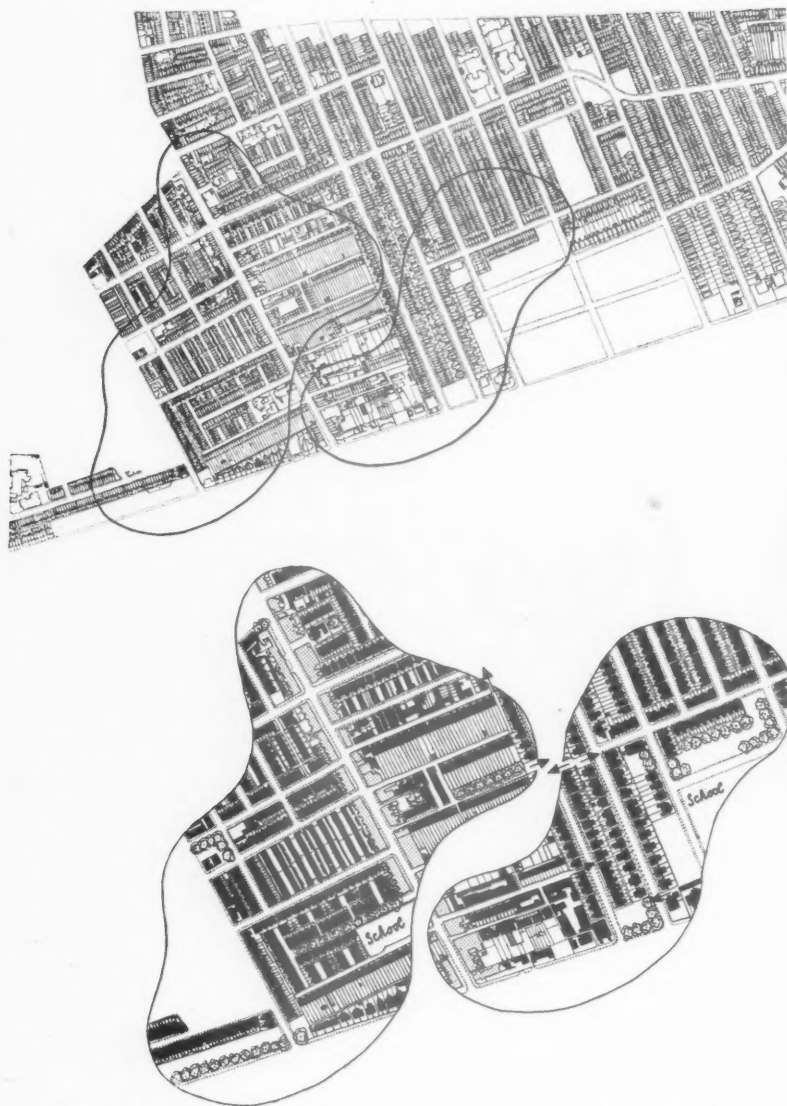
The problem of planting in industrial areas is made most difficult by smoke pollution. Statistics on the annual rate of deposit of lime, chlorides, sulphates in solution and insoluble matter such as tar and ash in such centres as Birmingham, Manchester, London and Coventry show that between two and three hundred tons of such chemicals are deposited every year

on any square mile.

The effect is as harmful to vegetation as it is to human beings. In the list of trees given in these pages, special care has been taken to select only those species that will survive such conditions. Also, in compiling such a list, care has to be taken to choose types which will be compact in their growth, and with root systems that will find sufficient nutriment in a subsoil that is criss-crossed by a multiplicity of service cables and which does not receive its normal free percolation of rainwater. Amendments and additions to the species and varieties given should be governed by local conditions and on the whole it is advisable that hardwoods should be selected in preference to conifers and evergreens.

sites as pedestrian ways

The plan on page 204 shows part of a typical late 19th century urban centre with back to back, byelaw and other sub-standard housing together with streets of a somewhat better standard. The area contains schools and a shopping street. The blank spaces are areas where demolition has occurred for a number of reasons. The plan shows the various uses which might reasonably be made of the waste spaces either with temporary or permanent landscape improvements. It is also considered that these conditions provide opportunities for the construction of a number of pedestrian ways, safe-ways between schools, homes and shops. These footways, which would by-pass busy traffic junctions, could be planted with trees, provided with seats in planted areas, open out into shopping arcades and narrow into arched entrances with glimpses of trees beyond. Paved with imagination and a variety of surfaces, enlivened by new perspectives framed by trees, these backways could become, not dingy back alleys, but a lively and populous feature of a town. The point is that all footways should be so designed that they become “busy” by attracting pedestrians who will only use these in prefer-



This is the area of typical byelaw-street housing which has been selected for detailed consideration. It is a part of the city shown diagrammatically on page 196. The shaded area is a shopping street.

ence to the street if they can compete with the life of the street. They must therefore lead from one attraction to another and these points of interest may either be visual or utilitarian—may either be courtyards or fairways bright with colour in the form of plants and trees or arcades containing cafes, small shops and market stalls. No compromise is possible or desirable.

the front garden

The removal of front garden fences is a means of improving the proportions of a street and so adding to its amenity. It is only justified, however, if the fences are ugly or makeshift and if alternative ways of separating the public pavement from the private forecourt is provided.

Since uniformity is often one of the qualities of a pleasant street facade, then this can be obtained by providing, in place of the old makeshift diversity, a uniform pattern of fencing. This has to be in itself agreeable and

not institutional—a traditional, homely and comparatively cheap type is the wooden picket fence.

Alternatively, and if it is found necessary to give greater width to a street section, low stone or concrete curbs might be provided and the area between it and the houses cobbled. Cobbles are uncomfortable to walk on and do discourage curious trespassers. They also provide a pleasant contrast to the smoothness of street paving slabs—but are expensive to lay. Low party walls of an even height built in a uniform material between each property with front garden planted with flowers or shrubs would provide a pleasant street scene under certain circumstances—and if each resident had a pride in the appearance of their neighbourhood.

All these alternatives presuppose that the private front garden is retained. In certain types of terrace housing in residential areas, where the terraces are well set back from the pavement, appearances can be improved by

doing away with front gardens altogether and treating them as communal publicly maintained open fronts. There are disadvantages to this form of treatment—not traditional in this country although common practice in the U.S.A. and in some European countries.

These disadvantages are that maintenance is an additional burden on the local authority and this cost is increased by the hard wear which occurs when short cuts are made across the intervening turf—between door to door, by the milkman, newsboy, postman and neighbours. This form of nuisance can be overcome by planting short lengths of baffle hedges between each property. This communal front garden does, on the other hand, give an appearance of continuity and provides an opportunity for planting suitable trees or shrubs clear of services and in positions



Sometimes the appearance of a street can be improved by removing fences and treating front gardens as communal open space.

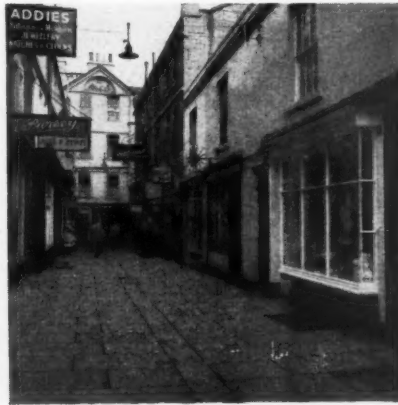
where their foliage will act as foils to the facades of buildings, screen unsightly vistas, or introduce changes in house types or roof-scapes.

There is clearly a case for using some of the empty and derelict sites in the centre of our towns and cities for amenities both temporary and permanent. It has been suggested that even if other uses for these areas are contemplated they might still be cleaned up and used for a while if the technique of the demountable garden is adopted. It is a technique which is familiar and has proved itself—the landscaping of the South Bank during 1951 showed its possibilities.

Apart from costs and other practical considerations, there remains one other factor which is often sufficient in itself to discourage landscape improvement—that is vandalism. It occurs whenever any new planting is done—it was experienced in the early years of the garden cities such as Welwyn and Letchworth and now in the new towns. The remedy, which must be tried and tried again, is surely education in the schools—civic pride must be taught alongside other routine discipline so that the enjoyment of the majority is not spoiled, even denied, through hooliganism by a very small minority. This problem is all too real and to a degree accentuated by the current tendency for people to remain in any one locality for longer than a few brief years.



A typical pedestrian shopping way, which could lead from one street to another. Bright with colour, it could form a lively part of the town. Below are three examples of this, the one on the left in Frome, the other two in Bath.



OFFICES

1. in HIGH STREET, ORPINGTON, KENT

2. in HIGH STREET, THORNTON HEATH, SURREY

designed by Chief Architects' Division, Ministry of Works

senior architect, E. H. BANKS, senior engineer, D. C. A. PARSONS

The Orpington Crown Building was designed to accommodate offices for four Government Departments : Inland Revenue, Customs and Excise, Ministry of Pensions and National Insurance and Ministry of Labour. The needs of public visitors had to be considered in relationship to the specialised requirements of each of the departments. These in turn have to function in association with each other, whilst retaining independent control of their respective staff and callers. The Thornton Heath offices, illustrated on page 208, provide accommodation for the Ministry of Pensions and the National Assistance Board.

View across the approach road, from the south-west.



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WORKING DETAIL

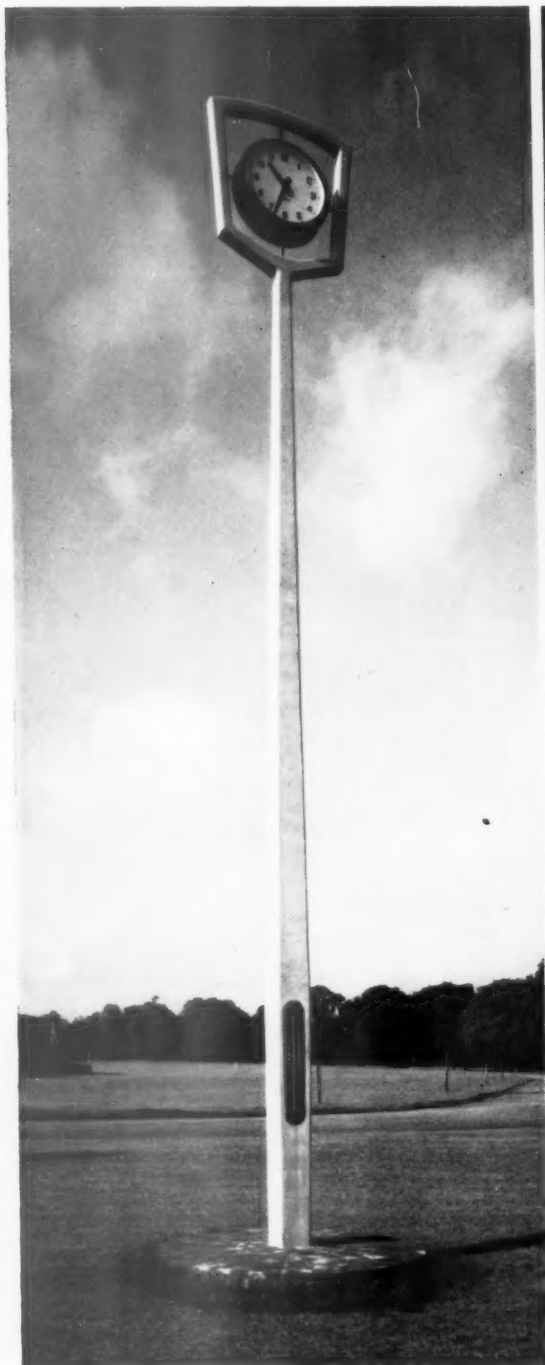
CLOCK: PARK AT LEAMINGTON SPA

Denys Hinton, architect

LAMP STANDARD: SCHOOL AT CONINGSBY, LINCOLNSHIRE

Denis Clarke Hall, architect

MISCELLANEOUS: 4



The precast concrete standard and hoop supporting the clock have a smooth ground shingle finish. The aggregate used was chosen to match the blue Hornton stone base. The clock itself has two faces, each operated by a separate electrical movement.

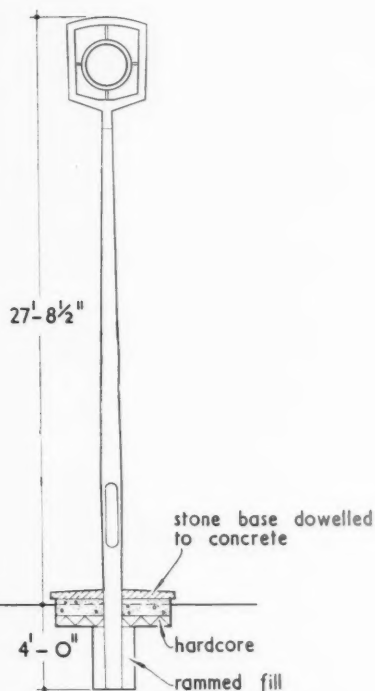
The lamp standard is fabricated of 2½ in. dia. steel tube, the junction box and access panels being incorporated in the base.

WORKING DETAIL

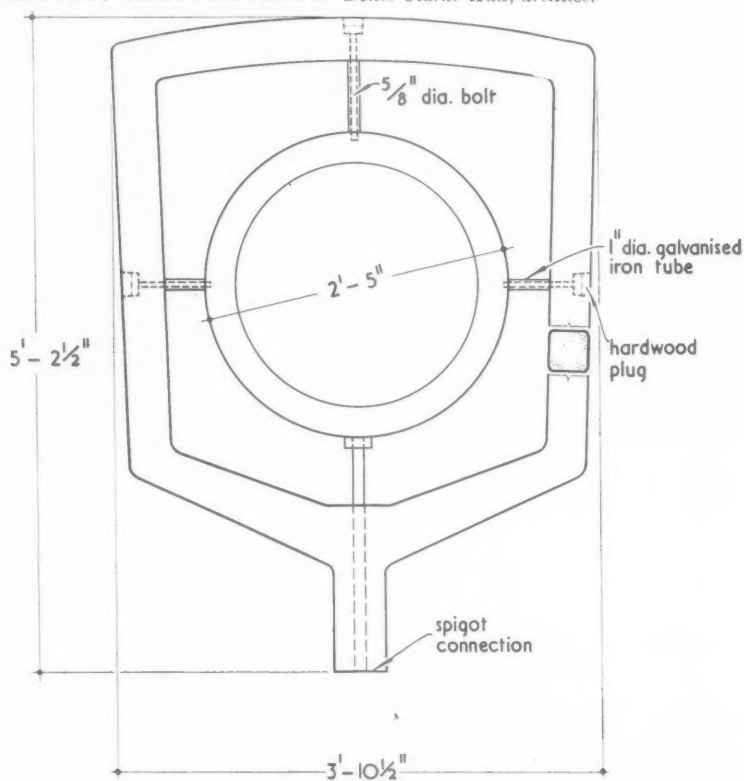
MISCELLANEOUS: 4

CLOCK: PARK AT LEAMINGTON SPA *Denys Hinton, architect*

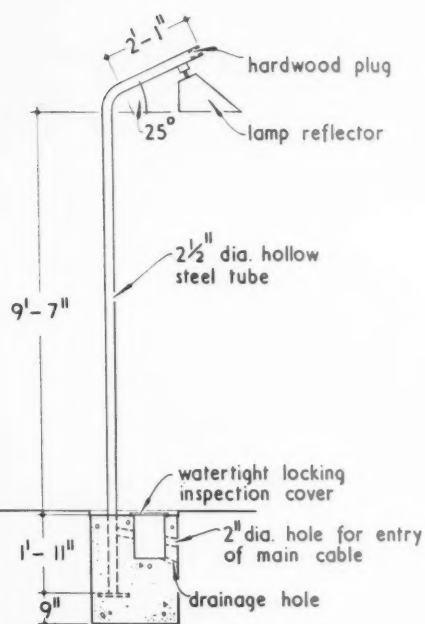
LAMP STANDARD: SCHOOL AT CONINGSBY, LINCOLNSHIRE *Denis Clarke Hall, architect*



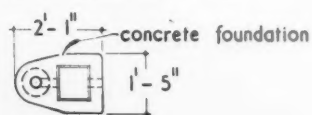
ELEVATION OF CLOCK. scale $\frac{1}{8}'' = 1' - 0''$



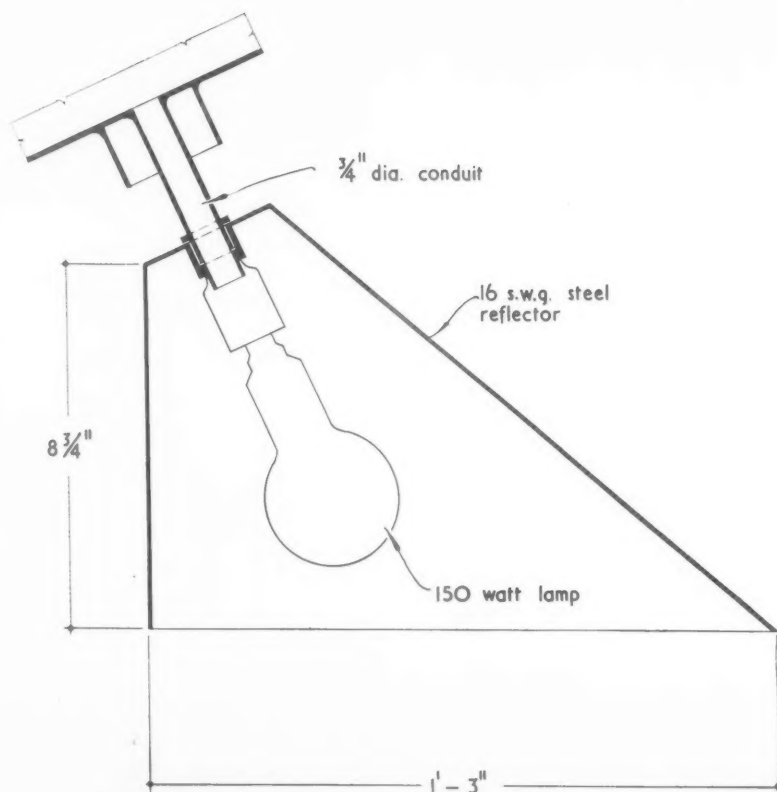
ELEVATION SHOWING THE HEAD. scale $\frac{3}{4}'' = 1' - 0''$



ELEVATION. scale $\frac{1}{4}'' = 1' - 0''$



PLAN OF LAMP STANDARD.



VERTICAL SECTION THROUGH LAMP. scale $\frac{1}{4}$ full size

WORKING DETAIL

WALLS AND PARTITIONS: 20

DOUBLE-GLAZED WINDOW WALL: SCHOOL AT CHISWICK, LONDON, W.4

John and Elizabeth Eastwick-Field, architects, in collaboration with C. G. Stillman, architect to the Middlesex County Council



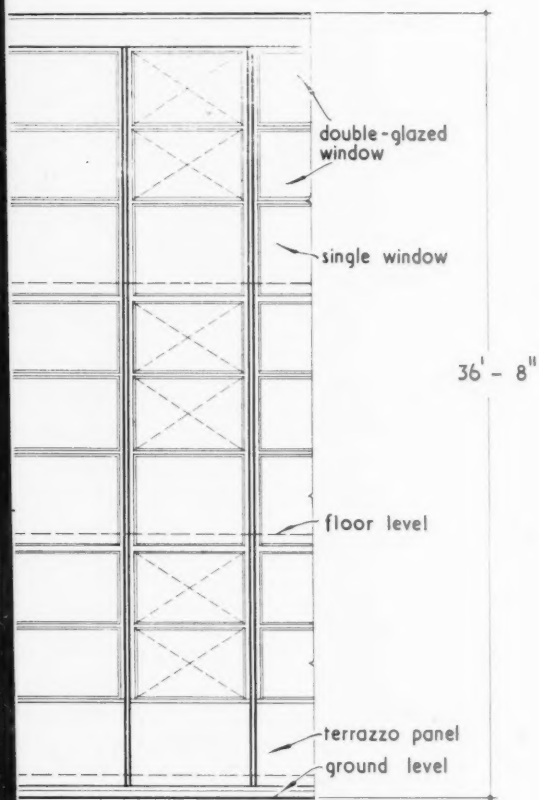
There are two rows of double-glazed opening lights to each of the three storeys, and one row of single-glazed lights, backed up by painted rendering. The windows are of timber and are fixed between prestressed concrete mullions which in turn span between the cantilevered floor slabs. The twin frames of the opening lights are hinged to part, for cleaning the inside faces of the glass.

WORKING DETAIL

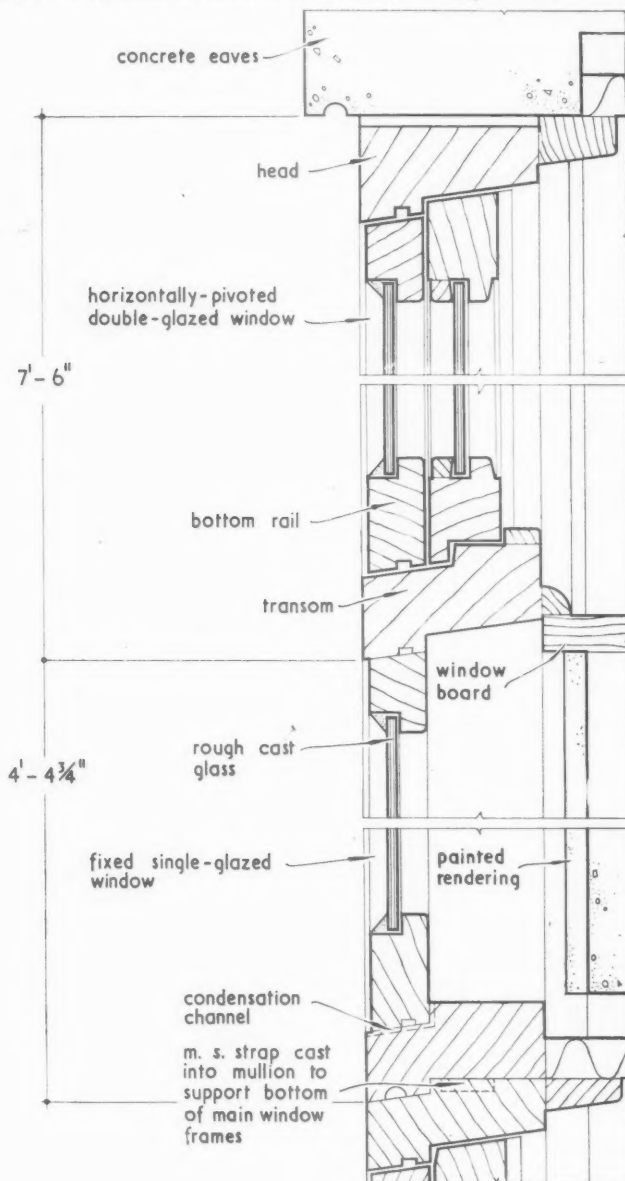
WALLS AND PARTITIONS: 20

DOUBLE-GLAZED WINDOW WALL: SCHOOL AT CHISWICK, LONDON, W.4

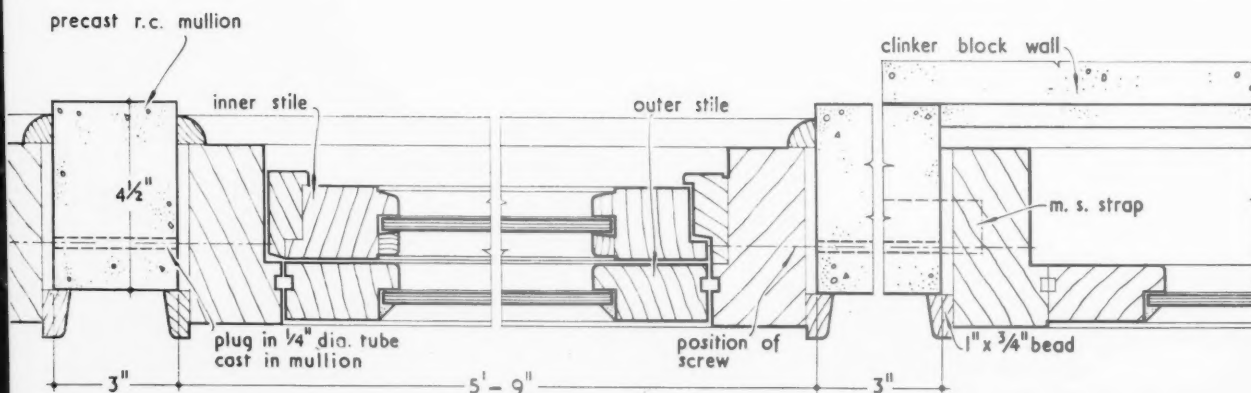
John and Elizabeth Eastwick-Field, architects, in collaboration with C. G. Stillman, architect to the Middlesex County Council



ELEVATION OF ONE BAY OF GLAZED WALL. scale $\frac{1}{8}'' = 1' - 0''$



VERTICAL SECTION THRO' GLAZED WALL.



PLAN OF DOUBLE WINDOWS ABOVE PIVOT.

PLAN OF DOUBLE WINDOWS BELOW PIVOT.

PLAN OF FIXED SINGLE WINDOW. scale $\frac{1}{4}$ full size

SITE.—7
municipal
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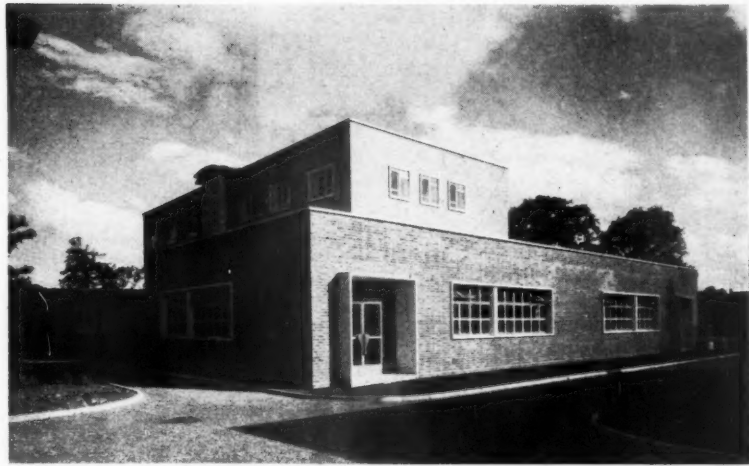
PLAN.—
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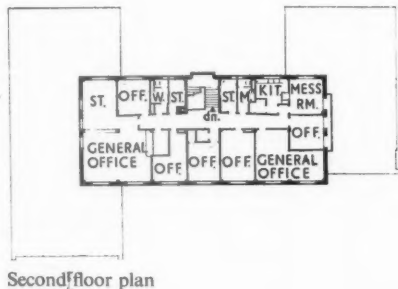
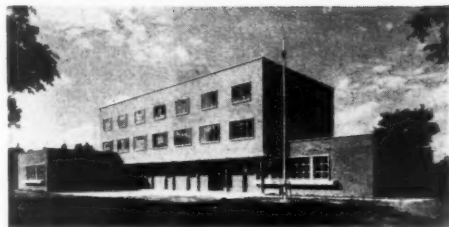
Ground fl

SITE.—The offices are sited adjacent to a large municipal car park and access to the building is by an approach road opening off the entrance to this car park. The surrounding space to the east, south and west is open and allows an uninterrupted view of the building from three sides. The three-storey block is flanked at each end by a single-storey wing.

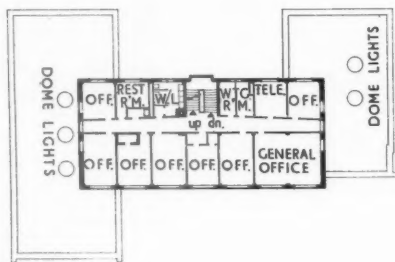
PLAN.—The west wing houses the Ministry of Labour employment exchange with public entrances for men and women at either end. Public spaces surround the central clerical space on three sides. There are two entrances on the south side, the one to the west for public and staff and the other giving access to the Ministry of Pensions in the east wing. The boiler room and storage space is in a basement which extends over the whole area of the main block.



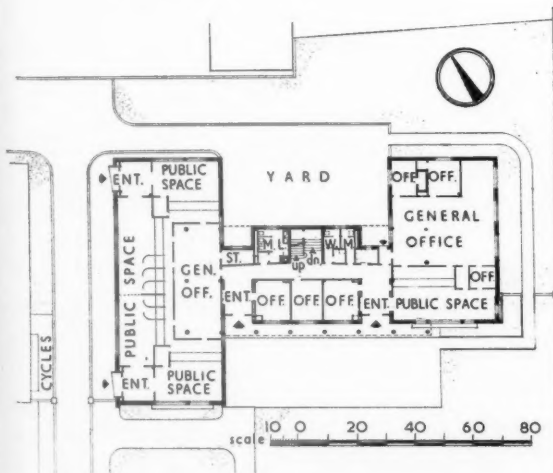
Above, from the north; the single-storey block is occupied by the Ministry of Labour. Right, view from the south. Below right, the public space in the west wing.



Second floor plan



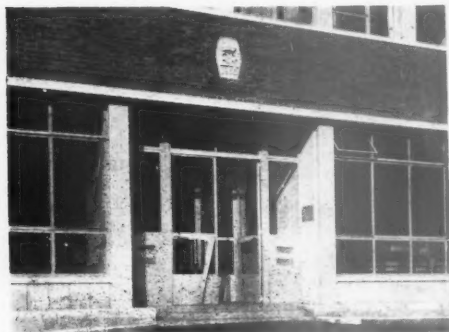
First floor plan



Ground floor plan [Scale: $\frac{1}{16}'' = 1' 0''$]

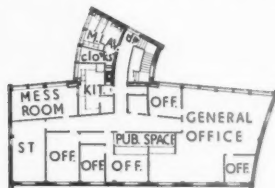
CONSTRUCTION.—The building has a reinforced concrete frame and external walls have an outer skin of 9-in. brick, 1½-in. cavity and inner skin of 3-in. clay blocks. The basement is of r.c. construction, tanked, the ground floor slab is concrete and the upper floors are of hollow tiles.

FINISHES.—Internal partitions are of clay blocks 4-in. thick on ground floor and 3-in. thick above. Roofs are insulated with 2-in. cork, 2-in. screed, 3 layers of bituminous felt and 12-in. sq. asbestos tiles bedded in bitumen. This choice of roof finish and insulation was chosen because of the heating system, which consists of ¾ in. bore mild steel tubes spaced at 6-in. centres in the plastered ceilings. The system, which is designed to give an even temperature of 65 deg. F. throughout the building, is served with low pressure hot water. General contractors, John Morgan (London), Ltd. For sub-contractors see page 215.

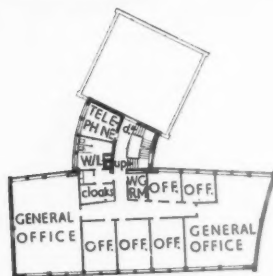


OFFICES

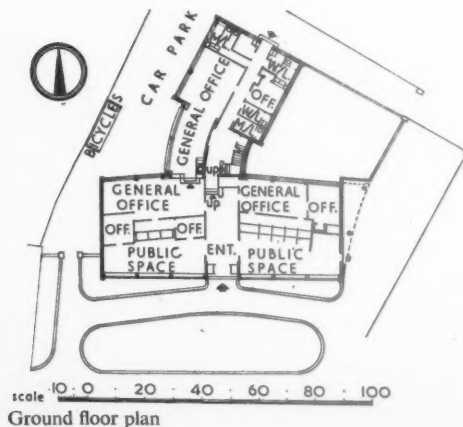
2. in THORNTON HEATH, SURREY
designed by E. H. BANKS, Senior Architect, MOW



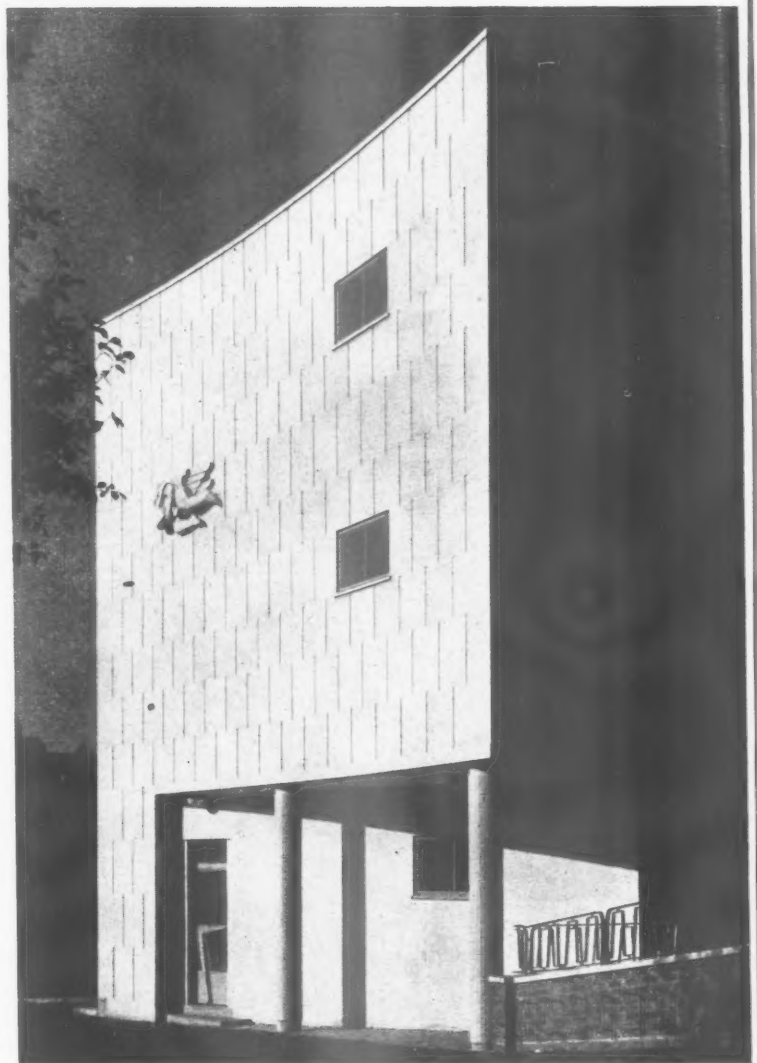
Second floor plan



First floor plan



Ground floor plan



Above left: photos of the south facade and main entrance from the High Street. Above, the east facade, which is faced in Portland stone with rusticated vertical joints. The sculptured panel is by Anthony Foster.

GENERAL.—The main facade of the Thornton Heath offices faces the High Street to the south and is set back 30 ft. behind the adjacent shops. The western flank wall, which is faced with Portland stone, is curved above first floor level and supported on tile-faced concrete columns. The building is steel framed and has external walls of 13½-in. brickwork. The stanchions are carried on mass concrete blocks, cast in situ, and the walls are carried on strip mass concrete foundations. The stone-faced flank walls are of 9-in. brickwork and there is also a stone plinth under the ground floor windows to the public spaces. The ground floor is of reinforced concrete and the upper floors are of hollow tile construction. The roof is flat and finished with three layers of bituminous felt on lightweight concrete screed. Internal floor finishes include linoleum in offices, thermoplastic tiles in public spaces and terrazzo in the entrance hall. The general contractors were Truett & Steele Ltd. For sub-contractors see page 215.

TECHNICAL SECTION

"No cure can be found for the heavy smoke pollution of our cities and towns unless the domestic chimney is dealt with." Since the Beaver Report had this to say in 1954, the Government has continued to show interest in any efforts directed towards the solution of the problem. On February 1, L. W. Joynson-Hicks, Parliamentary Secretary to the Ministry of Fuel and Power, opened—on behalf of the Minister—the *Smoke Abatement and Fuel Efficiency Exhibition** at Charing Cross Underground Station. The exhibition, which was organized by the Solid Smokeless Fuels Federation, shows the various smokeless fuels and the domestic appliances in which the fuels may be used. While this may well be the solution for those millions of chimneys already filling our towns with smoke, it is disappointing to find the individual open fire taken for granted in official circles for future houses and even for flats. It is hoped that the Englishman's uncompromising preference for his open fire (as for his own house and front garden) will not discourage those responsible for national fuel efficiency from investigating other possibilities. We have not heard much of district heating for some time, and the success of the Pimlico scheme in using "waste" heat from Battersea Power Station has not been followed by other experiments. Do the nationalized industries and government departments still find it so difficult to co-operate with each other?

* Open until February 19. Daily 10 a.m.—8 p.m.

This week's
special feature

8 ESTIMATING materials' prices

Current prices for
measured work
will appear on February 24.
Prices of materials
and measured work
last appeared in
the JOURNAL on
October 8 and November 11,
1954, respectively.

Current rates of wages and market prices of materials prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors. Rates for measured work will be published in the JOURNAL for February 24.

Rates of Wages rose on February 7, 1955 and are now as follows:—

<i>LONDON DISTRICT</i>				<i>Craftsmen.</i>	<i>Labourers.</i>		
Within 12 miles radius	..	..	..	3s. 11d.	3s. 5½d.
From 12-15 „ „	..	..	..	3s. 10½d.	3s. 5d.
<i>LIVERPOOL and DISTRICT</i>				3s. 11d.	3s. 5½d.		
<i>GRADE CLASSIFICATIONS</i>				A	A ¹	A ²	A ³
Craftsmen	..	3s. 9½d.	3s. 9d.	3s. 8½d.	3s. 8d.		
Labourers	..	3s. 4d.	3s. 3½d.	3s. 3d.	3s. 2½d.		

Prices vary according to quality and the quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit for the General Contractor.

CONCRETOR

Cements

Portland to B.S. 12, 6 tons and over	per ton	96/6
Rapid hardening to B.S. 12, 6 tons and over	"	104/6
Aquacrete water repellent, 6 tons and over	"	129/-
Aluminous to B.S. 915, 1 ton lots	"	299/6
Sulphate resisting cement, 6 tons and over	"	129/-
Snowcrete, 1 ton lots	"	257/-

Above prices include for delivery to Charing Cross in non-returnable paper bags or cotton sacks.

Aggregate and Sands, etc. (Full Loads)

¾" (down) Washed, crushed and graded shingle to B.S. 882, Table 2	per yard cube	19/3
1½" Ditto	"	18/4
¾" Sharp washed sand to B.S. 882, Table 3	"	22/4
Vermiculite, ¾" down	per ton	640/-
Brick hardcore	per yard cube	9/6
Ashes	"	10/-

(For Sands for Bricklaying and Plastering, see respective trades)

Floor Blocks

Floor blocks, 12" x 12"	per 1,000	698/-	936/-	1,138/-
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Reinforcement

Home trade maximum basis price for mild steel rods to B.S. 785, ½" diameter and upwards, ex mills delivered to station or siding

Extras for:—

Under ½" to 7/16" diameter	£1 12 0
Ditto 7/16" and over ½" diameter	£1 19 6
¾" and over 11/16" diameter	£2 9 6
1½" and over 1½" diameter	£2 19 6
1½" and over 1½" diameter	£3 7 0
1½" and over 1½" diameter	£3 17 0
1½" diameter	£4 7 0
Under 1½" to 3/16" diameter	£6 4 6

Fabric Reinforcement

Steel wire mesh fabric to B.S. 1221, Part A. per yd. super	16.35 lb.	9.32 lb.	4.71 lb.	1.83 lb.
	8/4½	4/10½	2/5½	1/4½

BRICKLAYER

Common Bricks

Common stocks	per 1,000	130/4
Rough stocks	"	169/4
Mild stocks	"	210/10
Sand limes	"	110/6
Phorpres pressed flettons	"	113/-

Facing Bricks

Hand-selected sand limes	per 1,000	145/9
Phorpres rustic flettons	"	138/-
Stocks, first hard	"	261/4
Stocks, second hard	"	245/4
Southwater pressed sandfaced reds	"	301/6
Dorking pressed sandfaced multicoloured facings	"	244/-

Engineering Bricks

Lingfield engineering wirecuts. Grade 'B'	per 1,000	225/-
Southwater engineering No. 2 (second quality red pressed)	"	289/-
Blue pressed bricks to B.S. 1301	"	514/6

Glazed Bricks

White, ivory or brown, 9" x 2½" x 4½" delivered	Best quality.	
London stations.	£ s. d.	
Headers	per 1,000	67 14 6
Stretchers	"	68 16 0
Seconds quality above prices less 10%.		

BRICKLAYER (continued)

Limes and Sands

†Lime, greystone, to B.S. 890	per ton	114/6
†Lime, chalk, ditto	"	114/6
*Lime, hydrated, ditto	"	127/-
Washed pit sand to B.S. 1200	per yard cube	22/4

* Including paper bags.

† Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

10 s.w. gauge galvanized butterfly type wall ties to B.S. 1243	per 1,000	106/-
Wall ties, galvanized, 8" x ½" x ½", to B.S. 1243	per cwt.	72/6
Damp proof course slates:		
Size 14" x 9"	per 100	43/-
" 14" x 4½"	"	21/-
Hessian base bitumen damp course to B.S. 743	per yard super	5/1
	9" x 3" 9" x 6" 9" x 9"	
Terra-cotta airbricks	each	1/3 2/6 6/-
Galvanized cast-iron airbricks	"	3/2 5/4 8/-
Galvanized cast-iron hit-and-miss ventilators	"	3/2 6/2 8/-
Wall reinforcement supplied in standard rolls containing 25 yards lineal		
‡ 2" wide black japanned	per roll	3/4½
‡ 2½" wide black japanned	"	4/3½
‡ Greater widths pro rata 2½" price, carriage paid on orders of £7.		
Discount for quantities.		

Partitions, etc.

Clinker concrete solid	per yard super	2" 21" 3" 4"
Hollow clay to B.S. 1190 (keyed)	"	3/7 4/2 5/- 6/2
Moler (keyed)	"	4/3 4/6 5/2 —
Leca blocks	"	13/6 14/3 15/- 18/3 19/-
Solid	"	6/- 7/- 8/- 10/-
Hollow	"	7/6 8/6 9/6 —
Building blocks (keyed):—		
6 cavity	per yard super	6/7
Normal quality woodwool slabs	1" 1½" 2" 2½" 3"	
Minimum delivery, square yards,	500 400 325 275 250	
per yd. super	5/- 6/6 8/- 9/2 10/3	

PAVIOR

2" coarse gravel for paths	per yard cube	22/3
¾" fine ditto	"	23/9
Clean granite chippings to B.S. 1201, Table 4 (in 5-ton loads)	per ton	42/9
Red quarry tiles 6" x 6" x ½", to B.S. 1286	per yard super	13/9
Ditto 6" x 6" x ½", to B.S. 1286	"	11/9
Buff quarry tiles, 6" x 6" x ½", to B.S. 1286	"	16/11
Ditto 6" x 6" x ½", to B.S. 1286	"	14/4
Hard red paving bricks, 2"	per 1,000	467/3
Ditto 1½"	"	441/6

DRAINLAYER

Clay Land Drain Pipes to B.S. 1196

Pipes in 12" lengths	per 1,000	3" 213/6 4" 282/-
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Salt Glazed Stoneware Pipes and Fittings

The following percentages to be added to the Standard List prices.

	Orders for 2 tons and over	Orders under 2 tons 100 pieces upwards	Orders under 2 tons less than 100 pieces
Seconds Quality	67½% less 15%	97½% less 15%	107½% less 15%
Best quality	67½%	97½%	107½%
British Standard Quality	67½% + 10%	97½% + 10%	107½% + 10%
Tested Quality	67½% + 37½%	97½% + 37½%	107½% + 37½%
British Standard Tested	67½% + 47½%	97½% + 47½%	107½% + 47½%

Cast Iron Drain Pipes and Fittings

Socket and spigot pipes to B.S. 437:—

Weight per 9 ft.	Size	9 ft.	6 ft.	4 ft.	3 ft.	2 ft.
		each	each	each	each	each
1	1 17 4"	64/9	46/10	36/7	28/1	22/5
2	0 1 6"	96/-	73/6	57/7	45/10	34/4
3	3 21 9"	177/-	146/4	122/2		

Pre-war quality for Post-war work

Barclay's Bank, Birmingham



Architects: Peacock & Bewlay

Contractors for Bank fittings: Harris & Sheldon Ltd.

Indian Silver Greywood in both solid wood and veneered panels was the principal material used for the decorative treatment of this important branch.

William Mallinson and Sons Ltd.

TIMBER AND VENEER MERCHANTS

MANUFACTURERS OF PLYWOOD, ARMOURPLY, PANELS, COMPOSITE PARTITIONING AND INSULATING BOARDS

130-150 HACKNEY ROAD
LONDON, E.2

Telephone: Shoreditch 7654 (10 lines)

Telegrams: "Almoner," London

Think about outside PAINT

About colour and looks, of course, but *first* about protection. For an outside paint is not doing its job if it does not protect the surface; the weather will get down to its destructive work and the fabric of the building will suffer.

White Lead Paint lasts—and protects: its long life is the guarantee that it is doing its job. Remember that the stucco and woodwork of Georgian and Queen

Anne houses have survived two hundred years and more of English weather under white lead paint.

In Magnet you have this white lead durability combined with a fine lustrous gloss. Magnet wears evenly and there will be no burning off before the next repainting. Its 30 colours (plus black and white) can be mixed in any proportion for intermediate shades. On first day looks and long term protection . . .



MAGNET for the OUTSIDE

ASSOCIATED LEAD MANUFACTURERS LIMITED



LONDON · NEWCASTLE · CHESTER

DRAINLA

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Standard
ware pipe

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5" ×
6" ×

SLAT

16" ×
20" ×

DRAINLAYER—(continued)

Tonnage Allowances :—

Orders up to 2 tons nett.

	4"	6"	9"
*Bends (short radius) as Fig. No. 4 each	6/3	13/-	40/-
*Single junctions as Fig. No. 18	11/-	22/6	69/-
*Intercepting traps as Fig. No. 33	30/-	50/-	123/-
*Gullies ordinary trapped "P"	14/6		
*Extra for 4" vertical back inlet	4/3		
*Grease gully trap	121/-		

* These prices are subject to 140% plusage.

Channels in Brown Glazed Ware

Standard list + same percentages as "Best" quality salt-glazed Stone-ware pipes.

White Glazed Channels

Orders under £30, makers' list value. Standard list + 25%.

Manhole covers and frames

	Size of load	Unit price	
C.I. coated double triangular manhole cover and frame, 22" dia. clear opening to B.S. 497, Grade A	35 tons	190/7	
C.I. coated circular manhole cover and frame, 22" dia. clear opening to B.S. 497, Grade B			
	5 tons	101/7	
	Size of load	Single seal Flat type	Double seal Flat type
Coated manhole cover and frame to B.S. 497, Grade C, 24" x 18" each	1 ton	34/10	49/8
Galvanized ditto, 24" x 18" each	1 ton	62/6	87/10
Coated manhole cover and frame, to B.S. 497, Grade C, 24" x 24" each	1 ton	53/1	79/4
Galvanized ditto, 24" x 24" each	1 ton	96/10	137/6

MASON*Yorkstone*

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks scrapped, random sizes	per foot cube	11/4
Add for blocks to dimension sizes	"	1/4 (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2' 6" long)	"	12/8
Templates with sawn beds, sawn one edge	"	14/8
Price f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 4-ton loads)		62/11

Bath stone in random blocks

Monk's Park	per foot cube	7/10
St. Aldhelm Box Ground	"	8/10
Delivered on rail at South Lambeth Station.		

Portland stone in random blocks, average 20 feet cube

Whitbed	per foot cube	8/1½
Delivered on rail at Nine Elms Station.		

Somerset stone in random blocks

Doubling	per foot cube	8/7
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Artificial Stone to B.S. 1217

4½" x 4" Sill, sunk, weathered, throated and grooved	per foot run	3/2
9" x 3" Ditto	"	4/9
2" x 12" Coping, weathered and twice throated	"	4/2
3" x 12" Ditto	"	6/4
5" x 12" Saddleback coping, twice throated	"	9/5
6" x 12" Ditto	"	10/6

SLATER, TILER AND ROOFER*Slates*

	£	s.	d.
16" x 10" Best Bangor Slates to B.S. 680	per 1,000 actual	50	0 0
20" x 10" Ditto	"	83	10 0

SLATER, TILER AND ROOFER (continued)*Tiles*

Hand-made sandfaced 10½" x 6½" red roofing tiles	per 1,000	329/-
Machine-made sandfaced best red tiles with continuous ribs, 10½" x 6½"	"	291/-
Bridgwater hand made red sandfaced pantiles, in 6-ton loads	"	878/-
Bridgwater hand made red sandfaced Double Roman tiles, in 6-ton loads	"	1,156/6
Concrete plain tiles, 10½" x 6½"	"	159/-
Ditto interlocking tiles, 15" x 9"	"	457/-
Ditto Double Roman Tiles	"	800/-

Asbestos-cement

*6" corrugated sheets, grey	per yard super	5/9
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* Prices are for minimum two-ton loads, and are subject to 5% trade discount.

Felt

Reinforced roofing felt to B.S. 747	per yard sup.	1/6
Roofing felt (1-ply bitumen) to B.S. 747, Part I	"	1/6
Bituminous hair felt to B.S. 747, Part II	"	2/9

CARPENTER AND JOINER*Wall boards*

½" Imported Fibre board	5,000 to 15,000 sq. ft.	
(per 100 sq. ft.)		42/-
½" Imported Hardboard (per 100 sq. ft.)		42/-
¾" Imported Hardboard (per 100 sq. ft.)		67/6
* ¾" Semi compressed asbestos cement flat building sheets, grey, size 8' x 4'	per yard super	3/1
* ¼" Ditto	"	4/1

* Prices are for orders of 2 tons and over. Subject to 5% trade discount.

Sundries

"Sisalkraft" standard grade	per yard sup.	-/10½
"Sisalkraft" subsoil grade	"	-/6½
"Sisalation" single sided	"	1/10½
"Sisalation" double sided	"	2/10
Fibre glass Bitumen bonded	"	1/9½

Timber

Softwood for Carpentry (average price)	per std.	£95
Softwood for Joinery (ditto)	"	£105
Tongued and Grooved Softwood Flooring (ditto)	"	£105
*First Quality European Oak	per ft. cube	25/- to 40/-
*Teak	"	40/- to 80/-

* Prices vary considerably depending on specification.

Standard Panelled and Glazed Wood Doors to B.S. 459, Pt. I

Type 4	size 2' 6" x 6' 6" x 1½"	each	34/3
Type 2 x G	size 2' 6" x 6' 6" x 2"	"	41/6
Type 4 x G	size 2' 6" x 6' 6" x 2"	"	47/6

In lots of from 1 to 11 inclusive.

Wood Windows

N 26 V	size 1' 5½" x 2' 6½"	each	21/-
2 26 V	size 4' 0½" x 2' 6½"	"	42/-
N 40 V	size 1' 5½" x 4' 0½"	"	23/11
3 40 V	size 5' 11½" x 4' 0½"	"	74/4
4 40 V	size 7' 10½" x 4' 0½"	"	93/5

In lots of from 1 to 20 inclusive.

Kitchen Units

No. 1	size 3' 6" x 2' 8" x 1' 7"	each	161/5
No. 2	size 3' 6" x 2' 8" x 1' 7"	"	112/-
No. 4	size 2' 8" x 1' 9" x 1' 7"	"	99/-
No. 5	size 3' 10" x 1' 9" x 1' 7"	"	86/-
No. 7	size 6' 6" x 1' 9" x 1' 7"	"	129/6

Prices include for tops and plinths.

In lots of from 1 to 15 inclusive.



**OFFICES FOR THE ROYAL INSURANCE CO. LIMITED
AND THE
LIVERPOOL & LONDON & GLOBE INSURANCE CO. LIMITED**

at St. Andrew's Roundabout, Plymouth. This five storey building is steel framed and the walls of the main facade are of Portland Stone, relieved by ornamental aluminium and stone panels. Elevations to the courtyard are in brick, rendered to match the stonework. Floors are hollow tile.

ARCHITECTS: ALEC F. FRENCH & PARTNERS, F./L.R.I.B.A.
BRISTOL, PLYMOUTH & DONCASTER.
CONSULTANT: THE LATE T. S. TAIT, F.R.I.B.A.
SURVEYORS: GLEEDS OF BRISTOL.
BUILT BY

RICHARD

COSTAIN

LIMITED

**BUILDING & CIVIL ENGINEERING CONTRACTORS
4 PRINCESS PLACE, NOTTE ST., PLYMOUTH**

HEAD OFFICE: *

**111 WESTMINSTER BRIDGE ROAD, LONDON, S.E.1
WATERLOO 4977**

STEEL

Basis price

Extra for

9" x 7"

14" x 7"

16" x 7"

18" x 7"

5" x 5"

3 1/2" x 5"

9" x 3"

4" x 3"

4 1/2" x 3"

6" x 3"

4" x 4"

3" x 3"

4 1/2" x 3"

3" x 1"

Basis price

" "

" "

Rustproof

Type 1

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Prices vary

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STEEL AND IRONWORKER

Basis price for rolled steel joist sections,
in 10 ft. to 50 ft. lengths ex mills per ton 30 5 6

Extra for sizes:—

9" x 7", 10" x 8", 12" x 8", 14" x 5½"		
14" x 6", 14" x 8", 15" x 5", 15" x 6",		
16" x 6", 16" x 8", 18" x 6", 18" x 7",		
18" x 8", 20" x 6½", 20" x 7½"	.... Add per ton	10 0
5" x 4½", 7" x 3½", 13" x 5"	.... "	15 0
5" x 5", 12" x 5", 22" x 7"	.... "	1 0 0
3½" x 3½", 6" x 4½", 7" x 4", 8" x 4",		
9" x 4", 10" x 5"	.... "	1 5 0
4" x 3", 10" x 4½"	.... "	1 10 0
4½" x 4½", 5" x 2½", 5" x 3"	.... "	1 15 0
6" x 3", 24" x 7½"	.... "	2 0 0
4" x 4"	.... "	2 5 0
3" x 3"	.... "	2 10 0
4½" x 1½"	.... "	3 5 0
3" x 1½", 4" x 1½"	.... "	3 10 0
Basis price for angles ex mills per ton		30 4 6
" " " tees "		30 4 6
" " " solid steel columns "		32 4 6

All delivered Station or Siding.

Standard Metal Windows

Rustproof type

Type ND2F, 4' 0" x 3' 3½"	.... each	43/- to 57/4
" ZND2F, 4' 0" x 4' 0"	.... "	46/3 to 61/8

Prices vary with size of order, those given are maximum and minimum.

PLASTERER

Plaster and Cement

	1-ton loads	4-ton to 5 ton 19 cwt loads
Thistle (browning) to B.S.1191, Class B per ton	152/6	135/-
Gypstone to B.S.1191, Class B	152/6	135/-
Paristone (haired) to B.S.1191, Class B	155/-	137/6
" Ditto (unhaired) "	152/6	135/-
Cretestone bonding plaster "	162/6	145/-
Sirapite (coarse) to B.S.1191, Class C	149/-	133/-
" Ditto (fine) to B.S. 1191, Class C	157/-	141/-
Keene's Pink to B.S.1191, Class D	198/6	
Keene's White to B.S.1191, Class D	204/-	
Callamix (Tyrolean Finish), 1-ton lots and upwards	per ton from 184/3	to 217/9

Sundries

Sharp washed sand to B.S.1198	.... per yard cube	22/4
Cow Hair	.... per cwt.	97/6
Expanded metal lathing, 9' 0" x 2' 0" x ¾"	.... per yd. sup.	2/7½
mesh x 24 gauge	25 to 149 yards	150-299 yards
¾" Plasterboard (base board or lath) per yard super	2/9	2/5
¾" Insulating ditto, per yard super	3/6	3/2
Plasterboard nails 12 G	.... per cwt.	121/-
Hessian Scrim cloth in 100-yard rolls, 3½" wide	.... per roll	7/9

Wall Tiles

The following prices are subject to 25 per cent. addition:—

Standard quality white glazed 6" x 6" x ¾"	per yard super	18/6
Cream glazed 6" x 6" x ¾"	.... "	20/6
Eggshell or glossy glazed 6" x 6" x ¾ in.	.... "	26/3

PLUMBER

Lead and Copper

3½ lb. and upwards milled sheet lead in quantities of 5 cwts. to under 1 ton in sheets to B.S.1178	per cwt.	144/3
Hot rolled copper sheeting in 1-ton lots (4' x 2' sheets), to B.S.899	23 wire gauge, per ton	417 0 0
" Ditto	24 wire gauge, "	420 0 0
Zinc sheeting in 1-ton lots	14 gauge	125 0 0

Cast Iron Goods

Percentage Adjustment on List No. 3200 A.B. 1/5/52.

Rainwater Goods (painted or unpainted)	.... Plus 15%
Soil goods (coated or uncoated)	.... Plus 15%

Mild Steel Rainwater Goods

	Standard List
Gutters (under 100 lengths)	.... Less 25%
Pipes and Fittings ( " " )	.... Less 25%

Asbestos-Cement Rainwater Goods

The following prices are subject to 12½% trade discount.
Orders over £30 are subject to 17½% trade discount.

PLUMBER (continued)

Rainwater Pipes

	2"	2½"	3"	4"	6"
6' 0" lengths	7/6	8/-	9/8	12/10	25/9 each
10' 0" "	11/10	12/10	15/-	21/6	43/- "

Gutters

	3"	4"	5"	6"	8"
Half round gutters					
6ft. lengths each	5/-	5/11	6/1	7/2	10/- 12/4

INTERNAL PLUMBER

Lead pipe (basis, weights) in coils 5 cwts. to under 1 ton, up to 4" bore to B.S.602	.....	per cwt.	145/6
Light lead pipe ditto	.....	per cwt.	147/-
Lead pipe to B.S. 1085	.....	per cwt.	156/6
Polythene tubing, normal gauge in quantities of 500 ft. to 999 ft.	1 1/2"	1"	1 1/4"
per 100 ft.	62/6	123/-	158/6
Ditto, heavy gauge ditto			
per 100 ft.	133/-	183/-	233/6
Drawn lead traps with brass screw eye, to B.S.504	1 1/2"-6lb.	1 1/2"-6lb.	2"-7lb.
S. trap 1 1/2" seal	.....each	6/10 1/2	8/2
" 3" deep seal	.....	8/2 1/2	9/8 1/2
Drawn copper traps to B.S. 1184	1 1/2"	1 1/2"	2"
S. trap 1 1/2" seal	.....each	22/10	25/3
" 3" deep seal	.....	24/7	27/3

Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.

Fittings and tubes ordered in long random lengths are subject to the following trade discounts:—

Tubes:	Fittings:
Class B 1½" to 4"	Lightweight plus 6%
" C 4½"	Heavyweight plus 13½%
Galvanized Class B plus 2½"	Galvanized:
" C plus 18½"	Lightweight plus 18½%
Galvanized malleable fittings	Heavyweight plus 26½%
Less 37½% less 64% plus 40%	
Copper tubing to B.S. 659 and 1386. Basic price per lb.	.... 3/-½

GLAZIER

Sheet Glass, cut to size (ordinary glazing quality), to B.S.952, Section A	
18 oz.	per foot super -5½
24 oz.	" -7½
32 oz.	" 1/1

Polished Plate Glass, ordinary substance, approximately ¼", to B.S.952, Section A.

In plates not exceeding:	Glazing quality	Selected glazing	Silvering quality
2 ft. super	per foot super 3/7	4/3	5/1
5 ft. super	" 4/5	5/2	6/2
*45 ft. super	" 5/1	5/9	6/11
*100 ft. super	" 5/6	6/9	8/10

* Extra sizes, i.e., plates exceeding 100 ft. super or 160 in. one way, or 96 in., both ways at higher prices.

¾" figured rolled and cathedral, to B.S.952, Section B—standard patterns, white	per foot super	-9
¾" or 1" rolled plate, patterns, white	"	1/-
¾" or 1" rough cast, patterns, white	"	1/-
¾" Georgian wired cast, patterns, white, Section D	"	1/2½
¾" Georgian wired polished plate, Section D	"	4/10
¾" wired cast	"	1/2

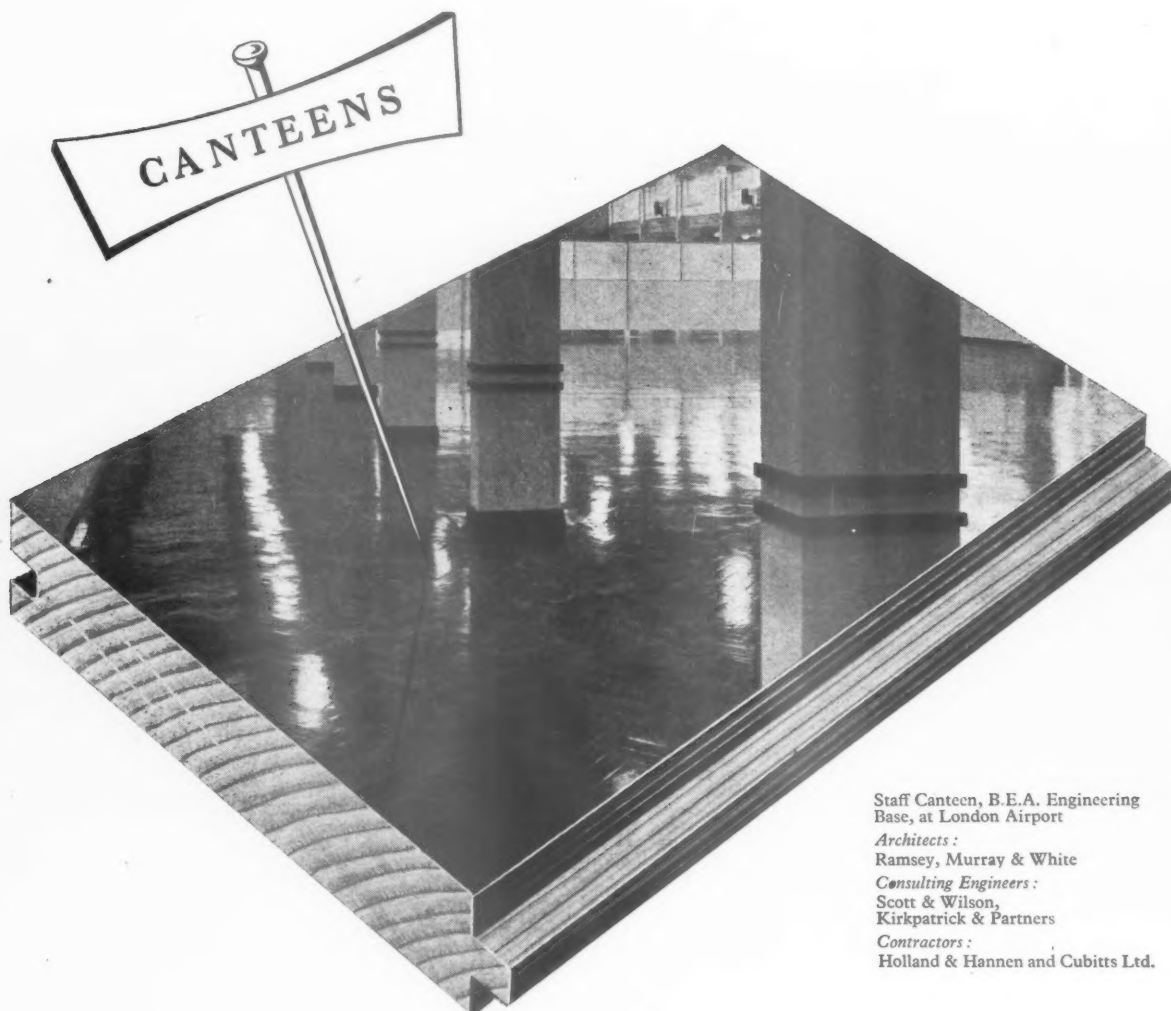
Attention is drawn to reductions in certain glass prices offered by manufacturers for acceptance of specified minimum quantities of one size and substance delivered to one address at one time.

PAINTER

White ceiling distemper	per cwt.	29/-
Washable distemper	per cwt. from	112/-
Primer, general purpose	per gallon	33/6
Ready mixed, white lead paint	"	59/6
Flat oil paint	"	39/-
Emulsion paint	"	44/-
Hard gloss paint:		
Undercoat	"	42/-
Finishing	"	44/-
White Portland cement paint	per cwt.	71/-

P. W. Davis

F.R.I.C.S., F.I.Arb.



Staff Canteen, B.E.A. Engineering
Base, at London Airport
Architects :
Ramsey, Murray & White
Consulting Engineers :
Scott & Wilson,
Kirkpatrick & Partners
Contractors :
Holland & Hannen and Cubitts Ltd.

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- ★ A good hardwood floor stands up to a lifetime of hard wear.
- ★ It is quiet, warm and comfortable underfoot.
- ★ It is a pleasure to look at.
- ★ It can be cheaply and easily maintained in perfect condition.

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IN CONJUNCTION WITH THE HARDWOOD FLOORING MANUFACTURERS' ASSOCIATION

TD&F

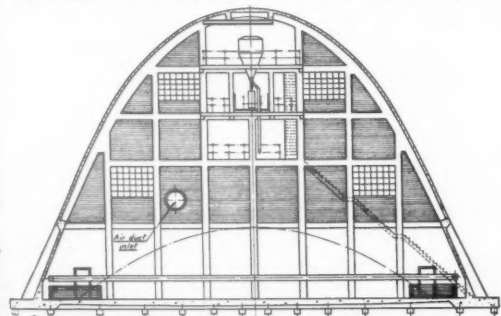
SULPHATE OF AMMONIA STORE AND BAGGING HOUSE AT GREENWICH



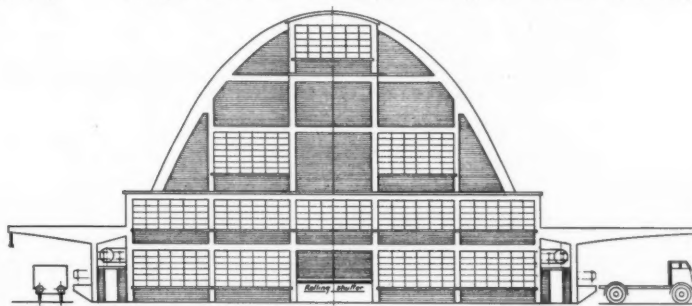
The Phoenix Wharf works deals with various chemical by-products of gas production and an extensive scheme of reconstruction has included a structure for storage and handling of the main product, sulphate of ammonia. The building was designed for the South Eastern Gas Board by its Central Construction Department in conjunction with Twisteel Reinforcement Ltd.

The whole building comprises the store, which is 186 ft. long by 96 ft. wide, and the bagging house, which is 108 ft. wide by 60 ft. long. The ends of the store are reinforced concrete framed and brick filled. The wall at one end incorporates a 17 ft. 6 in. reinforced concrete retaining wall and the supporting structure for the pneumatic handling plant. The other gable end forms part of

the end wall of the bagging house which is constructed with a conventional reinforced concrete frame. The floor is a conventional beam and slab construction carried on 213 bored piles, some raked at 10° at the foot of the abutments. The store is constructed with sloping-wing, reinforced-concrete retaining-walls, 17 ft. 6 in. high along two sides, with buttresses at 8 ft. centres. From opposing pairs of buttresses rise prestressed, precast 3 pin arches with a span of 86 ft. 6 in. and a rise of 48 ft. 6 in. Each rib section is 12 in. wide and varies from 1 ft. 9 in. deep, at the ends, to 2 ft. 9 in. near the centre. Each rib is 66 ft. long and weighs 13 tons. The end blocks of the rib were factory-made to incorporate the abutment and apex hinges of malleable cast iron. The blocks were placed on an arch shaped casting bed and the remaining



Store elevation

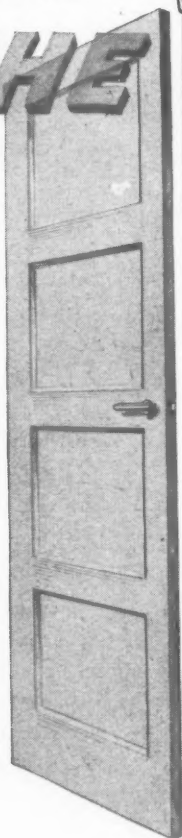


Bagging house elevation

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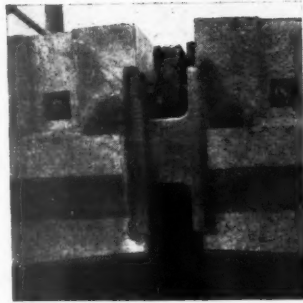
Telephone: Ilkeston 623 (3 lines)

Telegrams: "LEADAFUSH ILKESTON"



COGENT

SULPHATE OF AMMONIA STORE AND BAGGING HOUSE (continued)



64 ft. length of rib was cast between them. Six ribs were cast on the bed with separate soffit shutters, but only two side shutters were used. Sulphate resisting cement was used and a 4,500 p.s.i. strength at 10 days was specified. The ribs were prestressed by the Lee-McCall system using two $1\frac{1}{2}$ in. diameter bars. Couplers were used, with bars 62 ft. and 5 ft. $0\frac{7}{8}$ in. long, to attain the length of the rib. Stressing (bottom extreme left) was carried out six days after casting and five ribs were completed each week. The ribs were hoisted into position by a large jib crane (left).

The roof was formed by precast prestressed planks 7 ft. 6 in. long, 12 in. wide and 3 in. thick, spanning from rib to rib. Steel hoops project from the ends and fit over projecting stirrups on the arch ribs. The space over the rib was concreted after anchor bars had been slipped through the hoops. At the apex of each arch two special precast crown slabs span from rib to rib, resting on corbels at the top of each rib. These are tied to the ribs and to each other by 7-wire cables stressed on the Gifford-Udall system. The cables are lapped, spanning from outside to outside of adjacent ribs. A 1 in. gap was left at the apex between the pairs of crown slabs to preserve the articulation of the arch. The hinge at the apex and the anchorages at the crown can be seen in the photo (bottom left). The roof was given a waterproofing treatment of two layers of oilumastic roofing compound with a white sea shell dusting to the top coat.

Buildings Illustrated

Crown Office Building in High Street, Orpington, Kent. (Pages 206-207.) Architect: E. H. Banks, F.R.I.B.A., F.R.S.A., Chief Architect's Division, Ministry of Works, MOW Chief Engineer's Division, D. C. A. Parsons, A.M.I.E.E., Senior Engineer, and G. H. Stewart, M.I.STRUCT.E. Consultants: (Engineer), T. Bedford, M.I.C.E.; (Sculptor), Joseph Cribb. Clerk of Works: B. C. Kerslake. General Contractor: John Morgan (London) Ltd. Sub-contractors: scaffolding, Boulton Ltd.; asphalt tanking, Limmer & Trinidad Lake Asphalt Co. Ltd.; felt roofing, Permanite Ltd.; suspended floors, John Morgan, Ltd.; terrazzo, Camden Tile & Mosaic Ltd.; composition tile flooring, Armstrong Cork Co. Ltd.; metal windows and doors, C. E. Westlead Ltd.; gates and railings, H. & C. Davis & Co. Ltd.; chain link fencing, Penfold Fencing & Engineering Ltd.; metal faced partitions, Flexo Plywood Industries Ltd.; flush doors, Southern Ltd.; plaster work, W. A. Telling Ltd.; staircase balustrade, R. Smith (Horley) Ltd.; Glascrete window and domelight, J. A. King Ltd.; tarmac, Thames Tar Products Ltd.; heating and electrical installations, Hope's Heating and Engineering Ltd.; plumbing, T. H. Shouksmith & Sons Ltd.; quarry tile paving, Carter & Kernaham Ltd.; decorations, Christophers (Painting Contractors) Ltd.; sign boards, Remploy Ltd.; strong room doors, James Gibbon Ltd.; flagpole, J. W. C. Gray; facing bricks (Sussex &

Dorking), Cement Marketing Board; kitchen furniture and doors, Clissold Joinery; locks and door furniture, Josiah Parkes Willenhall and Everite & Co. Ltd.; paints, Dixon's Paints Ltd.; lettering and signs, Balham Signs Ltd.; Portland stone, Frank Mortimer Ltd.; cast stone, Joseph Mears Ltd.; telephones, G.P.O.

Crown Office Building in High Street, Thornton Heath, Surrey. (Page 208.) Architect: E. H. Banks, F.R.I.B.A., F.R.S.A., Senior Architect, Engineering Division, M.O.W.; D. C. A. Parsons, A.M.I.E.E., Senior Engineer; G. H. Stewart, M.I.STRUCT.E., Senior Structural Engineer. Quantity Surveyors: Davidson & Pritchard. General Contractor: Truett & Steele Ltd. Clerk of Works: L. M. Tetlow. Sub-contractors: structural steelwork, Redpath Brown & Co. Ltd.; asphalt tanking, Limmer & Trinidad Lake Asphalt Co. Ltd.; metal windows, Wainwright & Waring, Ltd.; hollow tile floors, Caxton Floors, Ltd.; bitumen felt roofing, The Ruberoid Co. Ltd.; glass dome lights, Faulkner, Greene & Co. Ltd.; composition floor tiles, Marley Tile Co. Ltd.; suspended ceilings, Steel Bracketting & Lathing, Ltd.; terrazzo work, Jaconello, Ltd.; metal fuel hoppers, G. E. Westlead Ltd.; lavatory partitions, Flexo Plywood Ltd.; railings and gates, H. & C. Davis & Co. Ltd.; electrical installation, Beasley Electrical Contracting Co. Ltd.; heating and gas installations, Heat & Power Engineers, Ltd.; ash hoist, Hammond & Champness Ltd.

INFORMATION CENTRE

INDEX FOR 1954

An alphabetical index covering Information Centre items and special articles published in the Technical Section during the twelve months ended December 31, 1954, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than March 7, 1955.

Please send me the Information Centre Index for 1954:

Name.....
(Block letters)

Address.....
(Block letters)

Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1

ENQUIRY FORM

I am interested in the following advertisements appearing in this issue of "The Architects' Journal." (BLOCK LETTERS, and list in alphabetical order of manufacturers names please.)

.....

Please ask manufacturers to send further particulars to :—

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 PROFESSION or TRADE

ADDRESS

10.2.55

Announcements PROFESSIONAL

Messrs. Dugdale & Whitaker, A./A.R.I.B.A., have moved to 16, Dartmouth Street, S.W.1. Telephone: TRAfalgar 1741.

Mr. G. C. Clark, A.R.I.B.A., A.A.DIPL., has moved his offices to Wellington House, Heckington, near Sleaford, Lincs, where he will be pleased to receive trade catalogues.

Mr. William C. Symes, F.R.I.B.A., F.R.I.C.S., has been joined in partnership by Mr. G. Hamilton Gould, F.R.I.B.A., A.A.DIPL., and will continue to practise under the style of George Hubbard & Son from Mr. Hamilton Gould's former office at 1, Bloomsbury Square, W.C.1. Telephone: CHAncery 5211/2.

Messrs. Harold Bulmer and J. Ricardo Pearce, A./A.R.I.B.A., of 44, High Street, Wimbledon, S.W.19, have opened a branch office at Adam's Hill, Breinton, Hereford, where they will be pleased to receive trade catalogues, etc.

Mr. R. A. Sefton Jenkins, B.SC., A.C.G.I., A.M.I.C.E., A.M.I.STRUCT.E., Consulting Engineer, has now moved his office to 66, Victoria Street, S.W.1. Telephone: TATe Gallery 9605.

Mr. J. Whittam, an architectural student, would be glad to receive manufacturers' catalogues and trade literature to assist him in his studies, at 130, Broomspring Lane, Sheffield, 10.

Mr. C. M. Hunt, F.R.I.C.S., having recently inherited his family practice, Messrs. Waring & Nicholson, Architects and Surveyors, of 38, Parliament Street, Westminster, S.W.1, has relinquished his partnership with Messrs. Thurgood, Son & Chidgey.

TRADE

Mr. A. E. Potter, who for the past four years has been Sales Manager for Expandite Ltd., has been appointed Sales Director.

In the Limmer and Trinidad Lake Asphalt Co. Ltd. the following appointments have been made: Managing Director, Mr. W. J. Snelling, and a Director, Mr. R. W. Holloway.

Messrs. Henry Tatton & Son Ltd., 24-30, Rose Street (East), Hanover Street, Edinburgh 2, have been appointed agents for the Controlled Electric Clock Systems, Time Recorders, Programme Instruments, etc., of Messrs. Gent and Co. Ltd. In addition to their Edinburgh premises, Messrs. Henry Tatton have taken over those at 20, Blythswood Street, Glasgow, C.2.

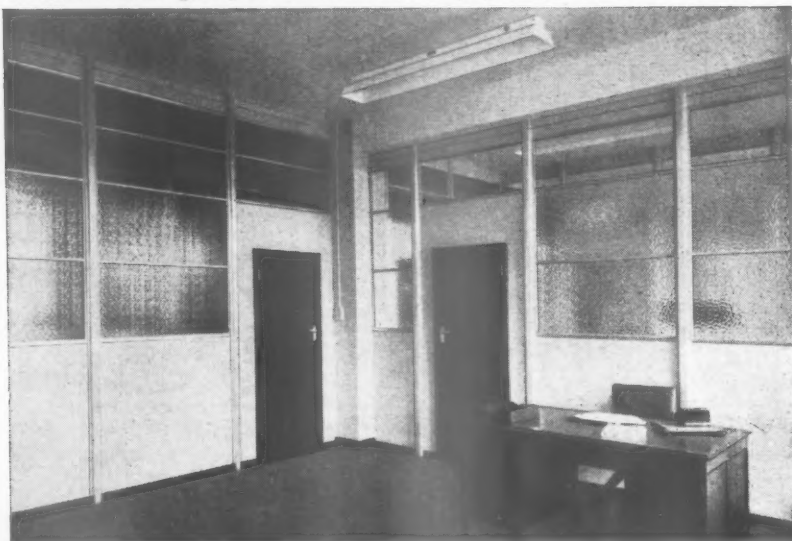
Corrections

Last week it was stated in the JOURNAL that Arthur Ling, who is to become City Architect and Planning Officer of Coventry, is leaving his present position—as Senior Planning Officer at the LCC (under Dr. J. L. Martin, Architect to the Council)—this month. This was incorrect. Mr. Ling tells us that he has not decided when he will be leaving London, but it is unlikely to be before the end of April. A further unfortunate mistake in the same news item gave Mr. Ling's position with the Department of Town Planning, University of London, as that of Assistant Lecturer. He holds, of course, the Senior Lectureship. We very much regret any misunderstanding and inconvenience which these errors may have caused.

We are sorry that a mistake appeared in the announcement (AJ: January 27) about the award of an O.B.E. to F. Charles Saxon, a vice-president of the RIBA. Mr. Saxon's name was given as Swann.

Dr. Harper is chief architect to Corby New Town—not Crawley New Town as we stated on page 31 of the JOURNAL for January 13. We regret that this mistake was made.

Demountable partitioning by Compactom in the St. Swithin's House offices of The Shell Petroleum Company Ltd., London.

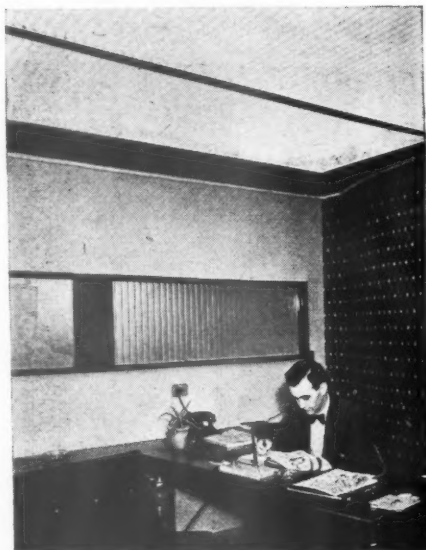


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Kaye Chair

The advertisement features two black and white photographs of bicycle racks. The top photograph shows a row of racks in an outdoor setting with buildings in the background. The bottom photograph shows a rack with a curved roof structure. Overlaid on the right side of the images is a series of banners that read: "IN THE INTERESTS OF SPACE ECONOMY", "TIME KEEPING", "PREVENTION OF DAMAGE", "ORDERLINESS", and "HOUSE PRESTIGE". A banner at the bottom left of the image points left with the text "← — — — —".

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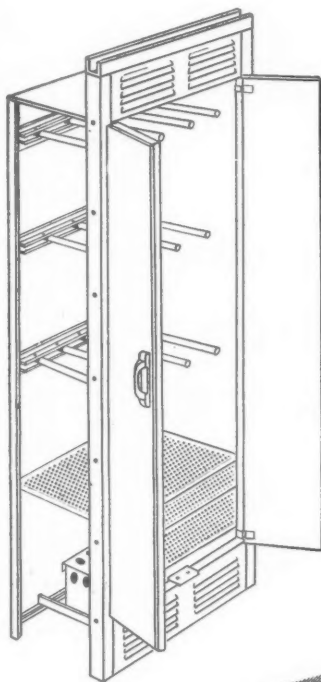
Built-in..

or free standing

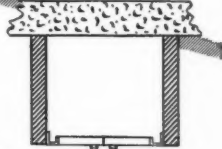
The Flavel Clothes Dryer is constructed in order that this may be supplied as a complete unit, or alternatively for building into a recess or corner, by utilizing the main frame assembly and component parts.

The cabinet is strongly constructed of Zintec sheet steel and is finished in cream stove-enamelled paint, fitted with double doors and heated by means of a gas burner unit in the base.

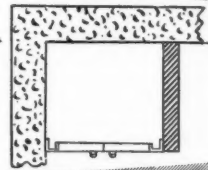
The dryer is large enough to contain an average weekly wash hanging on eleven tubular Bakelite rails at three different heights. A guard is provided above the burner unit and the gas rate controlled by means of a constant pressure governor.



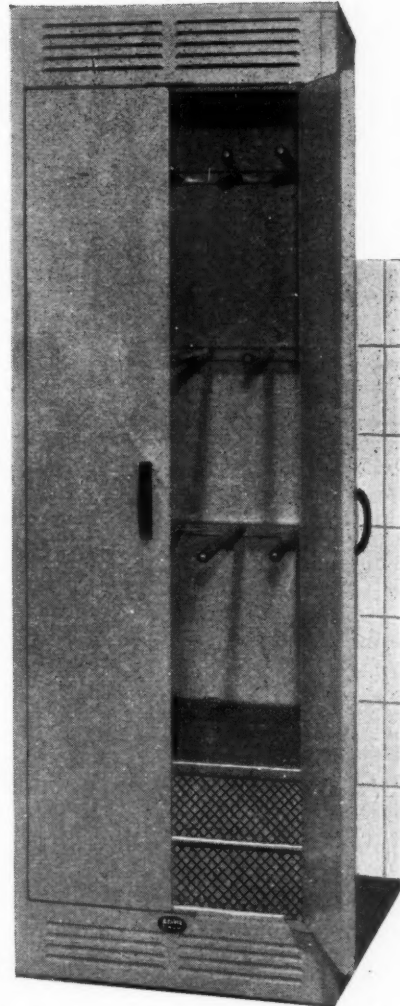
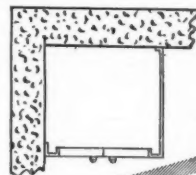
Built on existing wall face with breeze block sides.



Corner installation with breeze block right hand side.



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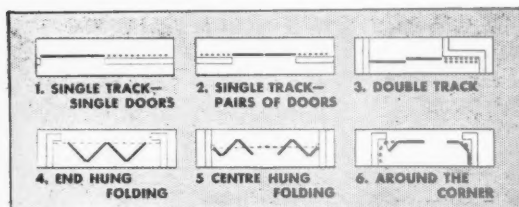
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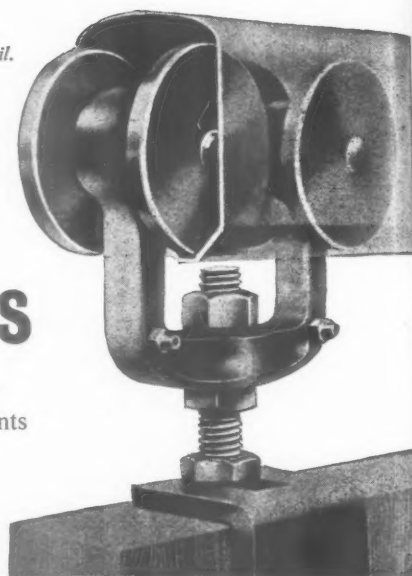


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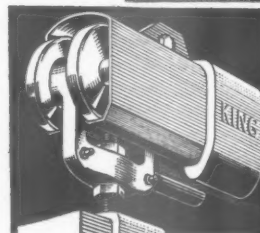
KINGS STRENGTHEN YOUR HAND



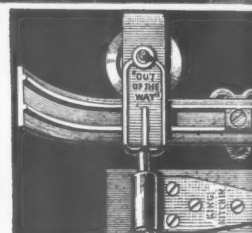
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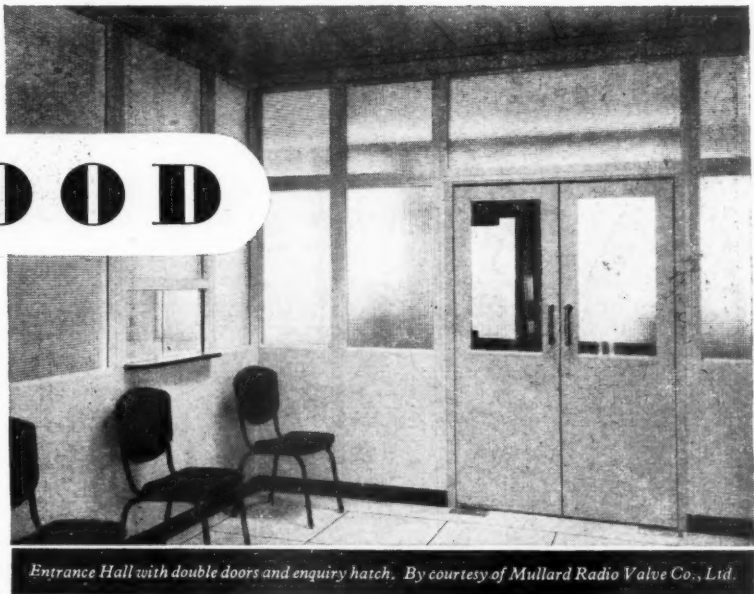
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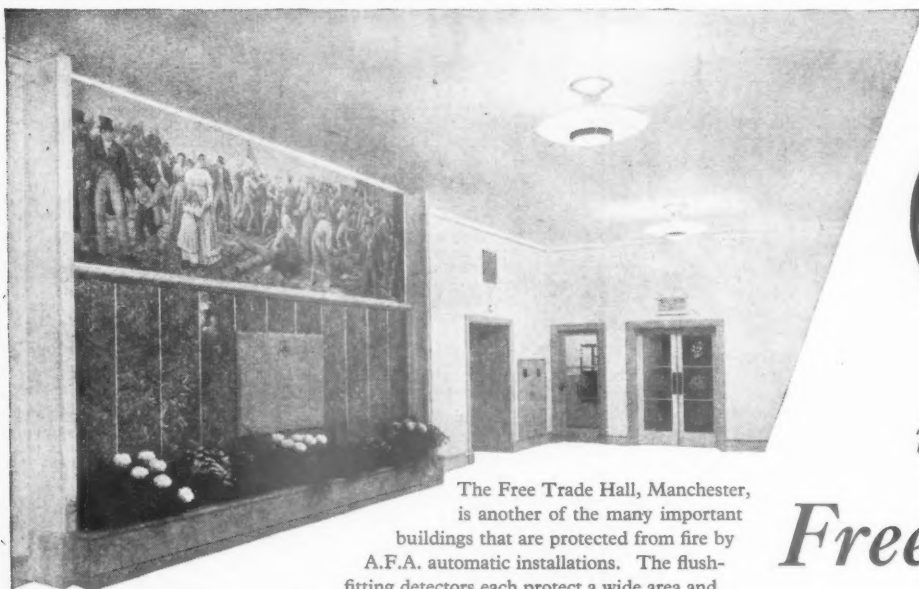
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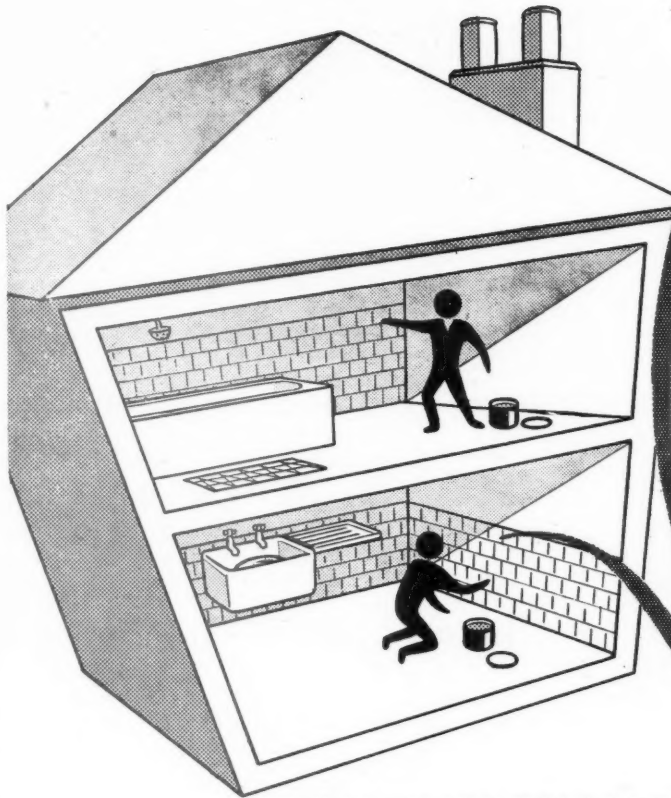
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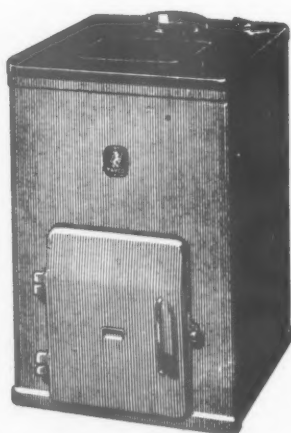
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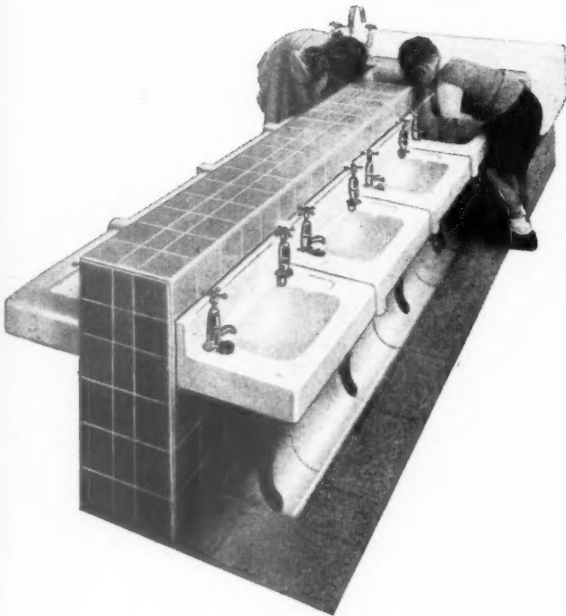


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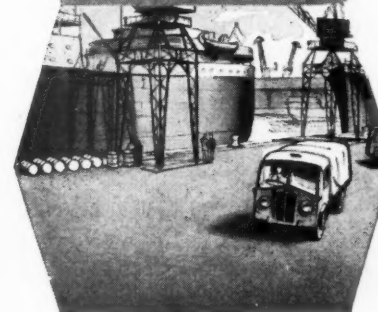
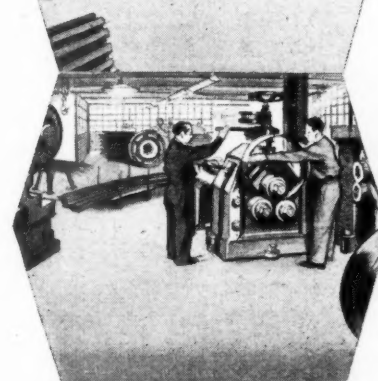
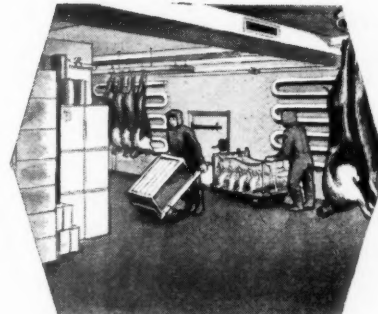
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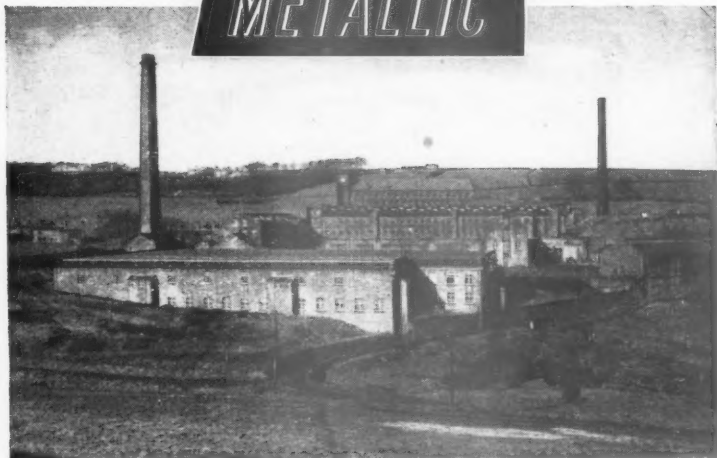
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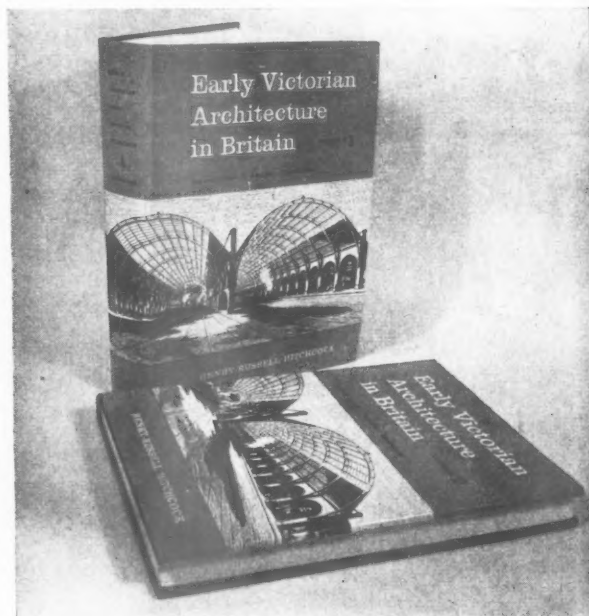
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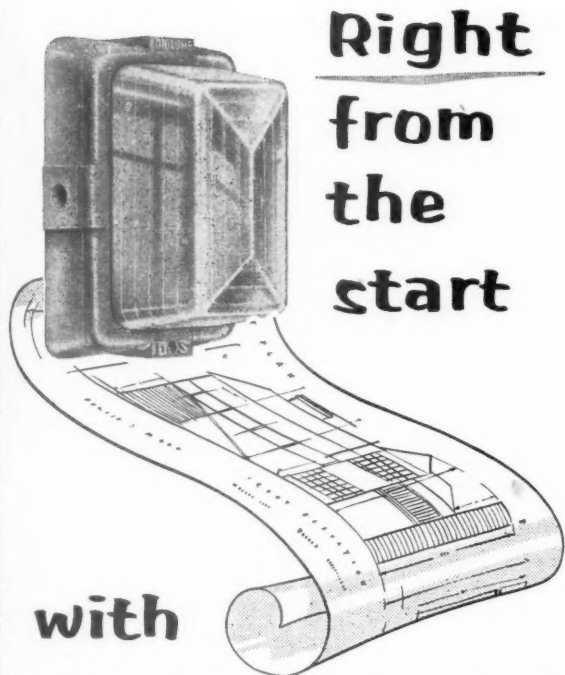
Professor Hitchcock has contributed many articles to THE ARCHITECTURAL REVIEW, including 'In Search of a New



Monumentality', 'Victorian Monuments of Commerce', 'Early Cast Iron Façades'; and has written several books on architecture, among them being *Modern Architecture* (1929), *The International Style* and *In the Nature of Materials: The Architecture of Frank Lloyd Wright*. He is professor of Art at Smith College, Northampton, U.S.A. Size 10½ ins. by 8 ins. Volume I, text, 658 pages; Volume II, plates, 232 pages. Price 7 guineas net, the set. Postage 2s. 6d.

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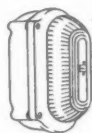


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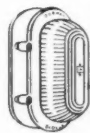
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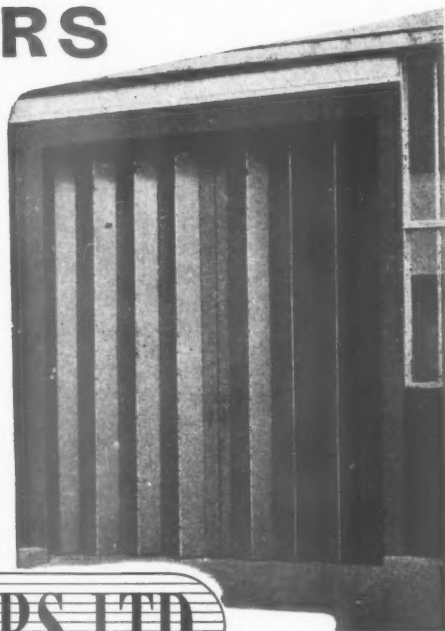
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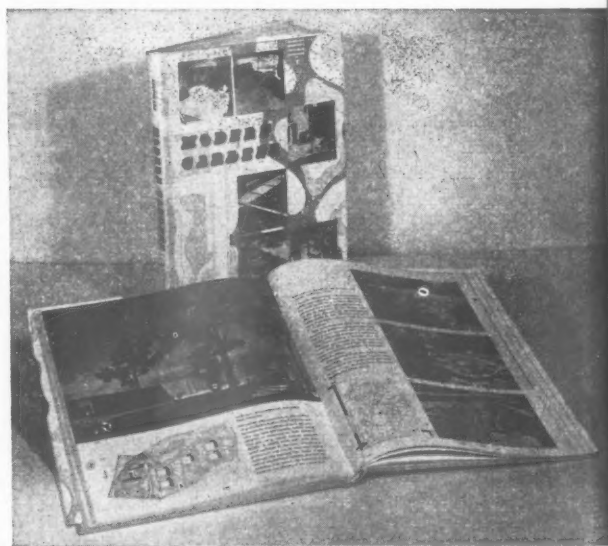
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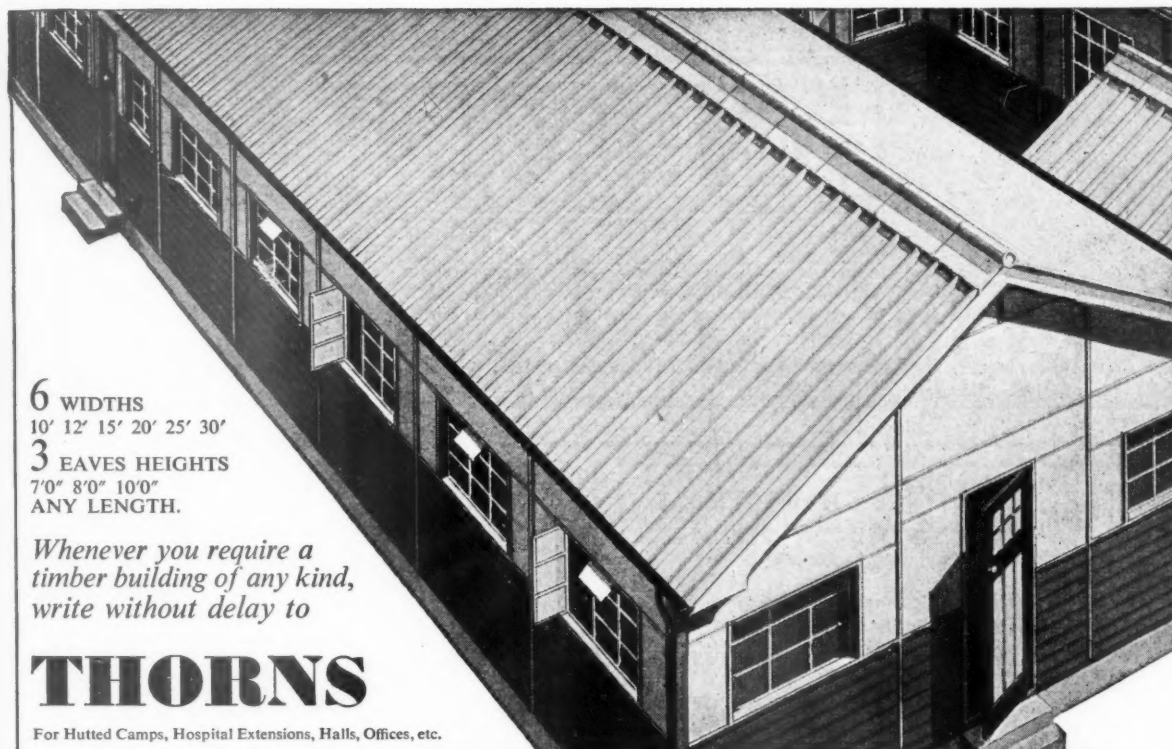
The author has drawn his examples from all over the world; from Belgium, Brazil, Denmark, England, France, Italy, Sweden, Switzerland and the U.S.A.; they vary from the little twenty-feet-square garden at the back of a London East-end terrace house to the several square miles of Stockholm's famous public parks, and



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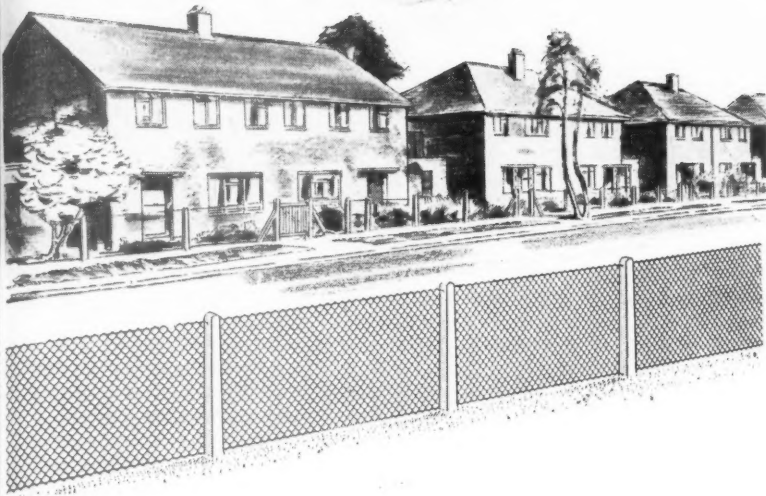
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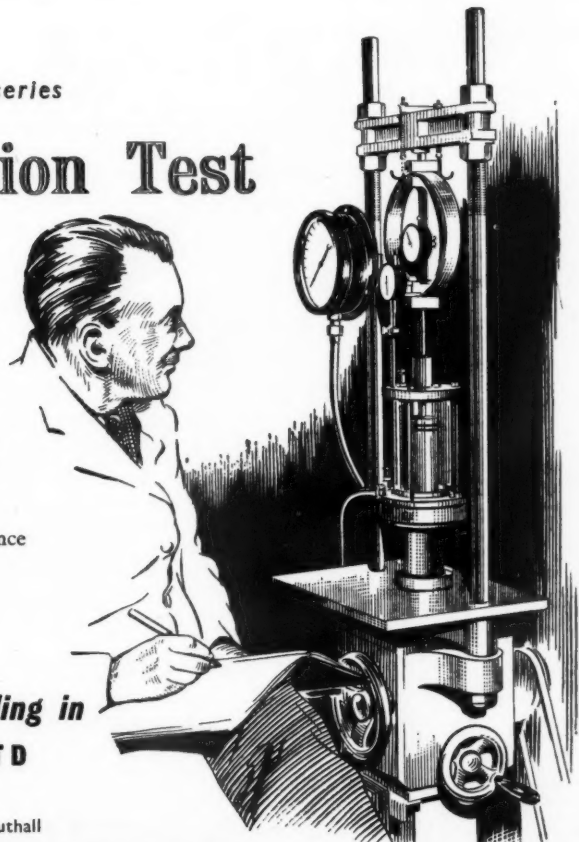
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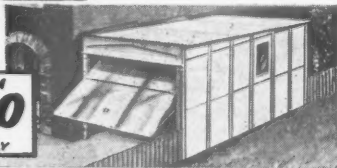
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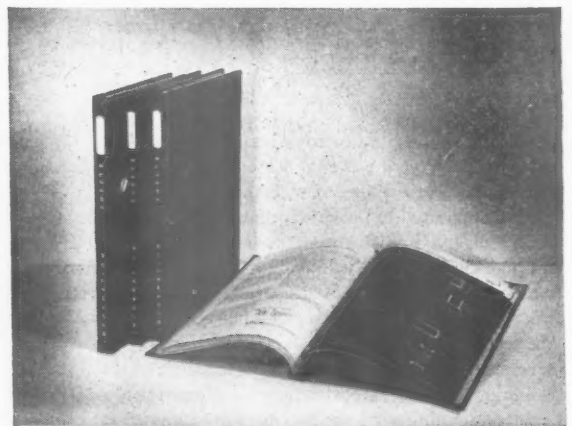
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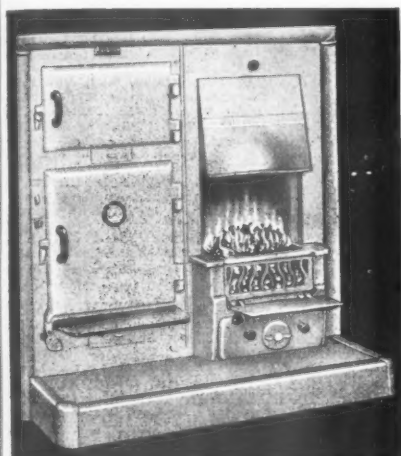
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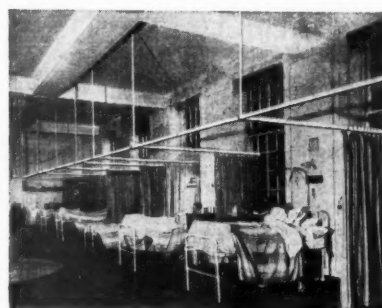
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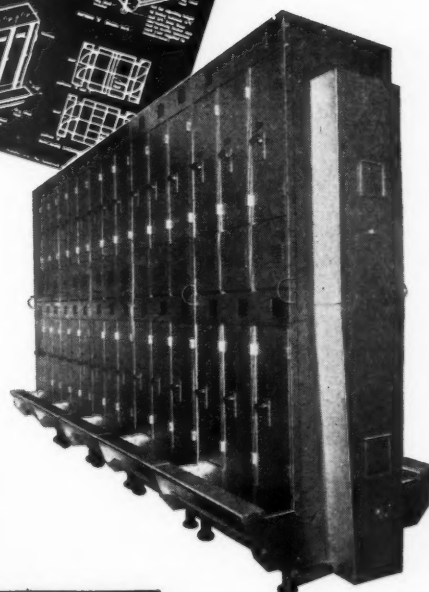
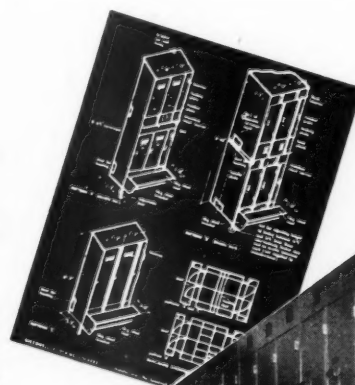
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CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

25s. per inch; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive, or a woman aged 18-59 inclusive unless he or she or the employment is exempted from the provisions of the Notification of Vacancies Order, 1952.

OFFICE OF THE RECEIVER FOR THE METROPOLITAN POLICE DISTRICT.

Applications are invited for unestablished appointments as LEADING ARCHITECTURAL ASSISTANTS in the Architect and Surveyor's Department. The work is concerned with the design and construction of police dwellings and buildings, and candidates will be required to work in the Westminster area.

Rates of Pay* (Men).—£565 × £20—£725 × £25—£780.

Women.—£580 × £20—£640 × £25—£665.

*The scales quoted are subject to an increase of approximately 3 per cent., while a 454-hour week is being worked and also to the addition of a Pay Supplement of £25 or £30 per annum, according to the point reached on the scale. Conditioned hours.—44 per week.

Annual Leave.—24 days.

Application forms from the Chief Architect, Architect and Surveyor's Department, New Scotland Yard, London, S.W.1, marking the envelope "Architectural Assistants." 6005

MINISTRY OF WORKS.

ARCHITECTURAL ASSISTANTS required for drawing offices in London, Edinburgh and various provincial offices.

Candidates must have had at least three years' architectural training, some experience in an architect's office, and be of Intermediate R.I.B.A. standard. London salary £440—£695 per annum. Rates elsewhere slightly less. Starting pay according to age and experience. Prospects of promotion and permanency.

State age and full details of training and experience to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/CA. 19, F9, Abell House, John Islip Street, London, S.W.1. 8375

LONDON COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT. Vacancies for ARCHITECTS, Grade III (up to £392 10s.), and ARCHITECTURAL ASSISTANTS (up to £739 10s.), in Schools, Housing, and General Divisions.

Particulars and application forms from Architect (AR/EK/A/2), County Hall, S.E.1. (1058) 2206

LINDSEY COUNTY COUNCIL.

PLANNING DEPARTMENT. SENIOR ASSISTANT (ARCHITECTURAL) required with Final R.I.B.A. and experience in Planning Department in architectural control and estate design and layout. New grade A.P.T. IV £575—£825. Superannuation and N.J.C. conditions. Allowance 25s. a week and return fare home bi-monthly may be paid up to six months to married man unable to find housing accommodation. Candidates must disclose in writing whether to their knowledge they are related to any member or senior officer of the Council. Canvassing will disqualify. Apply with full particulars of age, training, experience, qualifications and two referees to undersigned by 24th February, 1955.

R. L. STIRLING,

County Planning Officer.

The Castle, Lincoln. Corporation of London require a TEMPORARY PLANNING ASSISTANT in CIVIC DESIGN SECTION OF CITY PLANNING OFFICE—salary £500—for general draughting work and assistance in architectural control and preparation of three-dimensional layouts. Local authority experience not essential. Preference given to members of R.I.B.A. or T.P.I. possessing a sensitive and contemporary approach to design. Applications with full details of experience, age and present salary, and two referees, to City Planning Officer, 65/61, Moorgate, E.C.2, by 3rd March, 1955. 8419.

COUNTY BOROUGH OF CROYDON.

Applications are invited for the following appointments in the School Architect's Section:—1. SENIOR ASSISTANT ARCHITECT.—Salary £675 × £30—£825 per annum plus "London Weighting." Must be member of the R.I.B.A. with experience in preparing sketch plans and working drawings.

2. JUNIOR ARCHITECTURAL ASSISTANT.—Salary £500 × £20—£580 per annum plus "London Weighting." (Inter-standard R.I.B.A. required.) Application forms from the Chief Education Officer, Katharine Street, must be returned to him by 19th February, 1955.

No living accommodation offered.

E. TABERNER,

Town Clerk.

8428

MIDLANDS ELECTRICITY BOARD.

Four SENIOR DRAUGHTSMEN (ARCHITECTURAL) required in the Chief Engineer's Department, Board Headquarters. Two of the appointments will be made within Grade IV, Schedule "D," N.J.B. Agreement, salary £750/£850 per annum, and for these posts applicants should have reached the Final R.I.B.A. standard or hold equivalent qualifications and should preferably have a knowledge of quantities. The remaining appointments will be made within Grade V, Schedule "D," N.J.B. Agreement, salary £640/£740 per annum, and applicants should have reached the R.I.B.A. Intermediate standard or equivalent and have had at least two years' office experience. The appointments are superannuable. The duties will include preparation of drawings, construction and detail, of offices, Service Centres, stores and general building work.

Apply within 14 days stating age, experience, salary and position to the Secretary (Ref. FWC), Midlands Electricity Board, Mucklow Hill, Halesowen, Nr. Birmingham.

A. STEPHENS,

Secretary.

8423

EDINBURGH COLLEGE OF ART.

Applications are invited for the post of SENIOR ASSISTANT in Building Construction in the School of Architecture. The Senior Assistant will supervise the training of all architectural students in this subject.

Salary scale: £940 × £50 × £1,190 per annum—commencing salary according to qualifications and experience.

Forms of application and conditions of appointment can be obtained from the Secretary, Edinburgh College of Art, Edinburgh, 3, and should be returned to him not later than Friday, 25th February, 1955.

PETERLEE DEVELOPMENT CORPORATION.

CHIEF ARCHITECT'S DEPARTMENT.

Appointment of (a) SENIOR ARCHITECTURAL ASSISTANTS (2); (b) ARCHITECTURAL ASSISTANTS (2).

Applications are invited for the above appointments.

Salaries:—Appointments (a) £810 × £50—£910;

(b) £610 × £50—£710.

Applicants for appointments (a) should have passed the Final Examination of the R.I.B.A., and will be given opportunity in design of housing layout and neighbourhood and town centre development.

Applicants for appointments (b) should at least have passed the Intermediate Examination of the R.I.B.A., and should have had considerable experience in housing design.

The appointments are superannuable and will be made subject to the passing of a medical examination. Housing accommodation can be made available where necessary.

Applications stating age, marital status, education, qualifications and experience should be made to the undersigned not later than Tuesday, 15th February, 1955.

A. V. WILLIAMS,

General Manager.

8396

SHOTTON HALL.

Castle Eden, Co. Durham.

THURROCK URBAN DISTRICT COUNCIL.

(a) ARCHITECTURAL ASSISTANT Grade IV

£675—£825 per annum.

(b) ARCHITECTURAL ASSISTANT Grade II

£560—£640 per annum.

Applications are invited for the above appointments under the Architect to the Council.

Appointment (a)

Candidates should be Associates of the Royal Institute of British Architects and must be experienced in the design, preparation of drawings, specifications and supervision of various building and architectural work undertaken by a Local Authority. A Travelling Allowance in accordance with the National Scales is payable in respect of an 8 H.P. car.

Appointment (b)

Candidates should have passed the Intermediate Examination of the Royal Institute of British Architects. General Architectural experience is necessary and applicants must be capable of preparing working and detailed drawings of various types of Local Authority's building and architectural projects.

Housing accommodation if necessary will be provided for both successful candidates if they live more than 20 miles from Thurrock.

The appointments are subject to the provisions of the Local Government Superannuation Acts 1937 and 1953, and the successful applicants will be required to pass a medical examination.

Applications suitably endorsed, stating age, qualifications and experience, together with copies of three recent testimonials, should reach the undersigned not later than Friday, February 25th, 1955.

Canvassing will disqualify, and applicants must disclose in writing any relationship to any Member or Senior Officer of the Council.

A. E. POOLE,

Clerk of the Council.

8505

BOROUGH OF EALING requires a TEMPORARY SENIOR ARCHITECTURAL ASSISTANT.

Salary A.P.T. IV £575—£825, plus London Weighting. Application form and full particulars to be obtained from Borough Surveyor, Town Hall, Ealing, W.5. Closing date 21st February, 1955.

E. J. COPE-BROWN,

Town Clerk.

8410

WEST SUSSEX COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT. Applications are invited for the appointment of an ASSISTANT ARCHITECT at a salary in accordance with the amended Grade III A.P.I. Division (£600 to £725 per annum) or the National Scales of Salaries.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than the 18th February, 1955.

T. C. HAYWARD,

Clerk of the County Council.

County Hall, Chichester.

28th January, 1955.

8424

METROPOLITAN BOROUGH OF FELTHAM BOROUGH ARCHITECT'S AND HOUSING DEPARTMENT.

(a) SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. V, £750 × £30—£900 × £30 p.a. London Weighting. Applicants must be experienced in the preparation of bills of quantities, building management of large contracts for multi-storied flats and public buildings. A.R.I.C.S. (Quantities) exam. or equivalent.

(b) ASSISTANT QUANTITY SURVEYOR, A.P.T. III, £560 × £25—£725 × £30 p.a. London Weighting. Applicants must be experienced in taking-off, final measurement, preparation in interim certificates, final accounts, and have passed Intermediate R.I.C.S.

(c) JUNIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. I, £500 × £20—£580 × £20 p.a. London Weighting £20/£30 p.a. according to age. Applicants should be experienced in "working-up" and abstracting.

(d) 2 ARCHITECTURAL ASSISTANTS, A.P.T. I or II. Applicants must have had at least two years' drawing office experience.

Application forms from Town Clerk, Town Hall, S.W.6. Closing date: 21st February.

8475

PADDINGTON BOROUGH COUNCIL.

require DRAUGHTSMAN in architectural drawing office. Candidates over age 23 commence at £370 (higher grade) or £340 (lower grade) rising to £505 (or £430); slightly lower for women. Appointment suitable for probationer members of R.I.B.A. Send particulars of age, education, training, experience, national service, names and addresses of two referees to the undersigned by 19th February, 1955, quoting A.205.

W. H. BENTLEY,

Town Clerk.

Town Hall, Paddington Green, W.2.

8467

URBAN DISTRICT OF FELTHAM.

TEMPORARY ARCHITECTURAL ASSISTANT required. Salary within the new Grade A.P.T. IV (£675 × £30—£825 per annum) plus London Weighting. Applicants must be suitably qualified.

Forms of application, obtainable from the undersigned, must be returned, accompanied by copies of two testimonials, not later than 25th February, 1955. Canvassing directly or indirectly will disqualify and applicants must disclose, in writing, whether to their knowledge they are related to any member of or the holder of any senior office under the Council.

M. W. COUPE,

Clerk of the Council.

Council Offices, Feltham, Middlesex.

8475

SOUTH WALES ELECTRICITY BOARD require ARCHITECTURAL DRAUGHTSMEN in the Civil Engineering Department of the Board, Head Office, St. Mellons.

Applicants will be required to undertake the layout and preparation of working drawings for showrooms, offices and substations, including measuring up and alterations to existing buildings.

Salary—Schedule D, Grade 6 (£510/£530) of N.B. Agreement.

Applications stating age, present position and salary, qualifications, experience and three referees, to be addressed to the Secretary (Establishments), to reach him not later than 19th February, 1955.

Previous applicants need not re-apply.

St. Mellons, D. G. DODDS,

Secretary.

8465

URBAN DISTRICT COUNCIL OF CORBY.

ENGINEER AND SURVEYOR'S DEPARTMENT.

SENIOR QUANTITY SURVEYOR.

Applications are invited for the above appointment at a salary in accordance with new Grade A.P.T. IV (£675—£825), commencing at £675 per annum.

Applicants must have passed the final R.I.C.S. (Quantities Section) examination and be thoroughly experienced in the preparation of Bills of Quantities, adjustment of variations and settlement of final accounts. Previous experience of substantial contracts for local authority housing is desirable.

The provisions of the Local Government Superannuation Acts, 1937-1953, will apply to this appointment.

Housing accommodation will be made available to the successful candidate. If married, forms of application may be obtained from the undersigned, and completed forms must be received not later than 9 a.m. on Saturday, the 5th March, 1955.

G. B. BLACKALL,

Clerk of the Council.

Council Offices, Corby, Northants.

8495

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**COLLEGE OF TECHNOLOGY, BIRMINGHAM.
DEPARTMENT OF BUILDING
AND CIVIL ENGINEERING.**

Applications are invited from suitably qualified persons for the post of **HEAD** of the above-mentioned Department.

The post will fall vacant on 1st September, 1955. Salary will be in accordance with the Burnham (Further Education) Scale for a Grade V Headship—£1,515 × £225—£1,665.

Further particulars and forms of application may be obtained from the Registrar, College of Technology, Suffolk Street, Birmingham. 1. Application forms should be returned not later than 10th March.

K. R. PILLING,
Clerk to the Governing Body.
8464

**NORTHERN IRELAND HOUSING TRUST.
ASSISTANT ARCHITECT.**

The Trust has a vacancy for an ASSISTANT ARCHITECT on the salary scale of £325 × £25—£390. Candidates must be Associate Members of the Royal Institute of British Architects and should have experience of housing projects.

Preference will be given to ex-service candidates. The person appointed will be required to participate in a contributory superannuation scheme allowing for the reciprocal transfer of benefits in Local Government Superannuation Schemes in suitable cases.

Assistance in obtaining housing accommodation may be given in suitable circumstances to the successful candidate.

Please apply, not later than 1st March, 1955, giving full details of age, education, qualifications and experience, including present post and salary, to the General Manager, Northern Ireland Housing Trust, 12, Hope Street, Belfast.

Please mark envelope 33/48. 8459

**BOROUGH OF BLYTH.
BOROUGH ENGINEER'S DEPARTMENT.**

Applications are invited for the appointment of a JUNIOR ARCHITECTURAL ASSISTANT. The salary for the appointment will be Grade I of the Amended A.P.T. Division, £500 per annum to £580 per annum by annual increments of £20. Candidates should hold the Intermediate Examination of the R.I.B.A.

The appointment is subject to the Local Government Superannuation Acts, the Scheme of Conditions of Service of the National Joint Council, one month's notice on either side and the passing of a medical examination.

Applications, endorsed "Junior Architectural Assistant," stating age, qualifications, training and experience, must be delivered to the undersigned, with names of two referees, not later than 19th February, 1955.

Canvassing will disqualify, and applicants should disclose relationship with any member or official of the Council.

EDWIN W. CARTER,
"Dinsdale," Marine Terrace,
Blyth, Northumberland. Town Clerk. 8495

**BOSTON RURAL DISTRICT COUNCIL.
HOUSING DEPARTMENT.**

APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT on Grade A.P.T. II, Step 2 (£580—£640).

Applicants should be good draughtsmen, be able to prepare sketch plans, working drawings and details.

Appointment will be subject to provisions of Local Government Superannuation Act, 1953, the National Joint Council Scheme of Conditions of Service, and terminable by one month's notice from either side.

Housing accommodation offered.

Applications, giving details of age, qualifications and experience, together with names of two referees, should be sent to the Surveyor, Mr. W. R. Beardall, 126, London Road, Boston, not later than 19th February, 1955.

S. M. FORMAN,
Clerk of the District Council.
Council Offices, 126, London Road, Boston. 8497

**GOVERNMENT OF NORTHERN NIGERIA.
ARCHITECTS—PUBLIC WORKS
DEPARTMENT.**

Duties include the preparation of sketch plans, working drawings and detailed specifications for various types of buildings and the carrying out of the general work of a very busy Architectural Office.

Appointments are on contract for one tour of 18-24 months, with prospect of transfer to the permanent establishment when vacancies occur, in the salary scale £295—£1,719 per annum; plus a gratuity of £100—£150 per annum on satisfactory completion of contract.

Free first class passages are granted for the officer and his wife and assistance up to £75 each for a maximum of two children is granted in respect of their passages or maintenance in the United Kingdom. Government quarters, if available, are provided at a rental of 10 per cent. of basic salary. Leave is granted at rate of 7 days for each month of resident service in a tour of 18-24 months.

Candidates should be A.R.I.B.A. with wide general experience.

Apply in writing to the Director of Recruitment, Colonial Office, Great Smith Street, London, S.W.1, giving briefly age, qualifications and experience and quoting reference number BCD112/400/07. 8492

GLOUCESTERSHIRE COUNTY COUNCIL.

ASSISTANT ARCHITECTS, qualified members of R.I.B.A., Grades III, £600—£725 (£650—£775 if at least five years' experience). Also ARCHITECTURAL ASSISTANTS, Grades II (£550—£640 p.a.) Inter. R.I.B.A. Appointments open to both male and female candidates. N.J.C. Conditions of Service. Medical examination.

Apply giving age, experience, present position, salary and date of appointment, previous appointments, names and addresses of two persons for references, County Architect, Shire Hall, Gloucester, by 24th February, 1955.

GUY H. DAVIS,
Clerk of the County Council. 8496

**MONMOUTHSHIRE COUNTY COUNCIL.
APPOINTMENT OF ARCHITECTURAL STAFF.**

Applications are invited for the following posts in the County Architect's Department under the N.J.C. conditions:

Two ARCHITECTURAL ASSISTANTS—Salary £675—£825 per annum, Grade A.P.T. IV.

Forms of applications, particulars of post and conditions of service can be obtained from the undersigned.

Applications, together with copies of three testimonials must be forwarded to the County Architect, Queen's Hill, Newport, Mon., not later than Saturday, 26th February, 1955.

VERNON LAWRENCE,
Clerk of the Council. 8503

**COUNTY BOROUGH OF HALIFAX.
BOROUGH ENGINEER'S DEPARTMENT.**

Applications are invited for the appointment of ASSISTANT ARCHITECT (General). Salary £650 from 1st April, 1955, rising by annual increments of £25 to £775.

Applications, stating age, education and training, qualifications, present and past appointments (with dates and salaries) and experience, accompanied by copies of two recent testimonials should reach me by 16th February, 1955.

RICHARD de Z. HALL,
Town Clerk. 8502

**AMENDED APPOINTMENT.
BOROUGH OF RAWTENSTALL.
APPOINTMENT OF SENIOR
ARCHITECTURAL ASSISTANT.**

Applications are invited for the above-mentioned appointment at the maximum salary of the "Special Scale for Qualified Assistants with at least five years' experience" (£775 per annum).

The appointment is on the Council's permanent staff, and is subject to the Local Government Superannuation Acts, 1937-53, the passing of a medical examination, and to termination by one month's notice on either side.

Housing accommodation will be made available if required.

Applications, stating age, qualifications, present and previous appointments, and giving full details of experience, together with the names and addresses of two referees, should be delivered to the undersigned not later than Wednesday the 23rd February, 1955.

J. W. BLOMELEY,
Town Clerk. 8494

N.C.B.—Applications are invited for vacancies which exist in Edinburgh for Architects, £600 × £25—£650 × £30—£900. Applicants must be Associate Members of the R.I.B.A. and have had experience in the handling of large-scale contracts. The posts will be superannuable and the point of entry into salary scale will depend on the qualifications and experience of the successful applicants. Applications stating age, education, qualifications, experience (in chronological order), present post and salary, should be forwarded to the Establishments Officer, 1, Eglinton Crescent, Edinburgh, 12, within 7 days.

MIDDLESEX COUNTY COUNCIL—COUNTY PLANNING DEPARTMENT.

PLANNING ASSISTANT, Grade IV (£705 to £855 p.a. if 26 years or over). Should have architectural qualifications and be capable of controlling staff engaged on town planning work. Established, pensionable, subject to medical assessment and prescribed conditions. Application forms from County Planning Officer, 10, Gt. George St., S.W.1, returnable by 25th February. (Quote P 909 A.J.) Canvassing disqualifies. 8444

ROXBURGH COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of ASSISTANT ARCHITECT. Salary scale Grades V to VI, with placing within that scale according to qualifications and experience.

Candidates must be registered architects and preferably members of the Royal Institute of British Architects.

The appointment is subject to the Local Government Superannuation (Scotland) Act, 1937, and to satisfactory medical examination.

Applications, accompanied by one copy each of three recent testimonials, should be lodged with the undersigned not later than 14th February, 1955.

Canvassing, directly or indirectly, in connection with the appointment will disqualify.

JAMES R. HUME,
County Clerk. 8398

SURREY COUNTY COUNCIL.

Applications invited for following appointments:—

1. ASSISTANT ARCHITECT Grade V, £750 × £30—£900 p.a., plus London Allowance. Must be Associate Members of R.I.B.A.
2. ASSISTANT ARCHITECT Grade III, £600 × £25—£725 p.a., plus London Allowance. Preference given to applicants who are Associate Members of R.I.B.A.

Applicants for both grades must have had good training and adequate experience in design and construction of modern buildings.

Applications giving full details and present salary, accompanied by c.pies of three recent testimonials, to County Architect, County Hall, Kingston, by 19th February, 1955. 8443

**BOROUGH OF WESTON-SUPER-MARE.
ASSISTANT ARCHITECT (PUBLIC BUILDINGS), GRADE A.P.T. II £560—£640.**

Applications are invited for the above appointment from architectural assistants who possess the Intermediate examination of the R.I.B.A. and have worked for a minimum period of one year in an Architect's office.

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

Applications stating age, qualifications, present and previous appointments with salaries, together with details of experience and the names of two persons to whom reference can be made, should reach the Borough Engineer and Surveyor, Town Hall, Weston-super-Mare, not later than Thursday, 17th February, 1955.

R. G. LICKFOLD,
Town Clerk. 8412

**CITY OF BIRMINGHAM.
CITY ARCHITECT'S DEPARTMENT.**

Applications are invited for appointments as QUANTITY SURVEYORS on Grades A.P.T. V (£750—£900 per annum) and A.P.T. IV (£675—£825 per annum).

Candidates must be Associate Members of the Royal Institute of Chartered Surveyors (Quantity Section) or hold an equivalent qualification.

The posts are permanent, superannuable, subject to a medical examination and to one month's notice on either side.

Applications, endorsed with the heading of the post, stating age, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned not later than 19th February, 1955.

Canvassing disqualifies.
A. G. SHEPPARD FIDLER,
City Architect. 8447

**CITY OF PERTH.
BURGH SURVEYOR'S DEPARTMENT.**

Applications are invited for the appointment of ASSISTANT ARCHITECT, A.P.T. Grade V, £647 10s. to £715.

Candidates should be Associate Members of the R.I.B.A. and have good general experience in design and construction of housing schemes. The appointment is subject to the Corporation Conditions of Service and Superannuation Scheme and the successful candidate will require to pass a medical examination.

The provision of housing accommodation to the successful applicant will be considered.

Applications, stating age, qualifications, experience, present position and salary, accompanied by copies of three recent testimonials, should be lodged with the Burgh Surveyor & Architect, 16, Tay Street, Perth, within seven days of the date of this advertisement. 8448

SINGAPORE IMPROVEMENT TRUST.

ASSISTANT ARCHITECT required on contract for three years. Qualification—A.R.I.B.A. Commencing salary £2,100, £2,170 or £2,240 per annum for Architects with five, six and seven years' experience after qualifying respectively. Annual increment £70 p.a. A motor vehicle allowance payable according to duty mileage. No other allowances payable.

Quarters, with heavy furniture, provided, if available at public rental. Paid passages.

Medical examination.
Leave: 14 days annually. On completion of contract one month for each completed year of service.

Applications in DUPLICATE giving full particulars with copies of three recent testimonials also in duplicate to Messrs. Allen & Williams, 1, Victoria Street, London, S.W.1, before Tuesday, 1st March, 1955. 8449

AIR MINISTRY Works Designs Branch requires in London and Province (with liability for overseas service) ARCHITECTURAL ASSISTANTS experienced in planning/preparation of working drawings and details for permanent and semi-permanent buildings. Salaries up to £310 P.A. for men and £290 for women. Starting pay dependent upon age, qualifications and experience. Extra duty allowance or overtime payable. Posts non-pensionable with long term possibilities. Natural born British subjects only. Write stating age, qualifications, employment details including type of work done to Ministry of Labour, 236, Walworth Road, London, S.E.17, quoting Order 81/AA. 8506

ARCHITECTURAL ASSISTANT required in Surveyor's Department of the METROPOLITAN WATER BOARD. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects. Commencing salary will be in accordance with age and experience, but not exceeding £560 per annum. Applications stating candidate's age, present position, salary, etc., and giving full particulars of experience should be addressed to the Surveyor, New River Head, Rosebery Avenue, E.C.1, endorsed "Architectural Assistant," to arrive not later than 28th February, 1955. Canvassing disqualifies and relationship to any member, officer or employee must be disclosed. 8451

HORNCHURCH URBAN DISTRICT COUNCIL. ENGINEER & SURVEYOR'S DEPARTMENT. Applications are invited for the following posts:—

TEMPORARY RESIDENT ENGINEER—salary £1,000 p.a. (for construction of swimming pool).

ENGINEERING ASSISTANT, Grade A.P.T. II/III—£550 to £725.

ENGINEERING ASSISTANT, Grade A.P.T. II—£560 to £640.

Full details of appointments and forms of application can be obtained on application to the undersigned, by whom applications must be received not later than 19th February, 1955.

P. L. COX, Clerk of the Council. Council Offices, Hornchurch. 8450

COUNTY BOROUGH OF WEST BROMWICH. Applications are invited for the following appointments:—

(a) **ARCHITECTURAL ASSISTANT, Grade A.P.T. IV** (£575—£825 per annum).

(b) **ARCHITECTURAL ASSISTANT, Grade A.P.T. II** (£560—£640 per annum).

Commencing salary dependent on experience. N.J.C. Conditions of Service. Housing accommodation for post (a) will be provided if necessary. Applications, naming two referees, to the undersigned by the 18th February 1955.

H. SCHOFIELD, Borough Engineer and Surveyor. Town Hall, West Bromwich. 8429

CITY OF LEEDS EDUCATION COMMITTEE. LEEDS COLLEGE OF ART. SCHOOL OF ARCHITECTURE AND TOWN PLANNING.

Applications are invited for the post of **STUDIO INSTRUCTOR AND LECTURER** for April 1955, or as soon after as possible. Candidates should hold a degree or diploma of a recognised school of architecture and should have had professional experience. Previous teaching experience not essential. Qualification in Landscape Architecture an advantage.

Salary—Burnham Technical Scale for Lecturers—£965 x £25—£1,065.

Application forms and further particulars (stamped, addressed envelope) from the Chief Education Officer, Education Department, Leeds, 1, to be returned by the 19th February. 8394

CITY OF CARDIFF. APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the following appointment in the City Surveyor's Department:—

ARCHITECTURAL ASSISTANT (General), A.P.T. New Grade 3 (£600—£725 per annum).

Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services for posts in the above-mentioned Grade.

General Conditions of Appointment may be obtained from the undersigned.

The Council will assist in providing housing accommodation for the successful applicant.

Applications, accompanied by the names and addresses of three referees and endorsed "Architectural Assistant (General), A.P.T. Grade 3," must be delivered to me not later than the 19th February, 1955.

S. TAPPER-JONES, Town Clerk. City Hall, Cardiff. January, 1955. 8400

METROPOLITAN BOROUGH OF LEWISHAM. Applications are invited from suitably qualified candidates for the posts of (a) **PRINCIPAL ASSISTANT ARCHITECT**—Salary Scale £900—£1,100 p.a. (A.P.T. VII), and (b) **SENIOR ASSISTANT ARCHITECT**—Salary Scale £750—£900 p.a. (A.P.T. V). These scales are subject to an additional payment in respect of London "weighting" varying between £10—£30 p.a., according to age.

Further particulars and forms of application from the Town Clerk, Lewisham Town Hall, London, S.E.6. Closing date, 26th February, 1955. 8446

WILTSHIRE COUNTY COUNCIL. COUNTY ARCHITECT'S DEPARTMENT.

Applications invited from Chartered Architects for superannuable appointments of **SENIOR ASSISTANT ARCHITECT**. Salary £825—£1,000. Canvassing disqualifies.

Application form from County Architect, County Hall, Trowbridge, returnable within 14 days of the appearance of this advertisement.

P. A. SELBORNE STRINGER, Clerk of the County Council. 8445

BOROUGH OF TOTTENHAM. ARCHITECTURAL ASSISTANT (Unestab.). Salary £500 to £580 or £560 to £640, plus London Weighting (A.P.T. Grades I or II). Applicants must have passed R.I.B.A. intermediate examination. Grading according to experience. N.J.C. conditions. Application form and general conditions from Borough Engineer (A.J.) Town Hall, N.15, to whom applications must be delivered not later than 24th February, 1955. 8442

CITY OF ST. ALBANS. Applications are invited from holders of A.M.T.P.I., M.I.Mun.E. or similar qualification, for position of **TOWN PLANNING ASSISTANT**. Previous experience with a local authority in dealing with planning applications, procedure and legislation, essential. Salary amended Grade A.P.T. IV (£675—£825). HOUSING ACCOMMODATION provided for married man. Applications must reach me by Monday, 21st February, 1955. W. B. MURGATROYD, Town Clerk. 38, St. Peter's Street, St. Albans. 8515

NATIONAL COAL BOARD—SOUTH WESTERN DIVISION.

A vacancy exists in the Architect's Branch, Cardiff, for an **ARCHITECTURAL ASSISTANT, Grade 2** (Salary scale £440 x £20—£540).

Applicants should have passed the Intermediate examination R.I.B.A.; possess a sound knowledge of construction and be capable of preparing general office drawings under supervision. Full details of age, qualifications, experience and positions held, and the names of two referees should be sent to Secretariat (E), National Coal Board, Cambrian Buildings, Mount Stuart Square, Cardiff, by 1st March, 1955. 8513

COUNTY OF BERWICK. PROPERTY AND WORKS DEPARTMENT. Applications are invited for the appointment of an **ARCHITECTURAL ASSISTANT**, salary scale, A.P.T. Grade VI; candidates must be registered architects, and preferably members of the Royal Institute of British Architects.

Applicants, accompanied by one copy each of three recent testimonials, should be lodged with the undersigned not later than 19th February 1955.

ROBERT MARTIN, County Clerk. County Buildings, Duns. 8512

Tenders Invited
6 lines or under, 12s. 6d.: each additional line, 2s.
BEDLINGTONSHIRE. URBAN DISTRICT COUNCIL.

PROPOSED SHOPS: GRANGE PARK ESTATE, BEDLINGTON STATION.

TENDERS are invited for the supply and erection of four shop fronts in connection with the above building.

The Specification and plans can be obtained on application from the Engineer & Surveyor, Council Offices, Bedlington. Tenders in sealed envelopes endorsed "Shop fronts" to be received by the undersigned not later than last post 12th March, 1955.

F. S. FORSTER, Clerk to the Council. Council Offices, Bedlington, Northumberland. 14th January, 1955. 8523

Architectural Appointments Vacant
4 lines or under, 7s. 6d.: each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or she or the employment is excepted from the provisions of the Notification of Vacancies Order, 1952.

THE ADVERTISER wishes to thank all those who kindly answered the advertisement under Box No. 6098. The position has now been filled. 8504

BUILDING SURVEYING ASSISTANT (about R.I.C.S. Final Standard) with at least two years' practical experience required by City firm of Chartered Surveyors & Architects. 3925

ARCHITECTURAL ASSISTANT, Intermediate standard required as a personal assistant to a principal in a large general practice in the Home Counties. The appointment will offer opportunity for works in all stages of architecture and in the administration of a private practice. Enthusiasm and ability essential. Box 5063.

ARCHITECTURAL ASSISTANT wanted in Exeter. Intermediate standard or thereabouts. Good salary and prospects. Box 8195.

ARCHITECTURAL ASSISTANTS.—Simon-Carves, Limited, have two vacancies for **ARCHITECTURAL ASSISTANTS** interested in reinforced concrete industrial structures. The work offers excellent experience and good scope. A pension fund is in operation. Write, quoting ref. G068, to Staff and Training Division, Simon-Carves, Ltd., Cheadle Heath, Stockport. 8092

SENIOR ASSISTANT ARCHITECTS required with experience of work on commercial and industrial buildings. Salaries up to £915 per annum for suitably qualified applicants.

ASSISTANT ARCHITECTS also required, capable of preparing working drawings and details from preliminary sketches. Salaries up to £745 per annum.

Applications stating age, experience, qualifications and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester. 4919

EXPERIENCED Senior and also Intermediate to Final standard **ASSISTANTS** required. Applicants to have knowledge of commercial work, including offices and stores, etc. London experience is essential. Box 4890.

ARCHITECTURAL ASSISTANT: Intermediate approaching final. Commercial and industrial work; large-scale contracts. Watson, Johnson, Stokes, Victoria Square, Birmingham. 4995

ASSISTANT required in busy practice in West End, in early twenties, about Intermediate R.I.B.A. standard. Excellent opportunities for gaining all-round experience. Box 5092.

RONALD WARD & PARTNERS require several **ARCHITECTURAL ASSISTANTS**. Apply 29, Chesham Place, Belgrave Square, S.W.1 or telephone Belgravia 3361. 7023

ARCHITECTURAL ASSISTANT required by Midland Firm designing large scale industrial and commercial projects. Good experience of accurate detailing essential. Salary according to ability and experience. Box 8031.

CO-OPERATIVE WHOLESALE SOCIETY, LTD., ARCHITECT'S DEPARTMENT, LONDON. APPLICATIONS are invited from the following:—

(a) **ASSISTANT ARCHITECTS**, of Inter. R.I.B.A. standard.

(b) **SHOPFITTING DRAUGHTSMAN**, with wide experience in store planning and design.

(c) **WORKER-UP**, with experience of commercial/industrial buildings.

The salary range offered for the above appointments is up to £745 per annum, according to age and experience, with prospects of up-grading.

Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.1. 8139

ARCHITECTURAL ASSISTANT required. Must be good draughtsman and have sound knowledge of construction. Salary according to experience. Apply with full particulars to Jackson & Jackson, A/L.R.I.B.A., 13, North Street, Ashford, Kent. 8158

NORFOLK Architect requires **ASSISTANT**. Intermediate standard; competent Surveyor; car driver. Reply, with particulars of experience and salary required, to Box 8255.

TWO Intermediate Standard ASSISTANTS required by Central London Office with large varied practice. Good salary to applicants interested in modern structural design. Write stating experience and salary required to T. P. Bennett & Son, 43, Bloomsbury Square, W.C.1.

ARCHITECTURAL DRAUGHTSMAN required for estate development and housing department in leading contractor's head office. Keen, capable man required, who can use his initiative. Superannuation scheme. Apply with full particulars and state salary required. 87 Lindsay Parkins & Co. Ltd., 171, Shaftesbury Avenue, London, W.C.2. 8437

ARCHITECTURAL ASSISTANT of intermediate standard, required by busy London office, specialising in industrial and commercial buildings. Write stating age, qualifications and salary required, to Box 8439.

WEST END Architects require Intermediate and Pre-Intermediate standard **ASSISTANTS**. Box 8440.

CITY Architects require **ASSISTANT**, Intermediate standard, also **JUNIOR**. Write full details, Gordon & Gordon, Finsbury House, London, E.C.2. 8441

ARCHITECTURAL DRAUGHTSMAN required in Wembley. Write stating age, experience and salary required. Box 8405.

SENIOR ARCHITECTURAL ASSISTANT required for general and commercial practice. Apply stating age, experience, qualifications and salary required, to Duncan Clark & Beckett, F/R.I.B.A., F/R.I.C.S., Architects & Surveyors, 7, West Stockwell Street, Colchester. 8402

ARCHITECTURAL ASSISTANT required; qualified or Intermediate standard, salary according to experience. Apply Gelder & Kitchen, Chartered Architects, 120, Alfred Geider Street, H-11. 8403

ARCHITECTURAL ASSISTANT required; Intermediate to Final standard with office experience for small busy practice. Shaw and Lloyd, F.R.I.B.A., 74, Gt. Russell Street, W.C.1 Museum 9693. 8405

ARCHITECTURAL ASSISTANT wanted: Intermediate standard, for stores and commercial work; capable of preparing working drawings and details from sketches; competent surveyor, good quick draughtsman. Salary £650—£700 according to experience; good prospects. Apply for interview, Norman Jones, Sons and Rigby, F/A.R.I.B.A., 271, Lord Street, Southport. 8509

ARCHITECTURAL ASSISTANTS of intermediate standard required by multiple company in London. Full experience of surveys, working drawings, detailing and supervision of jobs. 5-day week, canteen facilities. Permanent and pensionable post. Apply in writing, stating age, qualifications, salary required and experience to Box 6190.

JUNIOR ASSISTANT required immediately. Intermediate standard, Hampton district. Write stating experience and salary required. Box 6300.

ASSISTANT (male) required for London Architect. Inter. R.I.B.A. standard, with at least 3 years' office experience. Able to prepare working drawings. Write or telephone for appointment to Walters & Kerr, 14, Gray's Inn square, London, W.C.1. HOLBORN 9800. 6310

LONDON Architects and Surveyors require keen, able man, to take charge of Architectural Department. Prospects of Partnership for right man. Reply, stating age, qualifications, experience, and salary required, to Box 6344.

SENIOR ASSISTANT required by a Cambridge Architect (Dipl. Arch.) in a small practice. Would suit recently qualified school-trained associate or the equivalent wishing to gain first class architectural experience. Case allowance. State salary required. Box 6387.

ARCHITECTURAL ASSISTANT of R.I.B.A. Intermediate standard, required for Architect's Dept. of Contractors and Estate Developers in the outer London South-Eastern area, engaged on private estate development, shops, and light industrial premises. Car driver an advantage, but not essential. Reply, stating age, experience, and salary required, to Box 6359.

ASSISTANT—Inter. standard—immediately. Musman & Cousins, 12, Upper Berkeley Street, W.1. 4143

ARCHITECTURAL ASSISTANTS required, about intermediate standard, for varied and interesting high grade work. 5-day week. Apply in writing only, giving full details of experience and salary required, to Sir Giles Scott, Son & Partners, 3, Field Court, Gray's Inn, W.C.1. 6354

ARCHITECTURAL ASSISTANT of not less than intermediate standard, required for interesting contemporary work of varied nature. Please write or telephone for appointment. Leonard J. Mutton, F.R.I.B.A., 6, Greenfield Crescent, Edgbaston, Birmingham. EDGBASTON 4180. 6359

JOHN MOWLEM & CO., LTD., urgently require experienced **ARCHITECTURAL or BUILDING DRAUGHTSMEN** for work on large contracts. Write, with full details, to 91, Ebury Bridge Road, S.W.1. 6331

ARCHITECTURAL ASSISTANT, with office experience, required in busy old-established practice in Bedfordshire. Salary according to ability and experience. Write Box 6332.

ARCHITECTURAL ASSISTANT required for West End office. Intermediate standard, with experience Industrial and Commercial Buildings. Salary about £500 to £600, according to experience and qualifications. Box 6321.

ASSISTANT required. Final standard. Write, stating age, salary required, and experience, to G. H. N. Inman & H. A. J. Darlow, F.A.R.I.B.A., The Charterhouse, E.C.1 6316

ARCHITECTURAL ASSISTANTS required. One Senior qualified and experienced, and one Intermediate stage, for busy West-End office engaged on commercial work. Five-day week. Reply stating qualifications, experience, age and salary required, to Box 6363.

ARCHITECTURAL ASSISTANT, Intermediate standard, required in Architect's office, Newcastle-upon-Tyne. Please write stating age, experience and salary required, Box 6362.

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required. Write stating age, experience, qualifications, salary, etc. C. H. Elson, F.R.I.B.A., 44, Catherine Place, S.W.1. Victoria 4304. 6368

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required for small progressive London office. Write stating age, experience, qualifications, salary, etc. Box 6318.

JUNIOR and intermediate ARCHITECTURAL ASSISTANTS required. Applicants with knowledge of commercial work, including offices and stores, etc. London experience an advantage. Box 6431.

RILEY & GLANFIELD seek **MAKE ASSISTANT** of experience for factory, Church, domestic and public house work. Ability to assume responsibility for design and supervision. Good draughtsmanship essential. Salary to be agreed. CHA 7328. 6433

SENIOR and INTERMEDIATE ARCHITECTURAL ASSISTANTS required. 5-day week. Write or telephone, giving full particulars, including age and salary, to Hasker & Hall, Architects, 13, Welbeck Street, W.1. (WELBECK 0651). 6507

ARCHITECTURAL ASSISTANT required. A Kingston upon Thames district. Some experience in building supervision desirable. Salary in accordance with qualifications and experience. Write giving full particulars, salary required. Box 6462.

BRISTOL Architect requires **ARCHITECTURAL ASSISTANTS** of intermediate standard and intermediate final standard for work on interesting projects of large scale. Applications from candidates with personality and enthusiasm giving details experience, training, etc., to James W. Mackintosh, L.R.I.B.A., A.I.A.A., Chartered Architect, 2, Tyndall's Park Road, Clifton, Bristol, 8. 8485

ASSISTANT with experience required for interesting work for office in London. W.1. Five-day week. Please phone GROsvenor 1907 for appointment. 8500

ARCHITECTURAL ASSISTANT (qualified) required by eminent Architects, West End. Good opportunity for keen draughtsman. Salary £650 p.a. Apply M. & D., 1, Old Burlington Street, W.1. 8499

REQUIRED by West End London Architects, young **ASSISTANT** with practical experience of detailing. Keen interest more important than qualifications. Box 6489.

ASSISTANT ARCHITECTS required, capable of preparing working drawings and details from preliminary sketches. Salaries up to £745 per annum. Applications stating age, experience, qualifications and salary required to R. C. Steel, A.R.I.B.A., Chief Architect, Cooperative Wholesale Society Limited, 90, Westmorland Road, Newcastle-upon-Tyne. 8488

PART TIME ASSISTANT required in small London office. Two or three days per week. Suit young architect with some private practice. 8487

ARCHITECT for Mecca Ltd., well-known Caterers and Dance Hall Proprietors, permanent and increasing appointment for young fully qualified man with this progressive Company. Write to DHD, Mecca Ltd., 76, Southwark Street, S.E.1. stating age, experience and present salary. Send photograph. 8486

ARCHITECTURAL DRAUGHTSMAN required for general country practice. Inter. standard and sound general experience essential. Knowledge of modern school construction an advantage. Salary and bonus according to experience. Reavell & Cahill, Alnwick, Northumberland. 8458

ARCHITECTURAL ASSISTANT required. Choice of working in London, Reading, or Derby office. Intermediate or higher standard. Housing and industrial experience desirable. Salary by arrangement, according to qualifications. Apply Eric G. V. Hives, L.R.I.B.A., 3, Cork Street, Reading. 8460

B.O.A.C. require an **ARCHITECTURAL ASSISTANT** in the Civil Engineer's Office, Headquarters B.O.A.C., London Airport. Salary scale £60 p.a. to £120 p.a. Preference given to candidates between 28 and 45 years, with following qualifications:—
Associate R.I.B.A.
Experience in design of industrial building, offices, canteens.
Competence in rapid sketch planning.
Experience of overseas work.

The post will be temporary for about two years, and may involve short tours abroad. Write Staff Manager, H.O. Airways House, Brentford, Middx., stating age, qualifications, experience. 8461

ARCHITECTURAL ASSISTANTS required in the Architect's Department of Reckitt & Colman Ltd., Norwich. Large interesting programme, work guaranteed for at least three years, if satisfactory. Must be about Intermediate Standard R.I.B.A., neat and expeditious draughtsmen, able to survey and level and prepare working drawings and details under supervision. Apply stating age, qualifications, experience and salary required to Joint Secretary, Carrow Works, Norwich. 8465

ARCHITECT'S ASSISTANT with office experience required in leading Birmingham Office with varied work and pensions scheme, etc. State age and salary. Box 8466.

ARCHITECTURAL ASSISTANT required. Inter. R.I.B.A. standard or above. Apply to: Messrs. B. W. Turnbull & Partners, 29, Ludgate Hill, E.C.4. 8468

ARCHITECT'S ASSISTANTS required by a large Chain Store organization. Commencing salary £600 to £750 per annum according to experience. Subsidized Staff Canteen. Staff Pension and Life Assurance Scheme. Write, giving details of past experience, age, etc., to Box AJ 104, LPE, 55, St. Martin's Lane W.C.2. 8388

"THE ARCHITECTS' JOURNAL" requires a first-class **DRAUGHTSMAN** for the preparation of Working Details and Information Sheets with a keen interest in the compilation of technical data.

Write to the Editor (Information Sheets), 9, Queen Anne's Gate, S.W.1, stating age, architectural training and experience. 901

WATES LIMITED have vacancies for experienced **ARCHITECTURAL ASSISTANTS** for detailing housing work of all kinds. Salary £500 to £600 per annum. Five-day week. Pension scheme. Write stating age, qualifications, experience and salary required to the Architect, Wates Ltd., 1258-1260, London Road, Norbury, S.W.16. 8477

A.R.I.B.A. or experienced Intermediate Grade **ASSISTANT** required urgently for Brighton/Hove area office. Write regarding experience and salary required to Box 8478.

ARCHITECT'S ASSISTANT—Inter. Standard required. Write stating age, experience and salary required. S. G. Scates, A.R.I.B.A., National Provincial Bank Chambers, Eastbourne. 8480

MAX LOCK and PARTNERS. Required in Maraca, a capable and responsible **ARCHITECT-TOWN PLANNER** to go with Max Lock to Basrah, Iraq, to work on interesting architectural and town planning projects. The applicant would have full responsibility for conducting the work during Mr. Lock's absences from Basrah, and also a later possibility of working in other parts of the Middle East. Applicants should preferably be between 27 and 32 years old; salary £1,200 to £1,500 per annum according to experience, with the possibility of eventual Associateship or Partnership in the firm of Max Lock and Partners.

A qualified **ARCHITECT/PLANNER ASSISTANT** is also required for housing, architectural and planning work in Iraq, commencing in March or April; salary £250 to £300 per annum.

A qualified **ARCHITECTURAL ASSISTANT** is required to work in the Bedford office of Max Lock and Partners. Salary £600 to £700 per annum.

Applications should be made by letter to Max Lock, 7, Victoria Square, London, S.W.1. 8473

ARCHITECTURAL ASSISTANT, good all-round experience. Rural housing, improvements, surveys, etc. North Wales. State experience and salary required. Box 872.

ARCHITECTURAL ASSISTANT of Intermediate standard required for South Coast practice. Write stating age, experience, salary required, to Box 8520.

RALPH TUBBS, 35, Welbeck Street, W.1 requires qualified **ARCHITECTURAL ASSISTANT**, reliable, experienced and imaginative. Please apply by letter with brief particulars. 8470

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required for Cotswold Office with varied practice. State age, qualifications, experience and salary required. Pyle & Sons, Chartered Architects, Thomas Street, Huddersfield, Glos. 8476

OPENING for two qualified **ARCHITECTS** to train as **ASSISTANT DESIGNERS** with an ever expanding firm of new traditional builders. Must have good general practical knowledge, a keen and enquiring mind and be willing to travel abroad if required. Starting salary £650. Messrs. Reema Construction, Ltd., Milford Manor, Salisbury, Wiltshire. 8491

CIVIL ENGINEERING and ARCHITECTURAL ASSISTANTS required by The Steel Company of Wales Limited (Steel Division), Port Talbot, in their Engineering Drawing Offices.

Highest rates. Permanent positions. Attractive Pension Scheme.

Those wishing to apply should write giving full particulars of age, experience, qualifications, etc., to the Personnel Superintendent, The Steel Company of Wales Limited (Steel Division), P.O. Box No. 3, Port Talbot, Glam. 8501

REQUIRED for Architects' office. Central London area, young qualified **ASSISTANTS** interested in design and construction. Write, stating experience and salary required. Box 2325.

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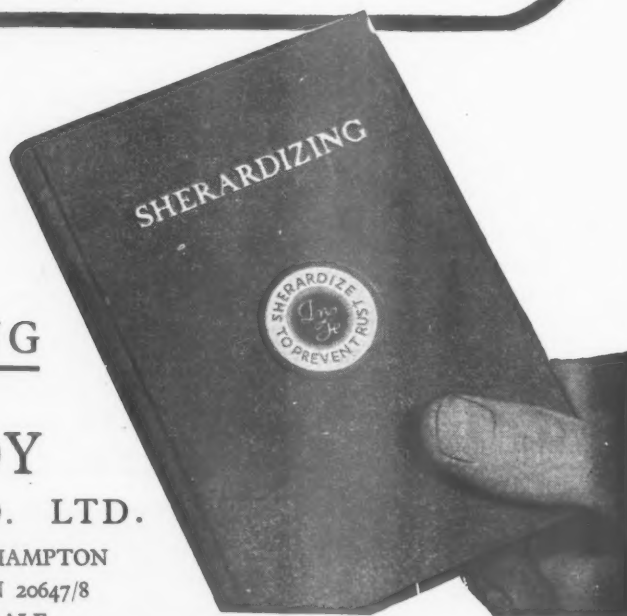
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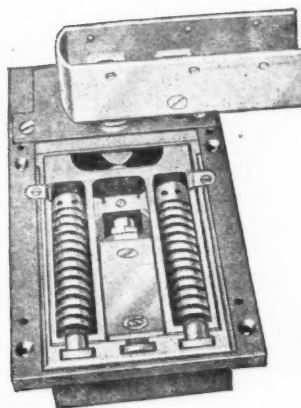
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