

THE ARCHITECTS' JOURNAL



standard contents

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

NEWS and COMMENT

Astragal's Notes and Topics

Letters

News

Diary

Criticism

TECHNICAL SECTION

Information Sheets

Information Centre

Current Technique

Working Details

Questions and Answers

Prices

The Industry

CURRENT BUILDING

Major Buildings described:

Details of Planning, Construction,

Finishes and Costs

Buildings in the News

Building Costs Analysed

Architectural Appointments

Wanted and Vacant

No. 3352]

[Vol. 131

THE ARCHITECTURAL PRESS

9, 11 and 13, Queen Anne's Gate, Westminster,
S.W.1. 'Phone: Whitehall 0611

Price 1s. 0d.

Registered as a Newspaper.

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

ILA	Institute of Landscape Architects. 1, Park Crescent, Portland Place, W.1. Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1. Welbeck 9966
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee). Fire Research Station, Boreham Wood, Herts. Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2. Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Hyde Park 7070
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphaltic Mine Owners and Manufacturers Council. 94/98, Petty France, S.W.1. Abbey 1010
NAS	National Association of Shopfitters. 2 Caxton Street, S.W.1. Abbey 4813
NBR	National Buildings Record, 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers, 10, Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphaltic Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal house, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1. Whitehall 1693
NHBRG	National House Builders Registration Council. 58, Portland Place, W.1. Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5533
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1. Whitehall 5322/9245
RFAC	Royal Fine Art Commission. 5, Old Palace Yard, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1. Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4. City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1. Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636

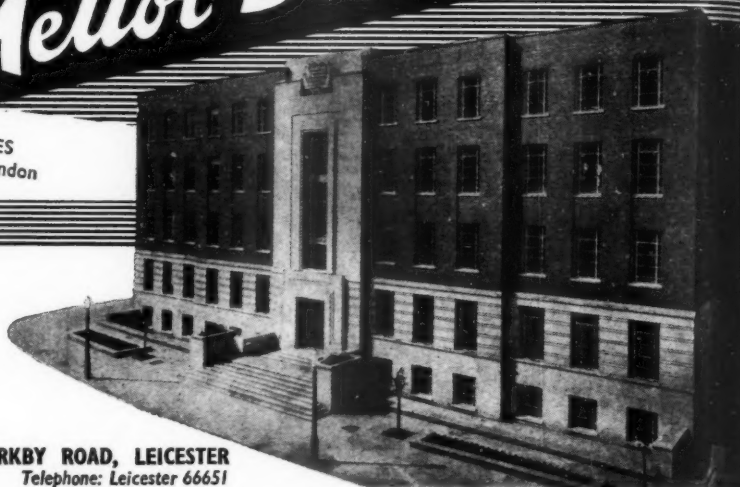


THE PERCIVAL WHITLEY COLLEGE OF
FURTHER EDUCATION
Architect: Mr. Richard Pickles, A.R.I.B.A., Halifax

Mellor Bromley

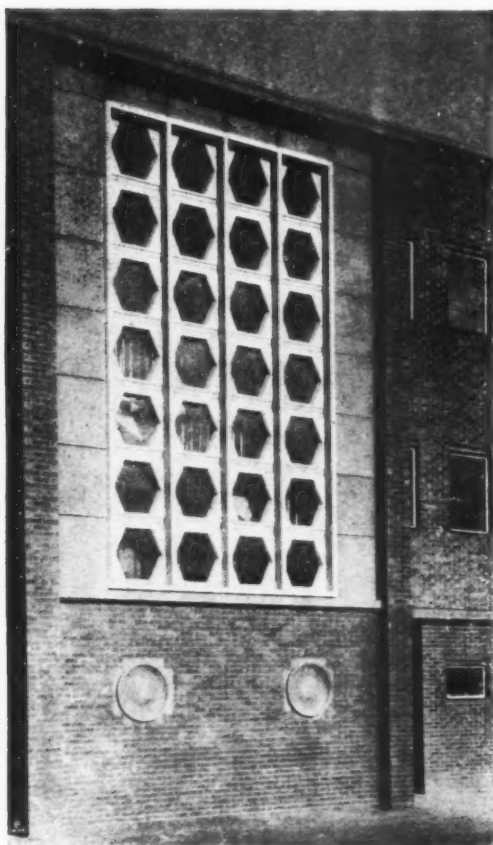
THE UNIVERSITY OF LEEDS
DEPARTMENT OF TEXTILE INDUSTRIES
Architect: Messrs. Lanchester and Lodge, London
Consultants: Messrs. Oscar Faber
& Partners, London.

**HEATING, VENTILATING AND
AIR CONDITIONING ENGINEERS
AND CONTRACTORS**



MELLOR BROMLEY (AIR CONDITIONING) LTD., BARKBY ROAD, LEICESTER
(Member of the Bentley Group) Telephone: Leicester 66651

AC 3



GLASCRETE

ORNAMENTAL WINDOW

The unusual design of the window to a staircase at the Scotia Works, Rutherglen, Dalmarnock, is an interesting example of the adaptability of GLASCRETE constructions. The window comprises block mullions and ornamental concrete infilling panels all in Portland Stone finish.

Architects: Messrs. Taylor & Davie, F.R.I.B.A.

Write for Brochure P47
containing details of all
GLASCRETE constructions.



J.A. KING & CO.

101, Queen Victoria St. LONDON, E.C.4

Telephone: CENTral 5866 (5 lines)



AC 3

C
& P
ON.see
(lines)

Tin
lar
ord
goc
sys
int
not
the
vag
an
tor
Col
a th
ing
from
Suc
firm
For
too
for

COL

6 contracts from

Smith-Clayton Forge Ltd
endorse the supremacy of

COLT

VENTILATION

Time and again, industrialists large and small place repeat orders with Colt. And for three good reasons. Colt ventilation systems depend in the main on internal convection currents—not external forces—and are therefore little affected by the vagaries of the wind. Colt offer an unparalleled range of ventilators. And most important, every Colt recommendation is based on a thorough analysis of the building, plant and process either from a site survey or drawings. Such thoroughness influences firms such as the Smith-Clayton Forge Ltd. It will impress you, too. Ask your secretary to send for a free manual to Dept. L97/5B



CLEAR OPENING VENTILATORS IN HEAVY STAMP SHOP

Among the 12,000 major
Industrial Organisations using
Colt equipment are:

- 25 contracts: *British Oxygen Co. Ltd.*
- 15 contracts: *Cow & Gate Ltd.*
- 15 contracts: *Dorman Long & Co. Ltd.*
- 12 contracts: *English Steel Corporation Ltd.*
- 14 contracts: *Ferranti Ltd.*
- 16 contracts: *General Motors Ltd.*
- 11 contracts: *Thomas Hedley & Co. Ltd.*
- 15 contracts: *Hoover Ltd.*
- 22 contracts: *Lever Bros., Port Sunlight Ltd.*
- 9 contracts: *Joseph Lucas Ltd.*
- 29 contracts: *National Coal Board*
- 19 contracts: *Philips Electrical Industries Ltd.*
- 21 contracts: *The Plessey Co. Ltd.*
- 20 contracts: *Ruston & Hornsby Ltd.*

COLT VENTILATION LIMITED • SURBITON • SURREY • TELEPHONE: ELMBRIDGE 0161 (10 LINES)





ALL-GLASS CONSTRUCTION



Harvey Hudson Ltd., South Woodford, E.18.
Architect: V. Fletcher Russell, F.R.I.B.A.
Shopfitters: Stewart Fraser Ltd.

The Clark-Eaton 'BLACKFRIARS' SYSTEM

*offers unlimited scope
to the designer*

The photographs illustrate an ideal application of the 'Blackfriars' System for a motorcar showroom entrance. Special retractable springs enable entrance doors and sidelights to be folded back to provide a completely free entrance.

*Please ask for literature and
design sheets or come and see
the numerous installations in
our showrooms.*



JAMES CLARK & EATON LTD.

SCORESBY HOUSE, GLASSHILL STREET, BLACKFRIARS, LONDON, S.E.1

Telephone: WATerloo 8010 (20 lines)

CANTERBURY, BOURNEMOUTH, EASTBOURNE, READING, OXFORD (H. Hunter & Co.)



By kind permission of the N.C.B.
North Eastern Division

EPIKOTE RESIN BASED PAINTS



Above:—Ammonium Sulphate plant at Manvers Main Coking Plant, treated with Evokote Type 10

Below:—Maplewood floor treated with Evokote Type 20 at the works of John Mackintosh & Sons Ltd., Halifax

**Four air drying grades supplied to combat
all types of aggressive and corrosive conditions.**

A PRODUCT OF



OF STAFFORD

Manufacturers of BITUGEL, EVODYNE and EVO-LED paints

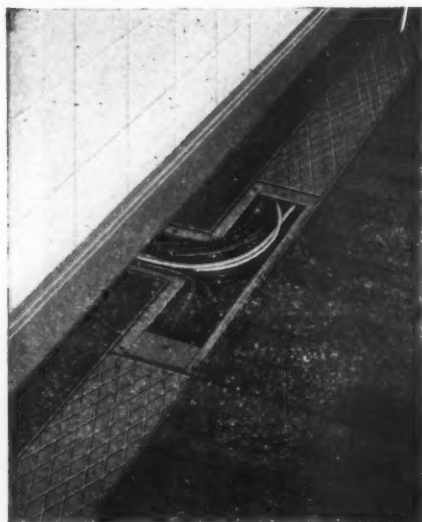
* **SEND FOR LITERATURE**

EVODE LTD., (PAINTS DIVISION) STAFFORD.

Telephone : 2241-5

London Office: 82 VICTORIA STREET, S.W.1. Telephone: ABBey 4622-3

M-W.115



Rising Mains, Underfloor, Floor & Skirting Trunking.

FLOOR TRUNKING

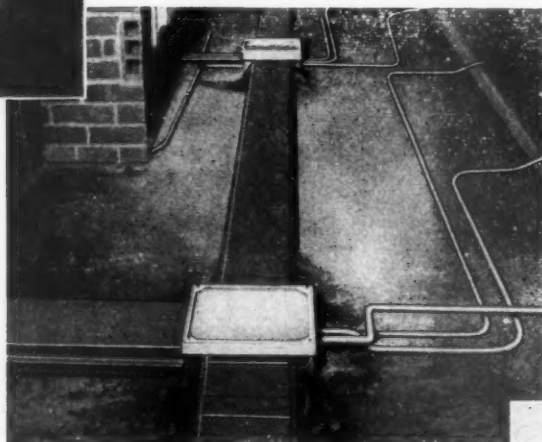
Choice of Covers: Available with chequer plate cover and gasket joint, or with recessed cover to carry any flooring medium—wood blocks, linoleum, tiles, etc.

Construction: With exception of chequer plate, Zinc coated steel is used throughout.

Sizes: Standard sizes available. Special sizes made to order.

Finish: Zinc coated natural finish or Grey Enamel.

Fittings: Elbow. Rising Elbow. Tee Piece. Four-way Cox. End Bush. Blank End.



UNDERFLOOR TRUNKING

Choice of Covers: Solid or recessed for fitting with any floor medium.

Floor Traps: Cast or fabricated, in 1-way, 2-way, 3-way and 4-way forms.

Levelling Feature: Traps can be supplied with provision for levelling.

Construction: With exception of solid cover plates, zinc coated steel is used throughout. The assembly is rigid and waterproof. Dividing fillets can be embodied.

Sizes: As above.

Finish: Zinc coated steel painted with red oxide.

Fittings: Rising Elbow. Elbow. Tee Piece. Four-way box. End Bush. Blank End.



RISING MAIN—BUSBAR TRUNKING

Construction: Zinc coated steel with cover plate secured by set screws and washers, to provide dust-proof enclosure.

Support Rack: Incorporated at base of riser to carry full weight of rising copper conductors.

Fire Proof Barrier: Fitted at each floor level.

Amperage Range: 100 amp. to 1,500 amp. in either 2-, 3- or 4-bar assemblies.

Finish: Grey Enamel.

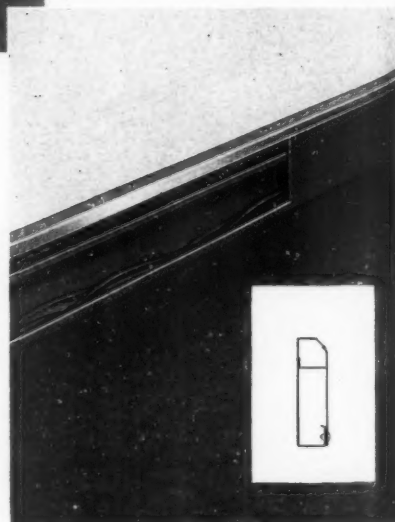
SKIRTING TRUNKING

Construction: Zinc coated steel, with dividing fillets embodied as required.

Sizes: As above.

Finish: Grey Enamel.

Fittings: Elbow. Rising Elbow. Tee Piece. Four-way Box. End Bush. Blank End.



Fully detailed literature available on Power Centre industrial electrical distribution gear



THE
Power Centre Co. Ltd.

P.O. Box 18, Lloyd Street, Wednesbury, Staffs.

Telephone: Wednesbury 1311. Also at Newcastle and London.

A SCIENTIFIC FACT



General Contractors:
J. Jarvis & Sons Ltd.

Roderic Hill Building,
Imperial College of Science and Technology.

Architects and Consulting Engineers: Norman & Dawbarn.
Consultant Architect: Sir Hubert Worthington, R.A.

It's a scientific fact that the deliberate entrainment of microscopic bubbles of air in cement-sand mortar imparts the following properties — increased plasticity and workability, reduction in the w/c ratio, improved water retentivity, increased resistance to the passage of water and improved dura-

bility by the fact of increased resistance to repeated cycles of freezing and thawing. That's what Febmix Admix Mortar Plasticiser does and those are the advantages obtained from its use on bricklaying work, for which purpose Febmix Admix was used on this contract.

**FOR BETTER DURABILITY-
BETTER USE**

FEBMIX ADMIX
AIR-ENTRAINING
MORTAR PLASTICISER

FROM BUILDERS' MERCHANTS—EVERYWHERE

(GREAT BRITAIN) LIMITED

102 Kensington High Street, London, W.8
Albany Road, Chorlton-cum-Hardy, Manchester 21

WESTern 0444
CHOrlton 1063

DHB/7104



Heard the news from WEYROC?

As a result of increased production
from new automatic plant...



WEYROC has always had the reputation of being *the board you can trust*—to do so many jobs, so well. Now, new developments put WEYROC even further ahead as the *board of choice* for the Building and allied Trades.

Blue Label WEYROC has been discontinued and in its place comes a new, improved form of WEYROC... in quantities never possible before. This new, improved WEYROC is lightweight, strong, stable and durable, with smooth-sanded moisture-resistant surfaces for easier working. In short, a very much more *precise* board than before. As such, it has marked advantages for almost every job in building* which calls for flat-form timber. This new WEYROC is available...

in a choice of boards.

weyroc '34'

layer construction board
8' x 4' boards

weyroc '38'

graded density board
12', 8' and 4' x 5'8" boards

Both boards produced in $\frac{1}{2}$ ", $\frac{3}{8}$ " and $\frac{1}{4}$ " thicknesses nominal and cost between 1/1 $\frac{1}{2}$ d. and 1/6d. per sq. ft. (according to thickness).

Although these Boards are almost identical in strength characteristics and surface properties, we recommend WEYROC '34' particularly for the Building Trades. This is because it is available in the standard building board size and because it has a slightly higher impact resistance.

* N.B. These Boards are not suitable for suspended flooring.

As Blue Label WEYROC has now been discontinued, this means that there is at present no WEYROC board for flooring. However, it is our intention to produce a new, special flooring grade in the very near future.

weyroc

one of the world's
great man-made materials

BRABY

design, manufacture and erect

CONSTRUCTIONAL STEELWORK

in all its forms

FOR MULTI-STOREYED BUILDINGS,
SCHOOLS, FACTORY BUILDINGS,
GARAGES, GANTRIES, TOWERS,
TRESTLES, LIGHT BRIDGES,
TANK STRUCTURES, HAY BARNs,
FIRE ESCAPES, ETC.

ONE OF THE WIDE RANGE OF

BRABY

PRODUCTS

FREDERICK BRABY & COMPANY LIMITED

Head Office: 352-364 EUSTON ROAD, LONDON, N.W.1. TELEPHONE: EUSTon 3456

OTHER FACTORIES AT: London Works, Thames Road, Crayford, Kent. TELEPHONE: Crayford 26262

Havelock Works, Aintree, Liverpool, 10. TELEPHONE: Aintree 1721

Eclipse Works, Petershill Road, Glasgow, N. TELEPHONE: Springbuit 5151

Ashton Gate Works, Bristol, 3. TELEPHONE: Bristol 64041. And Falkirk

OTHER OFFICES: 110 Cannon Street, London, E.C.4 (Export). TELEPHONE: MANsion House 6034

Queen's Buildings, 10 Royal Avenue, Belfast. TELEPHONE: 26509

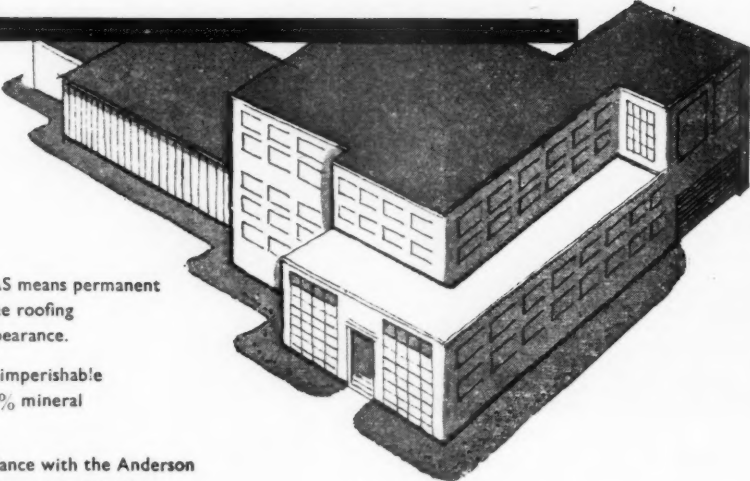
Palace Street, Plymouth. TELEPHONE: 62261

AP140

Perfectly flat

FLAT ROOFS WITH THERMOGLAS BUILT-UP ROOFING

Specifications with an all glass base

- 
- ★ THERMOGLAS means permanent and blister free roofing with good appearance.
 - ★ Rotproof and imperishable due to its 100% mineral origin.
 - ★ Laid in accordance with the Anderson Technique, Thermoglas provides increased resistance to structural movement and the "hotting up" effect of insulated roofs.

A THERMOGLAS technical brochure will be sent on request and the Anderson technical service is at your disposal in any part of the country.

D. ANDERSON & SON LIMITED

STRET FORD, MANCHESTER, Tel: LONGford 4444 OLD FORD, LONDON, E.3. Tel: AMHerst 9381
BELFAST BIRMINGHAM BRISTOL CARDIFF GLASGOW LEEDS NOTTINGHAM



(B 65.)



Flooring design by
"Harefield" for
Goddard Watts
Limited, Advertising
Agents

handsome is as handsome does!

"Harefield"
RUBBER FLOORING

There's nothing like rubber flooring — Harefield rubber flooring — for hard wear and good looks. There is an exceptional range of colours to help you with interior design, which can be made so much more inviting. "Harefield" rubber flooring not only looks attractive, but lasts a lifetime, is quiet and easy to maintain.

For range of patterns, colour suggestions or estimates for laying, please write or telephone.

For general offices



For further information
on 'ARMOURPLATE' and
'ARMOURCAST' Glass Doors
consult the Technical
Sales and Service Dept.,
Pilkington Brothers Ltd.,
St. Helens, Lancs. (St. Helens
4001) or Selwyn House,
Cleveland Row, St. James's,
S.W.1. (WHitehall 5672-6.)

PILKINGTON'S

"ARMOURPLATE" Glass Doors for interiors

SPECIFY 'ARMOURPLATE'
GUARANTEED

For private sanctums



Door check and closer
available for both doors.
'ARMOURPLATE' and
'ARMOURCAST' are
registered trade
marks of Pilkington
Brothers Limited.
Supplies are available
through the usual
trade channels.

PILKINGTON'S

SPECIFY 'ARMOURCAST'
GUARANTEED

"ARMOURCAST" Glass Doors for interiors



UNIVERSAL BEAMS

*a good example of the
simplification they effect*

A new extension for Whessoe Limited of Darlington covers an area of 295 ft. by 90 ft. wide, with an eaves height of 57 ft. Requirements were as shown on the right at A and B.

These requirements were well met by Redpath Brown & Co., Ltd., Edinburgh, by the use of the Dorman Long Universal Beams.

The 40-ton cranes run on 36-in. by 16½-in. by 260 lb. per ft. Universal beam gantry girders, designed as continuous beams, welded up to strength on the site. Tie beams of 12-in. x 12-in. by 65-lb. Universal sections were introduced midway between the ground and the crane girders; and the main longitudinal connections were site welded, eliminating further bracing.

The portal-frame roof construction comprises the following:—The vertical legs are 36-in. by 16½-in. by 260 lb. Universal beams, from the eaves knuckle the section tapers down to a site-welded junction with the 24-in. by 12-in. x 100 lb. rafter. The rafters follow the desired roof line until the central section where—to provide the necessary slope for water-tight glazing—

the roof line is cocked up. The rafters were sawn at a level and shop-welded to the required angle.

The use of Universal beams saved a good deal of time and labour, and no compounding of sections was necessary.

A. Two 80 ft. span heavy-duty cranes, of 40 tons capacity, travel in tandem throughout the full length of the building.

B. It was desired to match the main part of the roof contour to that of an adjacent unglazed building, but to provide glazing for the central portion: this accounts for the unusual roof line.

EARLY DELIVERY OF THE FULL RANGE OF SECTIONS

DORMAN LONG

"I WAS A SNEAK"

—*Master H. W. Pipe owns up*

I was always in hot water—or rather hot water was always in me—when I left the boiler-room. But then I wandered about the school, improperly dressed. I used to dissipate my heat in draughty corridors. By the time I reached the dorm' radiators, I was as tepid as school tea!

But now I'm the blue-eyed boy: From outlet to delivery, I'm clad in Fibreglass Rigid Sections. So delightfully light, so superbly trim—no bagging at the knees and no losing degrees! My behaviour as a saver of fuel and a deliverer of hot water is earning A-plus Reports from all. But I'm *not* expecting a prize for Good Conduct. Because my Fibreglass jacket is about the world's poorest Conductor—of heat anyway!

FIBREGLASS

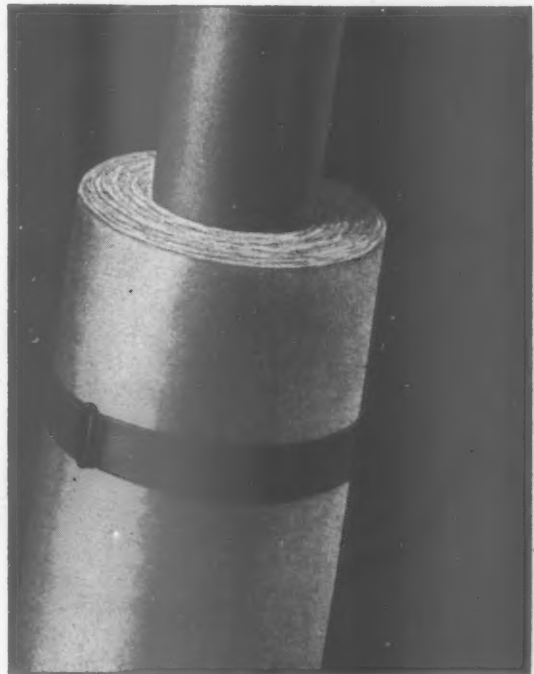
TRADE MARK

**"RIGID SECTIONS HAVE
PUT ME ON TOP OF
MY FORM!"**

MASTER H. W. PIPE WRITES HOME

For the whole story, please write to:

FIBREGLASS LIMITED, ST. HELENS, LANCASHIRE · ST. HELENS 4224



**MOSAIC
CLADDING
PANELS**

are now being produced
in a variety of patterns
and colours in addition
to the range of exposed
aggregate panels.



JOHN ELLIS & SONS LTD., 21 NEW WALK, LEICESTER.

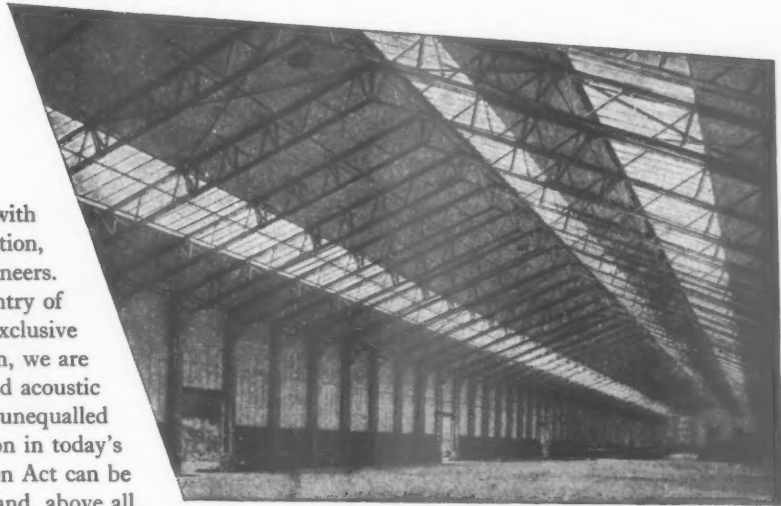
T

The Factory Insulation Act

—HOW TO COMPLY WITH IT
AT MINIMUM COST!

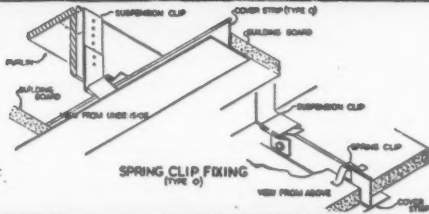
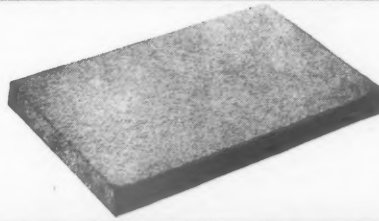
When you are next faced with the problem of factory insulation, seek the help of Tentest engineers. We are the *pioneers* in this country of metal fixing devices which are exclusive Tentest patents. In addition, we are manufacturers of thermal and acoustic boards and tiles and have an unequalled knowledge of their application in today's problems. The Factory Insulation Act can be complied with effectively and, above all, economically, provided we are called in at the beginning.

The accompanying illustration shows a fibreboard lining fixed by Tentest Aluminium Sections to roof and walls of the new Assembly Shop at the Rover Co. Limited, Solihull. Area 7,118 sq. yds. A Tentest Spring Clip fixing method, as illustrated below, was used on this contract.



FLAME-CHECK FINNBOARD

A high quality fibre board which has been classified Class 1 following B.S. 476 Surface Spread of Flame Test. This board does not require decoration and is available in standard $\frac{1}{2}$ " thickness.



PATENTED SPRING CLIP FIXING (TYPE O)

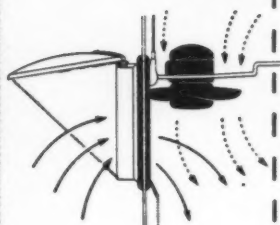
Used for ceiling, roof slope, and wall linings. Tentest Spring Clips ensure a vibration proof and commercially dust proof joint. No drilling or special fabrication is necessary.



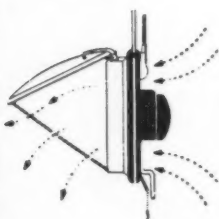
TENTEST FIBRE BOARD CO. LTD.

FIBBOARD HOUSE, OAKLEIGH GARDENS, LONDON, N.20 Telephone: Hillside 8801-7

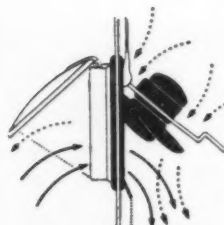
**Instant
fingertip
adjustment
gives you
PERFECT
VENTILATION
under any
conditions**



**FRESH
AIR
IN**



**STALE
AIR
OUT**



**FRESH
AIR IN
and
STALE
AIR OUT
at the
same
time**

**An outstanding advance in
MODERN VENTILATION...**

THE NEW

Controlaire

Indolator



**Easy to clean
—simply wipe with
a damp cloth**

When the demand is for an efficient window fan, and outside installation is costly and dangerous—specify the Controlaire.

It can be fitted and cleaned entirely from inside the room, and each operation requires very little time. The Controlaire is cheap to run and requires no maintenance because it is simple in design and sturdily made. The cream and black finish ensures freedom from corrosion and blends well with any decorative scheme.

TWO MODELS—each guaranteed for 12 months. A.C. current only. 240 volts, other voltages if required. 50 cycles. No interference with radio or T.V. Wall fixing fans also available, details on request.

Size	Extraction rate	Wattage	Minimum window size	Retail price
8" diameter blades	17,650 cu. ft. per hour	25	10½" x 10½"	£12.12.0
10" diameter blades	42,500 cu. ft. per hour	35	13½" x 13½"	£17.17.0

Complete this coupon and post TODAY
Please send me full details of the
CONTROLAIRE Indolator

Name

Address

A.J.6

MAIN DISTRIBUTORS

WM. MILLER (NEWCASTLE) LTD.

Railway Terrace, Newcastle upon Tyne, 4.

Telephone: Newcastle 3-4055 & 3-7504

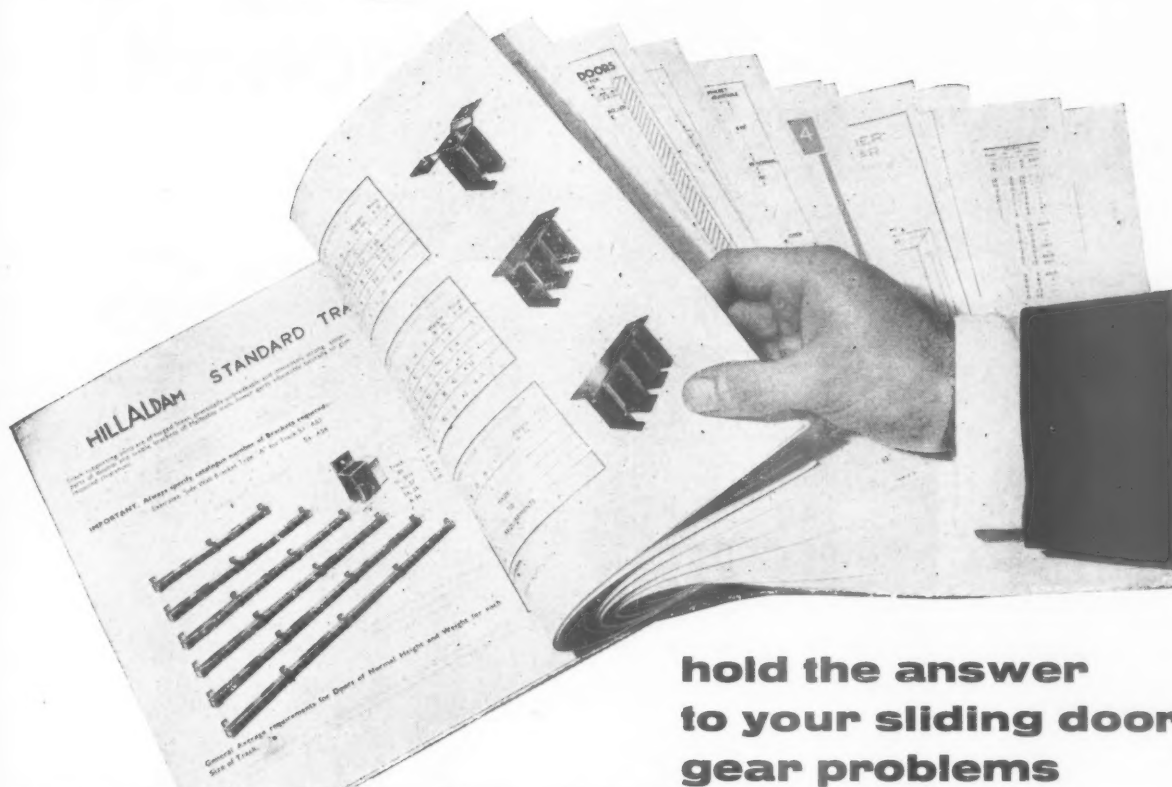
LONDON & HOME COUNTIES DISTRIBUTORS

WINFIELD SMITH ENG. SUPPLIES LTD.

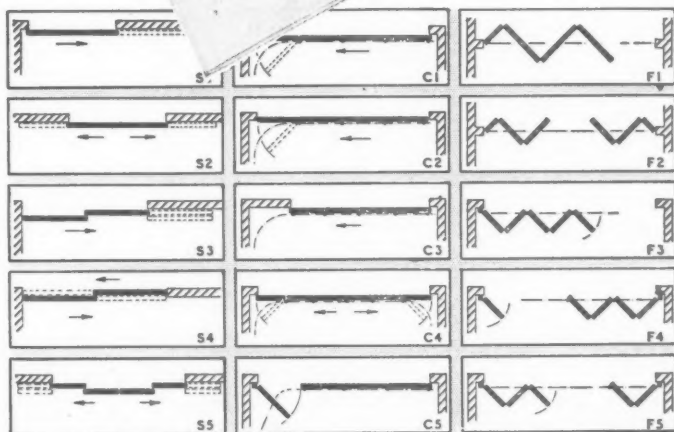
Orchard House, 14 Great Smith Street, London, S.W.1.

Telephone: Abbey 2770

130 Pages like this



**hold the answer
to your sliding door
gear problems**



In the latest architectural edition of "The Sliding Door", issue 29, there are well over a hundred pages of useful information concerning sliding door gear and its application. They include photographs, technical data and scale drawings. This book will help you to tackle your sliding door problems. If by some chance you have not received your copy, please let us know.

E. HILL ALDAM & COMPANY LIMITED

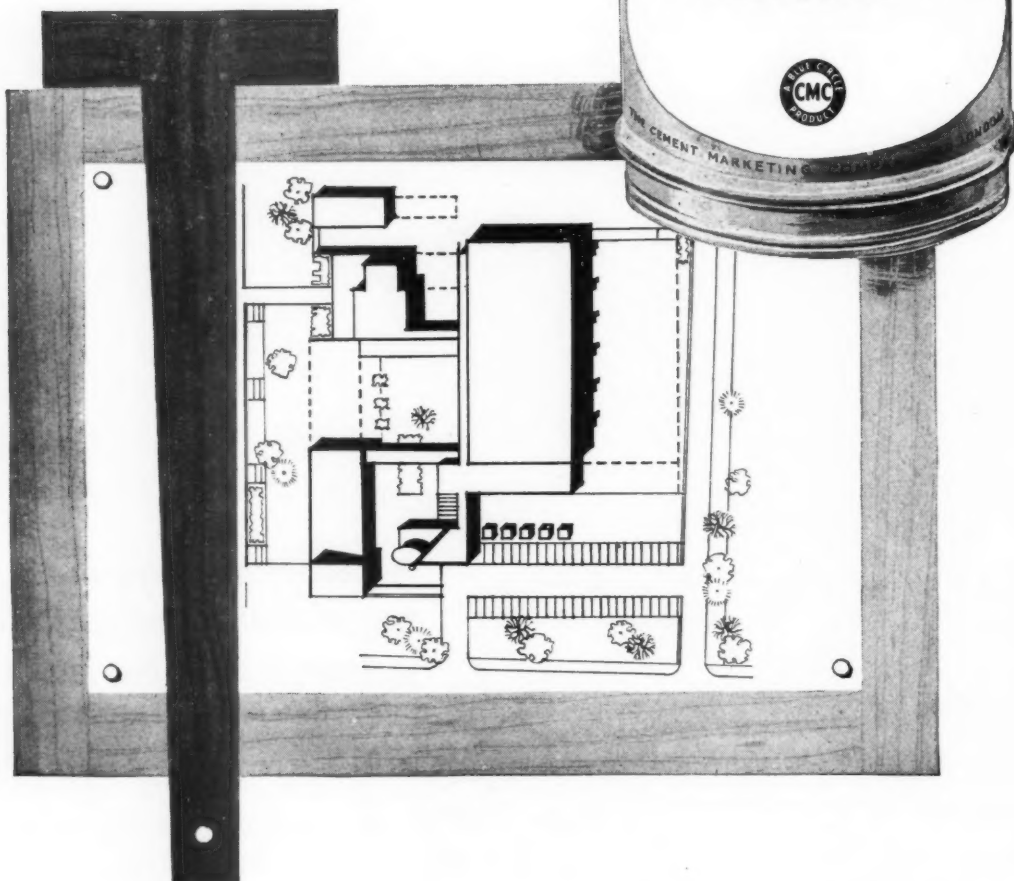
THE SLIDING DOOR PEOPLE

BRITANNIC WORKS, HASLEMERE AVENUE, LONDON, S.W.18

Telephone: WIMbledon 8080 (5 lines)

HILLALDAM
SLIDING DOOR GEAR

**All part
of the plan...**



Super SNOWCEM is ideal for these reasons

- Decoration and protection at the lowest possible cost.
- Easy and quick to mix.
- Attractive range of bright colours.
- High degree of opacity and obliteration.

Super SNOWCEM is ideal for these surfaces

Concrete, cement/sand renderings, cement/lime/sand renderings, roughcast and pebbledash, stock bricks, concrete blocks and concrete bricks, clinker and other lightweight concrete blocks, asbestos cement sheets and most wall and fibre boards.



Write for leaflet and shade card to:

THE CEMENT MARKETING COMPANY LIMITED, PORTLAND HOUSE, TOTHILL STREET, LONDON, S.W.1.

G. & T. EARLE LTD., HULL. THE SOUTH WALES PORTLAND CEMENT & LIME CO. LTD., PENARTH, GLAM.

T1598

VETRONA

*the fabric made of glass, is
entirely new in Britain. It is
made of 100% glass filament and
has sensational and unique properties for
draperies and curtains, remarkably
in accord with present-day
ideas in architecture
and decoration.*

revolutionary

furnishing

news



the fabric made of glass

Vetrona is a registered Trade Mark

VETRONA
has long life !

It won't rot, shrink, sag, stretch, fade, or run. Neither mould, moth, salt air, sun, bacteria, nor atmospheric degradation will harm it.

VETRONA
is easy to keep clean !

It can't absorb dirt any more than a crystal can, so needs little cleaning. Wash lightly in soap-suds or detergent, rinse, and hang up. It dries in minutes with no creases, is never ironed.

VETRONA is fireproof !

It is permanently non-combustible. There is no need for periodic flame-proofing.

VETRONA is translucent !

It filters and reflects light, giving unique translucency without loss of warmth or privacy, needs no lining.

VETRONA is varied !

It is made in marquisesettes, textured satin-like plains in many colours, and brilliantly designed prints.

VETRONA
has great advantages !

For contract furnishings - schools, hotels, clubs, hospitals, theatres, ships, aeroplane, exhibitions, Vetrona has unique new qualities. Specially created designs can also be made for a minimum length of 200 yards.

*We invite inquiries :-
Vetrona Fabrics Limited
90, Great Bridgewater St.
Manchester 1*



WALPAMUR Quality Paints

Specified by architects and used by decorators who demand perfection of finish, Walpamur Quality Paints are used with conspicuous success on all types of building - domestic, commercial and industrial. Most popular are Walpamur Water Paint in interior and exterior qualities, Duradio 5-year Enamel Paint for inside or outside use and Darwen Satin Finish, for interior use only, steamproof and infinitely washable. The full range provides paints, enamels and varnishes of superb quality for every conceivable need.



BY APPOINTMENT
TO HER MAJESTY THE QUEEN MANUFACTURERS OF PAINT



THE WALPAMUR CO LTD • DARWEN & LONDON
Depots and Branches throughout the country

**FERODO
STAIRTREADS
KEEP IN STEP
WITH
MODERN DESIGN**

Ferodo non-slip stairtreads bring to these modern stairs a clean line, maximum safety for the people who use them, and years of life without maintenance or renovation.

- * 7 attractive colours
- * Comprehensive range — 32 treads with nosings, 3 flat treads, 2 steel-backed types
- * Aluminium, silver bronze or manganese bronze channels
- * Special orders can be manufactured

Write to our Stairtread Department for full illustrated literature for your file.

FERODO non-slip stairtreads



FERODO LIMITED · CHAPEL-EN-LE-FRITH A Member of the Turner & Newall Organisation

8/47

FIRE PROTECTION and DECORATION

*in 1 COAT
with ALBI-R!*

* TO CLASS 1. BS 476-1953 *

ALBI-"R" Fire Retardant Coating not only protects but also gives an attractive finish to all types of combustible building materials. Available in white or pastel shades, it has a long life, is inexpensive and can easily be applied on site by brush or spray—to new or previously painted surfaces.

★THE THERMAL INSULATION (INDUSTRIAL BUILDINGS) ACT, 1957
Local Authorities may prescribe that combustible factory linings must be treated to conform to Class 1 "Surface Spread of Flame" B.S. 476: 1953.

ALBI-"R" fully meets this requirement.

Albi-'R'

**FIRE RETARDANT
COATING**

*protects all types of fibre
insulation board and other
combustible materials*



ALBI-WILLESSEN LIMITED

6 DE VERE GARDENS, LONDON, W.8

Tel: WEstern 7472

ACOUSTIC
TILE

INSULATION
BOARD

HARDBOARD

TIMBER

PLYWOOD



QUALITY, STRENGTH, ECONOMY and SAFETY...

are the outstanding attributes of "Bondenn" Reinforcement which is suitable both for Light Pre-Cast Concrete Units and for Brickwork and is manufactured in all widths up to 72".

For its efficiency, "Bondenn" relies on straight longitudinal steel wires of 25/30 tons tensile secured with mild steel spacing wires—ready to withstand loads immediately. The quality of the brickwork is thus improved appreciably at comparatively low cost.

The inclusion of "Bondenn" increases the resistance to load by as much as 68%. This additional strength is invaluable when foundations stand on made-up ground or on subsoil of doubtful character. In industrial structures, particularly where heavy and intermittent loads are applied, "Bondenn" is a necessity.

Substantial economies follow automatically whenever "Bondenn" is employed. In many cases, 4½" brickwork reinforced with "Bondenn" can be used in place of ordinary unreinforced 9" walls. The resultant savings in bricks, cement and labour allow more competitive estimates.

By virtue of the extra strength it provides, "Bondenn" increases structural safety. In addition, its hot spelter galvanising after fabrication ensures resistance to moisture permanently.

Read more about 'BONDENN'

Send for comprehensive technical information and sample to

GALVO (WIRE NETTING) LTD.



CONEYGRE ROAD, TIPTON, STAFFS

Telephone: TIPTON 1191/2

Modernise with

HARD COKE

*for high-efficiency
automatic Central Heating
...with economy*

THERE is available a selection of automatic coke boilers, in a wide range of sizes, which can compete in efficiency with any other system and which operate unattended for long periods. One or more of these serving a well-designed heating system will heat offices, flats, hotels or factories cheaply, efficiently and with a minimum of attention. For domestic heating schemes, there are gravity-feed boilers of the highest thermal efficiencies with full automatic stoking and ash removal and with complete temperature control.

WHAT IS HARD COKE?

It is a smokeless fuel made in coke ovens from specially selected coal which is washed and crushed before carbonisation. Users prefer it because it is uniformly sized, consistent in quality and their appliances operate with greater efficiency.

If you would like advice or further information on the use of Hard Coke, the British Coking Industry Association will be pleased to help you.

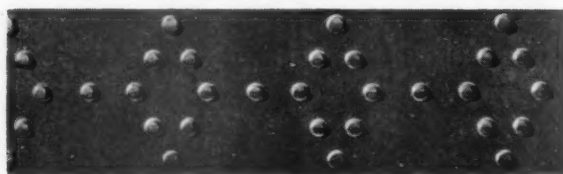
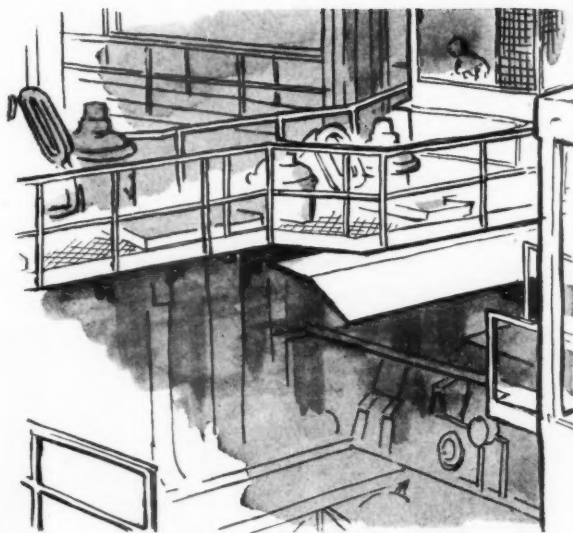
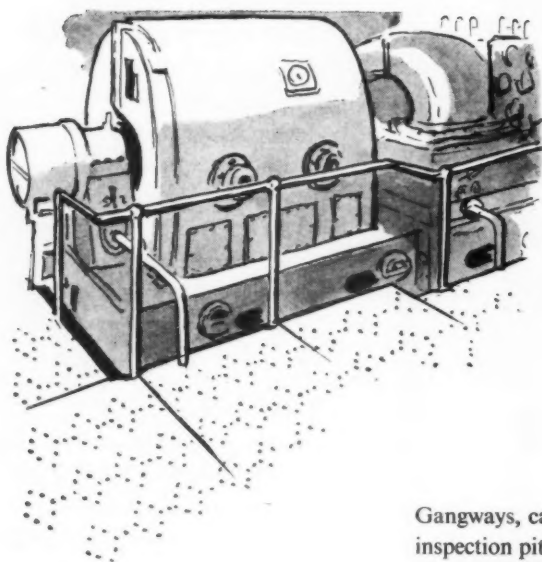
HC3

THE CLEAN AIR ACT

In 1958, the general industrial provisions of the Clean Air Act came into force. Have you a furnace or boiler which is difficult to operate smokelessly? A change to hard coke may very well be a simple solution to your problem. With attention to firing details such a change will give you added economy.

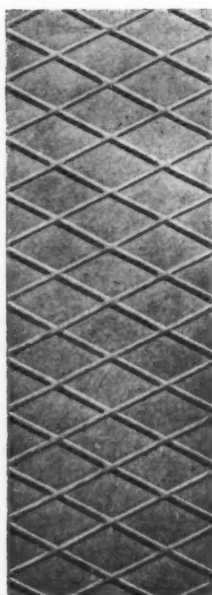
**THE BRITISH COKING
INDUSTRY ASSOCIATION,**
74 Grosvenor Street, London, W.1.
Phone: MAYfair 9736

put it there



Gangways, catwalks, inspection pit covers, machine and turbine surrounds are just a few examples of the thousand and one industrial uses for Birmetals aluminium alloy treadplate. Non-magnetic, non-skid and non-sparking, this intrinsically safe material also combines structural strength with very light weight. And its natural resistance to corrosion means that you can rely on it having a long life.

Would you like further details?



BM235

Birmetals

Corrosion-resisting aluminium alloys

BIRMETALS LIMITED

WOODGATE WORKS · BIRMINGHAM 32



Your new shield against FIRE

The new P.D. Flame-retardant Board has been particularly designed to meet the requirements of the "Thermal Insulation (Industrial Buildings) Act, 1957". With its new "TREEROCK" flame-retardant decorative coating, it is your safeguard against the spreading of flames combined with the insulating characteristics of P.D. INSULATING BOARD. It conserves interior heat and gives added protection against external cold. Ideal for the economic lining of roofs, ceilings, walls and partitioning of all types of building, it is available in white and a range of pastel shades to match requirements.

Rates, Class I—Surface Spread of Flame Test—B.S. 476/53.



MARKETED BY

LEARY'S FIREBOARDS LTD.,
KING WILLIAM STREET,
ARTHUR STREET, LONDON E.C.4.
Telephone: Mincing Lane 2424 (25 lines)

THOMAS & PRICE (TIMBER) LTD.,
LEWIS ROAD, EAST MOORS, CARDIFF.
(Telephone: Cardiff 31506)

SIZES AND THICKNESSES			
	THICKNESS	WIDTH	LENGTHS
Standard	$\frac{1}{2}$ in.	2ft. and 4ft.	4ft., 6ft. and 8ft.
	$\frac{3}{4}$ in.	4ft.	6ft. and 8ft.
	1 in.	4ft.	8ft.
Bevelled Panels	$\frac{1}{2}$ in. and $\frac{3}{4}$ in.	4ft.	4ft.
		4ft.	2ft.
		2ft.	2ft.
Other sizes supplied on request, Kraft paper wrapped in bundles			



Brush off the fear of FIRE!

With OXYLENE BORAM Fire Retardant Coating which raises inflammable surfaces to Class 1 "surface spread of flame" (B.S. 476-1953).

OXYLENE BORAM can be over-painted or applied to painted surfaces without loss of fire retarding qualities. It gives real fire protection and is approved by Local and Fire Authorities.

"Used in every Industry"

Write for particulars.

OXYLENE BORAM

Use
TRANSPARENT
for Veneers
and
Fabric RINSE
for Textiles

FIRE RETARDANT COATING

THE TIMBER FIREPROOFING CO. LTD.,

13a Old Burlington Street, LONDON, W.1.

Tels: Regent 2489 (2 lines)

Works at:— Market Bosworth, Nuneaton
Queen Elizabeth Avenue, Hillington, Glasgow, S.W.2.

DHB2376 B



When it's a Question of HARDWOODS call in GLIKSTEN

The foremost name in Timber

J. GLIKSTEN & SON LTD.

Carpenters Road, London, E.15.

Telephone: AMHerst 3300.

87, Lord Street, Liverpool, 2.

Telephone: Central 7576.

Victoria Dock, Citadel Street, Hull.

Telephone: Hull 31144.



AFRORMOSIA

GUAREA

IDIGBO

IROKO

MAKORE

MAHOGANY

British Honduras & African

MANSONIA

OAK

SAPELE

TEAK

UTILE

WALNUT

African

WALNUT

American Black

Can be kiln-dried to any desired moisture-content.

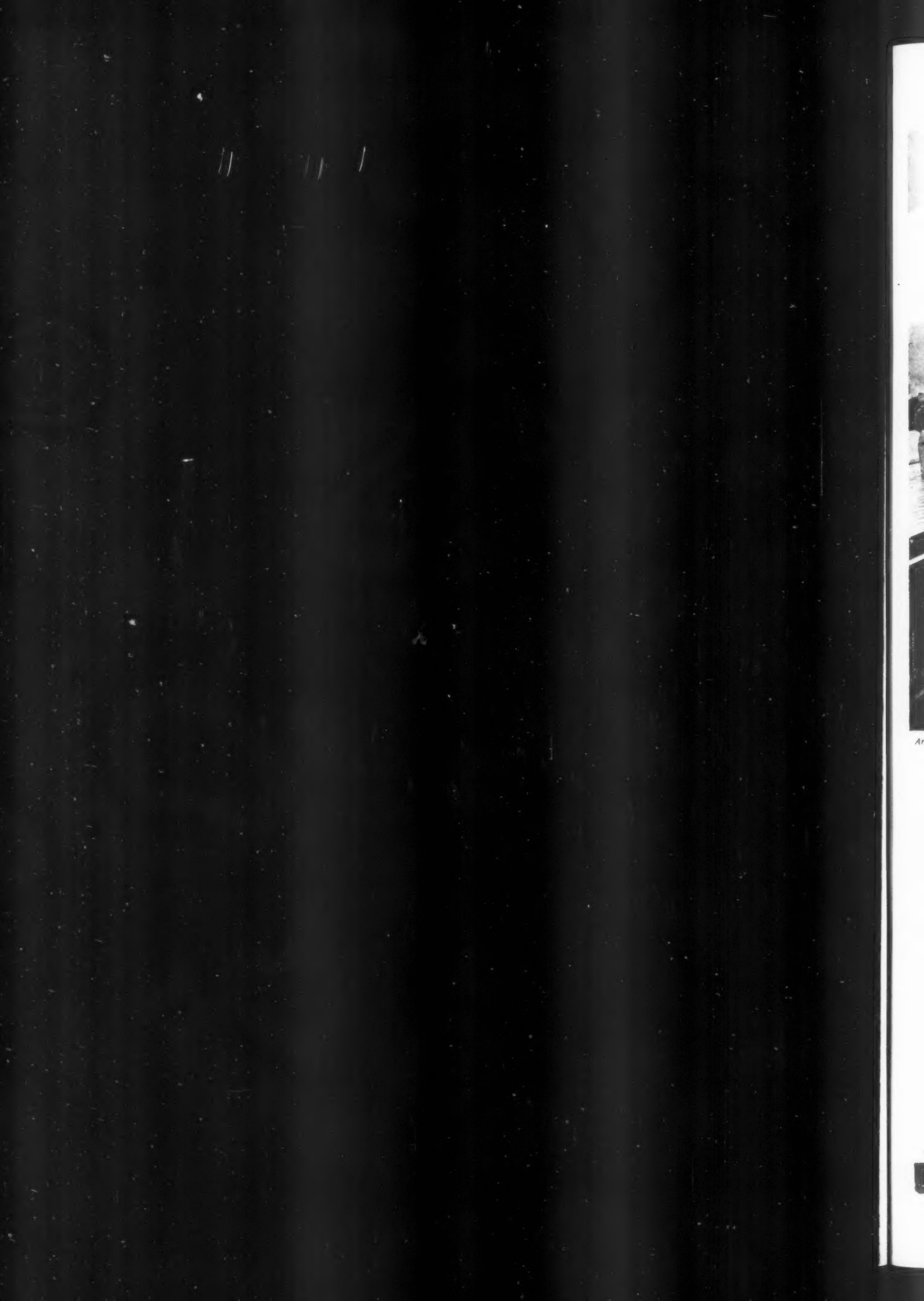


Gliksten

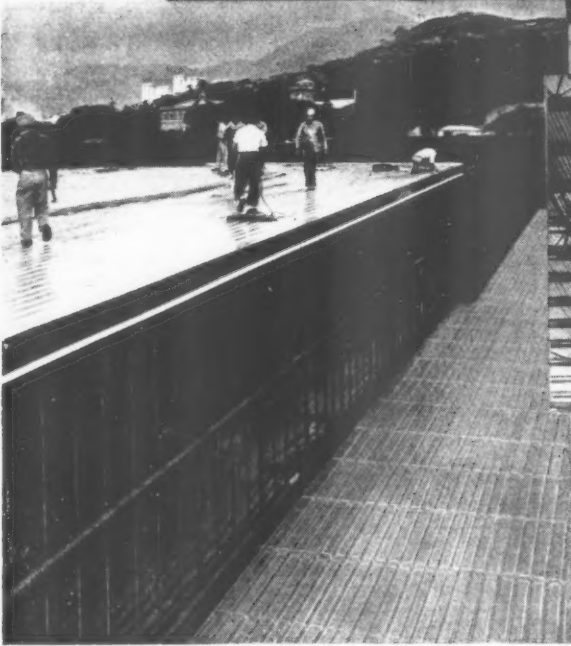
The foremost name in Timber

When it's a Question of HARDWOODS call in GLIKSTEN

When it's a Question of **HARDWOODS** call in **GLIKSTEN**



2 Million square feet of Bitumetal in Italy



Architects: Company Engineers

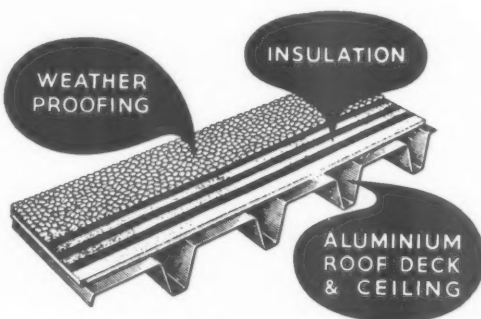


This huge Steel Rolling Mill project for Messrs. Cornigliano S.P.A. in Genoa, Italy, was roofed with "BITUMETAL"—Briggs modern development in aluminium roofs.

"BITUMETAL" was chosen for this important contract because it is light in weight, easily erected and virtually requires no maintenance.

In addition "BITUMETAL" provides high thermal insulation, a clean attractive ceiling, and, of course, is completely weatherproof.

Many architects and engineers are realising the immense advantages of "BITUMETAL" for a wide variety of buildings, large and small.



"BITUMETAL" units span from 2 ft. to 10 ft. Weight of finished roof from 4-lbs. per square foot according to weatherproof specification.

If you wish the latest information about "BITUMETAL" write or phone our nearest Area Manager.

BRIGGS

ROOFING SPECIALISTS

WILLIAM BRIGGS & SONS LTD.

Regd. Office: DUNDEE LONDON: Vauxhall Grove, S.W.8

Branch Offices at: Aberdeen · Belfast · Bradford · Bristol
Cardiff · Dublin · Edinburgh · Glasgow · Leicester · Liverpool
Newcastle and Norwich

Export enquiries to: Overseas Division, Vauxhall Grove, London, SW8



“BRYMILL”

PLASTIC COATED STEEL STRIP

A TEXTURE
OR COLOUR
TO SUIT
ANY PRODUCT

Both art and industry benefit enormously by this new Brymill material—all the strength and endurance of steel plus all the beauty of colour and design.

It's the decorative material of the future—
Brymill Plastic Coated Steel Strip

BRYMILL HAVE ADDED BEAUTY TO STRENGTH



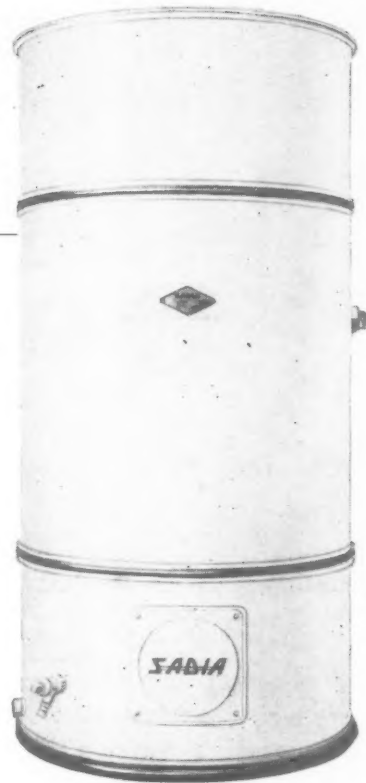
Brymill

BRITISH ROLLING MILLS LTD · BRYMILL STEEL WORKS · TIPTON · STAFFS



SADIA gives you more time to play with

From whatever angle you look at it, hot water by Sadia is the simplest, most economical system. To the architect, it means far easier planning and installation. No provision has to be made for flues, or boilers, or fuel stores. Pipe work is reduced to a minimum. And there's a standard Sadia model to suit almost every hot water need — from the smallest 2·2-gallon sink units to giant 120-gallon industrial models. To the client hot water by Sadia means no dirt, no work, no maintenance, greater reliability and greater economy. Sadia water heaters are completely automatic and built to the most exacting specifications — many installed over 25 years ago still give perfect service.



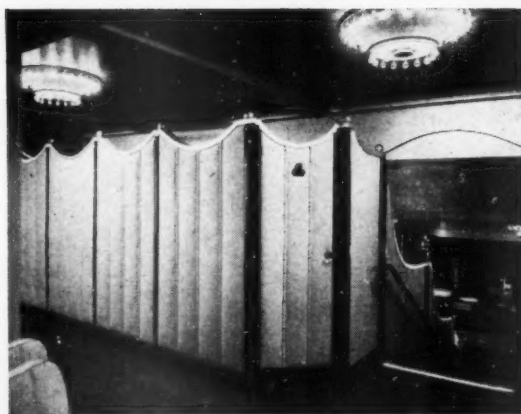
SADIA

HOT WATER BY ELECTRICITY

AIDAS ELECTRIC LTD. SADIA WORKS, ROWDELL ROAD, NORTHOLT, MIDDLESEX

SPECIALISTS IN HOT WATER BY ELECTRICITY SINCE 1923

When they transformed
the London Hippodrome
they used **'VYNIDE'**



'Vynide' panelling on the exterior of one of the boxes at the completely transformed London Hippodrome.



All the chairs you can see in this illustration are covered the modern way with 'Vynide'.

THE LONDON HIPPODROME has been completely transformed. From being a traditional theatre it has become, with "Talk of the Town", one of the world's most spectacular nightspots. All furnishings in the Hippodrome were chosen with greatest care so that the overall impression would be one of gaiety and luxury.

No wonder 'Vynide' was so widely used. All chairs are covered with this wonderful I.C.I. fabric. The boxes, too, are panelled with 'Vynide'.

'Vynide' was chosen because not only is it an extremely handsome material, but it wears exceptionally well. It won't easily scratch, tear or stain. It is remarkably easy to clean—which saves a great deal of time, an important economical factor. 'Vynide' is most comfortable and there is an exciting range of patterns and colours to choose from.

Get in touch with your nearest I.C.I. Sales Office for further information and patterns.

'Vynide' is a registered trade mark.

IMPERIAL CHEMICAL INDUSTRIES LIMITED · LONDON · S.W.1

V.201



news from

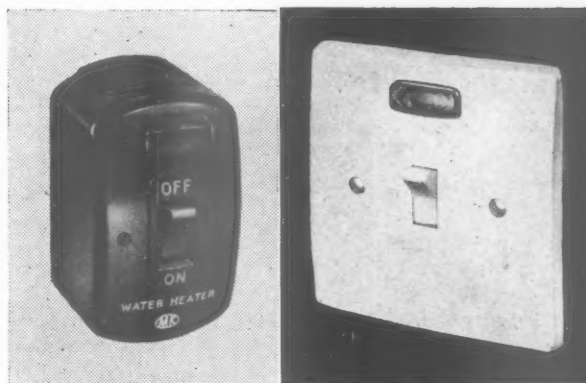


may 1959

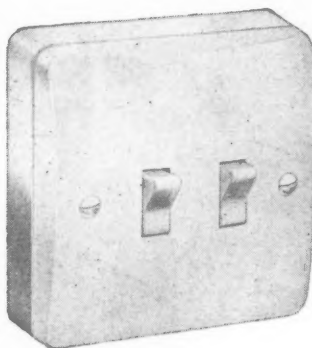
MK165A DHB

A matching range of switches for Water Heater installations

Most new houses make use of electricity for water heating, and the usual form of control is a 20 ampere switch. This range has been styled to match MK lighting switches. Designed for surface or flush mounting, alternative patterns in standard dimensions are available with pilot lamp indication. The various switches are described and illustrated in colour in a new MK publication just out. Please ask for leaflet 249.



Modern styling for surface mounting switches



When converting existing installations it is not always possible to use flush switches: hence this new moulded conversion box, designed to be both neat and unobtrusive. The box (List No. 2010) will accept one and two gang plaster-depth flush Plateswitches for surface mounting. It eliminates wooden mounting blocks and enables modern switches to be used on existing installations.

A word (of advice) to the wise Our advice is always freely available to architects on matters connected with electrical wiring accessories. May we arrange to include you on our mailing list for regular information on our products?

A matching intermediate plateswitch

MK have designed and produced this new plaster-depth intermediate Plateswitch to meet the need for the control of a lighting point from several positions. This is an extension to the Plateswitch range of a feature already incorporated in the MK Gridswitch range.

Matching the MK range of modern flush switches for domestic installations, the new switch can also be mounted in the conversion box described above.



M. K. ELECTRIC LIMITED, EDMONTON, LONDON. EDMONTON 5151

MONSANTO HOUSE
VICTORIA STREET
Architects:
Sir John Burnet,
Tait & Partners



BOWATER HOUSE
KNIGHTSBRIDGE
Architects:
Guy Morgan & Partners



LYNTON HOUSE
TAVISTOCK SQUARE
Architect:
Raymond C. Arnold



J. ARTHUR RANK ORGANISATION
BELGRAVE ROAD · SW1
Architects:
T. P. Bennett & Son

ROYAL COLLEGE OF SURGEONS
LINCOLN'S INN FIELDS
Architects:
Young & Hall



1 ST. JAMES'S SQUARE
Architects:
Mewes & Davies

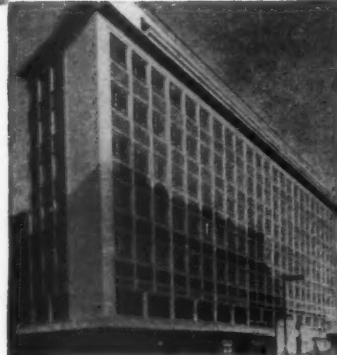


BISHOP HOUSE
HIGH HOLBORN
Architects:
Trehearne & Norman,
Preston & Partners

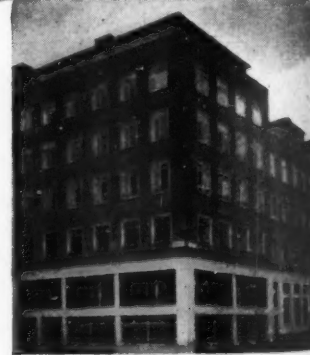


VOGUE HOUSE
HANOVER SQUARE
Architects:
Yates, Cook & Darbyshire

WINGATE HOUSE
SHAFTESBURY AVENUE
Architects:
Sir John Burnet,
Tait & Partners



55-56 ST. JAMES'S STREET
Architects:
Lewis Solomon, Son & Joseph



VICTORY
EX-SERVICEMEN'S CLUB
SEYMOUR STREET
Architect:
Alister Macdonald



THE ARCHITECTS' JOURNAL
(Supplement) May 28, 1959

PENBERTHYS LTD
OXFORD STREET
Architects:
G. Edmund Wilford & Son



ISATION



THE BIBLE COLLEGE
MARYLEBONE ROAD
Architects:
Clifford Culpin & Partner



A. DUNHILL LTD
JERMYN STREET
Architects:
T. P. Bennett & Son

129 KINGSWAY
Architects:
Fitzroy Robinson & Partners



QUAGLINO'S
JERMYN STREET
Architects:
T. P. Bennett & Son



**London
beyond the City
builds with . . .**

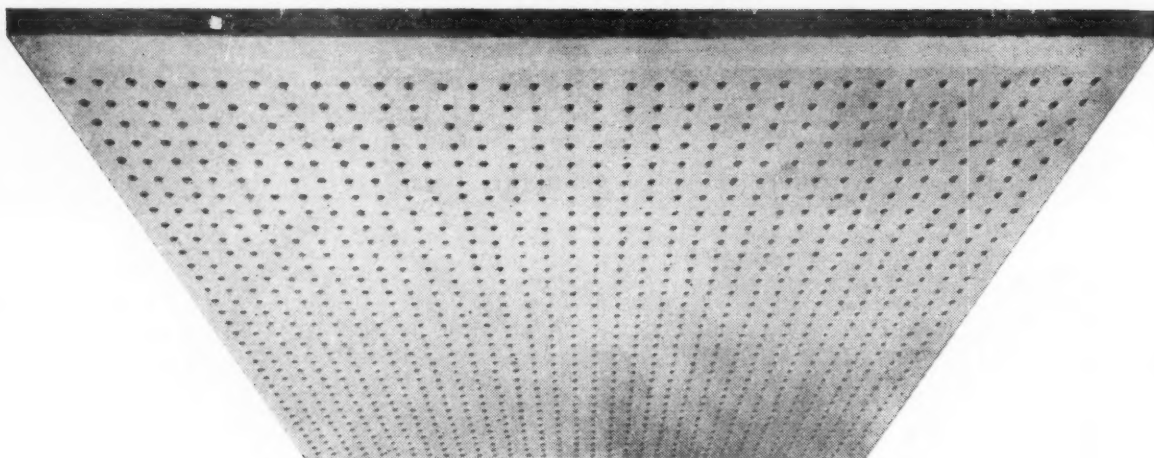


12-18 ALBERT EMBANKMENT
Architect:
Leslie C. Norton

CRITTALL WINDOWS



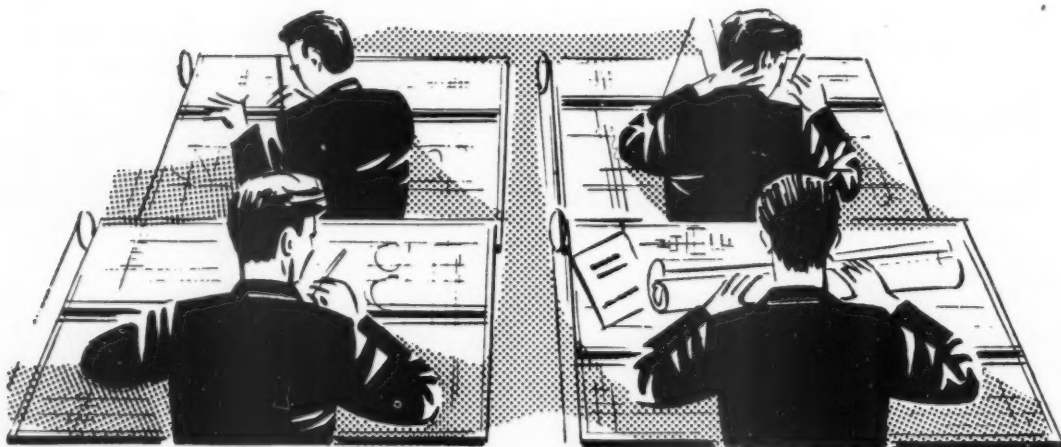
THE CRITTALL MANUFACTURING CO LTD • BRAINTREE • ESSEX • BRANCHES & DEPOTS THROUGHOUT THE COUNTRY



PAXTILES above

Newalls (reg'd brand) PAXTILES are the most effective method of suppressing unwanted sound; they are also a decorative treatment in themselves, capable of being painted without impairing their acoustic qualities. Composed of asbestos they are absolutely FIRE-, rot- and vermin-proof, and they resist condensation. Additionally, they provide an appreciable degree of heat insulation. It is not surprising therefore, that all these practical attributes recommend PAXTILES to the attention of modern architects as the most suitable sound insulation medium available.

mean PRODUCTION below



Newalls

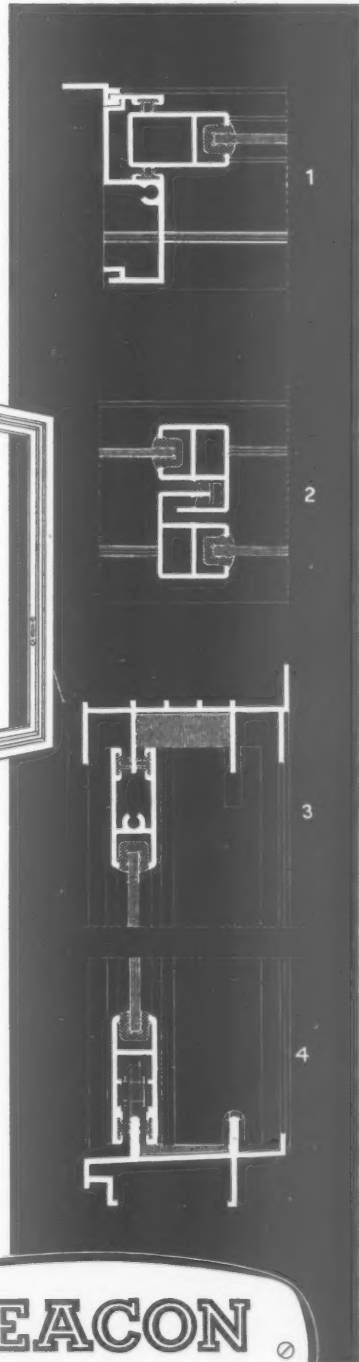
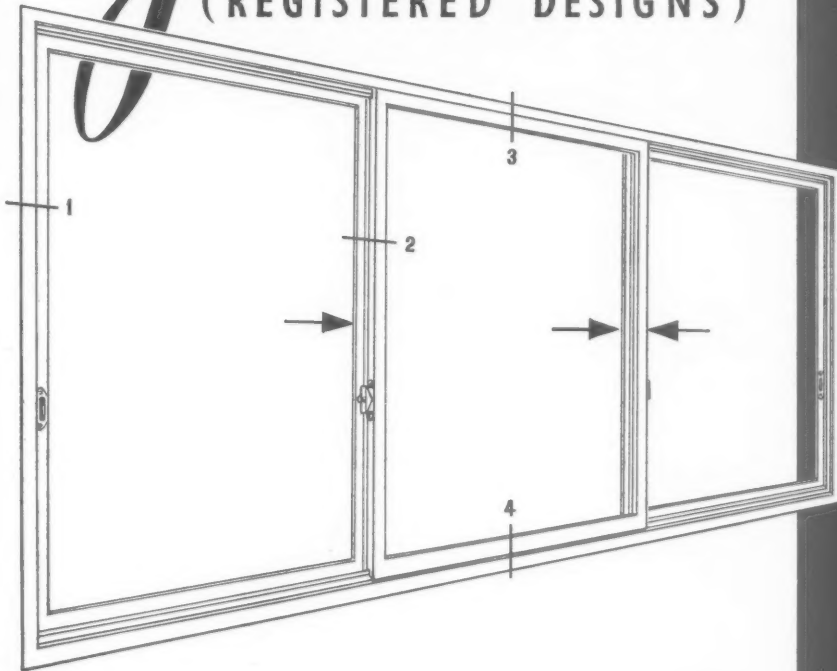
PAXTILES

NEWALLS INSULATION CO. LTD. WASHINGTON, CO. DURHAM

A member of the TURNER & NEWALL ORGANISATION Offices and Depots at
LONDON, GLASGOW, MANCHESTER, NEWCASTLE UPON TYNE, BIRMINGHAM, BELFAST, BRISTOL & CARDIFF
Agents and Vendors in most markets abroad.

glide

(REGISTERED DESIGNS)



COMPLETE WEATHER PROTECTION

Glide windows are completely weather-tight and cannot rattle because of *Double* weather-stripping of top and bottom rails, at the jambs and interlocking stiles.

SAFE, EASY WINDOW CLEANING

Sashes bypass one another for easy cleaning.

SMOOTH, QUIET OPERATION

Glide windows slide smoothly on nylon rollers with stainless steel axles.

AUTOMATIC LATCH RELEASE

Latch is released as handle is pulled for opening.

FULLY ADAPTABLE

Affording greatest architectural freedom, Glide units may be used to form continuous fenestration.

ECONOMICAL IN FIRST COST & MAINTENANCE, GLIDE WINDOWS ARE FOREMOST IN CONTEMPORARY WINDOW DESIGN.

Our Technical Department is always ready to advise.

Member of the  Metal Window Association



JOHN THOMPSON BEACON WINDOWS LTD • WOLVERHAMPTON



What is a piece of wire worth?

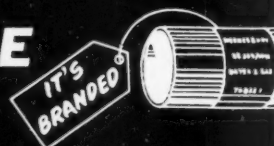
A copper or two? Yet how much we rely on wire when through it flows a stream of electrical power. In that respect, it's very like Wednesbury Copper Tubes. Here again is a product so infallible that we can install it, and forget about it. It will go on carrying vital water supplies year in, year out, without even the occasional reminder of its presence that a piece of fuse wire gives when a fuse is blown. Thank goodness for the quality of Wednesbury Tube.

choose WEDNESBURY TUBE

Obtainable from your local stockist or builders' merchant

THE WEDNESBURY TUBE CO. LTD., BILSTON, STAFFS.

Associated Company, Glynn Bros. Ltd, London and Manchester





Complies fully with the requirements of the Thermal Insulation (Industrial Buildings) ACT, 1957.

A SURE FIRE PROTECTION

- "PYRESTOS"** is Standard Insulation Board Pressure Impregnated to render it non-inflammable.
- "PYRESTOS"** can be cut or machined in any way without impairing the fire resistant properties.
- "PYRESTOS"** provides thermal and sound insulation coupled with an assurance against fire.

More than a million square feet of "PYRESTOS" has been produced on a pilot plant since 1957 and has gone into usage. We are pleased to announce that the first plant for mass production to be installed anywhere in the world, is nearly complete at West Drayton, and the increased quantities from this plant will be available shortly.

A
board
for
every
purpose



CREFFIELD & CO. LTD

B.S.476/53 Surface
spread of flame test

Pyrestos was awarded
Class I, and was certified
"No spread of flame"

C.V. CREFFIELD & CO. LTD., Leyborne Wharf, Horton Bridge Rd., West Drayton, Middx.

Phone: West Drayton (W.E.3) 4021

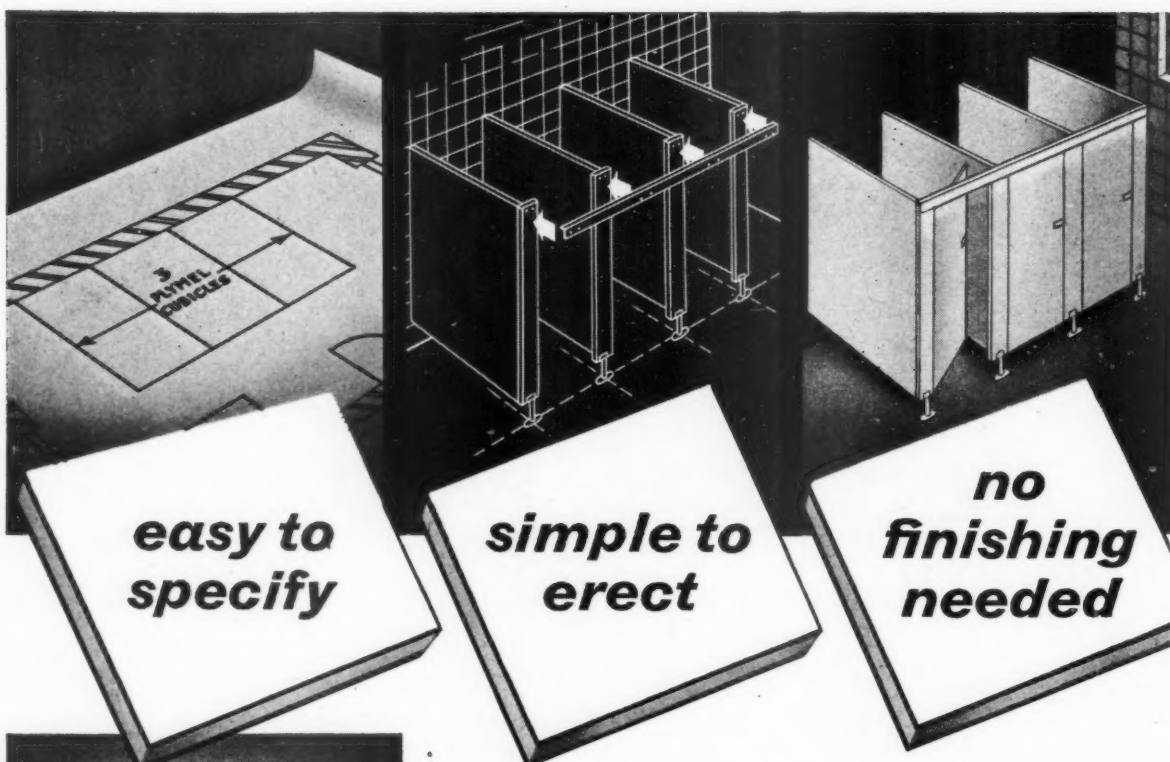
Unit compartments in Melamine-faced



Plymel



save work at every stage



W.C. Compartments and shower cubicles in Plymel, the new melamine-faced material by Venesta Limited, are prefabricated in standard units to *save* hours of your time.

On the drawing board, you simply specify 'Plymel cubicles' and there's no need for further detail. On site, these rigid, lightweight, prefabricated units are easy to handle—they arrive dismantled ready to erect and they *need no painting*. Once erected, they are resistant to moisture and corrosion—easy to keep clean with the minimum of effort.

For samples, and full details of

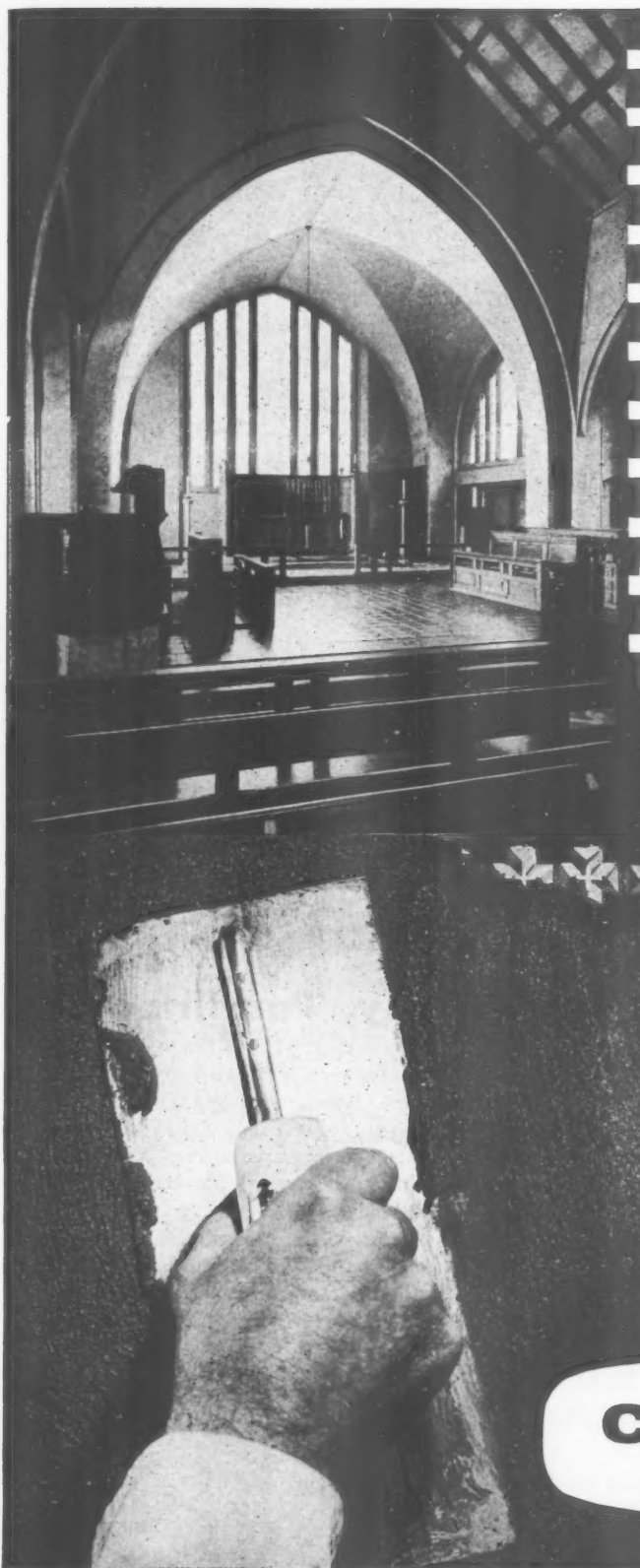
Cubicles, W.C. and Shower Compartments
in PLYMEL, write for leaflet (L11)

VENESTA LIMITED

Plywood Division

Vintry House, Queen Street Place, London E.C.4 CENTRAL 3040

T.A.2043



THIS delightful groined ceiling of All Saints Church, Marlpool, was applied by the CLAY LATH method. CLAY LATH is extremely flexible, it can be twisted or formed to almost any shape.

The Key is so strong and the immediate adherence of the plaster eliminates practically all the "dropping" normally associated with other lastings. CLAY LATH gives the metal strong protection against rust and is extremely economical in the use of plaster.

Vibration or setting will not crack a CLAY LATH Ceiling.

Also for Walls, Partitions, forming work, screens, Beam & Column Ceilings, floors and for the boxing of beams against fire risk.

Architect : Mr. Peter Woore, A.R.I.B.A.

WRITE NOW FOR TECHNICAL DATA to the nearest of any of the suppliers listed below.

*...it's the **KEY**
that grips the
PLASTER*

CLAY LATH

B.S.S. 2705

Sole United Kingdom Distributors :

**SCAFFOLDING
(GREAT BRITAIN) LIMITED**
Willow Lane, Mitcham
Surrey

**WILLIAM PROCTOR & SONS
LIMITED**
54 Denby Street
Sheffield 2

**A. GUILLOTI & COMPANY
LIMITED**
Milton Street, Plymouth
Grove, Manchester 13

ROWEBB LIMITED
113 Douglas Street,
Glasgow, C.2

J. M. & J. BARTLETT LTD.
Lombard House
Warwick Street
Newcastle upon Tyne 2



"The hares didn't go that way, Tomlinson"

"Sorry, sir, I was just seeing how Boots new road is coming on."

"Boots new road?"

"Yes, sir, Boots are constructing it. You remember Boots, sir — they're the people who built the new school library last year. And jolly quick they were about it, too. Actually, sir, you come across them all over the place these days, sir — building new factories and

bridges and reservoirs and housing estates and hospitals, and laying railway sidings. Just about everything you can think of, sir. I expect they get so much to do because they're such jolly quick workers. Don't you, sir?"

"If you'd use a little less breath for talking and a little more for running, Tomlinson, we might possibly get back to school before the rest of the hounds finish up the crumpets"

Henry Boot

HB

HOUSING ESTATES • RAILWAYS • WATER DISTRIBUTION SCHEMES
ROADS • SOIL STABILISATION • BUILDING PROJECTS OF EVERY DESCRIPTION

HENRY BOOT & SONS LTD., BANNER CROSS HALL, SHEFFIELD 11. TELEPHONE: 54551
LONDON: 10 The Boltons, London, S.W.10. BIRMINGHAM: Pheasey Estate, Great Barr, Birmingham 22A
GLASGOW: Baillieston, Lanarks. MANCHESTER: Atlantic Street, Broadheath, Altrincham
LIVERPOOL: Heysham Road, Duncannon Bridge, Aintree, Liverpool, 10



OA/4684

ANKARBOARD

ACOUSTIC

board and tiles for

SOUND construction



By courtesy of B.O.A.C.

ANKARBOARD has been chosen by many important companies because it provides the *correct* amount of sound absorption—so necessary in present day functional building. The pleasing effect of tiles or perforated boards offers limitless opportunity—in office, home, shop or factory—to interior decorators. ANKARBOARD can be supplied treated to Class 1 for spread of flame B.S.S. 476/53.

Acoustic Boards $\frac{1}{2}$ " or $\frac{3}{4}$ " thick, are available in 12" or 16" widths and in lengths up to approx. 18'. Grooved and ship-lapped for easy fixing. (Also available unperforated as insulation "longboards").

Acoustic Tiles $\frac{1}{2}$ " or $\frac{3}{4}$ " thick in sizes 12" x 12", 16" x 16", 24" x 24", 12" x 24", 16" x 32" and 32" x 32". Tiles are bevelled on all four edges.

Perforations for Boards and Tiles 4 m.m. holes at 15 m.m. centres. Depth of holes is arranged for maximum acoustic effect while corner holes are bored to half thickness, thus ensuring good grip when tiles are screwed or nailed to fixing grounds.



BOARD & PLYWOOD
SUNDSVALL-SWEDEN

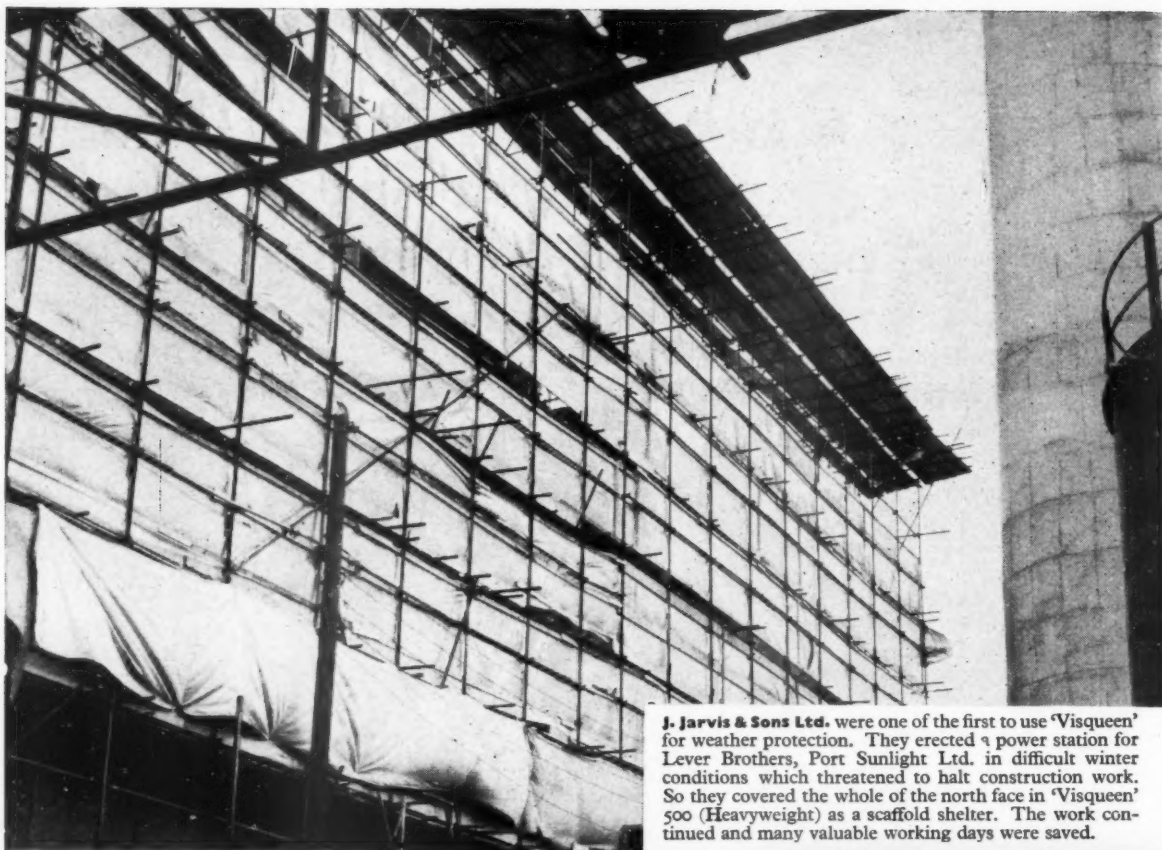
MANUFACTURED BY

SVENSKA CELLULOSA AKTIEBOLAGET

SUNDSVALL · SWEDEN

For further particulars apply to the Sole Selling Agents for U.K. and Eire:—

MARTIN OLSSON AND SONS LTD
MELBOURNE HOUSE · ALDWYCH · LONDON W.C.2



J. Jarvis & Sons Ltd. were one of the first to use 'Visqueen' for weather protection. They erected a power station for Lever Brothers, Port Sunlight Ltd. in difficult winter conditions which threatened to halt construction work. So they covered the whole of the north face in 'Visqueen' 500 (Heavyweight) as a scaffold shelter. The work continued and many valuable working days were saved.

For complete on-site weather protection go-ahead builders use **VISQUEEN** film

TRADE MARK

INSURE against delays caused by bad weather conditions by using 'Visqueen', the ideal cover for men, materials and equipment. 'Visqueen' is tough, waterproof, light and flexible. It will not rot and is unaffected by ice and snow.

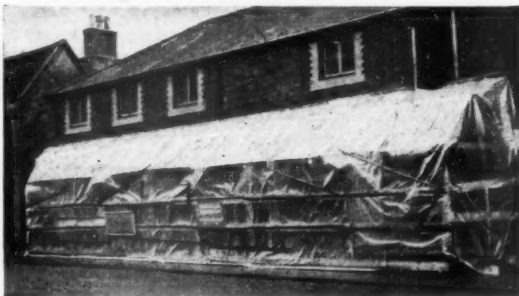
Get the benefit of full daylight with transparent 'Visqueen' and use the heavyweight black sheeting for site tarpaulins (special securing rings available).

For an illustrated brochure, samples, prices and the address of your nearest 'Visqueen' stockist, write to the address below:

BRITISH VISQUEEN LIMITED · STEVENAGE · HERTS · TEL: STEVENAGE 1310.



Gilbert-Ash Ltd. used 'Visqueen' during the construction of a new canteen at the English Electric factory in Stevenage. Temporary glazing enabled plastering, electrical fittings and wooden flooring to be completed on schedule unaffected by bad weather and without risk of damaging specially fabricated expensive plate glass.



Business as usual during the modernisation of a shop front. The 'Visqueen' lean-to shelter provided effective protection against rain and snow. Inside the transparent shelter alterations were carried out in good light. Normal trade was unaffected as the premises remained warm and draught-proof.

BV'26/1

WHEATLY triton QUARRIES

meet every purpose for which
quality quarries can be used

For Floors

in Industrial, Domestic, School and other buildings

For Non-Slip Floors

in Sugar Refineries, Breweries, Dairies and the like

For Acid and Alkali Resisting Floors

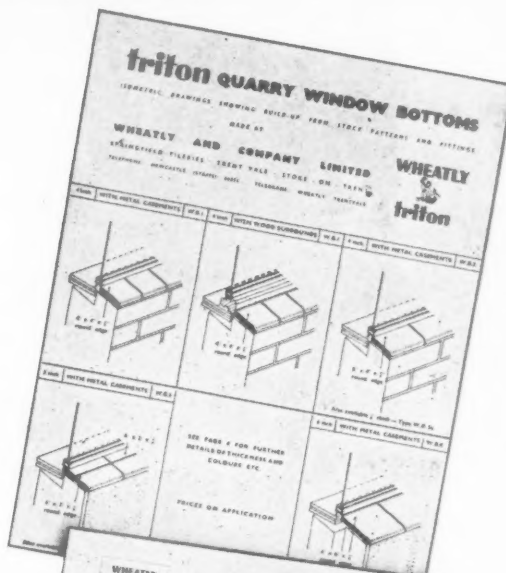
in Dairies and Industrial Buildings

For Window Bottoms Skirtings, Cappings

and other specialised uses in housing and commercial and industrial buildings

The following publications are available on request:

- Floor Quarries - Stock Patterns and Fittings. Leaflet No. 58
Fully illustrated account of manufacture.
Booklet No. 53
Reports on Independent Tests.
- Acid Resisting Floors - Leaflet No. 49
- Window Bottoms - Leaflet No. 51





'Simplex munditiis', an axiom of Horace, is exemplified today by the portal frame, which provides an unobstructed floor space so essential in such buildings as schools. In the fabrication of portal frames for the Farnham Common County Primary School, Aerolite 300 synthetic resin glue was used throughout by F. & H. Sutcliffe Ltd., specialists in timber buildings. Aerolite glues, and the modern techniques made possible by their use, provide portal frames of immense strength, economical to construct, and light to transport and erect. The glue line, once the most vulnerable part of a structure, is now often more durable than the wood itself, for it is unaffected by changes of humidity and climatic conditions, and entirely resistant to bacterial attack.

May we send you full details of Aerolite synthetic resin glues for timber structures?

Architect: F. B. Pooley, F.R.I.B.A., A.M.T.P.I., A.M.I.Struct.E.,
Architect of the Buckinghamshire County Council.

Aerolite

glues for wood

Aerolite is a registered trade name

CIBA (A.R.L.) LIMITED Duxford, Cambridge. Tel: Sawston 2121

AP 479

the most economical way
to keep

FIRE

at bay

In 1957* alone, damage caused by fire in the U.K. exceeded the colossal sum of £25,000,000. In addition, immeasurable losses were sustained in the shape of decreased custom and goodwill, wasted labour, delays in fulfilling contracts and serious setbacks in planned development.

Can anything be done by architects and builders to prevent these recurring losses?

Right here in Britain, there are vast deposits of Gypsum—a mineral that cannot burn. Long recognised as being unique in its resistance to fire, Gypsum provides its own “sprinkler system”—it contains a 20% proportion of water of crystallisation. At temperatures above boiling point, this water vaporises. When no water remains, a process known as calcination occurs—beginning on the surface exposed to the fire and continuing gradually into the Gypsum. The crust of calcined Gypsum adheres tenaciously to the remaining material, effectively retarding further calcination. Thus, a most efficient barrier is raised against the passage of heat and the spread of fire. Modern building materials are now manufactured from incombustible Gypsum. Use them to avoid unnecessary fire risks.

* Latest published figures.
1958 shows the same pattern.

...learn more about them overleaf



early co-operation will ensure
good design



1. This photograph shows Paramount Plasterboard used for dry lining of external walls ready to receive the finished decoration. It also shows the use of Paramount Dry Partition consisting of 2 sheets of Paramount Plasterboard separated by a cellular core to which they are inseparably bonded. The use of Paramount Plasterboard for the ceiling will be noticed, and also of Paramount Cove, a section of which is lying in the bottom left-hand corner.

Paramount Plasterboard

PLAIN • INSULATING • WATER RESISTING • PLASTIC FACED



3. 97 children lost their lives in a Chicago school fire recently. To help to prevent such an occurrence in this Westminster Downe Secondary school, Paramount Dry Partition has been used.

Paramount Dry Partition

PLAIN • INSULATING • WATER RESISTING • PLASTIC FACED

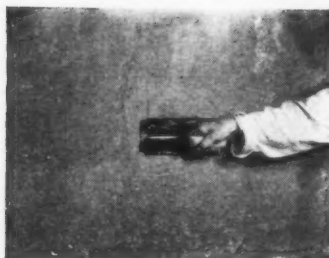


5. Paramount 2" Plasterboard for 2" solid partition 11' 3" high, erected at offices in Liverpool.

Paramount 2" Solid Partition



BRITISH PLASTER BOARD F



7. Spreading Thistle Gypsum Plaster on the walls of a fire-safe home.

Thistle Gypsum Plasters

BOARD FINISH PLASTER • BROWNING & WALL FINISH PLASTERS
CONCRETE BONDING PLASTERS • METAL LATHING PLASTER
ACOUSTIC PLASTER



9. The columns and beams in this large departmental store were NOT protected with Paramount Plasterboard.

Blue Hawk RSJ Clip

In both domestic and industrial buildings, the prevention of spread of fire is of vital importance. Adequate protection can save lives, provide firemen with extra time to fight the outbreak and can often make the difference between superficial damage and total loss. Because it has a core of Gypsum, the mineral that cannot burn, Paramount Plasterboard is the **SAFE** sheet lining for roofs, walls and ceilings. It is graded as a Class I material—one that constitutes no fire hazard. Unlike most other building boards, it requires no costly fire-retarding surface treatment or special impregnation of any kind. The various grades of Paramount Plasterboard provide the most economical form of fire-safe construction—all costing less than 6d. per sq. ft. As an additional bonus, they also offer the considerable advantages of thermal and sound insulation for the same initial outlay.



2. Paramount Insulating Plasterboard employed as a fire-safe roof lining in a new factory. They make matches in this one.

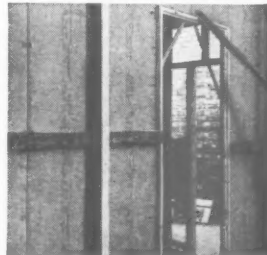
Considered to be one of the most valuable contributions to modern building practice, Paramount Dry Partition is also a highly effective barrier to flame spread, particularly when used to sub-divide large spaces in factories, workshops, offices, etc.

Consisting of two Paramount Plasterboards enclosing a tough, fibrous core, Paramount Dry Partition is a strong, rigid, ready-made wall—ideal for dividing interiors and cladding external walls. It is easy to cut, handle and erect and is most adaptable. Being a "dry" product, its use eliminates the delay normally caused by wet work.



4. Paramount Dry Partition acts as an effective fire barrier in Lloyds of London—the Insurance Centre of the World.

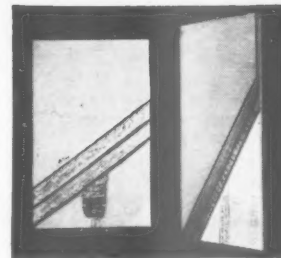
Another fire-resisting type of construction is formed from $\frac{3}{4}$ " Paramount Plasterboard coated on site with $\frac{3}{8}$ " thick Gypsum plaster on both sides. The finished partition is extremely strong, light, rigid and free from cracking and crazing. It is particularly useful for light partitions, shelving in laboratories or stores for inflammable goods, shop fitting and the construction of storage cupboards, etc. No comparable partition achieves such economy of space. It has a 1-hour fire resistance.



6. Paramount $\frac{3}{4}$ " Plasterboard for 2" solid partition, being erected as a fire stop in a large undivided factory.

RD FIRE-RESISTING MATERIALS

All the plasters in this range are manufactured from Gypsum—the mineral that cannot burn. Consequently, their use is indicated wherever fire-safe construction is essential. All conform to B.S.1191, are graded as Class B and are known as Retarded Hemi-hydrate Gypsum Plasters. They offer the maximum uniformity in setting time and workability and are non-shrinking and time-saving. The range meets all requirements.



8. 2 or 3 coats of Thistle Gypsum Plaster on Paramount or Thistle Gypsum Plasterboard give a high fire resistance—up to 2 hours and more.

As a result of past experience when factory roofs have collapsed with disastrous effects, it is now becoming standard practice to protect all structural steelwork against fire. This can be done most economically by cladding steel columns and beams with Paramount Plasterboard, fixed in position by means of a simple, ingenious device called the Blue Hawk RSJ Clip. Made from hardened and tempered spring steel and cadmium-plated to resist rust, the RSJ Clip replaces older methods of timber bracketing—thus saving time (as much as 90%), labour and materials.



10. Steel columns and beams protected with Paramount Plasterboard and fixed with Blue Hawk R.S.J. Clips in a garage at Coventry. Erected AFTER the Jaguar fire.



the range of

BRITISH PLASTER BOARD

gypsum/fire-resisting products includes



Thistle

- ☐ Plaster Baseboard
- ☐ Plaster Lath
- ☐ Board Finish Plaster
- ☐ Browning and Wall Finish Plasters
- ☐ Metal Lathing Plaster
- ☐ Acoustic Plaster
- ☐ Concrete Bonding Plaster
- ☐ Insulating Plaster Baseboard
- ☐ Insulating Plaster Lath

Paramount

- ☐ Plasterboard
- ☐ Insulating Plasterboard
- ☐ 3/4" Plasterboard for Two-inch Solid Partition
- ☐ Dry Partition
- ☐ Cove
- ☐ Water Resisting Plasterboard
- ☐ Plastic Faced Plasterboard

Paraclip

- ☐ System of Suspended Ceilings and Wall Linings

Blue Hawk

- ☐ Flooring
- ☐ RSJ Clip

For further information please
TICK the products in which you are interested.
PRINT your name and address below.
CUT OUT along dotted line.
SEND TO:

THE BRITISH PLASTER BOARD

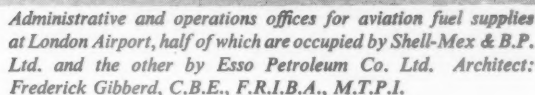
(Manufacturing) LTD

BATH HOUSE, 82 PICCADILLY LONDON, W.1. TELEPHONE GROSVENOR 8311

NAME & INITIALS
PROFESSION OR STATUS
COMPANY OR ORGANISATION
FULL POSTAL ADDRESS
(BLOCK CAPITALS PLEASE) A.1.7.

This advertisement is produced to B.S. 1311, 1956, governing Trade & Technical publications.

A.P. 160



One last point, TOMO double-glazed WINDOWS are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung. Any further information you may require will be gladly supplied.

TOMO TRADING CO. LTD., COWLEY PEACHEY, UXBRIDGE, MIDD.
Telephone: West Drayton 3751 (10 lines)

BUILDING RESEARCH STATION TESTS

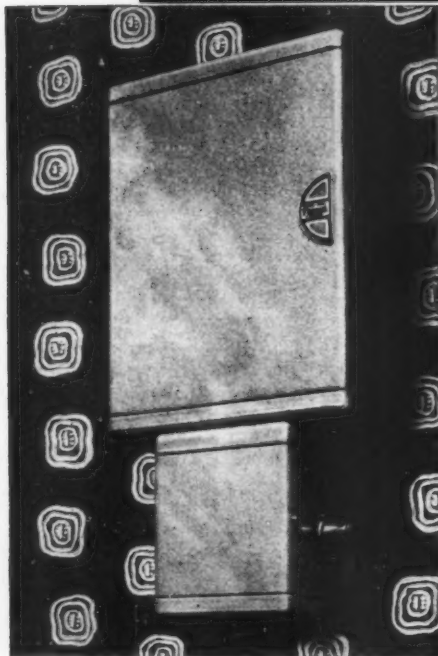
When a standard-production TOMO WINDOW Wall-Unit (8ft. by 8ft.) was tested at the Building Research Station, Garston, the mean thermal transmittance of the complete unit was found to be 0·31 B.Th.U./sq.ft./h./°F. This is equal to the thermal transmittance of a traditional 11in. cavity brick wall! This impressive result was further improved to 0·29 when the TOMO pleated blinds, fitted between the panes, were lowered.

The U-value of the window-area only was found to be 0·38 which, with TOMO pleated blinds down, became 0·35. At 0·38, TOMO double-glazed WINDOWS are substantially (29%) better than the U-value of 0·47 quoted for conventional double windows in the I.H.V.E. Guide to Current Practice, 1955.

**—purpose-made in finest timbers
to Architect's size, style and finish**



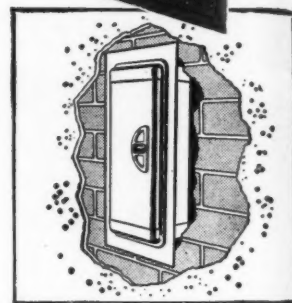
CABINET STYLE



DISTRIBUTION BOARDS

All boards are equipped with Aeroflex Energy Limiting High Breaking Capacity rewirable Cartridge fuse-links and where an isolating switch is required the units can be supplied in pairs as shown in the illustration (left). Cabinet Style Boards have exteriors which are designed to be harmonious in almost any surroundings.

The range of Cabinet Style distribution boards has been augmented by the production of recessed mounting alternatives, as here illustrated (right) which are suitable for mounting so that the main body of the board is sunk in a wall cavity of appropriate depth, and the plasterwork and wall finish made up to the surface plate provided.



Parmiter Hope & Sugden Ltd.

FLUVENT ELECTRICAL WORKS LONGSIGHT MANCHESTER 12
London: 34 Victoria St., S.W.1. Glasgow: 5 Somerset Place, C.3. Birmingham: 39/41 Carrs Lane, 4

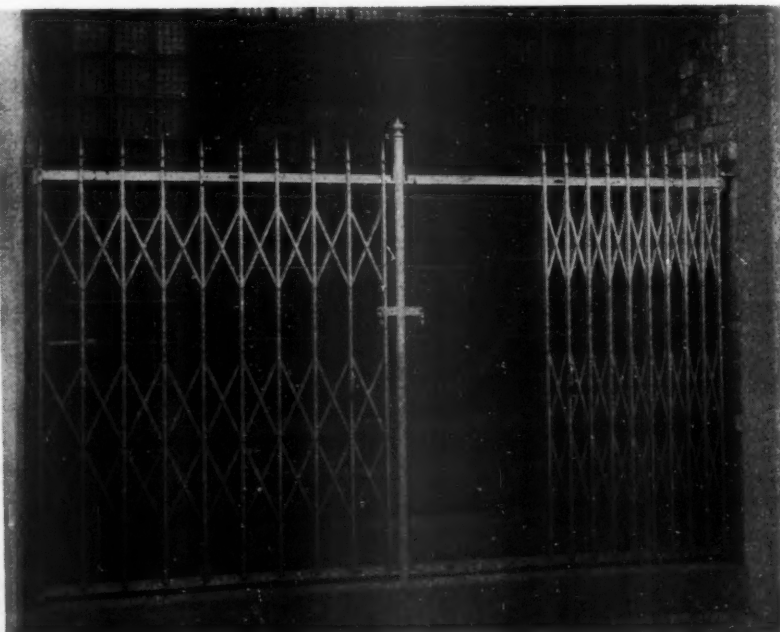
dmPH/48

*Protection
is
Assured*

Wherever the need is to close an opening against intruders of any kind, Collapsible Gates are an economic and dependable solution. Unobtrusive when open, they blend attractively with background when closed. Constructed of heavy gauge rolled steel pickets and lattice bars, they operate smoothly on ball bearing runners.

We offer full details of specification and quotations without obligation.

Send for illustrated literature to Dept. R.1.

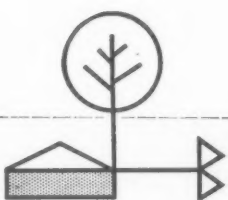


ROLLER SHUTTERS LTD

ANNE ROAD, HANDSWORTH, BIRMINGHAM 21. Telephone: SMethwick 2211 (6 lines)

FLAWLESS FLOORS

As Flooring Manufacturers and as Floorlaying Contractors of long experience, we can advise the best wood for the traffic and the situation. Our vans, with their crews of craftsmen, operate throughout South-East England, for the laying and maintenance of Beves Block or Strip Floors in every type of building—from private house to public institution. Where floor tiles of Cork, Vinyl, Rubber or Lino are required, we can supply and lay them too. We welcome enquiries and will, on request, send an expert to inspect and quote.



BEVES & CO. (FLOORS) LTD.



Members of the BEVES GROUP of companies

BEVES & COMPANY (JOINERY) LTD · BEVES & COMPANY (LONDON) LTD
BEVES & COMPANY (FLOORS) LTD · BEVES & COMPANY (STRUCTURES) LTD
BEVES & COMPANY LTD., TIMBER IMPORTERS

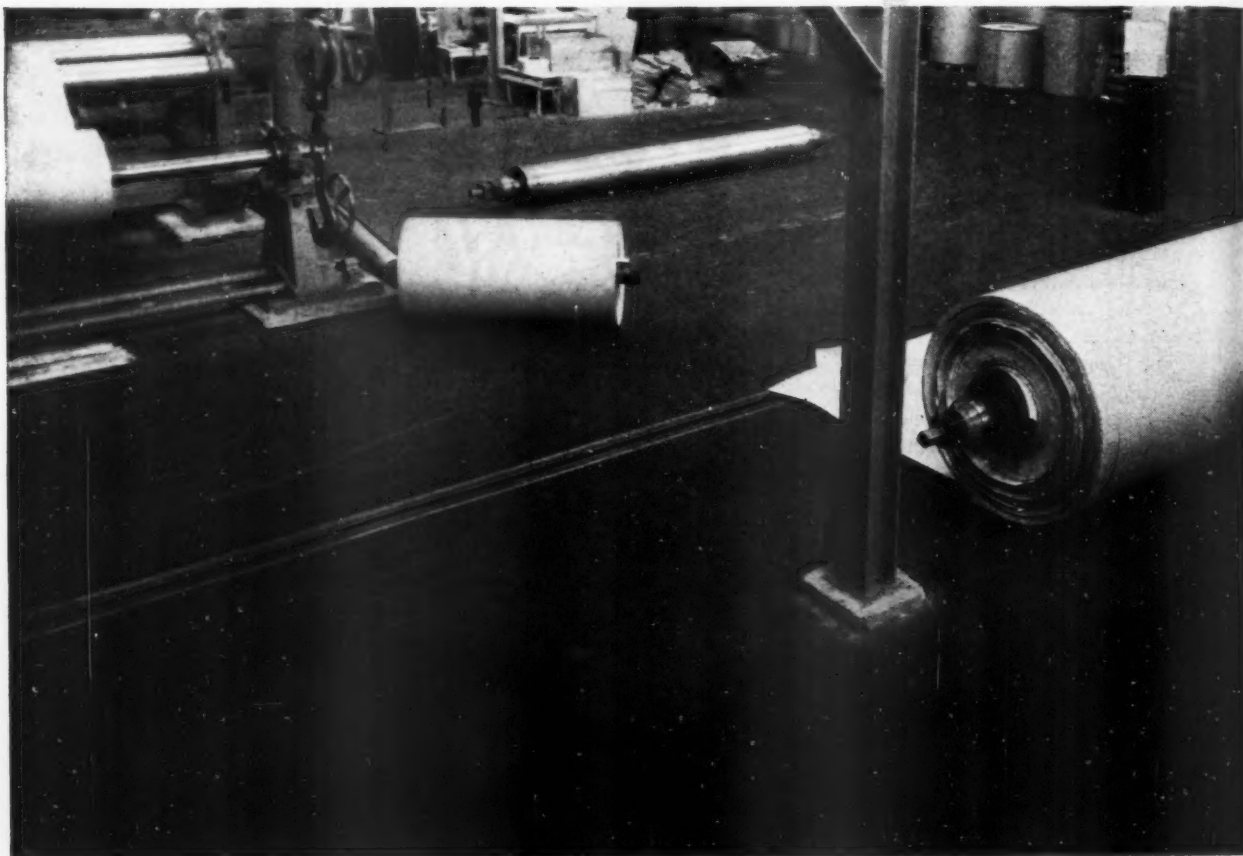
Head Office: Kingston Wharf, Shoreham-by-Sea,
Sussex. Telephone: Southwick 2285

London Office: 110, Cannon St., London, E.C.4.
Telephone: Mincing Lane 9161

A Flintkote Floor

REGD.

Flintkote flooring in paper mill
in Sweden. (Photo. by courtesy of
Fiskeby Fabriks A.B.)



Flintkote industrial flooring is:

Simple to apply · Cold laid · Tough and durable · Dustless

Non-slip · Self-healing · Shock-absorbent · Resilient · Fire resistant

Economical · Sound-deadening · Damp-proof · Hygienic and odourless

Available throughout the world

Backed by world-wide technical advisory service

Details on application to:

**THE FLINTKOTE
COMPANY LIMITED**

Adam House
One Fitzroy Square
London, W.1

Telephone: EUSon 7224

Telegrams: Flintkote, Wesdo, London

Cables: Flintkote, London

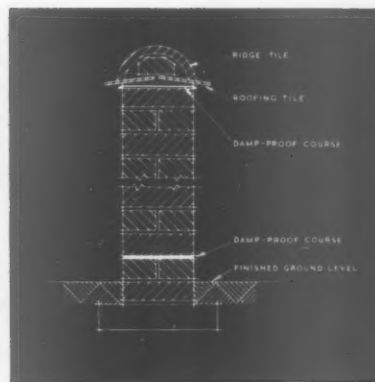
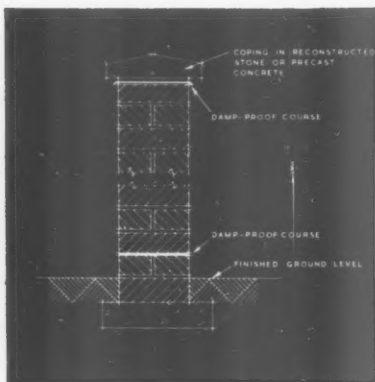
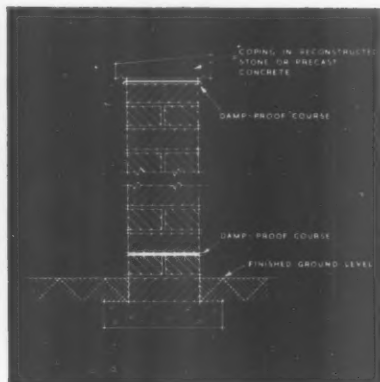


FREE-STANDING WALLS AND WEATHERING



The top of a free-standing wall, such as a garden wall, is exposed to very severe weathering conditions. 'Phorpres' Fletton bricks are not suitable for this position. If, however, a properly designed and well-constructed coping is provided, 'Phorpres' Flettons can be used in the body of the wall satisfactorily and economically.

THREE ALTERNATIVE DESIGNS



...AND SIX IMPORTANT DETAILS

- The coping units should have a high frost resistance. Dense concrete or reconstructed stone are suitable.
- The coping units should be properly 'weathered' and should be provided with drip channels on both sides of the wall to shed the water clear of the wall faces.
- The drip channels must have sharp edges and be free from mortar or other obstructions. This is most important at joints between the coping units.
- However impervious the coping units may be, the

joints between them will not be impervious to the passage of moisture. Hence a damp-proof course should be provided immediately below the coping units.

- To reduce efflorescence to a minimum a damp-proof course should be provided immediately above ground level.
- A mortar mix of 1 part Portland Cement to 1 part Hydrated lime to 6 parts of sand (all by volume) should be used.



LONDON BRICK COMPANY LIMITED in the service of the building industry

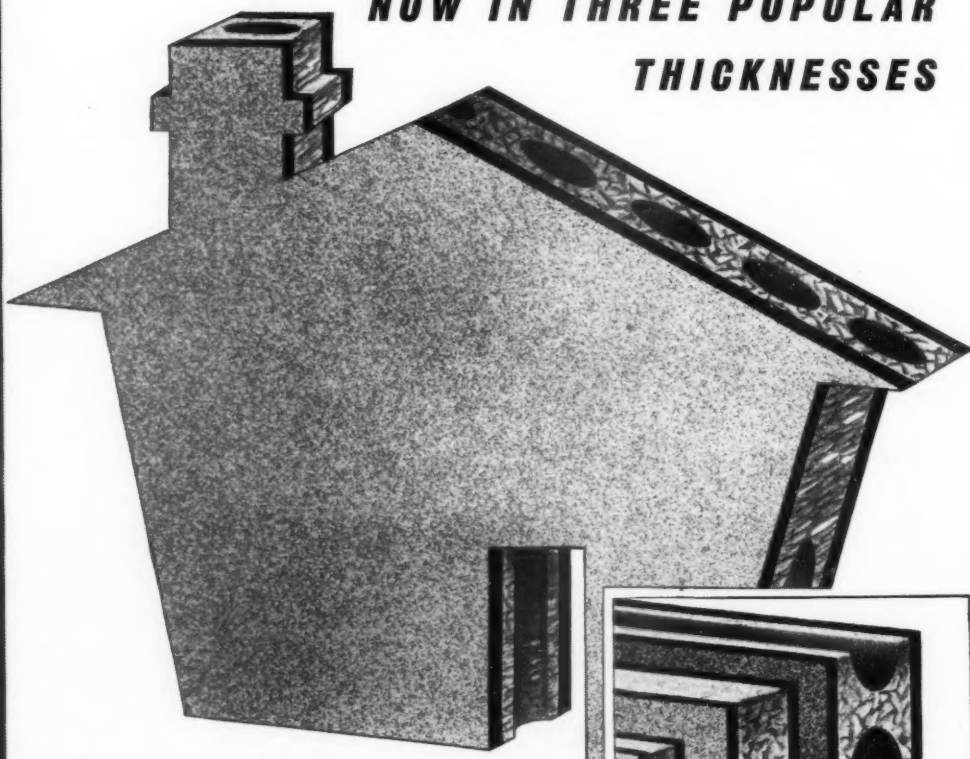
Head Office: Africa House, Kingsway, London, W.C.2. Telephone: HOLborn 8282
 Midland District Office: Prudential Buildings, St. Philip's Place, Birmingham 3. Telephone: Central 4141
 South-Western District Office: 11 Orchard Street, Bristol 1. Telephone: Bristol 23004/5
 Northern District Office: St. Paul's House, 20-22 St. Paul's Street, Leeds. Telephone: Leeds 20771



Durabord

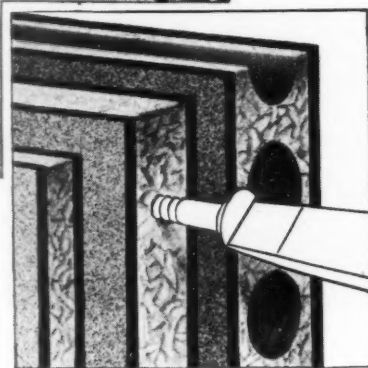
...double-faced extruded wood chipboard

NOW IN THREE POPULAR THICKNESSES



Ready to use, ready to decorate, DURABORD is the all-purpose economical material for a host of building jobs. DURABORD'S exclusive *extruded* core is amazingly strong, consistently accurate—ensures complete rigidity and resistance to distortion. High-quality hardboard is bonded on both sides to form a strong 'sandwich' that's as easy to handle as wood and holds screws 50% more firmly than ordinary softwoods.

DURABORD'S chipboard core now contains a special water repellent giving this composite board high atmospheric stability under normal building site conditions. Like all timber-based products however, it should be stored under cover.



1⁵/₈", *4³/₈"* and the popular *5/₈" thickness in standard panels 8' x 4' from your builders' merchant.*

—AND MELAMINE FACED TOO!

MELABORD—a composite board of DURABORD construction but faced with melamine in a range of colours and patterns. MELABORD is also obtainable in $\frac{1}{8}$ " thickness without the chipboard core.

DURAMEL—melamine faced West African hardwood plywood

DURALAM—flexible melamine laminate

Four noteworthy products exclusively manufactured by

F. HILLS & SONS LTD. NORTON ROAD STOCKTON-ON-TEES

Telephone: 67141



Southern Office: Sopers Road, Cuffley, Potters Bar, Middlesex

Telephone: Cuffley 2824/5

P.3373

How generic is **GYPROC**?

The name Gyproc isn't simply another word for plasterboard.

It is the registered trade name for a branded range of plasterboard.

Ask for Gyproc by name and see that you get it . . .

the name is on every sheet.

Remember, too, that there is a very wide range of Gyproc products:

GYPROC products include:

GYPROC WALLBOARD
GYPROC PLANK
GYPROC LATH
GYPROC SARKING BOARD
GYPROC SHEATHING
GYPUNIT PANELS
GYPROC COVE
GYPROC PLASTERS
Paristone Browning Plasters
Haired, Unhaired and Metal Lathing grades
Paristone Wall Finishing Plaster
Gypstone Board Finishing Plaster
Creststone Concrete Bonding Plaster
Gyproc Metropolitan Stucco
Gypklith Surface Filler
Gyp-lite Ready-Mixed Plasters

UNIT CONSTRUCTION PRODUCTS
Gypunit Partition System and Wall Linings
Gypstele Wall Linings
Gypstele Suspended Ceilings
Plaxstele Suspended Ceilings
Gyproc 2-Inch Solid Partition

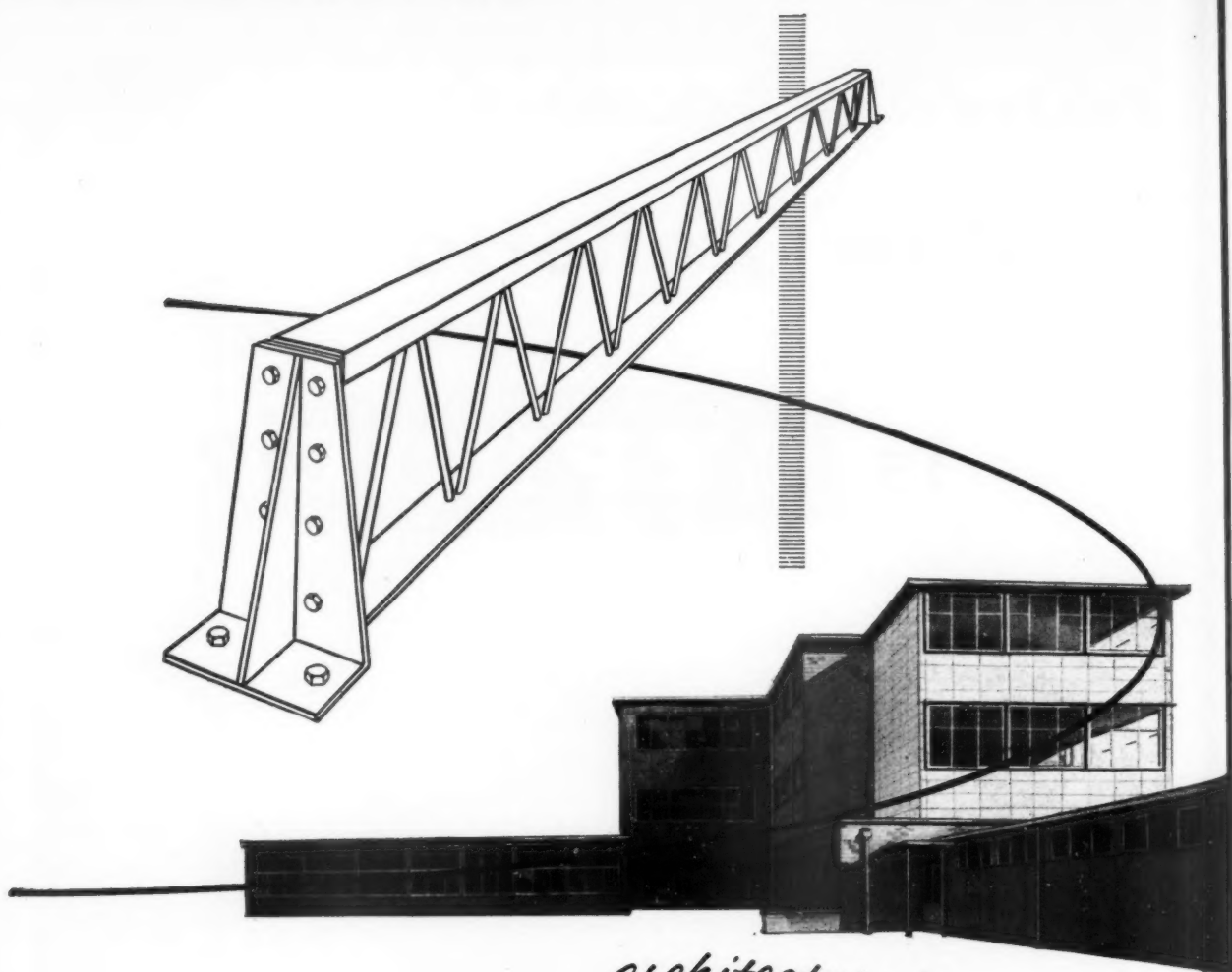
ACOUSTIC PRODUCTS
Gypklith Acoustic Tiles
Acoustic Gyproc
Gyproc Slotted Acoustic Tiles
Gyptone Acoustic Tiles
Acoustele Suspended Ceilings
Dekoosto Acoustic Plaster

THERMAL INSULATION PRODUCTS
Gyproc Insulating Wallboard and Lath
Gypklith Wood Wool Slabs
Zonalex Mineral Insulation

Literature is readily available on any or all of these products.

GYPROC PRODUCTS LIMITED

Head Office: Singlewell Road, Gravesend, Kent. *Gravesend 4251/4*
Glasgow Office: Gyproc Wharf, Shieldhall, Glasgow S.W.1. *Govan 2141/3*
Midland Office: 11 Musters Road, West Bridgford, Nottingham. *Nottingham 82101*
London Office: Bath House, 82 Piccadilly, London W.1. *Grosvenor 4617/9*



architecturally
STRUCTURALLY RIGID
flexible

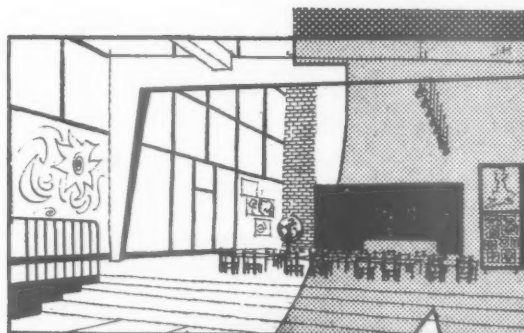
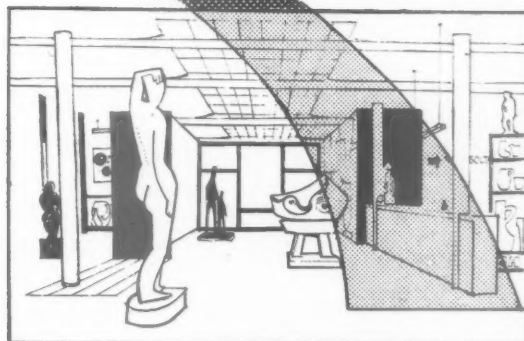
Hills Presweld Beams are supplied for use in conjunction with all types of load-bearing brickwork. Immensely strong, but light, they are available in span multiples of 3' 4" and 8' 3". Alternatively, they can be made to your requirements, thus offering absolute architectural freedom. Beams are normally supplied complete with end adaptor shoe (as illustrated) or the top boom can be extended to form a seating on the brickwork. We shall be pleased to send full information on request.

HILLS
Presweld
REGD TRADE MARK
BEAMS

HILLS (WEST BROMWICH) LIMITED
ALBION ROAD, WEST BROMWICH, STAFFS.
Telephone: West Bromwich 1811 (15 lines)

London: Chapone Place, Dean Street, W.1
Telephone: GERrard 0526/9
Branches at: Manchester (Blackfriars 3382/3), Bristol (24765)
Newcastle-on-Tyne (25060), Glasgow (City 5564)

it's new
a truly
FLAT
finish



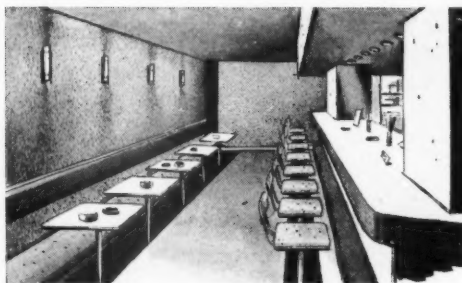
GAYMEL FLAT ENAMEL

Imagine a coating of softly luminous colour, as evenly matt as sprayed distemper, yet more durable than the most solid flat oil finish. This is the paint Gay's set out to formulate many years ago, and now present as GAYMEL FLAT ENAMEL. The quality of decoration attained with this enamel is superb, and so is the speed and certainty with which faultless results are obtained —every time.

- DRIES PERFECTLY MATT
- EASILY APPLIED
- EASY TO JOIN UP FLANKS
- EXCELLENT FLOW
- HIGH OPACITY
- NO SPECIAL UNDERCOATING REQUIRED
- QUICK DRYING
- WITHSTANDS CONSTANT WASHING WITHOUT DAMAGE AND WITHOUT POLISHING
- AVAILABLE IN 36 COLOURS FROM GAY'S ARCHITECT'S RANGE

Write for full information and shade cards to

R. GAY & CO. 93/97 New Cavendish Street, London, W.1



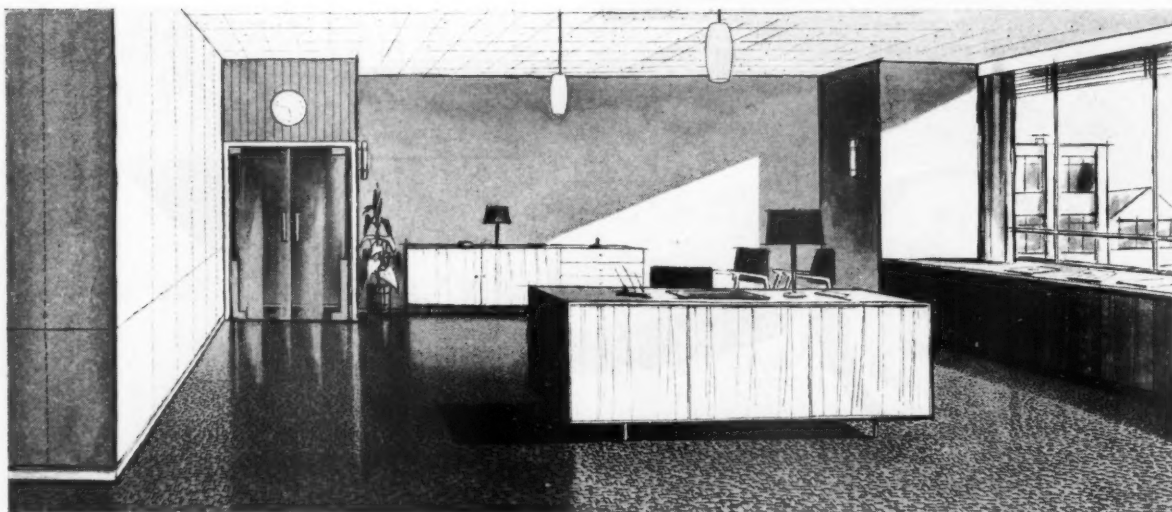
DERMIDE WALL COVERING

Dermide, the new fabric wall covering, combines the durability of P.V.C. with exciting contemporary colours and finishes. It is immune to normal stains and can be cleaned with the greatest ease. Dermide Wall Covering is resistant to heat and reduces fire risk.

Rossella—a tough coating of P.V.C. fused onto its own underfelt—has sound and thermal insulating properties.

the ONE floorcovering with all the advantages

It gives a soft, warm, quiet tread. Rossella's patterns are the work of today's



Rossella
REGD.
THE MODERN FLOORCOVERING

leading designers. The colours, sealed below a transparent coat of plastic, stay permanently bright. Rossella has a surface that withstands endless wear.

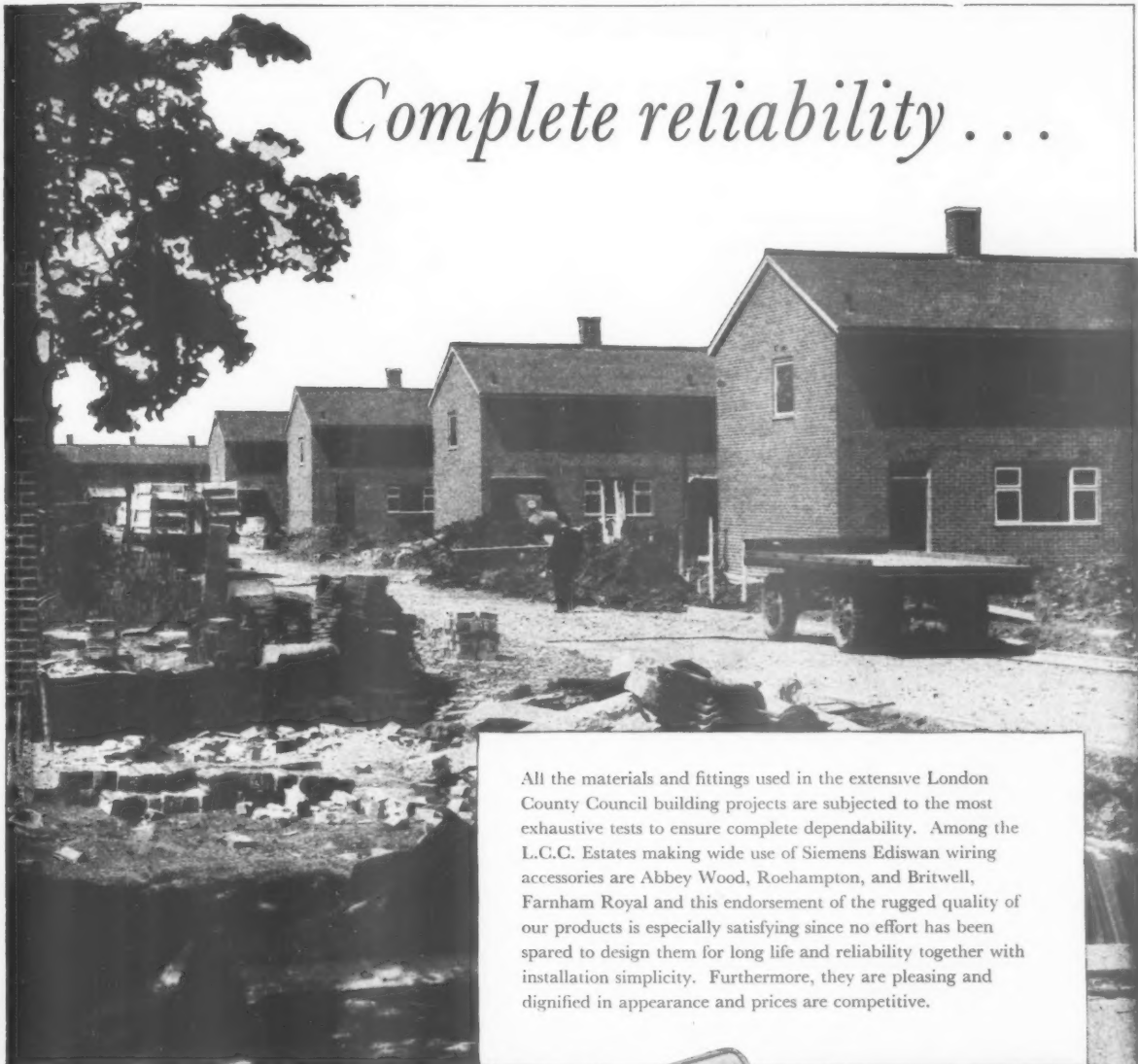
It is waterproof, anti-static, resistant to dust, proof against chemicals and grease, hygienic and easy to clean. Rossella is the ideal, low cost floorcovering for hospitals, laboratories, beauty salons and public rooms.

Prices from 11/7d per sq. yd. (inc. P.T.).



For brochure kindly write to
DERMIDE LIMITED, VALLEY MILLS, MEANWOOD RD., LEEDS 7. TELEPHONE: LEEDS 44721

Complete reliability . . .



All the materials and fittings used in the extensive London County Council building projects are subjected to the most exhaustive tests to ensure complete dependability. Among the L.C.C. Estates making wide use of Siemens Ediswan wiring accessories are Abbey Wood, Roehampton, and Britwell, Farnham Royal and this endorsement of the rugged quality of our products is especially satisfying since no effort has been spared to design them for long life and reliability together with installation simplicity. Furthermore, they are pleasing and dignified in appearance and prices are competitive.

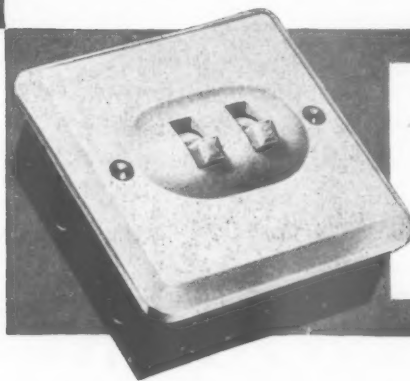
Part of the L.C.C. estate at Abbey Wood.

ARCHITECT: Hubert Bennett, Esq., F.R.I.B.A.

ENGINEERING SERVICES:
Joseph Rawlinson, C.B.E., M.Eng.,
M.I.C.E., M.I.Mech.E.

BUILDERS: Unit Construction Co. Ltd.,
24 St. James Street,
LONDON, S.W.1.

ELECTRICAL CONTRACTORS:
Holliday & Son (Electrical) Ltd.,
Balham High Road,
LONDON, S.W.12.



*Siemens Ediswan
manufacture a
complete range of
wiring accessories
for all types of
housing projects*



Electrical Accessories

SIEMENS EDISON SWAN LTD. *An A.E.I. Company.*

38-39 UPPER THAMES ST., LONDON, E.C.4. TELEPHONE: CENTRAL 2332 TELEGRAMS: SIESWAN CENT LONDON

TAB 11210 P.D. 19/5



G. W. Lewis' Tileries Ltd. are associated with Haunchwood Brick & Tile Co. Ltd., makers of blue engineering bricks, rustic facing bricks, chimney pots, hollow floor and partition blocks. Brick fireplaces and other clay building material

If there is one thing more than another that has contributed to the popularity of Rosemary Clay Roof Tiles, it is the wide range of beautiful colours in which they are available—various shades of red, brown, brindle, blue and multi-tones. All these colours are fadeless. The only effect years of exposure has upon Rosemary Clay Roof Tiles is to mellow their appearance. Weather has no adverse effects on them for they will neither crack or flake with frost, but can be relied upon to outlast the buildings on which they are used. Another feature is their strength and toughness. This enables them to withstand the jolts and jars of transport and handling.

Rosemary Clay Roof Tiles definitely give lasting protection. We supply millions for use on houses, bungalows, flats, churches, schools and other buildings.

Ask us to send our brochure "Colour in the Roof" showing Rosemary Clay Roof Tiles in full colour.

ROSEMARY CLAY ROOF TILES

G. W. LEWIS' TILERIES LTD. Stockingford, Nuneaton

Phone : Nuneaton 3125

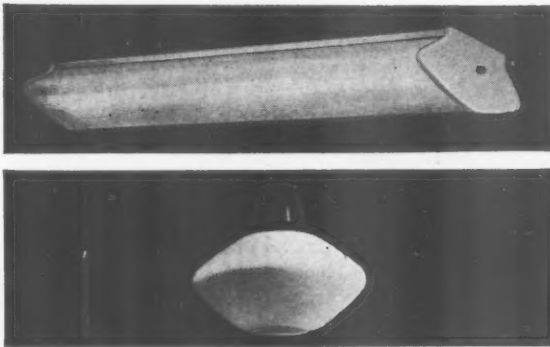
Join the Brighter Light Brigade



Good lighting fittings in offices, banks, department stores and similar buildings attract attention, impress customers and clients, speed work, reduce fatigue and eyestrain.

The Siemens Ediswan Commercial Lighting Fittings catalogue (from which these illustrations were selected) is free and brings you details of suitable fittings for every type of office or store.

Our Lighting Service offers you free expert advice and we shall be happy to send one of our qualified Lighting Engineers to talk lighting with you at any time.



SIEMENS EDISWAN **LAMPS AND LIGHTING** COMMERCIAL | FLOODLIGHTING CONTEMPORARY | DOMESTIC

SIEMENS EDISON SWAN LIMITED *An A.E.I. Company*
LAMPS & LIGHTING DIVISION,
38/39 UPPER THAMES STREET, LONDON EC4.
TEL: CENTRAL 2332

CRC 11/53

New to Britain

Designed for designs of the future

Medium Pressure

air distribution equipment

is designed to overcome the difficult
heating and ventilating problems
created by higher and deeper buildings.

Weatherfoil has the sole agency

for Tuttle & Bailey equipment,
famous throughout the U.S.A.

Weatherfoil's solid experience in the service of British architects is thus coupled with Tuttle & Bailey know-how from the land of air conditioning to provide the most advanced and economical heating and ventilating system available on either side of the Atlantic.



Tuttle & Bailey equipment is used in this Building

MEDIUM PRESSURE AIR DISTRIBUTION SYSTEMS— incorporating Tuttle & Bailey equipment

WEATHERFOIL

REGISTERED TRADE MARK

Sole Licensee for the manufacture and
sale in U.K. of Tuttle & Bailey Medium Pressure
air distribution equipment.

TUTTLE & BAILEY

WEATHERFOIL HEATING SYSTEMS LIMITED Head Office: 185 Bath Road, Slough, Buckinghamshire Phone: Slough 25561
14 BERKELEY STREET LONDON W1 Phone: GROSVENOR 344 BROADGATE HOUSE COVENTRY WARWICKSHIRE Phone: COVENTRY 401

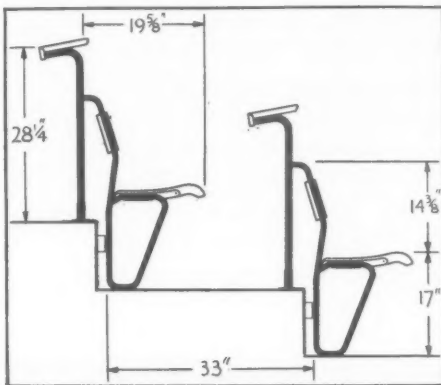
Design and installation of all types of heating, hot and cold water systems, air conditioning and air treatment plant.

Cox

SPECIALISTS
IN
TIP-UP SEATING

HCN 261

G 924 B



Stanchion centres width 20 inches.

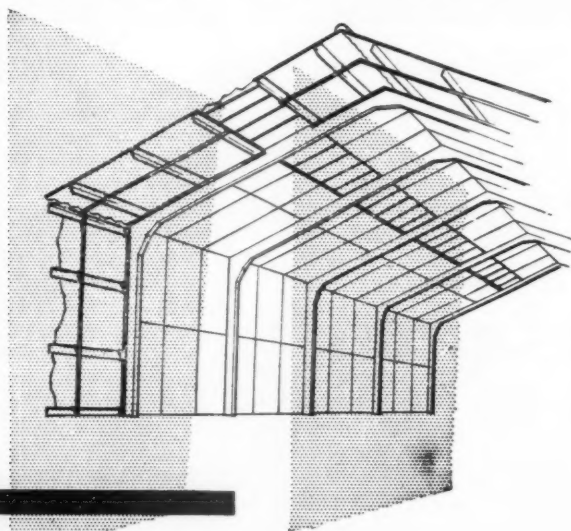
An inexpensive form of tip-up seating, fitted with writing ledge, for permanent floor fixing. The seats are upholstered, and the back-rest is of preformed plywood or upholstery to match the seat.

A descriptive illustrated booklet will be sent on request.

COX & CO (WATFORD) LTD · WATFORD BY-PASS · WATFORD · HERTS · Telephone : WAtford 28541

“Grecon”

the Revolutionary Lightweight Metal Fixing System
for
Lightweight
Insulation Panels



GRECON is fast becoming established as the insulation fixing system. The reasons are not far to seek. Here are some of them!

IT'S DOWN-TO-EARTH

It can be fitted to *any* type of building in *any* plane—without special help, without special tools, without special equipment and is readily adapted to cope with structural peculiarities.

IT'S PRICE IS RIGHT

(As far as any price can be said to be right!)

It's the **first, low-cost** system on the market. What's more, it reduces panel waste to a minimum.

IT'S DOWNRIGHT SENSIBLE

You can remove the panels, and re-fit them *without damage to anything*. It keeps the warmth **IN** the building and harmful vapours **OUT** of the roof air-space.

PRICE—One GRECON Pack, containing all the fittings to cover a 50-sq. yd. area, costs only £10.

(Plastic sealing strip and panelling extra)

We recommend

“Grecon”

say the manufacturers of

FLAMINGO FOAM

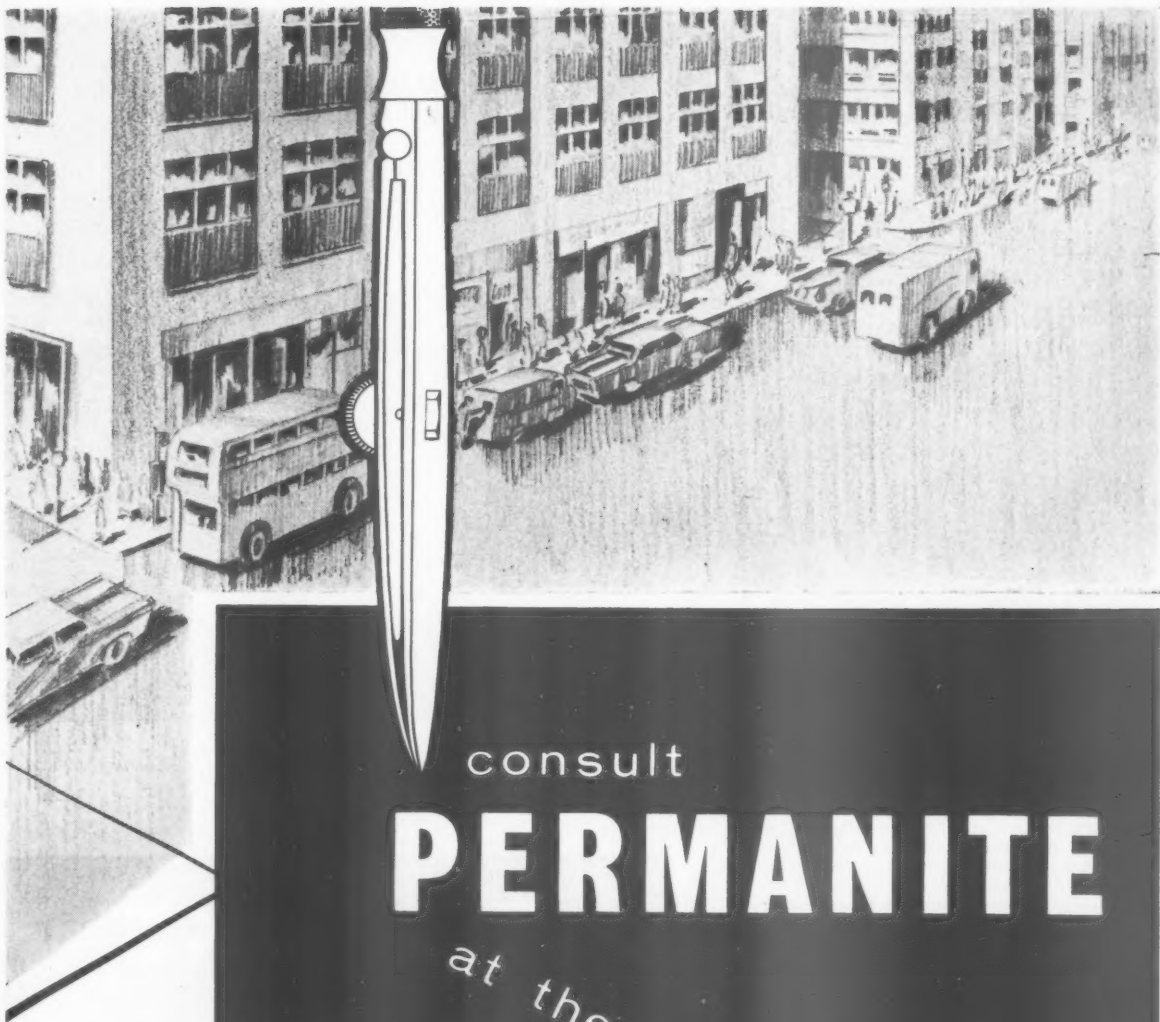
Use only non-flam, non-corrosive or standard 'grades of expanded polystyrene.

For full details write to:—

Grecon

Systems Ltd.

29, St. James's Street, London, S.W.1.
Telephone: TRAfalgar 1454



consult

PERMANITE

at the
planning stage

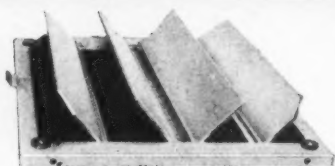
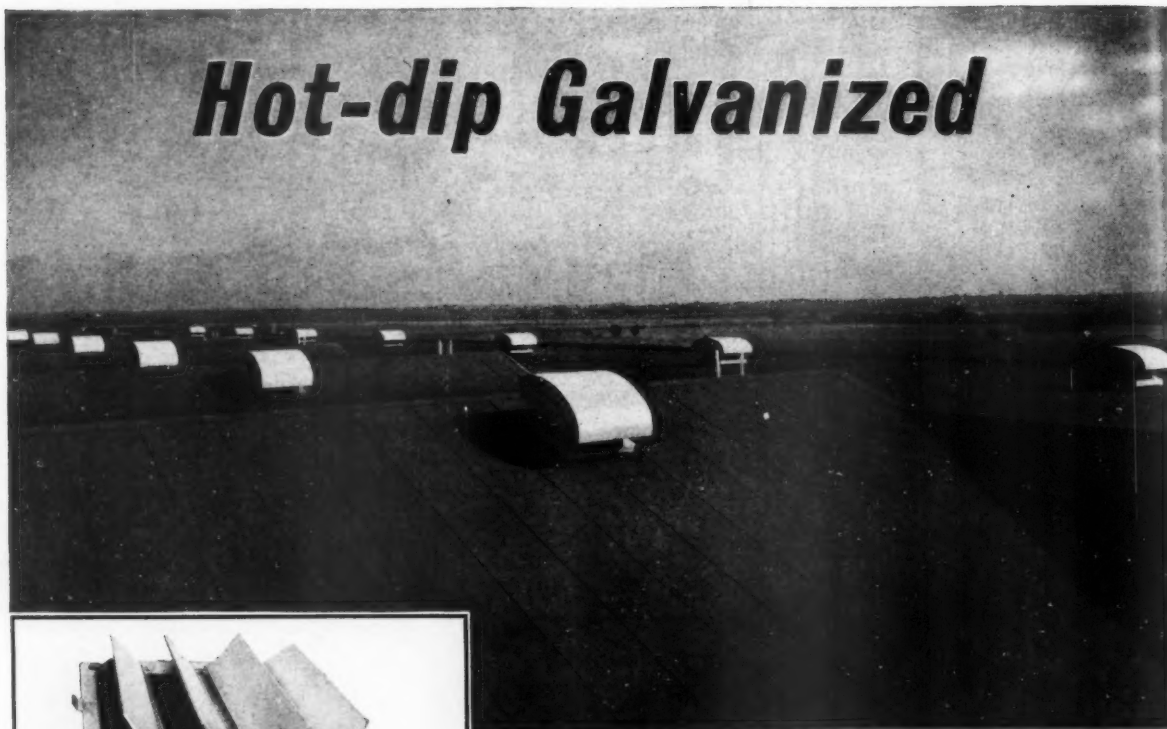
for

- ASPHALT TANKING
- ASPHALT FLOORING
- ASPHALT or BUILT-UP FELT ROOFING

PERMANITE also manufacture bituminous dampcourses. Specify **PERMANITE**.

LONDON	BIRMINGHAM	MANCHESTER
ADVance 4477	BIRchfields 5041	BLAckfriars 9469

Hot-dip Galvanized



AUTOMATIC SHUTTERS

fixed inside units, are opened by the fan draught and are closed when the fan stops, thus eliminating heat loss in winter. Also act as turning vanes for air flow efficiency. Constructed in anodized aluminium alloy with life-lubricated silent bearings.

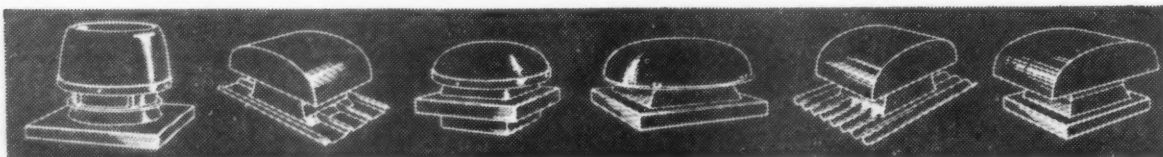
Section of the vast new plant for Priestman Bros. Ltd. Hull, where 70 'BROOKS' 30" and 24" units are installed. Consulting Architects and Engineers—Monro & Partners.

Easy to install and easy to maintain, 'Brooks' Fan-Powered Units are equally suitable for flat, decked or pitched roof constructions. Unitary ventilation gives a wide range of control over rate of ventilation, giving flexibility to suit all factory processes. Hot-dip Galvanized finish gives **permanent protection**.

BROOKS

BROOKS VENTILATION UNITS LIMITED

TRAFALGAR HOUSE · GREAT NEWPORT STREET · LONDON · W.C.2 · Telephone: COVent Garden 1355-1356
Branch Office: Cromford House, Cromford Court, Manchester 4



BRITAIN'S WIDEST RANGE OF POWERED VENTILATION UNITS

ABBEY BUILDING SUPPLIES COMPANY

H. A. T. ROE
G. ROE

OUR REF. HR/PU.

YOUR REF.

SPECIALISTS IN
ANCHORAGES
TO CONCRETE
REGISTERED TRADE MARK "ABSO"

Telegrams - - - "ABSOBILDA, LONDON - SW17"
Cables - - - "ABSOBILDA, LONDON"
Telephone - - - - - BALHAM 4451-2

Offices and Stores:

**26 GLENBURNIE ROAD
LONDON • SW17**

DOVETAIL Masonry Slot and Anchors
SPEARPOINT Floor Clips. **ANKORTITE** Box
Fittings for Ceilings, Floors and Walls.
ABSO Floor Clips. **ABSO** Ceiling Clips.

1st. June, 1959.

To the Reader,
The Architects' Journal,

Dear Sir or Madam,

ANCHORAGES TO CONCRETE

It is with pleasure that we are able to announce a REDUCTION IN PRICES of our products to take effect from the above date. This is due to improved methods of production and to a steady increase in turnover.

As the originators in Great Britain of Dovetail Masonry Slot and Anchors, Spearpoint Floor Clips, Abso Floor and Ceiling Clips and Ankortite Box Fittings and Channel, it has been a great satisfaction to us that our products have been specified by so many members of the architectural profession for use in the construction of modern buildings throughout the country and the British Commonwealth.

It has always been our endeavour to give service and satisfaction and we look forward, with renewed confidence, to being able to fulfil all requirements with reduced prices and improved deliveries.

The benefit of our experience is at your service and copies of descriptive leaflets with revised price lists will be gladly sent on request.

Yours faithfully,
per pro ABBEY BUILDING SUPPLIES COMPANY



Partner.



here's
proof



Rigidex is the polyethylene plus

Polyethylene fabrics that do not wear . . . down pipes and gutters for outside use . . . light diffusers and decorative panels.

These are just a few from the vast range of applications now made possible by Rigidex.

No other polyethylene material offers the combination of properties possessed by Rigidex . . . no other can so justly claim to be the polyethylene plus.

Rigidex is made by a process developed by the Phillips Petroleum Company who have licensed the manufacturing rights to British Hydrocarbon Chemicals Ltd who own the registered trade mark Rigidex

- light, durable, abrasion resistant
- withstands boiling water
- resists acids, alkalis, oils, grease
- exceptional surface finish and pleasant to touch
- unlimited range of colours

Write for booklet 301 giving full information



the polyethylene plus

Sole Selling Agents

British Resin Products Ltd

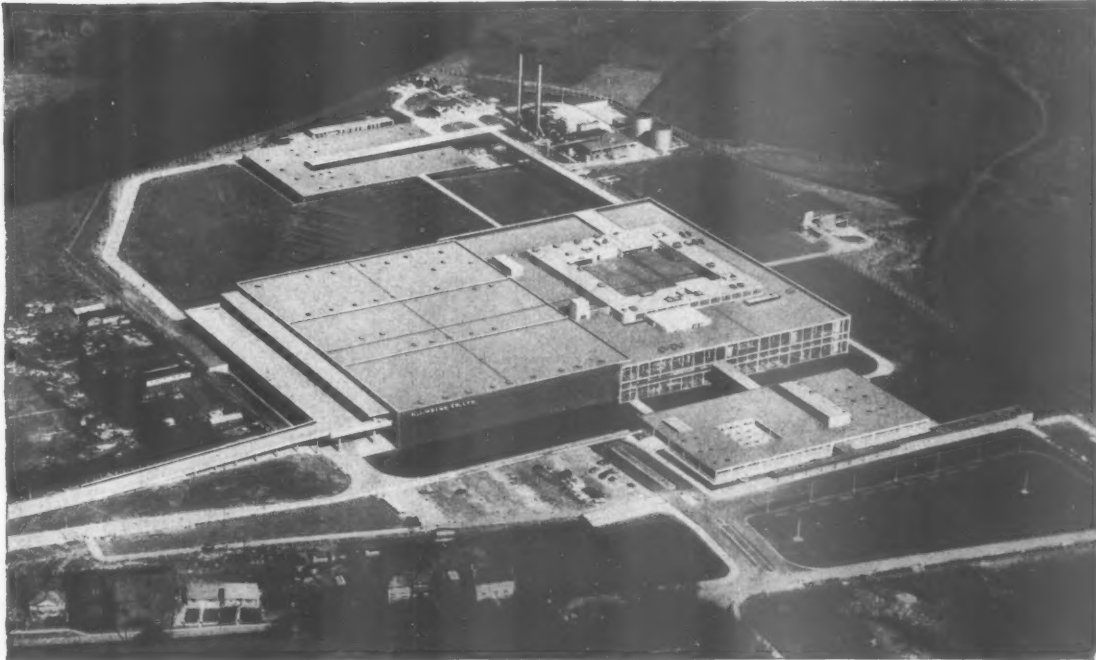


A MEMBER OF THE DISTILLERS PLASTICS GROUP

SALES AND TECHNICAL SERVICE DEVONSHIRE HOUSE PICCADILLY LONDON W1 HYDE PARK 0151

LARGEST FOOD FACTORY IN EUROPE

AND THE BRITISH COMMONWEALTH



**Constructed by Monk at
Kitt Green, Wigan, for the
H. J. Heinz Company Limited**

Architect: E. D. Jefferiss Mathews, O.B.E., F.R.I.B.A.,
of J. Douglass Mathews & Partners.

WARRINGTON **monk** **AND LONDON**

A. MONK & COMPANY LTD.
Offices at: Hull, Middlesbrough & Stamford.

BUILDING · REINFORCED CONCRETE & CIVIL ENGINEERING CONTRACTORS

30,000 sq. yds. OF WASHABLE *completely jointless* CEILINGS...

To avoid breeding areas for bacteria, rigorous hygienic requirements on the new Heinz food factory at Wigan necessitated *complete elimination of joints* in the vast ceiling areas of Asbestolux panelling and Vermiculite plaster.

EXPORT PACKING SERVICE, specialists for many years in the application of sprayed plastic films, executed this important project with the aid of the **TRETOPLAST** system of coatings.

TRETOPLAST is a P.V.C. based film applied as a heavy solution by spray, drying to form a *flexible and continuous skin* of a pre-determined thickness. The flexibility and strength of skin is sufficient to permit flexing of the insulation boards over these vast ceiling areas and also, to an appreciable extent, takes care of structural movement or cracking.

This application of the **TRETOPLAST** system marks an important step forward in the provision of high grade finishes to meet the demand for modern standards of hygiene in food factories. Architects and engineers concerned with the problem of vapour sealing, control of airborne dust and maintenance of sterile conditions, will find this technique of particular interest and we shall be glad to send you a specification sheet which fully describes its many advantages.

JOINTLESS SPRAYED CEILINGS

*developed in association with Tretol Limited, by
The Spraying Division*

EXPORT PACKING SERVICE LIMITED

IMPERIAL BUILDINGS, 56 KINGSWAY, LONDON, W.C.2. Telephone: Chancery 5121/3



View showing sequence of coatings being applied to Vermiculite ceiling.

Tretoplast coating being spray-applied to a prepared area of ceiling



The largest jointless ceilings in the world...

PART OF THE NEW H. J. HEINZ CO. LTD., FACTORY AT WIGAN. Architects: J. Douglass Mathews & Partners



THE COMPLETE ELIMINATION OF JOINTS has been achieved on 30,000 yards super ceiling areas of this new Heinz food factory by means of the **TRETOPLAST** system, which is applied in situ by spray, providing a thick, plastic skin to any type of building surface. **TRETOPLAST** bridges the gaps that occur at junctions between insulation and plasterboard and completely film-forms over brickwork and concrete. It eliminates any cracks or fissures which may provide focal points for mould growth or collection of dust.

TRETOPLAST is suitable for walls and ceilings and it is available in colours, including White. The coating is flexible, waterproof, can easily be cleaned by means of hosing down or detergent washes and has excellent resistance to steam, acids and alkalis. A further important advantage of this positive vapour-proofing technique is the greatly improved insulation.

*We shall be glad to send you further information on the **TRETOPLAST** system of jointless coatings.*

TRETOPLAST Jointless Coating SYSTEM

Manufactured by TRETOL LTD., THE HYDE, LONDON, N.W.9. Telephone: Colindale 7223.

H. J. HEINZ CO. LTD.
NEW MODERN FOOD FACTORY, KITT GREEN

*Main Structural Steelwork (approx. 8,000 tons)
Supplied, Fabricated and Erected by*

PEIRSON

AND COMPANY LIMITED
(Established in the City of London 1873)

Over eighty years accumulated experience in the design, fabrication and erection of every type of constructional steelwork, riveted or welded.

Personal attention is assured to all enquiries, and our advisory and designing staff is at your service to bring their skill and experience to your particular problem.

Emergency requirements can be promptly executed from stock materials.

GRAY'S INN CHAMBERS, 20 HIGH HOLBORN,
LONDON, W.C.1

Telephone: Holborn 2181 (P.B.E.)

Telegrams: Allegretto, Holb., London

The complete
landscape layout
for the

H. J. HEINZ CO. LTD. FACTORY

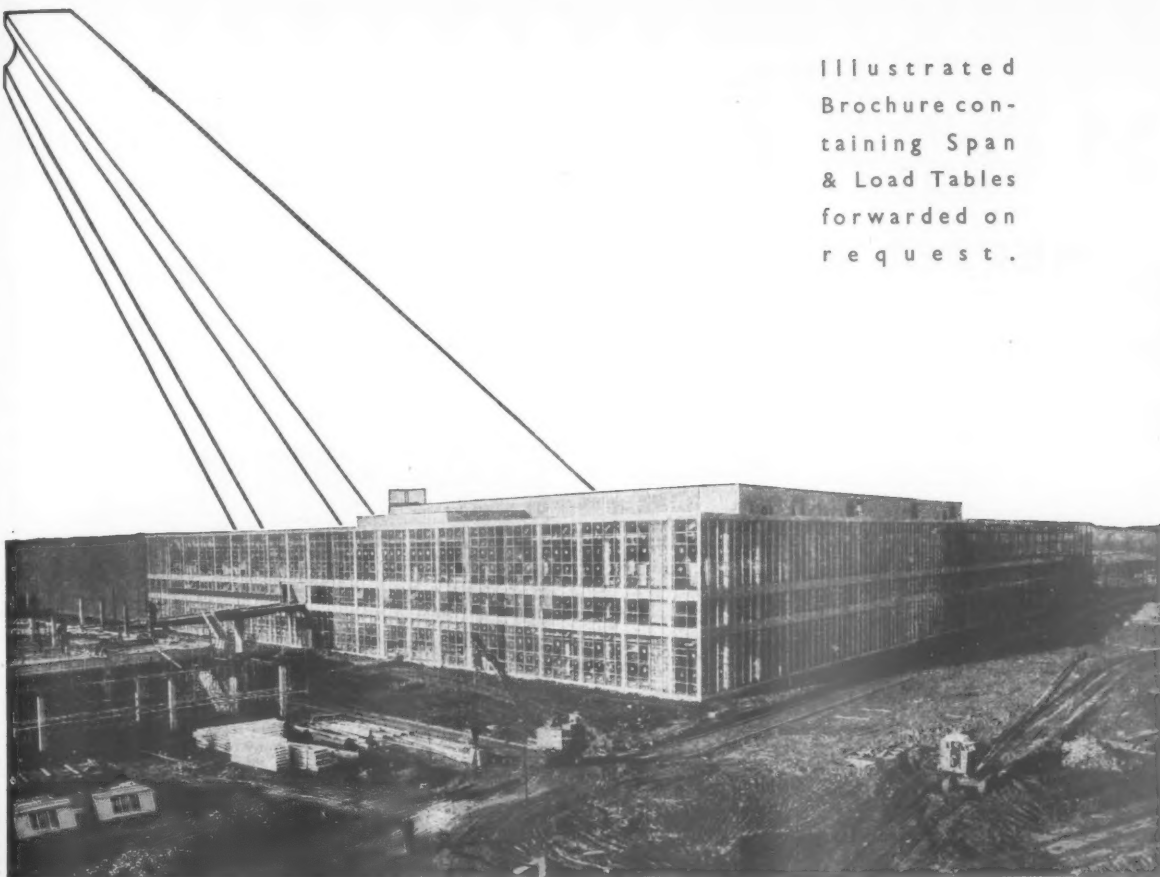
Architects: J. Douglass Mathews & Partners.

was carried out by

CLAPHAMS
NURSERIES · LIMITED
BRAMHALL · CHESHIRE

100 YEARS' EXPERIENCE IN LANDSCAPE CONTRACTING

Illustrated
Brochure con-
taining Span
& Load Tables
forwarded on
request.



PIERHEAD

PRESTRESSED CONCRETE

26,000 square yards of Pierhead Floor and Roof construction were supplied to the Can factory Main Production building and Employees' Services building at the new factory for **MESSRS. H. J. HEINZ CO. LTD., KITT GREEN, WIGAN.**

Architects: *J. Douglass Mathews & Partners, in association with Skidmore, Owings & Merrill, New York, U.S.A.*

Main Contractors: *Messrs. A. Monk & Co. Ltd., Padgate, Warrington.*

**THE HOVERINGHAM CONCRETE COMPANY
LIMITED**
HOVERINGHAM · NOTTS

Telephone: **BLEASBY 381**



PIERHEAD LIMITED
SPEKE BOULEVARD LIVERPOOL 19
LONDON FACTORY FAGGS ROAD FELTHAM, MIDDX.

Telephone: **Hunts Cross 1311**

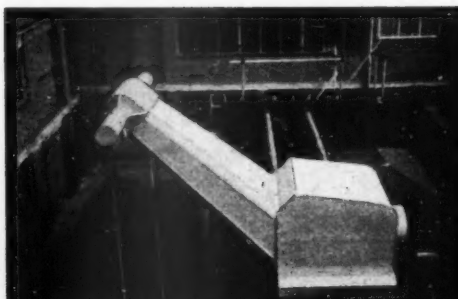
Telephone: **Feltham 3031**

D

REPAIR AND CLEAN WITH SAFETY

The Palmer skill and knowledge in dealing with scaffolding problems is based on accumulated experience extending as far back as 1880. Their mastery in the specialised art of making a building readily accessible for repair, decoration or renovation is unquestioned.

Whatever the requirements, whether you wish to buy or hire, Palmers can cope—safely, efficiently and with a keen eye for economy.



a



b



c

PALMER'S

TRAVELLING CRADLE & SCAFFOLD CO. LTD.
Woodside Green, London, S.E.25

* a
PALMATIC electric travelling cradle. (This equipment is for outright purchase only.)

b
The new Polyester Glass Cradle.

c
Scaffolding erected by Palmers to the Monument, London.

"Palmers" are proud to have supplied the trolley system for external wall maintenance at the Kitt Green Project for the H. J. Heinz Co. Ltd."

REFRIGERATION

for

H e i n z

Kitts Green, Lancs

The refrigeration equipment for H. J. Heinz & Co. Ltd. at the new Kitts Green factory comprises four stores with a total capacity of approximately 80,000 cu. ft. Largest of these is the pre-frozen meat store, which is kept at 10°F by two 3 $\frac{3}{4}$ " x 3" six cylinder Veebloc compressors operating unit type air coolers. A similar compressor and two coolers are used in the vegetable cold store, with a condenser of the shell and tube multipass type. The meat and vegetable store is cooled by a compressor of the same size, whilst for the smallest of the four stores, also used for meat, a 2" x 1 $\frac{7}{8}$ " six cylinder Veebloc compressor and single unit type air cooler are used. All this equipment was manufactured and installed by J. & E. HALL.

J. & E. HALL
LIMITED
DARTFORD · KENT

LINO

Service

Catesbys have laid lino for sixty years. Service built upon the fruits of this experience—complete understanding and knowledge of the craft—is worth having. Only Catesbys can give it.

Staff

Well laid lino gives longer, better service than lino laid indifferently. Catesbys send an expert and their own fully trained fitters to every contract. They ensure perfect lino laying.

Advice

Catesby's advice is impartial. They will recommend a certain type of lino only when lino is known to be the ideal floor covering. Catesbys will suggest the most suitable grade.

Stock

It is always easier and quicker to choose and specify a design, colour and grade from lino in stock. At Catesbys you see lino in the piece—and you can choose from the biggest stock in Europe.

Catesbys

Contracts (Linoleum Division)

TOTTENHAM COURT ROAD, LONDON, W.1. MUSEUM 7900

CANADIAN TIMBER

...from Canada's vast forests
a wood for almost every need!



CANADIAN DOUGLAS FIR

Special Properties

- Superior strength
- Quite resistant to decay
- Obtainable in large dimensions
- High working stress values
- Low natural moisture content

Typical Uses

- Glue-lam fabrication
- Heavy and general construction
- Engineering designed trusses
- Sea defences, dock and harbour work
- Heavy duty case making
- Railway sleepers

For further information on Canadian Woods, contact:
Commercial Counsellor (Timber), Canada House, London, S.W.1.

SUPERFOLD

*the practical Partition
for every application*

... is silent and finger-light in operation.
The Custom built "Superfold" is being installed
in such diverse situations as, churches and
houses, boardrooms and hospitals, schools and clubs.
Two different coverings may be used on opposite
sides of the partition and their range is such that
dignity, gaiety or quiet harmony with existing
decorations are equally readily achieved.
Completely top hung, a bottom guide channel
is optional on certain widths.



* Available
in over
120
colours & patterns
OF WASHABLE, DURABLE
FABRIC SUPPORTED
P.V.C.

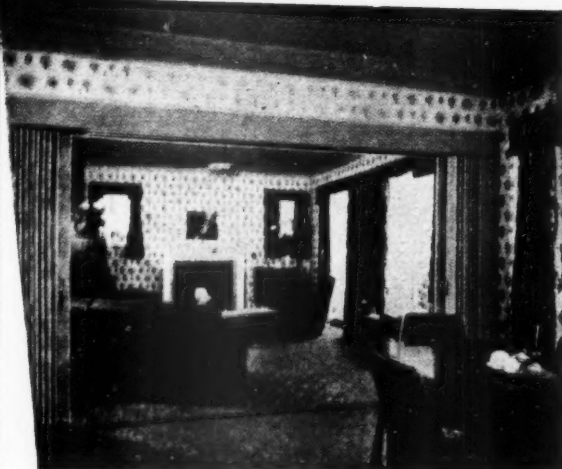
For further information on construction,
applications etc., write now for the
latest "Superfold" leaflet AJ316

BOLTON

The BIG name in doors

BOLTON GATE CO LTD • BOLTON • LANCS

Branches at Belfast, Birmingham, Bristol, Dublin, Liverpool, London,
Manchester, Newcastle-on-Tyne



C
T

Acetaldehyde	Carbonic acid	Hydrogen sulfide	Phenol
Acetic acid (all conc.)	Carbon disulfide	Iodine	Potassium salts
Acetic anhydride	Carbon tetrachloride	Kerosene	Propyl alcohol
Acetone	Chloracetic acid	Lauryl chloride	Silver nitrate
Acetyl chloride	Chlorine gas wet, dry	Lead acetate	Sodium bromide
Adipic acid	Chlorine water	Magnesium chloride	Sodium chloride
Alum	Chlorobenzene	Magnesium hydroxide	Sodium hypochlorite
Ammonium chloride	Chloroform	Malic acid	Sodium nitrate
Ammonium nitrate	Chlorosulfonic acid	Mercuric chloride	Sodium sulfate
Amyl chloride	Chromic acid	Mercury	Sulfur dioxide
Aniline	Citric acid	Methyl alcohol	Sulfuric acid (all conc.)
Aqua regia	Cresol	Methyl chloride	Sulfurous acid
Arsenic acid	Cupric sulfate	Methyl ethyl ketone	Tannic acid
Barium chloride	Cyclohexanol	Methylene chloride	Thionyl chloride
Benzaldehyde	Dimethylamine	Mixed acid	Toluol
Benzene	Ethyl acetate	Naphthalene	Triethanolamine
Benzoic Acid	Ethyl alcohol	Nickel chloride	Turpentine
Borax	Ethyl chloride	Nitric acid (all conc.)	Urea
Boric acid	Ethyl ether	Nitrobenzene	Vinyl acetate
Bromic acid	Ethylene bromide	Oleum	Water (distilled)
Bromine liquid	Ferric chloride (sat.)	Oxalic acid	Zinc chloride
Bromine water	Ferrous sulfate	Perchloric acid	Zinc sulfate
Butanol	Formaldehyde		
Butyl acetate	Furfural		
Butyric acid	Hydrobromic acid		
Calcium hypochlorite	Hydrochloric acid		
Calcium nitrate	Hydrogen peroxide		

Q.V.F.

GLASS

SINK WASTE SYSTEMS

ARE RESISTANT TO MORE CHEMICALS THAN ANY OTHER MATERIAL



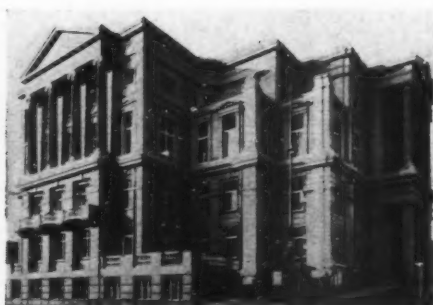
Q.V.F. GLASS SINK TRAPS & WASTE LINES RESIST THESE AND MANY MORE CHEMICALS, SINGLY AND IN COMBINATIONS

Fully descriptive literature available on request

Q.V.F. LIMITED · DUKE ST · FENTON · STOKE-ON-TRENT · STAFFORDSHIRE
 Tel: LONGTON, STAFFS. 32104-8 Grams: Q.V.F., STOKE-ON-TRENT, TELEX.

Unistuc LIQUID STONE

*for exterior and
interior use*

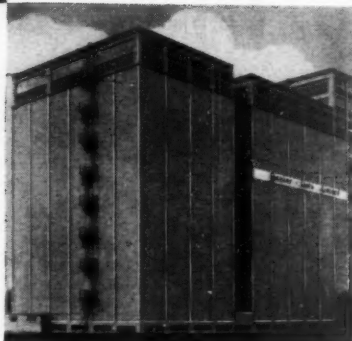


Marine Court,
St. Leonards.



The Town Hall,
Brighton, Sussex.

Quaker Oats Ltd.,
Southall Silos.



"Unistuc" is a stone
covering and should not be
confused with cement-based
or imitation stone paints.

A durable Weatherproof
finish for Concrete, Cement,
Brickwork, Stone and
Plaster, in a wide range of
shades. Specified by
Leading Architects,
Government Departments
and Public Authorities.

Princes' Gates, Canadian
National Exhibition,
Toronto.



Mount Pleasant Sorting Office
Rosebury Avenue, London,
E.C.1 (Ministry of Works Crown
Copyright Reserved).



THE
UNITED PAINT COMPANY
LTD.

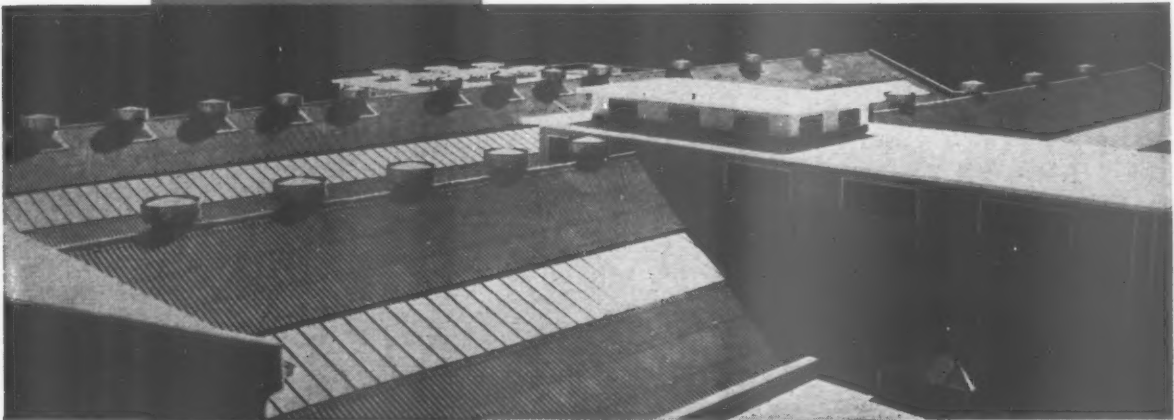
15, ST. HELEN'S PLACE, LONDON, E.C.3

Phone: LONDON Wall 4426-7-8-9

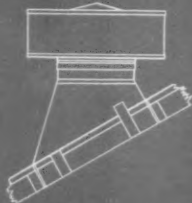
and at Liverpool, Newcastle-on-Tyne, Cardiff,
WORKS: Stratford, London and Lowestoft.

Powered
AND
Natural

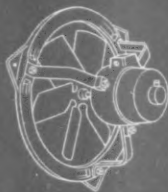
ventilation by Greenwood-Airvac



Smedleys Ltd, Cyprus. Architect: F. W. Meston, M.C., L.R.I.B.A. Suppliers: Boddy Roofing Co. Ltd



'LOWLINE' Dual Purpose Extractors combine Powered and Natural extraction with maximum ventilation efficiency and minimum power consumption. Suitable for flat or sloping roofs.



'EXTRAIRE' ring-mounted fan units provide either extract or input ventilation. Capacity range 250 to 35,000 C.F.M. Automatic shutters available externally.

A COMPLETE VENTILATION SERVICE

The extensive range of Powered and Natural Ventilating Units manufactured by Greenwood-Airvac enables the selection of the most suitable Ventilation System to achieve maximum efficiency at minimum unit and installation cost.

A combined Powered and Natural System of Ventilation was installed at Smedley's modern and extensive Canning Factory in Cyprus, after consultation with Greenwood-Airvac.

'LOWLINE' Dual Purpose Extractors were chosen for the Natural Ventilation of the main Factory area. 'Bearer' bands were fitted to enable fans to be incorporated if required through possible changes in factory processes.

'EXTRAIRE' ring-mounted fans were selected for providing powered extract in the Factory where continuous positive ventilation was considered essential to remove vitiated air.

GREENWOOD-AIRVAC TECHNICAL DEPARTMENT IS READY TO ADVISE ON THE MOST SUITABLE SYSTEM TO ACHIEVE EFFICIENT VENTILATION.

Illustrated Technical Leaflets will be sent on request.

Greenwood-Airvac ventilation

GREENWOOD'S AND AIRVAC VENTILATING COMPANY LTD

ESTABLISHED 1879.

PATENTEES, DESIGNERS AND MANUFACTURERS OF
NATURAL & MECHANICAL VENTILATING EQUIPMENT



BEACON HOUSE, KINGSWAY, LONDON, W.C.2
CHANCERY 8135 (4 lines). 'Grams: 'AIRVAC', LONDON

Problems solved from cold

NO. 6 IN A SERIES



By Appointment to Her Majesty the Queen
Manufacturers of refrigerating machinery
Pressed Steel Company Limited

How we brought fresh air to the Old Bailey

*The 200-year-old problem—
hot and stuffy courtrooms*

Before every new session at the Old Bailey the judge receives a nosegay as he goes into court. The tradition dates from when prisoners were so unwashed, and often so infectious, that the judge was glad of flowers under his nose. But however good flowers may be against 'gaol fever', they are no cure for foggy courtrooms. Nor do they make wigs and gowns any cooler on hot days. So when the Old Bailey was rebuilt it was decided to install complete air-conditioning. That was the obvious, simple answer—and Prestcold were the obvious people to provide the refrigerating equipment.

THE SIMPLE ANSWER WAS NOT SO SIMPLE

But in fact nothing could have been less simple. To air-condition a building as large as the Old Bailey calls for no small amount of machinery, and storage for 5,000 gallons of water. Yet the only room for it all was in a small basement. 'Dungeon' would be a better word, for it was completely cut off from the outside world. All the equipment had to be lifted over the roof, and lowered down the old ventilation shaft by crane.

THE PRESTCOLD SOLUTION— FOUR COMPACT WR 2500s

The whole operation was possible only because the Prestcold condensing units would fit into the tiny

space provided. For the Prestcold WR 2500 is extremely compact. Its compressor and motor are mounted together on a base which incorporates the water-cooled condenser. To save more space the four chilled water tanks were assembled together and insulated to form one unit. So there they are in their dungeon today—four Prestcold WR 2500s. They can be counted on to serve a long life sentence—and with good conduct taken for granted.

CAN PRESTCOLD HELP YOU ?

If you have a problem in refrigeration write to your Prestcold Distributor, or to Prestcold Commercial Sales Department, Cowley, Oxford.

FOR FRESH IDEAS...IT'S
Prestcold

PRESTCOLD DIVISION

PRESSED STEEL COMPANY LIMITED, COWLEY, OXFORD



COSELEY

Work in progress on steelwork and sheeting simultaneously for the fourteenth Coseley Building to be erected for the Rover Co. Ltd., at Solihull. Completed in approximately six weeks this assembly shop for Landrovers measures 700ft. long by 75ft. wide by 20ft. to eaves.



economy with quality

Coseley Buildings Ltd

RESFIELD WOLVERHAMPTON ENGLAND

BILSTON 41927 (10 lines)

LONDON OFFICE: 41-46 PICCADILLY W.1.

Builders of Steel Frame Buildings and Kingstrand Houses

- buildings for all purposes -

- buildings for all climates

The makers of a motor car famous for the quality of its craftsmanship naturally select a building which enjoys a similar reputation for design, durability and dependability. This is true economy.

SEND FOR OUR BROCHURE

Rover choose Coseley

1

CONCRETE

EXAMPLES OF ECONOMY
IN BUILDING



Carlton Towers, Leeds

This large structure, designed to accommodate forty-eight flats on eight floors, is shown just two months after commencement of work. Speed of erection was achieved by making the maximum use of pre-casting. Apart from the frame itself, floors, scissor staircases, lift shafts, hollow partition walls, louvre walls for drying rooms and balconies are all precast.

The combined use of precast columns and precast cross walls has produced a most economical building. Our price per dwelling was £483.10.0d. which covers all design services, including foundation design and finishing to exposed column faces.

The 8 in. thick hollow cross walls were cast in sections, which were erected with a vertical insitu joint between them. This joint coincides with the horizontal insitu joint between the wide slab floor units, both joints being reinforced.

The tops of the cross wall panels are solid for 6 in. down, with reinforcement arranged in each face to comply with the Code of Practice but the bottoms are open for the pouring and vibrating of the insitu grout through 4 in. x 4 in. holes near floor level.

Where heavy point loads occur, such as beam ends seating on the cross walls, the cavities are filled solid.

Architect: R. A. H. Livett, O.B.E., A.R.I.B.A., Leeds City Architect's Dept.

Main Contractors: Myton Ltd.



BISON floors, beams and concrete frame structures

SPEED & STRENGTH

CONCRETE LIMITED are the largest structural precast concrete manufacturers in the world

CONCRETE (SOUTHERN) LIMITED Green Lane, Hounslow, Middlesex Hounslow 2323 London Sales Office: 16 Northumberland Avenue, W.C.2 Whitehall 5504

CONCRETE (MIDLAND) LIMITED Dovehouse Fields, Lichfield, Staffs. Lichfield 3555 Birmingham Sales Office: Winchester House, 5 Victoria Square, Birmingham 2 Midland 0331

CONCRETE (NORTHERN) LIMITED Stourton, Leeds 10 Leeds 75421 Manchester Sales Office: 40 King Street West, Manchester 3 Blackfriars 5676

CONCRETE (SCOTLAND) LIMITED Etna Road, Falkirk Falkirk 2366 Glasgow Sales Office: Elmbank Street, Glasgow C.2 City 3292

STOP RISING DAMP

THROUGH SUB-SOLID FLOORS

WITH

VENTROT

VENTROT conforms to the requirements of the Building Research Station Digest No. 1 "The Design of Timber Floors to prevent Dry Rot" and No. 86 "Damp-Proof Treatment for Solid Floors".

VENTROT provides an impermeable barrier against rising water and water vapour.

specify

VENTROT

membrane D.P.C.



BRE

BRITISH BITUMEN EMULSIONS LTD.

Dundee Road, Trading Estate, Slough, Bucks.

Telephone: Slough 21261/6

BRISTOL CHESTER GLASGOW



The Architects' Journal

No 3352. Vol 129. May 28, 1959

9-13 Queen Anne's Gate, London, S.W.1. Whitehall 0611
Subscription rates: post paid, inland £2 15s. 0d. per annum; abroad, £3 10s. 0d. per annum. Single copies, 1s.; post paid, 1s. 6d. Special numbers are included in subscriptions; single copies, 2s.; post paid, 2s. 6d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for £1 17s. 6d.; carriage 2s. extra.

NOT QUITE ARCHITECTURE

NOT WITH A BANG BUT A FLICKER

The Machine Aesthetic finally ground down to a standstill in Farmers, Builders' Merchants, Fulham Road, between Chelsea and Kensington, on January 30, 1959.

Whatever people may say about the old modern architecture only playing at being a machine architecture, it certainly succeeded in making an architecture in which common industrial artifacts of the time were perfectly at home; bicycles, bowler hats—and light bulbs.

The naked light bulb (which only Mackintosh had previously been able to cope with—see the top floor of the Glasgow Art School), became one of the key symbols of the Twenties. Light bulbs were scattered throughout the early houses of Le Corbusier, accepted as uninhibitedly, indeed as enthusiastically as was the famous bidet that Madame Le Corbusier is supposed to have covered with a crinoline doll.

And if you missed the light bulbs in Corb, The Light Bulb was inescapable in Picasso's



Guernica. That finally fixed the light bulb in the iconography of modern art. All this was a long time ago, I know, but it took Farmers in the Fulham Road to really shake





Half the Battle

The first major venture of SPUR (the Society for the Promotion of Urban Renewal) is an excellently conceived exhibition now on view at 66 Portland Place until June 6. From that date onwards, if the public relations officers of the allied societies are alive to their responsibilities, the exhibition should be on tour round the British Isles, because this is the exhibition that MPs, town clerks, treasurers, borough engineers, developers of all kinds and every committee-man responsible for any form of building must see. But they must see it accompanied by ardent propagandising architects who can explain the near-tragedy of the exhibition. For the sad thing about the exhibition is that it is necessary to have it at all. In many respects this exhibition "Better Towns for Better Living" is only a

more accomplished, mature version of those exhibitions of the '40s which asked for a brave, new, planned post-war world. It is now evident that our SPUR-planners know more precisely what they want, and they make their proposals sound very attractive. And that, after all, is half the battle. Unfortunately they cannot suggest a way of achieving their aims without setting up government machinery extra to what at present exists in order to get things started. This is the pathetic side of the exhibition, and the reason why officialdom visiting the exhibition must be accompanied by architects hissing in their ears: "this is the Britain we want, and have wanted for twenty years or so, but we cannot get it because clients and officials are *just not doing their job.*"

me ou
changi
twentie
60w. t
miniatur
the fir
the des
my m
archite
the A
shade.

As if
epoch,
carries

FROM H

N
S
N
L

minia
savin
light

Publ
cussi
W.I.

Exh
sen.
May
10 a

The
RIB

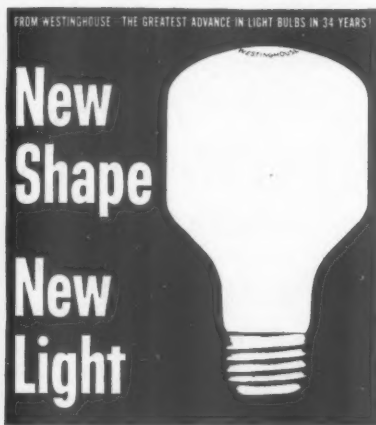
Des
Bui
tee
Glo
W.I.

Eng
Dra
for
Mu
p.m.
SP

Civ
at
Ed
Str

me out of my acceptance of it as an unchanging finally-achieved type-object of the twentieth century. For the Philips 230 v. 60w. they offered me on that day was miniaturized, and has a new shape. After the first hour of scandalized incredulity at the desecration of a sacred image I forced my mind to accept that that old modern architecture was really over, and put it in the Anglepoise with its old-style lamp shade.

As if to finally confirm the end of an epoch, this month's *Ladies Home Journal* carries the new Westinghouse squared-off,



miniaturized lamp "bulb," says it's eye-saving, and is the first major advance in light bulbs since 1925.

WALDO CAMINI

DIARY

Public and Private Transport. Evening discussion at the RIBA, 66, Portland Place, W.1. 6 p.m. MAY 28

Exhibition of Paintings by Barbara Jorgensen. At the Interior Design Centre, 9, Mayfair House, Hertford Street, W.1. Open 10 a.m. to 5 p.m. MAY 28 TO JUNE 19

The Big City. Evening discussion at the RIBA, 66, Portland Place, W.1. 6 p.m. MAY 29

Design of Co-ordinated Colour Ranges for Building Products. RIBA Science Committee Conference; principal speaker H. L. Gloag. At the RIBA, 66, Portland Place, W.1. 2.30 p.m. JUNE 2

English Country Houses by Their Owners: Drayton House. By Colonel Nigel Stopford Sackville at the Victoria and Albert Museum, South Kensington, S.W.7. 6.15 p.m. Tickets obtainable from the Secretary, SPAB, 55, Great Ormond Street, W.C.1. JUNE 4

Civic Responsibilities. Talk by John Gloag at the AGM of the Council for Visual Education. The Housing Centre, 13, Suffolk Street, Pall Mall, S.W.1. 3 p.m. JUNE 4

EDITORIAL BOARD (1) *Consulting Editor*, F. R. Yerbury, O.B.E., HON. A.R.I.B.A. (2) *House Editor*, J. M. Richards, C.B.E., A.R.I.B.A. (3) *Executive Editor*, D. A. C. A. Boyne. (4) *Editor Information Sheets*, Cotterell Butler, A.R.I.B.A. (5) *Editorial Director*, H. de C. Hastings.

TECHNICAL EDITOR: (6) Lance Wright, A.R.I.B.A.

SPECIALIST EDITORS: (7) Planning. (8) Practice. (9) Surveying and Specification. (10) Materials. (11) General Construction. (12) Structural Engineering. (13) Sound Insulation and Acoustics. (14) Heating and Ventilation. (15) Lighting. (16) Sanitation. (17) Legal. (18) Electrics.

ASSISTANT EDITORS: (19) *Chief Assistant Editor*, Malcolm MacEwen, M.A., LL.B. (20, 21) *Assistant Editors* (Buildings), Robert Maguire, A.R.I.B.A., Sheila Wheeler. (22) *Assistant Editor* (Production), W. Slack. (23) *Assistant Editor* (Information Sheets), V. A. Groom. (24) *Photographic Department*, H. de Burgh Galwey, W. J. Toomey. (25) *Editorial Secretary*, Mary Sheehan.

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

The Editors

RETURN OF THE PRODIGAL SON

URBAN renewal has arrived on the scene with a series of loud bangs that demand and (we hope) will receive public attention. Following the jubilee exhibition at Liverpool University's Department of Civic Design, with its emphasis on comprehensive development, and Chamberlin, Powell and Bon's revised Barbican scheme, which may give London its first large-scale experience of multi-level planning, the RIBA and SPUR have launched a public campaign with an exhibition, a symposium and public meetings, for the rebuilding of the worn out and congested centres and inner rings of our great cities and larger towns.

Anybody reading the 224 pages of the 1958 Report of the Ministry of Housing and Local Government would conclude, however, that the Ministry was *not* thinking about these problems in 1958, far less doing anything about them. But the clamour for urban renewal seems by now to have penetrated Ministerial ears. Henry Brooke, the Minister of Housing and Local Government, startled his hearers when he spoke at the Liverpool exhibition by proclaiming the need to concentrate on urban renewal and comprehensive development, and urged the importance of "much more research" to improve the efficiency of planning. Had this spirit animated the Ministry since the war it would not have disbanded its planning research and its regional planning organizations, and some of the recent disasters (such as those caused by the office boom) might have been avoided. However, better late than never, and we welcome Mr. Brooke's conversion with the enthusiasm reserved for prodigal sons.

His words will have now to be translated into deeds. The SPUR exhibition eloquently demonstrates that the government will have to spend much more on urban renewal if it is to make any impact on the problem. SPUR suggests that a National Agency for Urban Renewal, financed by an urban renewal budget, should be established to carry through a small number of big experimental urban renewal projects. The main thing is that the Government itself should adopt the policy of urban renewal, provide machinery for regional planning and obtain a large vote for three purposes: to set up a large planning research division within the Ministry, to finance many more comprehensive development areas, and to finance the experimental projects suggested by SPUR. By restoring housing subsidies in comprehensive development

areas the government could, as Arthur Ling suggested, switch local authorities to the attack almost overnight.

What Mr. Brooke has in fact done this year is to abolish all planning grants, including those for comprehensive development (except for war damaged areas). Until this niggardly policy is reversed talk of urban renewal will be pie in the sky—or possibly pie for commercial developers who will be prepared to take the plums for themselves, while leaving rate-conscious local authorities to grapple reluctantly and ineffectively with the unprofitable parts. This is more or less what is happening now. But unless development is planned comprehensively to include such unprofitable works as a new road pattern and multi-level circulation, open spaces and the removal of badly sited industry, the real evils and problems will not be tackled, and the real opportunities cannot be grasped. We cannot get urban renewal on the cheap.

LIGHT ON HEATING

It was an excellent idea of the organizers of the Yerbury Foundation to invite the Danish Heating engineer, Jorgen Varming, to give the Foundation's first lecture on Mechanical Services and Architecture,* and it was an excellent idea of Mr. Varming's to carry his subject into the sphere of education. Architects in England tend to think that they themselves and the other professional people with whom they come in contact, are what they are because of the different jobs they have to do; and that the apparently insurmountable difficulties in communication which they experience are part of the order of things. In fact this is not so. We are the heirs of an unduly compartmented idea of building technology and of an educational system which has been founded upon it. Architects as a class are perhaps more aware of this than their professional engineering colleagues, because it is their duty to solicit the collaboration of the others and to co-ordinate their effort to produce a single whole. As they are the first to see this, they have a duty to press the point.

It is always difficult for the members of one profession to urge that members of the others should be educated differently from what they are, but if architects must accept this ungrateful task, they do so with the clear sense that they are equally critical of their own education and are bent on doing something about it. Mr. Varming spoke of the heating and ventilating engineers as the Cinderellas of the building professions and called for a rise in professional status to give them an equal standing with the Structurals and the Civils. Certain it is that all of the building professions—architects included—must look to their academic and professional status if they are to attract a fair share of university graduates. What is wanted is a re-appraisal of the scope of the professions, leading to the setting up of a common educational system which will correspond to the reality of building and will ensure that all members of the professional team have a sufficient insight into the work of the others to make communication easy and natural.

* See report on page 796.



OUT OF THE SLOUGH?

The RIBA symposium on "The Living Town," which will be reported in our next issue, left me with an optimistic feeling that, even if planning is now in the Slough of Despond (as Robert Matthew put it), a real effort is being made by the RIBA to lift it out. Several of the papers were of a very high order, particularly Arthur Ling's realistic approach to the practical problems, Matthew's withering indictment of the abandonment of planning by the Government, Hugh Casson's epigrammatic advice on "town sense" and Percy Johnson-Marshall's slide lecture on the past and its problems.

*

The one really loud, spontaneous burst of applause was given to Peter Chamberlin's remark (after quoting Lord Montgomery and General Omar Bradley) that when retired generals become concerned about the appearance of the world he was encouraged to hope that peace might be round the corner—and "some of the money spent on unproductive fireworks might be used to make constructive town planning possible."

*

The big question, it seems to me, is what are the RIBA and SPUR going to do next? The Press virtually boycotted the symposium (how good, one wonders was the RIBA's Press work?) and SPUR's stimulating exhibition,

which everyone should go to see, will only reach a very small audience. It will certainly help if the Civic Trust sends the exhibition round the country, for its weaknesses in signposting and titling can easily be put right. But the gulf between the architects and town planners and the public is immense. It is astonishing, but true, that Arthur Ling's slides of Coventry's city centre came as a startling revelation to a well-known sociologist who has been studying community problems in London for some years.

*

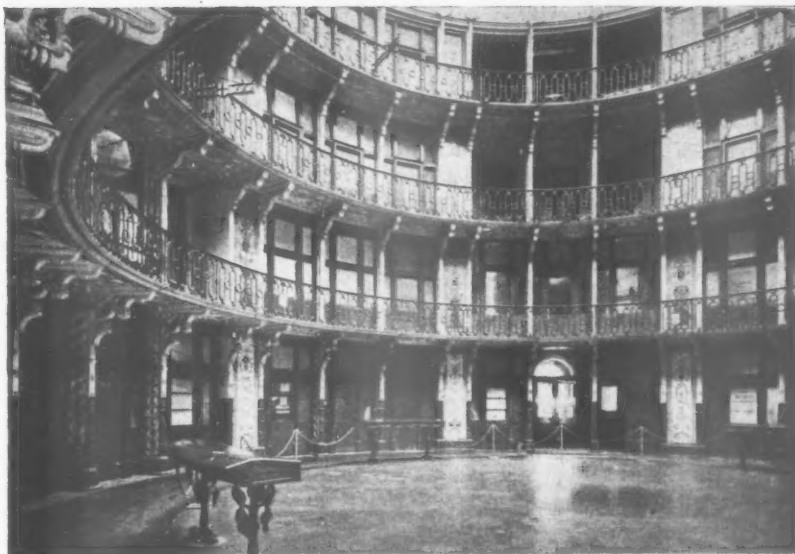
Couldn't the Civic Trust, which has still to make two more films with the BBC, combine them to make one really good documentary on urban renewal? Will the RIBA, if it is serious about launching a campaign, not have to consider (perhaps with the help of the building industry) sponsoring a major documentary on comprehensive development?

PLANNING FOR YESTERDAY

Basil Spence, who opened SPUR's exhibition of "Better Towns for Better Living," said that we lived in cities planned for another age, but that while our ancestors didn't expect radical changes we did expect them, and if we planned without thought for the future our successors would have just cause to criticize us.

*

It wouldn't be so bad if we were even planning for the present, let alone the future; but it seems that much of our planning—particularly for roads—is based on conditions of the immediate past. Is it because planning is so difficult that we become lazy and avoid doing a proper job? The other day Myles Wright, professor of civic design in Liverpool's Planning School (fiftieth birthday this month), described how planning history had repeated itself twice during this century. He said that once the demand to get something done had led to legislation, resolution wavered. Then, he said, people became disillusioned about the feeble results of legislation and new endeavours were made. But these were not endeavours to find out what went wrong and to put legislation right: instead there was a concentration of attention on side issues, such as preservation, new towns, or urban development trusts. There is a danger of this in SPUR's proposals.



Admirers of Bunning's Coal Exchange, which is threatened with destruction by road improvements, will be happy to know that Chamberlin, Powell & Bon propose to incorporate the cast-iron rotunda (above) in the School of Music in their Barbican plan (below). The open galleries would give access to many small music studios, while the rotunda would serve as a central concourse and chamber music hall. See report on page 795.



I hope SPUR will lead to action as well as theorizing. It may even get some support from Henry Brooke, the Minister of Housing and Local Government. If you feel sceptical turn to page 793, where you will find a report of the Minister's astounding statement that he believes in the need for more research and more comprehensive thought. An inspiring idea spoken at the opening of yet another inspiring exhibition: "Urban Development and Civic Design" which celebrates the fiftieth anniversary of the Liverpool Civic Design School.

MUSEUM PIECE

Much as I regret the coming departure from the *Review* of Ian McCallum, its Executive Editor, I can only congratulate him on his appointment as Director of the new American Museum to be established near Bath in 1961, and congratulate the Halcyon

Foundation of New York on its choice. The orthodox thing would have been to appoint some well-known American curator, but McCallum's combination of American expertise and ability to interpret America to Britain, as well as his flair for display (so brilliantly seen in his handling of the *Architectural Review*) should make the new Museum exceptionally valuable and stimulating. It will illustrate the development of the American Decorative Arts from the 17th to the 19th century, but the collection will be brought gradually up to date to contribute to an understanding of American art in the present time. It will be housed in Wyatville's Claverton Manor.

AA: STOP PRESS

The ease with which the Council of the Architectural Association can become out of touch with the membership was shown at an informal meeting held this week to discuss the integrated training of students of architecture, engineering, building and surveying. (Perhaps some constitutional reform is due at the AA on the lines of the RIBA.) Before the meeting ASTRAGAL had little idea what the feeling of the membership would be. In fact, the meeting showed that the great majority of the members present wanted integrated training and further discussions with the LCC (the sponsoring body whom the AA Council sum-

marily rejected a few weeks ago) on how to achieve it. A few speakers expressed doubts, such as whether integrated training should be broadened to include planning and certain sciences so as to avoid producing "technocrats," but only one speaker, ex-president Brandon Jones came out vociferously against any association with the LCC and only he had any alternative proposal: not for a new educational set-up, but for a standing co-ordinating committee to be formed to persuade London schools to collaborate in some not very clearly defined manner.

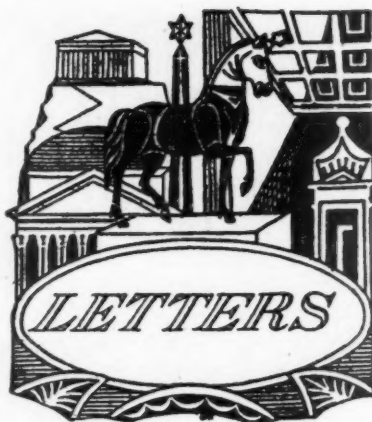
As an indication that the AA members mean business, even if some of the Council don't, a forest of hands shot up to support the suggestion that a referendum of members be taken immediately on the question of the need for integrated training, so, perhaps, if good sense prevails, things can go ahead when the new Council forms next week.

A Student Committee resolution was passed round at the meeting, despite the last moment protestations of the AA secretary, asking the Council to set up a committee to consider the AA's future and "the type of education necessary to produce the architects we ought to be." Of course that is just what should be going on all the time, as ASTRAGAL has said before. More about all this, the Editors assure me, next week.

NEW PARISHIONERS

David Woodbine Parish, an active man in building industry reforms, is shortly to become chairman and a director of Bovis Ltd. I hope that the president-elect of the NFBTE, who was until recently chairman and managing director of the firm of Holliday & Greenwood, will still find time for his other work. He takes over from Sir Keith Joseph, who returns to other appointments with the Bovis Holdings Group. Sir Keith, whose activities as an MP, a barrister and a City liveryman might well call to mind a splendid, sonorous vacuity, has a good grasp of architectural affairs. He could be a great help to the profession in the House of Commons where, heaven knows, we get very little help.

ASTRAGAL



Graham Dawbarn, F.R.I.B.A.

Lionel Brett, F.R.I.B.A.

AJ Specialist Editor (Lighting)

Jeremy Mackay-Lewis,

President, British Architectural Students' Association

Experiment or Expire

SIR: With, now, occasional time to spare, I sometimes read Editorials and correspondence. Over the years, I have evidently missed both edification and amusement, as well as fury at quite fantastic errors of fact or judgment. One of the most staggering of these appears in the Editorial about the AA ("Experiment or Expire") in your issue of May 14 which states that their advisory council consists of the older type of privately practising architect "who has little knowledge of or sympathy with public service and local government."

Really! What do the Editors think that we back-numbers have been doing all our lives but working with and often for Central and Local Governments? How can we possibly have failed to acquire a "little knowledge" as well as sympathy and admiration during our innumerable contacts and discussions? The Editorial then proceeds to state that the many younger AA members know their potentialities. Not, mark you, "many" but "the many"; implying that not some but all the youngsters, even those who work in a corner on a drawing board all day have, by some miraculous intuition, acquired what has consistently been denied to a previous generation. I am all for "up the under-twenty-fives" and have considerable sympathy with those tribes that bump off (or perhaps the tense should be past) their Chiefs when in their view they are becoming "vieux jeu"; but the implication in this Editorial that the young are all for and the old are all against the venture with the LCC just is not true.

GRAHAM DAWBARN

London

RIBA and Motorways

SIR: Mr. King (AJ, May 21), understandably, does not like my view that by virtue of the nature of their training, architects

should ultimately take the lead in urban planning. This view, given in reply to a question, was (as your report made clear) carefully qualified, and until supermen of the kind visualized by Mr. King emerge I am sure we should maintain our claim. But this is not the important point. The essence of the RIBA's case, as I see it, is that urban motorways are not a self-contained engineering problem, but an inextricable part of town planning or civic design or whatever you choose to call it. Once you grasp this point, inter-professional arguments about which is best at "design" become irrelevant, a team is the only answer, and it is obvious that the team must include an architect. The leadership can be left to look after itself.

Oxford

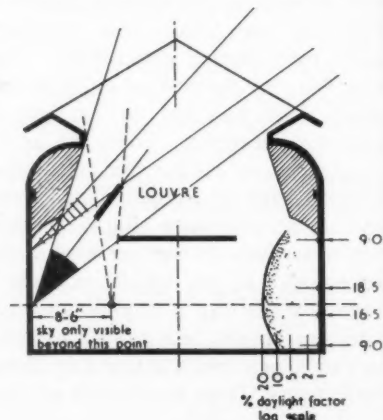
LIONEL BRETT

Gallery Lighting

SIR: In order to be fully useful, I feel that the recently published Working Detail of the Birmingham Art Gallery requires some additional diagram to show how the section works from the point of view of the natural lighting. The accompanying sketch was originated by BRS, who prepared the design for the City of Birmingham. The work done at the Station in developing the project included tests carried out in a large scale model of the gallery, and was largely done by John Bickerdike.

In fairness to all concerned it must be pointed out that certain modifications have been made from the BRS proposals in carrying out the alterations to the gallery. In brief these are:

- The use of the end walls for picture hanging. The BRS scheme was a solution in section only, the end walls being occupied by artificially lit show cases. The natural lighting of these end walls has not been resolved in the final design.
- In the original scheme there were wide canopies over the entrance doors, to screen the glazing from view when entering the gallery. These were omitted.
- The colours of the original scheme were chosen so as to darken the upper parts of the room, particularly the upper coiving and the louvres. In the final outcome these have been painted much lighter colours, so that they are rather brighter than originally visualized by BRS. One result is that you are far too aware of the upper parts of the



NEWS

LIVERPOOL JUBILEE

Henry Brooke Supports Comprehensive Planning

In his address before opening the Jubilee Exhibition in the department of Civic Design, Liverpool, Henry Brooke, The Minister of Housing and Local Government, concentrated on the theme of the display—the need for a comprehensive plan to guide and where necessary to regulate development of all kinds. This, he agreed, was still one of the main objectives of planning. During the past fifty years we had gained a great deal of valuable experience and achieved some notable successes, but the main emphasis up to now had been in areas

everyday development has failed to match up to the promise of the legislation. The last screen states . . . "post-war hopes have not been fulfilled . . . there has been renewed alarm at the very small improvement of the general appearance and layout of new buildings . . . Just as in the 1920's new societies have been formed to protest and protect. It is hoped that this exhibition has suggested that the problem in 1959 is the same as in 1909. It is to find a way to ensure that all urban building development takes place in accordance with a plan or design prepared in advance and in sufficient detail. This has been done in . . . individual cases . . . The great objective now is to transform the exceptional into the customary."

interior above the velarium.

Despite these criticisms there is no doubt that the re-modelling, which provides just about the best lighting conditions in this country for pictures, is worth visiting by anyone interested in this type of problem. The effect is particularly striking in the Pre-Raphaelite room (the Gallery having a superb collection of the group) where the meticulous detail and rich colouring can be seen to the very best advantage.

AJ SPECIALIST EDITOR (LIGHTING)

BASA Discussion Groups

SIR: In an effort to overcome the national inertia and try to continue where the Cambridge Conference left off, we feel that there is a need for discussion groups which could meet at regular intervals throughout the country and provide a permanent framework for ideas and opinions to be exchanged. Probably the most fruitful kind of discussion group would be one composed both of students and young qualified architects. Purely student debates are often vitiated by the fact that students have not had enough

office practice to realize all the problems involved, but they are in a position to provide mental stimulation of the kind that is so frequently lacking in every-day office practice where the more fundamental issues of architecture are often conveniently bypassed.

The form of group envisaged is that each school of architecture should organize a meeting once a fortnight to discuss a specific agenda. The ideas exchanged in the various discussion groups would then be collected by BASA's permanent secretary and sent out to the groups at monthly intervals.

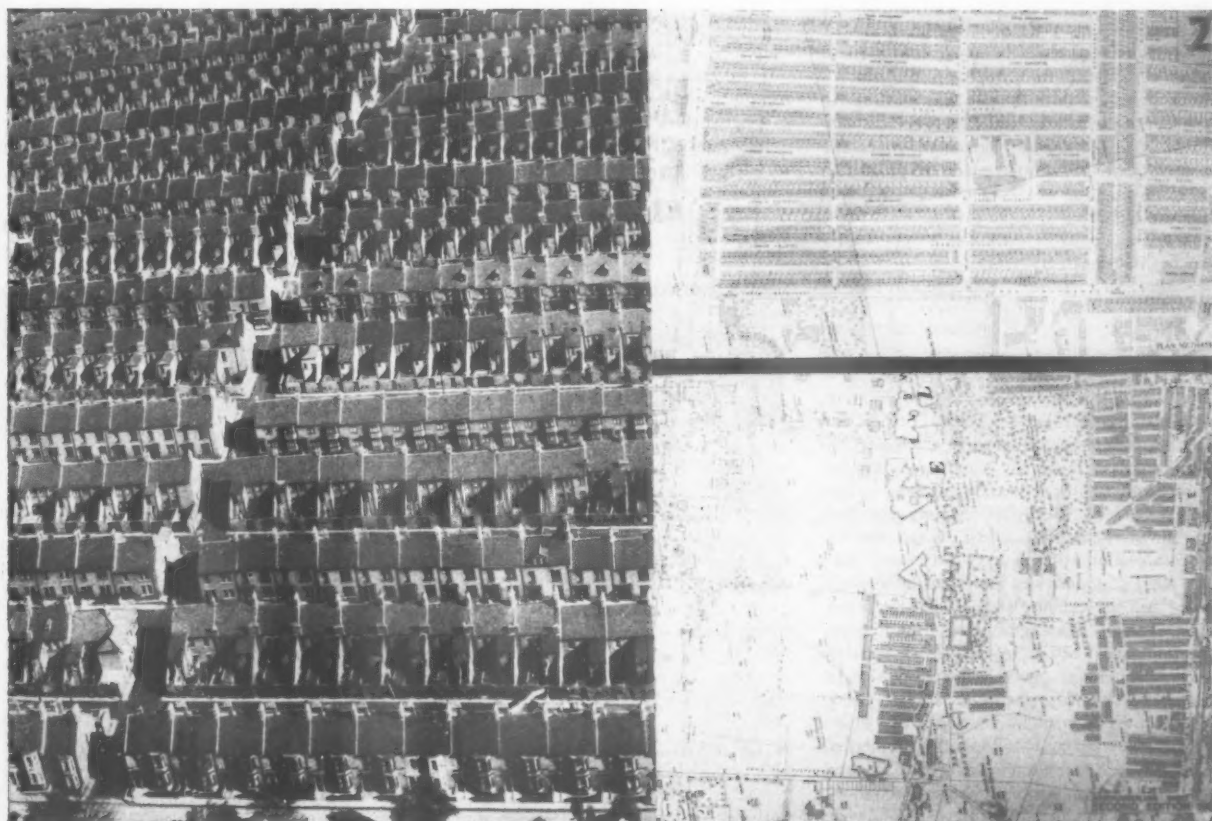
The first of these meetings in London will take place on Monday, June 8, and is to be held at 24, Park Square East, near Regent's Park tube station, at 7 p.m. (beer and sandwiches will be provided).

I hope that as many architects and students who are interested in this scheme will come to this first meeting, which will decide the issues to be discussed and the way they are to be tackled.

JEREMY MACKAY-LEWIS
President, BASA

London

The Liverpool School of Civic Design was started in the year of the first Planning Act, in 1909. To celebrate its fiftieth anniversary the Department has arranged an exhibition at the school, which was opened recently by Henry Brooke, the Minister of Housing and Local Government (see this page). The exhibition, on 24 screens, shows examples of urban development typical of the last fifty years and examines the major influences that have determined the appearance of development. Part of a typical screen is shown below. The aerial view is part of Scotswood on Tyne and alongside are two ordnance survey maps of the area showing precisely the growth of this by-law housing during the period. With successive screens the exhibition shows how planning ideas have progressed and how



where development was taking place for the first time. He believed that in future planning must become more concerned with the urgent and difficult problem of reshaping and redeveloping those parts of our towns that have stood for many years and are now old and outworn. The area involved was large and the problems complex, but clearly it was the next major step forward now that slum clearance was well under way.

"... in this sphere of urban renewal," said Mr. Brooke, "we have so much yet to learn, quickly and thoroughly—how to fit cars into the town, to meet all sorts of new needs which the people's rising standard of living demands, how to provide best for changing methods of marketing and distribution and how to deal with the hotly competing claims for land use; how to achieve modern progress and yet preserve what is old and good."

Mr. Brooke then referred to a number of points arising from past experience in this field. In the first place, he said, it was evident that "piecemeal planning will not do." Comprehensive development was needed and in a form that would bring in as many agencies as possible—both public and private. Secondly, more attention should be paid to three-dimensional planning and in particular to the needs of tall buildings. Thirdly we must recognize both the value of research and the need for more of it. To reap the full benefit from the very large amount of money being spent each year on building, far more research was urgently needed. Lastly, not nearly enough was being done to explain to the ordinary person what it was that planners were trying to do, how they intended to do it and that planning was for the benefit of the general public and not for the planners themselves. In this respect the Department's Jubilee Exhibition was particularly valuable.

In conclusion, Mr. Brooke paid tribute to the contribution that the Liverpool Department of Civic Design had made over the past fifty years to town planning in Britain and throughout the world and suggested for the Department to contribute even more that there would be no lack of opportunity during the next fifty years.

P. S. BRENIKOV

SPUR

Exhibition at RIBA

The exhibition "Better Towns For Better Living," which was opened at the RIBA by Basil Spence on Friday (and remaining on view until June 6), marks the first public appearance of SPUR, the Society for Promotion of Urban Renewal. Its purpose in this exhibition is to make "a dramatic presentation of the virtues and vices of modern cities and the exciting possibilities that exist in the future." Having done so, it announces the policy that SPUR intends to advocate to secure its aim of urban renewal, the main plank in its platform being the creation of a National Agency for Urban Renewal.

The designer, Christof Bon of Chamberlin, Powell and Bon, has obviously had to cope with a good many difficulties—a shoe-string budget, lack of time (there were

still large gaps in the exhibition at the press view) and an embarrassing amount of material which SPUR's many sub-committees wished him to include. He has used as screens standard flush doors hung from scaffolding, a cheap and sensible idea which has the advantage that the doors can be hung sideways or the right way up, separately or joined together by hinges, and are easily transported. The main disadvantage seems to be the disconcerting number of legs one can see underneath.

The visitor first sees a series of large photographs which tell him what's wrong with the city today: overcrowding, traffic congestion, pollution, monotony, neglect, profligate land use. The captions are either non-existent or literally telegraphic, being enlargements of telegrams, and while many visitors may feel that they know what's wrong already, non-technical visitors at least are more likely to feel that they need a clearer introduction to the subject than the captions provide. Dr. Johnson's quip "when a man is tired of London he is tired of life" introduces another section, similarly displayed, of excellent photographs showing all the good things of city life.

Having contrasted the evil with the good, SPUR poses the alternatives:

"If things are allowed to slide, our congested cities, our rising demands for living space and our eight million motor cars will inescapably produce in Britain what they have already produced in America. Los Angeles at present stretches from as far as from London to Manchester and our own brand of subtopia could easily do the same—a deadly monotonous and dangerous environment for our children to grow up in, rotting and rotten city centres, collapsed urban land values and no open country to escape to.

"If we want it and work for it, we can recapture the traditional picture of Britain as a network of cities, towns and villages set in an unspoilt countryside of matchless variety and productivity. In this picture town

and country complement and set off each other, each is at its economic best, and people have the spice of contrast in their lives.

"Nobody pretends our worn-out cities fit into this rosy picture. Urban renewal is inevitable, and the only question is whether it is to be haphazard, plot-bound, distorted by competitive interests, or co-ordinated, imaginative and supported by the researches of some of our most creative minds."

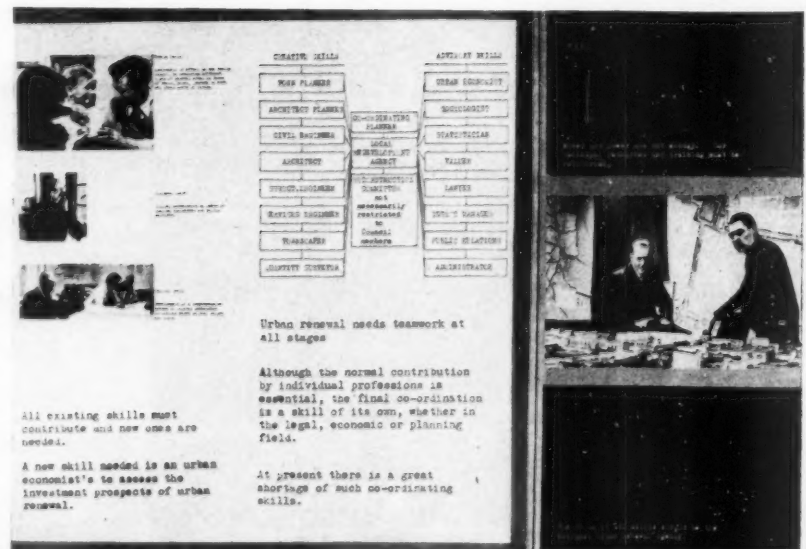
At this point, when it turns to its constructive ideas and proposals, the exhibition also turns to very much smaller photographs to illustrate some points about towns—the importance of compactness, with mediæval and modern examples, for instance, of towns within cities, and on the character of city centres. Under "How To Do It" the exhibition emphasizes that mixed uses in towns may often be more desirable than zoning large areas of single use, shows how the new roads must serve the town, not dominate it, and how open space must be built up into a single town system that permits pedestrian movement throughout.

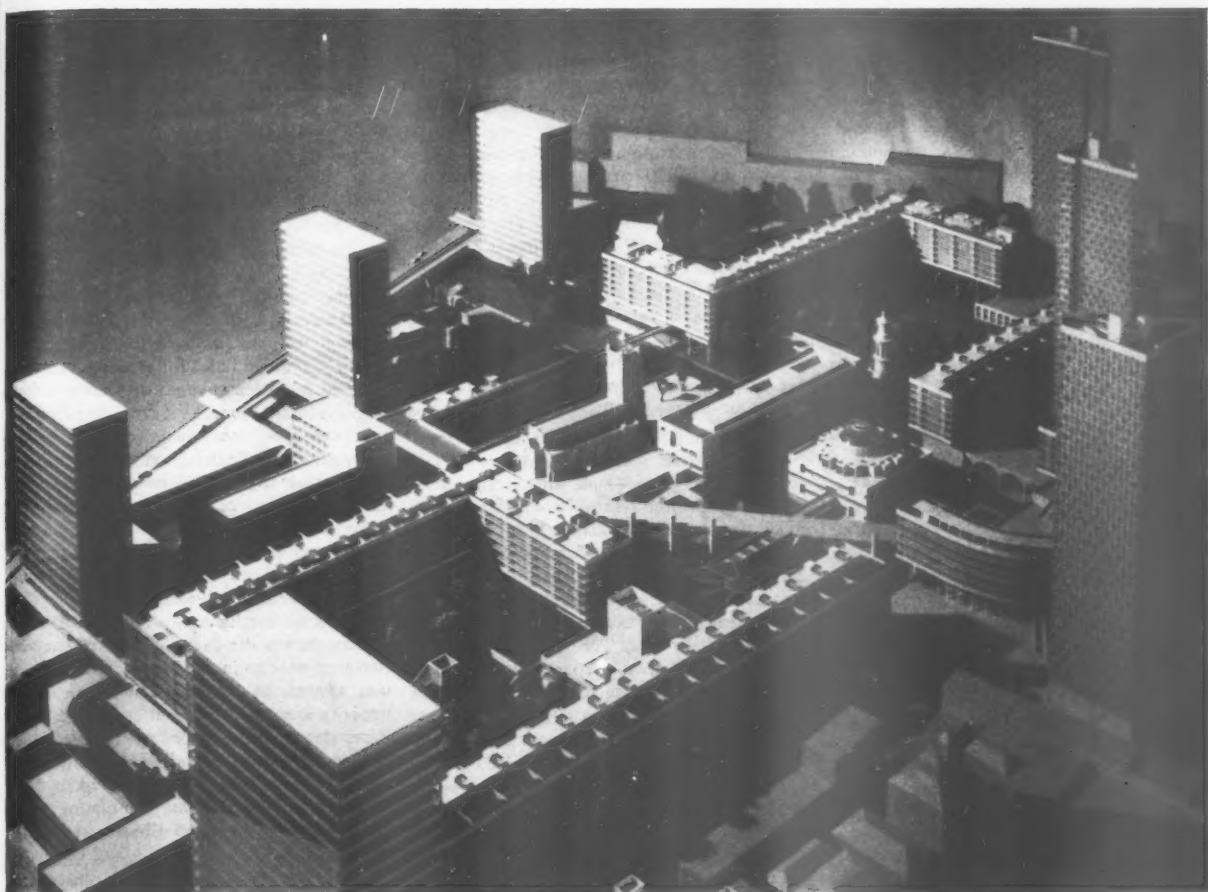
Unfortunately, when the exhibition comes to policy, the part that might be thought to matter most, it becomes most difficult to follow. The visitor loses his way, and has to study small type really hard. This is a pity because the screens are well worth studying, particularly one which analyses national income and the breakdown of capital expenditure (its conclusion is that we spent £50 to £60 million in 1957 on renewing urban housing, £1,616 million on Destruction (the Defence budget) and £334 million on advertising).

One conclusion is that we have got to spend more money on urban renewal. Specifically SPUR advocates:—

1. A small number of experimental pilot schemes on sites up to 75 acres (twice as large as the Barbican) to test unfamiliar ideas. Projects would take five years to build, 10 years from initial research to assessment, and would be undertaken in

A screen from the SPUR exhibition "Better Towns For Better Living," displaying SPUR's ideas on the way to co-ordinate the many skills involved in urban renewal.





A view of the model of the new Barbican scheme from the north-east. In the centre can be seen the enclosed roadway with the pedestrian way on top passing the new school of music building which makes use of the old Coal Exchange. To the right of the picture are the three 37-storey blocks of flats.

co-operation with local authorities by a National Urban Renewal Agency, financed from an urban renewal budget.

2. Reconstruction committees in every town and city, not necessarily confined to council members, to promote comprehensive development and to investigate the physical and economic aspects of renewal in each area.

3. Inter-professional planning teams in all large urban areas. These teams would include new skills—the "townscapist" and the "urban economist" are mentioned.

In planning, it places emphasis on multi-level circulation (exploiting the third dimension to liberate planning and architecture from the tyranny of the road pattern) and the building of new towns *within* cities.

M. M.

BARBICAN

Detailed Proposals Presented

With the presentation of the Chamberlin, Powell and Bon scheme for the redevelopment of the Barbican to the Court of Common Council of the Corporation of the City of London, we have at last, nearly 14 years after the end of the war, a set of definite and detailed proposals for the use of these 35 acres of bomb-damaged London. The central idea, as it was in the architects' original scheme in 1957, is to reverse the modern trend towards building residential

areas on the outskirts, by bringing dwellings back into the heart of the City. The 2,150 flats planned are designed for use by people with high incomes, for whom the architects have provided the most up-to-date and labour-saving accommodation possible, and they have provided space for more than one car per dwelling in the covered garage spaces below the blocks.

It is in its treatment of cars, and of the City's traffic problem generally, that this scheme is of greatest interest. From the point of view of civic design, the safety of the pedestrian is not the only consideration, but also the human comfort of being able to move about without constant awareness of fast-moving traffic, its noise and smell, and to attain quiet at night, free from commercial traffic noise, though so near important commercial traffic routes. This has been achieved at Barbican by the adoption of multi-level circulation, so that it seems that the only way that anyone can get run over is by jay-walking in the car parks. At the same time, the City Engineer's requirement for a traffic route running roughly north and south through the centre of the site has been successfully provided for by means of a completely enclosed roadway

with a pedestrian causeway on top.

As the architects point out, the principle that pedestrians and traffic should be provided with completely separate routes has been accepted for more than a century on the railways, where pedestrians always cross the line by bridge or subway. This principle has been followed through at Barbican with great tenacity.

The three tower blocks proposed in the 1957 scheme, on the interim model of the project, were rectangular in plan, but second (or third or fourth) thoughts have changed this for a polygonal, wedge-like shape. These blocks have not been sited symmetrically but related to the main axes of the scheme, and both their present shape and positioning will give them a different aspect from various viewpoints in the area, preventing the monotony that might arise from three identical blocks on the same axis. These three 37-storey tower blocks, together with the three 18-storey office blocks, serve as a vertical relief to the horizontal treatment of the other residential buildings, which are arranged in forms comparable in shape and scale to traditional London squares. One gets the impression that it will be possible to walk about the whole area

with new views opening up at frequent intervals, the principal open spaces enclosed by the long terraces of buildings south of the Barbican, and laid out on a large scale, with grass, mature trees and water, in the style familiar in London parks and squares. Formal gardening is restricted to the podium from which these larger spaces are surveyed, and the small sunken, enclosed courts where the pattern of planting can be appreciated by pedestrians on the higher level.

A full report on this scheme will be published in next week's JOURNAL.

AA

Yerbury Foundation Lecture

The Yerbury Foundation was established by the Architectural Association just over a year ago. It is actively supported by all the professional bodies concerned with building and its trustees include architects, industrialists and builders. Its object is "to develop the technical skill of the architect by financing improvements in graduate and post-graduate architectural training." It intends to establish a senior lectureship in building engineering services at the AA school in the near future.

The first project sponsored by the Foundation to further its aims was a lecture delivered at the TUC Building on May 20, by the Danish engineer, Jorgen Varming, his subject being "Mechanical Services and Architecture."

The theme of the lecture was the need for closer co-operation and understanding between architect and engineer—a need which is even recognized by some architects, though the profession has a sad record in this respect. The lecturer, Danish born and English trained, practises as a consulting mechanical engineer with Nils Steensen in Copenhagen and with Steensen and Sean Mulcahy in London and in Ireland. Post-war projects include the Brynmawr Rubber Factory by Architects Co-Partnership, the Dublin Bus Station by Michael Scott and, more recently, Joern Utzon's Sydney Opera House. Recent work in Denmark includes the Institute of Nuclear Research Laboratories and the first Danish Atomic Research Station.

Jorgen Varming introduced his subject by tracing the history of building services. This, he claimed, went back no further than about the turn of the century when architects were first confronted with the phenomenon of conditioned air. He suggested that, whilst many factors contribute to the present unsatisfactory relations between architect and engineer, these relations had an unfortunate start in the resentment shown by many architects towards the intrusion of the engineer's pipes and ducts into their buildings. An early effect of this resentment was the architect's insistence that all services should be concealed. Co-operation between the professions, therefore, had an unfortunate beginning and has tended to deteriorate since then.

The present lack of co-operation, Mr. Varming suggested, can be related to the way

in which a building project usually starts. Most often the architect is briefed by his client, conceives his design and brings it to the stage of client approval and working drawings before calling in his consultants. This is an extremely unsatisfactory state of affairs for, not only is it frustrating to the consultant to be confronted with a virtually unalterable design, but also he must often cram his services into inadequate space or otherwise arrange them in a manner which is less than efficient. And when collaboration—such as it is—commences, it finds expression in a peculiar way. Architect and consultants work separately on their final drawings in three or even four offices, so far apart that communication is by telephone or letter.

Mr. Varming pinpointed the problem as one of organization and education; and his solution is at once simple and radical. For any large project there should be a joint office "with accommodation for the joint staff of architects and structural, mechanical and electrical engineers, all working on the mutual scheme and preferably nothing but this scheme." This he describes as a self-contained team unit. The arrangement presupposes briefing all consultants at the initial design stage. He offered this solution with a confidence based on his own experience. The Danish Atomic Research Station built on virgin land just outside Copenhagen was completed against a very tight time schedule. Professor Bohr, the architect, employed several means to speed the programme during the design stage. One of these was to establish a joint office, accommodating forty people, for architects, structural, mechanical and electrical engineers to work together. The success of this large-scale experiment leaves no doubt as to the efficiency and desirability of the joint office system.

Architects in the audience winced visibly, when the lecturer, expanding the theme of teamwork, suggested that if the architect proved, as in some cases, to be "more artist than organizer" the practical leadership of the team should be vested in the civil engineer or any of the other engineers provided their tact, administrative ability and appreciation of architectural value came up to standard!

The spirit of co-operation should begin during the respective training of architect and engineer according to Mr. Varming. Students of architecture, structural, mechanical and electrical engineering should collaborate on final year projects. He pointed out that whilst most architects sooner or later have contact with engineers, only 10 to 20 per cent. of engineers will ever have dealings with architects. Among engineering students very few, if any, go through their studies realizing that they will spend their lives in contact with architecture. The emphasis should be on co-education at a later (possibly post-graduate) stage. Mr. Varming's plea for a measure of co-education is rooted in his belief that much of the blame for the poor collaboration between architect and engineer stems from the fact that the professions do not know enough about the work and aims of each other.

Architects regard services as a necessary evil to be stuffed in somewhere as inconspicuously as possible, and mechanical engineers treat architectural design with considerable suspicion. It is interesting to note that for some years now the AA School has provided, in its fourth year, for students to carry out a design problem in collaboration with mechanical engineering students from the Borough Polytechnic. This is a step in the direction of Jorgen Varming's co-education.

On the question of education as a whole he examined both English and Continental systems. He criticized the latter which allowed young graduate engineers to enter the profession on the strength of their academic qualifications alone, whereas in England practical experience was demanded before recognition. In England, on the other hand, the heating engineer is not recognized by the Institution of Mechanical Engineers (Why? Because the work of the heating engineer—heat transfer, the behaviour of air jets, pipe flow, air conditioning—is physics, not mechanical engineering, which is concerned with mechanics.), and he attributed to this reason the fact that so few university graduates go in for heating and ventilating, whereas in Scandinavian countries the majority are graduated civil engineers. Heating engineers, fully trained as civil engineers, tend to be much more alive to architecture. The situation could be improved by the Institution of Heating and Ventilating Engineers obtaining a Royal Charter.

Mr. Varming then showed some slides to illustrate—as he put it—"the interdependence of these two disciplines." One series of slides illustrated the design drawings of one of the eight selected competition schemes for the Toronto Town Hall. It was obvious that the designers had obtained the advice of a mechanical engineer in preparing their scheme.

A second group of slides showed some boiler houses with layouts designed by the lecturer for heating, ventilating and DHW use. These were intended to support the view, put forward by the Danish Building Research Station, who have been studying the subject, that money and effort spent achieving well-planned, well-lit boiler rooms results in a substantial economy in subsequent running costs. A last group of slides illustrated details of mechanical services.

Mr. Varming's audience was composed largely of engineers, with architects in the minority, and the vote of thanks was proposed by Dr. Taylor, Vice-president of the IHVE. In seconding the vote of thanks Edward D. Mills took the opportunity of reminding those present that whilst the architect was sometimes guilty of not calling in his consultants until a late stage he often had difficulty in the first place in persuading his client to employ consultants at all! Unfortunately the decision to adjourn to the AA immediately after the lecture removed any likelihood of formal discussion. This was a sadly missed opportunity, for the occasion clearly was ripe for a frank airing of views between architects and engineers and the organizers would do well to reconsider their decision for future occasions.

The tru
propose
lecture
relations
ivity. T
building
tween
commu

NOR

How

Judging
Magdale
ference,
try will
forked
schemes
know so
involved
Firstly,
by near
few—w
course,
Misha
inspire
uniform
ness it
with a
busy p
indulging
criticism
Are the
our pro
rally up
of Lond
by gett
new of
architec
often a
If only
more
hierarch
somewh
Second
on May
differen
some in
and su
tions
Some o
everyth
of coff
were cl
pared
person
long to
amount
occasio
earned
have to
but it
On the
prising
fascias
of the
signs a
be as
box be
front
sunk w
for col
convinc
would
street.

The trustees of the Yerbury Foundation propose to follow up Jorgen Varming's lecture with others in the autumn on the relationship between design and productivity. These will include effect of shape on building costs and methods, relation between design and speed of building, and communications.

NORWICH

How it was Cleaned Up

Judging from the reception accorded the Magdalen Street Project at its opening conference, architects up and down the country will soon find themselves being pitchforked into similar street-rehabilitation schemes, and it may be useful for them to know something of what it was like to be involved in the prototype.

Firstly, group working—so long preached by nearly everyone but practised by so very few—was a great success. We were, of course, very fortunate in our leader, since Misha Black is one of those few who can inspire without eclipsing and unify without uniformity. In our remote provincial fastness it was a stimulating experience to work with a top-flight designer, and to get five busy practising architects round a board indulging in mutual criticism and self-criticism was quite an achievement in itself. Are there some general lessons here? Could our provincial centres be kept architecturally up to scratch by occasional injections of London talent in this manner (rather than by getting you-know-who to design your new office block), and could not private architects come out of their shells more often and collaborate rather than compete? If only private architects could become more co-operative and official ones less hierarchical we might really be getting somewhere.

Secondly, the clients. Each sector-architect on Magdalen Street had some ten to twenty different owners or occupiers to deal with, some involving complications of leaseholds and sub-lettings as well; with few exceptions these co-operated enthusiastically. Some of them were family businesses where everything could be sorted out over a cup of coffee in the small back office. Others were chain shops, and finding someone prepared to take decisions in a large impersonal organization at the other end of a long telephone line is not so easy. The amount of letter writing, telephones and—occasionally—anger per pound of fees earned was consequently pretty high. You have to do this sort of thing for love really, but it does seem worth while in the end. On the whole the shopkeepers took surprisingly kindly to proposals to cut down fascias, install reduced size lettering to one of the approved faces, remove redundant signs and so on. Most of these proved to be as expendable as the 6-ft.-high cast iron box belonging to the Electricity Board in front of St. Saviour's church, which was sunk without trace under the pavement. As for colour schemes, the great thing was to convince each client that his own premises would stand out from all the rest of the street. This is not so cynical as it sounds,

since the design policy was to achieve variety in unity, and to accentuate and dramatize the varied features of the street rather than to impose any forced uniformity on them. Most of the shopkeepers now feel that their own building could have been just a trifle brighter rather than otherwise—which is remarkable in a street which was, until three or four months ago, predominantly chocolate-coloured.

SHEILA GOOCH

YORK INSTITUTE

Course on Urban Renewal

The need for post-graduate and refresher courses for practising planners is great, and has been largely unfulfilled until the advent of the courses which now form a regular part of the activities of the Institute of Advanced Architectural Studies at York, directed by Dr. W. A. Singleton. Such a course was that on Urban Renewal held at York from April 9 to 14, and provided an opportunity for practising architects and planners to hear a series of views of different aspects of this urgent problem.

Urban Renewal must necessarily be seen against a background of possible changes in the settlement pattern as a whole if it is to be realistic, and the emphasis in the initial lectures was on this wider aspect of renewal. A team of lecturers from Manchester University School of Town and Country Planning dealt with some of the major factors of policy necessary for a comprehensive policy of renewal: G. F. Chadwick with the size and urgency of the task of replacement of obsolete housing (5½ million houses attaining the age of 100 years by the end of the century and therefore being obsolete, or some 8½ million being 75 years old by this date, out of a total housing stock of 15½ million); J. N. Jackson with the additional housing demand arising from a diminution in the average family size, anticipated as being from 3.2 to 3.0 persons by the end of the century, and requiring one million new houses (two million if the family size drops to 2.8); a further two million houses needed for the additional population increase of 6.2 million by this time, and a further half-million to cover the present demand from overcrowding; a total programme of from 9 to 13 million houses needed in 40 years if we are to keep pace with social demand. D. F. Medhurst showed how new factors in the location of new industries (nuclear power, oil refining and petro-chemicals) might lead to a movement towards new coastal settlements as secondary and ancillary service industries were also attracted there: to what extent is continued investment in some of the older conurbations justified?

Colin Clarke, of Oxford University, showed very cogently the relationship between transport facilities and population densities, reaching the conclusion that dispersal of population was inevitable unless there were quite unforeseen reversals of current social and economic trends: Subtopia has very deep roots not realized by some who regard it as purely a visual affliction. D. F. Medhurst then reviewed the influence of the

motor-car on housing layout, suggesting that it should be planned as a utility service and putting forward a new type of courtyard house arranged in modified linear patterns as a possible solution.

E. E. Hollamby, of the LCC Housing Division, dealt with housing renewal and rehabilitation, and in particular the combined attack on redevelopment and renewal taking place in such areas as Southwark and Paddington. Following this, he dealt with other aspects of inner urban housing including the recent change of emphasis (noted in *Flats and Houses*, 1958) to moderately high density development using low building heights. Suburban renewal then formed the theme of Graeme Shankland, illustrated by the recent Boston Manor project, and central area renewal in its diverse forms.

Bryan Antey presented a very provocative view of the economics of renewal, arguing that the key to renewal is the enhancement of land values, and that renewal was a normal commercial activity which could largely be left to private enterprise. The social consequences of renewal and the importance of understanding the repercussions on people of planning policy decisions were stressed by J. N. Jackson, based on an investigation of social conditions in inner urban and on "overspill" estates. Following this, Percy Johnson-Marshall, in dealing with the aesthetics of renewal, gave a very comprehensive review of current design tendencies in the field of renewal, whilst R. W. Brunskill drew upon his recent experience as a Commonwealth Fellow to make comparisons in the field of American practice.

As a respite from the lecture room the Course then visited Sheffield where the City Architect, J. L. Womersley, explained the renewal schemes in progress there, visits being made to the Park Hill redevelopment area and other sites.

The course concluded with N. Lichfield covering the various agencies operating in this field and improvements in the methods of attacking renewal problems which might be possible, whilst the writer explored the visual possibilities of the landscape resulting from comprehensive rebuilding, both urban and general. It is hoped that further courses on urban planning problems will be held from time to time at York.

G. F. CHADWICK

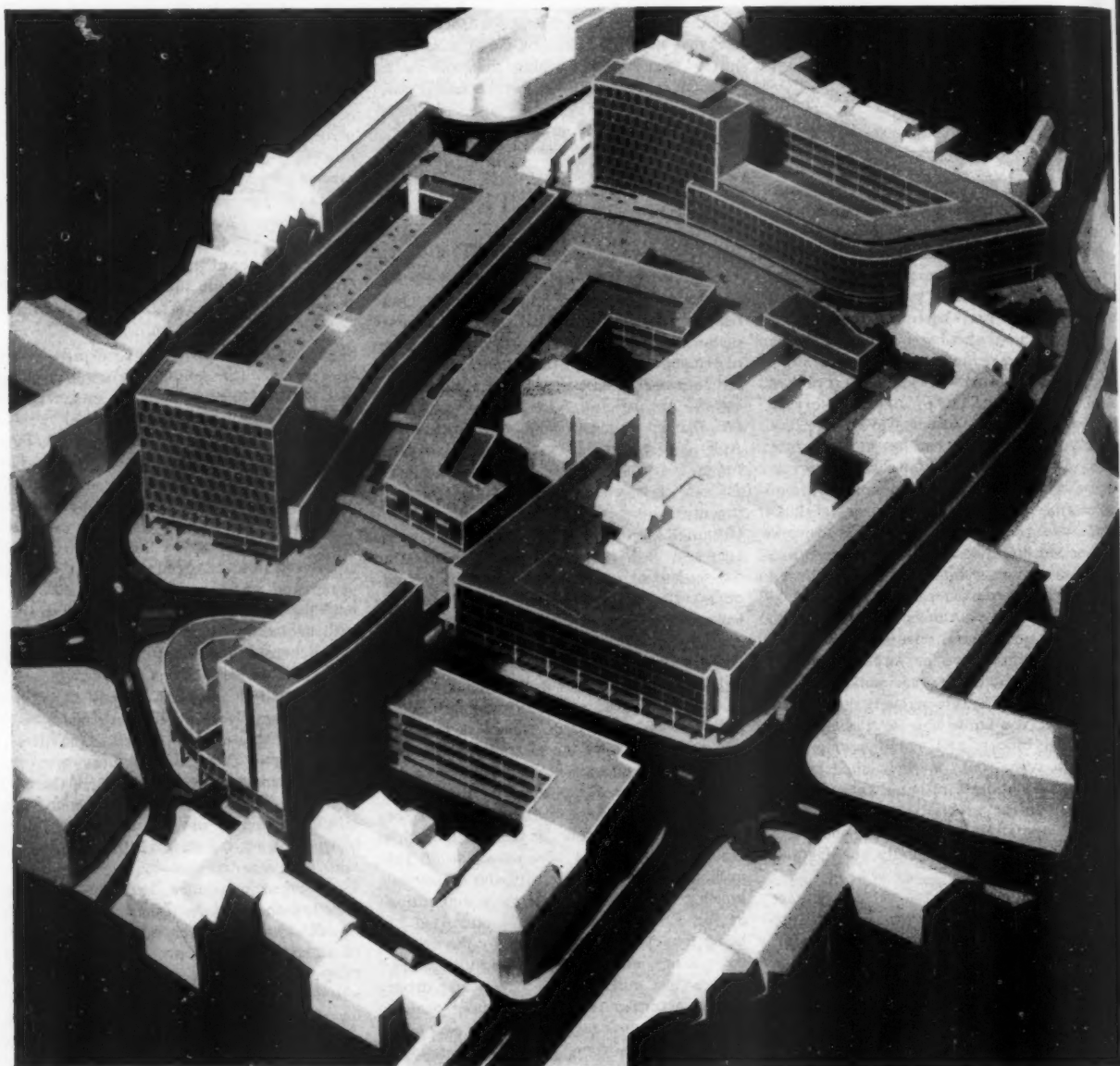
News in Brief

Dr. W. A. Singleton, Director of the Institute of Advanced Architectural Studies, York, has been appointed Hoffman Wood Professor of Architecture at Leeds University for the session 1959-60.

Jack Whittle, deputy architect and planning officer at West Ham, has been appointed deputy housing architect to the LCC.

The annual golf match between the RIBA Golfing Society and the Building Alliance Golfing Society was played at Royal Mid-Surrey, Richmond, on May 21 and resulted in a win for the BAGS, by twelve matches to ten, with two matches halved.

PROPOSALS FOR THE DEVELOPMENT OF LION YARD, CAMBRIDGE



The project for the development of the Lion Yard area of Cambridge recently put forward by Edger Investments Ltd. and designed by Stone, Toms and Partners, proposes to provide three 9-storey blocks, two for offices and the third for a hotel, a new central public library, shops and parking space for some 730 cars. The project is the largest ever put forward in Cambridge and construction is expected to take about 2½ years if it is finally approved by the County Planning authority. At present it has only the recommendation of the City Council. The model shown here is only an outline of the proposed general layout of the site, and in no sense the final word in the

matter of architectural detail. But one cannot help wondering how this scheme will alleviate the present traffic problem in the town. Parking 700 cars in such a restricted area during the day is undoubtedly an achievement, but that these cars will be able to get away easily is not evident from the model, the plan of which seems very tight. A scheme for the redevelopment of the Lion Yard area was first suggested by Sir William Holford and Professor Myles Wright in their report, Cambridge Planning Proposals, in 1950. This scheme was one of seven submitted by various developers to the City Council.

The AJ Fellowship: "Information for the Architect," 3

THE NEED FOR STANDARDIZATION

by Dargan Bullivant

WHAT SHOULD BE STANDARDIZED?

At present the papers and documents which are intended to be used in the practitioner's office show too great a variety of form to be handled easily in the office. Producers of information seem on the whole to be unaware of the difficulties and confusion caused by such variety. This applies particularly to producers of trade literature but also to institutes, associations and Her Majesty's Stationery Office. What now seems to be required is a limitation to the unnecessary variety of form and size now in use.

The most important points on which general agreement should be sought are:

1. Basic form and paper size—for satisfactory filing.
2. Pre-punching—for standard equipment.
3. Loose leaf methods—for keeping papers up to date.
4. Classification—for simple handling and locating in the files.

Classification will be dealt with in the next article. It is the purpose of this article to deal with basic form and paper size and hole punching and in particular to describe the basis for standardization of sizes which is being introduced into this country called the "A" series. This series of sizes has been adopted by the BSI and the RIBA for all its paperwork and is especially important for all organizations and individuals in the building industry.

Basic Form, Standard Size and Pre-punching

Three basic forms are in use at present: books, pamphlets and sheets. The pamphlet is the form most commonly used in a small size without holes for filing. It is, generally speaking, the most difficult to handle in the office. The large number involved and their small size make their use in loaning, returning and storage in the office extremely difficult.

It is now considered that documents for use by practitioners should be limited to:

Books—defined by having a square back wide enough for a title, and

Filing papers—in the form of thin monographs, leaflets and single sheets and periodical cuttings.

These should all be to size A4 and pre-punched with two holes at $3\frac{1}{8}$ in. (80 cms.) centres placed symmetrically on the left-hand long side.

Periodicals which are really neither of these two forms should be considered as collections of papers for filing. This is possible if each article starts on a right-hand page and deals with only one subject at a time. The page layout should also allow for at least 1 in. filing margin after the page has been cut out.



Fig. 1. A Variety of Sizes. Periodicals, pamphlets, from official and trade sources in a variety of sizes. Some to BS 1311, some not.



Fig. 2. Lack of Standardization at the HMSO. At least four different formats are being used for building publications, but the formats are not related either to the subject treated or the department of origin.

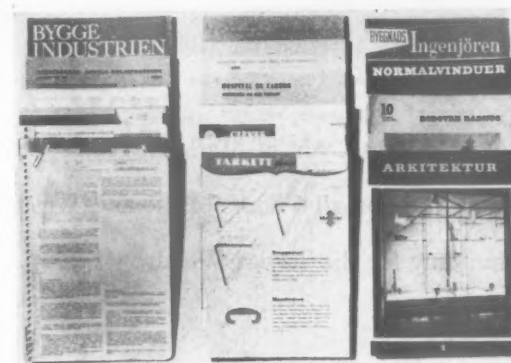


Fig. 3. A4 Size for Filing. A selection of Scandinavian periodicals, pamphlets, data sheets, trade leaflets and architects' specifications all to A4.



Architects: T. P. Bennett & Son. Contractors: Taylor Woodrow Construction Ltd.

Over 5,000 sq. yds. of Marleyflex floor tiles were used on all 6 floors of the new Western House building for the Taylor Woodrow Group.

MARLEY

SEVENOAKS • KENT • SEVENOAKS 55255 • LONDON SHOWROOMS: 251 TOTTENHAM COURT ROAD, W.1



F/9/1

Too Many Sizes

Many letters have appeared in the Press in recent years complaining of the unnecessary number of sizes used for publications and the chaos caused in the user's office. There are three principal reasons for this. Firstly, at the root of the problem is the large range of paper sizes produced. The present British Standard 730:1951 for Paper and Boards gives several tables of machine-made papers normally held in stock by mills and merchants. The lists are very long and are not exhaustive of the sizes actually used. Tables 1 to 5 list some of the sizes in use collected from different sources. No guarantee of completeness is given. Furthermore this large list of sizes is not followed nearly as closely as it should be and being broadsheet sizes, *not* trimmed sizes, they make possible an unfortunate diversity in the final trimmed sizes of printed matter of the same nominal format.

The second reason is that the many producers of information are without guidance on the needs of the users. The production of a great deal of trade product information is in the hands of advertising agents who are not always clear about the distinction between advertising gimmicks and technical information which must be fileable if it is to be used when it is required. The absence of an authoritative information service on trade products such as exists in many countries in Europe and America means that there is no standard to aim at.

The third reason is that it is only recently, in March, 1958, that a move in the direction of a rational basis for size standardization has been made. In that month the British Standards Institution started a progressive changeover of all its paper work and publications to the International A series sizes used in at least 26 other countries. BS1311 for Trade and Technical Literature was amended to accept sizes A4 and A5. This move was supported by the British Federation of Master Printers which changed to A sizes for its letter paper and most of its publications. Several large paper makers and merchants started to build up stocks and make paper available throughout the trade and more recently over the counter to the general public. Incidentally, the ARCHITECTS' JOURNAL adopted A4 format in 1942.

A New Drive For Standardization

The BSI move and its significance soon became clear as correspondence, duplicated drafts, and printed papers all appeared to the same sizes from the BSI. In June, 1958, the matter received some publicity at a meeting at the RIBA when a paper on "The Problem of Technical Information" was given by Eric Bird. During the autumn a pilot exercise in using the new paper sizes was carried out by the Technical Section of the RIBA and later in the year the Council of the RIBA approved a joint recommendation of several RIBA committees in regard to the sizes and design of RIBA papers and publications. As fresh stocks of paper are ordered they will in future conform in size to the A series of international paper sizes as given in BS 1311 (amended 1958). The Council also agreed to urge others in the building industry to collaborate in

this change of sizes and further suggested that A4 should be used for all literature which is intended for filing or retention for reference. Since then a number of RIBA publications have appeared. A number of them are shown in Fig. 4. It is understood that the *RIBA Journal* will change over as present paper stocks are exhausted.

SIZES OF WRITING AND PRINTING PAPERS TABLE 1

Double Imperial	30" x 44"	BS.
Imperial	22" x 30"	BS.
Quad Crown	30" x 40"	BS.
Double Crown	20" x 30"	BS.
Double Royal	25" x 40"	BS.
Royal	20" x 25"	BS.
Double Medium	23" x 36"	BS.
Medium	18" x 23"	BS.
Quad Demy	35" x 45"	BS.
Double Demy	22½" x 35"	BS.
Demy	17½" x 22½"	BS.
Copy or Draft	16" x 20"	
Double large Post	21" x 33"	BS.
Large Post	16½" x 21"	BS.
Double Post	19" x 30½"	BS.
Post	15½" x 19"	BS.
Pinched Post	14½" x 18½"	BS.
Quad Foolscap	27" x 34"	BS.
Oblong Double Foolscap	13½" x 34"	BS.
Double Foolscap	17" x 27"	BS.
Foolscap	13½" x 17"	BS.
Brief	13½" x 16½"	
Pott	12½" x 15"	

SIZES OF BOUND BOOKS TABLE 2

Demy 16mo.	5½" x 4½"	Foolscap Quarto 8½" x 6½"
Demy 18mo.	5½" x 3½"	Crown 4to. 10" x 7½"
Foolscap Octavo	6½" x 4½"	Demy 4to. 11½" x 8½"
Crown 8vo.	7½" x 5"	Royal 4to. 12½" x 10"
Large Crown 8vo.	8" x 5½"	Imperial 4to. 15" x 11"
Demy 8vo.	8½" x 5½"	Crown Folio 15" x 10"
Medium 8vo.	9½" x 6"	Demy Folio 17½" x 11½"
Royal 8vo.	10" x 6½"	Royal Folio 20" x 12½"
Super Royal 8vo.	10½" x 6½"	Music 14" x 10½"
Imperial 8vo.	11" x 7½"	

SIZES OF PERIODICALS TABLE 3

Architects' Journal	11½" x 8½"	RIBA Journal	11" x 8½"
Architect and Building News	11½" x 8½"	Architectural Design	12" x 9½"
Architecture and Building	12" x 9"	Architectural Review	12" x 9½"
Builder	11½" x 8½"		

SIZES OF DRAWING PAPERS TABLE 4

Emperor	48" x 72"	Double Medium 23" x 36"
Antiquarian	30" x 53"	Imperial 22" x 30" BS.
Double Imperial	30" x 44"	
Quad Crown	30" x 40"	Double Crown 20" x 30"
Double Elephant	27" x 40" BS.	Elephant 20" x 27"
		Cartridge 21" x 26"
Grand Eagle	28½" x 42"	Super Royal 19" x 27"
Atlas	26" x 34"	Royal 19" x 24"
Colombier	23½" x 34½"	Crown 15" x 20"
Double Royal	25" x 40"	

SIZES OF ENVELOPES TABLE 5

3½" x 5½"	3½" x 8½"	6½" x 4½"
3½" x 5½"	4" x 9"	7" x 4½"
3½" x 6"	2½" x 2½"	8½" x 5½"
3½" x 5½"	3½" x 2½"	9½" x 6½"
3½" x 6½"	3½" x 3½"	10" x 7"
3½" x 4½"	3½" x 3"	10½" x 8"
4½" x 5½"	4" x 3"	10½" x 8½"
4½" x 5½"	4½" x 4"	11½" x 9½"
5" x 6½"	4½" x 2½"	12" x 9"
4" x 6"	4½" x 2½"	12" x 10"
4½" x 6½"	4½" x 3½"	13" x 11"
5" x 7½"	10½" x 4½"	14" x 9"
5½" x 7½"	11" x 5"	15" x 10"
6½" x 8½"	12" x 5"	16" x 12"
6" x 9"	14" x 5"	
7" x 8"	15" x 6"	

A Bilston ATLANTA

will be perfect...



NOW WHICH SIZE?

It's no problem! Whether the plan allows for a small or large bathroom, there is a Bilston Atlanta that will fit. Selected for the Design Centre, the Atlanta is made in five sizes. Every home owner will enjoy the bath that has the famous Bilston finish and durability, and the skilful design that makes the Atlanta the safest, most comfortable bath of all. The Atlanta costs no more than an ordinary bath.

54"

60"

66"

61"

72"



All this with the ATLANTA-

Flat bottom

the Atlanta flat bottom helps to prevent slipping... ensures comfort. Particularly suitable where a shower is to be fitted.

Safety

the low sides make the Atlanta safer for young and old. It can be fitted to give an overall height of only 16".

Taps

can be fitted centrally, or on either corner to facilitate installation and maintenance.

Fittings

the Atlanta is supplied with or without overflow... with or without hand grip. The feet can be adjusted to accommodate all types of trap, including the Bilston "Wasteffo" pre-fabricated waste, trap and overflow unit. Also available with the Bilston O.P. Hand Grip specially designed to meet the needs of the elderly or infirm.

Colours

the Bilston range includes white or the exact colour required for any decorative scheme.



- Atlanta
- Magna
- Cresta
- Marina
- Mermald
- Bermuda

BILSTON—the bath SPECIALISTS

Bilston Foundries Ltd, Bilston, Staffordshire. Illustrated literature is available on request

A period of transition

The change over to these sizes will no doubt take time but there can be little doubt that the move is the right one. The period of transition for publications within the building industry could be reasonably short as documents are being replaced all the time. Many manufacturers reprint or replace catalogues every twelve months and new stocks of stationery are constantly being ordered. The BSI and RIBA have both offered to give guidance to inquirers wishing to make a changeover. It is expected that with the developing trends in European trade many manufacturers will find more requests that their publications should be fileable in other countries and this will hasten the trend.

A number of other organizations in the industry have started a changeover including the C&CA and the NAMMC. Others are expected to follow very shortly.

THE "A" SERIES SIZES

In the early twenties an effort to standardize paper sizes took place in Germany which was followed by some 26 countries all over the world and is now being introduced into the United Kingdom. The new formats introduced at that time reduced substantially the number of sizes required which was economically advantageous to the industry and led to a considerable simplification in paper handling, filing and equipment design for the user. Anyone who has visited offices in Scandinavia or Germany will remember the degree of order which they achieve in the handling of all paper work as the system of standardization applies to stationery, duplicated documents, printed papers, catalogues and periodicals and drawings.




Fig. 4. RIBA Stationery, Duplicated and Printed Papers. A4 is suitable for the three kinds of papers, which may often have to be filed together. It replaces Quarto (8 in. x 5 in.), Foolscap (13 in. x 8 in.) and Trade and Technical BS 1311 (11 in. x 8½ in.) by one size.



Fig. 5. RIBA Use of "A" Series. A selection of recent posters, handbills and cards and tickets from the "A" range. Designed by Herbert Spencer.

A4	
A6	A5
A7	A7



R I B A

Royal Institute of British Architects 66 Portland Place London W1

R. Llewellyn Davies MA (Cantab) AADipl FRIBA
and John Weeks ARIBA

Progress in Hospital Planning

Tuesday, 21 October 1958 at 6 pm

Admission Free Visitors will be welcome

Royal Institute of British Architects 66 Portland Place London W1

Arne Jacobsen

Architecture Furniture Fabrics

26 February to 25 March 1959
Mondays to Fridays 10-7 Saturdays 10-5
Admission free

THE LIVING TOWN

A Symposium on Buildings and Planning

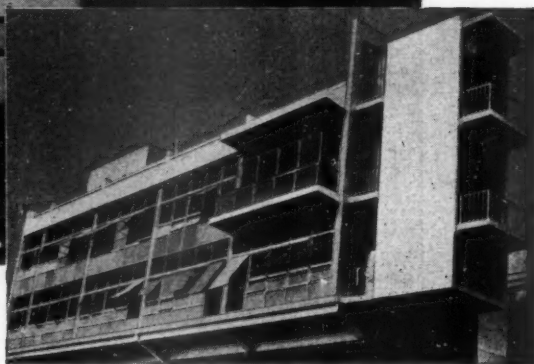
212

212

212



CASE HISTORIES

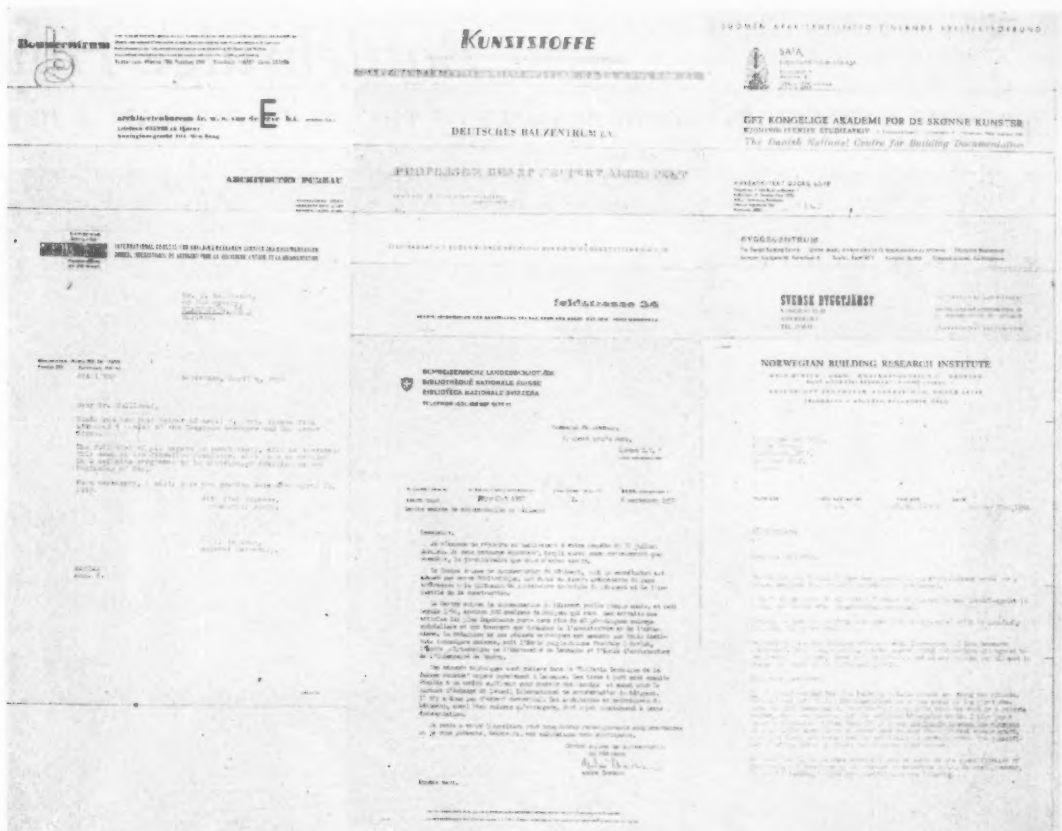


New look for old Gibraltar

In vivid contrast to its traditionally Spanish surroundings
the splendid new King George VI Memorial Hospital,
with a Ruberdal Roof, now towers majestically
above Gibraltar's ancient streets.

*Gibraltar's new King George VI Memorial Hospital was
designed by Architects Covell & Matthews of London who specified
Ruberoid Built-up Roofing surfaced with Ruberdal Tiles.*

RUBEROID



The use of "A" Series sizes in Europe

The degree to which "A" series sizes are used in Europe varies but in several countries, notably Scandinavia, they are used for practically 100 per cent for all paper work. Fig. 6 illustrates the use of A4 for business stationery in Scandinavia, Holland, Germany and Switzerland. The letters are from architects, manufacturers and institutes. Fig. 3 shows the use of A4 for periodicals, research reports, standards, technical digests, architects' specifications and trade literature.

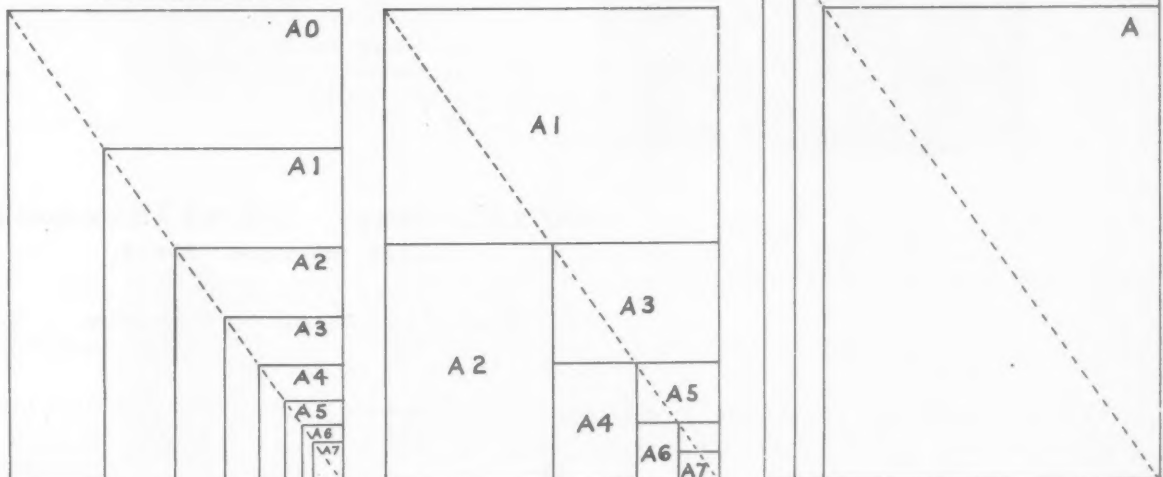
In France, USA, and the British Commonwealth, these sizes have been used for certain limited purposes but interest is now growing rapidly. The Commonwealth countries have also agreed to change as soon as practicable to the "A" series.

Fig. 6. A4 for stationery. A selection of stationery from varied sources, individuals, libraries, research institutes, manufacturers to show the wide use of A4. On the left Dutch, centre German and Swiss, right Finnish, Swedish, Danish and Norwegian.

Fig. 7. "A" Series. Each size in the series is the same proportion $1 : \sqrt{2}$ (below left).

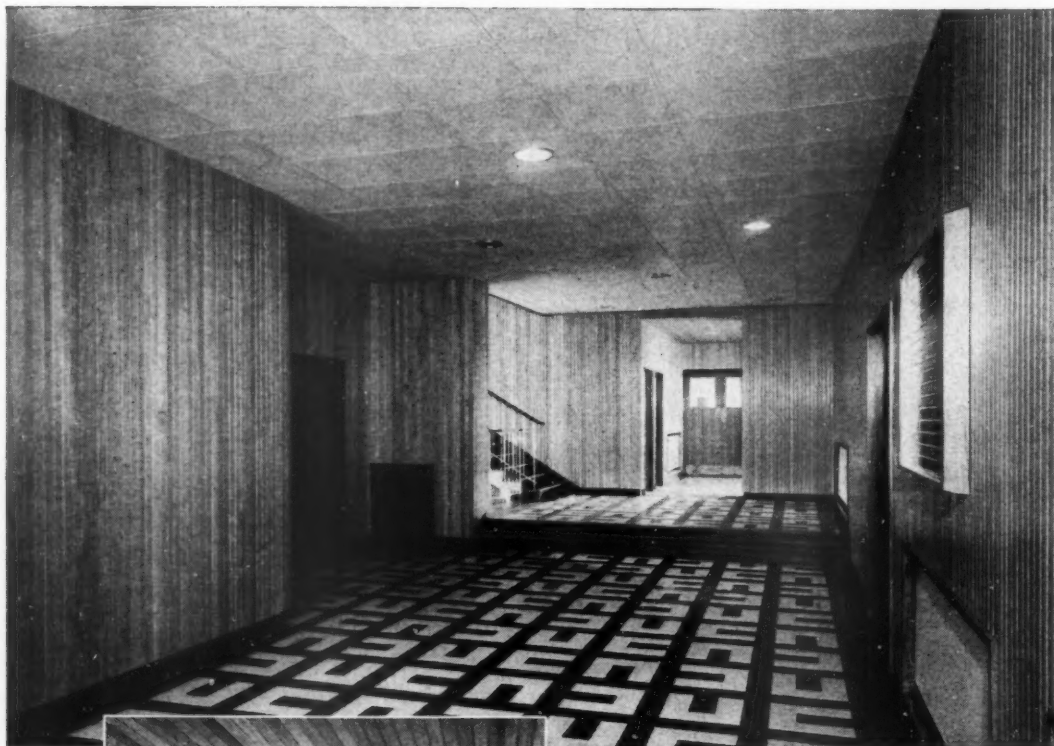
Fig. 8. "A" Series. Each size may be halved or doubled to produce another size in the "range" (below centre).

Fig. 9. "A," "B," "C" Series. International Standard Paper Sizes are based on three series. The "A" is used for all trimmed finished papers. The "B" and "C" are used for envelopes (below right).



Battlebridge House

AN OUTSTANDING EXAMPLE OF THE USE OF DECORATIVE HARDWOODS



This new building, close to the Pool of London, shows a most interesting use of Tasmanian Oak. In strip form, this fine joinery and flooring wood is used throughout for wall cladding and in some instances, also for ceilings.

The stair treads, risers and handrails are of selected Teak with door frames and architraves of solid African Walnut.

The solid-core flush doors are veneered in a superbly figured Australian Walnut.

All joinery hardwoods were supplied from our selected stocks and the flush doors were manufactured at our Crayford factory to the Architect's specification.

*Designed and built by the Surveyors
Department of the Proprietors of Hay's
Wharf Ltd., No. 2, London Bridge, S.E.1*

**William Mallinson
and Sons Ltd.**

TIMBER and VENEER MERCHANTS

130 HACKNEY ROAD • LONDON • E.2

Telephone: Shoreditch 7654

Telegrams: 'Almoner', London

MANUFACTURERS OF PLYWOOD • ARMOURPLY • PANELS AND COMPOSITE PARTITIONING

CONTINENTAL PAPER SIZES. "A" SERIES

TABLE 6

Paper Sizes

A0	33-1" × 46-8" (841 × 1,189 mm.)
A1	23-4" × 33-1" (594 × 841 mm.)
A2	16-5" × 23-4" (420 × 594 mm.)
A3	11-7" × 16-5" (297 × 420 mm.)
A4	8-3" × 11-7" (210 × 297 mm.) The most commonly used size, it falls between the present foolscap (13" × 8") and the previously recommended size for Trade and Technical literature (11" × 8½"). It will therefore replace three existing sizes which often have to be filed together by one. It gives a page of two columns and is wide enough for diagrams and tables. Uses. Periodicals, books and manuals with large illustrations, data sheets, duplicated documents, and normal business stationery.
A5	5-8" × 8-3" (148 × 210 mm.) The equivalent of our present stationery 8vo sheet, but large enough to be far more widely used for innumerable items of commercial stationery. Uses. Small periodicals, booklets, personal stationery, invoices, handbills, index cards.
A6	4-1" × 5-8" (105 × 148 mm.) Replaces many formats with no more than ½ in. between them. Uses. Labels, postcards, index cards, tickets and slips.
A7	2-9" × 4-1" (74 × 105 mm.) Uses. Small labels, tickets and small index cards.

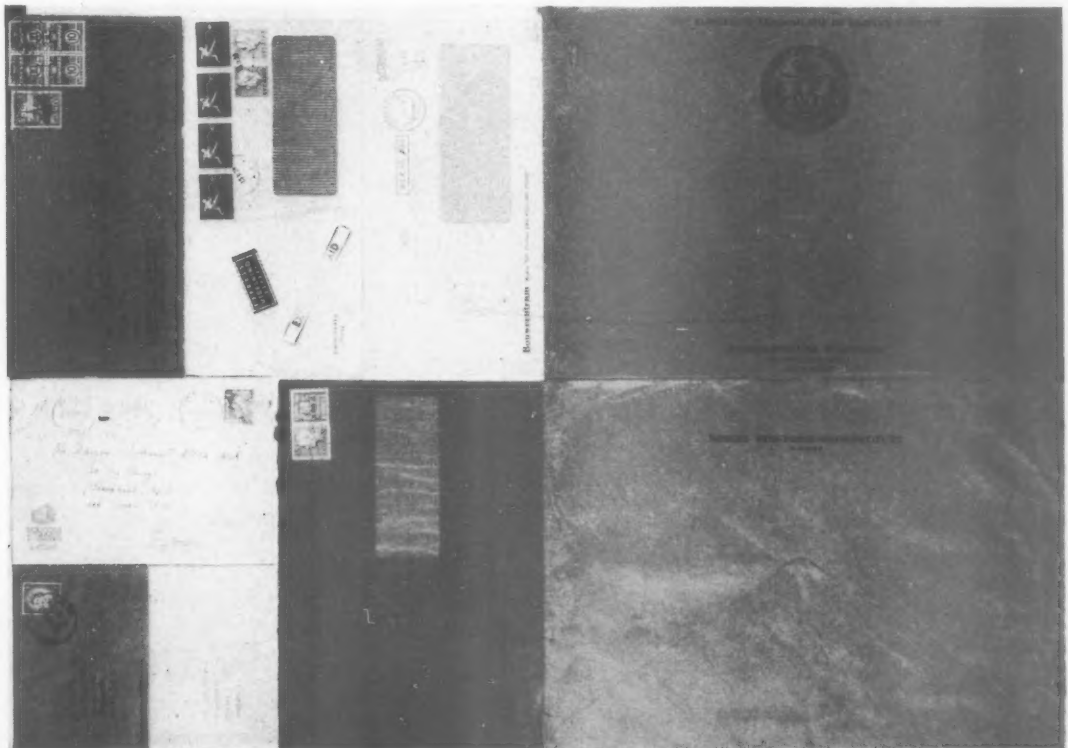
CONTINENTAL ENVELOPES. "B" and "C" SERIES

TABLE 7

B4	9-8" × 13-9" (250 × 353 mm.)
C4	9-0" × 12-7" (229 × 324 mm.)
B5	6-9" × 9-8" (176 × 250 mm.)
C5	6-4" × 9-0" (162 × 229 mm.)
B6	4-9" × 6-9" (125 × 176 mm.)
C6	4-5" × 6-4" (114 × 162 mm.)
C7	3-2" × 4-5" (81 × 114 mm.)
C6/7	3-2" × 6-4" (81 × 162 mm.)
C5/6	4-3" × 8-7" (110 × 220 mm.)
B/C4	4-9" × 12-7" (125 × 324 mm.)

Fig. 10. Envelopes to the "C" Series. A selection of envelopes from the "C" series. This shows all the ones in common use. The "B" series envelopes are slightly larger to take bulky papers.

C5/6	C4
C6	C5
C7/C7	C4



The international paper standards are based on three parallel ranges of sizes, A, B, and C. The "A" series from A0 to A10 are the trimmed sizes of the paper and this series is the one used for all finished work. The most common sizes being A4, A5, A6 and A7. The "B" and "C" series sizes, which are all slightly larger, are not intended as alternative sizes for the same uses but are intended only for envelopes and posters. The relationship of the A, B and C series is shown in Fig. 9.

The proportion of all the sizes in the A, B and C series is that of the, so-called, Golden Proportion which has the property of providing smaller sizes merely by halving the larger dimension, or providing larger sizes by doubling the shorter one, all being the same proportion. The advantage of a series of sizes which retains the same proportion throughout is widely recognized, especially for work involving enlargement and reduction. Fig. 8 shows the broad sheet A0 and the relationship of the other sizes in the "A" series. Fig. 7 shows how the sizes in the series all retain the same proportion. The two main sizes are A4 (11½ in. × 8¼ in.) and A5 which is exactly half (8¼ in. × 5⅞ in.). These are included in BS 1311 for Trade and Technical Literature and are preferred and used by BSI and the RIBA for their own paper-work. The larger sizes, A1, A2 and so on, meet the needs for which we employ some half-dozen common sizes of printing papers in various subdivisions, not to mention writing and drawing sizes. Tables 1 and 4 show some of the present sizes.

An important point to note is that the "A" sizes are trimmed sizes and are therefore exact. Stubs or tear-off books or index tabs are always additional to the "A" dimensions which are those of the ultimate product.

The Perfect Combination

Combinol Gloss Paint

and

Valspar Eggshell Lustre

Combinol Gloss Paint

Tough — Brilliant — High Gloss Finish.
Excellent spreading power and opacity.
Resists all weather conditions.
Recommended for coastal and industrial areas.

Valspar Eggshell Lustre

Beautiful Eggshell Lustre Finish.
Easy to apply with wide brush, roller or spray.
Resists steam and condensation.
For all interior surfaces.

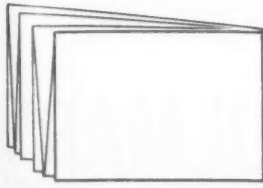
Also available in the British Standard Range (101 colours)

Manufactured by Goodlass Wall & Co Ltd

Fig. 11. International Standard Paper Sizes. The "A" series sizes are the size of trimmed finished papers and the "B" and "C" series sizes are used for envelopes. Each "A" size has a "C" size

envelope to fit it, for example, A4 fits flat in C4, folded once into C5, folded twice across into C6 and folded twice in the height into C5/6. Folded drawings fit into C4. Bulky papers fit into "B" size envelopes.

PAPER



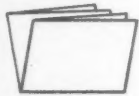
A1. 23.4 × 33.1 in. (594 × 841 mm.) as folder.



A4. Folded once to A5.



A4. Folded twice.



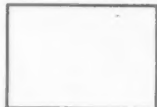
A4. Folded twice across to A6.



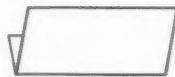
A4. Folded once lengthways.



A4. 8.3 × 11.7 in. (210 × 297 mm.)



A5. 5.8 × 8.3 in. (148 × 210 mm.)



A5. Folded once.



A5. Folded once.

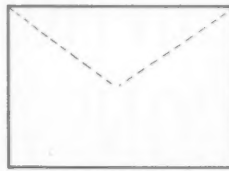


A5. Folded twice.



A5. Folded twice across.

ENVELOPES



C4. 9.0 × 12.7 in. (229 × 324 mm.)



C5. 6.4 × 9.0 in. (162 × 229 mm.)



C5/6. 4.3 × 8.7 in. (110 × 220 mm.)



C6. 4.5 × 6.4 in. (114 × 162 mm.)



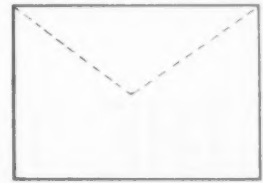
B/C4. 4.9 × 12.7 in. (125 × 324 mm.)



C6/7. 3.2 × 6.4 in. (81 × 162 mm.)



C7. 3.2 × 4.5 in. (81 × 114 mm.)



B4. 9.8 × 13.9 in. (250 × 353 mm.)



B5. 6.9 × 9.8 in. (176 × 250 mm.)



B6. 4.9 × 6.9 in. (125 × 176 mm.)

Envelope Sizes

Standard envelopes for use with the "A" formats are in "B" and "C" sizes. The most commonly used envelopes are the C4, C5, C5/6, C6 and C7 of which the C5 is the normal size for correspondence and commercial use. The C5/6 is also very commonly used. The complete range of envelopes needed is no more than 10 and these can replace about 40 different formats in the present BS 730.

Fig. 11 shows the full range of envelopes and their uses with "A" size papers.

Equipment

In those countries where the A sizes are used completely, the office equipment is designed to conform. Folders, files, boxes and cabinets are all slightly smaller than those used here. Until such time as the use of these sizes predominates, it will probably be necessary to make use of existing equipment for storage and

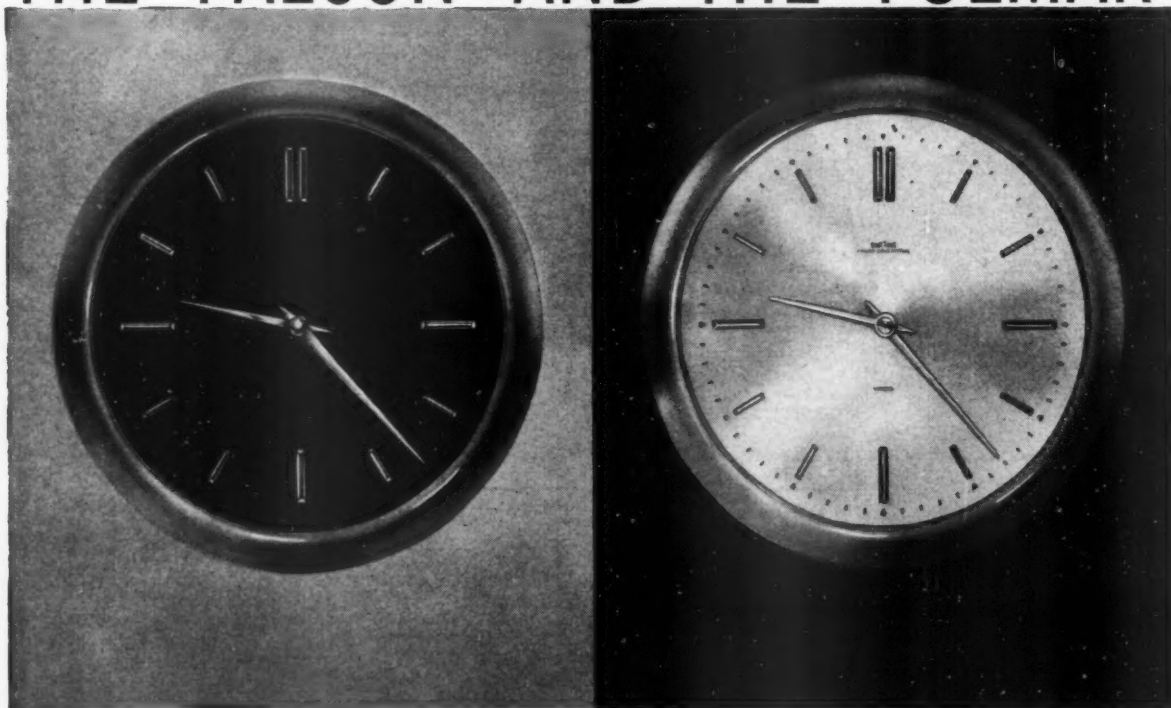
duplication. There appear to be no insuperable difficulties to this from the user's point of view.

For example, A4 papers will fit quite well into foolscap folders. There are no difficulties with typing, copying, and duplicating equipment, most of which is designed to take "A" sizes.

RECOMMENDATIONS

1. All organizations in the building field should examine the advantages to be gained by adopting the "A" series sizes for all stationery, duplicating and printed publications.
2. That the chief institutes representing practitioners, the RIBA, NFBTE and RICS should make joint propaganda and publish guidance for all producers of publications for building.
3. That all official departments publishing through HMSO should press for the adoption of "A" series sizes by HMSO.

INTRODUCING THE 'FALCON' AND THE 'FULMAR'



... latest additions to the large range of well-designed Wall Clocks produced by E.C.S. ... combining accuracy with the high standard of appearance and finish demanded by Industry and Commerce.

Both are flush fitting models with 9" or 12" diameter dials, Gilt anodised cases, raised Gilt batons and tapered hands. The 'Falcon' has a dial finished matt black and the 'Fulmar' a circular grained aluminium dial.

Movements may be synchronous to operate direct from AC Mains or Impulse to operate from the Smiths/E.C.S. Master Clock.

Head Office and Showrooms:
179-185 Great Portland Street,
London W.1.
Tel: LAngham 7226
Branch Offices and Showrooms:
Birmingham, Manchester,
Glasgow and Belfast.

ENGLISH CLOCK SYSTEMS

A branch of the Clock & Watch Division of SMITHS S. Smith & Sons (England) Ltd.

THE INDUSTRY

From the industry this week Brian Grant describes plastic external plumbing, a convection heater and kitchen furniture.

Developments in plastics

The Marley Group is now producing 2½-in. down pipes and 4-in. half round gutters with all the normal fittings, in rigid p.v.c. Prices are comparable with cast iron, and the wall thickness is ⅜ in., but the glossy grey surface

Down pipes and half round gutters in rigid p.v.c., by Marley Tiles.



does not need painting, and is resistant to corrosive atmospheres. Lengths have been standardized at 6 ft., but the material is very easy to cut. At the moment only the sizes noted above are in production, but 4½-in. and 5-in. gutters and 3½-in. pipe will be available soon for industrial use.

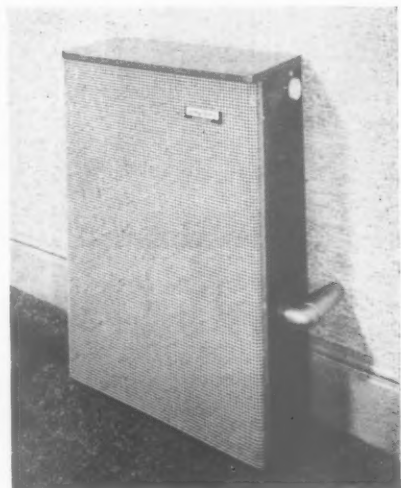
The same firm has also recently evolved a system for joining sheets of vinyl flooring by a hot air welding process in which the gap between sheets is filled with a round beading of plastic, which may be in the same or in a contrasting colour. By cutting a suitable vee groove in the sheet it is also possible to produce patterns. After the welding a small fillet is left proud of the surface of the sheet, and this is cut off with a specially shaped scraper to leave a level surface. (*The Marley Tile Co. Ltd., London Road, Riverhead, Sevenoaks, Kent.*)

Heating equipment

The illustration on the right shows a thermostatically controlled convection heater which Simplicity are now producing in addition to their oil-fired models. The new heaters have a heat exchanger unit of copper finned tubes and brass headers for the hot water, and an adjustable speed fan gives a maximum output of 30,000 B.Th.U. per hour with a water inlet temperature of 180 deg. F. The fan is rated at 25 watts, and the BTH motor is particularly silent, having a neoprene centre bush which prevents frequency hum from being transmitted to the fan blades. For domestic use the fan speed may be dropped to 420 r.p.m., when the sound level is only just above the threshold of audibility. Dimensions are only 3 ft. by 2 ft., with a depth of 1 ft., price being £49 12s. 0d., less, the makers claim, than the equivalent surface area in conventional radiators. An air filter is available as an extra (£6 9s. 0d.), and the heaters are, of course, equally suitable for gravity or pump accelerated systems. (*Simplicity Heater Co., 10a, Langley Road, Staines, Middlesex.*)

Kitchen furniture

Karoline Mark II kitchen furniture has sloping fronts and top hung sliding doors which are guaranteed not to stick, and which also eliminate the dirt trap of the bottom runner. The units are made in timber, and are produced in a full and quite reasonably priced range, from £50 17s. 6d. for a double draining board stainless steel



The Simplicity thermostatically controlled convection heater.

sink and cupboard unit to £21 for a 21-in. square drawer unit. Wall and corner units are also produced. (*K. L. Cobb Ltd., Suffolk House, Laurence Pountney Hill, London, E.C.4.*)

Karoline Mark II kitchen cupboard unit.





Heal's Contracts bring your ideas into focus



New showroom in Cardiff, Blackwood Morton & Sons Ltd., Cardiff. Architect Henry Dawns & Son

HEAL'S CONTRACTS LTD

196 TOTTENHAM COURT ROAD, LONDON W.1 TELEPHONE: MUSEUM 1666

Write for our new booklet 'More Interiors' illustrating some of the work we have carried out for such well-known organisations as:

BROOKE BOND AND CO LTD · LIVERPOOL DAILY POST AND ECHO LTD · ALLIANCE ASSURANCE CO LTD
REED PAPER GROUP · DANISH BACON COMPANY LTD · HALIFAX BUILDING SOCIETY · CANADIAN PACIFIC STEAMSHIPS LTD
THE BOWATER PAPER CORPORATION LTD · IMPERIAL CHEMICAL INDUSTRIES LTD · TRADES UNION CONGRESS
BARCLAYS BANK LTD · IND COOPE AND ALLSOPP LTD · BRITISH TRANSPORT · U.S.A.F. · JACQMAR LTD · LONDON AIRPORT

technical section

8 SURVEYING & SPECIFICATION

cost variations in common building items, 2
internal doors

Having dealt with wood windows in their first article*, the authors, Messrs. Handisyde and Taylor and Arthur J. Willis and Thompson, pass to a consideration of wood doors, basing most of their examples on the variations given in BS459, Part 1. In their third article they will complete their study of doors by considering wood linings and frames.

* April 23, 1959.

Internal doors have been chosen as the subject for this second article in the series on cost variations in common building items because they occur in all types of building and, perhaps just because of their familiarity, they seem sometimes to be specified without sufficient consideration of their possible effect on the cost of the job. It is perhaps worth noting, that the effect of door prices will be greatest in buildings with small rooms, since then the number of doors per sq. ft. of job is high. External doors have not been considered because it is felt that in most buildings there are so few of these that their cost would seldom be a factor of great importance in relation to the job as a whole, unless a very elaborate design was used when presumably it would be appreciated that it was something special requiring separate consideration for cost.

Flush doors

Note: All comparisons are based on doors 2 ft. 6 in. \times 6 ft. 6 in. All figures given below are percentages in relation to Type 1 (a) (100 per cent.). The figures given include for hanging doors on a pair of 3½-in. butts, steel for types (a) to (f), and brass for types (g) to (j) and for priming and painting two undercoats and one finishing coat and for waxpolishing where stated. All lippings are hardwood.

	Door type				
	1 1½ in. (finished) interior quality flush door to comply with BS459 Part 2A	2 1½ in. (finished) interior quality flush door with framing to comply with BS459 Part 2A	3 1½ in. (finished) interior quality flush door with solid core	4 1½ in. (finished) interior quality flush door with solid core	5 1½ in. (finished) half-hour type fire-check flush door to comply with BS 459 Part 3
<i>Finish to both faces</i>					
(a) Hardboard, without lipping	100*	103	—	—	—
(b) Hardboard, with lipping to both vertical edges	109	111	—	—	—
(c) Hardboard, with lipping to all edges	116	119	—	—	—
(d) Plywood for painting, without lipping	132	136	186	192	194
(e) Plywood for painting with lipping to both vertical edges	141	145	195	201	203
(f) Plywood for painting, with lipping to all edges	148	153	203	209	211
(g) African mahogany plywood for polishing with matching lipping to both vertical edges	—	178	228	235	244
(h) African mahogany plywood for polishing with lipping to all edges	—	187	237	243	252
(j) Plywood with walnut veneer for polishing, with matching lipping to all edges	—	322	372	378	390

The formation of an opening 1 ft. 8 in. by 1 ft. 8 in. fitted with beads and glazed with ½-in. polished plate glass would result in an addition of about 55 to any of the above percentages

* Values are given as a percentage and not as a price in order to warn readers that they are approximate only. Nevertheless an indication can be given of the amount involved in each case by taking 100 as representing about £3 15s. 0d.

technical section

Panelled and glazed doors

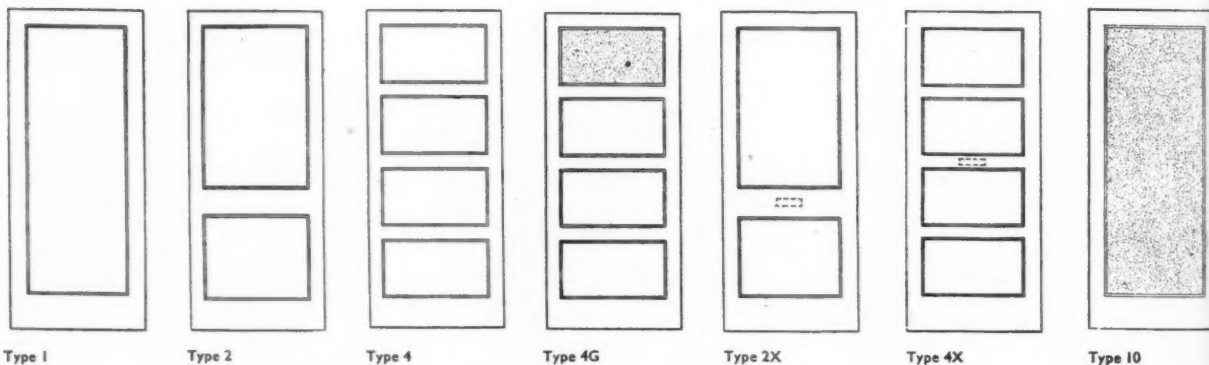
Notes: All comparisons are based on doors 2 ft. 6 in. × 6 ft. 6 in. All percentages given below are in relation to flush door type 1 (a) (100 per cent). The figures given include for hanging doors on a pair of 3½-in. butts, steel to softwood doors and brass to hardwood, and for painting softwood and wax polishing hardwood doors. The figures for glazed doors include for ¼-in. polished plate glass bedded in velvet and fixed with beads to match timber of door.

- | | |
|--|-----|
| 1. 1½-in. (finished) softwood two-panel standard door with plywood panels to comply with BS459, Part 1, Type 2 | 123 |
| 2. 1½-in. (finished) softwood four-panel standard door with plywood panels to comply with BS459, Part 1, Type 4 | 125 |
| 3. 1½-in. (finished) softwood four-panel standard door with three plywood panels and one panel open for glazing, to comply with BS459, Part 1, Type 4G | 153 |
| 4. 1½-in. (finished) softwood two-panel standard door with plywood panels to comply with BS459, Part 1, Type 2X | 139 |
| 5. 1½-in. (finished) softwood four-panel standard door with plywood panels to comply with BS459, Part 1, Type 4X | 150 |
| 6. 1½-in. (finished) softwood standard glazed door open in one pane to comply with BS459, Part 1, Type 10 | 256 |
| 7. 2-in. (nominal) softwood purpose-made one-panel door, chamfered on solid both sides, with ½-in. panel | 186 |
| 8. 2-in. (nominal) Agba purpose-made one-panel door, chamfered on solid both sides, with ½-in. panel | 334 |
| 9. 2-in. (nominal) softwood purpose-made rebated and chamfered door glazed in one pane | 312 |

Locks and furniture

The figures below are the percentages which should be added to those given above for doors for the various types of locks and furniture.

- | | |
|---|----|
| 1. Mortice latch with pair of satin anodized aluminium lever handles on stamped back plates p.c. 10s. per set and fixing to softwood | 22 |
| 2. Mortice latch with pair of satin anodized aluminium lever handles on stamped back plates p.c. 10s. per set and fixing to hardwood | 24 |
| 3. Two-lever mortice lock with pair of satin anodized aluminium lever handles on stamped back plates p.c. 13s. 6d. per set and fixing to softwood | 29 |
| 4. Two-lever mortice lock with pair of satin anodized aluminium lever handles on stamped back plates p.c. 13s. 6d. per set and fixing to hardwood | 31 |
| 5. Three-lever mortice lock with pair of medium quality lever handles on cast back plates p.c. 31s. 6d. per set and fixing to softwood | 54 |
| 6. Three-lever mortice lock with pair of medium quality lever handles on cast back plates p.c. 31s. 6d. per set and fixing to hardwood | 57 |
| 7. High quality mortice lock with pair of satin nickel-bronze lever handles on cast back plates p.c. 41s. 6d. per set and fixing to softwood | 69 |
| 8. High quality mortice lock with pair of satin nickel-bronze lever handles on cast back plates p.c. 41s. 6d. per set and fixing to hardwood | 72 |



Door types from BS 459 part 1 referred to in these prices. No scale.

Conclusions

1. The cost of a door, plus fairly normal ironmongery, can vary by something like 400 per cent. according to quality. In a house, where the range in cost would be more likely to be about 100 per cent. the effect on a four-bedroom house would be of the order of 10 per cent. on the cost of the job. In larger buildings where probably the room sizes would be larger and therefore the number of doors to a given area would be smaller, the difference in cost of doors would become relatively less important.

2. The effect of changing door thickness from 1½ in. to 1¾ in. is not sufficient to justify the thinner door, except where extreme economy is essential, but to change from a framed flush to a solid core flush door

involves an increase of nearly 40 per cent. on the cost.

3. The cost of glazed openings in flush doors is very considerable if plate glass is used for safety but is reduced appreciably if 32 oz. sheet glass is accepted.

4. Panelled doors are something like 20 per cent. more expensive than cheap flush doors, but not very different in price from the cheaper types of plywood-faced flush doors. They are appreciably cheaper than solid-cored plywood-faced flush doors.

5. High quality veneers nearly double the cost of a decent quality plywood painted door.

6. The possible variation in cost of fairly normal door furniture is about equivalent to the difference between a medium quality painted flush door and a moderate priced hardwood polished flush door.

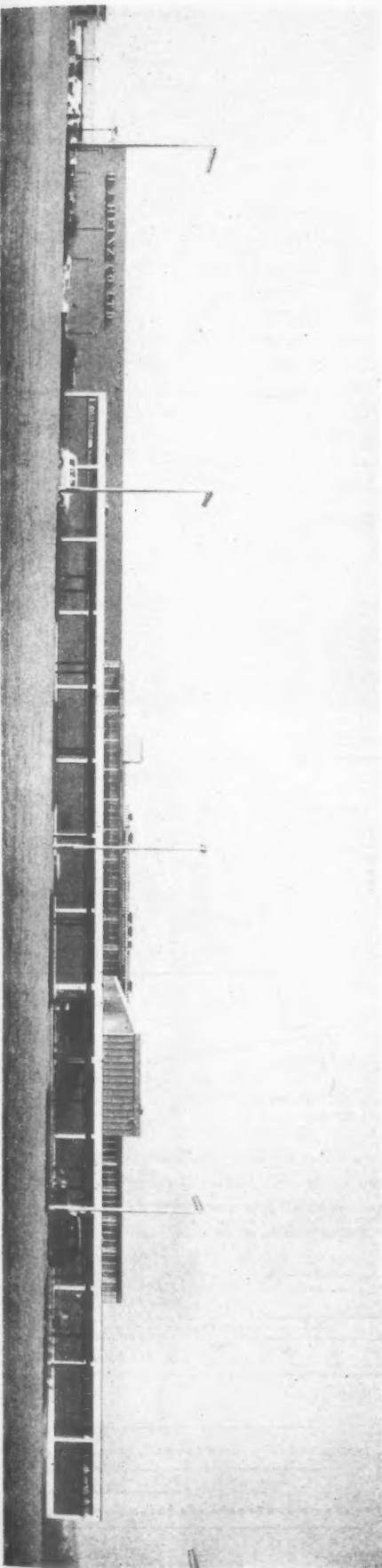
building illustrated

FACTORY

at KITT GREEN, WIGAN, LANCs; designed by J. DOUGLASS MATHÉWS and PARTNERS in association with SKIDMORE, OWINGS and MERRILL NEW YORK; partners-in-charge E. D. JEFFERISS MATHÉWS, MICHAEL RYAN; chief assistant architects R. L. MARSHALL, R. D. GAY, J. P. QUIRKE; site architect J. F. QUIN; assistants A. RUBINSTEIN, K. HATHAWAY, C. MORSE, H. STACHOWSKI, F. WEAL, A. EALLETT, K. MULCAHY, R. PETO, J. REDWOOD, P. DARRINGTON, R. BENNETT; consultants (mechanical and ventilating) G. H. BUCKLE and PARTNERS; structural engineer A. C. ASTON; quantity surveyors A. BOXALL and PARTNERS

This new factory near Wigan, in Lancashire, is for the mechanised production of canned foods in a well-known range of "Varieties," such as baked beans, baby food, soups and spaghetti. It exemplifies how exacting the architectural problems can be when the process demands a high standard of cleanliness, efficiency and flexibility, the machines require a complex arrangement of services, and the client expects a compact, economical, ordered solution which takes full account of both machines and people. The imaginative way in which this challenge has been met by both architect and client is the object of this study. A detailed cost analysis is not available.

From the entrance to the site one approaches the office and welfare building, behind which is the larger form of the main factory.



be added
of
um
t
um
t
22
24
29
31
34
57
69
72

the cost.
is very
but is
pted.
t. more
ery dif-
ywood-
er than
st of a
al door
between
oderate

building illustrated

APPRAISAL: Although it varies in detail with each of the commodities the general process for all follows a similar sequence of operations which could be compared in some ways with the operations in a domestic kitchen, except of course on a very much larger scale.

Firstly, a vast "larder" is required where the raw materials are stored. The food has to be washed, cut up, prepared and placed in the cooking utensils. From these, after cooking, it flows by gravity to the filling lines where it is canned; the cans are then sealed and placed in large autoclaves to be sterilized, after which they are labelled, packed and taken to the warehouse for despatch.

It should be noted that the process has two fundamental characteristics:

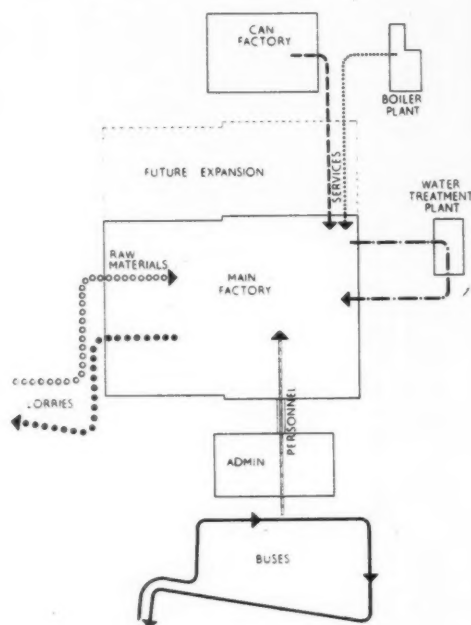
1. The very highest possible standards of cleanliness must be maintained;
2. Pumping of most foods is not permissible, and a gravity flow is therefore required to and from the cooking utensils. The concept of designing the factory on two working levels arose out of two factors:

1. A decision that on grounds of maintenance costs, condensation hazards and general cleanliness, there would be no sources of natural light provided in the roof. Instead there would be a simple, unbroken roof covering with artificial lights incorporated in the suspended ceilings. Here can be seen the influence of current American practice in factory design.

2. A need to provide a 30-ft. drop in many of the production lines in order to give the necessary gravity flow to and from the cooking utensils without resort to the use of elevators. This concept envisaged the upper level being used for the storing of the raw materials and for preparing and cooking the various foods; the lower level would be for filling, sterilizing, packing and despatch. The problem was then how to deliver with ease the large tonnage of raw materials required at the beginning of the production process without the use of hoists or lifts which are slow and cumbersome. The diagrammatic section and circulation diagrams, right, show how this two-storey concept has produced a clean and compact solution. The slope of the ground has been used to incorporate ramping roads outside the building which enable lorries to deliver all raw materials to the upper working level and collect the finished goods from the lower working level. The diagrams show the flow of the product from preparation to cooking, thence by gravity to the filling lines where they meet the cans. From the filling lines the return journey takes the canned food westwards (i.e. in the opposite direction from the inward flow) generally by mechanical conveyors via the autoclaves to the labelling and packing lines and finally to the warehouse.

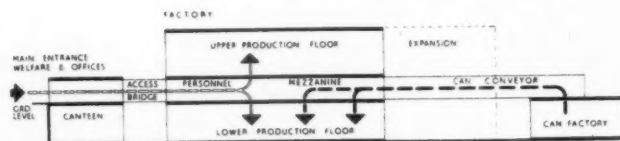
Both the raw materials store and the upper production floor required a working height of 14 ft. 6 in. whereas in the warehouse a clear height of some 24 ft. was required. The latter height enabled a mezzanine floor to be inserted between the two production floors and on this mezzanine floor have been concentrated most of the mechanical services, the main circulation for all personnel, minor offices and laboratories which need to be "embedded" in the factory, and the staff lavatories. Further, site levels have enabled the main personnel entrance (which passes through the office and

The main factory, the core of the scheme (seen from the air, opposite) stands as a detached rectangular block connected by a bridge to the administration building. Future expansion of the factory will take place in a northerly direction and the dispositions of the ancillary buildings, especially the can-making plant, around the perimeter road, are governed by this fact. The can-making plant can expand westwards and the canteen and locker rooms in the office and welfare building can expand eastwards. There are two main entrances to the building, one for personnel and one for visitors, the latter (opposite the car park) also being used by administrative staff. Outside the personnel entrance is a long steel-framed canopy over the pavement where people wait for and alight from buses and cars. Oddly enough no such provision is made at the visitors' entrance. The car park is to some extent screened from view at the site entrance by the one-storey building housing the gas and electricity intakes, with the security office at its extremity. The bicycle park is also screened from view by a pronounced slope of the ground.

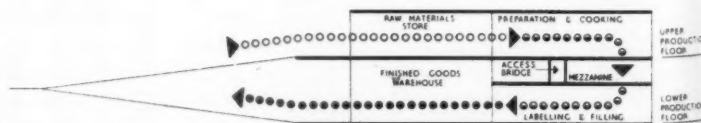


Diagrammatic plan showing circulation of personnel, raw materials and services

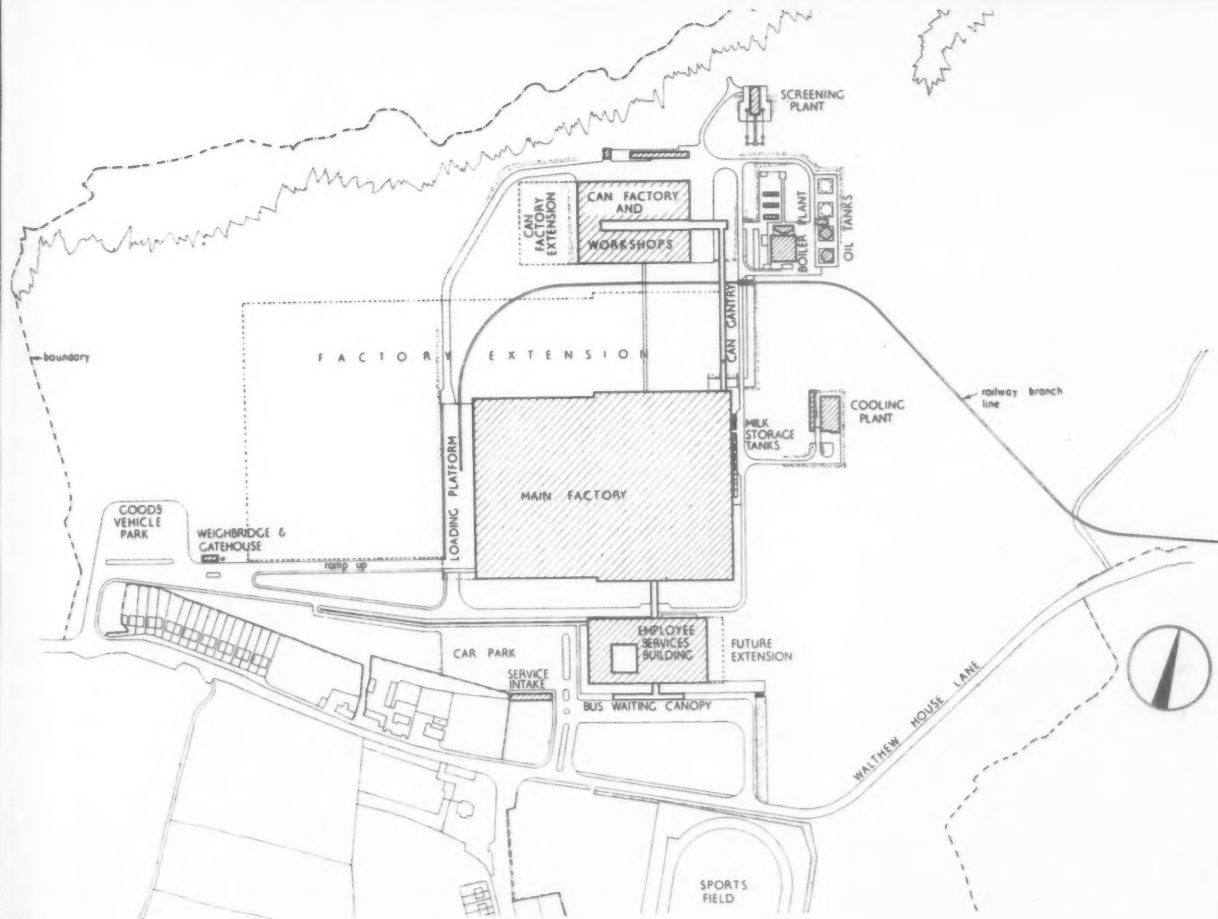
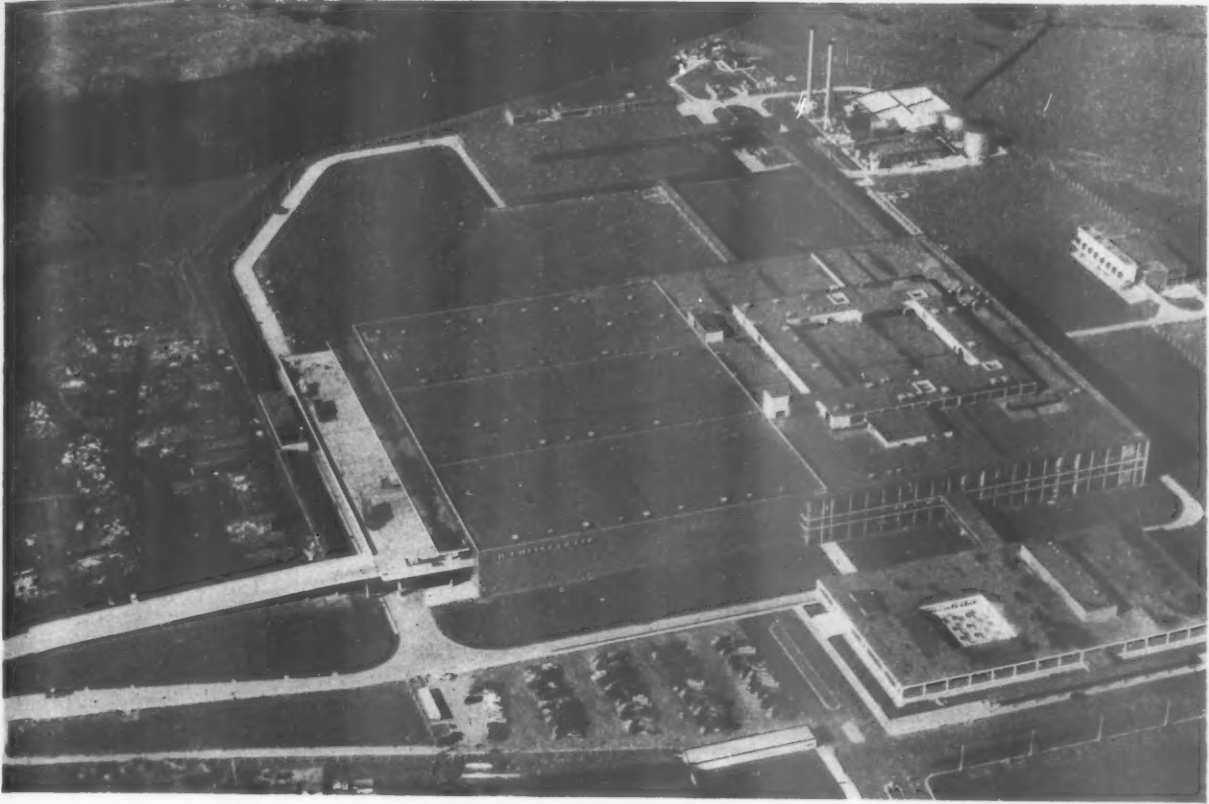
These diagrams show the basic circulation in relation to the external access to the main factory. Goods vehicles, personnel, cans and piped services all flow to and from the factory without crossing one another's paths at the same level.



Diagrammatic north-south section

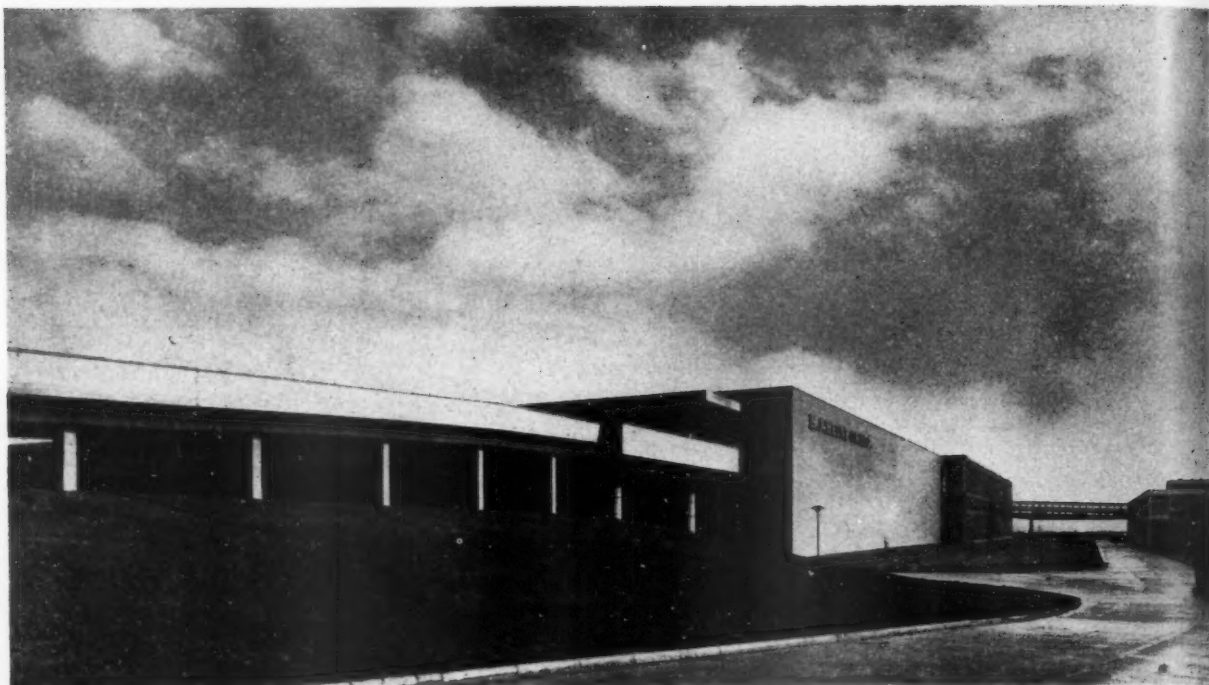


Diagrammatic east-west section



Site plan

building illustrated



Goods vehicles approach the factory from the south-west and this view from the weighbridges shows how the varying levels of the site have been used in relation to the needs of access to the buildings. The concrete ramp on the left takes lorries to the

unloading platform where they deliver their loads directly into the raw materials store. The office and welfare building can be seen on the right with the service road serving the lower floor. The main entrances are on the upper floor.

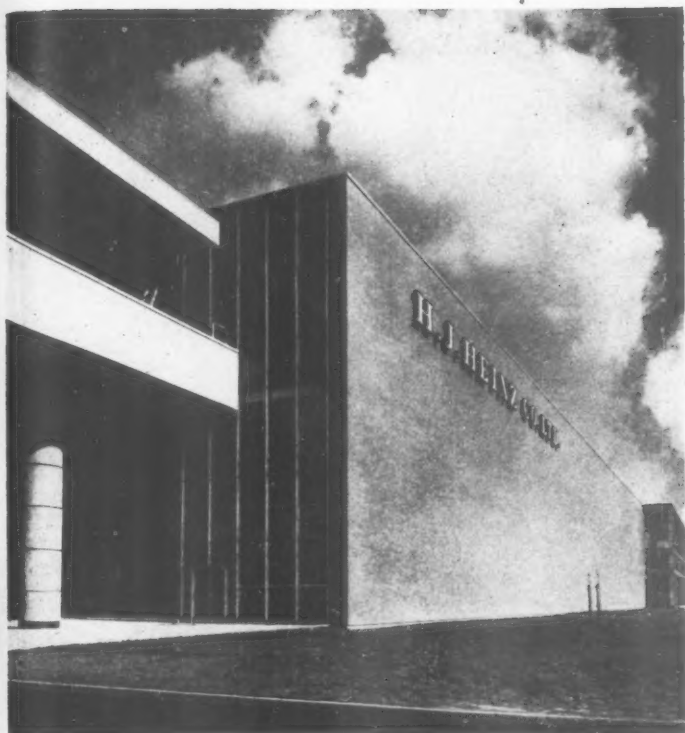
welfare building) to be placed at the same level as the mezzanine floor. Thus personnel leaving their transport can reach the mezzanine level directly by means of a bridge (i.e. without going up or down stairs) and within the mezzanine they circulate without passing through production departments; on reaching the appropriate stair they can then go up or down directly to the area in which they work. The two basic functions of the factory—warehouse and production—occupy roughly half each of the nearly square form of the resulting building, a form in which they are most efficiently accommodated. This division finds a clear material expression in the solid enclosing wall to the warehouse portion (where very few people work) and the glazed enclosure to the production portion (where very many people work and where the views of sunshine and passing clouds add considerably to their well being).

The south-west elevation of the warehouse portion has however been given a curiously powerful expression of symmetry, created largely by emphasising, with full height glazing, the relatively unimportant escape stairs at each corner. This symmetry is not related to any axiality in the plan and will certainly be meaningless when the factory is extended northwards. The water consumption of the whole project is equal to the daily consumption of Wigan and a storage capacity of 500,000 gallons was required. Water for the food manufacturing process is contained in the reservoir below the office and welfare building. Water used in the retorts and boilers is recirculated through the water treatment plant, where it is

cooled by forced draught fans chlorinated and filtered; the capacity of this plant is 1½ million gallons per day.

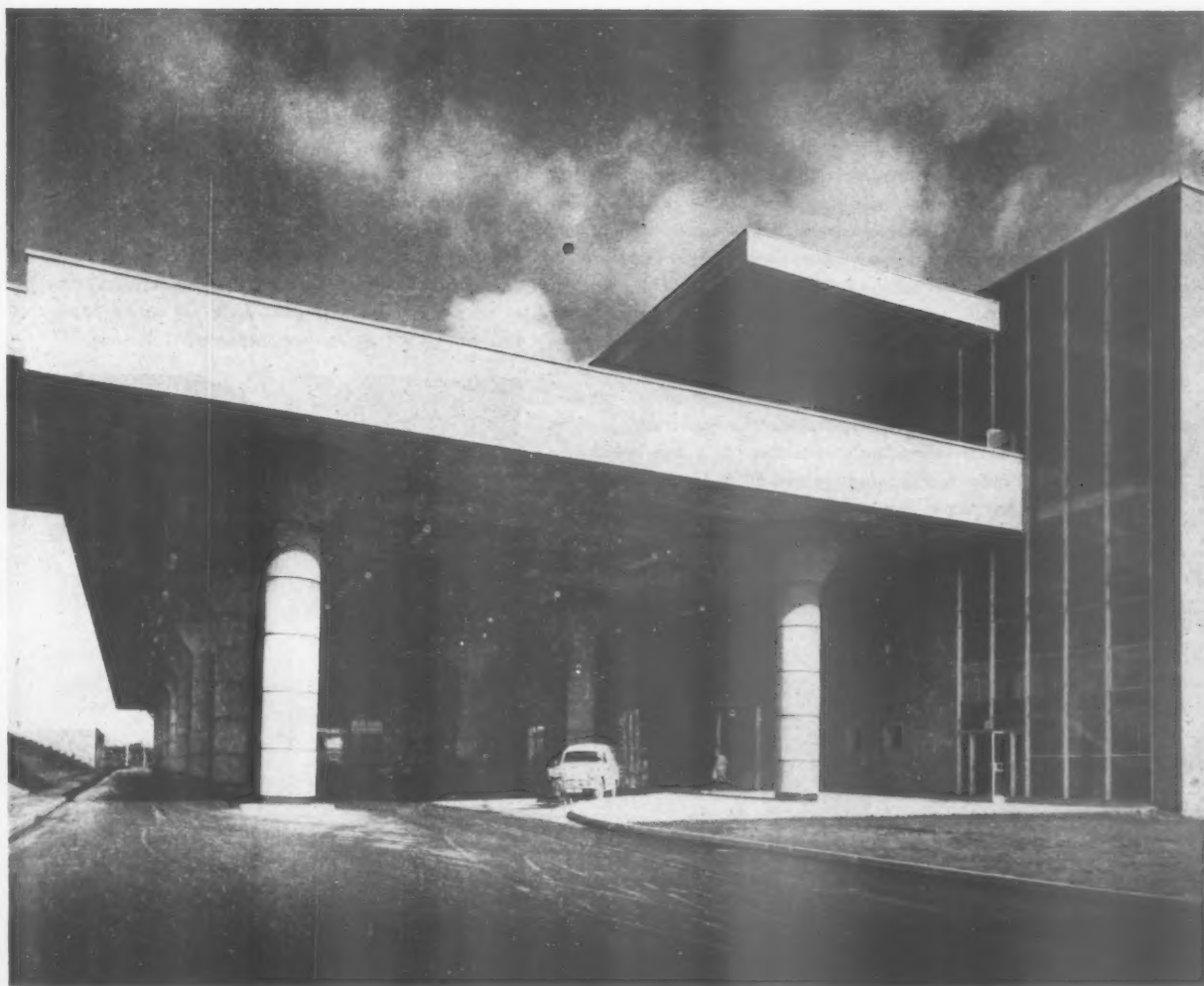
A recurring problem facing most architects in their endeavours to bring installations and services into the total concept of design, is to persuade specialist sub-contractors concerned that their schemes must be organised fully on paper first, in the closest collaboration, if they are to be organised at all. So often comparatively bare schematic drawings are prepared and the fitter is left to do his best on the site. Throughout this Heinz project the architect has been largely successful in enforcing this discipline and achieving carefully integrated designs of services and structure; but there is still evidence of lack of forethought, for example in the case of the boiler plant, which is constituted on the basis of exposed plant and machinery, some of which is untidy and haphazard.

The project as a whole has made a valuable contribution to the progress of industrial architecture in Britain for its interpretation of the basic essentials of factory design. The influence of the American trend in factory design can be seen in its reliance on artificial illumination and its resulting compactness and depth. It may in detail lack the vital spark which is needed to lift the mere acceptance of techniques to a point where they become a part of the quality of the total concept. Nevertheless its contribution is a significant one and points away from the unquestioning acceptance of extensive, sprawling buildings as the economic answer for a factory; the economics of land use and mechanical handling are now too important to allow of such lazy thinking.

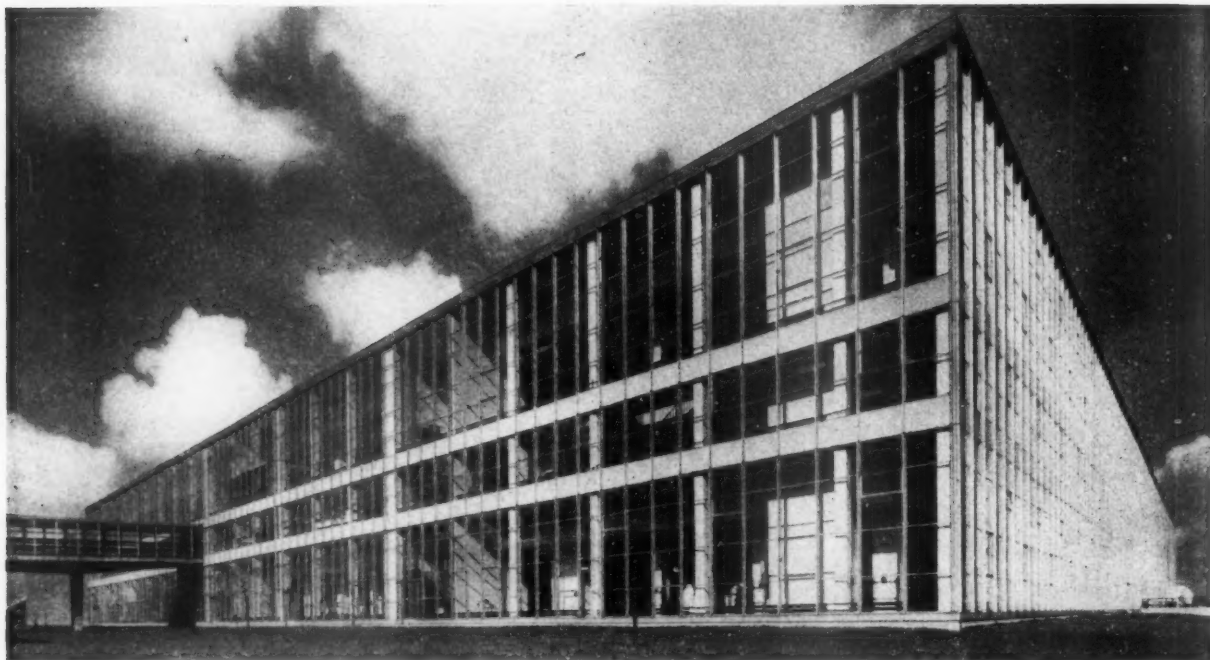


Left: the strong solid wall of the warehouse portion of the factory, built in local red engineering bricks, acts as an effective foil to the projecting glazed curtain of the production part beyond. At each end of the unloading platform the solid brick wall is broken by full-height glazing to escape stairs in these two corners; the adjacent small windows under the platform serve lavatories and minor offices.

Below: a close-up view of the reinforced-concrete unloading platform on which lorries unload under a canopy. The loading docks for finished goods from the warehouse can be seen underneath the platform. The concrete ramp to the platform can be heated electrically by embedded wires (thermostatically controlled) to prevent the surface being frozen or snow covered.



building illustrated



The glazed curtain wall of the production areas of the factory is a patent system of aluminium box mullions at 4-ft. centres into which a variety of infill panels can be fixed; the bands of infill panels seen at the two intermediate floor levels are faced in a plastic material of light grey colour. The use however of ordinary single glazing leaves one wondering how the inhabitants will react to the glare and the solar heat. The system was chosen primarily because its design is based on a split mullion which allows all thermal movement to take place in the mullions themselves; in many other systems thermal movement takes place between transoms and mullions which is often a source of trouble, especially at such vulnerable points as that where the glazed wall turns a corner. An incidental advantage of the system was felt by the architect to be its 4-ft. spacing, which gives a better scale and more transparent quality to the facades. The eaves fascia is constructed of three bands of extruded aluminium of a shiplap section. It lacks a much needed precision and like the other aluminium sections has a drab appearance because of its unpolished natural mill finish. The steel structure of the whole factory is planned on a regular bay spacing of 16 ft. The steel roof trusses and the deep plate girders supporting the mezzanine floor are designed for nine transverse spans of 48 ft.

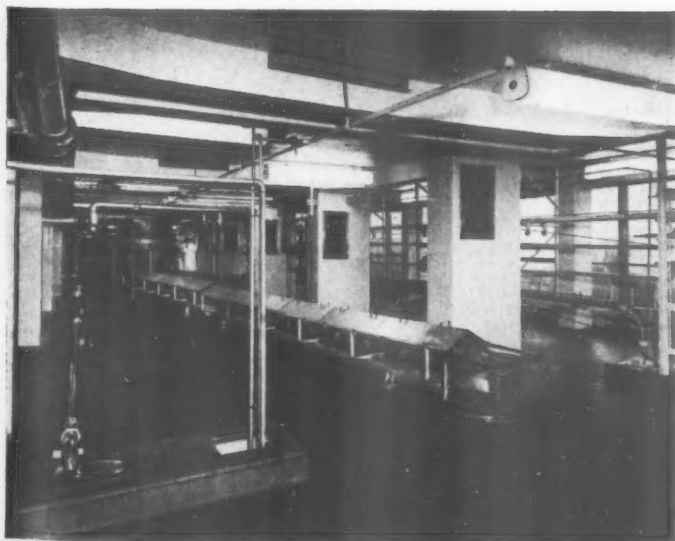
each. Beyond the outer perimeter of this column spacing, which is in line with the perimeter walls of the warehouse, is a 9-ft. projection to the columns behind the curtain wall; this projection is spanned by small r.s.j.s and the suspended ceilings follow the resultant profile of the soffit, thus giving a narrow raised ceiling around the periphery of the production areas. The upper production floor is supported by a closer arrangement of short r.s.j. stanchions carried off the deep plate girders of the mezzanine floor. Both production floors are designed for loadings of 350 lb./sq. ft. and are of in-situ r.c. slabs. The mezzanine being designed for only 140 lb./sq. ft. is of precast prestressed concrete units, this being a more economical structure. The foundations are generally of r.c. pile caps on bored piles. Each pile carries approx. 45 tons, and the average tonnage per pile cap is 400 tons.



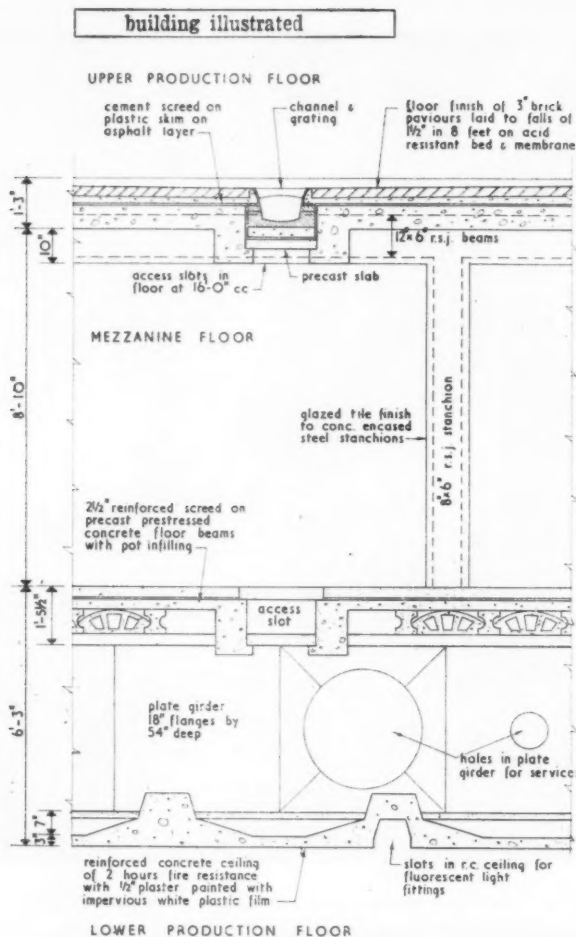
Left and above, two views of the enclosed overhead gantry containing several "race tracks" or can conveyors. The cans are extracted at high level from the can making plant, the enclosed gantry running over the roof of the plant, and conveying them automatically to the mezzanine level of the main factory, whence they drop automatically to feed the filling lines. Patent glazing encloses the sides of the gantry which includes a walkway for purposes of maintenance.



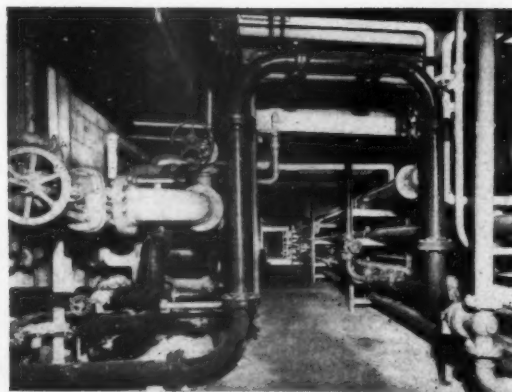
Above, part of the interior of the upper production floor where the preparing and cooking of the food takes place. There is a clear height of 14 ft. 6 in. from floor to ceiling; the latter is constructed of asbestos insulating board with added insulation and a vapour seal. The floor is surfaced with red engineering brick paviours set in acid-resisting waterproof cement. Watertight and insect-proof fluorescent light fittings and warm air outlets are set flush in the suspended ceiling. In the raised portion of the ceiling around the periphery are hung unit heaters which blow warm air downwards on the single glazed curtain wall; these together with the hot water tubular heaters at floor level are intended to minimise condensation on the glass. There are few partitions on the production floors and these are demountable. All permanent partitions and concrete encased columns are finished with glazed tiles.



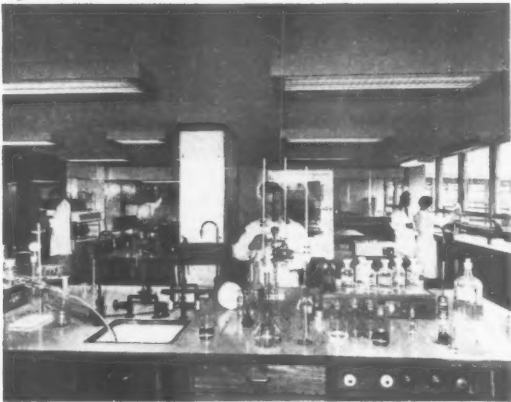
Left, a view of the cooking service area, which is a relatively small part of the mezzanine floor under the cooking retorts which are too large to be wholly above the upper production floor level. From these retorts the covered conveyors carry baked beans to a point where they drop through stainless steel hoppers to the filling lines below. Wherever food hoppers, can conveyors or services drop through holes in the floor, the brick paving is raised as a small plinth to avoid water spilling down the holes when the floor is being washed. Vertical ventilation ducts are built on to the r.s.j. stanchions by using concrete blocks to extend the casing of the stanchions on one side. The whole casing is finished in glazed tiles and louvres are inserted where required.



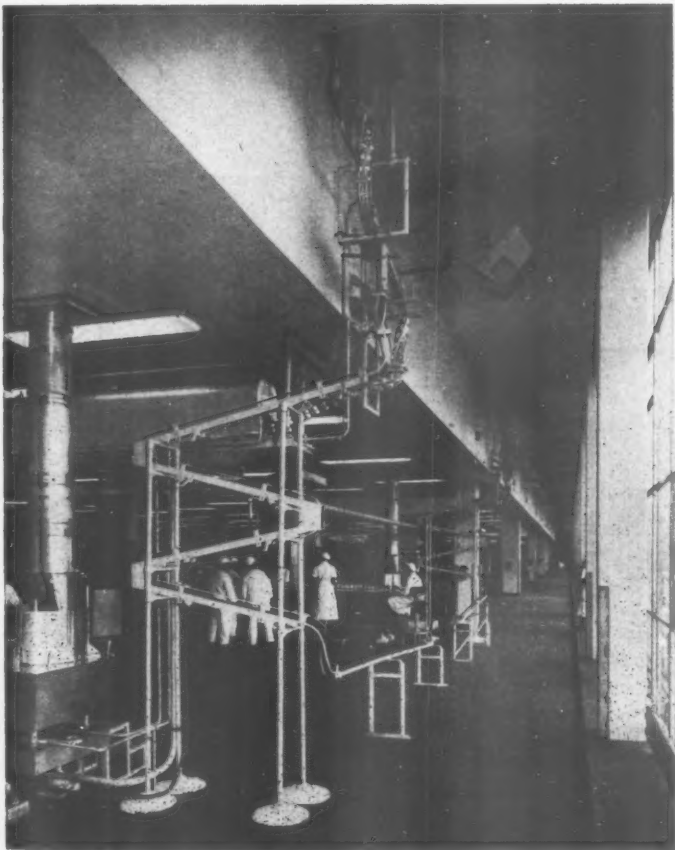
Section through mezzanine floor showing typical suspended floor and ceiling construction. The architects had to design the floors and ceilings in the production areas to meet very exacting requirements and this section shows the typical solution. The primary requirements for the construction are as follows: (a) All the plant and equipment is frequently washed with hot water and the whole interior is hosed down. Therefore it is vital that the upper floor is absolutely watertight. (b) The floor and ceiling had to be constructed in such a way that they could be perforated in a pre-arranged manner without harming the waterproofing. (c) The floor must be easily repaired and made good after being cut up either by damage or by the cutting or altering of further holes or channels in the floor. (d) The floor must be hard wearing, easily cleaned and washed, non-dusty and able to withstand frequent variations of wetness and dryness, some of the liquid being acidic. Various different floor finishes were tested in the client's existing factories during the preliminary stages of this project and special investigations were made to find a suitable jointing material, which with wet floors is nearly always the weakest factor. The ultimate choice was red engineering brick paviours set in acid resisting cement. This floor finish is used throughout the production areas, irrespective of the arrangement of plant, for reasons of internal flexibility. The cutting of holes or channels, if limited to a regular system of prearranged slots in the floor and ceiling construction, can be carried out with only minor making good. Note that in addition to the layer of asphalt in the floor there is an additional waterproofing film of thin plastic sheet laid on the asphalt; this enables the screed to be broken up during alterations without damage to the asphalt. The reinforced concrete ceiling to the lower production floor is designed to fulfill three functions as follows: 1. As a floor to the 4-ft. deep service access space within the depth of the plate girders supporting the mezzanine floor. 2. As a means of giving a 2-hr. standard of fire resistance to these exposed steel girders. 3. As a waterproof tray which is coffered on its top side to localise any water leakage from valves or joints. All the ceilings are coated with an impervious plastic film of material normally used for cocooning plant when in cold storage. It not only gives a washable finish but acts as a vapour seal.



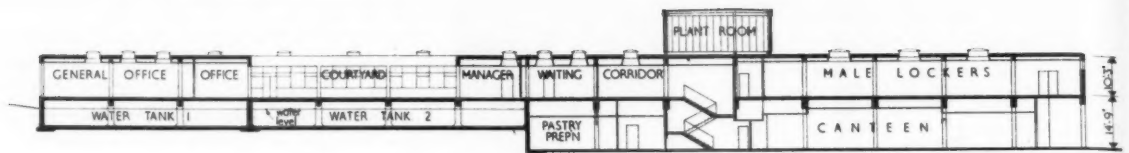
Above and below, two typical views of the mezzanine floor, a large part of which is taken up with ventilation ducting, steam, water and drainage services.



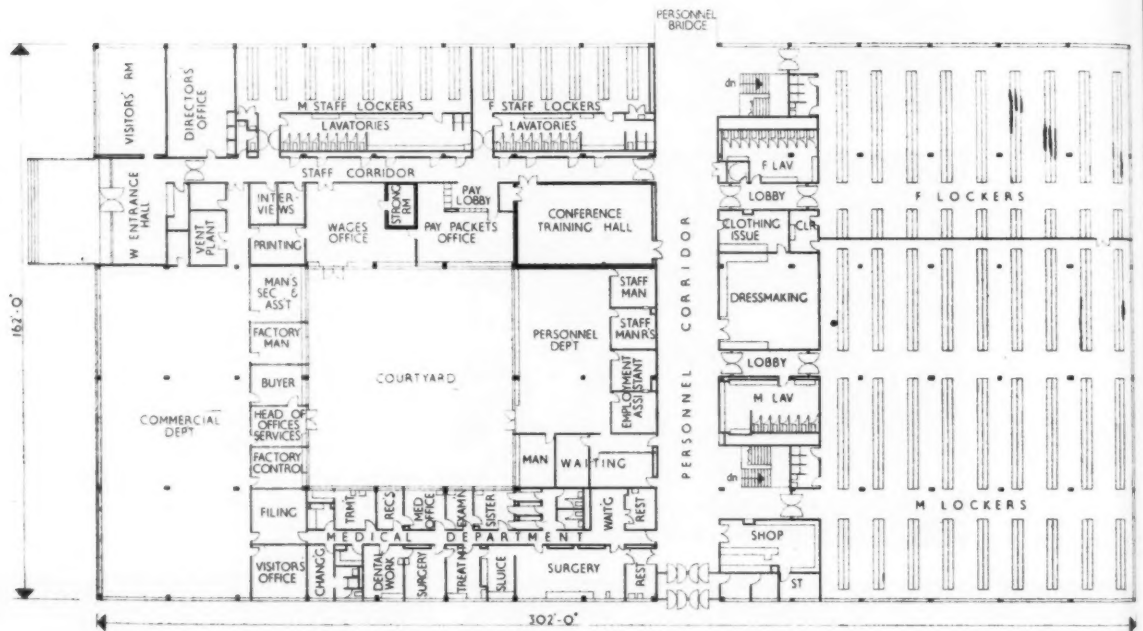
Two portions of the mezzanine floor (on the north-west and south-west sides) are allocated as refreshment areas adjacent to the lavatories. These are the only part of the factory where smoking is allowed (left). Centre left, in the quality control laboratories, which are strategically placed on the mezzanine floor, all routine testing of products is carried out. They are largely artificially lit (to a standard of 20 lumens per sq. ft.) with a floor-to-ceiling height of about 8 ft. The suspended ceiling is of acoustic tiles and the floor finish linoleum. Bottom left, the interior of the lower production floor where the filling, sterilizing and labelling of the canned goods takes place. There is a clear height of 12 ft. from floor level to the suspended reinforced concrete ceiling. The floor, as elsewhere, is surfaced with red engineering brick pavements. The food hoppers and "race tracks" for delivering the cans to the filling lines can be seen dropping through the ceiling; these drops can be arranged in a variety of positions in accordance with a pre-arranged system of prefabricated slots in the floor and ceiling construction; the slots are sealed off when not in use. Most of the machinery and plant rests upon concrete pads which are stuck down (not bolted) to the brick floor finish; there is thus little or no damage to the floor when plant has to be rearranged. Below right, after packing, the finished goods arrive in the warehouse, which has a clear floor-to-ceiling height of 24 ft. As can be seen, this height is fully used by the adoption of the timber pallet system using fork lift trucks. The steel structure of the warehouse is planned on a column spacing of 24 ft. \times 32 ft. The floor is designed for a live load of 900 lb. per sq. ft. and is surfaced with a granolithic screed.



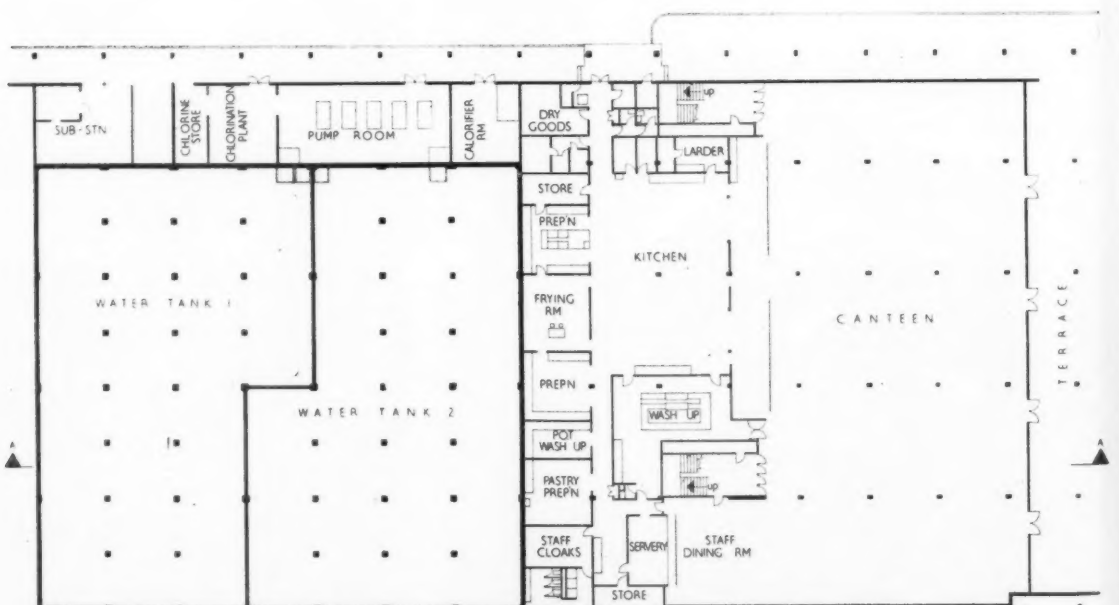
building illustrated



Long section through employee service building (Scale: $\frac{1}{8}" = 1' 0"$)



First floor plan



Ground floor plan of the employee service building (Scale: $\frac{1}{8}" = 1' 0"$)

analysis

CLIENTS' REQUIREMENTS

The more important of the clients' requirements can be summarised as follows:

(a) Accommodation:

Raw materials store	140,000 sq. ft.
Production area	300,000 sq. ft.
Packing and warehouse	140,000 sq. ft.
Separate can-making plant	40,000 sq. ft.
Workshops	20,000 sq. ft.
Separate Office and Welfare building	66,000 sq. ft.

(b) Expansion: Further expansion of both warehouse and production areas is required although the latter is limited to about 50 per cent. of the initial production area for administration reasons.

(c) Flexibility: Owing to the many different processes involved in the production of the various foods, and the varying outputs required of each type according to season and demand, the maximum flexibility of plant arrangement was required. The ever-changing design of machinery available for food production reinforced this need.

(d) Compactness: A compact design was required not only on grounds of maintenance and administration costs, but in order to keep distances of travel for personnel in the course of their work, and to and from welfare and refreshment facilities, to a minimum.

SITE

The site is at Kitt Green, a small hamlet near Wigan, and covers some 150 acres, parts of which cannot be built on because of disused coal mines beneath. The site has a considerable slope down to the north east with an average gradient of 1 in 40. The most suitable portion of the site was to the south-west, amounting to about a third of the total, on the brow of a hill commanding an open view eastwards.

SUMMARY

Drawing office work began: early June, 1954.

Basic design agreed: end of March, 1955.

Excavation began: early November, 1955.

First section of warehouse handed over: mid-April, 1957.

Remainder of warehouse handed over: end of September, 1957.

Can-making plant and workshops handed over: end of October, 1957.

Raw materials store handed over: end of November, 1957.

Bean production department handed over: end of March, 1958.

Routine laboratories handed over: end of June, 1958.

Reservoir under offices handed over: August, 1958.

Canteen and locker rooms handed over: early September, 1958.

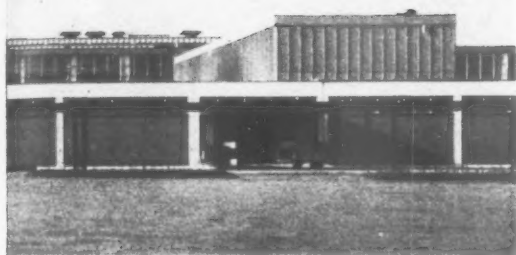
Soup production department handed over: end of September, 1958.

Remainder of office and welfare building handed over: mid-December, 1958.

Project completed: end of March, 1959.

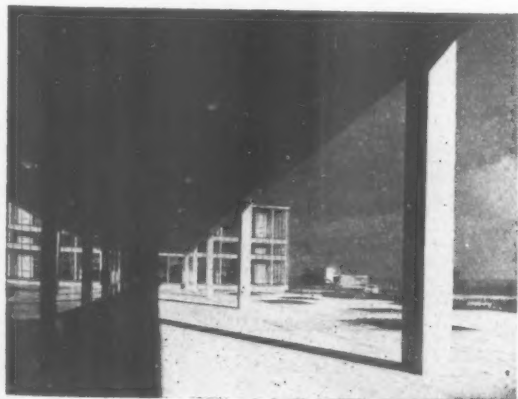
COST SUMMARY

	Total cost	Cost per cu. ft.	Cost per sq. ft.	Per cent. cost of total
Warehouse section excluding platform, ramp and canopy)	£820,000	2s. 4d	58s 6d	15 per cent
Production section	£1,880,000	4s 8d	90s 0d	33 per cent
Office and welfare building	£410,000	6s 3d	82s 0d	7 per cent
Other buildings, including can making factory, workshops, platform, etc.	£530,000			9 per cent
Site works, sports field, road diversion	£480,000			8 per cent
Installations and services (excluding clients' equipment)	£1,620,000			28 per cent
Total	£5,740,000			100 per cent



The entrance to the employee services building. In the foreground is the bus waiting canopy.

Looking north from the partially covered terrace outside the canteen. The whole of this side of the canteen is glazed and looks out on this terrace and a formal garden beyond. The present capacity of the kitchen and canteen is 2,100 meals, the dining area being designed for three sittings of 700 each.



analysis

SERVICES

Heating

A large quantity of steam is required for the food processing machinery and this naturally influenced the choice of heating system. A large independent boiler plant has been built using oil-fired water tube boilers having a total capacity of 85 million B.Th.U.s per hour. For the factory, live steam is taken to air heater batteries in the plant rooms, but the ducted warm air is supplemented by l.p.h.w. radiators, convectors and unit heaters. In the offices generally the heating is by l.p.h.w. radiators.

Ventilation

Full air conditioning was considered but was rejected on grounds of cost. The present mechanical ventilation scheme is a combined supply and extract system (except in warehouse portions). The system cleans all incoming air by oil filters and the balance of supply and extract varies according to the local need; for example, in the production areas the supply of warmed air is 90 per cent. of the volume extracted, giving air changes of 10 supply and 12 extract. Generally up to 75 per cent. of air extract may be recirculated.

Lighting

In the production areas of the factory, semi-recessed hot cathode fluorescent fittings with plastic diffusers are used; these are moisture and insect proof. In the warehouse areas suspended fluorescent open reflector type fittings are used. The designed levels of illumination are:

Production areas, 20 lumens/sq. ft., with the opportunity of increasing to 28 lumens/sq. ft. by addition of extra tubes in each fitting;

Warehouse, 8 lumens/sq. ft.

Routine laboratories, 20 lumens/sq. ft.

Lifts and Hoists

In the productions areas two electric passenger/goods lifts of 9,000 lb. capacity and one goods lift of 1,000 lb. capacity are provided. Other hoisting plant consists of light duty monorails and fork lift trucks.

Fire prevention and escape

No sprinkler installation is provided but the structure generally is designed to give a 2 hour standard of fire resistance. Uncased steelwork however was accepted for the roof of the raw materials store. The latter, together with the warehouse below is divided into isolated sections by means of firebreak walls. Generally, fire alarms, 4-in. fire hydrants and hose reels are provided internally and externally. A "Personnel trapped" alarm is provided in each of the cold rooms.

CONTRACTORS

General contractors: A. Monk & Co. Ltd. *Sub-contractors—Piling:* Franki Pile Ltd. *Drainage goods and plastering materials:* Warrington Slate Co. Ltd. *Limestone aggregates:* Richard Briggs & Sons Ltd. *Concrete plasticizers and water-proofer:* Chemical Building Products Ltd. *Mersey sand:* William Cooper & Sons Ltd. *Expansion jointing materials:* Expandite Ltd. *Gravel aggregates:* Holland Gravel Co. Ltd. *Cement:* Ribblesdale Cement Ltd. *Precast concrete floors:* Pierhead Ltd. *Facing bricks and brick pavements:* The Accring-

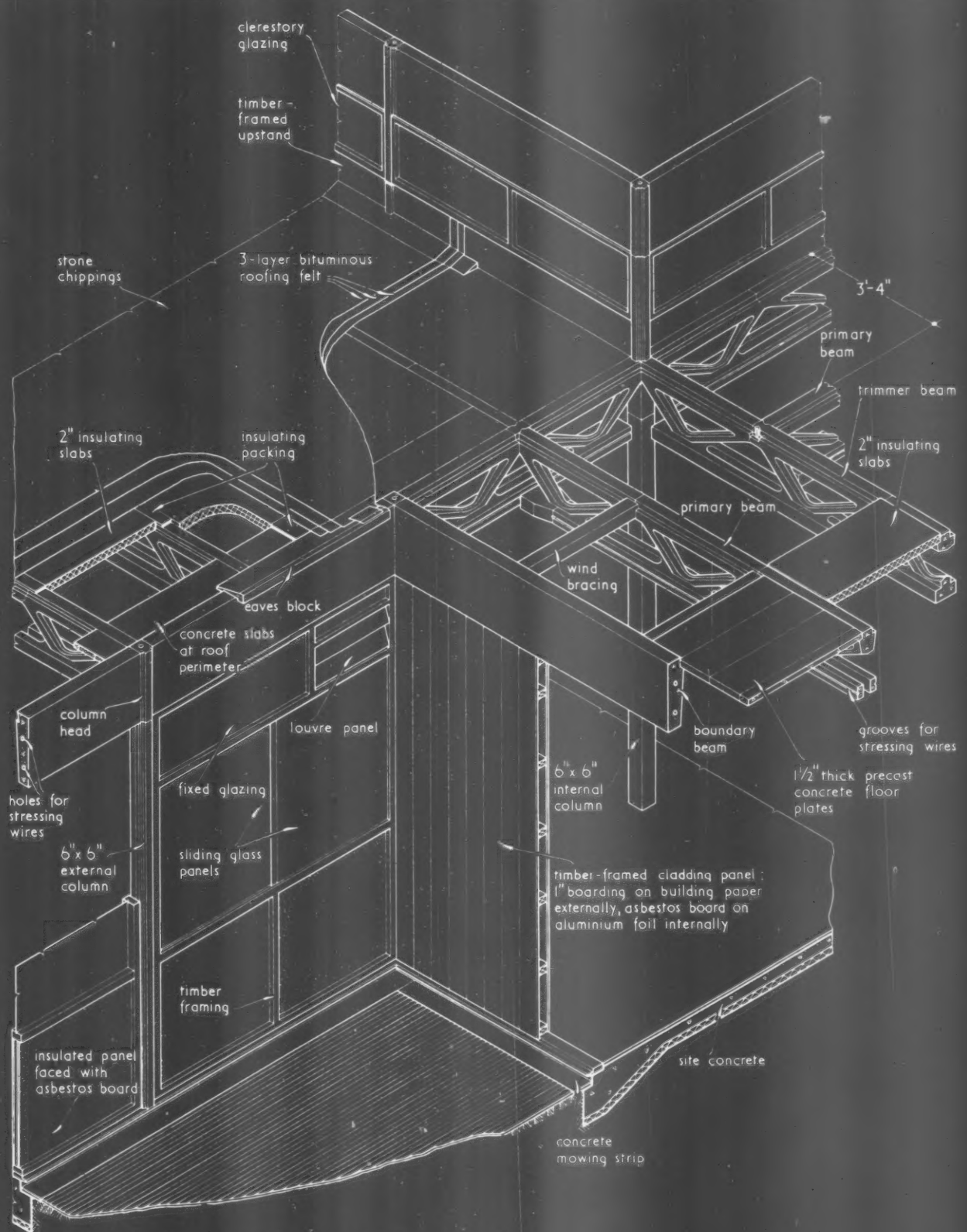
ton Brick Co.; Lathom Brick Co. Ltd. *Glazed block partitions:* Leeds Fireclay Ltd. *Building blocks:* Lignacite (North Eastern) Ltd. *Sandtime bricks:* M. McCarthy & Sons Ltd. *Black coping stones:* Shaws Glazed Brick Co. *Lightweight building blocks:* Thermalite Ltd. *Waterproof membrane and ESB suspended floors:* Neuchatel Anticorrosion Co. Ltd. *Tanking and SIB roofing:* Neuchatel Asphalte Co. Ltd. *Waterproofed brick paviour flooring:* Acalor Ltd. *P.v.c. floors:* British Doloment Ltd. *Hardwood and semastic floors:* Horsley Smith & Co. (Hayes) Ltd. *Linoleum floors:* Korkoid Decorative Floors; Semtex Ltd. *Warehouse canopy glazing:* Corroglaze Ltd. *Waterproofed metal deck roofing:* Robertson Thain Ltd. *Felt roofing:* Val de Travers Asphalte. *External louvred panels:* Colt Ventilation Ltd. *Wall cladding:* W. H. Heywood & Co. Ltd. *Curtain wall and internal partitions:* Holoplast Ltd. *Curtain wall cleaning cradle:* Palmers Traveling Cradle & Scaffolding Co. *Metal windows and vertical patent glazing:* Williams & Williams Ltd. *Steel partitions:* Roneo Ltd. *W.c. partitions:* Wm. Mallinson & Sons Ltd.; Venesta Ltd. *Plywood for concrete shuttering:* J. Holt & Son (Plywood) Ltd. *Joinery:* Walter Lawrence Ltd. *Laboratory equipment and services:* W. E. Marson & Co. *Timber for concrete shuttering:* David Roberts, Sons & Co. Ltd. *General joinery, doors, etc.:* Super Wood Products Ltd. *Tea kiosks:* Tyson (Contractor) Ltd. *Eaves trim and canteen louvre frames:* Aluminium Alloy Fabrications Ltd. *Sliding doors:* Bolton Gate Co. *Staircase and special sheet metal work:* Frederick Bray & Co. *Metal shelving:* Constructors Ltd.; Beanstalk Shelving Ltd. *Staff entrance, glazed screen and grilles:* Culford Art Metal. *Duct covers:* Dover Engineering Works Ltd. *Lightning conductors:* W. J. Furse & Co. *Wire lockers:* G. A. Harvey & Co. Ltd. *Sliding door gear:* E. Hill Aldam & Co. Ltd. *Column guards in warehouse:* "Rigifix," Huntley & Sparks Ltd. *Internal guard rails:* Light Steelwork (1925) Ltd. *Fire doors and boiler feed pumps:* Mather & Platt Ltd. *Hoist blocks:* Herbert Morris Ltd. *Ironmongery and door furniture:* Quiggin Bros. *Firing devices:* Rawplug Co. Ltd. *Strong room door:* Ratner Safe Co. Ltd. *Column guards in production area, external guard rails, miscellaneous steelwork:* Staveleys Ltd. *Fabric reinforcement:* GKN Reinforcements Ltd. *Structural steelwork:* Peirson & Co. Ltd. *Reinforcement steel:* Whitehead Iron & Steel Co. Ltd. *Tubular scaffolding:* Mills Scaffold Co. Ltd. *Special windows:* Luxfer Ltd. *Ceiling:* Anderson Construction Co. Ltd. *Ceiling suspension:* Campbell Denis Ltd.; Steel Bracketing & Lathing Co. Ltd. *Precast plaster ceiling:* Clark & Fenn Ltd.; Petradene Ltd. *Hard-board ceilings:* Tentest Fibre Board Co. Ltd. *Marble wall facings, terrazzo floors and staircases:* Art Pavements & Decorations Ltd. *Floor tiling:* Carter & Co. Ltd. *Glazed wall tiling:* W. B. Simpson & Co. Ltd. *Sanitary fittings:* Wm. E. Farrer Ltd. *Plumbing and glazing materials:* Samuel Gratrix Ltd. *Pitch fibre drainpipes:* The Key Engineering Co. Ltd. *Cast iron pipes:* Staveley Iron & Chemical Co. Ltd. *Incinerators:* Sugg & Co. Ltd. *Refrigerator plant:* J. & E. Hall. *Ductwork and hoods:* Henry Hargreaves & Co. Ltd. *Water chlorination plant:* Wallace & Tiernan Ltd. *External pipe services:* G. N. Haden & Sons. *Electrical Engineering:* Barlow & Young Ltd. *Electrical switchgear:* Brush Electrical Engineering Co. Ltd. *Electrical control gear:* Watford Electric & Manufacturing Co. Ltd. *Special light fittings:* Allom Heffer & Co. Ltd. *Oil tanks and pumps:* Matthew Hall Ltd. *Water treatment:* Permutit Co. Ltd. *Kitchen equipment:* Falkirk Iron Co. Ltd. *Cold stores:* Prestcold Refrigeration Ltd. *Telephones, loudspeakers, clocks, etc.:* Siemens, Edison Swan. *Conveyors and hoppers:* Frederick Braby & Co. *Comminutor:* Jones & Attwood. *Tretoplast plastic coating:* Tretol Ltd. *Painting and decorating:* G. A. Fryer & Son (Warrington) Ltd. *Fairfaced concrete treatment:* Gunac. *Landscaping:* Clapham Nurseries Ltd. *Security fencing:* Peerless Fencing & Products Ltd.

ock par-
ignacite
& Sons
htweight
ane and
Co. Ltd.
Co. Ltd.
P.v.c.
ic floors:
Korkoid
glazing:
obertson
External
W. H.
rtitions:
Travel-
vertical
rtitions:
as Ltd.;
t & Son
boratory
nber for
General
kiosks:
u louvre
g doors:
il work:
rs Ltd.;
een and
ineering
Co. Wire
E. Hill
Rigifix,"
eelwork
& Platt
and door
Co. Ltd.
uards in
eelwork:
cements
orcement
ffolding:
Ceiling:
ampbell
Precast
Hard-
ble wall
nents &
zed wall
Wm. E.
Gratrix
Co. Ltd.
Co. Ltd.
J. & E.
Co. Ltd.
External
neering:
lectrical
Electric
Allom
all Ltd.
ipment:
geration
Edison
Comm-
Tretol
ington)
caping :
Fencing

COMPLETE STRUCTURES | CONCRETE

25.B3

The Architects' Journal Library of Information Sheets 722. Editor: Cotterell Butler, A.R.I.B.A.



GENERAL ASSEMBLY OF COMPONENT PARTS.

LAINGSPAN: PRECAST CONCRETE SYSTEM OF CONSTRUCTION FOR SCHOOLS : I.

Manufacturer John Laing and Son Limited.

25.B3. LAINGSPAN PRECAST CONCRETE SYSTEM OF CONSTRUCTION FOR SCHOOLS: 1

This Sheet, the first on Laingspan construction for schools, gives a general description of the system. It consists of prestressed or post-tensioned concrete components which can be assembled to form a complete structure and includes floor units, lightweight partitions, staircases, cladding and glazing. It can be used for buildings up to four storeys high. Sheet 25.B4 gives details of the construction of the beams, alternative column heads and the jointing of members: the two Sheets should be read in conjunction.

General

The manufacturer evolved the system in association with the Development Group of the Ministry of Education Architects and Building Branch, whose detailed research into the requirements of school building has resulted in a system that is sufficiently flexible to meet all normal conditions. A. J. Harris, B.Sc. (Eng.), M.I.C.E., was the consulting engineer for the prestressed concrete design and the manufacturer's Research and Development Group contributed their specialised knowledge of advanced concrete casting techniques and site practice. The components have been exhaustively tested at each stage of development. Considerable economies in designing and erecting time are effected by the flexible modular system, and the full exploitation of prestressing techniques results in a saving in steel consumption and an appearance of lightness in construction.

Design and Main Components

The plan is based on a 3 ft. 4 in. module and the vertical increment is 10 in. All components are easily handled, but are made as large as possible to reduce the amount of jointing on the site.

Columns: All columns are 6 in. by 6 in., prestressed, in lengths up to 15 ft. 10 in. in 10-in. increments. Perimeter columns are of cruciform section so that they can receive beams or cladding from any side, and internal columns are of square section. A range of standard column heads is available for varying conditions of support for floor and roof beams, trimmers and boundary beams.

Primary beams. These are assembled on the site from precast web units and slotted boom units, both 3 ft. 4 in. long. The slots are provided for the passage of services into partitions occurring on the grid lines in either direction. The beams are post-tensioned after erection. The overall depth of the beam is 1 ft. 6 in. and the maximum span 33 ft. 4 in. for floors and 46 ft. 8 in. for roofs. The overall

thickness of finished floor or roof is 1 ft. 8 in.

Trimmer beams: These are assembled as primary beams (light section) or precast in one piece (heavy section) in lengths of 6 ft. 8 in. and 10 ft. 0 in.

Boundary beams: These are in fine-finished precast concrete, post-tensioned after erection, in lengths of 3 ft. 4 in., 6 ft. 8 in., or 10 ft. 0 in.

Bracing units: These are precast units, for use between the boundary beam and the first parallel primary beam, for wind bracing.

Floor plates: Precast floor plates 1½ in. thick, for setting into the rebates in the top booms of the beams, are available for floors. They are also used around the perimeter of the roof for wind bracing.

Sill and eaves units: Precast concrete sill units form an accurate base for the perimeter columns and throated eaves units fit over the boundary beams.

Cladding, glazing, partitions and staircases are described on Sheet 25.B4.

Loading

Any column can be freestanding. Loading conditions are unrestricted within the normal context of the system, except that, in multi-storey buildings, the height of columns should be restricted to one storey. The live loads which can be carried by floors and roofs are 60 lb and 15 lb. per sq. ft., respectively. These loadings can be appreciably increased under certain span conditions and information is available from the manufacturer on request.

Thermal Insulation

The U value of the cladding is 0.18.

Further Information

The manufacturer maintains a technical advisory service available to answer questions dealing with Laingspan.

Compiled from information supplied by:

John Laing and Son Limited

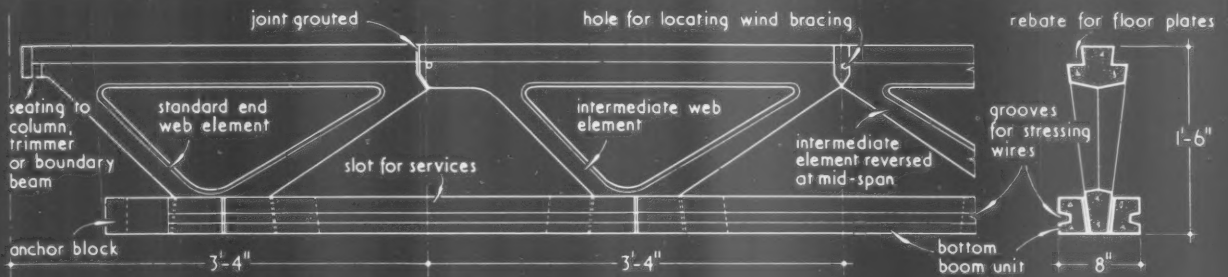
Address: London, N.W.7.

Telephone: Mill Hill 3636.

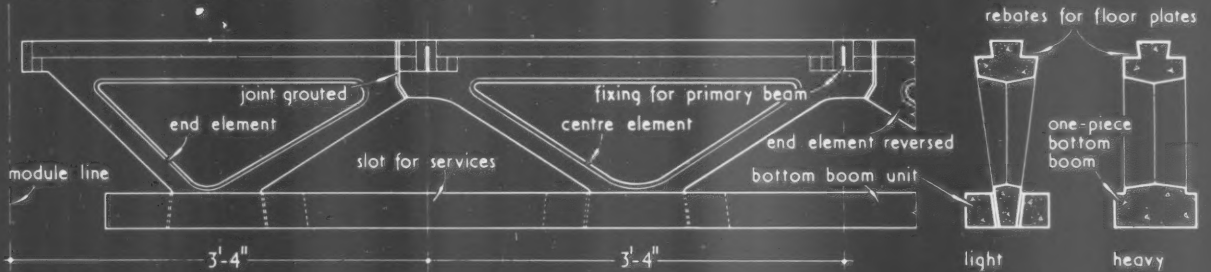
COMPLETE STRUCTURES · CONCRETE

25.B4

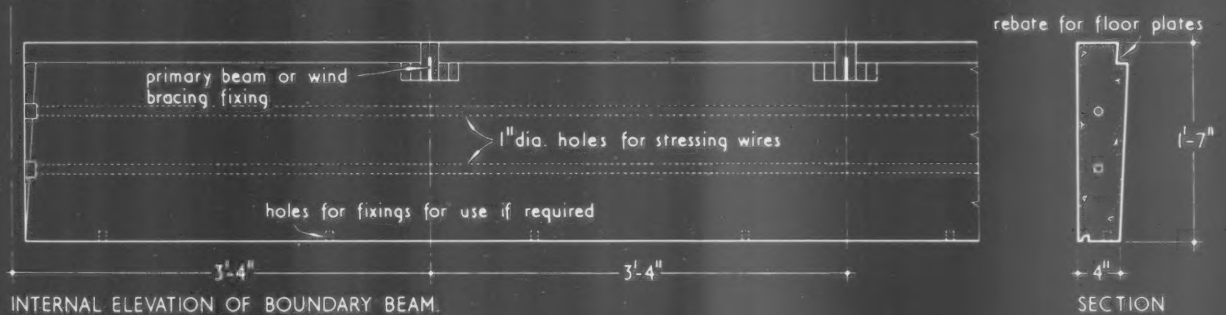
The Architects' Journal Library of Information Sheets 723. Editor: Cotterell Butler, A.R.I.B.A.



ELEVATION AND SECTION OF PRIMARY BEAM.

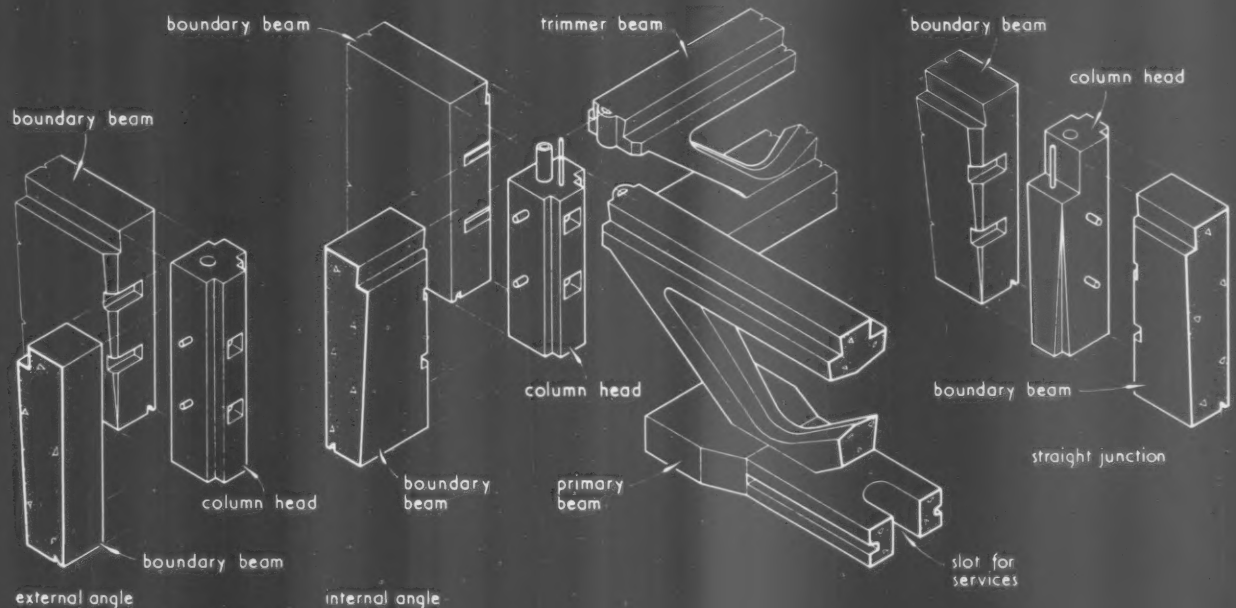


ELEVATION OF THREE-MODULE TRIMMER BEAM.



INTERNAL ELEVATION OF BOUNDARY BEAM.

SECTION



TYPICAL BOUNDARY COLUMN HEADS.

LAINGSPAN PRECAST CONCRETE SYSTEM OF CONSTRUCTION FOR SCHOOLS : 2.

Manufacturer: John Laing and Son Limited.

25.B4. LAINGSPAN PRECAST CONCRETE SYSTEM OF CONSTRUCTION FOR SCHOOLS: 2

This Sheet is the second on Laingspan construction for schools. The drawings on the face give details of the main components and the notes below outline the sequence of site operations. The Sheet should be read in conjunction with Sheet 25.B3 which gives a general description of the system and lists the main components which it utilises.

Additional Components

In addition to the main structural components described on Sheet 25.B3, the following are included in the system.

Cladding: The standard cladding panels are timber-framed. The internal face is asbestos board backed with aluminium foil and the external face 1-in. vertical softwood weather-boarding on building paper. The weather-boarding is finished with Ranch house treatment. If desired, the boarding can be hardwood. Alternatively, concrete sandwich panels can be used for apron or solid walls in a variety of finishes, e.g., patterned, aggregate-faced, applied proprietary finishes. In certain circumstances the use of concrete panels restricts the column spacing to 6 ft. 8 in. for 4-storey structures only.

Glazing: All-day sliding plate-glass windows are normally used with Naco louvred ventilators and fixed lights over, but alternative types of window can be specified. Insulated panels beneath windows are clad externally with coloured asbestos sheeting, but alternative facing panels are obtainable. Single or double door units are available.

Partitions: Two types of partition are available in hollow lightweight concrete blocks; $4\frac{1}{2}$ in. thick, to take plaster both sides, and 6 in. thick, to be left fair-face. These have good sound-reducing properties and can be used where required on the grid lines. Bulkheads are incorporated in the floor thickness over partitions for sound insulation.

Staircases: Standard precast string and step units are included in the system. Their standard plan area is 16 ft. 8 in. by 10 ft. 0 in., including a half-landing. The staircases are free-standing and do

not depend upon the surrounding walls for support.

Sequence of Operations

After the site concrete has been laid, the sill units are laid around the entire building perimeter. As the position of the columns is determined by this operation, the accuracy with which it is carried out is very important to the success of the construction. When the columns are erected and the boundary beams placed on top, the latter are tensioned and a rigid external frame is formed. The internal columns, beams and wind-bracing are then assembled: the bearing end of a beam is provided with a steel loop, cast into the concrete and welded to the reinforcement, which engages with a steel pin in the top of the column or top boom of a trimmer.

Cladding: The cladding units are held at the sides by friction joints which can be fixed from inside the building without the use of scaffolding.

Floors and roofs: Floors are finished with in-situ topping and roofs with 2-in. insulating slabs, three-layer bituminous roofing and stone chippings.

Services: All main services can be accommodated through the webs of the beams and smaller services can be carried vertically through slots in the boom member of the beam which register with holes in the partition blocks.

Provision for blinds: Blind boxes are provided for, recessed in the ceiling and adjacent to all external walls.

Further Information

The manufacturer maintains a technical advisory service available to answer questions dealing with Laingspan.

Compiled from information supplied by:

John Laing and Son Limited

Address: London, N.W.7.

Telephone: Mill Hill 3636.

t.

re
ne
-
y
n
as
d
s,
ne
o,
t,
ne

es
ne

u
e-

d
es
n
ne

r,
al

y
h

s.

working detail

WALLS AND PARTITIONS: 80

WALL: WAREHOUSE IN ZURICH

Otto Glaus, architect (material supplied by Dariush Borbor)



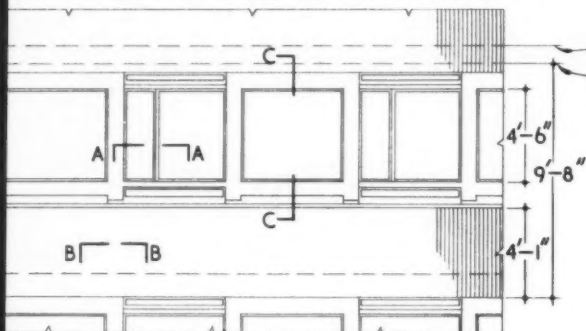
The infill panels of this exceedingly interesting facade are timber framing clad with asbestos cement: flat sheets to cover the window surrounds and corrugated sheets for the sill-height cladding. These last are projected sufficiently proud of the framing to serve as a protection for the Italian-type roller blinds.

working detail

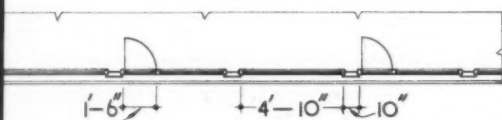
WALLS AND PARTITIONS: 80

FALL: WAREHOUSE IN ZURICH

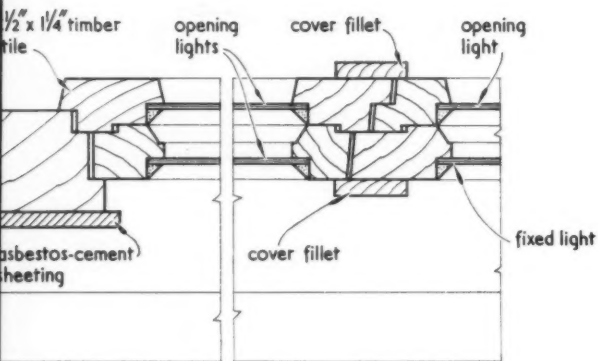
Atto Glaus, architect (material supplied by Dariush Borbor)



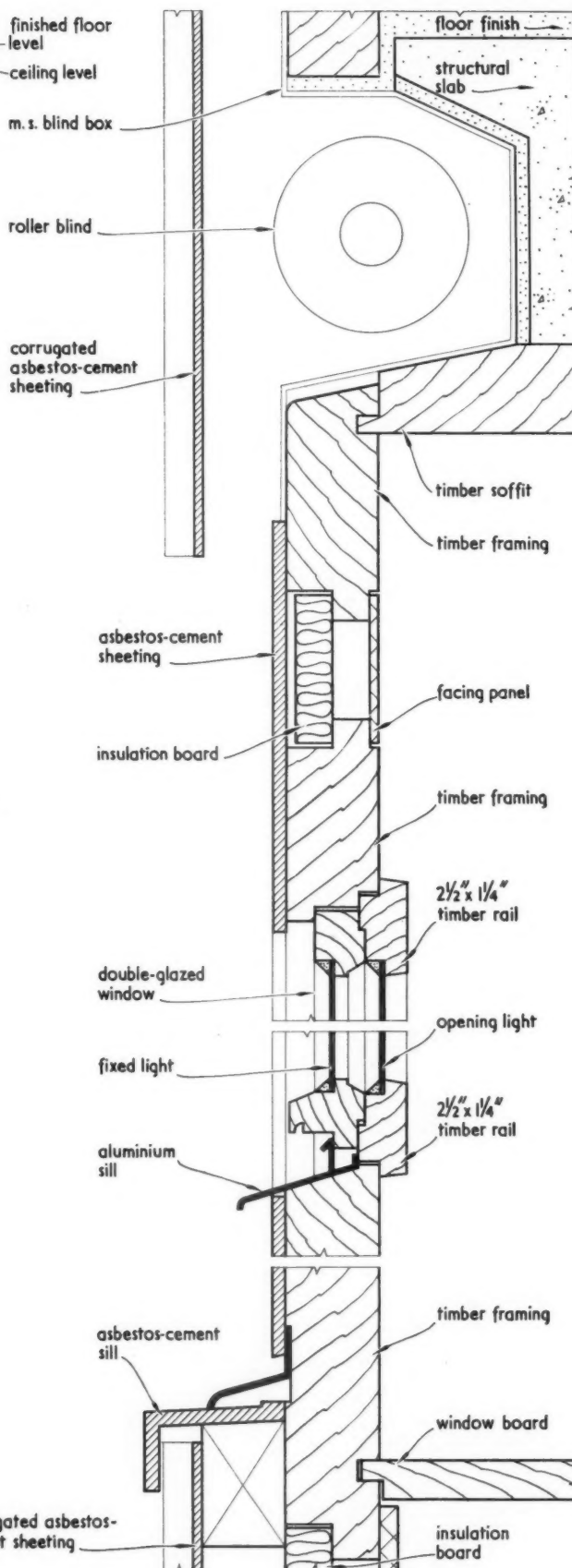
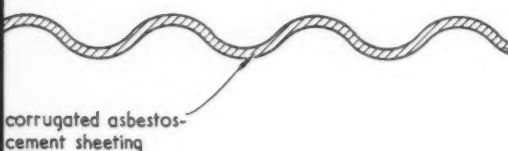
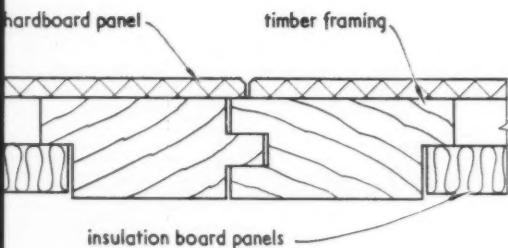
ELEVATION. scale $\frac{1}{8}'' = 1' - 0''$



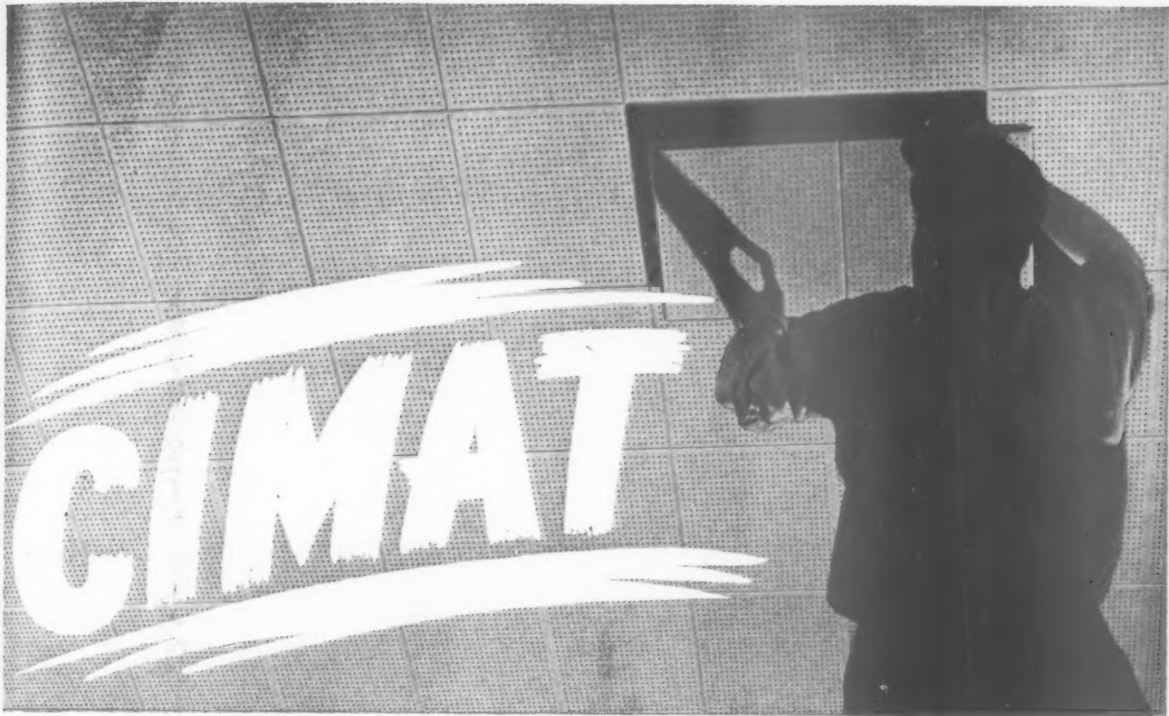
PLAN. scale $\frac{1}{8}'' = 1' - 0''$



PLAN AT A-A. scale $\frac{1}{4}$ full size



SECTION C-C. note: figured dimensions in feet and inches are approximate



Yes, this Celotex Acoustical Product combines fire resistance with high acoustical efficiency. Celotex Incombustible Metal Acoustic Tiles can be fitted to any type of soffit and are extremely easy to install. The fixing is fast, invisible and positive, resulting in very low installation costs. Scientifically designed to yield optimum efficiency over a wide frequency range, the perforated tile is backed by a Mineral Fibre sound absorbent pad, the latter being separated from the inside of the tile by a small air-space.

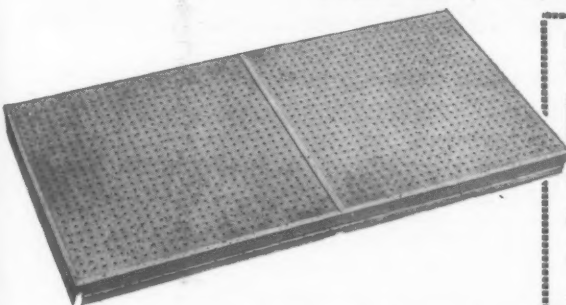
Let us arrange without obligation, a highly competitive quotation for you, through our specialist Celotex-trained Distributors and Contractors.

- ✓ High sound absorption
- ✓ Bonderized for complete Rust-protection
- ✓ Incombustible throughout
- ✓ Clean margins and bevels on all edges
- ✓ Available in any B.S. Colour
- ✓ Larger-than-usual holes prevent paint-clogging
- ✓ Removable at will

CELOTEX

Incombustible

METAL ACOUSTIC TILES



POST COUPON TO-DAY TO: CELOTEX LIMITED
Department B, North Circular Road, Stonebridge Park, N.W.10

Please send me without obligation details of CIMAT

Please arrange for your representative to call with a sample tile

Tick which required

NAME.....

ADDRESS.....

C 106

CELOTEX LIMITED, NORTH CIRCULAR ROAD, STONEBRIDGE PARK, LONDON, N.W.10. Telephone: ELGar 5717 (10 lines)

THE CEILING THAT LIGHTS

at Qantas Airways Office

Here is lighting in keeping with the architectural requirements of the jet age. For the impressive offices of Qantas Airways, architects Yates, Cook and Darbyshire specified an uninterrupted area of nearly 800 sq ft of Luminated Ceiling. It provides glare-free, shadowless lighting of the chosen intensity, and approaches natural daylight in quality. The Luminated Ceiling is designed to look attractive whether the light is on or off. Fitting in perfectly with modern building styles, it also offers an attractive method of modernising old interiors, giving a handsome new ceiling at a lower level. Overhead beams, pipelines and other services can all be effectively screened by the translucent diffusing medium. Luminated Ceilings are backed by a comprehensive after sales maintenance service.



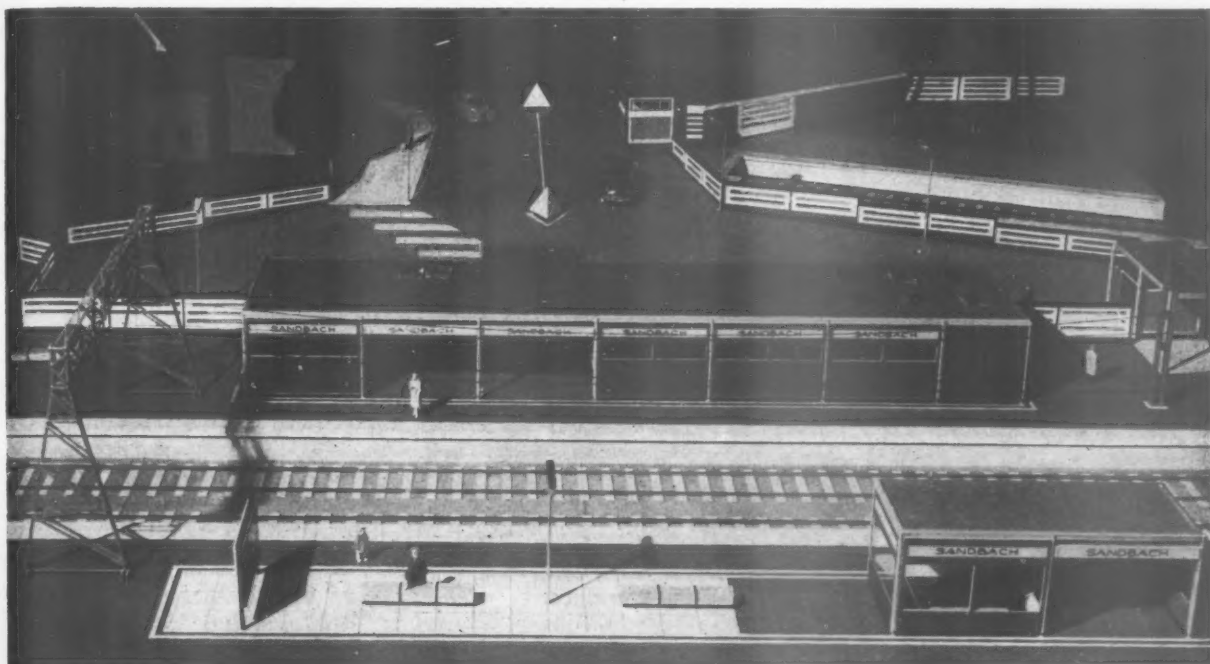
Full information from LUMENATED CEILINGS LIMITED or all branches of the General Electric Co. Ltd.

LUMENATED CEILINGS LIMITED

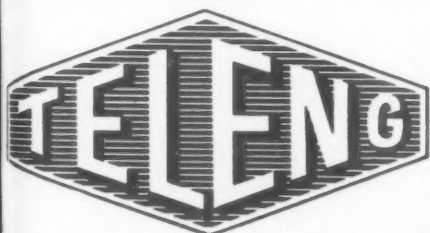
ALLIANCE HOUSE, CAXTON STREET, S.W.1. Telephone: ABBEY 7113

TGA 172

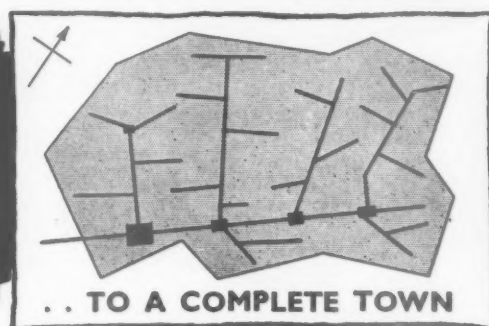
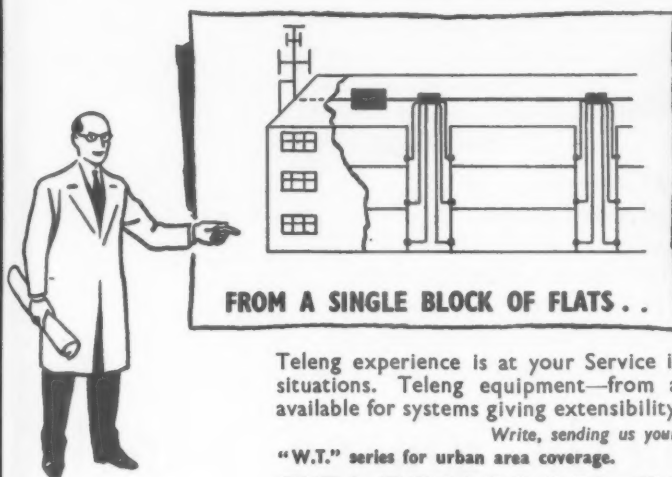
PROPOSED RAILWAY STATION AT SANDBACH, CHESHIRE



Sandbach, of which the model is shown above, is one of the first three new stations being rebuilt by London Midland Region of British Railways, using a pre-fabricated system designed by W. R. Headley, regional architect (under the direction of the chief civil engineer) and a development group (P. de Saulles and P. Newton). Based on a 40-in. module and using four specially designed aluminium elements, the system is expected to allow diversity, and at the same time provide a unified style for small stations in the region.



We are at your service with
A FULL RANGE OF EQUIPMENT FOR
COMMUNAL AERIAL SYSTEMS



Teleng experience is at your Service in planning TV/FM Relay Systems to meet ALL situations. Teleng equipment—from a single unit to a complete installation—is available for systems giving extensibility in any number of channels and area coverage.

Write, sending us your problems and ask for lists :

"W.T." series for urban area coverage.

"U" series for concise estates of houses or flats.

TELEFUSION ENGINEERING LTD.

ONE OF THE TELEFUSION GROUP OF COMPANIES

"TELENG WORKS," CHURCH ROAD, HAROLD WOOD, ROMFORD, ESSEX

Tel.: Ingrebourne 42901

Announcements

PROFESSIONAL

John Sheldon, A.R.I.B.A., M.S.I.A., has now moved to 5, Hampton Road, Hampton Hill, Middlesex (telephone Molesey 6481).

Jan Fraser & Associates, chartered architects, have moved their London office to 15/16, Bedford Street, Strand, W.C.2. They have also taken into partnership R. John Lansdown, Dip.Arch., A.R.I.B.A., S. H. Eagle-son, Dip.Arch., A.R.I.B.A., and A. P. Holt, A.R.I.B.A.

Alister MacDonald, F.R.I.B.A., has taken Edward Jamilly, Dip.Arch., A.R.I.B.A., into partnership, and the practice will continue under the style of Alister MacDonald and Partners, from Aldine House, 10/13, Bedford Street, W.C.2 (telephone Temple Bar 0794 & 8169). D. Keith Compton, A.R.I.B.A., and Cyril F. Manning, A.R.I.B.A., become associates of the new firm.

Paul Lerche-Thomsen and Michael Murray, M.A., A.R.I.B.A., have joined in partnership and are now practising from The Coach House, Wrotham, Kent and 1.B. Middle Temple Lane, E.C.4 (telephone City 5928).

Fuller, Peiser & Co., chartered surveyors, have now moved to Thavies Inn House, 3/4, Holborn Circus, E.C.1 (telephone Fleet Street 6851).

George A. Hall, A.R.I.B.A., A.M.T.P.I., James O'Donahue, B.Arch., and Colin Wilson, A.R.I.B.A., have opened an office at 18, Bluecoat Chambers, School Lane, Liverpool 1 (telephone Royal 3659), where they will practice under the style of Hall, O'Donahue and Wilson, and will be pleased to receive trade literature.

C. D. Andrews, F.R.I.B.A., has retired from the post of Regional Architect to the North West Metropolitan Regional Hospital Board and has joined the firm of Tooley and Foster, chartered architects, Midland Bank Chambers, Buckhurst Hill, Essex, as Hospital Consultant. His successor is F. A. C. Maunder, R.S., Dip.Arch., F.R.I.B.A., M.T.P.I.

Edward D. Mills & Partners, F.R.I.B.A., have changed their address to 9/11, Richmond Buildings, Dean Street, Soho, W.1. The telephone number is unaltered, Gerard 8305/6.

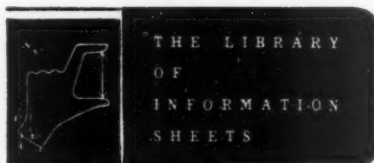
P. J. Wood & Co., building and valuation surveyors, have moved to 98, Grays Inn Road, W.C.1 (telephone Holborn 6574).

Bernard Lawton, A.R.I.C.S., and E. W. Varley, A.R.I.C.S., chartered quantity surveyors, have now moved their office to 41, Wigmore Street, W.1 (telephone Hunter 1856).

TRADE

The Croft Granite, Brick & Concrete Co. Ltd., have appointed John Brown as Technical Representative in East Anglia. As from June 20 he will be operating from Chesford Croft, Green Lane, Thetford, Norfolk.

Dr. W. Betteridge has been appointed Superintendent of the Platinum Metals Research Laboratory of the Development and Research Department, The Mond Nickel Co. Ltd., Acton, as from June 1.



13.F1, 14.B2, 14.B4 REFERENCE BACK

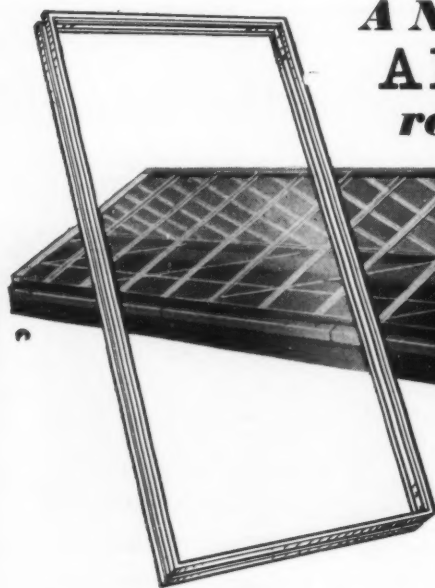
13.F1. Readers are asked to amend the figure given under "Thermal Insulation," last sentence, to 0.29 B.t.u.

14.B2. Reverse of Sheet, heading "Sizes and Weights, etc." amend figures for 12 in. x 8½ in. x 3 in. block, gault, to read: weight, 116, yards per ton, 19½; 12 in. x 8½ in. x 4 in. and 12 in. x 9½ in. x 4 in. blocks, gault, to read: weight, 148, yards per ton 15½. Heading "Laying Instructions" delete existing paragraph and substitute "Phorpres hollow

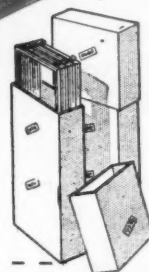
blocks should be laid in 1:1:6 cement/lime/sand mortar, or its equivalent (if other plasticisers are preferred to lime); too rich a mortar mix and thick joints should be avoided. At floor and ceiling, partitions should be wedged in accordance with the recommendations in BS Code of Practice CP 122:1952." Heading "Conduit Partition Blocks" delete first paragraph and substitute "While in general practice clay blocks can be accurately chased, conduit partition blocks have been specially designed to eliminate chasing where there is a known requirement."

14.B4. Face of Sheet, drawing headed "Channel Block" add to height 2½ in. alternative dimension 1½ in. and to widths 7½ in., 11½ in. add alternative, 11 in. Reverse of Sheet delete paragraphs headed "Thermal Resistance."

A New ALUMINIUM roof glazing system!



VITRAL offers an entirely new system of "double" glazing suitable for north light roofs and skylights etc. Light both in weight and appearance it is easy to install. Delivered to the site preglazed ready for the job.



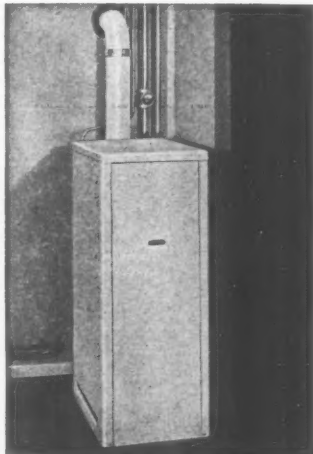
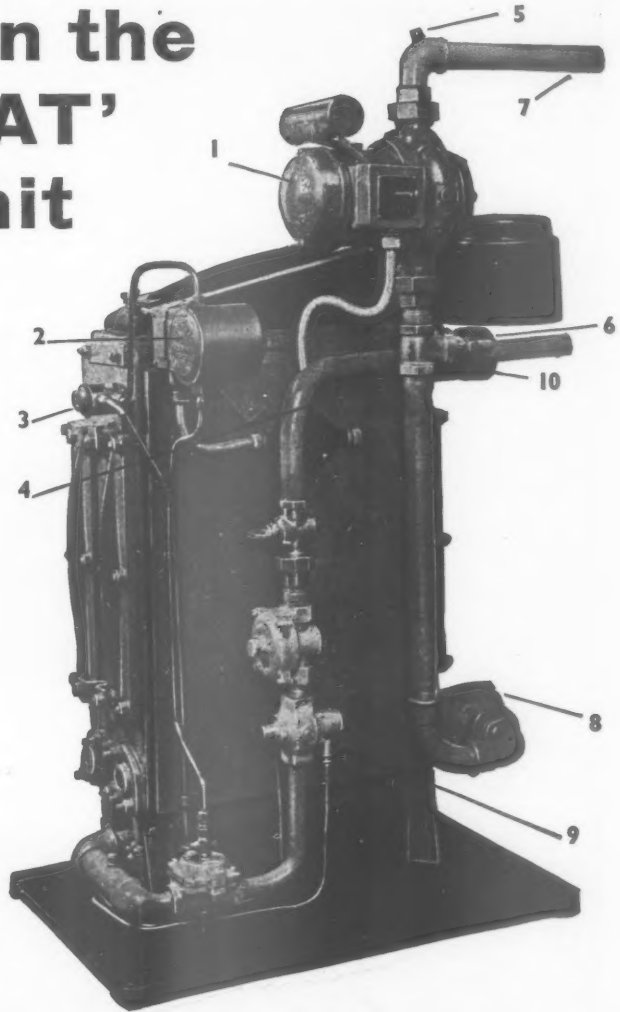
VITRAL double glazed panels

FULL DETAILS FROM:—

THE VELUX COMPANY LTD. 167, VICTORIA ST. LONDON, S.W.1. VIC. 3570

What's what in the new 'DIPLOMAT' Small Bore Unit

1. Sigmund THERMOPAK accelerator pump.
2. HORSTMANN clock controller incorporating 5 amp. switch.
3. Thermostat.
4. Unit pre-wired in flexible conduit to junction box.
5. Air vent.
6. 2 x 1½ B.S.P. flow tappings.
7. Central heating return connection 1 in. B.S.P.
8. Additional return connection (gravity circuit).
9. Thermo/electric flame safety device.
10. Lock shield valve.



LEFT : The totally enclosed 'Diplomat' Small Bore Unit in a kitchen setting.

New 'Diplomat' 30, 44 and 66 Gas-fired Small Bore Units have *all* their works inside *one* good-looking case. Like all 'Diplomat' Gas-fired Boilers, all servicing and maintenance can be carried out from the front. Installation is straightforward as they are conceived and designed for easy fixing. Electrical connections between the time switch and accelerator are pre-wired to cut down installation work. A 'Diplomat' 100 Small Bore Unit is also available as a packaged unit but with accelerator mounted behind the casing.

LIST PRICES

30,000 B.t.u/hr : £90. 0. 0.	44,000 B.t.u/hr : £100. 0. 0.
66,000 B.t.u/hr : £116. 0. 0.	100,000 B.t.u/hr : £136. 0. 0.

'DIPLOMAT' Small Bore Units


models of self-control



'Diplomat' is a registered trade name

THOMAS POTTERTON LIMITED, 20/30 Buckhold Road, London S.W.18.
A subsidiary of The De La Rue Company Limited

PT1007



GALVAFROID is a zinc-rich paint which confers cathodic protection to iron and steel. Applied by brush in two or more coats, *GALVAFROID* bonds to the ferrous substrate to form a protective metallic coating that is also a perfect priming surface for subsequent paint finishes. Internationally recognised as the most effective development of the 'cold galvanising' technique, *GALVAFROID* is extensively used in major undertakings in more than 30 countries overseas, and is in licensed production in 8 others, including U.S.A.

GALVAFROID

THE COLD GALVANISING PROCESS

*for the protection of
Iron and Steelwork*

MANUFACTURED BY

SECOMASTIC

For further information please write to:

Architectural Department

SECOMASTIC LIMITED

Bracknell : Berkshire

Telephone : Bracknell 910 (10 lines)

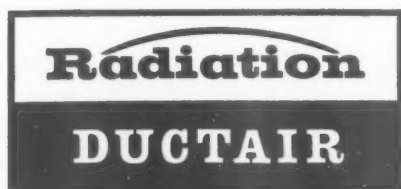
Secomastic products also include: 'Secomastic' Joint Sealing Compound and 'Secostrip' preformed mastic strip. 'Secoflex' Expansion Joint Sealant.

Warm air heating for MULTI-STOREY FLATS

has these advantages:-

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

...and the best warm air system is



The DUCTAIR 20' unit consists of a small insulated cabinet containing a water-to-air heat exchanger and an electrically driven fan. In multi-story flats the heat exchanger may be connected either to individual CIRCULYN C.70 gas heaters or to piping from a central boiler system. The gas heater can be fitted with a balanced flue or connected to a Se-duct. Space and water heating services can be metered for each flat even when the DUCTAIR heat exchangers are connected to a central boiler system.

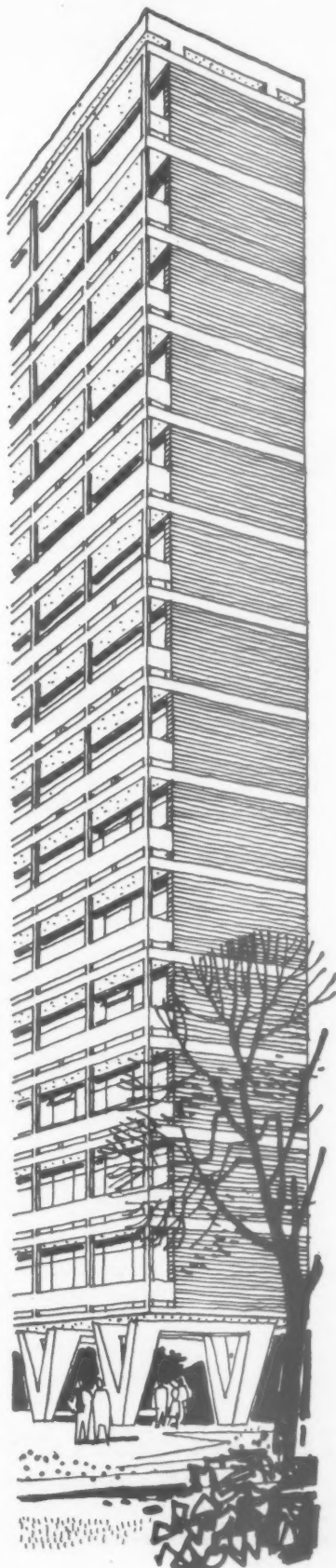
Costs naturally vary widely with the installation. However, assuming a 600 sq. ft. flat with 8 ft. ceilings the capital cost would probably be between £165 and £180, and the operating cost with gas at 13d. to 21d. per therm would be between 10/- and 16/- a week.

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

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

WRITE TO:

RADIATION GROUP SALES LTD • WARM AIR DIVISION • 10 MORTIMER STREET • LONDON, W.1



**OVER
2½ MILLION
TONS**

First in the field, 'Sirapite' (Anhydrous) is still the most popular plaster finishing coat. Since its introduction in 1891, over 2½ million tons have been used.

'SIRAPITE' (Anhydrous) PLASTER

has been intensively developed for over sixty years, and is unrivalled for producing an even, jointless, durable finish on walls and ceilings. Because of its chemical and physical stability, when used in accordance with the manufacturers' recommendations, it may be relied upon to provide a perfect base for any form of decoration. It is therefore

The Ideal

PLASTER FINISHING COAT

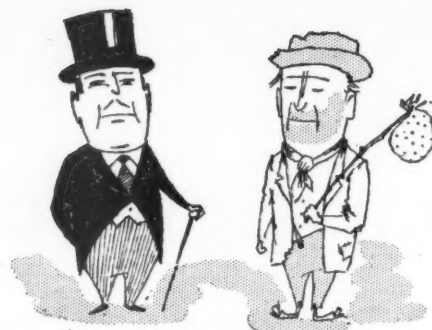
Also available, produced to the same high standard: 'Sirapite' Browning, Board Finish and Lightweight Plasters, including a Perlited 'Sirapite' (Anhydrous) Finish. Full technical information and literature on request.

THE GYPSUM MINES LTD.

MOUNTFIELD · ROBERTSBRIDGE · SUSSEX

Phone: Robertsbridge 80

And at Kingston-on-Soar, Nottingham



There's no comparison!

More and more people are realising that SOUTH AFRICAN MASONITE PRIMECOTE BOARD really does the job—because it is a **fully primed** Hardboard with a surface ready to take a finishing coat of paint or enamel without further treatment whatsoever. Be safe—be sure—be economical and know that the results will be first class.

Use the first — the best — the original SOUTH AFRICAN MASONITE PRIMECOTE BOARD

The World's finest FULLY PRIMED Hardboard.



SOLD THROUGH IMPORTERS & DISTRIBUTORS

Sole concessionaires in the United Kingdom.

**THE WOOD FIBRE WALLBOARD
CO. LTD.**

8 City Rd., Finsbury
Square, London, E.C.1.

Tel: MONarch 0455-9.



Fisons have it!



**We'll specify the New
Burwell Primrose Facing Bricks
specially introduced
for modern architecture**

Fisons Limited

Brick Department, Harvest House
Felixstowe, Suffolk

Phone: Felixstowe 1441, Grams: Telex Fisons Felixstowe

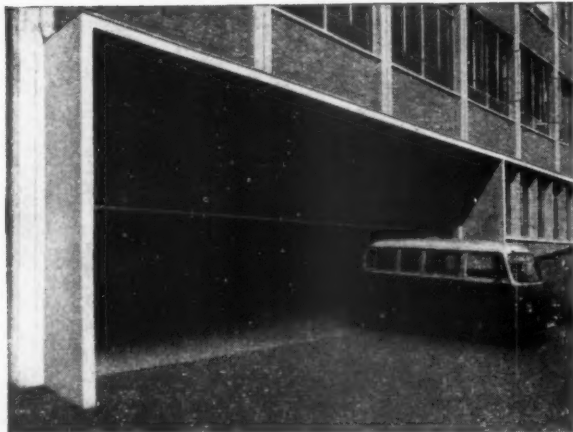
Please send me your free brochure and prices

Name

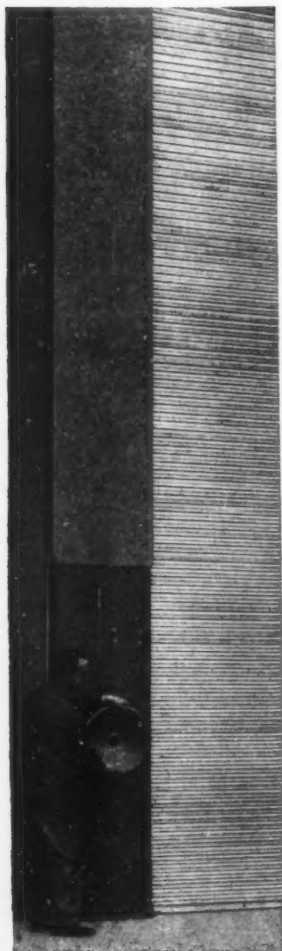
Address.....

Block letters please. Professional status.....

Milner for



all roller shutters!



Milner have 50 years of experience in making shutters—their workmanship is of the highest standard—they use only the finest materials.

Among the many exclusive advantages of Milner shutters are these:

Ball bearings at every friction point. Deep side guide channels for security. Close-coiled helical torsion springs ensuring a balanced curtain and ease of operation. Deep section curved slats for strength.

Specifications available for 10 different types of roller shutters and wicket gates. You can choose the shutter best suited for your particular needs from MILNER.

Milner

STEEL EQUIPMENT DIVISION
OF HALL ENGINEERING LTD

Makers of office equipment, shutters and partitioning
Central Sales Office: 60 Rochester Row, London, S.W.1
Telephone: VICTORIA 5631
Branches at Birmingham, Bristol, Glasgow, Leeds, Liverpool and Manchester

Seven symbols of progress

2" C.R.F.

5" Reb

5" Reb. P.P.

5" Reb. P.S.

C.R.D.L.

R.S.P.

2" C.P.P.

This symbol is applied to our 2" Channel Reinforced Pre-plastered Wood Wool Roofing Slab, which has all the virtues of our 2" C.R.F. Slab with the addition of pre-plastered soffit which is incorporated during manufacture.

The steel channel reinforcement makes it completely self-supporting over spans up to 7 ft., and in conditions of low to normal humidity it provides a most satisfactory roofing with excellent light reflecting and heat insulating properties—the calculated overall U value is 0.26 B.T.U. with $\frac{1}{2}$ " screed and felt finish.

The smooth, clean finish gives not only excellent decorative properties, but also provides good sound reflection, making it particularly suitable for buildings where this is required.

Like all Thermacoust slabs, 2" C.P.P. has excellent fire resistance: the rate of flame spread is Grade 1.

Please write for full particulars.

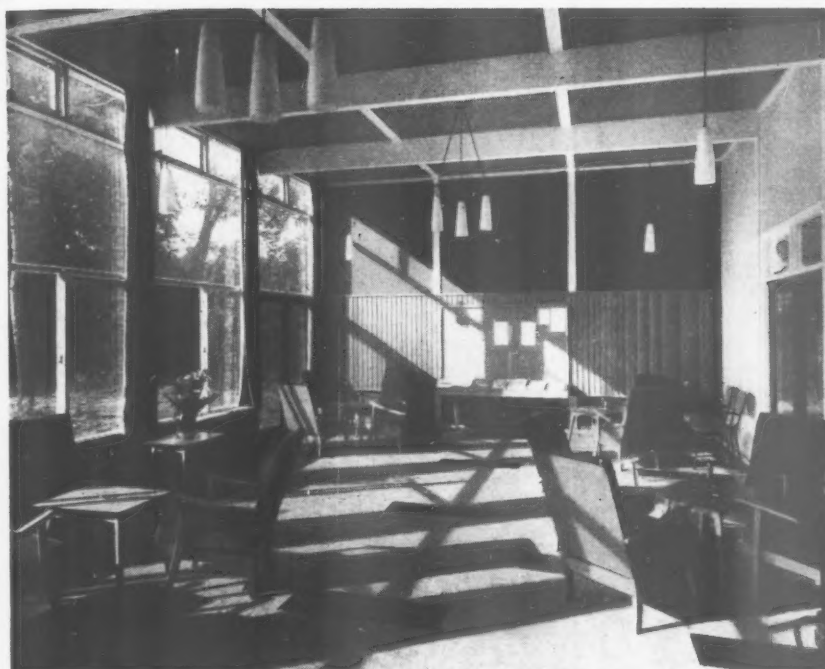
THERMACOUST LTD

ROOFING SLABS

20 ALBERT EMBANKMENT LONDON SE11
Telephone: RELiance 7261

When supported on inverted "T" or Thermacoust purlins no special fixing arrangements are required.
Flat-top purlins or R.S.J.'s call for Type 1 site fixing clips.
Slabs may also be provided with any of the exclusive range of Thermacoust Pre-Clips for fixing copper, SNAPRIB aluminium, slates or tiles.

112



HOSTEL for LOUGHBOROUGH COLLEGE of TECHNOLOGY.

Cost of DERWENT super-structure is competitive and simple foundations required reduce overall building cost.

An extensive range of components and flexibility of system gives great freedom of design.

Insulation value is high—heating costs low.

Site assembly is fast, giving rapid completion.

Elasticity and low weight of all timber construction is ideal for "difficult" sites.

Western Red Cedar or West African Varnished Mahogany cladding gives warm, sympathetic finish.

Use of highly prefabricated system simplifies preparation of working drawings.

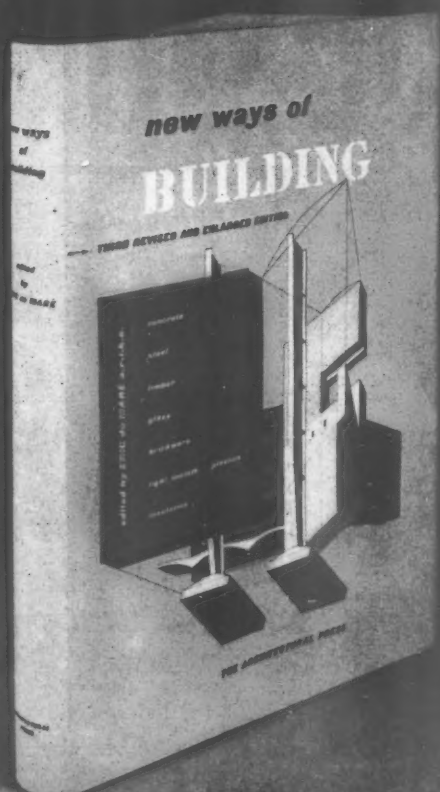
Send for illustrated DERWENT HOSTEL Folder.

derwent

VIC HALLAM LTD.

phone langley mill 2301 (7 lines)

prefabricated timber structures - langley mill, nottingham



NEW WAYS OF BUILDING

edited by ERIC DE MARÉ ARIBA; contributors:

DR. K. HAJNAL-KÓNYI and H. TOTTENHAM on *concrete*

DR. H. GOTTFELDT on *steel*

PHILLIP O. REECE on *timber*

K. CHEESMAN on *glass*

W. B. MCKAY on *brickwork*

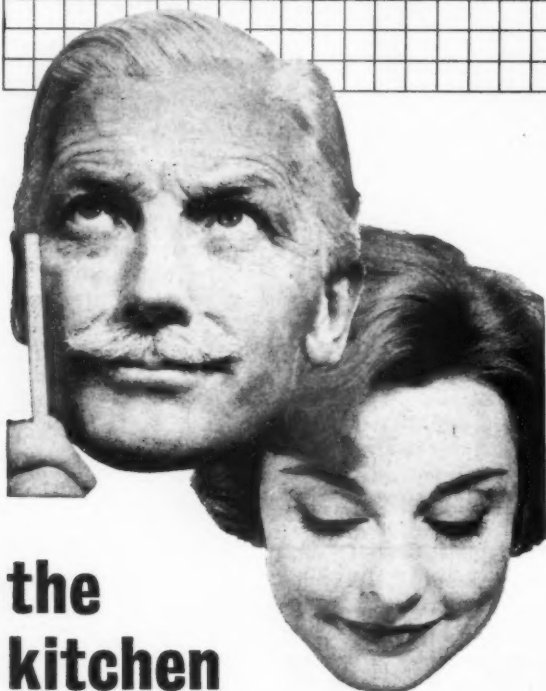
BRIAN GRANT on *light metals and plastics*

C. C. HANDISYDE on *insulation*

THIS, THE THIRD EDITION of a book already well known to practising architects and architectural and building students, has been very extensively and thoroughly revised. The chief revisions include the following: many new technical developments in the use of *Concrete* are discussed; the chapter on *Steel* has been almost entirely re-written by a new member of the team of specialist authors; considerable changes and additions have been made to the chapter on *Glass*, notably concerned with that important new application—the curtain wall; a valuable new section on designed load-bearing walls has been added to the *Brickwork* chapter; *Light Metals* has been almost entirely re-written. In addition to these extensive textual revisions, approximately half the illustrations are new: as in previous editions the new illustrations have been carefully chosen to stimulate the designer's visual imagination, as well as to inform on recent technical developments. Size 10 ins. by 7½ ins. 264 pages, over 240 photographs, plans and drawings. 45s. net, postage 1s. 9d.

THE ARCHITECTURAL PRESS

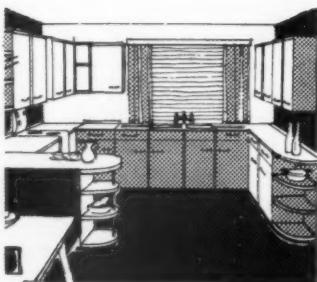
9-13 Queen Anne's Gate Westminster SW1



the kitchen she dreams about

Remember, when kitchen planning, that the Leisure Advisory Service can be relied on for help.

Leisure offer you the services of a photographic unit which will set up and photograph model kitchens for you. In this way you can get a complete picture of the kitchens you have in mind. According to your specifications of size, shape and price the Advisory Service will also suggest units to fit the kitchens you plan, so giving each an individual and made-to-measure look of quality and class. Why not write for details? Leisure experts are there to serve you.



LEISURE KITCHEN EQUIPMENT LTD.
Nottingham Road, Long Eaton, Nottingham.

Everett

and now the Alborough **SLIDE OVER**



Prices From
£19

The ball-bearing slide-over action with counter-balance weights enables the door to be raised and lowered in an effortless manner. There are no complications when fixing.

The "Alborough" slide-over door is of hot-dipped galvanised steel laths steel welded and riveted construction and designed to give a pleasing appearance with maximum strength, lightness and durability. The range of standard sizes will meet most requirements, and by simple adjustment to door frames of garages of various widths and heights, all requirements can be met.

A.B.C.D. (Raynes Park), LTD., 34/35 Alpha Road, Surbiton, Surrey
Tel: Elmbridge 6591/2/3 and 9347

POLYBOND

Ready-to-use Adhesive and Binder
IT STICKS — IT BONDS — IT SEALS

THE NEW METHODS FOR FIXING
TILES
PLASTIC PANELS
INSULATING PLASTIC BOARDS Etc.

Write for: Technical Bulletin No. 2]

"POLYBOND & TILES, etc."

Saves the labour—Speeds the Work

Made for
BUILDERS, ENGINEERS, INDUSTRY,
OFFICES, SCHOOLS, HOUSEHOLDERS,
ETC.

POLYBOND LTD: 16 Gloucester Place, London, W.1

Distributed by leading Builders Merchants throughout the U.K.

A Flexible P.V.C. TILE FREE FROM RUBBER

As laid at the British-American Tobacco Co., Ltd., in Liverpool.

Fibrolene floor tiles can be laid on concrete or timber. Sizes 12" x 12" and 9" x 9". Thickness 3/32". Available in a range of seventeen colours. Delivery two to three weeks.

High resistance to acids, alkalies, oils and greases. Hard wearing, warm to the tread, fadeless, resilient, non-absorbent.

FOR HOSPITALS KITCHENS
LABORATORIES BATHROOMS
CAR SHOWROOMS OFFICES

FIBROLENE FLOOR TILES



Section of the 70,000 square feet of Fibrolene flooring laid at the premises of the British-American Tobacco Co., Ltd. in Liverpool.

FIBROLENE, HARTFORD MILL, WESTON STREET, BOLTON, LANCs. PHONE: BOLTON 5000

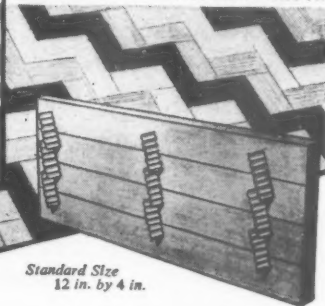
Introducing the NEW revolutionary

FULLY GUARANTEED

DURABELLA



STABILISED HARDWOOD
FLOORING BLOCK



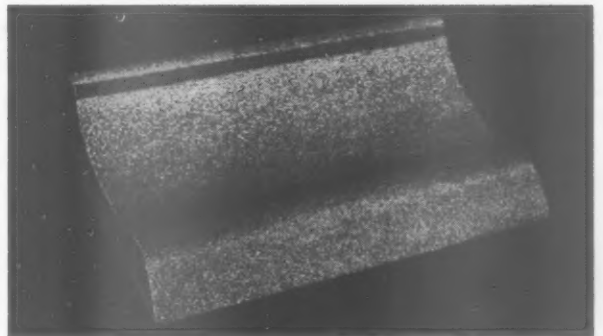
Patented in 22 Countries
British Patent applied for

Standard Size
12 in. by 4 in.

- Ideal for industrial application. Impervious to staining by building materials.
- Dimensionally stabilised. Freed of all failings inherent in timber, but retain all advantages.
- Will not shrink, lift, buckle, swell, crack or distort under normal conditions.
- Can be incorporated with structural flooring—suitable for prefabrication.
- Can be heated up to 195° F., perfect for under floor heating.
- Increases building rate and cuts cost. No heating required before, during, or after installation.

For Further Information, Brochure and details of tests, write to:

BARNES & FLETCHER LTD (Dept A.J.)
75 BAKER STREET · LONDON · W.1. Tel: WELbeck 2891



Distinctively different

For the roofing of modern housing estates Crendon PANTILES are the answer. Their deep contours, attractive pattern and pleasing colours give that distinctive 'difference' especially where dull expanses of roof must be avoided.

For small roofs of unusual design, Crendon PLAIN TILES are the ideal choice.

CRENDON

CONCRETE ROOFING TILES

GUARANTEED AGAINST LAMINATION & DECAY FOR 50 YEARS.

Write for full details to CRENDON CONCRETE CO. LTD
Long Crendon, Bucks. Tel: 351/2
Branch Works: Bedford Road, Feltham, Middx. Tel: 2610



Ask the Big Suppliers and Users!

J. B. CORRIE (FLEXTELLA) LTD • PETERSFIELD • HANTS • Tel: PETERSFIELD 1255/9

**SAFE AS THE BANK OF ENGLAND!
A.I. AT LLOYD'S!**

500,000 FEET SUPER of IMMOVABLE-ACME DOWELLED
HARDWOOD FLOORING were laid in these new buildings

by

THE ACME FLOORING & PAVING CO (1904) LTD
BARKING ESSEX Established 1864

A TECHNICAL BROCHURE ON IMMOVABLE-ACME
HARDWOOD FLOORS & ACME END GRAIN WOOD
PAVING FOR HEAVY DUTY FLOORS will gladly be
sent on request

Phone : Ripplaway 2771 (7 lines)

Telegrams : Dowelled Easphone London

PLASTAWELD BONDING

CUTS LABOUR COSTS!

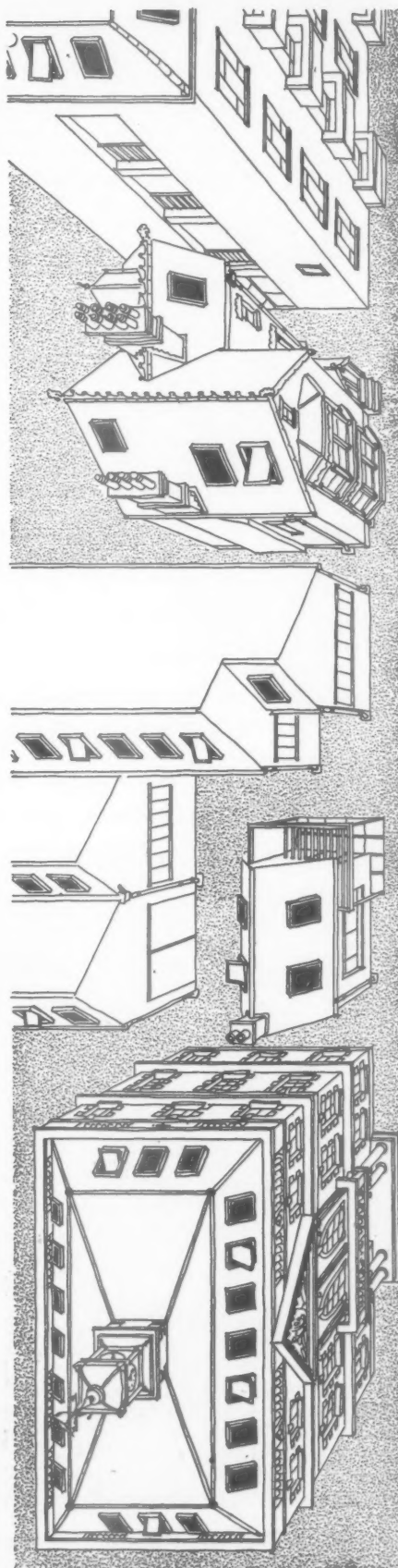
PLASTAWELD gives a Permanent Bond for gypsum plasters yet slices expensive labour costs—for there's no stippling, no blinding with sand, no hacking, no noise, dust or dirt! And PLASTAWELD costs so little: that's worth thinking about when you consider that out of a gallon tin comes enough PLASTAWELD to cover 100 square yards, depending on the surface. MANGER'S PLASTAWELD is the 'key' that goes on straight from the tin being specially suitable for bricks, smooth shuttered concrete, tiles and even asbestos. Ideal for browning backing as well as skimming, architects everywhere specify PLASTAWELD Permanent Bonding Fluid for Hospitals, Factories, Schools, Military and Ministry of Works projects. Specify PLASTAWELD for all your work, too.

Apply straight from the can



When you've any problem please write or
phone our Technical Department.

J. MANGER & SON LTD., Dept. AJ, London, E.8 Clissold 8521 (5 lines)

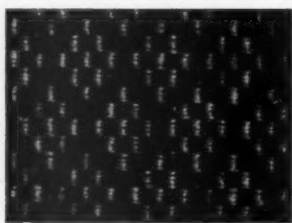
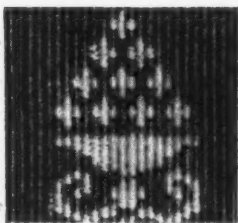


VELUX

... look at it this way ... and find out more about

roof windows ...
TELEPHONE VIC. 3570

FROM THE VELUX COMPANY LIMITED, 167 VICTORIA STREET, LONDON S.W.1



Replin

fine furnishing fabrics

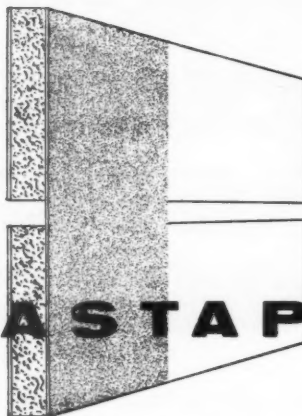
Tanker
"London Splendour"

A hard wearing & easy to clean worsted tap-estry weave. 34 plain colours, patterns and stripes available from stock in short lengths. Exclusive designs and crests, stripes, panels wovens to order.



British Replin Ltd. 2 South Audley Street., London W1
tel: GRO 6692. Mill: Ayr, Scotland. tel: 63275

PLASTAPAK



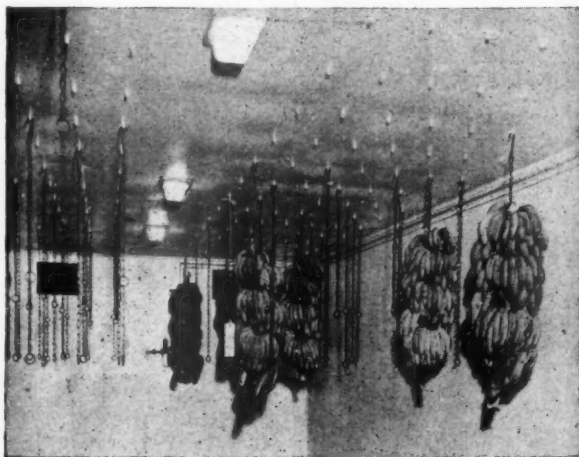
can be readily applied across gaps, between boards and between door and window frames and plaster walls.

'Plastapak' has been developed by the 'Cocon' and 'Texikoon' teams, whose skill and technical 'know-how' protected the Royal Navy's battleships and the aero-engines of the R.A.F.

The 'Plastapak' system enables a continuous film to be spray applied to rooms and buildings of orthodox construction to provide:—

- (a) A moisture vapour barrier on the warm side of porous insulation board, thus preventing condensation on roofing, walls, etc.
- (b) Absolute sealing of rooms which must be maintained at constant temperature and humidity.
- (c) A dust barrier on walls, roofs, etc., in areas where electronic assembly or chemical formulation work is done.
- (d) A washable aseptic coating on plaster and other porous surfaces for use in laboratories, hospitals, etc.

'Plastapak' provides a barrier giving a performance which is in excess of that recommended by the Building Research Station, Department of Scientific and Industrial Research. It has been proved to have a life of many years under severe conditions of temperature and humidity.



The illustration above shows a humidity-controlled banana ripening room—'Plastapak' providing a moisture vapour barrier.

Complete protection demands a Brand technique

R. A. Brand & Co. Ltd.

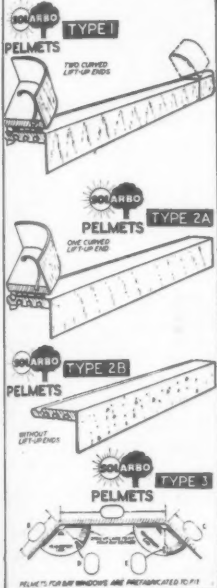
Works Road, Letchworth, England.
Telephone: Letchworth 1990.

'Plastapak' is the registered Trade Mark of R. A. Brand & Co. Ltd.

THE SOLARBO SWEDISH PELMET SYSTEM

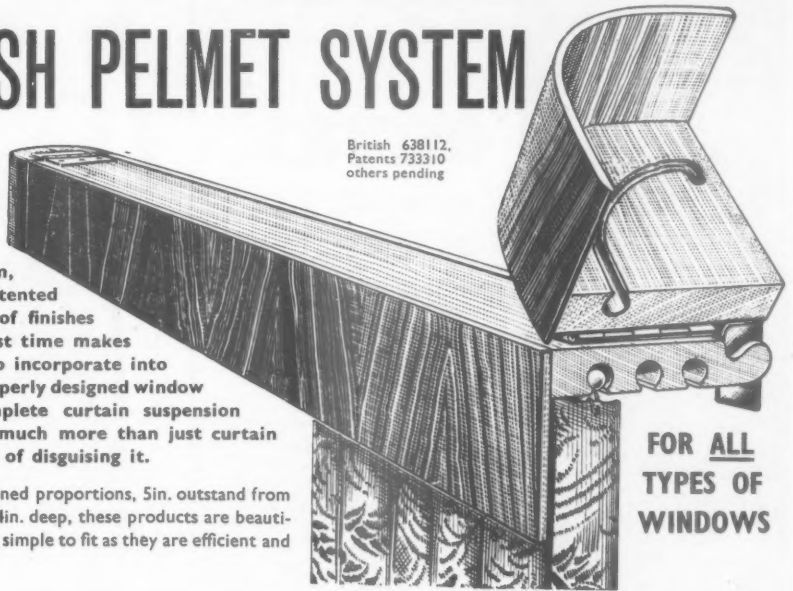
so clearly **RIGHT**
in design . . .

British 638112,
Patents 733310
others pending



This pelmet system, with its unique patented features and range of finishes and types, for the first time makes it possible for you to incorporate into a general scheme properly designed window treatment. A complete curtain suspension system which is so much more than just curtain track and a method of disguising it.

With thoughtfully designed proportions, 5in. outstand from wall and a little under 4in. deep, these products are beautifully finished and are as simple to fit as they are efficient and delightful to use.



**FOR ALL
TYPES OF
WINDOWS**

THE SOLARBO SWEDISH PELMET UNIT is simplicity itself. Held by special brackets it can be put up or taken down in one movement. The patent runners with integral hooks slide freely in grooves machined in the top board. Hinged pelmet ends facilitate entry and removal of runners—with curtains attached, if desired.

Complete details available on request
—or we shall be pleased to quote
against your specifications.

INSULARBO LTD., COMMERCE WAY, LANCING, SUSSEX
Telephone: LANCING 2610, 2866-7-8

FUEL STORAGE

The problem
which has a perfect
answer!

Used by leading
authorities in London
and throughout the
Country ... Ideal for
houses and flats ...

FUEL STORAGE UNITS BY

LOGICOL
PATENTED

Write for illustrated folder
and full details to:

Telephone:
HUDDERSFIELD 174/4174

LOGICOL FUEL STORAGE UNITS · TAYU WORKS · WATERLOO · HUDDERSFIELD



CONEX

**COVERS ALL
PLUMBING
SERVICES**

A STOCK OF
STANDARD
CONEX
FITTINGS



PLUS
CONEXCEL
ADAPTORS,
POLYDAPTORS
AND P.H.I.
INSERTS

MEETS THE
DEMAND FOR
ALL PLUMBING
SERVICES IN
COPPER OR
POLYTHENE,
ABOVE AND
BELOW
GROUND

NOTE THE FOLLOWING:

- FINE THREADS HAVE BEEN AVOIDED.
- Conexcel Adaptors convert type "A" Conex fittings for B.S.659 copper to type "B" Conexcel for underground B.S.1386 copper.
- Standard Conex fittings incorporating the Conex Polydaptor and flanged P.H.I. insert enable polythene tubes to be joined quickly and easily, without heat or special tools.

★ Full details of the comprehensive range of Conex fittings are given in the Conex C.J.S. Catalogue and Polydaptor Leaflet—FREE on request.

**CONEX-TERNA LTD., WHITEHALL ROAD,
GREAT BRIDGE, TIPTON, STAFFS.**

Telephone: Tipton 1162/3. Telegrams: CONEXTERNA, TIPTON.
London Office: 16, Berkeley Street, W.1 Telephone: Mayfair 0231



WHY PAY £'s FOR WATER?

YOU DON'T—WHEN YOU BUY
UNI-BOND

Uni-Bond is sold undiluted, extended or filled, and therefore has treble its value, as it can be filled and diluted to your own particular work.

For instance:—
One Gallon of Uni-Bond added to 2 gallons water, produces 3 gallons of bonding fluid for plastering or rendering.
The highly concentrated nature of UNI-BOND, unlike many imitations, permits considerable dilution for numerous applications without loss of adhesion. UNI-BOND is the most universal bonding agent used throughout the United Kingdom, by the M.O.W., Admiralty, Air Ministry, War Department, and the largest and leading building contractors, also specified by leading architects.

Uni-Bond

BONDS ANYTHING TO ANYTHING

More and more UNI-BOND, the multi-purpose Bonding Agent, is being used by Joiners, Plasterers, Painters, Decorators, in floor-laying, glazed tiling, and in fact, everywhere where timber, metals, hardboard, bricks, tiles and a hundred other materials that require permanently filling, bonding or cementing together.
In handy cans, no mixing or heating, clean in use and finish. UNI-BOND is resistant to water, oil and petrol and dilute acids, does not crack or craze.

Write to us for details of
**WIPE THE CLEANER FOR
BRICK AND STONE WORK**

There is nothing so good as UniBond
Backed by a money back guarantee
Send your enquiries to Dept. 'E'

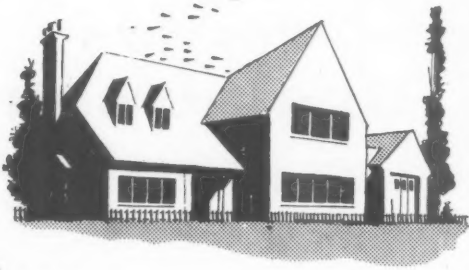
**THE LIQUITILE SUPPLY
COMPANY LIMITED**

Offices & Showrooms at
Station Approach

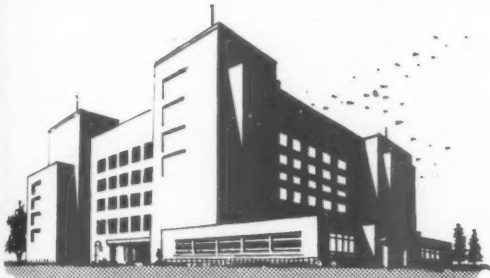
CAMBERLEY, Surrey
Telephone: Camberley 2263



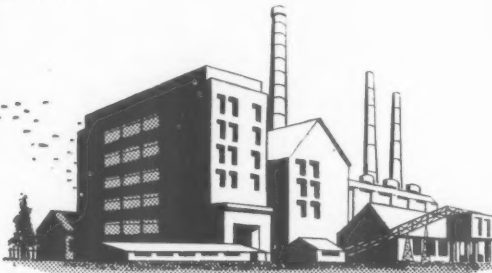
They all need Insulation . . .



home . . .



office . . .



factory . . .

They all need . . .

ROCKSIL

REGD. TRADE MARK

Rocksil is a pure mineral wool with exceptional insulating and acoustic properties. Available in many forms, it has a wide variety of uses in every class of building work.

Write for full information.

WILLIAM KENYON & SONS (META MICA) LTD.

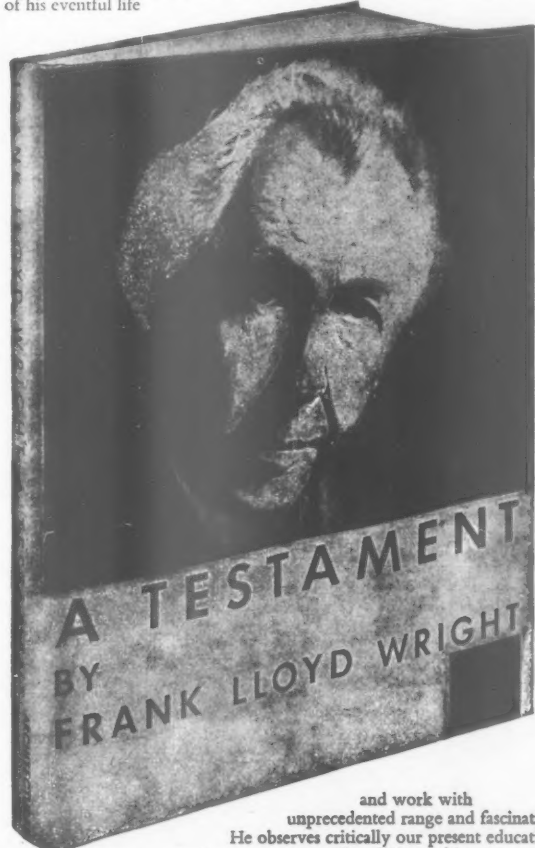
DUKINFIELD · CHESHIRE

MANUFACTURERS OF BUILDING INSULATION MATERIALS

Rocksil is manufactured by The Cape Asbestos Company Limited at Stirling. }

A TESTAMENT BY FRANK LLOYD WRIGHT

'Frank Lloyd Wright is America's eldest and greatest practising architect. His working life spans nearly three-quarters of a century, starting in Chicago in 1887. In his 87th year nobody would now question his claim to greatness. Like the man's architecture his literary *oeuvre* defies comparison as completely as it defies emulation', writes Ian McCallum in *Architecture U.S.A.* A TESTAMENT is not merely a book about F. L. W., but this time a book by the master—his first new book in ten years; in it he distils the essence of his eventful life



JUST PUBLISHED

and work with unprecedented range and fascination. He observes critically our present educational systems, our metropolitan living habits, our architecture, our democracy; affirms his faith in youth; forecasts the qualities of the ideal city, the nature of our future homes—even of our future culture. A TESTAMENT comprises two major parts: 'Book One—Autobiographical' and 'Book Two—The New Architecture.' Book One describes childhood influences—parents, kindergarten training, the pawnshop transaction that led to Chicago and the first architectural job with Louis Sullivan—and continues through the challenging years when the master was forging his own life and creating, alone, a new architecture. It contains penetrating evaluations of the renowned architects Frank Lloyd Wright has known, from Richardson to Sullivan and Adler; including Richard Hunt and McKim, Mead and White, and Mies van der Rohe when he first arrived in America. Book Two presents an illuminating synthesis of the nine great principles on which Frank Lloyd Wright's life work has been based, the foundation of his creative impulse and ideas—his Testament. The book has over 200 illustrations—photographs, plans, original drawings, many published for the first time—beginning in 1888 with the drawing Wright showed when applying to Sullivan for a job, culminating in his new drawings of master-pieces conceived in 1957 and still to be built, and including a magnificent large fold-out of THE MILE-HIGH SKYSCRAPER CITY. Size 12½" x 9½" 256 pages. Portrait frontispiece and over 200 illustrations. Price 70s. net, postage 2s. 3d.

*Since the publication of *Architecture U.S.A.*, and since the first announcement that we were about to publish a Testament we have learned with great regret of the death of Frank Lloyd Wright.

THE ARCHITECTURAL PRESS

9-13 Queen Anne's Gate, Westminster, S.W.1

CITY OF CAMBRIDGE

AT THE JUNCTION OF HISTON ROAD & WINDSOR ROAD
TO THE NORTH OF THE CITY

**SITE FOR MAJOR
RESIDENTIAL DEVELOPMENT**

of approximately
40 ACRES

1,300 ft. of valuable road frontage to Histon Road.
All Main Services.
Zoned for Residential Development.

FOR SALE BY AUCTION IN ONE LOT

by
Messrs.

J. CARTER JONAS AND SONS

at the
LION HOTEL, CAMBRIDGE

on
MONDAY, 29th JUNE 1959 at 3.30 p.m.

Further particulars upon application, from:

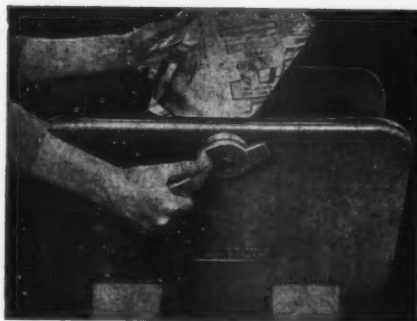
MESSRS. J. CARTER JONAS AND SONS,
27/28, MARKET HILL,
CAMBRIDGE.

(Telephone: 3428/9).

or from the Solicitors:

Messrs. Francis and Co.,
10 Peas Hill, Cambridge.

Telephone: CAM 4224



**IMPROVED
REFUSE DISPOSAL**

- FUME SEALED
- FIRE RESISTANT
- EASILY FIXED
- SILENT ACTION

Developed in conjunction with Architects' Department of L.C.C., the "CODE" refuse ejector unit is of smart and robust construction, die-cast throughout in aluminium alloy LM.6-M to British Standards Specification.

Easy and perfect closure is ensured by counter-weight action against neoprene gaskets. The ejector opening is 15ins. wide by 9ins. high, and total weight of the unit is only 30lbs. Already used by many other Municipal Authorities.

Send for data—

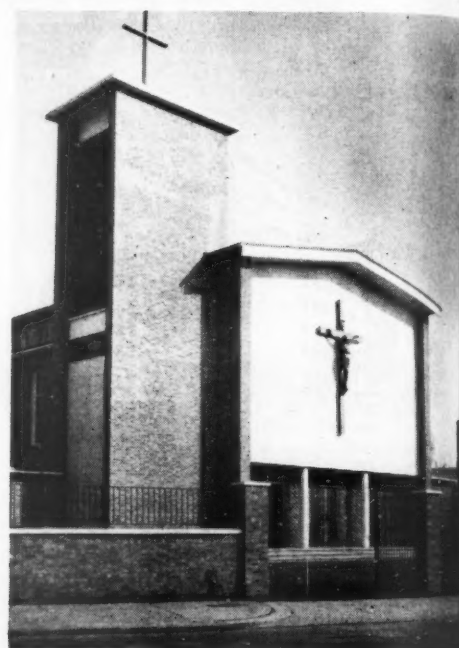
Code Designs Ltd

OLDFIELD LANE • GREENFORD • MIDDX.

Telephone: WAXlow 2828

PAINTED WITH

Brolac paints



ST. JOHN VIANNEY CATHOLIC CHURCH,
West Green, Tottenham, N.15

● Architects: Messrs. ARCHARD & PARTNERS F/A.R.I.B.A., London, S.W.1.

● Contractors: Messrs. W. MANNING & SONS LTD., Crouch End, London, N.15

In this new church the roof is carried on two reinforced concrete beams, running from the rear of the nave to columns in the Sanctuary, and these two columns are the only detached supports in the whole building. Constructed in reinforced concrete and brick-work the church seats 500.

Appropriately, the church was formally opened by the Cardinal Archbishop of Westminster in the centenary year of the death of the Cure D'ars, St. John Vianney. Brolac paints were used in both interior and exterior decoration.

101 COLOUR RANGE

The full B.S.2660 range of gloss colours together with the recommended B.S. Colours in semi-gloss and matt finishes, available from stock.

**BROLAC GLOSS
BROLAC EGGSHELL
MURAC P.E.P.
MURAC VELVET**

* The JOHN HALL TECHNICAL AND COLOUR ADVISORY SERVICE will be glad to assist with specifications and colour advice.

JOHN HALL & SONS

(BRISTOL & LONDON) LTD.

HENGROVE, BRISTOL, 4 (Tel: Whitchurch 2162)

1/5 ST. PANCAS WAY, LONDON, N.W.1 (Tel: Euston 9181)

26 PARK ROW, LEEDS, 1 (Tel: 34390)

Wm. F. BLAY Ltd

ESTABLISHED 1908

PUBLIC WORKS CONTRACTORS

invite opportunities to tender for

FACTORIES • SCHOOLS • OFFICES

COMMERCIAL BUILDINGS

DARTFORD & LONDON

SPITAL STREET, DARTFORD, KENT
DARTFORD 3088

85 GLOUCESTER RD., S.W.7
FREMANTLE 8161

ASSOCIATED WITH

RAWLINGS BROS. LTD.

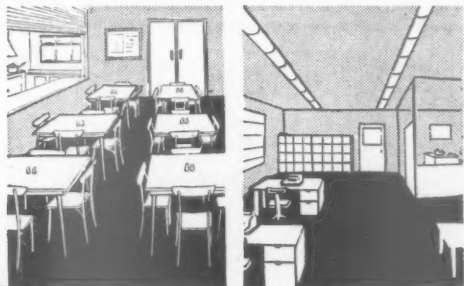
**This seamless
plastic flooring
has everything**

Pat. applied for

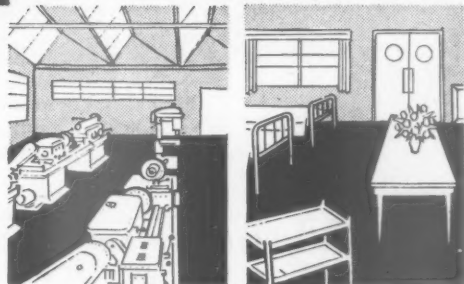
Plasik

- Plasik** surface is non-slip—no seams, no joints.
- Plasik** is waterproof, greaseproof and strongly resistant to chemicals (including lactic acid) and urine.
- Plasik** does not dust up, and is easily cleaned.
- Plasik** sets hard and smooth, with a clear and durable matt surface, and can be applied to cove skirtings and walls.
- Plasik** is professionally laid to standards you trust.
- Plasik** is made in ten attractive, translucent colours; it is THE ONLY TRANSLUCENT COLOURED INDUSTRIAL FLOOR THAT WITHSTANDS TRUCKING.

MANUFACTURED AND LAID BY
VIGERS



The ideal floor for
**HOSPITALS • FACTORIES
SCHOOLS • CANTEENS
OFFICES • MOTOR SHOWROOMS**



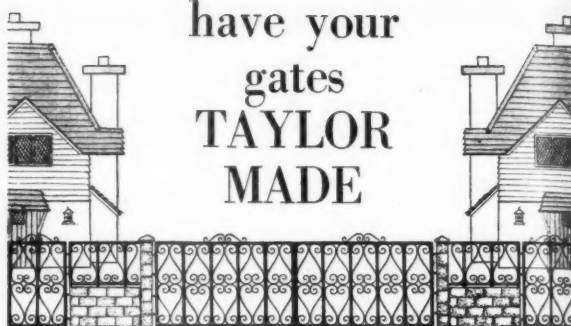
Write for sample of Plasik and Leaflet PJ. Technical advice gladly supplied.
VIGERS BROS LTD. Ludgate Broadway, London, E.C.4. Tel: CITY 2111
And at Belfast, Exeter, Cardiff, Birmingham.

APPLIED LETTERS **E**

All sizes, types and materials
for internal or external use.
Illuminated letters and box signs.
Brochures sent on request.

WARD & CO. (Letters) LTD.

6 - 12 WILDER ST. BRISTOL 2 - TELEPHONE BRISTOL 21536



have your
gates
**TAYLOR
MADE**

Send for latest Illustrated Catalogue No. A/10 of our full range of
Wrought Iron Gates and Furniture etc.

TAYLOR & CO., BRIDGE WORKS, COMPTON, WOLVERHAMPTON

MARLEY MULTIPLE GARAGES

IN PRECAST CONCRETE

Of spacious dimensions
and good appearance.
Fire-proof, rot-proof
garages available in 4 types—
high front, high back,
back-to-back and stepped—
with traditional timber
or up-and-over doors.
Low initial cost. Virtually maintenance free.
Marley will supply and deliver only or supply and erect.
Site work can also be undertaken, if required. Quotations on request.

MARLEY CONCRETE LIMITED Dept. 644
Peasmarsh, Guildford, Surrey. Guildford 62986 Shurdington, Nr. Cheltenham, Glos. Shurdington 334/5
Hatchpond Road, Waterloo, Poole, Dorset. Broadstone 626

London Showrooms: 251 Tottenham Court Road, W.1.

**PICK THIS UP
TO STOP
CORROSION !**

To solve your corrosion problems, get in
touch with Plus-Gas the Anti-Corrosion
Specialists: their Technical Advisory
Service covers the whole country.

Plus-Gas Formula 'A' Dismantling
Fluid (Rust Remover)

Plus-Gas Formula 'B' Protective Fluid

Do you know of
Plus-Gas Formula 'E'
External Metal Treatment
the tannating primer?

PLUS-GAS

COMPANY LTD

1/11 Hay Hill,
London, W.1.
Tel: HYDe Park
9566/9



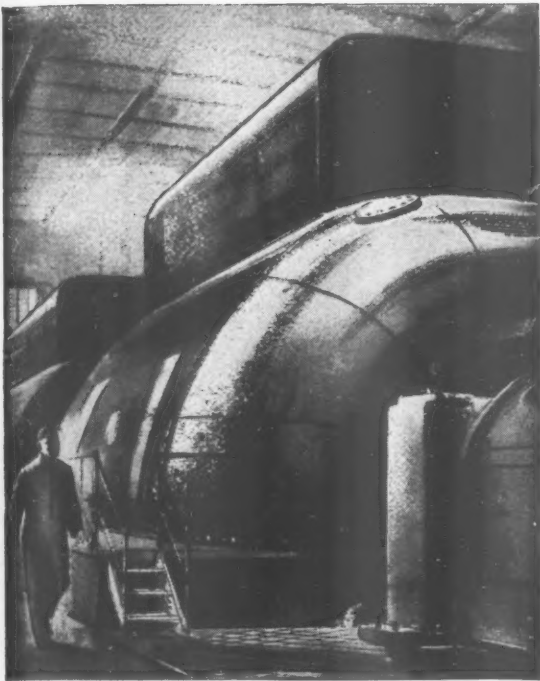
**Econa can't
help you to unseal
THIS NEW BOTTLE TRAP**

It's simple, it's a thing of beauty, it's a foolproof resealing trap
and it works. Like to know more?

Full details from

ECONA MODERN PRODUCTS LIMITED

AQUA WORKS · HIGHLANDS RD. · SHIRLEY · SOLIHULL · WARWICKS · Tel. Solihull 3078



The world's largest Generators will help to fill the demand for still more power

The development of nuclear energy for generating electricity is still front-page news. Less publicised, though no less outstanding, are new developments in "conventional" generating plant. The turbo-alternator shown here is a 550,000 kilowatt unit - twice the capacity of the next largest on order for the Central Electricity Generating Board. It has been designed for the projected new power station at Thorpe Marsh. For Blythe 'B', another new station, 275,000 kilowatt in-line units are on order. They will be powered by steam at 2,350 lb. per sq. in. and 1,050°F, with reheat to 1,000°F.

Nuclear power will play an important part in meeting the ever-increasing demand for electricity. Work is now in progress on the first three nuclear power stations, at Bradwell, Berkeley and Hinkley Point. By 1966/7 some 5 to 6

million kilowatts of nuclear-generated electric power will be available.

Though these projects will not be completed for some time, the Central Electricity Generating Board plays an important part in today's fight against inflation. Power stations are being built at a cost no greater than in 1948 - £50 per kilowatt installed. And, although the output of the industry has doubled since 1948, the increase in manpower is only about one-third.

By providing today for the power we shall need in years to come, the Central Electricity Generating Board is building a secure foundation for our future prosperity.



THE CENTRAL ELECTRICITY
GENERATING BOARD

Lasting beauty



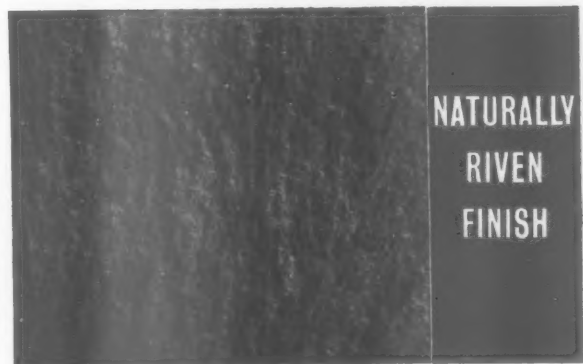
FRAME
SAWN
FINISH

in Broughton Moor



FINE
RUBBED
FINISH

Green Slate



NATURALLY
RIVEN
FINISH

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

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

In three distinct colours:
Light Sea Green, Olive
Green and Pale Green
Barred

Broughton Moor

GREEN SLATE QUARRIES LTD.

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

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.

AIR-MAIL SERVICE available on request.

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

Public and Official Announcements

30s. per inch; each additional line, 2s. 6d.

GOVERNMENT OF NORTHERN IRELAND

(a) ASSISTANT ARCHITECT, CLASS II
(b) ARCHITECTURAL ASSISTANT
Applications invited for above posts in Chief Architect's Branch, Ministry of Finance. Posts (a) are pensionable and candidates must be Registered Architects by examination with at least two years' experience in an Architect's Office in preparing working drawings. Salary scale £805 (at age 25)–£1,095 (age 34 and over)–£1,260. Existing pension rights may, in certain circumstances, be transferred.
Candidates for unestablished posts (b) should have recognised architectural training and fair experience. Salary scale £585–£905; appointees who have passed R.I.B.A. Intermediate examination start at £730.

Preference for ex-Service men. Application forms for both posts obtainable from Director of Establishments, Room 271, Stormont, Belfast.

QUANTITY SURVEYING ASSISTANTS required by A.I.R. MINISTRY IN THE PROVINCES. Duties include abstracting and billing, site measurement and preparation of estimates. Commencing salary according to age, qualifications and experience. Salary ranges from £680 at age 26 rising to £850. Candidates must hold O.N.C. (Building or Builders Quantities) or equivalent and have good experience under Quantity Surveyor or Building Contractor. Knowledge W.D. Schedule an advantage. Approved full time study will count towards period of experience. Promotion and pensionable prospects. Five-day week, three weeks leave a year. Appointments carry liability for service anywhere U.K. or overseas. Applicants normally should be natural born British subjects. Write stating age, qualifications and previous appointments, including type of work done, to Manager, Professional and Executive Register, Ministry of Labour and National Service, Atlantic House, Farringdon Street, London, E.C.4, quoting reference PE 105/745. No original testimonials should be sent. Only applicants selected for interview will be advised.

AIR MINISTRY WORKS Design Branch requires in LONDON and PROVINCES ARCHITECTURAL ASSISTANTS experienced in planning/preparation of working drawings and details for permanent and semi-permanent buildings. Salaries in LONDON up to £1,055 p.a. for men and £1,008 p.a. for women. Somewhat lower in provinces. Starting pay dependent on age, qualifications and experience. Long term possibilities with promotion and pensionable prospects. Five-day week, three weeks three days' leave a year. Liability for overseas service (for men). Normally natural born British subjects. Write stating age, qualifications, employment details including type of work done to any Employment Exchange quoting Order No. Borough 250.

HEMEL HEMPSTEAD DEVELOPMENT CORPORATION

Applications are invited for the following vacancies in the Chief Architect's Department:
SENIOR PLANNING OFFICER: £934–£1,273. Vacancy No. 154.

Duties include liaison with other planning authorities on matters affecting revised Master Plan, planning applications, etc. Experience in planning office essential. Short-term post which might be attractive to senior man approaching retirement age.

SENIOR ASSISTANT ARCHITECT: £934–£1,273. Vacancy No. 155.

To take charge of small team responsible for housing neighbourhood centre, etc., development. ARCHITECTURAL ASSISTANTS: Vacancy No. 156.

In grades with salaries ranging from £265–£939, according to age, qualifications and experience. Junior posts available for architectural students not yet qualified, and for those who have qualified and wish to gain practical experience.

Conditions of service similar to those in Local Government. Housing may be provided. Applications, endorsed with appropriate vacancy number, giving age, education, qualifications and experience and names of two business referees to General Manager, Westbrook Hay, Hemel Hempstead.

BOROUGH OF SUTTON AND CHEAM
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, Grade A.P.T. IV, £1,065–£1,220 plus £20/£30 London weighting per annum.

Applicants should have good general experience in Housing and Public Buildings.

The commencing salary will be according to ability and experience.

The appointment which is terminable by one month's notice in writing on either side, is on the permanent staff of the Corporation, is subject to the provisions of the Local Government Superannuation Acts, 1937 to 1953, and to the National Scheme of Conditions of Service.

The successful candidate will be required to pass a medical examination. Forms of application may be obtained from Mr. N. H. Michell, A.M.I.C.E., M.I.Mun.E., Borough Engineer and Surveyor, to whom they should be returned, accompanied by copies of two recent testimonials not later than 8th June, 1959, endorsed "Architectural Assistant Grade A.P.T. IV." Applicants must state whether they are related to any member or holder of any senior office under the Borough Council. Canvassing in any form will be disqualify.

ARTHUR PRIESTLEY,

Town Clerk.

Municipal Offices,
Sutton,
Surrey.

4294

WEST SUFFOLK COUNTY COUNCIL
ENGINEER (in charge of Heating and Electrical Section)—A.P.T. IV (£1,065–£1,220); National Joint Council Service Conditions; post pensionable; medical examination.

Applicants must hold appropriate professional qualifications and be experienced in the design and supervision of heating systems; preference will be given to applicants with experience in design of electric lighting and power installations. Apply to County Architect, 13, Westgate Street, Bury St. Edmunds, for application form, also particulars of staff house and subsistence allowance; application to be returned by 1st June, 1959.

4335

DEVON COUNTY COUNCIL require Two Senior ARCHITECTS on A.P.T. IV (£1,065–£1,220) and Two Senior ARCHITECTS on N.J.C. Special Scale (£750–£1,030; increase under consideration). Full and interesting programmes of Schools and other County Buildings.

In approved cases, loans for house purchase and removal expenses are available—also lodging allowance for married officers while seeking accommodation.

Particulars and Application Form, returnable by 11th June, 1959, from County Architect, 97, Heavitree Road, Exeter.

4332

SOUTHAMPTON COUNTY BOROUGH COUNCIL requires under N.J.C. conditions of service: ASSISTANT QUANTITY SURVEYOR, salary within Special Grade (£750–£1,030 p.a.). Applicants must be Chartered Quantity Surveyors, preferably with experience in municipal housing, including multi-storey flats and shopping centres.

The salary scale is subject to adjustment in accordance with the new N.J.C. increase.

Apply on application forms, obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, by not later than Monday, 15th June, 1959.

4348

METROPOLITAN BOROUGH OF HAMPSTEAD require a temporary ARCHITECTURAL ASSISTANT A.P.T. Grades I/II (£575–£644 p.a. plus London weighting) for Intermediate, R.I.B.A., or Special Scale (£750–£1,030 plus London weighting) for Final, R.I.B.A.; salary according to qualifications and experience.

Applications giving training, experience, previous appointments and the names of three referees to the Town Clerk (A.J.), Town Hall, Haverstock Hill, N.W.3, by the 11th June, 1959. No housing provided.

4344

LANCASHIRE COUNTY COUNCIL. Applications are invited from qualified ARCHITECTS of initiative, keen on design and modern constructional methods, to work on a large and varied programme.

Permanent posts on Special Class Scale (at present £750–£1,030, but under review). Starting point according to experience.

Application Forms from the County Architect, P.O. Box 26, County Hall, Preston, reference A/AJ.

4323

TONBRIDGE RURAL DISTRICT COUNCIL ARCHITECTURAL ASSISTANT

Applications are invited for the above-mentioned appointment at a salary in accordance with Grade A.P.T. I (£610–£765 per annum).

The appointment is subject to the National Scheme of Conditions of Service and to the passing of a medical examination.

If required, assistance will be given by the Council in the provision of housing accommodation.

Forms of application may be obtained from and should be returned to the Engineer and Surveyor at the undermentioned address not later than Monday, the 8th June, 1959.

C. KIRBY,
Clerk of the Council.

48, Pembury Road,
Tonbridge,
Kent.

4458

CWMBRAN DEVELOPMENT CORPORATION

APPOINTMENT OF

DEPUTY CHIEF ARCHITECT
Applications are invited for the above superannuable post in the salary range £1,527–£1,785, the point of entry being in accordance with qualifications and experience.

Applicants should be Associates of the R.I.B.A. and with experience of large scale Housing contracts and Town Centre Development. Experience in Town Planning will be an advantage. Housing accommodation will be made available to the successful applicant if needed.

Applications stating age, experience, details of present and former employment (together with applicable salaries) and the names and addresses of two referees must reach the undersigned by first post on Monday, 8th June 1959.

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

Victoria Street,
Cwmbran, Mon.

4362

ARCHITECTS AND BUILDING SURVEYORS

The L.C.C. (Architect's Department) requires Architects and Building Surveyors interested in modernisation and conversion of older blocks of Council flats which are being undertaken in the General Division. Up to £1,099 according to qualifications and experience. Salaries at present under review. Holiday arrangements respected. Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, AR/EK/48/59, County Hall, S.E.1. (1036.)

4219

BOROUGH OF BASINGSTOKE

BOROUGH ARCHITECT'S DEPARTMENT

A rapidly expanding town offers interesting work for a SENIOR ARCHITECTURAL ASSISTANT who has passed the R.I.B.A. Final. Salary range £750 x £40–£1,030 according to experience. House or Flat available. N.J.C. conditions; post pensionable; medical examination.

Applications, giving details of age, training, experience, etc., and two referees, to Borough Architect, Municipal Buildings, Basingstoke, by 19th June, 1959.

4413

HAMPSHIRE COUNTY COUNCIL

PLANNING ASSISTANT required for pensionable post in the Area Planning Office at Basingstoke, A.P.T. I (£810–£765). Commencing salary according to qualifications and experience.

Candidates should preferably have passed the Intermediate Examination of the Town Planning Institute or of a related professional body and have had experience in the Planning Department of a Local Planning Authority. In approved cases the County Council assist with removal and other expenses.

Applications, stating age, education, qualifications, and experience, together with a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 8th June.

4434

LANCASHIRE COUNTY COUNCIL

Applications are invited from qualified ARCHITECTS of initiative, keen on design and modern constructional methods, for a large and varied programme.

Permanent posts in A.P.T. Grade V (£1,220–£1,375). Starting point according to experience. Previous applicants should not re-apply.

Application forms from the County Architect, P.O. Box 26, County Hall, Preston, reference A/AJ.

4436

SURREY COUNTY COUNCIL

COUNTY PLANNING DEPARTMENT

The Development Plan Section at Headquarters at Kingston is being enlarged for additional work on Town Plans, areas for comprehensive redevelopment and similar work. Applications from suitably qualified persons are invited for the following posts:—

(a) One SPECIAL (QUALIFIED) GRADE post. To prepare schemes for comprehensive redevelopment, and to advise on layouts and design. Experience in this work is essential.

(b) One SPECIAL (QUALIFIED) GRADE post. To be responsible for preparation of Town Maps. Experience of Development Plan work is essential.

(c) One SPECIAL (QUALIFIED) GRADE post. To assist in planning work involving County council development, especially the schools programme.

(d) Two GRADE I ASSISTANTS. For work connected with Town Maps, redevelopment schemes and in the review of the Development Plan. Candidates must be good draughtsmen. A degree in Geography, Economics or Estate Management would be an advantage.

Applications (endorsed "Confidential—County Planning Vacancies"), stating age, qualifications and experience, with details of present post and salary, and the names of two referees, must be received by the County Planning Officer, "Elmhurst," Penrhyn Road, Kingston-upon-Thames, not later than 8th June, 1959.

4439

COUNCIL OF THE COUNTY OF ABERDEEN

Applications are invited for two vacancies as ARCHITECTURAL ASSISTANTS in the County Architect's Department. Salaries: (1) A.P.T. VIII, £1,065–£1,220 per annum, and (2) A.P.T. VI-VIII, £880–£1,085 per annum.

Applicants must be Associates of the Royal Institute of British Architects. The appointments are superannuable. Application forms may be obtained from the undersigned. Closing date: 4th June, 1959.

JAMES L. CRAIG,
County Clerk.

County Buildings,
22, Union Terrace,
Aberdeen.

4409

CITY OF NOTTINGHAM
ESTATES DEPARTMENT

Applications are invited for the appointment of **ARCHITECTURAL ASSISTANT** of Intermediate R.I.B.A. standard, in the Chief Architect's Section.

The salary will be within Grades A.P.T. I and II, £575-£845 (under review), in accordance with qualifications and experience.

The person appointed will be a member of a small team with the opportunity of working on a wide variety of housing projects.

The appointment will be subject to the National Joint Council's Scheme of Conditions of Service.

Applications, stating age, qualifications, experience, present appointment and salary, and naming two referees, should be sent to the Estates Surveyor & Valuer, The Guildhall, Nottingham, by Tuesday, 9th June, 1959.

T. J. OWEN,
Town Clerk.

The Guildhall,
Nottingham. 4446

ESSEX COUNTY COUNCIL

ILFORD COMMITTEE FOR EDUCATION

Applications are invited for the appointment to the following posts in the Education Architect's Section of the Borough Engineer's Office:—

- (a) **TWO SENIOR ASSISTANT ARCHITECTS**, A.P.T. Grade III-IV (£880-£1,220 per annum).
(b) **ASSISTANT ARCHITECT**, A.P.T. Special Grade (£750-£1,030 per annum, subject to review).
(c) **ASSISTANT ARCHITECT**, A.P.T. Grade I (£610-£765 per annum).

Plus appropriate London weighting in each case.

The posts are superannuable and subject to medical examination.

Commencing salaries will be fixed within the grades according to experience.

Applicants for posts (a) and (b) must be Associates of the R.I.B.A. and have suitable experience in the design and development of school buildings.

Applicants for post (c) must have passed the Intermediate R.I.B.A. Examination or its equivalent at a recognised School of Architecture.

Applications should be made on a form to be obtained from and returned to the Borough Engineer and Surveyor, Town Hall, Ilford, together with copies of not more than three recent testimonials, within 14 days of the appearance of this advertisement. 4450

SCHOOL OF ARCHITECTURE, UNIVERSITY OF CAMBRIDGE

NUFIELD RESEARCH ASSISTANTS

Applications are invited for two posts in connection with research on problems of urban reconstruction. Appointments are for a period of three years, subject to satisfactory work in the first year, at a salary of £800-£1,000 p.a. according to qualifications and experience.

Full details are available from the Secretary, School of Architecture, 1, Scrope Terrace, Cambridge. 4449

NORTHUMBERLAND COUNTY COUNCIL

COUNTY PLANNING DEPARTMENT

Applications are invited for the appointment of **SENIOR ASSISTANT PLANNING OFFICER** in charge of the Development Plan Section on A.P.T. V Scale (£1,220-£1,375).

The person appointed will be responsible for the survey analysis and preparation of the County Development Plan, including Town Maps.

A planning qualification is essential.
Application form and further information from County Planning Officer, County Hall, Newcastle upon Tyne, 1.

Closing date 8th June, 1959. 4452

CORBY DEVELOPMENT CORPORATION

ASSISTANT ARCHITECT

Applications are invited from qualified Architects for an appointment as an Assistant Architect on the staff of the Chief Architect. The salary will be within A.P.T. VI (£934-£1,146) of the Whitley Council Scales for New Towns Staff and the commencing point will depend upon experience and qualifications.

The work of the Corporation offers wide experience in the design of houses, Town Centre buildings and factories both in general schemes and in individual buildings. The appointment will be subject to Superannuation under the Local Government Scheme. Housing is available and assistance will be given with removal expenses.

Applications, stating age, education, training, qualifications, experience, present and past appointments and salary, together with the names of two referees, must reach the undersigned by the 5th June, 1959.

R. F. BROOKS GRUNDY,
General Manager.

Corby Development Corporation,
Spencer House,
Corby, Northants. 4457

ROYAL BOROUGH OF KINGSTON-UPON-THAMES

APPOINTMENT OF SECOND ARCHITECTURAL ASSISTANT

SPECIAL SCALE, £785 to £1,070

Commencing at not less than £905 per annum plus London weighting. Applicants must be qualified and have had at least five years' experience, including periods spent on theoretical training. Details and application form from Borough Surveyor, Guild Hall, Kingston-upon-Thames. Closing date 22nd June, 1959.

A. B. ROGERS,
Town Clerk.

Guild Hall,
Kingston-upon-Thames. 4491
21st May, 1959.

SINGAPORE POLYTECHNIC

The Board of Governors invite applications for the following appointments in the DEPARTMENT OF BUILDING AND ARCHITECTURE: (a) **SENIOR LECTURER IN ARCHITECTURE**; (b) **TWO ASSISTANT LECTURERS, GRADE II IN ARCHITECTURE**; (c) **ASSISTANT LECTURER, GRADE III IN TOWN PLANNING**; (d) **ASSISTANT LECTURER, GRADE III IN CIVIL ENGINEERING**; (e) **ASSISTANT LECTURER, GRADE II IN CARPENTRY AND JOINERY**.

Qualifications: (a) (b) Diploma of recognised School of Architecture; experience in Architectural practice/teaching; (c) Diploma or degree of a school recognised as exempting from Final examination of T.P.I.; additional qualifications in Geography, Economics, Architecture, Civil or Municipal Engineering an advantage; (d) recognised qualification in Civil and/or Structural Engineering, with practical experience in design and supervision of concrete structures; (e) 1st Class full technological certificate of City and Guilds; technical Teacher's Certificate an advantage.

Monthly Salary Scale: (a) M\$ 1,800 × M\$ 50-M\$ 1,950; (b) (c) M\$ 1,000 × M\$ 50-M\$ 1,350; (d) M\$ 1,200; M\$ 50-M\$ 1,550. (One M\$ = 2s. 6d. at present.)

Appointment of overseas persons is on contract for three years. Favourable Endowment Insurance Scheme: or the College will be prepared to take over and maintain employer's contributions to former F.S.S.C. policies. Accommodation with heavy furniture at rental of M\$ 120 p.m.; free medical attention, and half cost of maintenance in hospital; free passages for member of staff, his wife and up to three children under 18, on first appointment, leave and completion of service; home leave at rate of 60 days per year's service, normally taken on completion of three years' service.

Application forms (four copies) and further information obtainable from Council for Overseas Colleges, 12, Lincoln's Inn Fields, London, W.C.2. Closing date 5th June, 1959. 4427

BOROUGH OF SWINDON

ASSISTANT ARCHITECT

Applications are invited for an appointment of Assistant Architect, A.P.T. Special Scale, £750-£1,030 per annum. (This scale is at present under review by the National Joint Council.)

Applicants must have passed the R.I.B.A. Final Examination and will be engaged on work in connection with a large and varied development programme, including housing schemes and industrial buildings, arising from the expansion of the town.

Consideration may be given to an allocation of housing accommodation.

Applications on forms obtainable from the Town Clerk, Civic Offices, Swindon, must be returned not later than 5th June, 1959. 4405

SHEFFIELD REGIONAL HOSPITAL BOARD

ARCHITECTURAL STAFF

Applications are invited for the posts of:—
(a) **SENIOR ASSISTANT ARCHITECT**: Commencing salary £1,050 on the scale of £1,050 × £30 (3) × £35 (3)-£1,245.

(b) **ASSISTANT ARCHITECT**: Salary according to age and experience within the scale £730-£1,055 per annum.

Candidates must be Registered Architects and have passed the requisite examinations. Appointment is subject to Whitley Council terms and conditions of service, to the National Health Service (Superannuation) Regulations, and to one month's notice on either side. Applications, together with the names of three referees, should be sent to the Secretary, Sheffield Regional Hospital Board, Fulwood House, Old Fulwood Road, Sheffield, 10, not later than the 15th June, 1959. 4407

CITY OF CANTERBURY

Applications are invited for the appointment of **CHIEF TOWN PLANNING ASSISTANT**, Special Scale (£750-£1,030). Commencing salary for the appointment will be according to ability and experience.

Applicants must be Associates of the Town Planning Institute and preference will be given to those possessing an additional qualification in Architecture. Applicants should have experience in dealing with three-dimensional design problems in connection with redevelopment and reconstruction. Experience in statutory planning is also desirable, particularly with regard to the forthcoming review of the Development Plan.

Housing accommodation will be made available if required.

Applications, together with the names of two referees, must reach the City Architect & Planning Officer, Mr. John L. Berbers, F.R.I.B.A., A.M.T.P.I., not later than Wednesday, 10th June, 1959.

Canvassing will disqualify. JOHN ROYLE,
Town Clerk.

Municipal Buildings, 4408
Canterbury.

EAST SUFFOLK COUNTY COUNCIL

PLANNING ASSISTANT required, for work on Development Plans. Intermediate Examination minimum qualification. A.P.T. II (£765-£880) and car allowance.

Applications, giving full particulars, including names of two referees, to County Planning Officer, County Hall, Ipswich, by Friday, 12th June, 1959, from whom further information may be obtained. 4473

BOROUGH OF STOCKTON-ON-TEES

BOROUGH ARCHITECT'S DEPARTMENT
Applications are invited for the appointment of **ASSISTANT ARCHITECT** at a salary of A.P.T. III (£880-£1,065) or the new Special Grade. Forms of application from the Borough Architect, 28, The Square, Stockton-on-Tees, to be returned not later than the 6th June, 1959.

Housing accommodation will be available for married applicants.

JOHN B. HAWORTH,
Town Clerk.

Barclays Bank Chambers,
49, High Street,
Stockton-on-Tees. 4416

EAST ANGLIAN REGIONAL HOSPITAL BOARD

SENIOR ASSISTANT ARCHITECTS for work on the Board's capital programme (including major hospital developments, estimated cost £2m., at Peterborough and District Memorial Hospital). Candidates must be registered architects and have had good general experience; hospital experience will be an advantage. Salary £1,050-£1,245.

Applications, stating age, qualifications, experience and details of present position (salary, etc.), with names of three referees, to Secretary of Board, 117, Chesterton Road, Cambridge, by 5th June, 1959. 4410

SOMERSET COUNTY COUNCIL

ARCHITECT'S DEPARTMENT
Applications are invited for the following appointments on the established staff, viz.:—

- (a) **SENIOR ASSISTANT ARCHITECTS**, A.P.T. Grade IV (£1,065-£1,220).

Applicants for posts in this grade must be Associate Members of The Royal Institute of British Architects with a good standard of design ability and a sound knowledge of modern methods of construction and be capable of handling projects from sketch plans to completion.

(b) **ASSISTANT ARCHITECT**—Special Grade (£750-£1,030, subject to revision).

Applicants must have passed Parts I and II of the R.I.B.A. Final or Special Examination, or the equivalent at one of the recognised schools of architecture. Commencing salary will be within the grade, dependent upon the candidate's qualifications and experience.

(c) **ARCHITECTURAL ASSISTANT**—A.P.T. Grade I (£610-£765).

Applicants must have passed the Intermediate Examination of The Royal Institute of British Architects.

All appointments are subject to the usual conditions of Local Government Service. Applications, accompanied by the names of two persons to whom reference can be made, should reach the undersigned not later than Thursday, 4th June, 1959.

R. O. HARRIS, F.R.I.B.A.,
County Architect.

Park Street,
Taunton.
15th May, 1959. 4411

CORPORATION OF THE CITY OF

CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following post of **TEMPORARY ASSISTANT ARCHITECT** on a fixed salary of £1,250 per annum. Applicants should be A.R.I.B.A., fully experienced, with sound knowledge of construction, capable of producing good contemporary design and of carrying large contracts through to completion. Applications, stating name, address, age, qualifications, experience, previous and present appointments held, and the names and addresses of three architects to whom reference may be made, should be sent to G. McI. Keith, R.I.B.A., A.M.T.P.I., City Architect, 11, Broad Street, Aberdeen, on or before 5th June, 1959.

J. C. REYNOLDS,
Town Clerk.

Town House,
Aberdeen.
21st May, 1959. 4477

CITY ARCHITECT'S OFFICE

MANCHESTER

Applications invited for appointments on the permanent staff of (a) **ASSISTANT ARCHITECT/ARCHITECTURAL ASSISTANT**; salary special scale at present £750-£1,030 is under review. Commencing salary will be fixed according to qualifications and experience. (b) **ARCHITECTURAL ASSISTANT**, salary A.P.T. I, £610-£765. Five-day week. Removal extensions allowed. Housing accommodation for a limited period may be provided for the successful candidate for the senior appointment.

Forms of application from the City Architect, P.O. Box 483, Town Hall, Manchester, returnable June 8th, 1959. 4461

HARLOW DEVELOPMENT CORPORATION

Applications are invited for the following posts:—

Post A. **ASSISTANT ARCHITECT**, £735-£939

D.A.
Post B. **ASSISTANT ARCHITECT**, £934-£1,146

D.A.
Post C. **ASSISTANT ARCHITECT**, £579-£811

Candidates for posts A and B should be A.R.I.B.A. or equivalent and candidates for post C should have passed R.I.B.A. Intermediate or equivalent. All should have had experience in the design and supervision of buildings. Housing provided in suitable cases. Applications within seven days to General Manager, Terlings, Harlow, Essex. 4392

**COUNTY BOROUGH OF SOUTHAMPTON
BOROUGH ARCHITECTS' DEPARTMENT**

Applications are invited for the following permanent positions:—

(a) **ASSISTANT PLANNING OFFICER** (Development Control), Special Grade (£750—£1,030), to assist with Development Control, examining applications, site inspections, interviews with applicants, preparation of reports.

Applicants should be A.M.T.P.I., architectural qualification or experience an advantage.

(b) **PLANNING ASSISTANT, Grade A.P.T. II** (£765—£880), for Survey, Development Plan review, Redevelopment Areas and Compulsory Purchase Orders. Candidates should have passed the Intermediate Examination of the Town Planning Institute or other appropriate body.

(c) **ARCHITECTURAL ASSISTANT, Grade I** (£610—£765).

Commencing salary according to experience; candidates should state their housing needs.

Application forms from the Borough Architect, Civic Centre, Southampton, returnable by 6th June, 1959. 4465

**THE UNITED NEWCASTLE UPON TYNE
HOSPITALS**

Applications are invited for the appointment of an **ASSISTANT ARCHITECT** in the Staff Architect's Department of the above Group of Hospitals.

The salary scale: £730 × £25 (2) × £30 (2) × £35 (2) × £40 (1)—£1,055 p.a.

The commencing salary will be fixed within the Grade by reference to relevant experience and to age.

The successful applicant will assist in the preparation of a Master Plan of future building development for the Royal Victoria Infirmary, Newcastle, and he will also be required to carry out under the supervision of the Staff Architect certain building schemes for which the department is responsible.

Applicants must be Registered Architects and Associate members of the R.I.B.A., with a sound knowledge of the planning and construction of public buildings. Experience in hospital building work would be of advantage.

Applications, stating age, qualifications, past and present appointments, present salary and details of experience and training, together with the names of three referees (two of whom should be architects), should be forwarded to the House Governor & Secretary, Royal Victoria Infirmary, Newcastle upon Tyne, by not later than 30th June, 1959. 4386

**CITY AND COUNTY OF BRISTOL
ARCHITECTS' COMMITTEE**

Applications invited for following permanent staff appointments:—

(a) **SENIOR QUANTITY SURVEYORS**—Special Scale (£750 × £40—£1,030 p.a.—subject to National award). Applicants must be suitably qualified (by examination) and have had experience in taking off quantities, site measurement, interim certificates and final accounts.

(b) **SENIOR ASSISTANT ARCHITECTS**—Special Scale (£750 × £40—£1,030 p.a.—subject to National award).

(c) **ASSISTANT ARCHITECTS**—Grade A.P.T. II (£765—£880 p.a.).

(d) **ASSISTANT ARCHITECTS**—Grade A.P.T. I (£610—£765 p.a.).

Architectural appointments will be appropriate to professional experience and qualifications, but applicants for (b) must have passed Parts I & 2 of the final examination of the R.I.B.A., and have had experience in design, construction and contract administration, preferably with a large local Authority.

Housing accommodation available if necessary at an economic rent. Five-day week.

Details and application forms (returnable by 15th June) from City Architect, Council House, Bristol, 1. 4487

DORSET COUNTY COUNCIL

ARCHITECTURAL ASSISTANT required in the County Architect's Department. Salary within A.P.T. Grade II, £765—£880 per annum. Applicants should have passed the Intermediate R.I.B.A. Examination.

Application forms from the Clerk, County Hall, Dorchester, to be returned by 11th June, 1959. 4404

KENT COUNTY COUNCIL

ASSISTANT COUNTY ARCHITECT required at a salary within the range £1,790 to £2,280 a year, according to qualifications and experience.

Candidates must be Fellows or Associates of the Royal Institute of British Architects and have had wide experience in the practice of architecture.

Further details and forms of application obtainable from the County Architect, Springfield, Maidstone, to whom applications must be returned by not later than the 19th June, 1959. 4504

**NORTH WEST METROPOLITAN REGIONAL
HOSPITAL BOARD**

Applications are invited for the following posts: **ASSISTANT BUILDING SUPERVISOR** (Ref. 731).

Applicants must be Associate members of R.I.C.S. and capable of preparing working drawings and specifications for alteration works, site surveying and levelling, etc.

Salary scale: £730 × £25 (2) × £30 (2) × £35 (5) × £40 (1)—£1,055, plus £20—£50 London weighting.

SURVEYING ASSISTANT (Ref. 731).

Applicants must have passed the Intermediate Examination of the R.I.C.S. (IIIB).

Salary scale: £545 (age 21 or over) × £20 (3) × £25 (4) × £30 (2)—£765, plus £20—£30 London weighting.

The work is varied and interesting and entails preparation of surveys, working drawings and specifications under supervision, of works of a minor character. The Board operates a scheme of financial assistance to students studying for professional examinations.

Starting salaries in both grades may be above minimum having regard to relevant practical experience. Whitley Council conditions. Superannuable.

Apply, stating age, qualifications (with dates) and experience, together with the names and addresses of two referees to: Secretary, North West Metropolitan Regional Hospital Board, 40, Eastbourne Terrace, London, W.2, by 8th June, quoting appropriate reference. 4489

COUNTY BOROUGH OF WEST HAM

Applications invited for appointment of **DEPUTY BOROUGH ARCHITECT AND PLANNING OFFICER** (salary: £1,776 13s. 4d. by three annual increments to £2,000 p.a. incl. and £100 car allowance).

Applicants must be experienced in Redevelopment of Urban Areas, including High Density Housing, Town Planning Administration, and management of large Building Contracts. Successful applicant must be prepared to accept a high degree of responsibility for a large and varied programme.

Details, together with application form, which should be returned by 16th June, 1959, from the Borough Architect & Planning Officer, Thomas E. North, O.B.E., F.R.I.B.A., Dist.T.P., M.T.P.I., 70, West Ham Lane, Stratford, E.15. 4503

West Ham Town Hall, Stratford, E.15. 4503

CENTRAL MORTGAGE AND HOUSING CORPORATION (The Crown Corporation which administers the National Housing Act of Canada) requires experienced **TOWN PLANNERS** in the Architectural and Planning Division, at Head Office in Ottawa, for work in connection with housing and planning activities across the country.

Applicants should be corporate members of the Town Planning Institute and possess a university degree or equivalent in architecture or engineering. Experience in physical planning is essential. Special consideration will be given to those who have experience in the New Towns, the London County Council or a progressive office working on good housing.

Applicants selected for interview will be advised of starting salaries, and these are commensurate on qualifications and experience. Salaries are revised annually and advancement is based on merit.

Travel assistance grants to help defray the cost of moving to Canada will be given on the following scale:

Married \$500.
Single \$200.

Applications, stating age, marital status, qualifications and details of experience, together with the names and addresses of three referees, are to be addressed to Supervisor, Personnel Department, Central Mortgage and Housing Corporation, Head Office, Ottawa, Ontario. 4511

**CARMARTHENSHIRE COUNTY COUNCIL
ARCHITECTS' DEPARTMENT**

Applications are invited for the post of **ASSISTANT ARCHITECT** Salary Grade, Special Scale. (Subject to amendment.)

Applicants must have passed the Final Examination of the R.I.B.A.

Details of qualifications, experience, etc., together with copies of three recent testimonials, to County Architect, County Hall, Carmarthen, not later than Saturday, 6th June, 1959.

W. S. THOMAS

Clerk of the County Council.

County Hall, Carmarthen. 4509

May, 1959. 4509

**COUNTY OF ESSEX
BOROUGH OF WALTHAMSTOW
COMMITTEE FOR EDUCATION**

Applications are invited for the following appointments in the Office of the Education Architect, T. L. Rampton, A.R.I.B.A., A.R.I.C.S.:—

(a) **ASSISTANT ARCHITECT**—Special Grade, £750 to £1,030 per annum.

(b) **ARCHITECTURAL ASSISTANT, A.P.T. Grade I**, £610 to £765 per annum.

(c) **ASSISTANT BUILDING SURVEYOR, A.P.T. Grade I**, £610 to £765 per annum.

London weighting of £30 p.a. (under 26 years of age £20) applicable to the appointments.

Commencing salary according to qualifications and experience.

For appointment (a) applicants must have passed Parts I and II of the Final Examination of the R.I.B.A. Experience in school planning and construction an advantage.

For appointment (c) applicants should be capable of preparing estimates, specifications and supervising minor works of maintenance and alterations.

Forms of application to be obtained from and returned to the Borough Education Officer, Town Hall, Walthamstow, E.17, within two weeks of the appearance of this notice. 4514

**BEDLINGTONSHIRE URBAN DISTRICT
COUNCIL**

(a) Appointment of **TWO ENGINEERING ASSISTANTS**.

(b) Appointment of **ARCHITECTURAL ASSISTANT**.

Applications are invited for the above appointments in the Engineer and Surveyor's Department, at a salary in accordance with A.P.T. Grade I, £610—£765.

Applicants must have had training in a Municipal Engineers Office and be a student member of one of the appropriate Institutions, be a competent draughtsman and capable of carrying out surveys for engineering and building works.

The appointments are superannuable and subject to the National Scheme of Conditions of Service, and a satisfactory medical examination.

The successful candidate will have an opportunity of obtaining varied experience including highways, housing development and main drainage.

Applications, giving full details of age, training and experience, together with the names of two referees, must be delivered to the undersigned not later than Friday, the 12th June, 1959.

Housing accommodation will be considered. F. S. FORSTER.

Clerk to the District Council.

Council Offices, 4510

Bedlington, Northumberland.

**METROPOLITAN BOROUGH OF SHORE-
DITCH**

Applications are invited for the appointment of **ARCHITECTURAL ASSISTANT** Salary within Grade A.P.T. II, £755—£875 p.a., according to experience and qualifications. (A recommendation of the N.J.C. on revised salary scales will shortly be considered by the Council.)

Subject to medical examination, Council's Superannuation Scheme and N.J.C. conditions.

Applications, stating age, training and experience and giving the names of two referees, to reach Borough Architect, Town Hall, Old Street, E.C.1, by 13th June, 1959. 4517

LONDON COUNTY COUNCIL

CHARTERED QUANTITY SURVEYORS required to fill positions in Quantities Division, Bills of Quantities Section, Architect's Department. Applicants should have had at least three years' experience on working up and some experience of junior taking off.

Up to £1,090 (at present under review), according to experience. Application form, returnable by 18th June, and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, AR/54/59, County Hall, S.E.1. (1167.) 4502

SPALDING RURAL DISTRICT COUNCIL

ARCHITECTS' DEPARTMENT

ARCHITECTURAL AND SURVEYING ASSISTANT required, Salary A.P.T. II of the National Scale (£765 to £880 p.a.). Medical examination. Superannuation. Council house available. One half of removal expenses offered. Good draughtsman and experienced in taking off and preparing Bills of Quantities and settling final accounts.

Application, with names of two referees, to the Clerk of the Spalding Rural District Council, Priory Road, Spalding, not later than 6th June, 1959. 449

COMMUNAL AERIAL SYSTEMS

By **TELECRAFT LTD. CROYDON**

YEARS OF EXPERIENCE OF LARGE INSTALLATIONS

Telephone: THORnton Heath 1191 P.B.X.

PLYMOUTH COLLEGE OF ART AND CRAFTS

Principal: ALFRED FORREST, A.R.C.A., A.T.D.
Applications are invited for the post of LECTURER in the School of Architecture conducting full-time and part-time courses leading to the Intermediate and Final R.I.B.A. Examinations.

Application forms and further particulars may be obtained from the Clerk to the Governors, Education Offices, Plymouth, to whom they should be returned not later than 10th June, 1959. 4516

INVERNESS COUNTY COUNCIL invite applications for the undernoted appointments in the County Architect's Department.

(i) One SENIOR ARCHITECTURAL ASSISTANT. Salary £1,005-£1,085 per annum.
(ii) Two ARCHITECTURAL ASSISTANTS. Salary £760-£1,040 per annum.

Appropriate placing will be given in accordance with qualifications and experience. Applicants must be Associate Members of the Royal Institute of British Architects. Housing accommodation may be made available if required. Applications together with names and addresses of three referees to the County Clerk, County Buildings, Inverness, by 12th June, 1959. 4505

LONDON COUNTY COUNCIL**PARKS DEPARTMENT**

ARCHITECTURAL ASSISTANTS. Good draughtsmen with experience of preparation of working drawings and specifications and supervision of contract work. Up to £860 (under review). Apply Chief Officer, Parks Department (A1/A), County Hall, S.E.1 (Waterloo 5009, Ext. 8076). (1146) 4500

LONDON COUNTY COUNCIL**PARKS DEPARTMENT**

LANDSCAPE ARCHITECTS for preparation of schemes and laying-out of new parks and open spaces. Good experience in preparation of working drawings and specifications and supervision of contract work essential. Up to £1,090 (under review) according to qualifications and experience. Also **LANDSCAPE ARCHITECTURAL ASSISTANTS.** Up to £860 (under review).

Apply Chief Officer, Parks Department (A1/A), County Hall, S.E.1 (Room 402, Waterloo 5000, Ext. 8076). (1149) 4501

BIRMINGHAM REGIONAL HOSPITAL BOARD **ARCHITECTURAL ASSISTANTS** required. Salary scale £545-£765 p.a. Point of entry according to experience. Intermediate R.I.B.A. essential. Supernumerary. Apply, naming two referees, to Secretary, R.H.B., 10, Augustus Road, Birmingham, 15, by 18th June. 4460

LONDON COUNTY COUNCIL

ARCHITECTURAL ASSISTANTS required up to £860 (at present under review). Full and interesting programme of houses, flats, schools and general buildings. Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, AR/EK/43/59, County Hall, S.E.1. (923.) 4666

COUNTY BOROUGH OF SOUTHPORT

Applications are invited for the appointment of an ASSISTANT ARCHITECT (Special Grade, £750-£1,030 per annum) in the Borough Architect and Town Planning Officer's Department.

Applicants must have passed the Final Examination of the R.I.B.A.

Application forms may be obtained from the Borough Architect and Town Planning Officer, 99/105, Lord Street. Closing date for the receipt of applications is 13th June. 4417

Tenders Invited

6 lines or under, 15s.; each additional line, 2s. 6d.

WHISTON RURAL DISTRICT COUNCIL
FIXED PRICE CONTRACT
KNOWSLEY HOUSING SCHEME—PART I
302 DWELLINGS

The Council invite TENDERS for the erection and completion of 302 Dwellings of traditional construction on a site at Sugar Lane, Knowsley, near Liverpool.

Form of Tender and Bills of Quantities may be obtained on application to the undersigned, upon payment of a deposit of £2 2s. 0d., which will be refunded on receipt of a bona fide Tender and the return of all documents supplied. Plans may be inspected at any time during office hours.

Tenders, in the envelope provided, bearing no mark or indication of the sender, must be received by the Clerk of the Council, at the under-mentioned address, not later than 12 noon on Wednesday, 8th July, 1959.

WATSON GARBUTT, A.M.I.Struct.E.,

Engineer and Surveyor.

Council Offices,

Delph Lane,

Whiston.

Prescot, Lincs.

15th May, 1959.

4435

DURHAM COUNTY COUNCIL
NEW COUNTY OFFICES, DURHAM
TENDERS INVITED

Nominated Sub-contractors:—(a) Hardwood Floors, (b) Rubber, Linoleum and P.V.C. Flooring, (c) Office Partitioning, (d) Felt and Copper Roofing, (e) Laboratory Furniture and Architectural Joinery, (f) Box Section Aluminium Windows and Curtain Walling, (g) Architectural Metalwork and Sheet Metal Gables, (h) Mosaic Work, (i) Lifting Beams and Tackle, (j) Single Stack Plumbing.

Nominated Suppliers:—(a) Sanitary Ware, (b) Roof Lights, (c) Flush Doors, (d) Precast Mosaic Panels, (e) Exposed Aggregated Panels, (f) Gates and Railings, (g) Ironmongery.
Application for further details to County Architect, South Street, Durham, not later than 3rd June, 1959.

J. K. HOPE,
Clerk of the County Council.

Shire Hall,
Durham.

4466

Architectural Appointments Vacant

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

ASSISTANT capable of running medium sized contracts under supervision wanted immediately. Salary £950-£1,000. Stanley R. Nevell & Partners, 34 Smith Square, Westminster. Abbey 3971. 4474

ASSISTANT of Intermediate/Final standard required in Croydon office. Varied and interesting work. Five-day week, holiday this year. Apply by letter to Hugh Macintosh & Partners, 35/35, High Street, Croydon. 3643

REQUIRED in Oxford office of W. H. Watkins, Gray & Partners, ASSISTANT to work on advanced Technical Laboratory. Apply in writing to 57, Catherine Place, S.W.1, or ring for appointment Vic 7761. 3965

RONALD WARD & PARTNERS require **ARCHITECTURAL ASSISTANTS** with contemporary outlook, and willing to use own initiative. Congenial working conditions. Five-day week. Apply, 29, Chesham Place, Belgrave Square, S.W.1. Telephone Belgrave 3361. 3985

JACK GODFREY-GILBERT, F.R.I.B.A., requires an ASSISTANT not necessarily qualified but willing and able to take responsibility. Good prospects and permanent position in small but very busy private practice with branch office shortly starting on South Coast. Please apply in writing with full particulars to: 3, The Broadway, Wimbledon, S.W.19. 4379

BURLES & NEWTON require an **ARCHITECTURAL ASSISTANT** between Intermediate and Final standard. The appointment offers opportunity for experience and initiative on a wide range of projects, including schools, churches, housing and commercial buildings. Write or telephone for appointment to 25, Bedford Row, W.C.1. CHA. 9538. 4376

ARCHITECT'S Office with modern approach to design requires ASSISTANTS of Intermediate and Final standard, London or Reading, for interesting and varied work. Write Box 4374. 4374

FARMER & DARK have vacancies for **SENIOR** and **ASSISTANT ARCHITECTS** for a variety of projects in the U.K. and Overseas. Write with full particulars and salary required to Farmer & Dark, Romney House, Tufton Street, Westminster, S.W.1. 4372

ARMSTRONG & MACMANUS require a **JUNIOR ASSISTANT** to assist small team on interesting and varied work. Telephone Welbeck 2273 for appointment. 4370

FOUR SENIOR ASSISTANT ARCHITECTS required to lead groups working on Central area redevelopment schemes: must have considerable experience. Salary £1,000-£1,250. Details to Covell & Matthews, 34 Sackville Street, W.1. REGENT 2291. 4383

W. J. SIMMS SONS & COOKE LTD., require the services of an ASSISTANT in their architectural department. Applicants must have had wide experience in General Building Construction. Consideration will be given to applicants in the age group from 35 to 55 years of age. Apply to the Staff Architect, W. J. Simms Sons & Cooke Ltd., Haydn Road, Sherwood, Nottingham. 4364

ARCHITECTS' CO-PARTNERSHIP require **ARCHITECT** with experience, preferably qualified, to run a job; also ASSISTANT for working drawings and detailed design. Please write, stating age, experience, salary desired, to 44, Charlotte St., W.1, or 'phone Langham 5791. 4160

JUNIOR ASSISTANT required in London Architects' Office. Should be neat draughtsman with good knowledge of building construction. Write stating salary required. Box 4166. 4166

SEVERAL Senior and Intermediate ARCHITECTURAL ASSISTANTS are required for commercial projects including Hotel, Theatre and extensive development schemes of office and light industry, etc., in London Architect's office. Holiday arrangements will be recognized. Five-day week. Salary according to experience. Telephone City 8811. 4151

ASSISTANT required for Senior position in small London practice (established two years), with staff of six. Special consideration will be given to applicants with good educational background who are anxious to improve their experience at Client and Contractor level. Work generally varied: Hotels, Flats, Houses, Alterations, Interior Design, Exhibition and Industrial. The position offers good opportunities for advancement. Applicants must have passed Intermediate and with minimum five years' office experience. Salary £850 p.a. or about, according to qualifications. Phone CHANCERY 7292. M. R. Riepland & Partners, 63a Great Russell Street, W.C.1. 4291

RILEY & GLANFIELD require male ASSISTANT of Intermediate standard. Work: Church, industrial, housing and public house. Some general office experience is necessary. Tel. CHA 1322. 4265

ASSISTANTS and DRAUGHTSMEN required, West End Practice, varied work. Apply in writing, giving full particulars, to G. A. Crockett, 10, Adelaide Street, London, W.C.2. 4157

SENIOR ASSISTANT, qualified or near, with good practical experience, required by small busy office. Good style and speedy draughtsmanship also experience of building and land surveys desirable. Work varied but includes large amount of estate development. Holiday arrangements respected. Details of age, experience and salary required to Field and Shaw, Chartered Architects, 40, Station Road, North Harrow. Tel.: Harrow 7502. 4184

OSCAR GARRY & PARTNERS require ASSISTANTS, minimum five years' office experience. Varied work—industrial, commercial and domestic buildings. Telephone: WELbeck 2597 for an appointment. 4177

ARCHITECTURAL ASSISTANT required for small busy general practice in W. Riding of Yorkshire. Salary £500-£700 according to experience. Write, giving details of qualifications and experience, to Box 4174. 4174

SENIOR ASSISTANT and QUANTITY SURVEYOR required for small busy S. Yorkshire office. Reply, stating qualifications, experience and salary required, to Box 4175. 4175

PLAYNE & LACEY immediately require **ARCHITECTURAL ASSISTANTS** (Final and Intermediate) in office with varied practice. Write 19, Queen Anne's Gate, Westminster, S.W.1, or telephone WHI. 2552, stating salary required. 4100

SUDELL & WATERS require efficient ASSISTANT. They have interesting projects incorporating landscape with buildings. Telephone or write for appointments to:—2, Guilford Place, W.C.1. (Chancery 7285.) 4300

ARCHITECTURAL JUNIOR ASSISTANT required. Write, stating age, qualification and experience, to F. W. Edolls, Architect and Surveyor, Church Street, Storrington, Sussex. 4305

EXPERIENCED ARCHITECTURAL ASSISTANTS required, one Qualified and one of at least Intermediate standard, for Branch Office, Birmingham, engaged on a varied and interesting programme of Commercial projects. The positions are pensionable and a five-day week is in operation. Applications, giving full particulars, to G. S. Hay, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balliol Street, Manchester, 4. 4307

HACK Draughtsmen need not apply. **JUNIOR ASSISTANT** needed in office with scope for responsibility and design. Apply Box 4308. 4308

JUNIOR ARCHITECTURAL ASSISTANT required in Manchester for Bank Architect's Department to work on extensive programme of modernisation and new construction. Apply, giving details of age, experience and salary required, to Box 4311. 4311

GENIUS required for small office that is trying to produce accurate survey and working drawings. Post Intermediate or just qualified. Salary by arrangement, holiday this year. Write or phone: Godsmark & Miller-Williams, 37a, Tubwell Row, Darlington. 4312

ARCHITECTURAL ASSISTANTS (Final and Intermediate) required for work on university laboratory, telephone exchange and officers' mess. Apply, stating salary required, to Playne & Lacey, 19, Queen Anne's Gate, Westminster, S.W.1, or telephone WHI. 2552. 4317

ARCHITECTURAL ASSISTANTS, various grades, for commercial and industrial projects required by Wallis, Gilbert & Partners. Salary according to age and qualifications. Apply by letter only. 5, Cromwell Road, South Kensington, London, S.W.7. 4318

ARCHITECTURAL ASSISTANT, London. Final standard. Industrial and commercial. Progressive and interesting. Salary according to experience and ability. Box 4329. 4329

ARCHITECTURAL ASSISTANT, Intermediate standard. Busy London office. Good prospects. Box 4330. 4330

QUALIFIED ASSISTANT ARCHITECT required immediately. Minimum three years' private office experience. Capable of handling jobs through all stages for varied and interesting works programme. Pleasant working conditions. Preferably car owner. Please apply Deacon & Laing, Chartered Architects, 65, Goldington Road, Bedford. 4217

S. W. COAST. ASSISTANT required. Able to produce accurate survey and working drawings. Designing ability secondary to draughtsmanship. Unique opportunity for advancement. Salary offered £450. Box 4312. 4312

DEVELOPMENT Group of large Building and Civil Engineering Concern, invites applications from **ARCHITECTURAL ASSISTANTS** of about Intermediate standard capable of handling projects from sketch plan onwards. Excellent opportunity for one or two young men to gain a valuable experience. Prospects of promotion. Good salaries and conditions. Write Box No. DL9596, c/o Whites, 72, Fleet Street, E.C.4. 4518

ARCHITECTURAL ASSISTANT. Intermediate-Final standard. General practice. Good prospects. Particulars to: Fry, Paterson & Jones, F.R.I.B.A., 28, Waterloo Street, Weston-super-Mare. 4513

ARCHITECT'S ASSISTANT required in Birmingham Office of Multiple Stores. Applicant must be competent to prepare schemes, working drawings and Specifications and to carry out surveys and supervision, largely on their own initiative. Five-day week. Superannuation Scheme. Please send particulars of experience, salary required, etc., to Box 4508.

SENIOR ARCHITECT required of outstanding design ability, to share management with good administrative Architect and Civil Engineer, for an overseas office of large London firm. Initial association with prospect of local partnership. Write giving details of particulars to Box 4507.

CLIFFORD TEE & GALE require **ARCHITECTURAL ASSISTANTS**. Intermediate standard, with previous office experience, for industrial and commercial work in the Birmingham area. Five-day week. Apply to R. G. Cox Esq., F.R.I.B.A., 43, Frederick Road, Birmingham 15. Edgbaston 3676. 4506

CAPABLE ASSISTANT, good draughtsman, required for West End Office. Contemporary outlook, varied work, five-day week. Apply, giving particulars, to Box 4347, or phone REG. 1945.

WEST End Architects require experienced **ASSISTANTS** for interesting commercial developments in London and Provinces. Salary range £750/£1,100 p.a. according to experience. Genuine prospects for advancement to applicants with ability and initiative. Please reply to Box 4352.

NEWMAN, LEVINSON & PARTNERS require **ARCHITECTURAL ASSISTANTS** capable of working on their own initiative on interesting commercial developments in London and Provinces. Telephone LANGHAM 9251 or write giving particulars of experience and salary required to Newman, Levinson & Partners, 9, Mansfield Street, London, W.1. 4353

INTERMEDIATE standard ASSISTANT with experience of industrial work required for Architects' London (City) Office. Salary by arrangement. Write Box 4355.

KUMASI COLLEGE OF TECHNOLOGY, Kumasi, Ghana, require temporary **ARCHITECTURAL STAFF** at their London Office for about nine months to prepare contract drawings for a large building programme in Ghana. Salary range from £90 to £120 per month according to experience. Applications are invited from qualified architects. Further details may be obtained from the London Office of Kumasi College of Technology, 29, Tavistock Square, London, W.C.1. to whom applications should be sent as soon as possible. 4340

ARCHITECTURAL ASSISTANTS required. London and Great Missenden. Write stating experience and salary required. W. Leslie Jones, 59, High Street, Great Missenden, Buckinghamshire. 4210

ASSISTANT ARCHITECTS of Intermediate and Final standard required for Buckinghamshire office. The work is varied and interesting with scope for initiative and responsibility. Please state age, experience and salary required. Box 4224.

EXPERIENCED ARCHITECTURAL ASSISTANTS required with a good sense of design and a sound knowledge of building construction. All applications in writing, please, with full details. C. H. Risom & Partners, 10, Lower Grosvenor Place, S.W.1. 4143

VICTORIA, S.W.1. Clifford Tee & Gale, F.R.I.B.A., require experienced **ARCHITECTURAL ASSISTANT**. Must be able draughtsman, prepared to work with a team on laboratory project in Surrey. Five-day week. Holiday commitments will be met. Bonus additional to salary. Please apply by letter to Mr. S. H. Fisk, A.R.I.B.A., 5, Buckingham Palace Gardens, S.W.1. 4442

F. W. WOOLWORTH & CO LTD., Architects' F. Department, Kensington District Office. Applications are invited for the following appointment:—

ARCHITECTURAL ASSISTANT of Intermediate R.I.B.A. Standard, capable of carrying out surveys, preparing sketch schemes, working drawings and details.

The appointment is pensionable, five-day week. Dining room facilities. Application stating age, experience, qualifications and salary, to District Architect, F. W. Woolworth & Co. Ltd., 26/40, Kensington High Street, London, W.8. 4425

LEEDS: ASSISTANT ARCHITECTS.

SENIOR ASSISTANT. To work in general practice and on University programme. Planning, working drawings, site supervision. A.R.I.B.A. Salary range £1,050 to £1,300 to discuss.

ASSISTANT. To work in general practice and on University and School programme. Planning, working drawings. A.R.I.B.A. or equivalent standard. Salary range £900 to £1,050 to discuss.

Write, stating age and experience to Jones & Stocks, F.R.I.B.A., 7, Blenheim Terrace, Leeds, 2. 4440

THE LAND & GENERAL GROUP OF COMPANIES require

A CHIEF ARCHITECT

TO take charge of the Architectural Department. It is envisaged that the successful applicant will be well versed in housing estate development schemes, flat and shop developments and have a sound knowledge of Town Planning procedure. Necessary attributes will be:

- (a) the ability to create original and outstanding designs and to strike a balance between traditional and contemporary forms of architecture;
- (b) a commercial approach to development schemes; and
- (c) sound administrative experience.

Write in confidence giving in chronological order full details of career to date, salary earned in each appointment, age and qualifications to the Managing Director, Land & General Developments Ltd., 8/9 Berkeley Street, London, W.1. Ref. 0020/231. 4467

ARCHITECTURAL ASSISTANT, about Intermediate standard, 2 1/2 years' office experience, required in small office of General Practice (Hospitals, Schools, Commercial, Domestic). Please apply, Dowton & Hurst, 10 Portman Street, London, W.1. HYD 1822. 4463

INTERMEDIATE/FINAL ASSISTANT required with three or four years' experience, in busy expanding West End office. Excellent opportunities for taking responsibility. Please write stating age, experience and salary required. Box 4468.

SENIOR ARCHITECTURAL ASSISTANT of Final R.I.B.A. standard or equivalent required for carrying out surveys and reports, preparing sketch schemes, working drawings and details and to be capable of running and supervising various sized works. Pensionable appointment. Five-day week. Write stating qualifications, experience, age and salary required to District Architect, F. W. Woolworth & Co. Ltd., Metropolitan District Office, 311, Oxford Street, London, W.1. 4443

FRY, DREW, DRAKE & LARDUN have a vacancy for an experienced qualified **ASSISTANT** in their London office for work in England. Write, giving details of training, qualifications, experience and salary required, to 3 Albany Terrace, N.W.1. 4444

ASSISTANTS required in expanding practice. South Kensington. Varied work. Holidays arranged. Write experience and salary required to Box 4445.

ROWNTREE & CO. LTD. have a vacancy in their Architects' Department for an **ARCHITECTURAL ASSISTANT**. Applications are invited from men of Final R.I.B.A. standard, who are preferably under 30 years of age and have experience and knowledge of factory construction and alteration. Please write for further details and application form to The Staff Officer (Men), Rowntree & Co. Ltd., The Cocoa Works, York. 4447

SOUTH KENSINGTON Architects' Office require experienced Intermediate **ASSISTANT** with good ability in design. Apply: R. Mountford Pigott & Partners, KENington 1242. 4448

ARCHITECT/INTERIOR DESIGN ASSISTANT (Male), Intermediate to Final standard, salary £500/£900. Details of previous experience to Box 4451.

ARCHITECTURAL ASSISTANT required, approaching or at Intermediate stage, with office experience; one day per week for studies. Write with details of education and experience, D. Plaskett Marshall, 59, Gordon Square, London, W.C.1. 4453

ARCHITECTURAL ASSISTANTS. Schweppes are looking for young men of Intermediate R.I.B.A. standard who are keen to develop their experience and get on. Suitable candidates are required to follow through all stages of a variety of work concerned with expansion on depots, factories, offices, canteens. Survey knowledge an advantage. Salary according to experience. Write giving full particulars to: Personnel Manager, Schweppes House, Connaught Place, W.2. 4454

RAGLAN SQUIRE AND PARTNERS have vacancies for **ARCHITECTURAL ASSISTANTS** of R.I.B.A. Intermediate-Final standard with office experience. Please write with full particulars of age, experience and salary to Box 4462.

JOHN H. D. MADIN, Chartered Architect, has further vacancies for Senior and Intermediate **ASSISTANTS**. Suitable senior assistants would be required to take full responsibility for large scale interesting projects. Write or telephone Edg. 4321. 4392

ARCHITECTURAL ASSISTANTS required, age 25 to 35, for office engaged upon large Municipal Buildings. Ability to prepare working drawings essential. Apply stating details of experience and salary required to Milner & Craze, 120 Crawford Street, W.1. Welbeck 0488. 4403

ARCHITECTURAL ASSISTANTS, Final and Intermediate, required by progressive firm of Birmingham Architects. Work involves preparation of designs, working drawings, site supervision, etc., on numerous types of work. Salary by arrangement. Box 4406.

INTERMEDIATE-FINAL Standard ASSISTANT for Bristol practice. Interesting and varied work. Congenial position. Five-day week. Please apply, stating age, experience, qualifications and salary required to George Brown & Partners, Equity & Law Building, Baldwin Street, Bristol, 1. 4413

SENIOR ASSISTANT required for Bournemouth Architect's office, Final or near Final standard. Age not material, state experience and salary required. Box 4414.

JUNIOR ASSISTANT required for Bournemouth Architect's office. State age, experience and salary required. Must be ex National service. Box 4415.

ARCHITECTURAL ASSISTANT required, preferably qualified, for small but busy Architect's office in S.W. London. Commercial and Domestic. Experience and salary, please, to Box 4419.

QUALIFIED ARCHITECTURAL ASSISTANT wanted, £900-£1,000. Congenial office and good opportunities. Multi-storey flat schemes and other varied work. Harry Moncrieff, F.R.I.B.A., A.M.T.P.I., Co-operative Planning Ltd., 73b South Side, Clapham Common, S.W.4. TUL 4871. 4420

CLIFFORD CULPIN, 39, Doughty Street, W.C.1, requires at once a senior man to take responsibility throughout all stages of important projects. Starting salary £950-£1,150 according to experience. Holiday this year. Phone or write for appointment CHA 5395. 4421

ARCHITECTS require **ASSISTANT**, Intermediate-Senior grade. Office experience essential. Write full particulars and salary to M. Rainsford Fletcher & Partners, 13, Ambrose Place, Worthing, Sussex. 4471

High Fell

westmorland green slate and **ORTON SCAR** limestone

- cladding •
- copings •
- sills & surrounds •

technical information in leaflet form is freely available; all leaflets conform to B.S. 1311.

LIMESTONE & GREEN SLATE SLAB CO.

(Westmorland) Ltd.
Appleby Road, Kendal
Telephone: Kendal 1246

MOBIL OIL COMPANY LTD. invites applications for the post of **ARCHITECTURAL ASSISTANT** in their London Office. Applicants should be of Intermediate standard, have experience in contemporary design, and be capable of working independently. A high standard of presentation is required. Pension scheme; sickness benefits; luncheon vouchers; sports and social club. Write giving details of experience, age and salary required to Employment Adviser, Mobil Oil Co. Ltd., Caxton House, Westminster, S.W.1, quoting ref. AAL 9899. 4412

INTERMEDIATE ARCHITECTURAL ASSISTANTS required for expanding practice in Dartford. Good prospects. Apply stating age, experience and salary required to Box 4470.

ARCHITECTURAL ASSISTANT required. Interesting and varied work. Own transport desirable, but not essential. Salary in accordance with ability and experience. Christmas and Easter bonus. Apply to: R. Harper, A.F.C., D.F.C., A.R.I.B.A., Francis W. R. York, Harper, & Harvey, 191, Corporation Street, Birmingham, 4. 4397

BRIAN COOPER, F.R.I.B.A., requires additional staff for his London Office, one to Final standard and one Intermediate standard for interesting new building schemes throughout the country. Apply in writing giving full details to 30 St. George Street, Hanover Square, London, W.1. 4396

ARCHITECTURAL ASSISTANT of Intermediate standard required for interesting new building schemes throughout the country. Apply in writing giving full details to J. Brian Cooper, F.R.I.B.A., 38, Highfield Road, Edgbaston, Birmingham, 15. 4395

ARCHITECTURAL ASSISTANTS required, all groups, including R.I.B.A. Final standard, for progressive practice covering commercial, industrial and domestic work. Please write stating age, experience, qualifications, salary required, Edward Narracott & Partner, F.A.R.I.B.A., 48, Torwood Street, Torquay. 4394

ERNO GOLDINGER, 69/70, Piccadilly, requires Senior and Junior ASSISTANTS. L.C.C. salary scales. 4391

ASSISTANT ARCHITECT, Glasgow firm has vacancy for Assistant (R.I.B.A. Final standard). Interesting and varied work; five-day week. Please write stating full particulars to Baron Bercott, A.R.I.B.A., A.M.T.P.I., 118, Blythswood Street, Glasgow, C.2. 4390

ARCHITECT'S ASSISTANT, Glasgow firm has vacancies for Junior ASSISTANTS (up to R.I.B.A. Intermediate standard). Please write stating full particulars to Baron Bercott, A.R.I.B.A., A.M.T.P.I., 118, Blythswood Street, Glasgow, C.2. 4389

DAVID STERN & PARTNERS require a capable SENIOR ASSISTANT and JUNIOR ASSISTANT of at least Intermediate standard. Lively office engaged on flats, offices and factory developments. Keen design sense and good draughtsmanship essential. Five-day week. Salary according to ability, £600-£950 and £500-£700 respectively. Apply in writing to 24, Gloucester Place, London, W.1. 4387

ARCHITECTURAL ASSISTANT at R.I.B.A. Intermediate standard, required on the staff of the Architect's Department of Truman Hambury Buxton & Co. Ltd. Five-day week and staff canteen. Write stating age, experience and salary required to The Chief Architect, 91, Brick Lane, London, E.1. 4385

ARCHITECTURAL ASSISTANT or capable **DRAUGHTSMAN** with experience of Housing and light industrial work urgently required to take charge of small office in east coast country town, Scotland. A knowledge of Specifications and Quantities would be an advantage but is not essential. Salary £650-£800. Box 4388.

ARCHITECTURAL ASSISTANT required for interesting development work. Applicants should be Intermediate/Final R.I.B.A. standard with four years' office experience, sound knowledge of building construction and good draughtsmanship essential. Luncheon vouchers and superannuation scheme. Early move of office to new building in Ealing district contemplated. Apply giving full details to Percy Bilton Ltd. (Architects Division), 113, Park Street, London, W.1. 4433

ARCHITECTURAL ASSISTANT, Busy West Surrey practice requires competent Assistant to help in varied practice. Phone Weybridge 3551. 4430

STAFF, Intermediate and Senior, required for London firm of Architects with large practice organised on a team system. Apply, giving brief particulars to Easton & Robertson, Chartered Architects, 53, Bedford Square, W.C.1. 4426

ARCHITECTURAL ASSISTANT of Intermediate standard or thereabouts required for varied and interesting work. Write stating age, details of experience and salary required to Shepperdson & Dixon, 2 Museum Street, Ipswich. 4422

HANDISYDE & TAYLOR require ASSISTANT with one year good office experience and A.R.I.B.A. Write 68, Great Russell Street, W.C.1. 4423

LOTS of toil and sweat but we hope no tears. Bonus system. Sensible ASSISTANTS required for small London office, which hopes it does sensible architecture. Write particulars and salary Box 4424.

ST. ALBANS Architect requires an Intermediate standard ASSISTANT, who must be enthusiastic and have a high standard of draughtsmanship. Qualifications not essential. Salary by arrangement. Write immediately to Box 4401.

ASSISTANT required with previous experience of private practice. Associate or Final standard. Salary £750-£800. Flat available if required. Apply with details of experience and training to: E. L. Smith & Son, Melville Chambers, Sandown, I.W. 4400

ASSISTANT required for varied work. Salary in the range £700 to £900 according to experience. Apply Roderick Ham, A.R.I.B.A., Studio 3, 59, South Edwardes Square, W.8. 4399

YOUNG ARCHITECTS in S.W. London with growing modern practice require a Senior and a Junior ASSISTANT. Ample opportunities for responsibility and experience. Please telephone Tulsa Hill 0077. 4398

SENIOR ASSISTANT is required in the Architect's office of a Timber Engineering Company. The work of this office covers a wide and interesting field of design in the structural use of timber in building projects. Applicants should preferably have passed their Intermediate R.I.B.A. The appointed Assistant will be required to work on his own initiative. The commencing salary will be in the bracket £700-£850, which will be reviewed after six months appointment. Consideration will be given to assistance in removal expenses. Letters of application should be addressed to H. Newsom, Sons & Co. Ltd., 238, High Street, Lincoln, quoting S.A., and should offer details of experience and previous appointments. 4482

ASSISTANT ARCHITECTS are invited to apply for posts in the Architect's Department at Ericsson Telephones Limited, Beeston, Nottingham. Starting salary will be according to ability, qualifications and previous experience. Only applicants with an enthusiastic approach to new ideas and progressive design, and willing to accept responsibility will be considered. The Department at present works a five-day week. Holiday commitments will be honoured. Canteen facilities are available. Please write stating age and giving full details of training and experience to the Personnel Manager. 4486

ARCHITECTURAL ASSISTANT required by the manufacturers of "Middlesex Prefabricated Timber Buildings". Excellent opportunity for Intermediate R.I.B.A. to develop own progressive ideas with present harmonious team. Apply to: Architect's Department, J. E. Lesser & Sons Ltd., Green Lane, Hounslow, Middx. 4490

EXPERIENCED ASSISTANT of Intermediate level, medium sized office. General practice with present emphasis on local authority housing including conversion of requisitioned houses. Apply in writing only, stating age, qualifications, experience and salary required to: Thomas Sibthorp, F.R.I.B.A., A.R.I.C.A., A.M.T.P.I., 10, Manchester Square, London, W.1. 4488

ASSISTANT required in Essex practice; at R.I.B.A. Final standard or qualified, and with some office experience. Must be willing and able to take some responsibility. Flat available. Full particulars to Box 4483.

REIGATE. Responsible SENIOR ASSISTANT required in expanding practice. Vacancy also for JUNIOR of Intermediate standard. Write giving experience and salary required to J. R. Stammers, Alders Road, Reigate. 4484

TRIPE & WAKEHAM, Chartered Architects, require ASSISTANTS with three to five years' office experience. Telephone WELbeck 7744 or write 16, Fitzhardinge Street, W.1, for an appointment. 4485

QUALIFIED ASSISTANT ARCHITECTS required, preferably in London. Salary according to ability and experience. Theo. H. Birks, 38, Portland Place, W.1. LAN 7235. 4480

INTERMEDIATE standard ASSISTANTS required, minimum two years' office experience. Salary according to ability. Theo. H. Birks, 38, Portland Place, W.1. LAN 7235. 4481

ARCHITECTURAL ASSISTANT of Intermediate standard required for busy practice. Apply in writing stating age, experience and salary required to: Francis W. Keyworth, Chartered Architect, 31, Friar Lane, Leicester; also 20, Park Road, Melton Mowbray. 4479

VARIETY of interesting work awaits imaginative and experienced ASSISTANT. James & Bywaters, 5, Bloomsbury Street, W.C.1 (Museum 9952). 4478

ARCHITECTURAL ASSISTANT required urgently for varied practice. Write giving full particulars to L. F. Halton, L.R.I.B.A., 57, High Street, Bexley, Kent. 4475

TAYLOR & YOUNG require imaginative ASSISTANTS for work on schools, hospital and other projects. Apply in writing to 195, Oxford Road, Manchester, 13. 4363

ASSISTANT required, Final standard. Salary approximately £1,000 per annum. Offices in Stroud, Dursley, and site office in Bristol. Write, giving details of qualifications and experience, to Ellery Anderson, Roiser & Falcomer, Imperial House, Stroud, Gloucestershire. 4166

HASKER & HALL, 13 Welbeck St., W.1, require experienced **ARCHITECTURAL ASSISTANTS**. Write or telephone Welbeck 0061. 4496

HASKER & HALL, Longdon House, Knowle, Birmingham, require experienced **ARCHITECTURAL ASSISTANTS**. Write or telephone Knowle 3502. 4497

COMPETENT ARCHITECTURAL ASSISTANTS required immediately for large Brighton office with varied practice. Three years' experience since completion of training essential. Five-day week. Pension scheme. Holiday this year. Commencing salary up to £750 according to ability. Box 4494.

PETER BAREFOOT requires **ARCHITECTURAL ASSISTANT** up to Intermediate standard. Apply Leslie & Peter Barefoot, 22 Thorofare, Ipswich. 4495

SENIOR ASSISTANT, capable of using initiative, required immediately for Brighton Office with varied practice. Candidates must be A.R.I.B.A. with at least 4 years' practical experience. Commencing salary up to £950 per annum. 5-day week, holiday arrangements honoured. Box 4493.

SENIOR QUALIFIED ARCHITECTURAL ASSISTANT required with knowledge of industrial and school work. Also required first class ASSISTANT Intermediate standard. Outer London. Good opening for progressive man. Apply in writing with full particulars. Box 4499.

Architectural Appointments Wanted
4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

ASSOCIATE, Dip. Arch. 1950, age 31. More than ordinarily able architect with broad experience seeks position with progressive and proficient London Architect. Salary asked not exorbitant if position congenial. Box 4472.

RAF National Serviceman, age 20, seeks position as Junior ASSISTANT in Sussex, Surrey or London. 5 GCEs, previous drawing office experience, keen to progress. Box 4464.

ASSOCIATE, 34, eight years post-graduate, 6½ years with large London firm, responsible for contracts up to £500,000, seeks permanent change to smaller office, preferably with commercial or industrial practice. Salary £1,500 p.a. Box 4205.

Other Appointments Vacant
4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

EXPERIENCED BUILDING MAINTENANCE SURVEYOR required in London Office of United Dairies Ltd. Applications to be made to Chief Architect, 31, St. Petersburg Place, Baywater, W.2, stating age, previous experience and salary required. 4112

JUNIOR and **SENIOR ARCHITECTURAL DRAUGHTSMEN** required for work in drawing office of multiple shop company. Interesting and varied post, involves a certain amount of travelling. Please reply stating age, brief experience and salary required to Box 4353.

ARCHITECTURAL DRAUGHTSMAN required by large Building Company in Cornwall. Applicants should have at least two years' experience as a senior. Apply stating experience, age and salary required to Box 4220.

SHOPFITTING SETTERS out required. Non-contributory pension scheme, canteen facilities, etc. Courtney, Pope Ltd., Amhurst Park Works, N.15. STA 1270. 4441

SENIOR QUANTITY SURVEYOR'S ASSISTANT required in West End Architects' Office. Opportunity for position of responsibility. Reply to Box 4455, giving details of age, experience and salary required.

WORKER-UP required in Quantity Surveying section of West End Architects' Office. Reply to Box 4456, giving details of age, experience and salary required.

BENBOW of Torquay, Shop and Bar Fitters, have a vacancy for a **JUNIOR DESIGNER-DRAUGHTSMAN** who has a particular interest in their field of activities. Applicants should write stating their past experience, age, etc., to Sales Director, Benbow of Torquay, St. Marychurch Torquay. 4393

CITY ARCHITECT has immediate vacancies for experienced **DETAILERS**. Neat printing, quick draughtsmanship and experience of London work essential. Salary £900-1100 per annum plus Luncheon Vouchers. Five-day week. Two weeks' paid holiday this year. Box 4438.

PROBATIONERS with three or four years' office experience required in modern office with opportunities for design. High salaries for right applicants. Tel. CHA 2951. 4515

BUILDING DRAUGHTSMAN required at the London Co-operative Society Ltd., Works Dept., Parsons Green Lane, Fulham, London, S.W.6. Salary at the rate of £653 8s. 8d. per annum. Applicants must be capable of working up details from Architect's drawings and producing drawings for minor jobs, and also preferably have a knowledge of the London Building Acts, Pension scheme. Applications giving details of age, experience and qualifications should be addressed to Staff Manager, L.C.S. Ltd., 54, Maryland Street, Stratford, London, E.15, endorsed "Building Draughtsman." 4431

SALES PROMOTION ASSISTANT required as technical correspondent by leading manufacturer of prefabricated buildings (Home Counties). Essential characteristics are architectural or building trade background, flair for selling, sound executive sense with ability to write concise and fluent technical sales letters of a high standard. Send full details of education, career, salary, etc., to Box 4498.

MONRO & PARTNERS require **ARCHITECTURAL DRAUGHTSMEN** for their London and Watford Offices. Salary £600-£900 depending on experience. Five-day week. Apply 32, Clarendon Road, Watford. 4492

Services Offered

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

"DON" ARCHITECTURAL MODEL MAKERS. We offer the highest grade work with speed and reliability.—Please 'Phone Erith 3843 or Hastings 1366. 1673

MODELS FOR ARCHITECTS. Charles Longbotham specialises in this work and offers first class personal services to architects in the London area. Northcroft Studio, Northcroft Road, West Haling, W.13. Phone Haling 7349. 1436

SURVEY of land or buildings, also drawings, specifications, quantities, final accounts. Estimates prepared for new, existing or conversion work. L.I.V. 1839. 2356

FULLY experienced in all Building and Architectural work. I am available to undertake: Designs, Working Drawings, Details, Surveys, Specifications, Models, etc. Just telephone Wallington 9883 (near Croydon) and I will call anywhere and take your instructions. Box 3593.

SURVEYS.—We cannot foresee the future, but we do specialise in obtaining the sizes and angles of large city blocks before the existing buildings are demolished.

THE SITE SURVEY COMPANY
London, S.E.3. Tel.: LEE Green 7444-5. 4079

ARCHITECTURAL work of all kinds competently carried out in London area by experienced qualified architect wishing to help busy colleagues. Box 4428.

Accommodation Vacant

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

HALLAM STREET, W.1. Two offices (235 sq. ft. and 165 sq. ft.) and toilet on 2nd floor to be let on short term, either separately or together. Rent £450 p.a. incl. rates, c.h. gas, electricity, staircase lighting and cleaning. Telephone service available if required. Fineman Lever & Co., 8/10, Hallam Street, W.1. LAN 0561. 4432

Accommodation Required

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

ARCHITECTS require immediately office accommodation approximately 500 sq. ft. Central or S.W. London preferred. Gelder & Kitchen, Chartered Architects, 120, Alfred Gelder Street, Hull. 4402

CONSULTING ENGINEER needs D.O. of 250 sq. ft. for 3 or 4 people in Victoria area, immediately. Would consider sharing with architect. Box 4429.

Miscellaneous

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment.—Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

ARCHITECTURAL METALWORK of all types supplied and fitted. Gates, doors, balustrades, staircases, steel structures. Design staff available.—Clayton & Bamber, Ltd., Cartersfield Road, Waltham Abbey, Essex. 5623

HANDMADE, CLAY TILES available in many beautiful colours. The perfect roofing material with the longest life. Particulars, samples and brochure from G. Tucker & Son, Ltd., Loughborough, Leicestershire. Phones: Loughborough 2446/7. 1609

CROGGON & CO., LTD.—Chain Link Fencing and all types of Wrought Iron Fencing supplied and erected.—230, Upper Thames Street, London, E.C.4. CENTRAL 4382. 5489

SOIL STABILISATION can speed the job and enable completion of large industrial works in considerably shorter periods. This should interest any client to whom time is money. Industrial architects and others are invited to inspect a large scheme commencing at Nunceaton in a fortnight and obtain fullest details from R. Carton Tickell, Managing Director, T. Projects Ltd., 4, Lion Street, Kidderminster. 4437

Educational Announcements

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

R.I.B.A. and T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.), and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., M./A.M.T.P.I., prepare Students by correspondence. 10, Adelaide Street, Strand, W.C.2. TBM. 1603/4. 9563

TUITION—Correspondence and Personal Tuition given for the R.I.B.A. Institute of Builders and Clerk of Works Institute Examinations, also in all aspects of Building, Engineering and Draughtsmanship. C. W. Box, F.R.I.B.A., 115, Gower Street, W.C.1. Euston 3906. 9911

COURSES for all R.I.B.A. EXAMS.

Postal tuition in Draughtsmanship, Design, History, Construction, Building Science, Structures, Materials, Testimonials, Professional Practice, etc.
Also Courses for G.C.E.

ELLIS SCHOOL OF ARCHITECTURE

Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.
103B, Old Brompton Rd., London, S.W.7
and at Albany House, Worcester.

COURTNEY, POPE LTD.

require

EXPERIENCED SHOPFITTING ESTIMATOR

Applications, with full details of experience, will be treated in strictest confidence. Write in first instance to Re: AJ/E

stone cleaning and restoration

Peter Cox & Partners Ltd
33 North Row London W1
MAYfair 1306/5076

WINGILATE

W

precision cut
from blue slate

The Bow Slate &
Enamel Co. Ltd.
The Town Hall
Bow Road, E.3
ADVance 2203

cladding
cills
copings
flooring
paving
fireplaces
surrounds
skirtings
stairtreads
shelves

MODELS

for Architects & Civil Engineers
by **John B. Thorp**

EST. 1883
96 GRAY'S INN ROAD, LONDON,
W.C.1. Tel.: HOLborn 1011

TENTEST

CEILING ROOF & WALL LINING
INSTALLATION SPECIALISTS

BROAD-ACHESON

BLOCKS for
unvarying quality

ALL PRODUCTION UNDER
LABORATORY CONTROL

BROAD & CO. LTD., PADDINGTON, W.2

PURPOSE MADE
JOINERY
&
SHOPFITTING

MODERN JOINERY LTD

1A BENSON AVE.
EAST HAM, E.6. GRA 9894

WIRE FENCING

CROGGON & CO. LTD. ESTABLISHED 1835
London • Liverpool • Glasgow • Colnbrook

Croggon

FIRST FOLD HERE

AJ enquiry service

If you require catalogues and further information on building products and services referred to in the advertisements appearing in this issue of the Architects' Journal please mark with a tick the relevant names given in the index to advertisers overleaf. Then detach this page, write in block letters, or type, your name, profession or trade and address in the space overleaf, fold the page so that the post-paid address is on the outside and despatch. We will ensure that your request reaches the advertisers concerned.

Postage
will be paid
by
Licensee

FOLD HERE

No Postage Stamp
necessary
if posted
in Great Britain or
Northern Ireland

BUSINESS REPLY FOLDER
Licence No. S.W. 1761

THE ARCHITECTS' JOURNAL

9-13 Queen Anne's Gate

London, S.W.1.

FOLD HERE

Alphabetical index to advertisers

	PAGE	CODE
A.B.C.D. (Raynes Park), Ltd.	114	0879
Abbey Building Supplies Co., Ltd., The	69	0001
Acme Flooring & Paving Co. (1904), Ltd.	116	0004
Aidas Electric, Ltd.	31	0012
Airscrew Co., & Jicwood, Ltd., The	8	0014
Albi-Willesden, Ltd.	24	1203
Anderson, D., & Son, Ltd.	10	0021
Architectural Press Ltd., The	105, 111, 113, 121	0686

Barnes & Fletcher	115	1259
Beves & Co., Ltd.	53	0706
Bilston Foundries, Ltd.	97	0614
Birmetals, Ltd.	26	1188
Bolton Gate Co., Ltd., The	88	0068
Boot, Henry, & Sons, Ltd.	42	0069
Bow Slate & Enamel Co., Ltd., The	132	0075
Braby, Frederick, & Co., Ltd.	9	0077
Brand, R. A., & Co., Ltd.	118	1237
Briggs, William, & Sons, Ltd.	29	0082
British Bitumen Emulsions, Ltd.	95	0739
British Coking Industry Associa- tion	25	1157
British Plasterboard Manufactur- ing, Ltd., The	47, 48, 49, 50	0099
British Replin Co., Ltd., The	118	0102
British Resin Products, Ltd.	70	1013
British Rolling Mills, Ltd.	30	1288
British Visqueen, Ltd.	44	1180
Broad & Co.	132	0784
Brooks Ventilation Units, Ltd. ...	68	0110
Broughton Moor Green Slate Quar- ries, Ltd.	125	0111

C.I.B.A. (A.R.L.), Ltd.	46	0010
Canadian Government	87	0119
Catesbys Linoleum Contracts	78	0125
Celotex, Ltd.	103	0127
Cement Marketing Co., Ltd., The	20	0128
Central Electricity Generating Board, The	125	0129
Clapham's Nurseries	74	1277
Clark, James, & Eaton, Ltd.	4	0137
Clay Lath	41	1076
Code Designs, Ltd.	122	1231
Colt Ventilation, Ltd.	3	0146
Concrete, Ltd.	94	0148
Conex-Terna, Ltd.	120	0151
Coseley Buildings, Ltd., The	93	0155
Courtney Pope, Ltd.	132	0159
Cox, Peter, & Partners, Ltd.	132	1221
Cox, Edward, & Co., Ltd.	65	1030
Creffield, C. V., & Co., Ltd.	39	1283
Crendon Concrete Co., Ltd.	115	0919
Crittall Manufacturing Co., Ltd., The	34, 35	0165
Croggon & Co., Ltd.	132	0167

Dermide, Ltd.	60	1284
Dorman Long (Steel), Ltd.	14	0186

Econa Modern Products, Ltd.	124	0201
Ellis, John, & Sons, Ltd.	16	0211
Ellis School of Architecture, The	132	0212
English Clock Systems	101	1285
Evode, Ltd.	5	0218

F.E.B. (Great Britain), Ltd.	7	0226
Ferodo, Ltd.	23	0229
Fibreglass, Ltd.	15	0230
Fibrolene, Ltd.	115	0231
Flexella Fencing & Engineering, Ltd.	116	0944
Flintkote Co., Ltd., The	54	1182

Galvo (Wire Netting), Ltd.	24	1111
Gay, R., & Co.	59	0252
Goodlass, Wall & Co., Ltd.	100	1191
Gordon, J. R., & Co., Ltd.	27	0956
Grecon Systems, Ltd.	66	1176
Greenwood's & Airvac Ventilating Co., Ltd.	91	0260
Gyproc Products, Ltd.	57	0262
Gypsum Mines, Ltd.	110	0264

Hall Engineering, Ltd.	112	1243
Hall, J. & E., Ltd.	77	0266
Hall, John, & Sons (Bristol & London), Ltd.	122	0267
Hallam, Vic, Ltd.	113	0704
Heal's Contracts, Ltd.	102	0281
Hill, Aldam, E., & Co., Ltd.	19	0290
Hills (West Bromwich), Ltd.	58	0292
Hills, F., & Sons, Ltd.	56	0291

Imperial Chemical Industries, Ltd.	32	1183
Insularbo	119	1290

Jonas, J. Carter, & Sons	122	
--------------------------------	-----	--

Kenyon, William, & Sons, Ltd. ...	121	0705
King, J. A., & Co., Ltd.	2	0328

Laing, John, & Son, Ltd.	136	0333
Leisure Kitchen Equipment	114	1286
Lewis, G. W., Tileries, Ltd.	62	0637
Limestone & Green Slate Slab Co.	130	1169
Liquitile Supply Co., Ltd.	120	0923
Logical Fuel Storage Units, Ltd.	119	0352
London Brick Co., Ltd., The	55	0353
Luminated Ceilings, Ltd.	104	0356

M.K. Electric, Ltd.	33	0392
Mallinson, William, & Sons, Ltd.	99	0367
Manger, J., & Son, Ltd.	117	0369
Marley Concrete, Ltd.	124	1083
Marley Tile Co., Ltd.	96	0371
Mellor Bromley & Co., Ltd.	2	0378
Miller, William (Newcastle), Ltd.	18	1150
Modern Joinery, Ltd.	132	1230
Monk, A., & Co., Ltd.	71	0394

Newalls Insulation Co., Ltd.	36	0409
-----------------------------------	----	------

Olsson, Martin, & Sons, Ltd.	43	0822
-----------------------------------	----	------

Palmer's Travelling Cradle & Scaf- fold Co., Ltd.	76	0979
Parmiter, Hope & Sugden, Ltd.	52	0486
Permanite, Ltd.	67	0432
Pierhead, Ltd.	75	0438
Piersons, Ltd.	74	1289
Pilkington Bros., Ltd.	12	0819
Pilkington, Bros., Ltd.	13	0816
Plus Gas Co., Ltd., The	124	0718
Polybond, Ltd.	114	1227
Potterton, Tomas, Ltd.	107	0176
Power Center Co., Ltd.	6	1180
Pressed Steel Co., Ltd., The	92	0445

Q.V.F., Ltd.	89	1043
-------------------	----	------

Radiation Group Sales, Ltd.	109	0828
Rawlings Bros., Ltd.	123	0400
Roller Shutters, Ltd.	52	0708
Rubberware, Ltd.	11	0478
Ruberoid Co., Ltd., The	98	0479

Secomastic, Ltd.	108	0501
Siemens Edison Swan, Ltd.	61	0878
Siemens Edison Swan, Ltd.	63	0508

Taylor, R., & Co. (Ironfounders), Ltd.	124	0543
Telecraft, Ltd.	128	1254
Television Installation Services (Mansfield), Ltd.	105	0890
Tentest Fibre Board Co., Ltd., The	17, 132	0544
Thermaconst, Ltd.	112	0547
Thompson, John, Beacon Windows, Ltd.	37	0549
Thorpe, John B.	132	0553
Timber Fireproofing Co., Ltd., The	28	0555
Tono Trading Co., Ltd.	51	0653
Tretol, Ltd.	72, 73	0558
True-Flue, Ltd.	135	0562

United Paint Co., Ltd., The	90	0379
-----------------------------------	----	------

Velux Co., Ltd., The	106, 117	0930
Venesta, Ltd.	40	0811
Vetrona Fabrics, Ltd.	21	1161
Vigers Bros., Ltd.	123	0584

Walpamur Co., Ltd., The	22	0588
Ward & Co. (Sign Letters)	124	0589
Weatherfoil Heating Systems Ltd., The	34	0597
Wednesbury Tube Co., Ltd., The	68	0599
Wheatly & Co., Ltd.	45	0606
Wood Fibre Wallboard Co.	110	0608

Zinc Alloy Rustproofing Co., Ltd., The	135	0610
---	-----	------

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous, Property, Land and Sales, see 126, 127, 128, 129, 130, 131, 132.

Write in block letters, or type, your name, profession, and address below, and fold so that the post-paid address is on the outside.

NAME _____
PROFESSION _____
ADDRESS _____

CODE

0972
0428
0432
0438
1288
0818
0818
0712
1227
0176
1188
0445

1043

0838
0488
0708
0478
0478

0581
0878
0508

0543
1254

0898

0543
0547

0549
0553
0555
0653
0553
0582

0578

0930
0811
1161
0584

0588
0589

0597
0598
0606
0606

0610

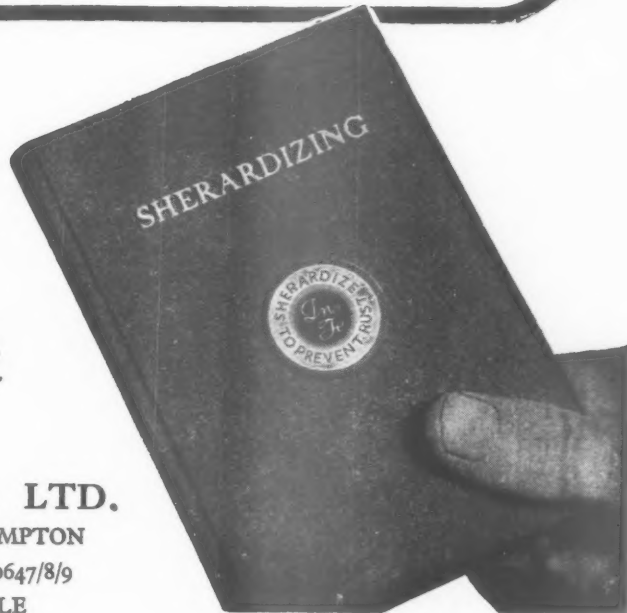
T
at
ne
M
re
SI

R



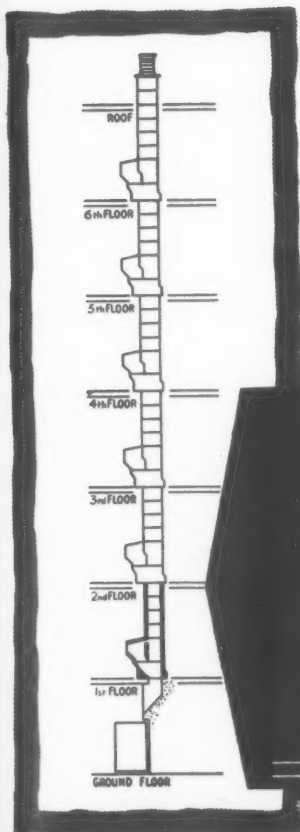
YOURS *for the Asking*

This book shows that maintenance considerations for the after-treatment or prevention of rust need not arise, where Sherardizing is specified. May we send you a copy together with a reprint of the Architects' Journal Information Sheet, reference Corrosion prevention 40 B1?



SHERARDIZING

**ZINC ALLOY
RUST-PROOFING CO. LTD.**
SHAKESPEARE STREET, WOLVERHAMPTON
TELEPHONE: WOLVERHAMPTON 20647/8/9
ALSO AT LONDON & ROCHDALE



Adaptable for all multi-storey buildings

ANTI-AC

PATENT REFUSE CHUTES

DESIGNED ON THE 'SHUNT' PRINCIPLE

The units are made from a dense impervious refractory concrete and have rebated joints. The separate entry of a slightly smaller section obviates blockage of the main chute and eliminates the possibility of accident through heavy objects falling from above striking bulky refuse during insertion. Specially designed, robust, silent-action hoppers, sliding gear at base and 'Shunt' ventilating terminals are available.

For further details and schemes apply to:

TRUE FLUE LIMITED

Sole Concessionaires for 'Shunt' Products
in Gt. Britain and N. Ireland

CONVECTOR HOUSE, ACACIA ROAD,
ST. JOHNS WOOD, LONDON, N.W.8

Telephone: PRIMROSE 7161/2

MANY ARCHITECTS today are convinced that greater speed and efficiency in construction can only be achieved if the collaboration between all parties concerned—owner, architect, consulting engineer, quantity surveyor and contractor—starts at the planning stage.

It is only logical that the long practical experience of construction men should be available to designers at that time. An efficient contractor's knowledge of comparative building methods and costs, his ability to advise on new materials and techniques and the use of specialised plant are too valuable to be passed over at the stage when possible construction problems might be anticipated and solved most economically.

Building as a Team

Some of the most successful contracts completed by John Laing and Son Limited both in Britain and overseas have been achieved in this close co-operation with the owner's architects and consulting engineers—and without loss of the benefits of competitive tendering.

The services of the Company's Development and Planning Division are available to architects and consulting engineers, and include the carrying out of full scale tests and demonstrations on their behalf. Use of these services at the design stage of a construction scheme can ensure a workable, co-ordinated building programme, an economic scheme for the client and satisfactory completion on time.



LAING

**Building and Civil
Engineering Contractors**

JOHN LAING AND SON LIMITED · GREAT BRITAIN · CANADA · UNION OF SOUTH AFRICA · RHODESIA

