

THE ARCHITECTS' JOURNAL



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

IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square. Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 100, Park Street, Grosvenor Square, W.1. Mayfair 7086
ILA	Institute of Landscape Architects. 2, Guilford Place, W.C.1. Holborn 0281
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 7179
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. 47, Victoria Street, S.W.1. Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
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
LSPC	Lead Sheet and Pipe Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264/4175
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. Mayfair 9400
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' 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 Asphalt Mine Owners and Manufacturers Council. 94/98, Petty France, S.W.1. Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria 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 Asphalt 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
NHBRC	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 5322/9242
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, London, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, London, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. 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 663

Standard contents

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

NEWS and COMMENT

Stragal's Notes and Topics

Letters

News

Diary

Societies and Institutions

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. 3296]

[Vol. 127

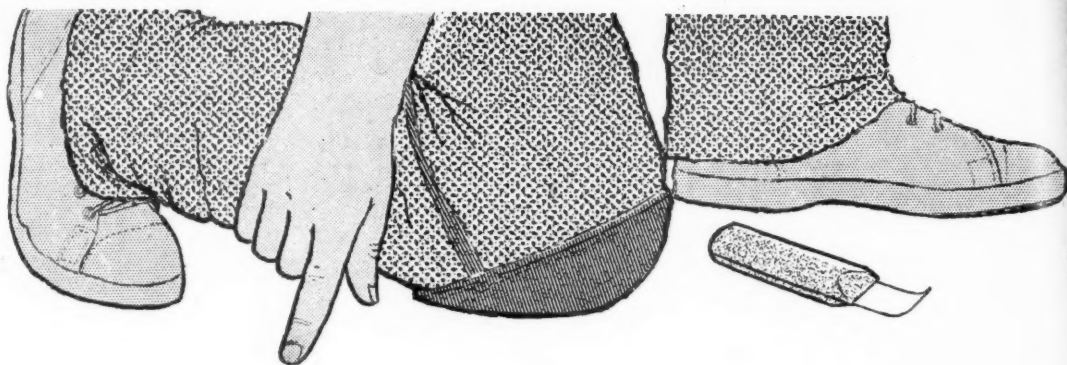
THE ARCHITECTURAL PRESS

11 and 13, Queen Anne's Gate, Westminster,

W.1. 'Phone: Whitehall 0611

Price 1s. 0d.

Registered as a Newspaper.



When you get down to the floor

Architects are saving much of their valuable time for creative work by calling in the specialists, **HASKEL ROBERTSON**, to handle the flooring specification.

For **HASKEL ROBERTSON** not only supply and lay flooring of all kinds, but can offer expert advice on the basis of their extensive experience.

Call in the **specialists** ...

Thermoplastic tiles
Synthane screed
Stair nosings
Vinyl/Asbestos tiles
Crestaline (PVC)
Latex/cement screeds
Resinoid

Linoleum
Cork
Rubber
Duromit
Asphalte
PVC tiles
Bulgomme

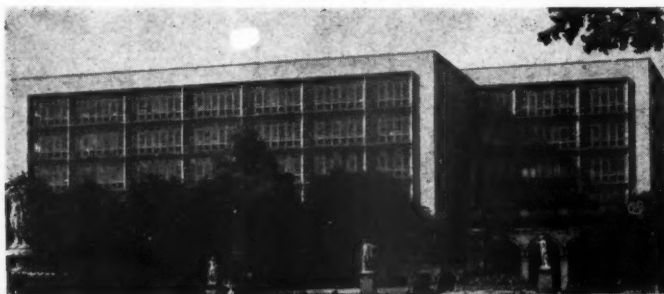
Haskel Robertson



HASKEL ROBERTSON LTD

Specialist Flooring Consultants and Contractors

19 Queen Street, Mayfair W.1 Telephone: GROsvenor 8764

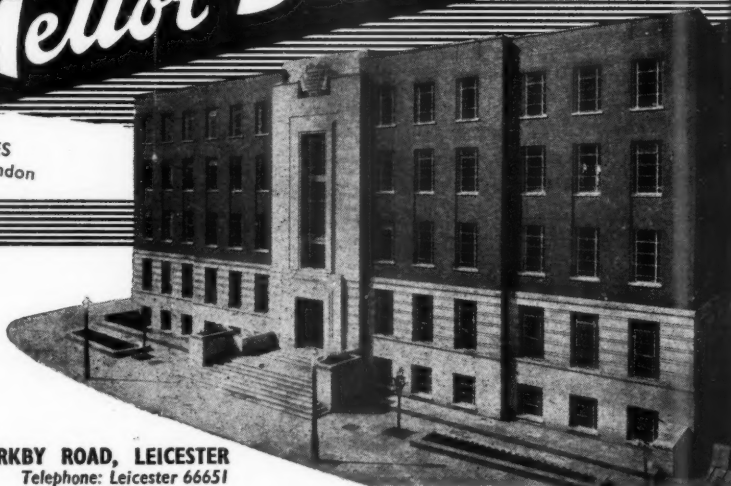


THE PERCIVAL WHITLEY COLLEGE OF
FURTHER EDUCATION
Architect: Mr. Richard Pickles, A.R.I.B.A., Halifax

Mellor Bromley

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

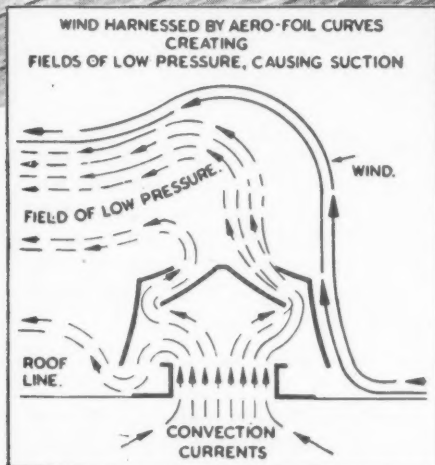
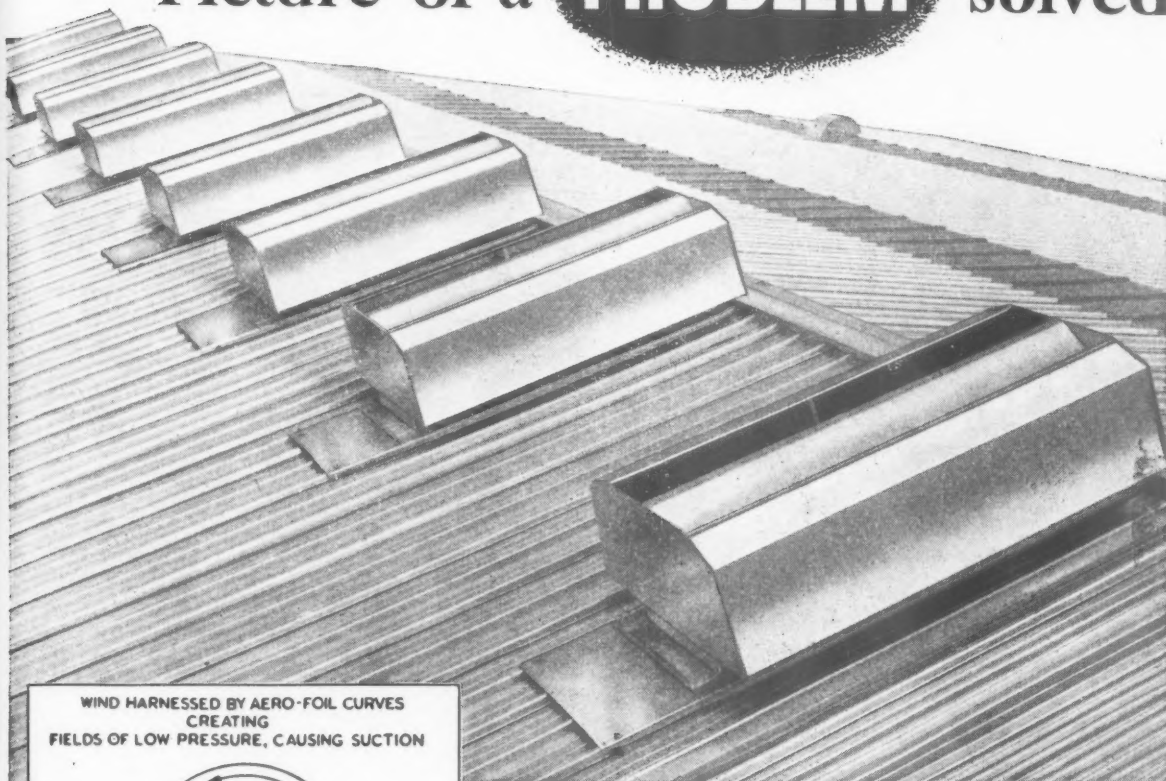
**HEATING, VENTILATING AND
AIR CONDITIONING ENGINEERS
AND CONTRACTORS**



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



Picture of a **PROBLEM** solved



Take advantage of Colts' practical experience in solving problems of every nature throughout the world. Their Technical Staff is always at hand to adapt this knowledge to your specific needs, to meet your particular requirements. Let Colts solve YOUR problem.

*Colt SRC.3080 Ventilators at Charles Early Ltd., Witney, Oxfordshire
Architects: Messrs. R. Fielding, Dodd and Stevens*

This trim installation of Colt SRC.3080 High Duty Extractors is the outward and visible sign of healthy and comfortable working conditions. To Charles Early Ltd., makers of 'Earlywarm' blankets, this is the picture of a problem solved. It signifies the extraction of over 1,000,000 cubic ft. of stale air each hour from the new extension to their Witney Mills.

Late in 1955 Charles Early Ltd., faced with ever increasing export demands for their product, decided to extend their factory space, plant and production. During the design stage of the extension the Architects, anticipating that ventilation problems would arise approached Colts for advice.

Colt prepared a ventilation scheme, covering every conceivable aspect of this particular problem; from the solar heat gain to the niceties of layout.

This is the visual record of the solution to this particular problem. The written record, the pages of technical data and calculations; the details of research; and all the other information that Colts assembled to formulate their scheme, is added to the filed records of similar installations for over 10,500 industrial organisations.

Send for Free Manual on Colt Ventilation to Dept. L13/5A

COLT

VENTILATION



COLT VENTILATION LTD · SURBITON · SURREY

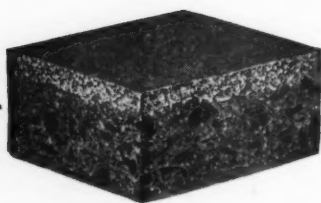
TELEPHONE: ELMBRIDGE 6511 (10 lines)

U.S.A. Subsidiary: Colt Ventilation of America Inc., Los Angeles.

Branches at : Birmingham, Bradford, Bridgend (Glam), Bristol, Dublin, Glasgow, Leamington Spa, Liverpool, London, Manchester, Newcastle-upon-Tyne, and Sheffield. • Agents in : Australia, Belgian Congo, Belgium, Burma, Canada, Cyprus, India, Indonesia, Madagascar, Malaya, Mauritius, New Zealand, Pakistan, Portugal, Rhodesia and Nyasaland, South Africa, and West Indies.

9847

Steel clad... see!



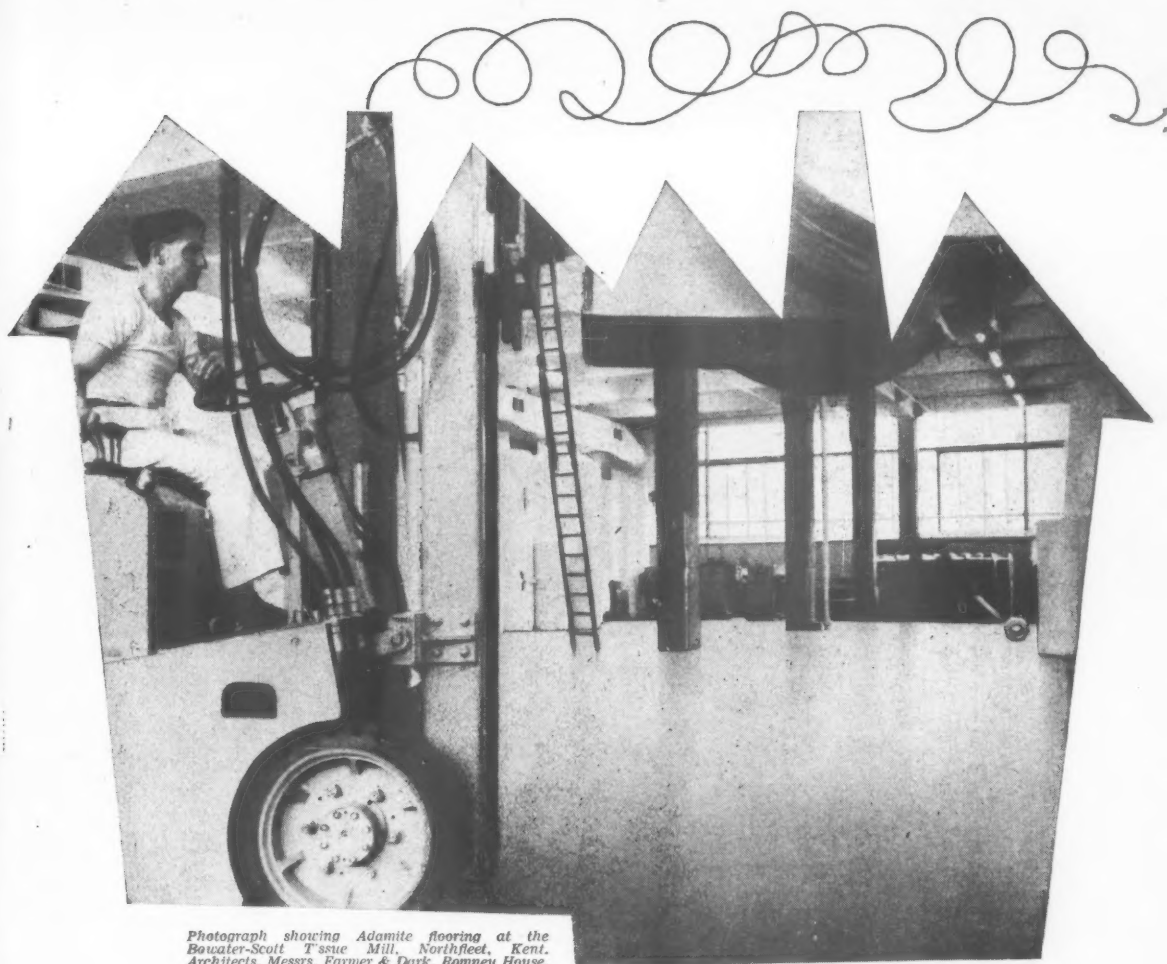
“You may think that my wearing armour is cheap publicity,” our Sales Director was saying, “and you’d be quite right. What cheaper way of ramming home the... er... bull point* of Stelcon Floors than to hire this steel suit from M....s. Br....s. for a fiver a day, free joint oil included!”

*Stelcon Floors are made in steel plate form or with a top surface of steel chippings in concrete—which means they are exceptionally tough, hard-wearing and free from maintenance bills. They are literally steel clad... see!

Stelcon FLOORS GIVE INDUSTRY A FIRM FOUNDATION

ANCHOR STEEL PLATES, STEEL CLAD FLAGS AND RAFTS

STELCON (INDUSTRIAL FLOORS) LTD., CLIFFORDS INN, LONDON, E.C.4. TEL: CHAncery 9541



Photograph showing Adamite flooring at the Bowater-Scott Tissue Mill, Northfleet, Kent. Architects, Messrs. Farmer & Dunk, Romney House, Tufton Street, London, S.W.1.

Adamite make full use of EVO-STIK

In the great new Bowater-Scott tissue mill at Northfleet, Altro flooring made by the Adamite Company Limited, has been chosen to provide a dust and oil proof floor surface which eliminates impact noises and yet is actually harder wearing than granolithic concrete. For the laying of this celebrated heavy duty surface the Adamite company use an Evo-Stik 'Impact' adhesive specially formulated for them. All their other surfaces are also applied with Evo-Stik adhesives.

DO YOU?

Close co-operation between the Adamite Company Limited and the Evo-Stik adhesive research laboratories has resulted in the perfection of industrial floor coverings of phenomenal durability. If you have sheet materials of any kind to apply to any surfaces Evo-Stik research is at your disposal, too—without charge or obligation.



'impact' Adhesives

Reg'd trade mark

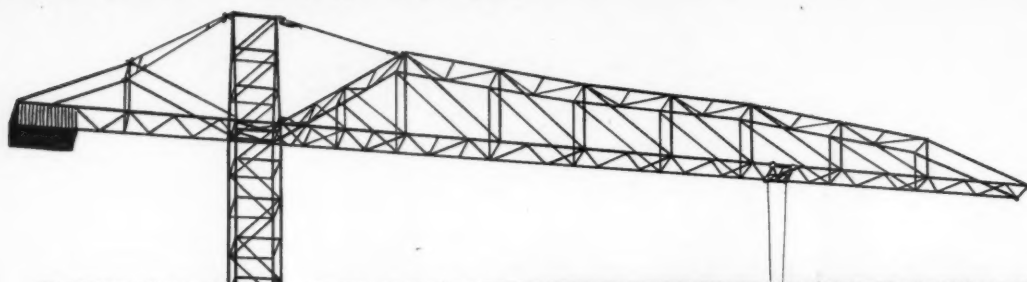
EVODE LTD. (INDUSTRIAL ADHESIVES DIVISION),
COMMON ROAD, STAFFORD. TEL: 2241 (5 lines)
LONDON OFFICE: 1 VICTORIA STREET, S.W.1. ABBEY 4622/3

Fill in this coupon

• Please send me brochure giving full technical details of Evo-Stik adhesives.

NAME

ADDRESS



Flats at Croydon.

Architects: Riches & Blythin, F.R.I.B.A.

Tall buildings at high speed and low cost. Wates have the plant, the organisation and the know-how. Add to this early collaboration with the owner, his architect and his engineer, and the building goes up on time and within the budget. Quick completion means earlier revenue.

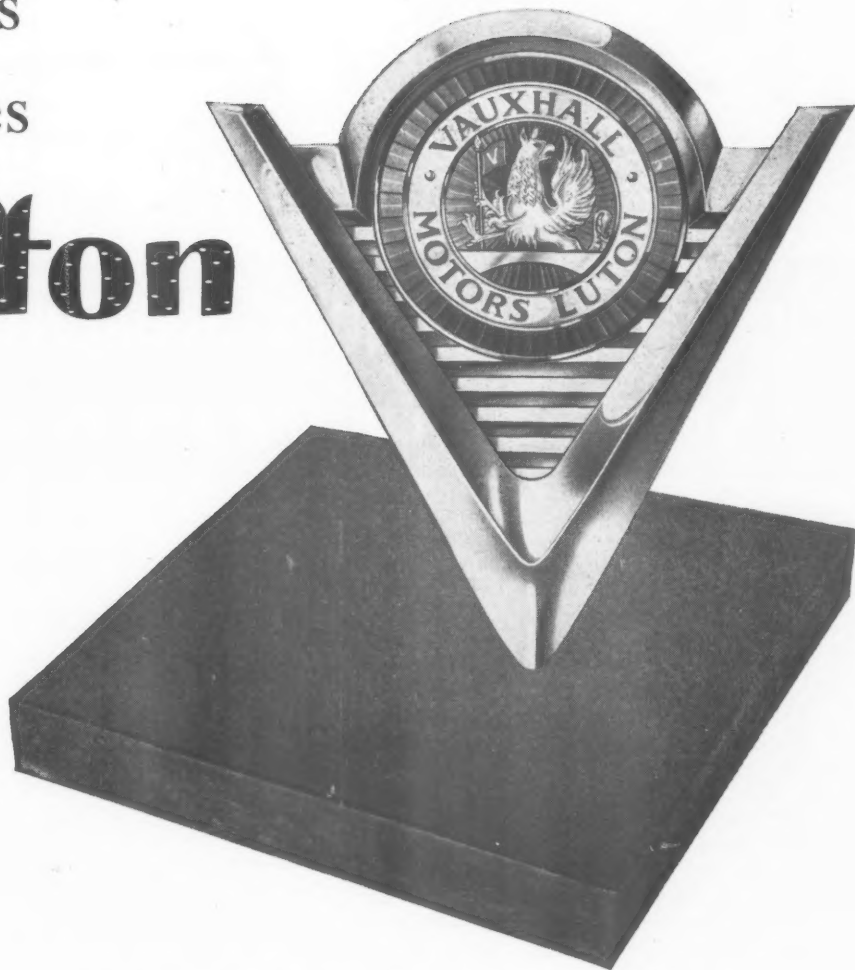
Ideas become concrete when

WATES BUILD

WATES LTD *Building & Civil Engineering Contractors*
 HEAD OFFICES • 1258/1260 LONDON ROAD • S.W.16 • Telephone: POLLARDS 5000
 LONDON BIRMINGHAM DUBLIN NEW YORK



Success
chooses
triton



TRITON Quarries were used solely in the construction of some of the Acid Tanks at the Dunstable Works of Vauxhall Motors Ltd.

Architects: Messrs. Howard, Souster & Fairbairn,

81 Piccadilly, London W.1

Quarries laid by: Messrs. Acalor (1948) Ltd.,

Kelvin Way, Crawley, Sussex

Full details, samples and prices sent on request. Specimens of Wheatly burnt clay products may be seen at the Building Centre, London. They include Single-lap Roofing Tiles, Ridge Tiles (blue and red), Floor Quarries, Air Bricks and Briquette Fireplaces.

WHEATLY



triton

W H E A T L Y & C O M P A N Y L I M I T E D

Springfield Tileries, Trent Vale, Stoke-on-Trent. Telephone: Newcastle (Staffs) 66251. Telegrams: Wheatly, Trent Vale

WH85



'PUDLO' WATERPROOF CEMENT PAINT

for complete protection and durability

'PUDLO' Cement Paint contains the famous 'PUDLO' Brand Waterproofing Powder, and guarantees the protection of outside surfaces against all weather conditions. It also incorporates a surface active agent which ensures spread, evenness and good bonding to the surface.

'PUDLO' Cement Paint is in powder form, and the mix requires no other process than adding water and stirring; it is then ready for use at once. When dry it forms a hard, durable surface which can be washed without danger of flaking or peeling.

'PUDLO' Cement Paint is available in an attractive range of colours, and is entirely suitable for the protection of all types of buildings including factories, public buildings, flats, houses, farm buildings, hospitals, hotels, etc.

**WHEN YOU USE
'PUDLO' CEMENT PAINT
YOU GET THE MAXIMUM
WATERPROOFING PROTECTION**

Get full particulars of 'PUDLO' Cement Paint NOW—they are available on request.



**OTHER 'PUDLO' BRAND
PRODUCTS INCLUDE:**

Cement Paint Primer
Cement Waterproofing Powder
External Water Repellent
Cement Bonder
Plaster Bonder
Mortar Plasticiser
Liquid Cement Additive and
Feusol Fire Cement

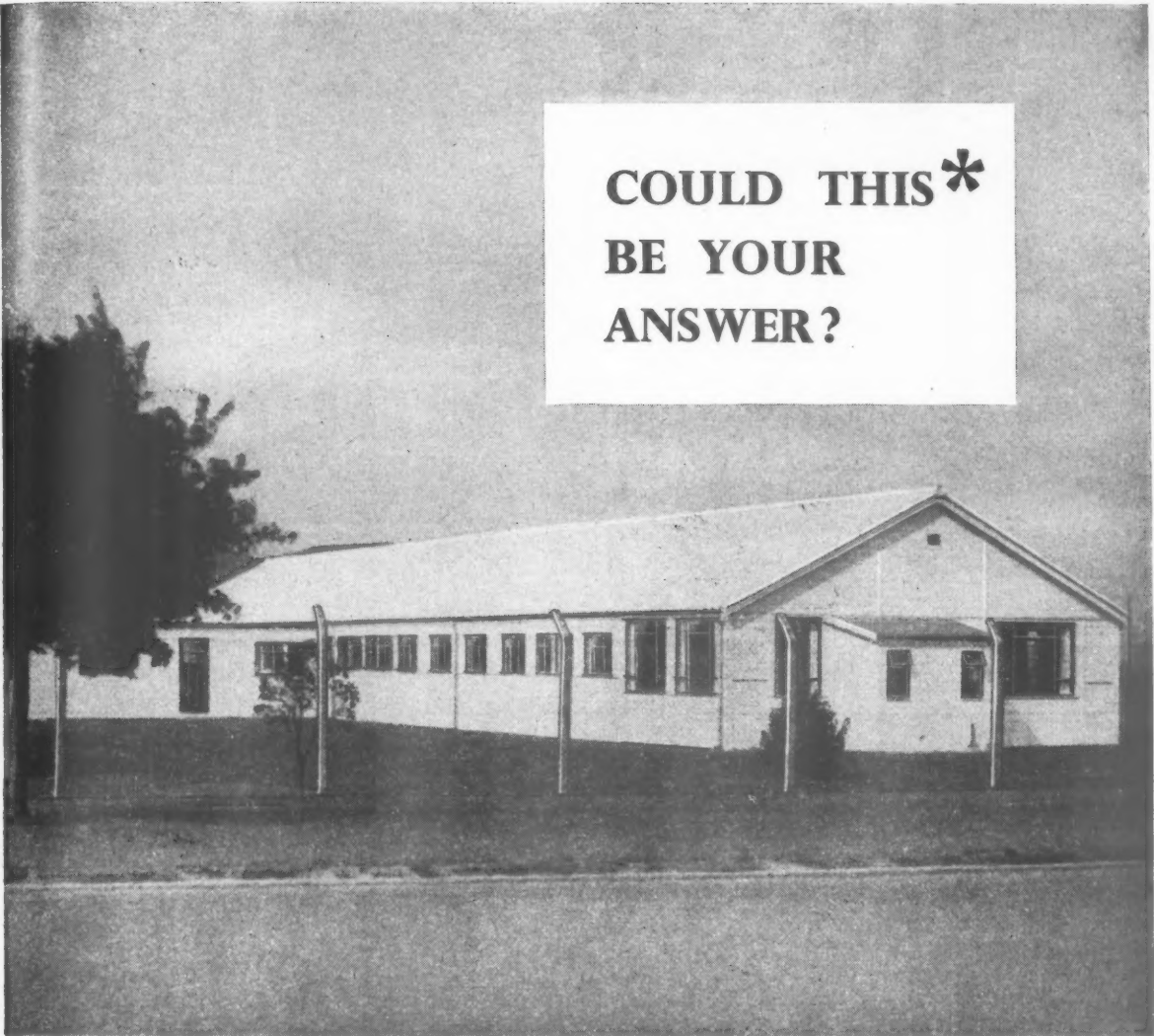
The word 'PUDLO' is the registered Trade Brand of Kerner-Greenwood & Co. Ltd., by whom all articles bearing that Brand are manufactured. Sole Proprietors and Manufacturers:

KERNER-GREENWOOD & COMPANY LTD.
KING'S LYNN • NORFOLK

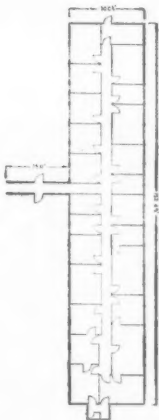


H.P.5445

COULD THIS*
BE YOUR
ANSWER?



Photograph by courtesy of Hunting-Clan Air Transport Ltd., London Airport.



* FOR ONE REASON OR ANOTHER, tomorrow may find you face to face with a complex building problem. Perhaps the situation demands an urgent solution . . . or funds will not permit the expense of a traditional brick structure; whichever it is, YOU are expected to find a speedy, efficient, yet simple answer.

THORNS TIMBER-FRAMED BUILDINGS provide just such an answer; prefabricated in BASIC units, they combine economy with ease of erection—and are easily adaptable to your own design.

In hundreds of places THORNS have proved the *RIGHT* answer for dependable and efficient buildings — Offices, Hospitals, Canteens, Pavilions, Temporary Schools and Shops, Church Halls and Institutes,

Scout Headquarters, Industrial Workshops, etc.

The photograph shows an Office Building 152ft. by 30ft., at London Airport.

Basic widths available—12ft., 15ft., 18ft., 20ft., 24ft., 25ft., 30ft.

get ^{your} ~~A~~ quotation from **THORNS**

J. THORN & SONS LTD. (Dept. 188), BRAMPTON ROAD, BEXLEYHEATH, KENT

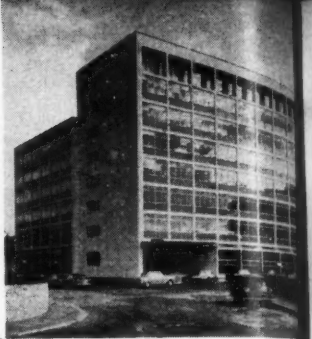
BD937

PLANTATION HOUSE
MINCING LANE • CHEAPSIDE
Architects:
Albert W. Moore & Son

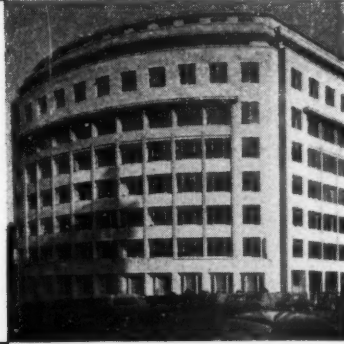


THE ARCHITECTS' JOURNAL
(Supplement) May 1, 1958

ROMAN HOUSE • LONDON WALL
Architect:
R. N. Wakelin
of Campbell-Jones & Sons



MERCERS' HALL • CHEAPSIDE
Architects:
Gunton & Gunton

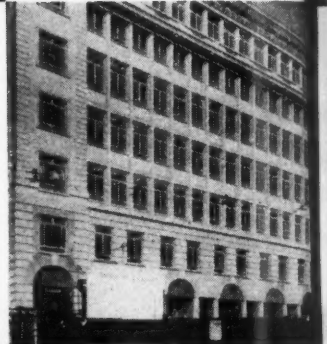


HOLBORN VIADUCT HOUSE
HOLBORN CIRCUS
Architects:
T. P. Bennett & Son

1 NOBLE STREET
GRESHAM STREET
Architects:
Ellis, Clarke & Gallannaugh



ROYAL LONDON HOUSE
(EXTENSION) FINSBURY SQUARE
Architect:
H. Bramhill



WATLING HOUSE • CANNON STREET
Architects:
Easton & Robertson

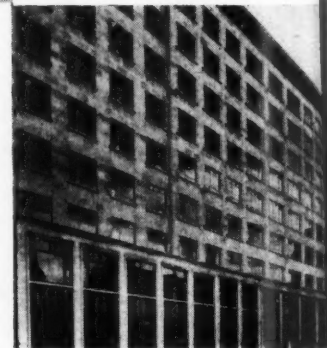


34-35 KING STREET • EC
Architects:
Alan W. Pipe & Sons

WALBROOK HOUSE
CANNON STREET • WALBROOK
Architect:
Henry Tanner



12-20 CAMOMILE STREET
Architects:
Fitzroy Robinson
& Hubert H. Bull



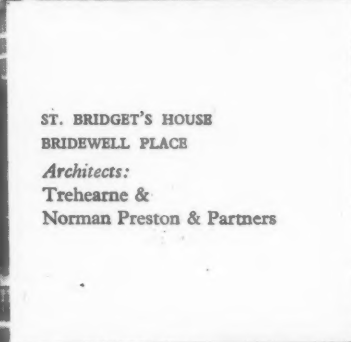
MCCANN-ERICKSON HOUSE
FETTER LANE
Architects:
Hannen & Markham



BUCKLESBURY HOUSE
Architects:
Campbell-Jones & Sons



ST. BRIDGET'S HOUSE
BRIDEWELL PLACE
Architects:
Trehearne &
Norman Preston & Partners



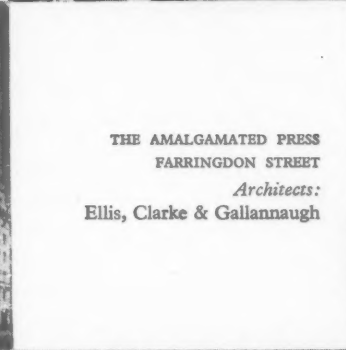
SADDLERS' HALL • GUTTER LANE
Architect:
L. Sylvester Sullivan



3-10 FINSBURY SQUARE
Architects:
Lewis Solomon Son & Joseph



THE AMALGAMATED PRESS
FARRINGTON STREET
Architects:
Ellis, Clarke & Gallannaugh



BANK OF LONDON
& SOUTH AMERICA
QUEEN VICTORIA STREET
Architect:
Victor Heal



**The city
re-builds with...**

CRITTALL WINDOWS



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

Two words that
mean the
best roof lighting —
**Corrugated
'Perspex'**



Corrugated 'Perspex' roof lighting installed in the works of Mitchell, Russell & Co., Bonnybridge. Photographs by arrangement with Newton, Robertson & Co. Ltd., Glasgow.

CORRUGATED 'PERSPEX' is the answer in all buildings, large and small, where good light conditions are important. Corrugated 'Perspex' acrylic sheet is tough, durable, and gives a very high transmission of daylight. It means good health, good morale and increased efficiency in factories and workshops — as well as reduced lighting costs.

Corrugated 'Perspex' is light, easy to handle

and inexpensive to install. It will stand up to weather conditions in any part of the world. It is not harmed by the corrosive atmospheres in industrial areas. It is available in a wide range of profiles.

If diffused daylight is desired, Opal Corrugated 'Perspex' is available. Originally developed for intense light conditions overseas, Opal Corrugated 'Perspex' diffuses daylight evenly and efficiently.



CP.123 I

It's as clear as daylight — it must be

CORRUGATED 'PERSPEX'

'Perspex' is the registered trade mark for the acrylic sheet manufactured by I.C.I.

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



it pays to specify

Q-DECK

Prove it to yourself by insisting on these features in the next roof deck you specify. You will get them in no other roof—they are exclusive to ROBERTSON Q-DECK.

LONG SPANS: Lengths up to 22 feet available.

BUILT-IN CEILINGS: Decks are available with a flat, smooth soffit, requiring no sub-ceiling.

TOP SPEED FIXING: Strong, speedy and neat in appearance, 'Top-speed' is used in all Q-DECK roofs.

SINGLE LAYER WEATHERPROOFING: This technique, proved by research and test, completely eliminates 'blistering' of the felt.

FIRE RISK MINIMISED: Flanged and bolted side joints of units prevent independent deflection. Robertson weatherproofing systems require a minimum of bitumen.

the yardstick of modern insulated roofs

ELECTRICAL DUCTING: Cables for ceiling lighting can be run in the cells of the deck; resulting in greater economy and improved appearance.

ACOUSTICAL TREATMENT: Applied treatments are unnecessary—'sound-conditioning' can be provided integral with the deck.

DAYLIGHTING: Double-glazed Decklights, having good thermal insulation.

VENTILATORS: Natural or Fan-assisted; like Decklights require no supporting framework.

SEND FOR LITERATURE

Q-Deck is designed, manufactured and erected by

ROBERTSON THAIN LIMITED

ELLESMERE PORT • WIRRAL • CHESHIRE

Telephone: Ellesmere Port 3622-9

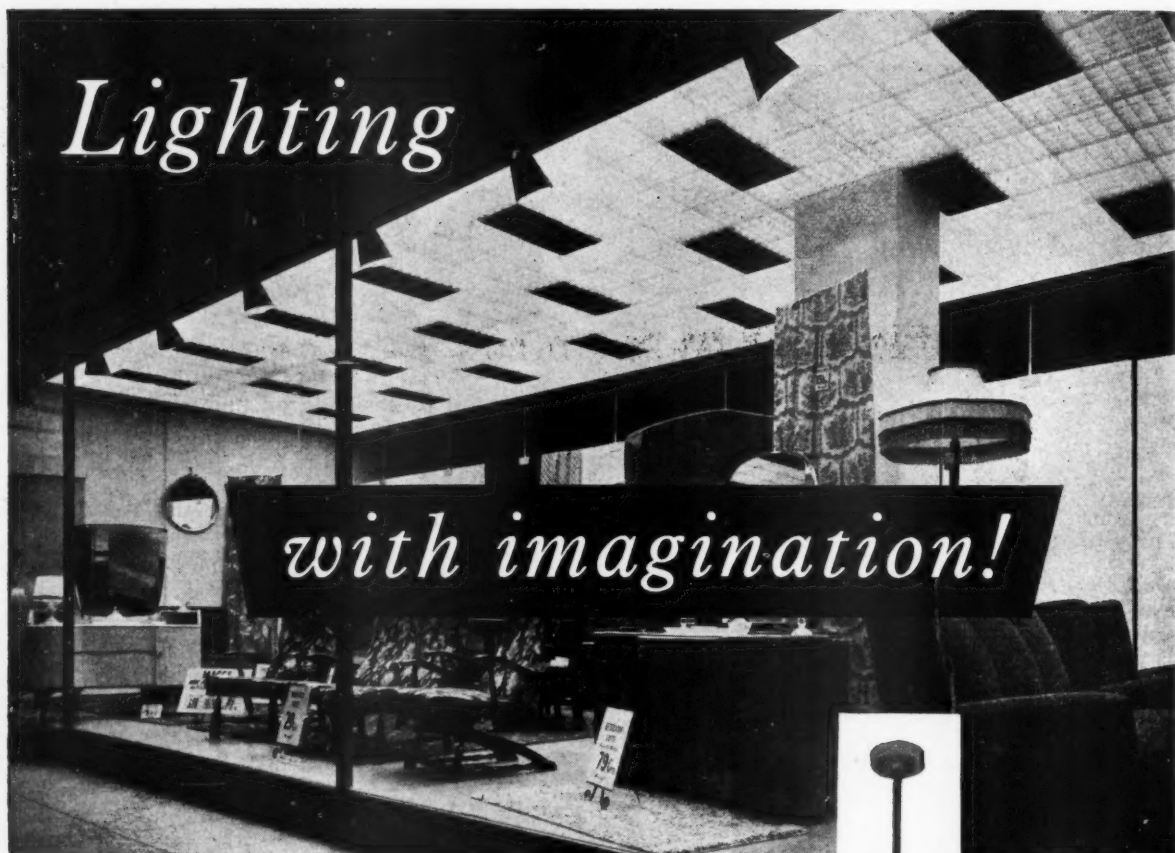


Telegrams: 'Robertroof'

Sales Offices:

BELFAST • BIRMINGHAM
CARDIFF • EXMOUTH • GLASGOW
IPSWICH • LIVERPOOL • LONDON
MANCHESTER • NEWCASTLE
SHEFFIELD

*Associated Companies or
Agents in most countries
throughout the world*



Here is louivering with a difference. The advantages of Luve-tile panels are already well known, painting some areas black has lifted an ordinary scheme into the realm of design.

Harris and Sheldon Electrical delight in just such special jobs. The picture on the right shows their imaginative approach to a very popular type of glassware—this fitting, designed by Robert Tate, is only one of the wide Handslite range.



Luve-tile

THE BEST OF BOTH WORLDS



HARRIS & SHELDON (ELECTRICAL) LTD.

RYDER STREET, BIRMINGHAM 4. Telephone: CENTral 6272

London Office: 46 GT. MARLBOROUGH STREET, W.1. Telephone: GERRard 0869

Complete Lighting Specialists and Manufacturers of Lighting Fittings and Control Gear

"You can't skin an apple!"



One of our technologists said that. He said the outer skin is so firmly keyed to the flesh that some of the flesh always comes off with the peel.

**MONTGOMERIE'S
FINISHES FOR ALL DECORATIVE
AND INDUSTRIAL PURPOSES.**



Purovar Enamel.

Artesco Emulsion Coating.

Rustration Calcium Plumbate Anti-Corrosive Primer.

Emeskote Chemical Resisting Enamel—Air Drying Epikote Resin Based Coating.

Petrifield 'S' Water Repellent—Solution Based on 'Dri-sil' Silicone.



He was trying to explain how a paint should weld itself to the surface it is protecting, becoming an integral part of that surface and not just a layer or shell. Our research starts with fundamentals like that. That's what makes our Technical Advisory people so valuable to you. They are willing and able to give initial advice and send a technologist to any part of the country to deal with problems on the site.

**Consult us on all your painting problems.
Our Standard Shades are manufactured
to the New B.S.S. Colour Range.**

montgomerie stobo & CO LTD

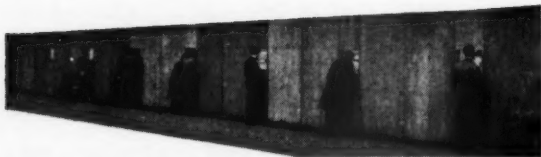
Deeside, Saltney,
Nr. Chester.
Telephone Chester 23128 (3 lines)
Telegrams 'Turpentine' Chester.

52-72 Rogart Street,
Glasgow, S.E.
Telephone Bridgeton 1005/6/7.
Telegrams 'Turpentine' Glasgow.

Also at Slough & Belfast.



Seaboard Fir Plywood



With Canadian fir plywood available in lower cost sheathing grades, British builders are taking advantage of its many structural qualities in new and interesting ways.

Top picture shows fir plywood used as a hoarding and as a low buttress shielding pedestrians at a site in Trafalgar Square. Lower picture shows Canadian fir plywood hoarding at the site of the new Ministry of Works building, Manchester. The large panels cover 32 square feet, need fewer nails and are erected in half the time. They are split-proof and impact-resistant.

in Action

For the same reasons, British builders are using Seaboard Canadian fir plywood for roof decking, floor underlay, laminated beams, contractors' huts, etc., etc.

Seaboard Canadian fir plywood is readily available throughout the country.

Standard Sizes:—8 x 4 feet (Lengths over 8 feet available on order).

Thicknesses (depending on grade):— $\frac{1}{4}$, $\frac{3}{16}$, $\frac{7}{16}$, $\frac{1}{2}$, $\frac{5}{8}$ and $\frac{3}{4}$ inches.



SEABOARD

CANADIAN DOUGLAS FIR

PLYWOOD

Seaboard Lumber Sales Co. Limited, Seaboard House, Vancouver 1, Canada

N. R. M. Morison, Esq.,
1 - 3 Regent Street,
London S. W. 1.

Please send me free copy of Seaboard Plywood Handbook (L-11) describing your full selection of Douglas Fir Plywood.

Name _____

Address _____

UK67-10-15

Plenty of white lead in an outside paint makes it last and protect. Magnet contains large proportions of white lead. That is why it lasts and protects for years in the most exposed situations. Magnet is the modern white lead hard gloss paint. NOW IN 40 COLOURS.

MAGNET

FOR THE

OUTSIDE

WHERE

PAINT

MUST DO MORE THAN DECORATE

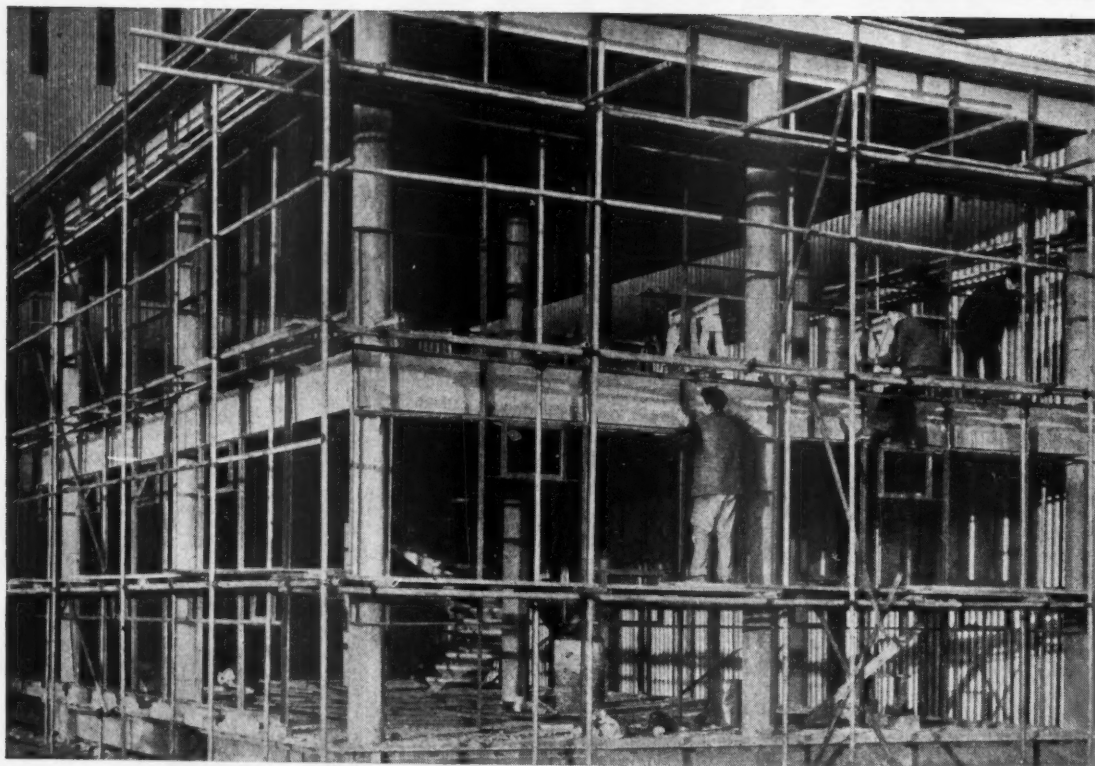
ASSOCIATED LEAD

MANUFACTURERS LIMITED

LONDON • NEWCASTLE • CHESTER

PUTTING IN THE DAYLIGHT

...at
**Messrs Colville's
new Ravenscraig Works**



The metal windows chosen for the extension to Messrs. Colville's steel works had to be good. Steelmen have a critical eye for any product made with the materials they produce. Standard Maclean Metal Windows were chosen—Standard Maclean make a really thorough job of rust proofing their product. Their Electro Galvanising plant is fully automated, which ensures that no damage is done by careless handling during the finishing processes.

Technical note: all Standard Maclean Metal Windows are degreased, pickled, zinc plated and phosphated, then two coats of primer are stoved on separately. 'Z' section mild steel sections are flash-welded for frame construction, whilst the fittings are of manganese brass and are screwed on.

**Standard Maclean
Limited**

STANDARD MACLEAN LTD. CADZOW WORKS, LOW WATERS RD., HAMILTON, Lanarkshire.

Hamilton 1410/4

ABERDEEN: 13 Bridge Street, Tel.: Aberdeen 52331. **EDINBURGH:** 7 Albany Street, Tel.: Waverley 2190. **NEWCASTLE:** 14a Pilgrim Street, Tel.: Newcastle 27776. **BELFAST:** 32 Ann Street, Tel.: Belfast 32003. **LONDON, W.C.1:** 1 Warwick Court, High Holborn, Tel.: Holborn 2462. **WEST BROMWICH:** Houghton Street, Tel.: West Bromwich 0405. **WORTHING:** 30 Manor Road, Tel.: Worthing 7495.

PD,

where a strong line is needed ...

WINCILATE

thick cills

allow for a bolder line
than that provided
by the normal 1 inch cills

also manufactured by

The Bow Slate & Enamel Co. Ltd.

BR Bow Depot, Old Ford Road, E.3

telephone: ADVance 2203

Proprietors of the

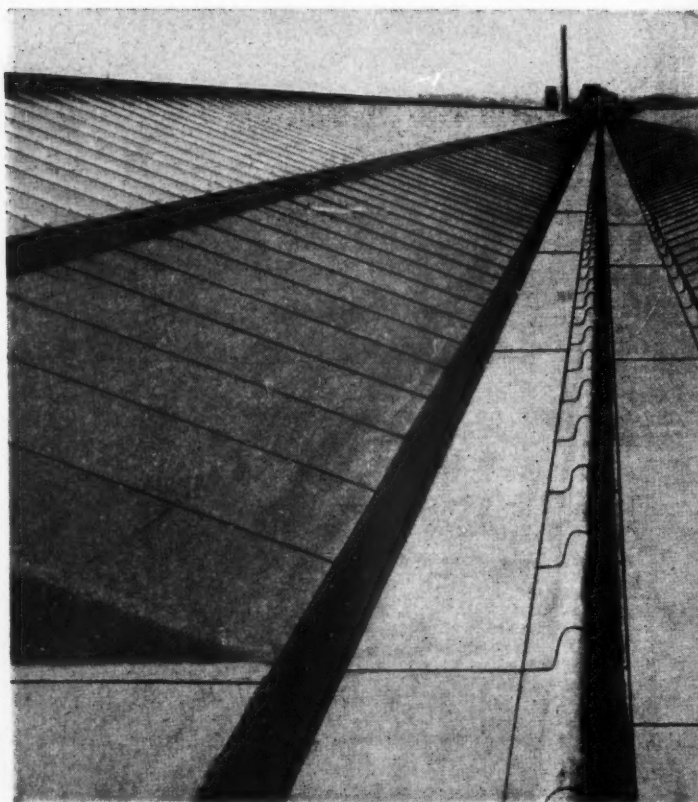
Aberllefenni Slate Quarries

Spanning big problems lightly

The bigger the roof, the greater the problem of weight, stress and support. Which is where Ruberoid Insulated Metal Deck Roof comes in—to many an architect's calculations. This lightweight, self-supporting roofing system revolutionised roofing design when first Ruberoid-pioneered over 30 years ago. It has never been surpassed.

For specifications which call for metal deck roof, Ruberoid galvanised steel decking is ideal for spans up to 12 ft. It incorporates a vapour seal, insulation and a choice of Ruberoid weatherproofing. For shorter spans, Ruberoid aluminium decking is also available.

RUBEROID Insulated Metal Deck Roof



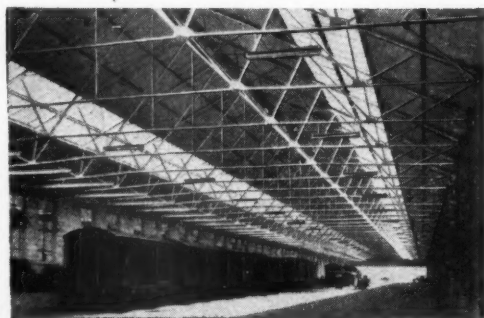
20,623 square yards of Ruberoid Insulated Metal Deck Roofing on Messrs. Harris Lebus Ltd. warehouse, Tottenham.
Architects: Clifford, Tee & Gale, London.
Main Contractors: Y. J. Lovell & Son, Ltd.



Fill in this coupon for
technical literature

YOUR PARTNERS IN ROOF SERVICE

Take Ruberoid into partnership at the design stage and get the finest guarantee you could wish for—Ruberoid materials *plus* Ruberoid craftsmanship. The advice, and practical assistance, of the Ruberoid Contract Department are yours to command.



Boots Factory, Airdrie, 22,738 square yards of Ruberoid Insulated Metal Deck Roofing. By courtesy of Boots Pure Drug Co. Ltd.

NAME _____

ADDRESS _____

THE RUBEROID COMPANY LTD. 472 COMMONWEALTH HOUSE,
1-19 NEW OXFORD STREET, LONDON, W.C.1. Tel: HOLBORN 8797 (10 Lines)

LIGHT
COLOUR
SPACE
VARIETY

CROMPTON 'MODULUME' CEILINGS

developed in association with

The Wakefield Company of America

offer abundant scope

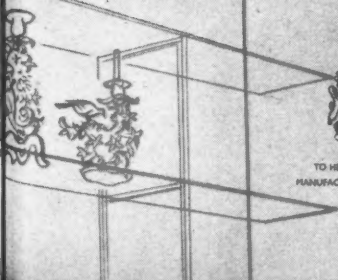
for design

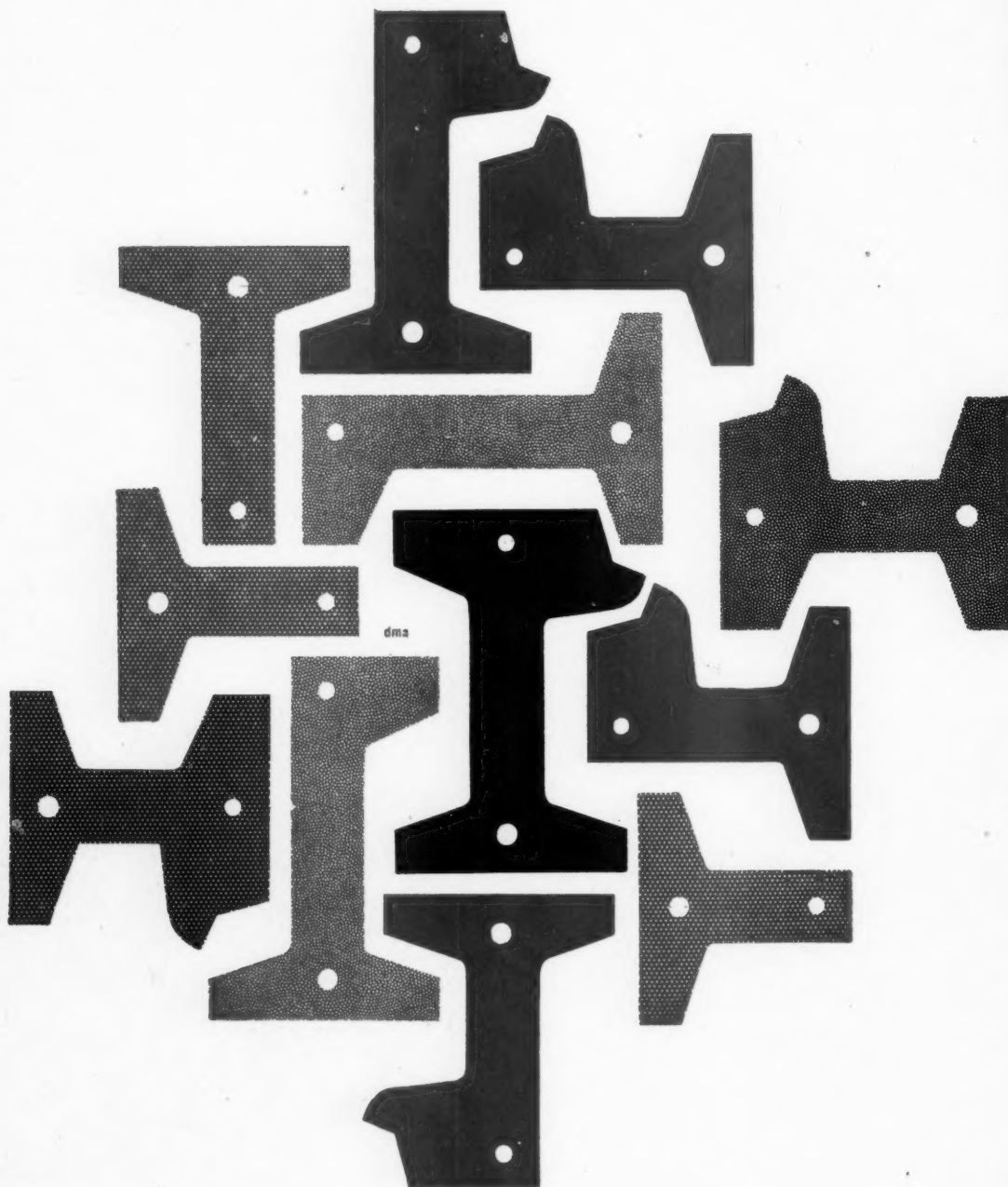
INSTALLED BY ONE TRADE

AND SIMPLY SERVICED

Information from Crompton Parkinson Ltd.

Crompton House, Aldwych, London, W.C.2 Tel: Chancery 3333





adaptability

**Planned variations upon the three RAPID sections
permit full freedom and flexibility of design
This adaptability is but one of the many reasons why
you can—with confidence—specify**

RAPID PRECAST FLOORS

The Rapid Floor Co. Ltd. Africa House, Kingsway, W.C.2

John Ellis & Sons Ltd. Leicester

Tarmac Ltd. (Vinculum Division) Ettingshall, Wolverhampton

Rapid Floors (Wessex) Ltd. Bath

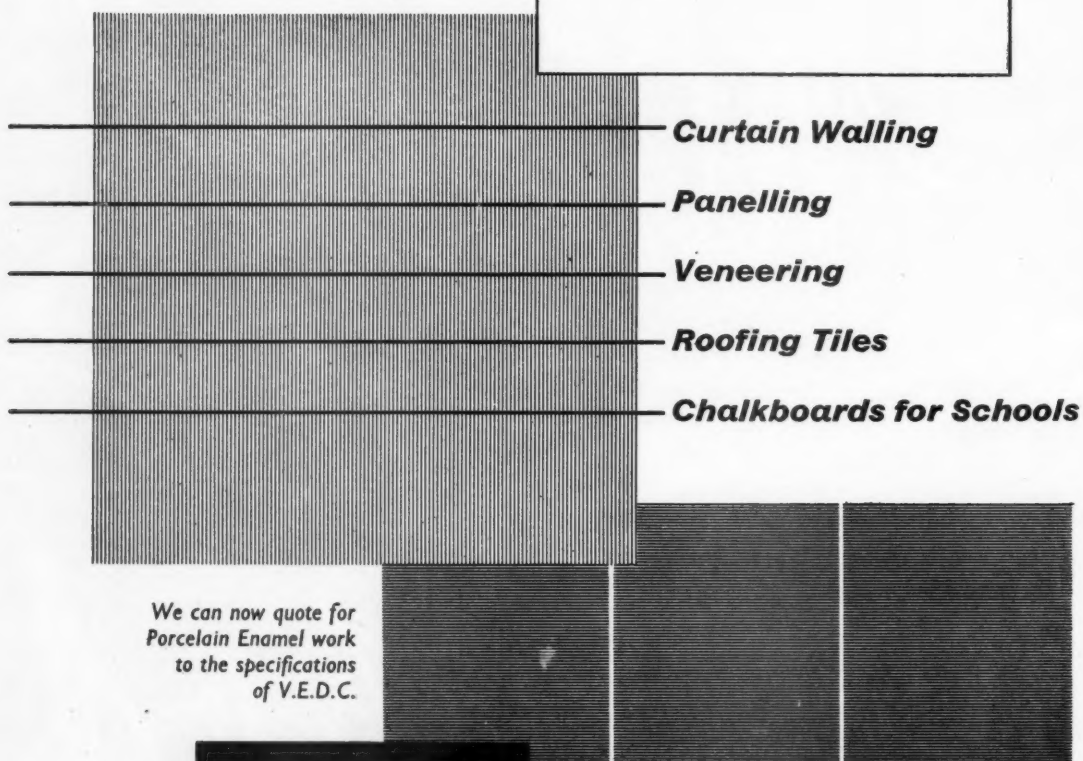
Cambrian Concrete Co. Ltd. Pontyclun, Glam:

Phone
Phoenix
for
Softwood

RAINHAM 3311 & 3361

JURABILD

**VITREOUS PORCELAIN ENAMEL SHEETS
THE NEWEST BUILDING MATERIAL**



Curtain Walling

Panelling

Veneering

Roofing Tiles

Chalkboards for Schools

We can now quote for
Porcelain Enamel work
to the specifications
of V.E.D.C.

JURY

HOLLOWARE LTD

ARCHITECTURAL DIVISION

BRIERLEY HILL · STAFFS · Tel: Lye 2126/7

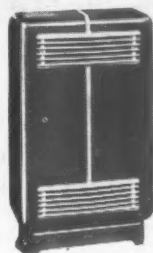
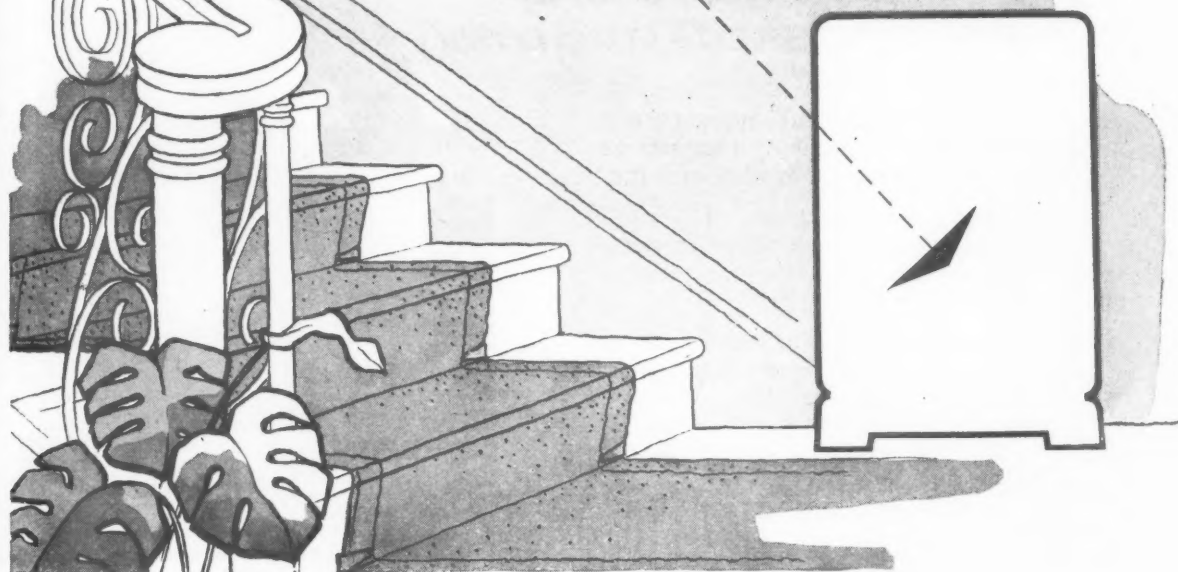
Members of the Vitreous Enamel Development Council
Members of the Porcelain Enamel Institute (U.S.A.)

J3756

THIS SPACE RESERVED FOR A

HARPER

GAS RADIATOR



Model No. 3161

Finish—Base and body heat resisting coinage bronze paint. Baffle vitreous enamelled. Louvres cream vitreous enamelled.

Burner—Cast iron with luminous bray jets. $\frac{1}{2}$ in. gas inlet, can be fitted for R.H. or L.H. feed.

Governor—Constant pressure. Gas consumption—18 cu. ft. per hour at $2\frac{1}{2}$ in. W.G.

Maximum output per hour: 8,100 B.Th.U. at 500 c.v.

Dimensions: Height 29 $\frac{1}{2}$ in. Width 17 $\frac{1}{2}$ in. Depth 7 in. Weight 42 lb.



Model No. 3160

Finish—Heat resisting coinage bronze. The top louvre and the door (which has concealed hinges) are cream vitreous enamelled. Gas consumption: 2 cu. ft. per hour.

Dimensions: Height 25 in. Width 16 $\frac{1}{2}$ in. Depth 6 $\frac{1}{2}$ in. Weight: 31 lb.



Model No. 300

Its graceful lines and pleasing finish blend with any surroundings.

Finish—Front panel, heat resisting coinage bronze paint. Baffle, vitreous enamelled. Louvres, vitreous enamelled.

Burner—Cast iron with luminous bray jets. $\frac{1}{2}$ in. gas inlet.

Governor—Constant pressure.

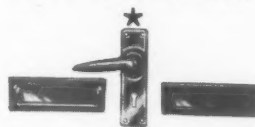
Gas consumption—18 cu. ft. per hour at $2\frac{1}{2}$ in. W.G.

Maximum output per hour—8,100 B.Th.U. at 500 c.v.

Dimensions—(a) Panel: Height 27 $\frac{1}{2}$ in.; Width 17 in. (b) Overall dimensions required for recess: Height 24 in.; Width 12 $\frac{1}{2}$ in.; Depth 3 $\frac{1}{2}$ in. to 4 in. Series of three nautilus flue blocks, type S.1.

For many years Harper gas radiators have been specified by leading architects throughout the country.

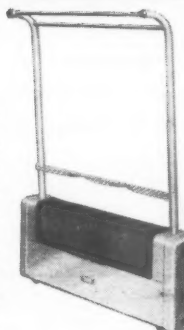
Unequalled in design, quality and finish, Harper radiators are economical, require virtually no maintenance, and will give years of efficient use.



Harper's make a comprehensive range of door furniture, cast iron and finished in bronze lustre vitreous enamel to withstand exposure to severe weather conditions. May we send you details of the full range?

**Harper No. 325
Gas Heated Towel Rail**

Easily installed, compact and economical. A single luminous burner keeps bathroom towels warm and dry. A governor controls gas consumption (4 $\frac{1}{2}$ cu. ft. per hour.) Finished in ivory and green. Provision is made for screwing to the floor although it is stable enough to stand unsupported.



HARPER

JOHN HARPER & CO. LTD.,
ALBION WORKS, WILLENHALL

Asphalters advise . . .

BLACK SHEATHING FELT every time—the one-thickness underlining that acts as a perfect keying medium for hot asphalte.

This durable combination of water-proofed jute and flax fibres resists cracking and creeping—and gives complete isolation from the substructure.

It weds ideally with the asphalte to form a homogeneous layer, giving absolute water-proofing—that is why experienced asphalters advise BLACK SHEATHING FELT.

- ★ HANDLES PLEASANTLY ★ EASY TO LAY
- ★ DOES NOT WRINKLE



Specify

ASPHALTE laid on

BLACK SHEATHING FELT

for YOUR job

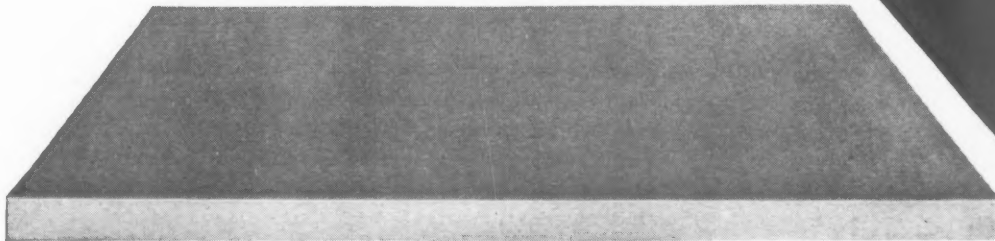


Permanite Ltd., London ; John Rogers Ltd., Belfast ;
D. Anderson & Son Ltd., Manchester ;
Engert & Rolfe Ltd., London ; John Erskine Ltd., Belfast ;
Robt. McCalmont & Sons Ltd., Belfast ;
F. McNeill & Co. Ltd., London.

J. & P. COATS LIMITED,

choose Ceramic Tiles

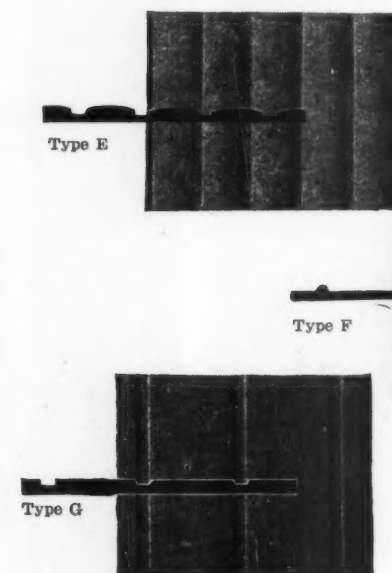
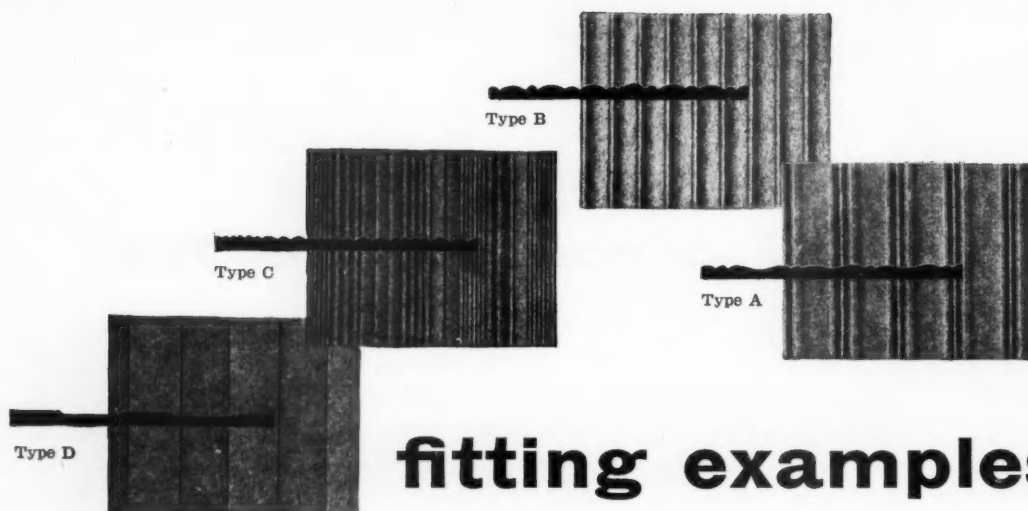
Variety of colour
is merely one
point in the choice
of Ceramic Tiles
by the Architects
in planning
the lavatories at
Ferguslie Thread
Works, Paisley.
Cleanliness,
hygiene, ease of
maintenance—long
life—long term
economy—combined
with inexpensive
efficiency
make Ceramic Tiles
the ideal wall
and floor surface.



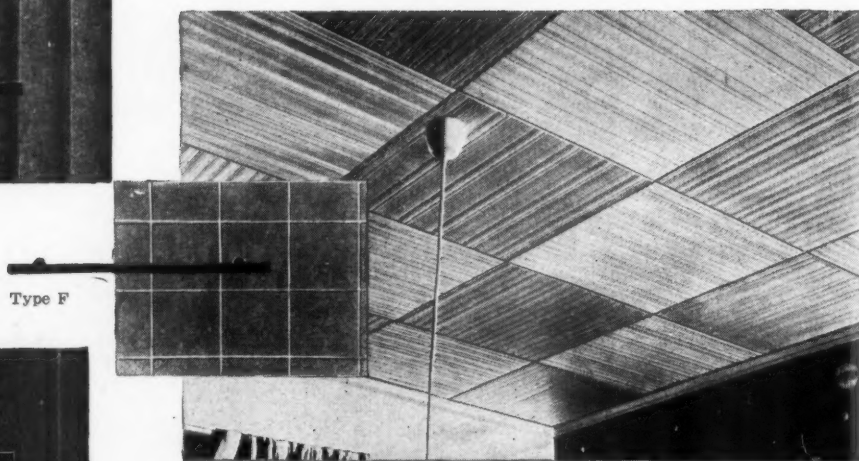
*Architects: Staff Architects, Engineering Department, J. & P. Coats Ltd.
Tiling Contractors: Toffolo Jackson & Co., Ltd., Glasgow.*

Ceramic **TILES**

Glazed & Floor Tile Manufacturers' Association • Federation House • Stoke-on-Trent



fitting examples...



An attractive effect can be achieved by using squares of Moulded Hardboard for ceiling panelling. In this photograph Type 'C' has been used.

Moulded Hardboards open up new fields in interior decorating and fitting. They have all the advantages of L.W. Swedish Hardboard, but with the added attraction of DESIGN. Seven patterns from which to choose . . . seven ways of enhancing the appearance of lounge or lobby, shop or exhibition, home or office. Only imagination sets the limit to the many uses of Moulded Hardboards!



MOULDED HARDBOARDS

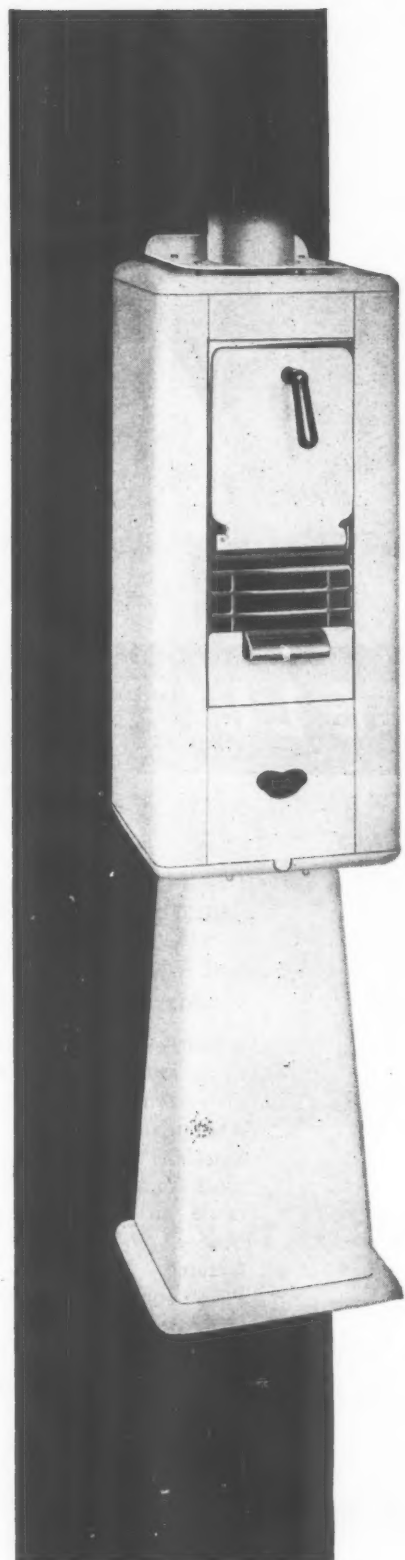
Available in standard 4' x 9' sheets, 1/4" thick, both the standard and oil tempered quality are effective either in their rich natural colours, or painted. Type 'A' Linenfold. Type 'B' Reed & Bead. Type 'C' Striated. Type 'D' Slatted. Type 'E' Close Slatted. Type 'F' Tiled (4" Tiles). Type 'G' Wide Slatted.

Manufactured by: **MESSRS. LJUSNE—WOXNA A.B. LJUSNE, SWEDEN**

Write for full details today to: Sole Agents for U.K. (excluding Northern Ireland)

MESSRS. MARTIN OLSSON & SONS LTD., MELBOURNE HOUSE, ALDWYCH, LONDON, W.C.2

Smee's



*Safeguard
Public Health
Encourage
Personal Hygiene*

in FACTORIES • HOSPITALS • CLINICS
SCHOOLS • HOTELS AND OFFICES

Investment by British industrialists and others in modern equipment to safeguard the health and welfare of the vast and growing numbers of workers, has proved beyond doubt the wisdom of a policy both far seeing and democratic in concept.

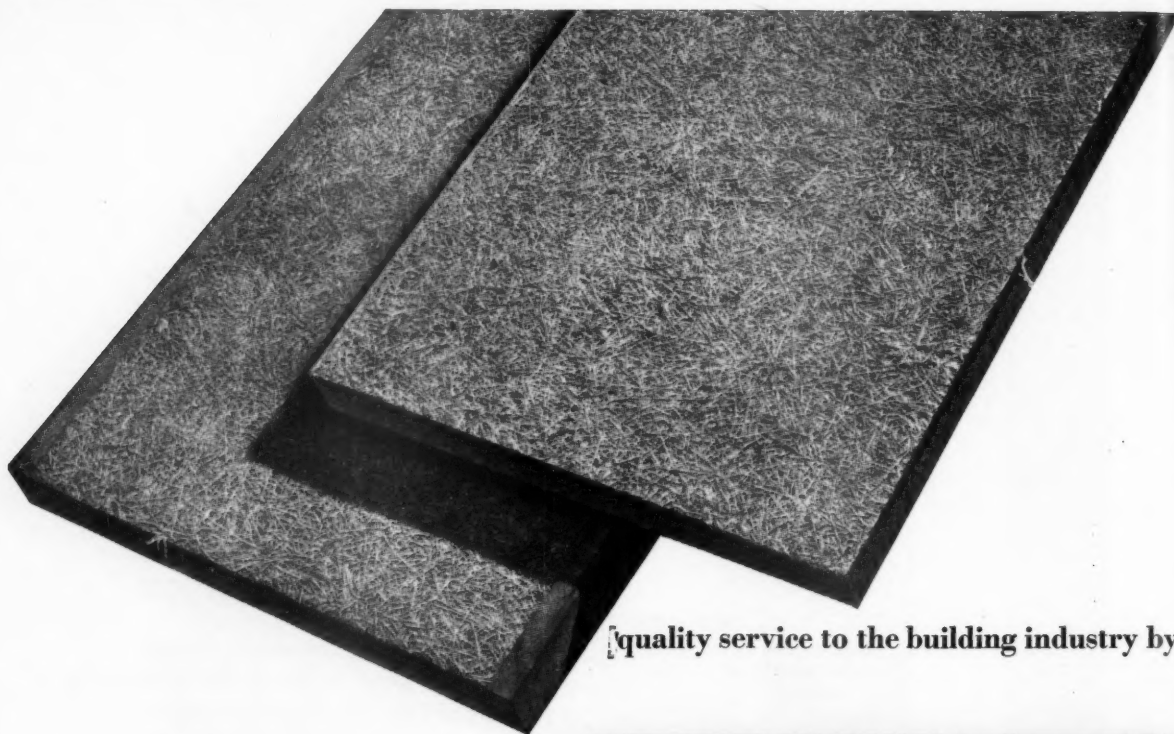
The installation of Sugg's incinerators wherever women employees form part of an organisation is plain commonsense.

Our sales and technical staff will be glad to advise and co-operate.

*The Sugg
Incinerator*
Gas-Fired

WILLIAM SUGG & CO. LIMITED
(Incorporating Cowper Penfold & Co. Ltd.)
VINCENT WORKS, REGENCY ST., LONDON, S.W.1. Tel: VIC 3211





quality service to the building industry by

Stellith wood wool slabs and channel reinforced roofing slabs offer many advantages, including exceptional structural strength, light weight, excellent heat insulation and sound absorption properties, easy handling, cutting and fixing and effective resistance to fire and moisture. Their many uses include:—

STELLITH*

- 1 Structural insulating roof deck with channel reinforced STELLITH
- 2 Structural insulating roof deck laid in steel tees
- 3 Structural insulating roof deck over timber joists
- 4 Structural insulating roof deck over concrete purlins
- 5 Sarking over rafters
- 6 Structural insulation under all types of metal roofing
- 7 Structural insulating lining to concrete or steel frames
- 8 Insulating lining under asbestos or corrugated iron roofing
- 9 Suspended ceilings
- 10 Insulation over concrete roofs
- 11 Permanent insulating shuttering to roofs and floors
- 12 Permanent insulating shuttering to walls
- 13 Self-supporting partitions
- 14 Timber stud partitions
- 15 Insulating lining to brick walls
- 16 External wall cladding
- 17 Insulating tank and cistern cladding

Technical information sheets on the above and other uses of STELLITH available on request to:—

BRITISH ARCHITECTS
CONFERENCE,
NEWCASTLE ON TYNE
May 14th - 17th 1958.

A hearty invitation is extended to all architects attending the above conference, to visit our modern new works at North Shields, approximately ten miles from the centre of Newcastle, to see how our high quality products are manufactured.

Please contact us at any time, when we will make the necessary arrangements, including transport from your hotel.

*** STELLITH**

wood wool slabs and channel reinforced roofing slabs

STELLA BUILDING PRODUCTS LTD.

Wallsend Road, North Shields, Northumberland. Tel: North Shields 1474/5



Electric water heating gives freedom of planning

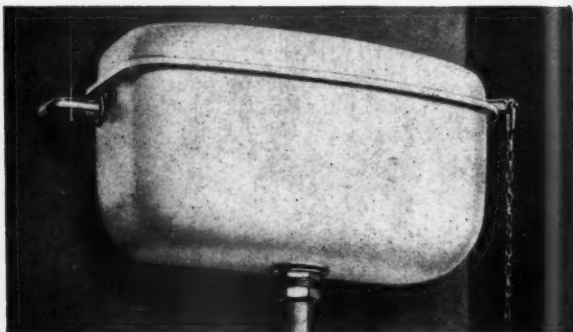
**no chimneys
no long pipe runs
no fuel store**

The modern way of water heating is electric

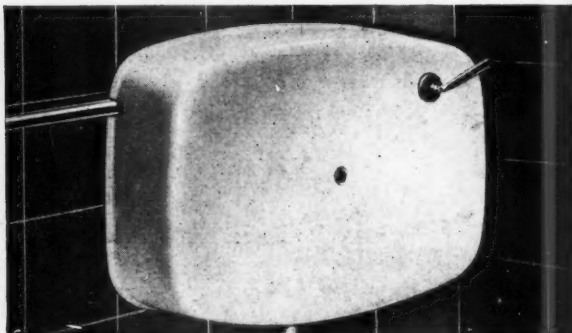




Fordham 'Cleanline' Cistern Low Level Model



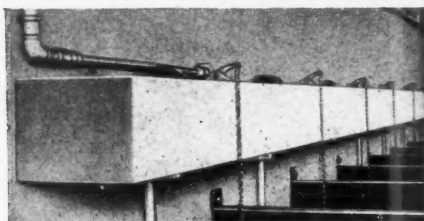
Fordham 'Cleanline' Cistern High Level Model



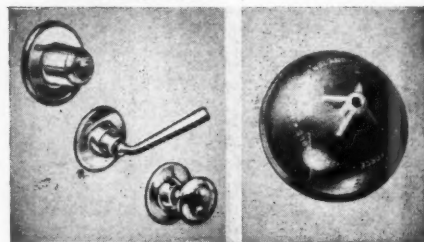
Fordham Panel Model "O" Projects only 6in. from the wall.

First and Foremost for all SANITARY EQUIPMENT

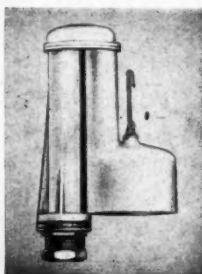
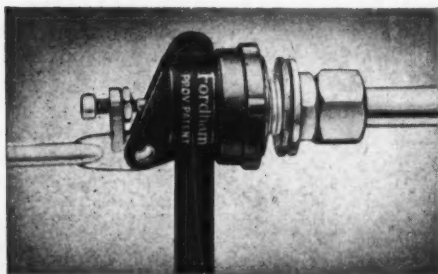
Acknowledged leaders in the design and manufacture of Sanitary Equipment for over a quarter of a century, Fordhams have pioneered and perfected many of the most worthwhile developments. The new range of Fordham Cleanline Cisterns—accepted by the Council of Industrial Design for "Design Review"—are the most handsome and least expensive cisterns obtainable today. They are available in White or coloured vitreous finishes to match any scheme of decoration, and in Ivory, Primrose, or Green at the same price as White. The Casings are seamless steel pressings (or copper), vitreous enamelled at red heat with a spark test quality control, or hot dip galvanised. The flushing mechanism is the reliable and smooth acting Fordham All Polythene Syphon, and all fittings are of the customary high Fordham standard.



Fordham Flushing Troughs, ideal for Schools, Public Buildings, Hospitals, etc.



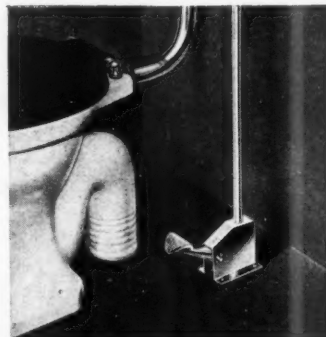
Fordham remote controls, lever handle and special push buttons for prison cells, etc. Fordham Polythene Ball Float.



Extreme Left:
Fordham Acquisive
Long Life Non-Stick
trouble-free ball
valves in hard poly-
thene

Fordham All Poly-
thene Syphon. Can
be supplied to fit any
casing of any materi-
al and of any size.

Right:
"Pedal Action"
Fordhams for
Hospitals, Institu-
tions, etc.



FORDHAM PRESSINGS LIMITED

HEAD OFFICE AND WORKS: DUDLEY ROAD · WOLVERHAMPTON · TELEPHONE: 23861/2

Other factories at Earsfield (London), Hinckley (Leics.), Sedgley (Staffs.)



PAXTILES *reach a new ceiling*

in sound insulation efficiency



At the new Research Centre of Ruston & Hornsby Ltd., one of the most modern and well equipped buildings of its type in Europe Newalls have carried out to the order of Wm. Moss & Sons, Builders, Loughborough, Leics., the noise reduction treatment to the ceilings of the ground and first floors, using their well-known sound absorbing "Paxtiles" (Regd. Brand). The area of treatment amounts to over 1,000 square yards.

THE HIGH LEVEL of sound absorption reached by NEWALLS (Regd. Brand) Paxtiles sets the standard of acoustic perfection. Paxtiles not only absorb unwanted noise but can add much to the decor of walls and ceilings. Paxtiles are fire proof, vermin proof and have a high efficiency as heat insulation. Paxtiles can be painted any colour without impairing effectiveness and are made in many sizes to suit every possible requirement. For every problem of sound insulation Paxtiles are the ideal answer. If you need effective sound insulation coupled with outstanding decorative treatment talk to us about Paxtiles. Consultation is offered gladly and will cost you nothing.

Newalls
(REGD. BRAND)

PAXTILES

NEWALLS INSULATION CO. LTD. *Head Office:* 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*

An entirely NEW
Automatic Fire Alarm System
APPROVED by the Fire Offices' Committee*

This new Fire Alarm system is of special interest to Architects and Consulting Engineers. Installation costs are reduced and by having the approval of the Fire Offices' Committee can be specified with complete confidence. It is designed to give early positive warning of fire by means of automatic fire detectors at the building and direct to the Fire Station, ensuring **immediate** action.

Buildings in which this system is installed may be granted valuable Insurance rebates and the ever-increasing cost and frequency of disastrous fires in Industrial and Commercial buildings makes a reliable Fire Alarm system increasingly imperative. Our technical advice is available if required to help you plan an efficient system for the buildings you design—or for preliminary information the completion of the Reader Enquiry Service card will bring you our leaflet No. 300.

** The Fire Offices' Committee's approval is an assurance of an extremely high standard of performance and efficiency.*

GENTS'
OF LEICESTER

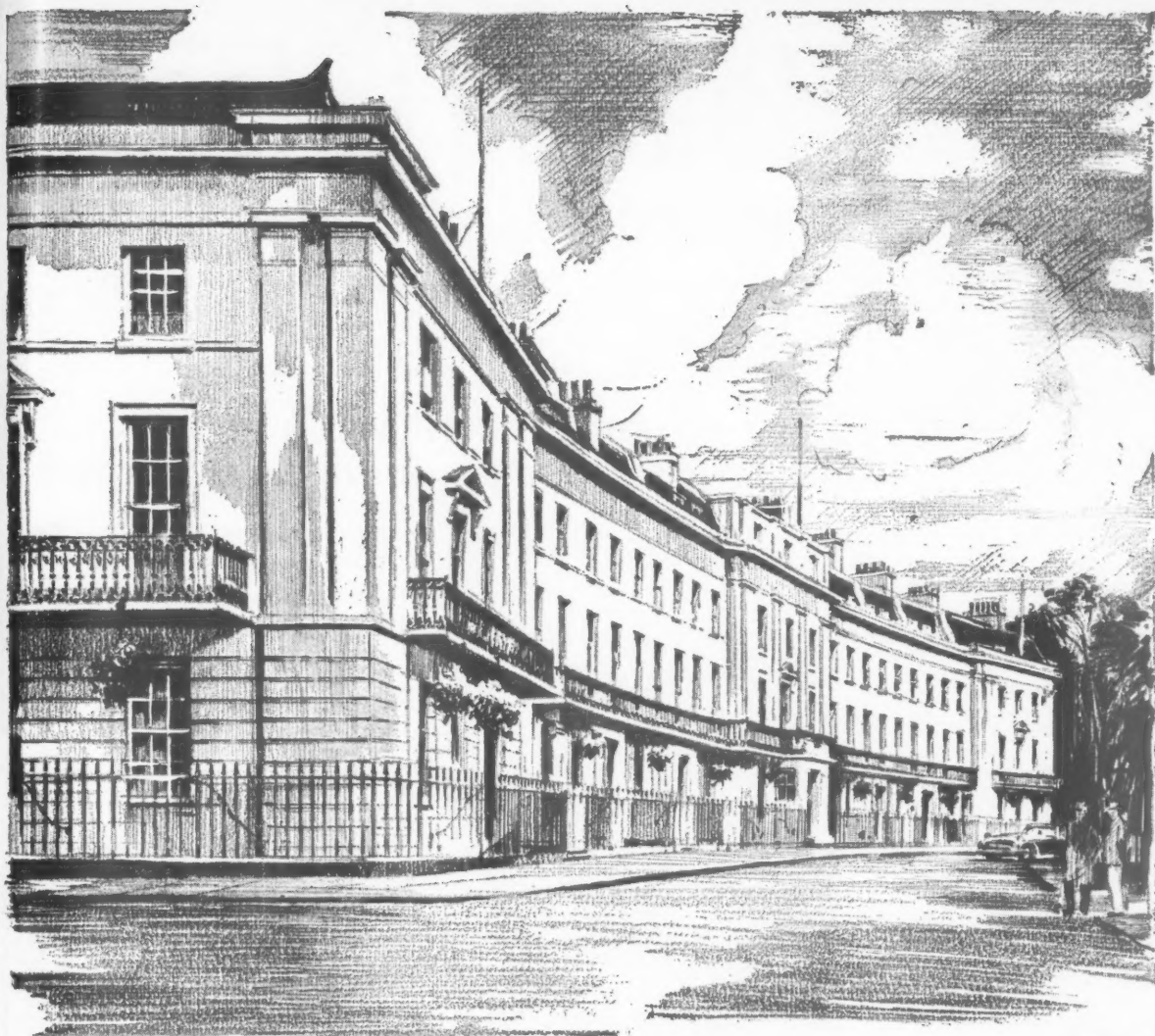
**1151 Automatic
Fire Alarm System**

GENT & COMPANY LIMITED • FARADAY WORKS • LEICESTER

London Office & Showroom, 47 Victoria Street, S.W.1

Also at BELFAST • BIRMINGHAM • BRISTOL • EDINBURGH • GLASGOW • NEWCASTLE

Other products include : Controlled Electric Clock Systems • Synchronous Mains Clocks • Tower Clocks
Time Recorders • Programme Instruments • Luminous Call Systems • Staff Location Systems
Bell & Indicator Systems • etc.



WALPAMUR QUALITY PAINTS

—the best that money can buy—are used with conspicuous success throughout the country. Best known are Walpamur Water Paint, in interior and exterior qualities, Duradio, the easy to apply, quick to dry Enamel Paint, for inside or outside use and Darwen Satin Finish, steamproof and ideal for kitchens and bathrooms as well as other rooms, domestic, commercial or industrial. The full range includes 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



**AMONG THOSE
WHO HAVE PROVED
THE EFFICIENCY OF
THE COLT OIL-FIRED
AIR HEATER ARE**

*Alexander Controls Ltd.,
Alfred Imhof Ltd.,
Anna Valley Motors (Andover) Ltd.,
Associated Portland Cement
Manufacturers Ltd.,*

*Austin Hoy & Co. Ltd.,
Belling & Lee Ltd.,
Birmingham Aluminium Casting
(1903) Co. Ltd.,*

*British Railways,
Conallcrete Ltd.,
F. Coupe & Son Ltd.,
Consett Iron Company Limited,
Cow & Gate Ltd.,
Cowley Concrete Co. Ltd.,
Cu-Ni-Craft Ltd.,
Decca Radar Ltd.,
Dexion Ltd.,*

*Essex Tile & Concrete Co. Ltd.,
Esso Petroleum Co. Ltd.,
Everett, Edgcombe & Co. Ltd.,
Firestone Tyre & Rubber Co. Ltd.,
Froggatt & Prior Ltd.,
Grundy (Teddington) Ltd.,
T. J. Harrington & Son Ltd.,
Harrow Motor Factors,
Harry Chapples Ltd.,
G. A. Harvey & Co. (London) Ltd.,
I.C.I. Ltd.,*

*Ideal Oil Burners Ltd.,
James Potts & Son Ltd.,
C. Jenner & Sons Ltd.,
John Knight Ltd.,
F. A. Kirk (Cutlers) Ltd.,
Linseed Fibres Ltd.,
Longs Ltd.,
E. H. Macey Ltd.,
Mechanical & Electrical Industries
Ltd.,*

*P. B. H. Engineering Co.
(Twickenham) Ltd.,*

*Percival Aircraft Ltd.,
Perrins Motors Ltd.,
G. V. Planer Ltd.,
Premier Colloid Mills Ltd.,
Presswork (Croydon) Ltd.,
Reema Construction Ltd.,
Rodd Engineering Co. Ltd.,
Rolls-Royce Limited,
St. George Light Engineering Co.
(Berks) Ltd.,*

*Shelbourne Trading Co. Ltd.,
Stanley Engineering Co. Ltd.,
Sumex Paints Ltd.,
Surmanco Ltd.,
Technitools Ltd.,
R. E. Thompson & Co.
(Instruments) Ltd.,*

*Trimite Ltd.,
United States Army Air Force,
Vaporheat Ltd.,
Varley—F.M.C. Ltd.,
Viking Marine Co. Ltd.,
Winston Electronics Ltd.,
Zealand Engineering Co. Ltd.*

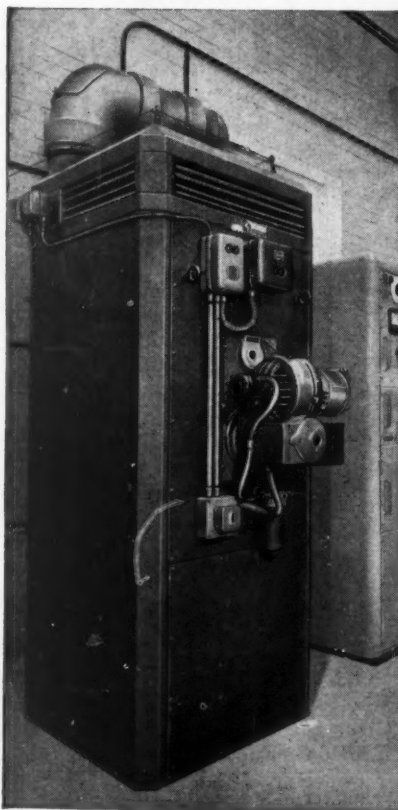
Heating by **COLT**

at MICROCELL LIMITED, CAMBERLEY, SURREY

For the heating of their new factory at Camberley, Microcell Limited required a method of heating which would combine the advantages of efficiency and economy with quick heat-up and flexibility to suit changing factory layout.

Thus they selected Colt equipment, installing 6 P.J.250 models.

COLT OIL-FIRED AIR HEATING HAS THE FOLLOWING OUTSTANDING ADVANTAGES:—



- Immediate delivery
- Lower installation costs
- Lower running costs
- Lower maintenance costs
- Qualifies as fuel economy plant under 1956 Finance Act
- Automatic firing
- Quicker heat-up
- Even distribution of heat throughout factory
- Sterilises air
- Complete flexibility—units free standing
- Heaters remain tenants' property—not fixtures
- Provides ventilation during summer-time
- No danger from burst pipes

Send for Free Manual on Colt Heating & Ventilation to Dept. I.150, 5



**OIL-FIRED
AIR HEATER**



COLT VENTILATION LTD · SURBITON · SURREY · Tel: ELMBRIDGE 6511 (10 lines)

U.S.A. Subsidiary: Colt Ventilation of America, Inc., Los Angeles.

Branches at: Birmingham, Bradford, Bridgend (Glam), Bristol, Dublin, Glasgow, Leamington Spa, Liverpool, London, Manchester, Newcastle-upon-Tyne, and Sheffield. Agents in: Australia, Belgian Congo, Belgium, Burma, Canada, Cyprus, India, Indonesia, Madagascar, Malaya, Mauritius, New Zealand, Pakistan, Portugal, Rhodesia and Nyasaland, South Africa, and West Indies.



Horizontal-pivot-hung TOMO WINDOWS are incorporated in the attractive and economical curtain-wall at the Bishop Simpson Secondary School.

Architect: Charles H. Pike, F.R.I.B.A.

TOMO

DOUBLE GLAZED WINDOWS

and the
B.R.S. TESTS

**FOR UTMOST EFFICIENCY IN
THERMAL INSULATION AND SOUND REDUCTION**
— SPECIFY

TOMO WINDOWS

—purpose-made in finest timbers to Architect's
own design and finish



**HAVE YOU HAD
YOUR FREE COPY OF
THE NEW EDITION
OF THIS HELPFUL
BROCHURE?**

Fully illustrated and packed with information, this 24-page brochure shows many examples of TOMO WINDOWS in use throughout the country. Please complete and post this coupon for your copy.

WHEN a standard-production TOMO WINDOW Wall-Unit (8 ft. x 8 ft.) 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, 11-in. 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.

In addition to their excellent thermal-efficiency values, TOMO double-glazed WINDOWS have remarkable sound-reduction properties and are specially recommended for offices, schools, flats, etc., in busy streets or near to airports. The amount of reduction in sound level depends on the thickness of glass and the space between panes—thirty-two ounce glass spaced at 1½ in. gives a reduction of approximately 40 decibels.

These high-quality windows afford all the advantages of finely-controlled ventilation and total indoor window-cleaning. They are suitable for inward or outward opening and can be top-hung, bottom-hung, side-hung or pivot-hung.

**To: TOMO TRADING CO. LTD., COWLEY PEACHEY,
UXBRIDGE, MIDDLESEX (Tel: West Drayton 3751)**

Please send me a copy of your revised TOMO WINDOWS brochure

Name.....

Address.....

For the attention of.....

A/P'D



"TURNALL"
REGD TRADE MARK
LARGESPAN
COMBINED SHEETS
(ASBESTOS-CEMENT)

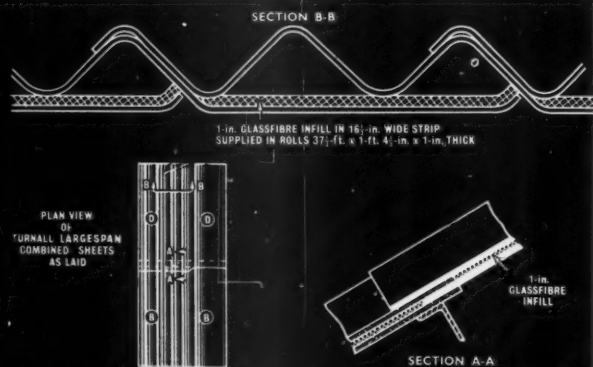
save on roofing costs, provide increased thermal insulation — permanently

There is two-way saving with "Turnall" Largespan Combined Sheets—during erection you cut labour costs and when the building is in use your heating costs are reduced.

Purlins spaced at 7'6" centres reduce erection time and in addition the cavity between the two skins, being largely unventilated, assists in the reduction of heat loss through the roof fabric. By packing this cavity with glassfibre infill, 1" thickness, there is further improvement in thermal resistance of the complete covering — thermal transmission (U) being reduced from 0.520 to 0.169 B.t.u./sq. ft./hr./°F—which is constant.

ASK for Publication B.107

ROOF PITCH 4° to 15°
PURLIN SPACING 7'6"
 Centre to Centre
DOUBLE SKIN ROOFING
'U' VALUE (with glassfibre infill)
0.169 B.t.u./sq. ft./hr./°F.



and available with "TURNALL" "Colourglaze" FINISH

TURNERS ASBESTOS CEMENT CO LTD

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

MANCHESTER 17

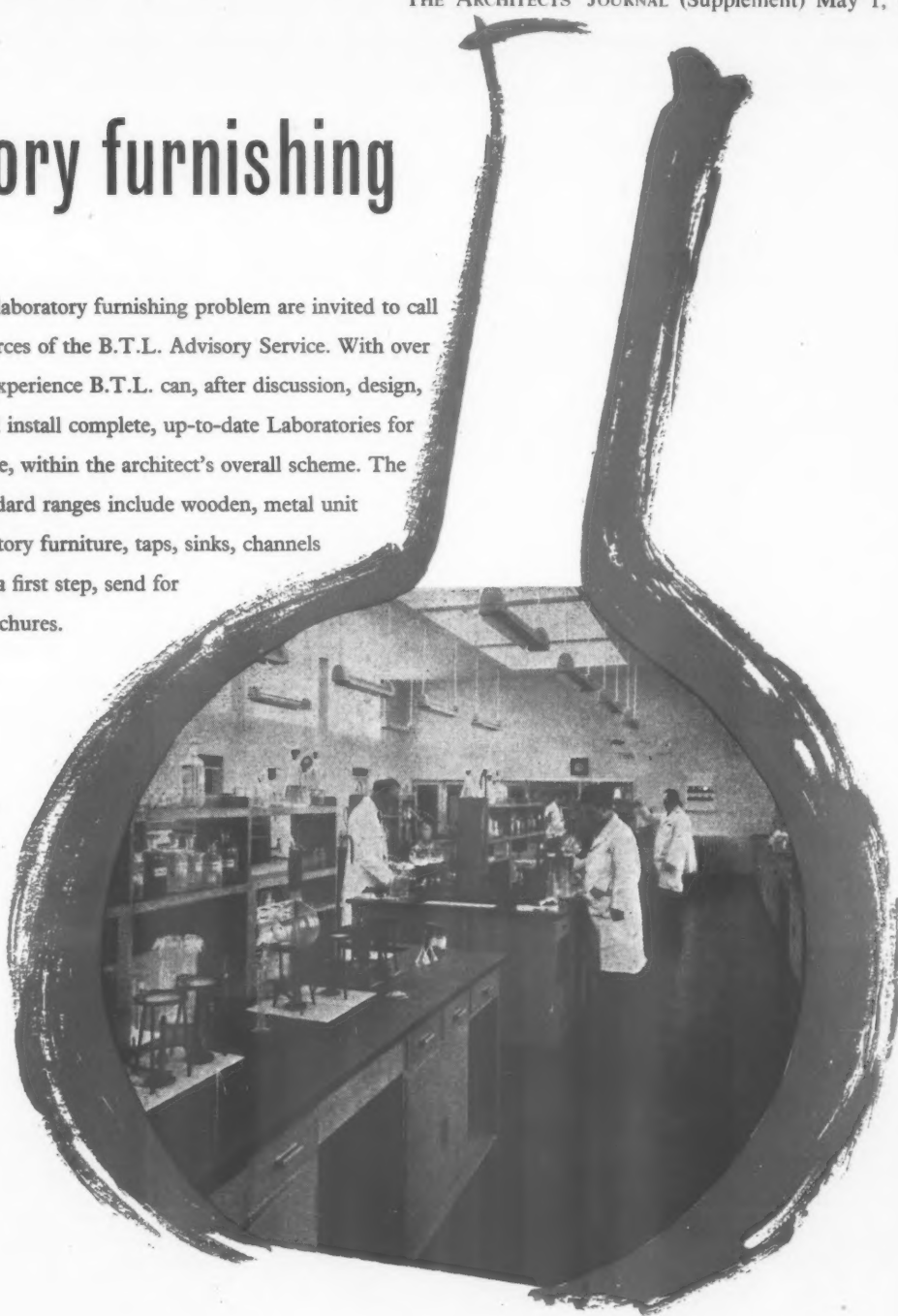
The best in Asbestos-Cement

Laboratory furnishing

Architects with a laboratory furnishing problem are invited to call on the resources of the B.T.L. Advisory Service. With over 70 years' experience B.T.L. can, after discussion, design, manufacture and install complete, up-to-date Laboratories for any branch of science, within the architect's overall scheme. The

B.T.L. standard ranges include wooden, metal unit and convertible laboratory furniture, taps, sinks, channels and service lines—as a first step, send for the illustrated brochures.

*Chemical laboratory of
A.P.C.M. at Stone, Kent,
fitted with B.T.L. wooden
laboratory furniture.*



... call in the B.T.L. Advisory Service



BAIRD & TATLOCK (LONDON) LTD., CHADWELL HEATH, ESSEX, ENGLAND.
Branches in London, Manchester and Glasgow.

Agents throughout U.K. and all over the world.
TAS/BT.15

A COMPLETE RANGE OF Scientifically controlled lighting units

FOR INDUSTRIAL & COMMERCIAL PURPOSES



HEAVY-DUTY UNIT
FOR HIGH BAYS



GENERAL PURPOSE UNIT
FOR LOW BAYS



"ALICAST" LIGHTWEIGHT
BULKHEAD UNIT



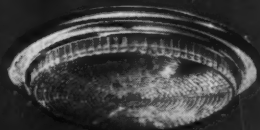
DUST-PROOF & WEATHER-PROOF
REFLECTOR BOWL UNIT



A TYPICAL
FRAMEPROOF UNIT



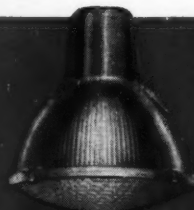
A few of the
Holophane units
for industrial
purposes are
illustrated here.
Write for Cat.
5600 and see the
complete range.



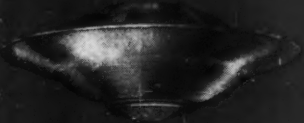
RIGID CIRCULAR
UNIT



A TYPICAL
STAINLESS STEEL UNIT



LUMINAIRE ALL GLASS
TRANSLUCENT UNIT



AIRCRAFT UNIT WITH
BUILT-IN EMERGENCY LIGHTING



AIRCRAFT UNIT WITH
BUILT-IN EMERGENCY LIGHTING



The full range of
Holophane units
for commercial
purposes is con-
tained in Cat.
5500—write for
a copy today.

HOLOPHANE LIMITED

SCIENTIFIC ILLUMINATING ENGINEERS

ELVERTON STREET, LONDON, S.W.1

Telephone: VICTORIA 8062

Telegrams: Holophane, Sowest, London



Pounding feet are a menace...

**BUT RONSEAL gives most
surfaces a charmed life**

HERE'S WHY!

WOOD FIBRES BIND CLOSER

RONSEAL toughens wood flooring, gives a gloss finish with good grip. Provides hardwearing gloss which requires little maintenance.

CONCRETE WON'T DUST-UP

RONSEAL seals and hardens granolithic and other materials and provides an easy-to-clean surface.

CORK WON'T ABSORB THE 'SPILLS'

Hardboard, chipwoods and cork flooring do not absorb spills when you treat them with Ronseal. And it makes them more durable.

LINO DOESN'T NEED SCRUBBING

RONSEAL protects and proofs the material, seals it, and provides a good gloss finish.

RONSEAL costs so little. A gallon covers sixty to seventy square yards — *two coats!* If the area to be covered is large, why not let the Ronuk Polishing Contract Dept. do the whole job for you? Write or telephone the London Office and Showroom: 16 South Molton Street, W.1. Telephone: GROSVENOR 5011 and MAYFAIR 0222: OR the Scottish Office, 12 Castle Street, Edinburgh 2. Telephone: CALEDONIAN 7469.

RONUK

LIMITED, DEPT. (AJ), PORTSLADE, SUSSEX

Telephone: HOVE 48631-3



Maximum output with minimum input **Riley Oil Burning Equipment**

Type HL Burner

HIGH/LOW/OFF OPERATION

For capacities above 10 gallons per hour using 220 secs and 950 secs oil. Gives clean combustion and 13% CO₂ at variable firing loads. Incorporates one small and one large air register, each with its own atomiser. On low load only the small burner is alight, at high load both are working at optimum efficiency. Large burner has tip shut off, arranged for hot oil circulation to start and self cooling on shut down.

Type F Burner

ON/OFF OPERATION

Available in capacities from 20 lbs. to 90 lbs. per hour, using 220 secs oil. Air/Oil ratios and pressures are factory set to give suspended intense flame with 13% CO₂, and do not require further adjustment on site.

Type G Burner

ON/OFF OPERATION

Generally similar to type F burner, but designed for use with 40 secs oil.

Type M Burner

FOR HORIZONTAL SHELL BOILERS

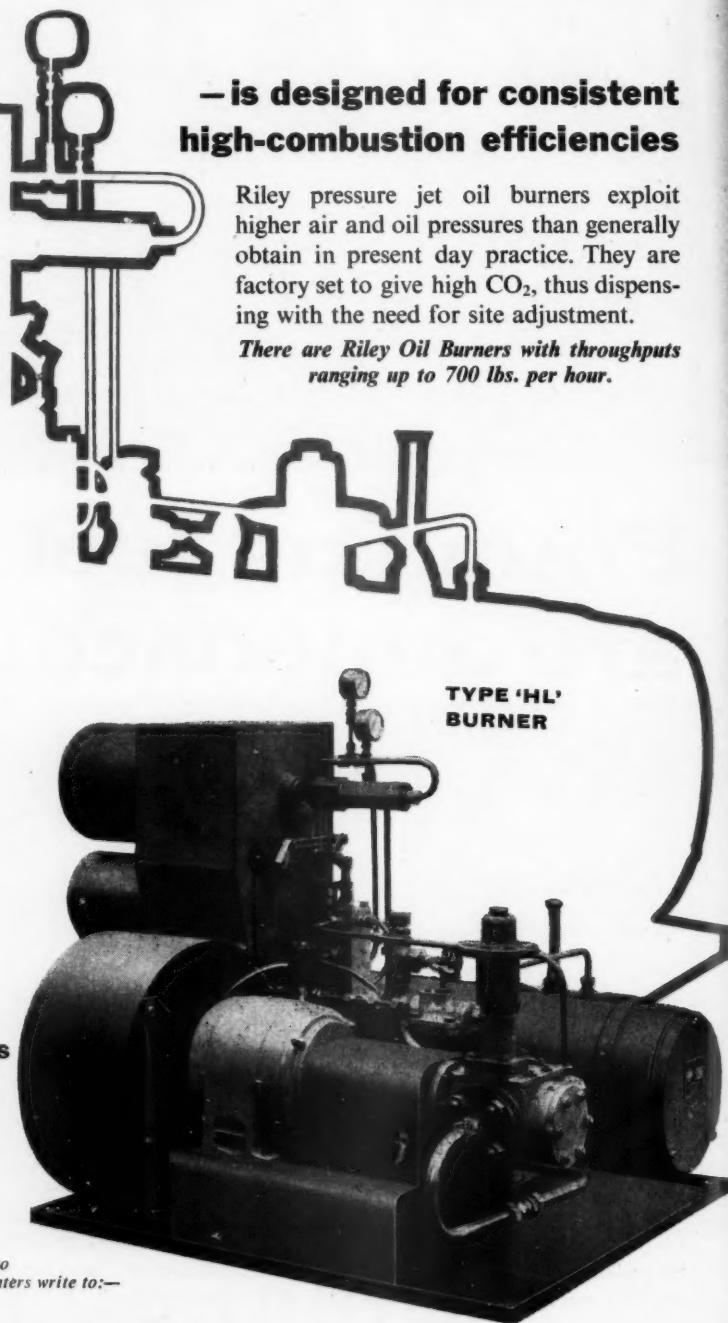
Spill return type atomiser with output range of 3 to 1. Specially developed air register to give clean narrow flame without impingement. Hot oil circulation to start and self cooling on shut down. Suitable for light and heavy fuel oils.

For booklets giving full details of these burners, also Riley Oil Fired Combustion Chambers and Air Heaters write to:—

— is designed for consistent high-combustion efficiencies

Riley pressure jet oil burners exploit higher air and oil pressures than generally obtain in present day practice. They are factory set to give high CO₂, thus dispensing with the need for site adjustment.

There are Riley Oil Burners with throughputs ranging up to 700 lbs. per hour.



RILEY (IC) PRODUCTS LIMITED

A Member of the International Combustion Group of Companies.

NINETEEN WOBURN PLACE · LONDON · WCI · TELEPHONE: TERMINUS 2622

TGA, R04A



The finishing touch to good bar decoration...

Rydura

THE VERSATILE FABRIC
WITH THE 'PROFILM' FINISH

The use of RYDURA as a counter decoration adds the final touch of elegance and modernity to the Mustard Pot Bar at the Guildford Hotel, Leeds. The versatility of RYDURA makes it specially suitable for hotel, bar and restaurant use. RYDURA can not only be used with great success as a wall covering, and as a decoration of cabinet furniture, but is also the ideal covering for chairs and other forms of seating.

OUTSTANDING MODERN DESIGNS AND COLOURS
ATTRACTIVE APPEARANCE
DURABLE AND HYGIENIC
HAS DIRT AND STAIN RESISTING PROPERTIES
EASY TO KEEP CLEAN VIRTUALLY UNSTAINABLE

**CHAIR UPHOLSTERY, CABINET AND TABLE DECORATION
AND, OF COURSE, FOR WALLS**

Full details on request to: RYJACK PRODUCTIONS LTD
(Prop. The Calico Printers' Assoc. Ltd.)
89 Oxford Street Manchester 1 Tel. Manchester Central 0020



Asbestolux is unique

Manufacture

Asbestolux is entirely unlike asbestos cement sheeting. It consists of Amosite asbestos fibre and graded silica, chemically bonded together by a high pressure steam process—the greatest advance yet made in the production of sheet lining materials.

Composition

These ingredients are inorganic and are chemically inert.

Asbestolux is free from the brittleness and extreme alkalinity generally associated with cement bonded asbestos boards.

Performance

The result is a rigid yet light-weight, absolutely stable insulation board: it cannot swell, twist or warp—it is unharmed by steam or moisture—it provides a remarkable degree of fire protection.

"Fire Control in Factories"

Write for detailed, illustrated report of full scale structural fire test of roofs, light partitions, fire stops and columns.

ASBESTOLUX

non-combustible asbestos insulation board



CAPE BUILDING PRODUCTS LTD, COWLEY BRIDGE WORKS, UXBRIDGE. Tel: Uxbridge 4313
Glasgow: Eagle Buildings, 217 Bothwell Street, Glasgow C.2. Tel: Central 2175
Manchester: Floor D, National Buildings, St. Mary's Parsonage, Manchester 3. Tel: Blackfriars 7757
Birmingham: 11 Waterloo Street, Birmingham 2. Tel: Midland 6565-6-7
Newcastle: 19 & 20 Exchange Buildings, Newcastle-upon-Tyne. Tel: Newcastle 20488



Like many other manufacturers we make a range of first class paints widely used in the building industry. We are tired of the kind of paint advertisements which feature an illustration of a building and a list of names. So every month we shall publish as our advertisement a photograph which has nothing to do with paint, or with building. (As this one, for example, by Fritz Henle). We hope that you will remember us when the choice of paint is under consideration. Or that, in any case, you will remember our attempts to combine business with pleasure. If you would like a copy of this photograph write to :

SILEXINE PAINTS LTD • 142 SLOANE ST • LONDON, S.W.1 • Tel: SLOane 9218

PEERLESS PACKAGED KITCHENS

Selected by

COMPASS DEVELOPMENTS

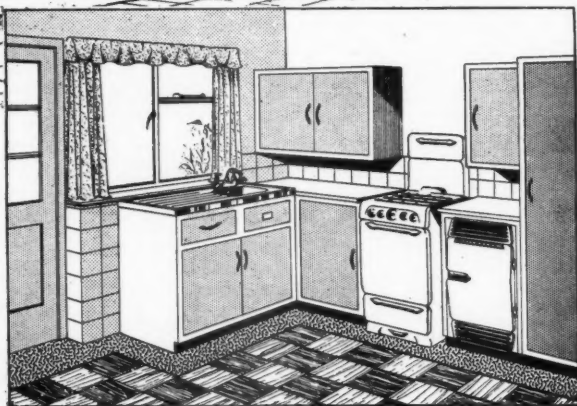
(Nixon & Pearce Ltd.)

for their Long Meadow Estate,
Felpham, Bognor Regis.



Architect: K. G. Higgs, A.R.I.B.A.

"Long Meadow" was originally planned as a Bungalow Estate but acting upon a suggestion from the Chairman of the B.R.U.D.C., Mr. J. C. Earle, Compass Developments set out to plan a more modern venture comprising two and three-bedroom houses and flats using "cross wall" construction, and offering as standard equipment such refinements as washing machine, spin drier, refrigerator, etc., which will be inclusive in the overall moderate cost. From this suggestion has emerged a bold scheme on contemporary lines embracing terraced houses and flats formed into squares and court-yards, fully landscaped in open surroundings, "Long Meadow" will be planned as a compact self-sufficient community with shopping centre and other general amenities to hand and may well prove to be a model for future Estate Development.



In this modern planning, quality with an applied ingenuity to bring about the maximum economy, lead the Principals of Compass Developments to a unanimous decision to incorporate Peerless Package units throughout the entire scheme. Each compact package (no more than 3 in. deep), containing a complete unit, enables stocks to be held on site without risk of deterioration and obviating call-off delays in delivery. All component parts are finished sub-sections which can be assembled in a matter of minutes.

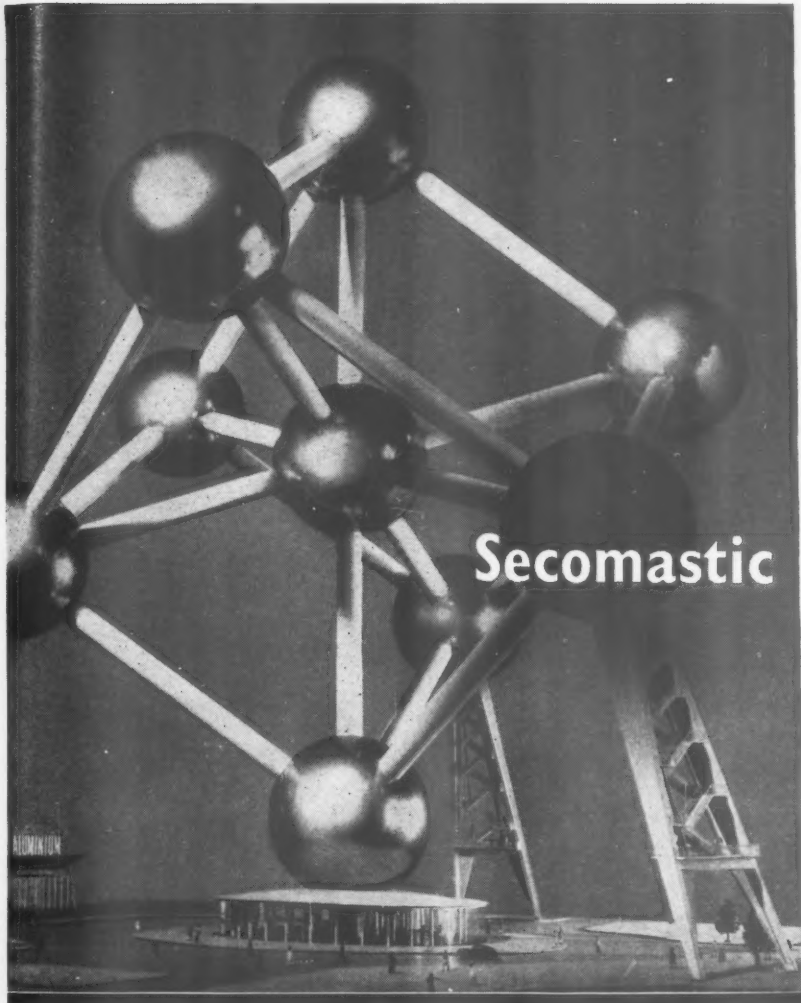
May we send you further details?



PEERLESS PACKAGED KITCHEN



Write to Dept. AJ/3, 58, PEERLESS BUILT-IN-FURNITURE LTD. Western Avenue, Perivale, Greenford, Middlesex



in
modern
construction
techniques
products
are
usually
specified

Many scores of thousand linear feet of joints
in the Atomium have been sealed
with SECOMASTIC and SECOSTRIP.

SECOMASTIC LTD are proud to have been associated with
this most interesting structure,
the key building of the Brussels World Exhibition,
and with the building of pavilions for Britain USA Canada Mexico
Brazil Czechoslovakia France
and many of the pavilions for the national industries of Belgium.

For further information on the use of Secomastic products
please write to Building Department

SECOMASTIC LIMITED Bracknell Berkshire
telephone Bracknell 910 (10 lines)



Top—Photograph of Atomium by courtesy of
Industries de la Siderurgie, des fabrications metalliques et des metaux non ferreux belges.
Designer—Ing. Waterkeyn. Architects—Andre and Jean Polak. Consultants—Beckers, Joukoff and Daniel.
Middle—Pointing an external joint on one of the aluminium spheres with SECOMASTIC.
Bottom—Applying SECOSTRIP to one of the aluminium panels.

Hardwood floors on panel heating THESE PRESENT NO PROBLEM TO VIGERS BROS WHEN LAYING THEIR OWN HARDWOOD FLOORS

The Architect today specifying hardwood flooring and under floor heating may be concerned about the proximity of floor to heat source.

He need not worry.

The Vigers technique has overcome the old difficulties. Whatever the heating, we can lay a floor which will be equally satisfying to Architect, Client and ourselves.

Need more be said?

Selection of flooring over panel heating contracts in progress or completed

Architect	Job	Material
Gunton & Gunton	London Chamber of Commerce	Muninga strip and block
London County Council	Royal Festival Hall	Burma Teak strip
H. & H. M. Lidbetter	Headquarters National Union of General & Municipal Workers, London	1" Burma Teak and Banga Wanga blocks
Lanchester & Lodge	University of Leeds	Missanda blocks
Lanchester & Lodge	University of Belfast	Muninga, Iroko and Teak blocks
County Borough of Brighton	Stanmer Mixed Secondary Grammar School	Muninga blocks

VIGERS BROS LTD

HEAD OFFICE: BROADWAY CHAMBERS, LUDGATE BROADWAY, E.C.4

Also at EXETER · BELFAST · CARDIFF

**Inherent
fire
resistance
at 4d*
per sq. ft.**

There is no safer method of lining a building at a comparable cost than with plasterboard. The core of all plasterboard is gypsum which contains about 20% combined water — an inherent protection in the event of fire.

Plasterboard has other advantages to the builder and the building's owners. Easy to handle, strong, safe, simple to erect and decorate, plasterboard has everything to recommend it — and it's British throughout.

SAFE, LOW COST THERMAL INSULATION

Insulating Gypsum Plasterboard provides thermal insulation, without fire hazard. At 5d.† per sq. ft. for thermal insulation AND fire protection it saves money. Insulating Gypsum Plasterboard conforms on both faces to B.S.476, Class I, and does not require any additional treatment involving further cost.

* Approximate price of Plain Plasterboard

† Approximate price of Insulating Plasterboard

It's the core that counts . . .

THE INCOMBUSTIBLE GYPSUM CORE OF PLASTERBOARD

FOR THE FACTS write today for free illustrated brochure
THE GYPSUM PLASTERBOARD DEVELOPMENT ASSOCIATION, G.P.O. BOX 321, LONDON W.1



GPA.2



Reproduced by kind permission of the Rector of St. Bride's, from a painting by John Stammers.



ST. BRIDE'S IN FLEET STREET

FEW of the people hurrying home through Fleet Street on a winter's evening can resist a passing glance at the light shining from the east window of St. Bride's. This is a church that holds memories for many of them.

The night in December 1940, for instance, when it

fell victim to the Blitz, its bells and organ pipes fused together in a stream of molten metal. A happier and more recent memory: the re-dedication service last December—climax to the patient years of restoration that have made it both a place of light and warmth and a testimony to today's craftsmanship.

Cables for the new church of St. Bride's were supplied by
Architect: W. Godfrey Allen, F.R.I.B.A. Electrical Contractor: L. T. Hall Ltd., London.



W. T. HENLEY'S TELEGRAPH WORKS CO. LTD., 51-53 HATTON GARDEN, LONDON, E.C.1

Telephone: CHAncery 6822



and a

BILSTON

ATLANTA

... what more could we ask!



When buyers are considering a new home, the bathroom can often be the deciding factor! A Bilston Atlanta appeals instantly because of its distinctive line and brilliant finish. Made for lasting beauty, Bilston baths are in White, or the exact colour required for any decorative scheme. Specify the Atlanta—it costs no more than an ordinary bath.

*Bilston Baths
for lasting beauty*

Atlanta •
Magna •
Cresta •
Marina •
Mermaid •
Bermuda •

THE VERSATILE ATLANTA

The Atlanta can be specified for any bathroom, large or small! As well as the 66", the Atlanta comes in 54", 60", 61" (available in two widths), and 72" lengths.

The Atlanta 54, 60 and 61 must be preferred to any other baths of these sizes because they are exact replicas of the full size bath, scaled down to small proportions.

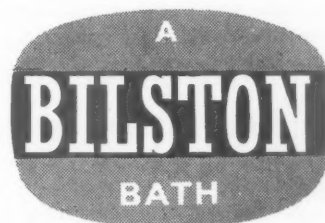
Atlanta flat bottom helps to prevent slipping—ensures comfort.

Atlanta shallow step is safe for young and old. The Atlanta can be fitted to give an overall height of only 16".

Taps can be fitted in three different positions to meet all possible requirements.

Corner tap mounting facilitates installation and maintenance.

The Atlanta is supplied with or without overflow—with or without handgrip.



BILSTON FOUNDRIES LTD • BILSTON • STAFFORDSHIRE • Illustrated literature is available on request.

Minerva

FIRE PREVENTION BY NUCLEAR DETECTION GUARDS BRITAIN'S MOST MODERN BUILDINGS

BANK OF LONDON AND SOUTH AMERICA VICTOR HEAL & SMITH, F.F.R.I.B.A., <i>and</i> JOHN WRIGHT, F.R.I.B.A., <i>were the Associated Architects</i>	MARKS AND SPENCER LTD. PRINCES ST., EDINBURGH <i>Architects :</i> MUNRO AND PARTNERS Glasgow	METROPOLITAN-VICKERS ELECTRICAL CO. LIMITED <i>New Research Laboratory at Wythenshawe</i> <i>Architects :</i> HARRY S. FAIRHURST & SON, Chancery Chambers, Manchester	ELECTRONIC INSTRUMENTS LTD. RICHMOND, SURREY <i>Architects :</i> KENNETH ANNS, F.R.I.B.A., } 1 Lincoln's Inn Fields, W.C.2
THE EXCHANGE TELEGRAPH COMPANY LIMITED <i>Architects :</i> TRIPE AND WAKEHAM, F.A.R.I.B.A., 16 Fitzhardinge Street, W.1	UNIVERSITY LIBRARY, CAMBRIDGE <i>Architects :</i> SIR GILES SCOTT, SON AND PARTNERS, 9 Gray's Inn Square, W.C.1	BRITISH EUROPEAN AIRWAYS FLIGHT SIMULATOR BUILDING <i>Consulting Engineer :</i> SCOTT & WILSON, KIRKPATRICK AND PARTNERS, 47 Victoria Street, W.1 <i>Architects :</i> RAMSEY MURRAY, WHITE & WARD, 32 Wigmore Street, W.1	COMMUNICATION SYSTEMS LTD. MARSHALSEA RD., S.E.1 <i>Architects :</i> A. FRANCIS BENNET, M.A., A.R.I.B.A., 35 Queens Gate Mews, S.W.7

THE scientific application of nuclear physics to the problem of fire prevention has cut dramatically the time necessary for calling into action fire-fighting services and equipment. The first trace of combustion (before any flame or appreciable heat is generated) is sensed by the Minerva Nuclear Detector which immediately operates an alarm or brings automatic fire-fighting equipment into action. Exhaustive tests by independent public bodies have proved that in buildings, stores and factories protected by Minerva, fire is given no chance to establish a hold before the alarm is raised.

HOW MINERVA IS INSTALLED

One Minerva Detector guards up to 1,000 sq. ft. of floor space. Groups of Detectors, wired in a 2-wire system following normal electrical installation practice, are connected to a combined control unit and signal panel which indicates the area in which the alarm originates. From the signal panel, the alarm can be automatically transmitted to the Fire Station or watch office, or it can be arranged to activate fire-fighting equipment on the spot.

OTHER USERS OF MINERVA

include the Admiralty, Air Ministry, Ministry of Supply, G.P.O., British Electricity Authority, London Transport Executive, U.K. Atomic Energy Authority and British Railways. In factories, department stores, warehouses, museums and offices, Minerva is continually on watch, consuming no power whilst on guard but springing instantly to life and summoning aid the moment combustion products approach any of its radioactive Detector heads.



No building protected by Minerva has ever been destroyed by fire.

Write for full details of the Minerva System of Fire Prevention by Nuclear Detection to :

THE MINERVA DETECTOR CO. LTD., RICHMOND, SURREY • TELEPHONE: RICHMOND 6431

'KEY cut my drain laying costs by 28%'

says Major J. H. HACKETT

Director of Hackett (Builders) Limited, Norwich

'A job which would have taken several weeks by traditional methods was completed in under a week with Key Pitch Fibre pipes', says Major J. H. Hackett, of Hackett (Builders) Limited. 'In this time, the entire main sewage pipe to a new estate was laid by a team of only three men. Labour costs for laying and jointing were cut from 1/2d. to 1 1/4d. per foot run. The need for concrete bedding was completely eliminated. With performance at least the equal of best quality materials used by former methods, Key pipe gave me an overall saving of at least 28% on the job'.

Key Pitch Fibre pipes, which were supplied to Hackett (Builders) Limited by Robert R. Ruympe & Son Ltd., Norwich, through B. Finch & Co. Ltd., Essex, (Key distributors), are cutting costs on all the building sites of this company. They are also providing a far more effective answer to the problems of an area with exceptionally bad conditions of loose earth and subsidence. This modern form of drainage could bring equivalent or even greater advantages in performance, economy and speed of laying in your own building projects.

FULLY APPROVED

Key pipes comply with the requirements of B.S. 2760, 1956, and carry the B.S.I. 'Kite' mark.

NO CRACKING THROUGH SETTLEMENT

The resilience of pitch fibre pipes eliminates cracking under normal conditions of earth settlement, making bedding concrete unnecessary.

SIZES AND FITTINGS

2, 3, 4, 5 and 6 in. sizes. 4 and 6 in. diameters are supplied in 8 ft. lengths, other diameters in 5 ft. 6 in. lengths. Easily coupled to conventional drainage fittings.



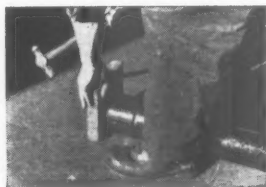
Major J. H. Hackett handling Key Pitch Fibre pipe on one of the building sites of his company.

SPEEDING THE JOB—CUTTING THE COST

500 feet per hour is a modest rate for laying Key Pitch Fibre pipes and the simple jointing system ensures 'all weather' laying. With no cement to dry out, completed drains can be tested and trenches back-filled immediately. When you add laying costs to pipe costs, together with other site advantages, KEY means an overall economy compared with other drainage systems.



FIT IT



TAP IT



TEST IT

**IN ANY
WEATHER!**

Get to know more about



PITCH FIBRE PIPES

A product of the **KEY ENGINEERING COMPANY LIMITED** Larkfield, Near Maidstone, Kent. Telephone: Maidstone 7461 and 7233



TGA KD 14



Good flush doors speak for themselves . . .

There is no mistaking the outstanding high quality of Leaderflush flush doors wherever they are seen—it is a quality born of many years' experience in specialised manufacture—a quality which speaks for itself.

STOCKISTS:—LEADERFLUSH DOORS can be obtained immediately ex stock from the following officially appointed distributors for the areas stated:—

BIRMINGHAM & W. MIDLANDS
British Door Marketing Co. Ltd.,
Burton-on-Trent.

BRISTOL & SOMERSET
Iron & Marble Co. Ltd., Bristol.

DEVON & CORNWALL
Jewsons Ltd., Plymouth.

ABERDEEN & N. SCOTLAND
George Gordon & Co. Ltd.,
Aberdeen.

DURHAM, NORTHUMBERLAND & N. RIDING of YORKSHIRE
J. M. & J. Bartlett Ltd., Newcastle-on-Tyne.

SOUTH WALES

H. R. Paul & Son Ltd., Barry.

ANGLESEY & CAERNARVONSHIRE
Wm. Roberts & Co. Ltd., Menai
Bridge.

**GLOUCS., WORCS.,
HEREFORDSHIRE**
Sharpe & Fisher Ltd., Cheltenham.

CUMBERLAND & WESTMORLAND
Wm. Coulthard & Co. Ltd., Carlisle.

"DELIVERY ON TIME" To all parts of Great Britain and the world is the recognised policy of LEADERFLUSH.

LITERATURE—giving full specification of LEADERFLUSH doors will be gladly sent on request.

Leaderflush

BRITAIN'S FINEST FLUSH DOORS

LEADERFLUSH (DOORS) LTD., TROWELL, NOTTINGHAM.
Tel: ILKESTON 623 (4 lines). Telegrams: LEADAFUSH, ILKESTON, NOTTINGHAM.



THERE ARE OVER 2,000,000 LEADERFLUSH DOORS IN USE TODAY.

No. 15 of a series



Who are we ?

BRIAN GELLEY

Meet our Technical Manager, here seen examining test panels of SMITHSON Paints after accelerated weathering tests.

Mr. Gelley has ideas on paint which are both modern and original—but they are backed by fourteen years' hard work and experience of paint research and production.

He heads a Research and Development team to whose increasing efforts the outstanding reputation of SMITHSON Paints is due.

Mr. Gelley is a man of many interests—Chemistry, Physics, Art and Architecture; he combines these interests with under-water swimming, as a member of the British Sub Aqua Club, which is a world of its own.

Smithson

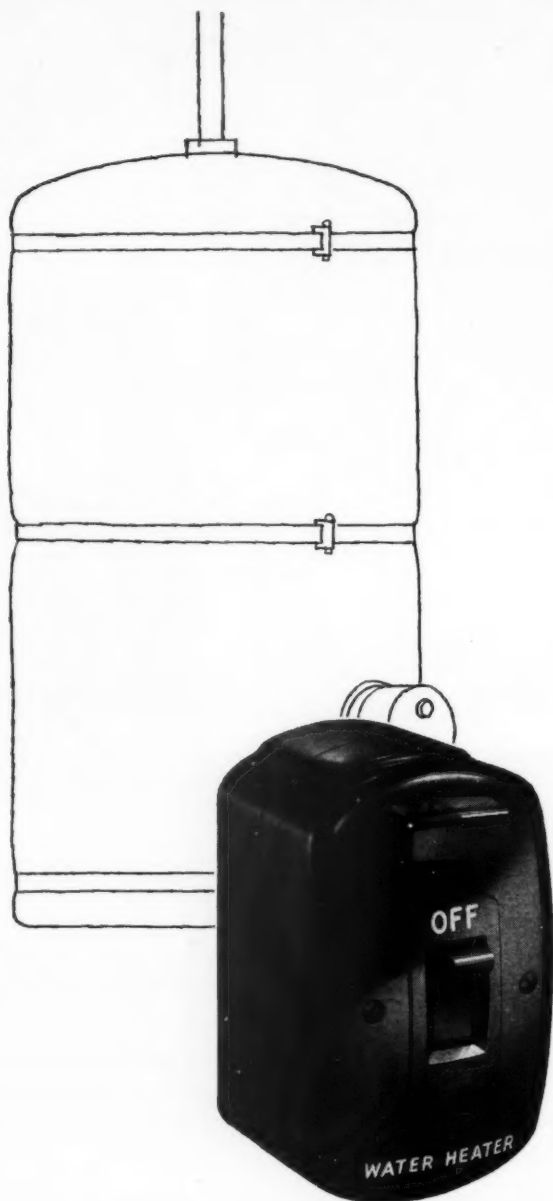
Regd.

Makers of Fine Paints and Varnishes since 1790

A private, entirely independent Company devoted to good paint-making and really personal service.

THOMAS SMITH & SON LTD., 238-240 Whitechapel Road, London, E.I.

Telephone : BiShopsgate 3717-8-9



MORE AND MORE HOMES

are making the switch to electric water-heating. And MK make the switch for water-heaters. Easy to wire, easy to fix, easy to look at, this new range of 20 amp. DP switches is of interest for all specifications. Flush or surface, with or without pilot-lamps, there's a design for any type of installation. Write for leaflet 243, and compare the value.



... the mark of reliability

M. K. Electric Limited, Wakefield Street, London N.18 Edmonton 5151

K150A
DHB



Full steam ahead

Resistance to steam and to other hazards of industrial processes may well call for timber structures, and timber structures today mean *glued* structures.

Synthetic resin adhesives have eliminated the weaknesses associated in the past with glued joints and a modern resin-bonded truss is amazingly strong and rigid for its weight—and *durable*, too, under the most severe conditions of exposure.

The lattice trusses shown above form the roof structure of the new Courtaulds finishing plant at Bocking, Essex, designed by Ove Arup and Partners. These trusses are of 45ft span and 9ft height and were constructed by Rainham Timber Engineering Co. Ltd. A high degree of resistance to chemicals and steam was essential and gluing was, therefore, carried out with Aerodux 185



resorcinol-formaldehyde adhesive to ensure bonds of unequalled durability, unaffected even by boiling water and by changes in moisture content of the wood.

Much information on glued timber construction is given in Aero Research Technical Bulletins 142, 143, 159 and 160, which will gladly be sent on application.

Aerodux 185

resorcinol resin glue

Aerodux is a registered trade name.

Aero Research Limited A CIBA COMPANY
Duxford, Cambridge. Telephone Sawston 2121

AP 336



and see what's under your feet

Versatile: Expanded Metal Openwork Walkways are designed for Catwalks, Gantries and the like and they can be made with cut-outs or openings to suit structural or other requirements. They can be combined with Openwork Stairtreads to make a unit of exceptional strength which is readily fixed and has a perfect, non-slip surface.

Adaptable: Expanded Metal flooring and walkways are made up in panels of any convenient size, easily fixed into place and easily removed.

Functional: Expanded Metal Walkways have great strength and are clean and hygienic, allow free passage of air and light, permit ready inspection of the condition of the supporting structure and afford a perfect grip for the feet.

All this may be of particular interest to you at this moment. Ask us for further information about Expanded Metal.



EXPANDED METAL

at the heart of more things than most people realise

THE EXPANDED METAL COMPANY LIMITED BURWOOD HOUSE, CAXTON ST., LONDON, S.W.1. TELEPHONE: ABBEY 7766
ALSO AT: ABERDEEN · BELFAST · BIRMINGHAM · CARDIFF · DUBLIN · EXETER · GLASGOW · LEEDS · MANCHESTER · PETERBOROUGH · WEST HARTLEPOOL
THE EXPANDED METAL COMPANY OF CANADA LIMITED, ANNACIS INDUSTRIAL ESTATE, VANCOUVER, CANADA

Expamet

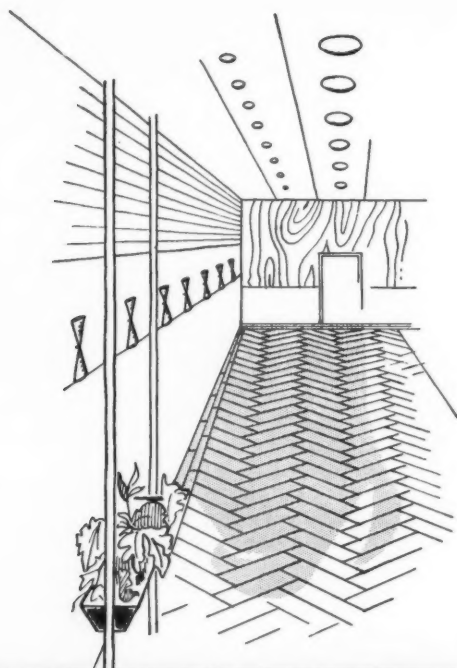


VITROLITE – *made in the interests of better living*

'VITROLITE' opaque glass, permanent-colour wall lining is a product of Pilkington Brothers Limited, St. Helens, Lancs, to whom enquiries for further information should be addressed.

Supplies are available through the usual trade channels.

'VITROLITE' is a registered trade mark of Pilkington Brothers Limited.



HOLLIS FLOORS

of

WEST AFRICAN OPEPE
(SARCOCEPHALUS DIDERRICHII)

Opepe is without doubt, one of the outstanding hardwoods for flooring imported from the African Continent. Remarkably trouble free due to its natural stability, giving long and even service in wear, it also provides a floor of most attractive appearance by virtue of its beautiful grain, the colour toning to a rich golden brown.

Contracts on hand or recently executed with OPEPE include:—

CONTRACTS

University of Birmingham, Mechanical and Electrical Engineering Departments.
University College of Leicester, "N" Block Extension, Common Room and College Hall Extension.
University of Sheffield, New Engineering Block.
University College of Leicester, The Percy Gee Building.
Easingwold Grammar School.
College of Further Education, Doncaster.
Grammar School, Wath-on-Dearne.
Canon Slade Grammar School, Bolton.
New Science Building, Grammar School, Ashby-de-la-Zouch.
Notre-Dame High School, Ecclestone.
St. Mary's College, Blackburn.
Teachers' Training College, Coventry.
Drawing Offices, De-Haviland Aircraft Co. Ltd., Hatfield.

ARCHITECTS

Messrs. Peacock & Bewlay, Birmingham.
University College of Leicester.
Messrs. J. W. Beaumont & Son, Sheffield.
Messrs. Thos. Worthington & Sons, Manchester.
Messrs. Gollins, Melvin Ward & Partners, London.
Borough Architect, Doncaster.
Messrs. Taylor & Young, Manchester.
Messrs. Pick, Everard, Keay & Gimson, Leicester.
Messrs. Wm. and J. B. Ellis, St. Helens.
Messrs. W. S. Hattrell & Partners, Coventry.
Messrs. J. M. Monro & Son, Watford.

In addition to the above, OPEPE has been used in over 50 Primary, Junior and Secondary Schools, also in Industrial Premises, Offices, Churches, etc.

HOLLIS BROS. LTD.

LEICESTER • HULL • LONDON • BIRMINGHAM

SHERWOODS

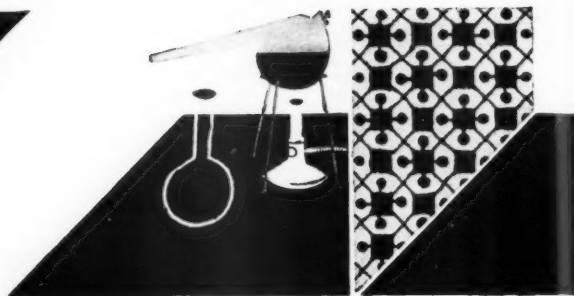
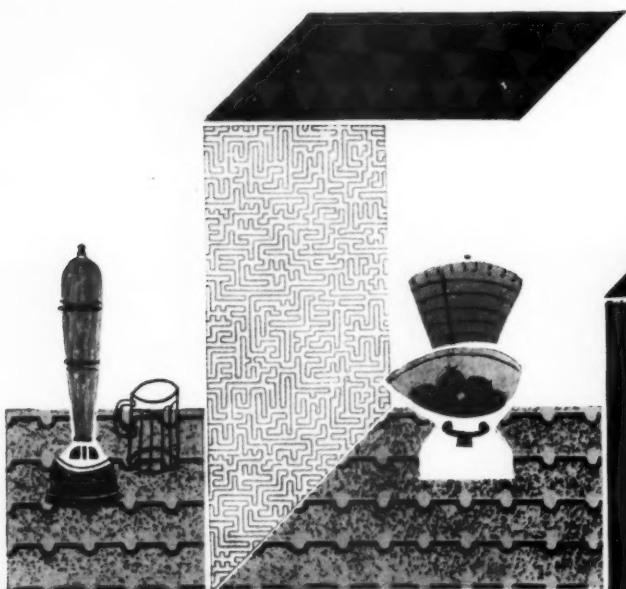
**FOR
COLOUR**

As well as our standard
colour ranges we hold stocks
of every shade of
B.S.2660 in Gloss Finish

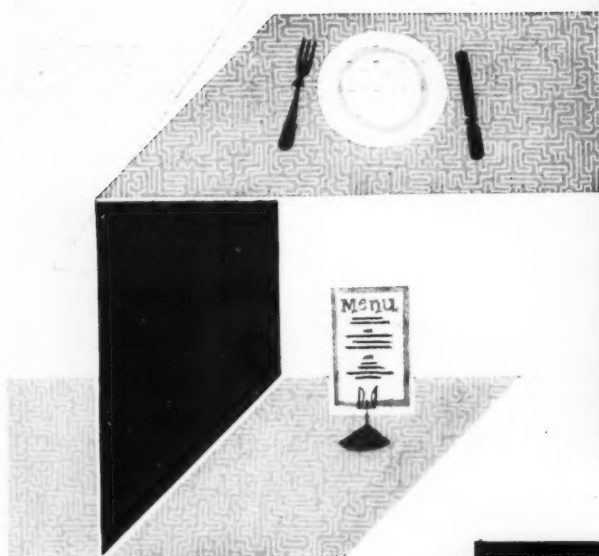
Write or 'phone R1Ppleway 5500

SHERWOODS PAINTS LTD · BARKING · ESSEX

QUALITY PAINTS SINCE 1777



New Decorplast gives you 47 exciting colours and patterns!



Reed
PAPER GROUP

NEW DECORPLAST makes working surfaces and walls really glow with colour — sets a new standard in top-class melamine-faced laminated plastics. It's as tough as it's beautiful. Doesn't easily crack, chip, stain or fade. It's cleaned with a damp cloth — because dirt cannot stick. Boiling water, grease, spirits, dilute acids and heat up to 310°F leave new Decorplast bright and colourful as the day it was made.

The whole new range, now in sheets 9' x 4' as well as 8' x 4', thickness $\frac{1}{8}$ ", is always available — in matt and gloss finishes — plus new wood veneers that really do look like wood! Write to the address below and ask for facsimile Colour Chart and list of Distributors.



Decorplast

LAMINATED PLASTIC

Made by HOLOPLAST LIMITED • SALES OFFICE: 116 VICTORIA STREET • LONDON S.W.1 • TEL: VICTORIA 9354/7 & 9981



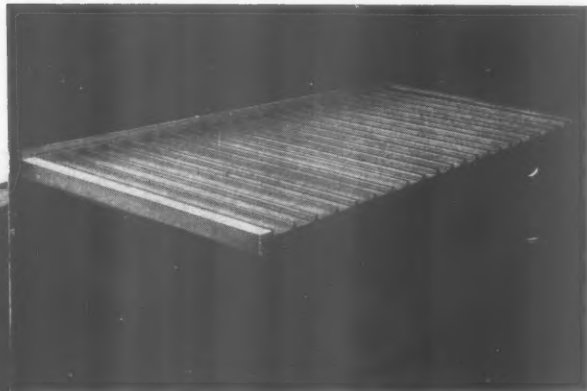
Does this meet your specification in decking or roofing?

- | no leaks
- | no fire risk
- | no bitumen used in construction
- | is lowest in ultimate cost
- | is speedily erected
- | is dry construction throughout
- | gives immediate protection
- | gives high insulation
- | gives no trouble

Laid to 4°

Laid to 25°

Photograph by courtesy of
The Midland Saw & Tool Co.
Ltd., Birmingham 1.
Contractors: Rudders &
Paynes, Ltd.



Full technical information is available from SNAPDEK Ltd., or from our accredited fixing contractors:—

- | | |
|--------------------------------------|--|
| Beaumonts (Manchester) Ltd. | Anson Road, Victoria Park, Manchester, 14.
Tel.: Rusholme 1484. |
| John Bland & Co. Ltd. | East Moors, Cardiff.
Tel.: Cardiff 24241 and Branches. |
| C. Walsh Graham Ltd. | P.O. Box No. 7, Wednesbury, Staffs.
Tel.: Wednesbury 0521 and Branches. |
| Hall & Co. Ltd. | Victoria Wharf, Cherry Orchard Road, Croydon, and
33 Cherry Orchard Road, Croydon.
Tel.: Croydon 4444 and Branches. |
| W. H. Heywood & Co. Ltd. | Bayhall, Huddersfield.
Tel.: Huddersfield 6594 and Branches. |
| Hooper & Ashby Ltd. | 166-168 Millbrook Road, Southampton.
Tel.: Southampton 26697 and Branches. |
| Industrial Engineering Ltd. | Mellier House, Albemarle Street, London, W.1.
Tel.: Hyde Park 1411 and Branches. |
| Manchester Slate Co. Ltd. | Lancaster Road, Didsbury, Manchester, 20.
Tel.: Didsbury 4806 and Branches. |
| Roberts Adlard & Co. Ltd. | Tweedy Road, Bromley, Kent. Tel.: Ravensbourne 3421
and 52 St. Stephen's House, Westminster, London, S.W.1
and Branches. |
| Rudders & Paynes Ltd. | Chester Street, Aston, Birmingham 6.
Tel.: Aston Cross 3071. |
| Wiggins-Sankey Ltd. | Lysia Street, Fulham, London, S.W.6.
Tel.: Fulham 1250 and Branches. |

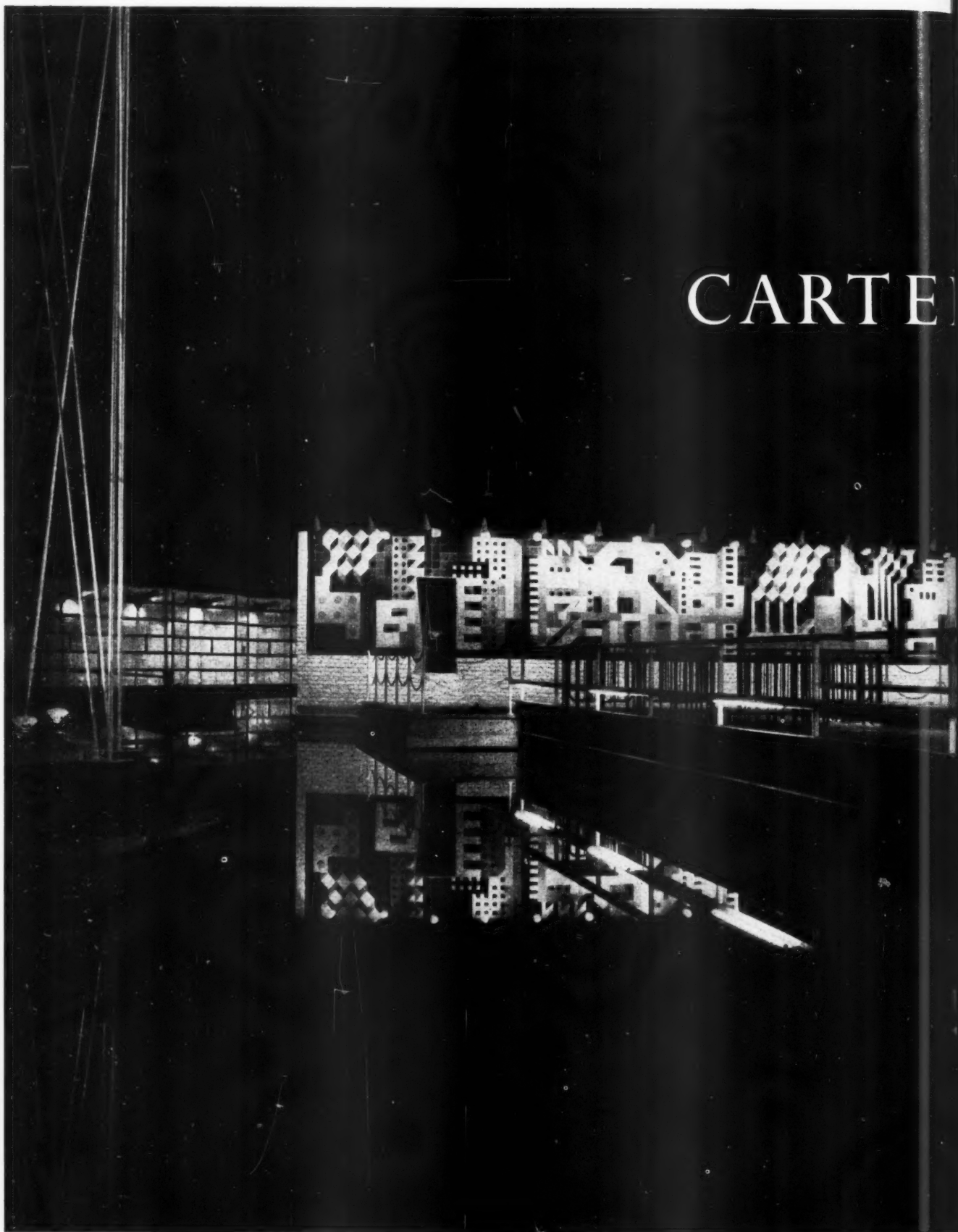
Regd. Trade Name

Prov. Patents 32555, 36279

SNAPDEK

INSULATED ALUMINIUM ROOF DECKING

SNAPDEK LIMITED · CHESTER STREET · BIRMINGHAM 6 ASTon Cross 3071 (P.B.X.)



E

AT BRUSSELS

Tile mural designed by Peggy Angus, A.R.C.A., M.S.I.A. at the United Kingdom Pavilion

Howard V. Lobb and John Ratcliff, F.F.R.I.B.A. Co-ordinating Architects for the United Kingdom site

James Gardner, R.D.I. Co-ordinating Designer

CARTER TILES LIMITED • POOLE • DORSET *Poole 125*



RAWLINGS BROS

LIMITED

ENQUIRIES INVITED FOR

*Conversions. Decorations
Electrical Installations*

RAWLINGS BROS LTD. 85 GLOUCESTER ROAD, LONDON, S.W.7. Telephone FRE 8161

ESTABLISHED 1887

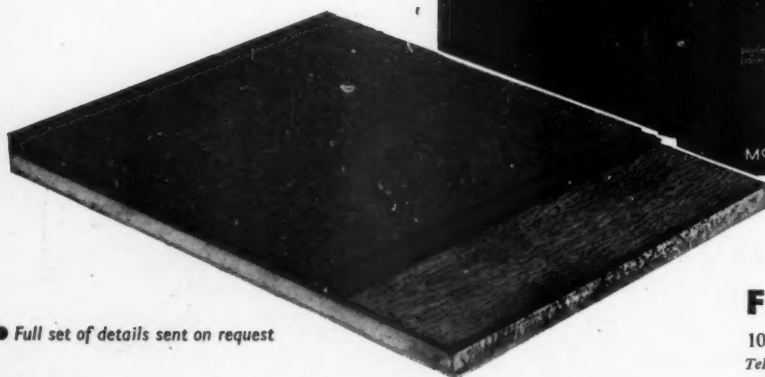
MODERN ROOFING IN FELT

Recent Contracts

Ferryfield Airport, Lydd.
B.S.A. Factory, Birmingham.
Telephone Exchange, London Airport.
B.O.A.C Airways Terminal, London.
New Primary School, Erdington.



Registered Trade Mark

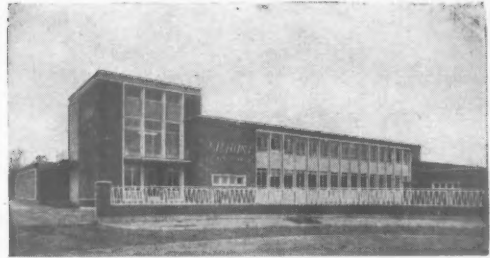


● Full set of details sent on request



F. MC NEILL & CO LTD

10 LOWER GROSVENOR PLACE, LONDON, S.W.
Telephone: VICtoria 6022 also at Wolverhampton and Swansea



*A. H. HUNT (CAPACITORS) LTD.
Architects:
Douglas White & Furniss, F.F.R.I.B.A.
Bradfords were responsible for the frame,
floors and staircases.*



*Men are wise in proportion, not to their
experience but to their capacity for
experience.*

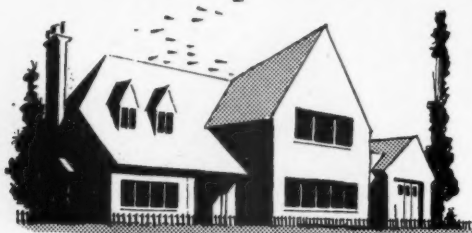
George Bernard Shaw

BRADFORDS

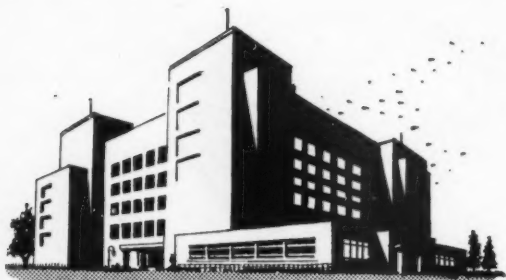
FOR HOLLOW-BLOCK FLOORING

F. BRADFORD & CO. LTD · ANGEL ROAD · LONDON · N18 · Telephone: Edmonton 4267

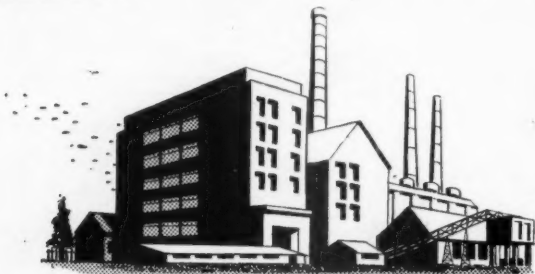
They all need Insulation . . .



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

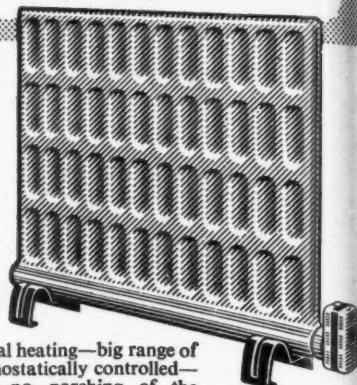
KR 56

dimplex

**PERMANENTLY
OIL-FILLED
ELECTRIC RADIATORS**

- For homes
- Offices
- Shops
- Halls
- Hotels
- Cafes
- Clubs

*and many
industrial uses.*



Portable plug-in central heating—big range of sizes $\frac{1}{4}$ to 2kw—thermostatically controlled—fume and fireproof—no parching of the atmosphere—eight attractive colours—no installation or maintenance costs. Prices from £13 13s. 3d. (Tax paid). Detachable towel rails and pressed steel top plates extra.

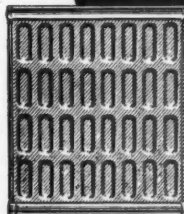
NEW! Infra-red heaters, domestic, commercial and industrial—convectors, skirting board styled—towel rails—and airing cupboard heaters. Write NOW for full details.

PRESSED STEEL

Water Radiators

FOR INDIRECT SYSTEMS

More efficient, lighter in weight and easier to install than cast iron. Frost proof. Virtually unbreakable. Stove enamel finish—choice of eight colours. Big range of sizes with heating surfaces areas from 5-30 square feet approx.

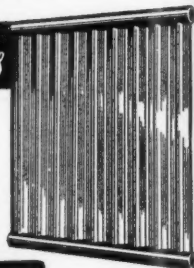


COPPER

Water Radiators

FOR DIRECT SYSTEMS

Non-rusting—non-corroding—trouble-free. Yes, indeed, designed to last a lifetime! Eight sizes with heating surfaces from 6 to 15 sq. ft. approx. Full conformity with B.S.S. 639 and 1845/Type 7. Stove enamel finish—choice of 8 colours.



Top Plates

Full range of redesigned top plates with enclosed ends now available. Choice of colours. Completes the installation beautifully!

Heating Problems?

dimplex

will provide the answer!

DIMPLEX LIMITED MILLBROOK, SOUTHAMPTON

'Phone: 74425-9. 'Grams: Heatex, Southampton

LONDON SHOWROOMS: 17 Shepherd Street, W.1. GRO. 1025/1254

NORTHERN BRANCH: 40 Longley Lane, Northenden, Manchester

'Phone: WYTHENSHAW 2679

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

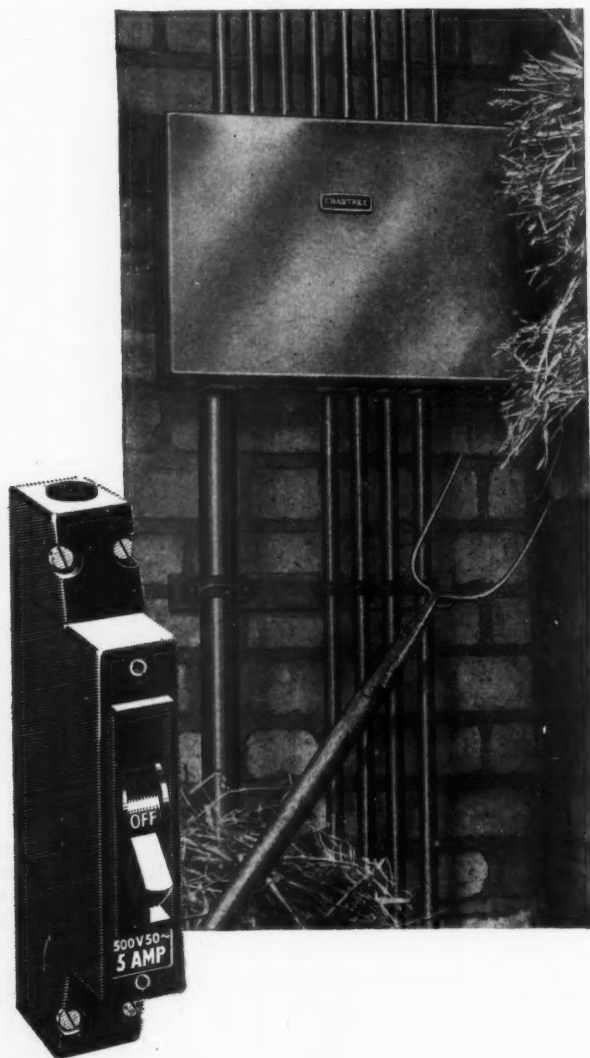
It is always easier and quicker to choose and specify a design, colour and grade from lino in stock. At Catesbys you see lino in the piece—and you can choose from the biggest stock in Europe.

Catesbys

Contracts (Linoleum Division)

TOTTENHAM COURT ROAD, LONDON, W.1. MUSEUM 7777

CRABTREE MINIATURE CIRCUIT BREAKERS



UNFAILING OPERATION IN ALL CONDITIONS

The Crabtree Type F-60 miniature circuit breaker gives reliable service, even under the most 'exacting conditions. Positive drive enables the unit to be closed and opened in all circumstances, whilst the trip-free handle prevents the breaker being held closed under fault conditions. The distribution board cases are provided with adequate dustproofing facilities.

Other features of this interesting new range are given in Publication No. 1191, available on request.

WHY THE USER PREFERS
CIRCUIT BREAKER PROTECTION



"Minor electrical faults no longer upset our production flow."

CRABTREE

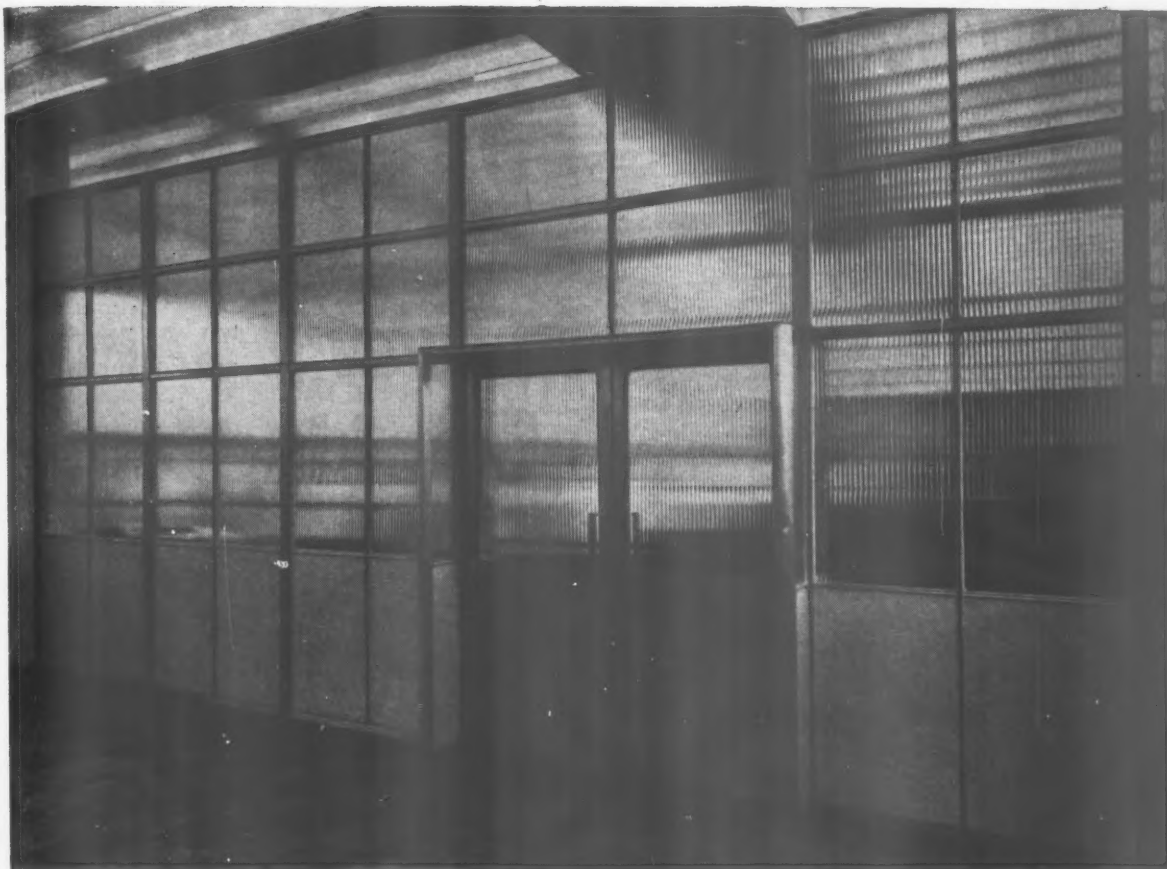
TYPE



A CIRCUIT BREAKER OF UNEQUALLED PERFORMANCE

J. A. Crabtree & Co. Ltd., Lincoln Works, Walsall, Staffs.

C.772



The above photograph shows BRABY 'Bar-Form' Partitions supplied and fixed at the new Research and Design Building of Messrs. C. A. Parsons & Co. Ltd., Newcastle-on-Tyne.



Interior Design

BRABY 'Bar-Form' Aluminium Partitions are outstanding features in any setting . . . outstanding in design, outstanding in appearance.

Constructed of extruded aluminium alloy sections with double dado panels of sheet steel or aluminium, insulated with slag wool. The components are designed for rapid assembly and dismantling so that additions and alterations are made easily and rapidly.

OTHER BRABY PRODUCTS INCLUDE

- Metal Windows
- Structural Steelwork
- Pressed Steel Stairs
- Dovetail Steel Sheets
- Copper and Zinc Roofing
- Ducting
- Tanks, Cisterns and Cylinders

ONE OF THE WIDE RANGE OF

BRABY

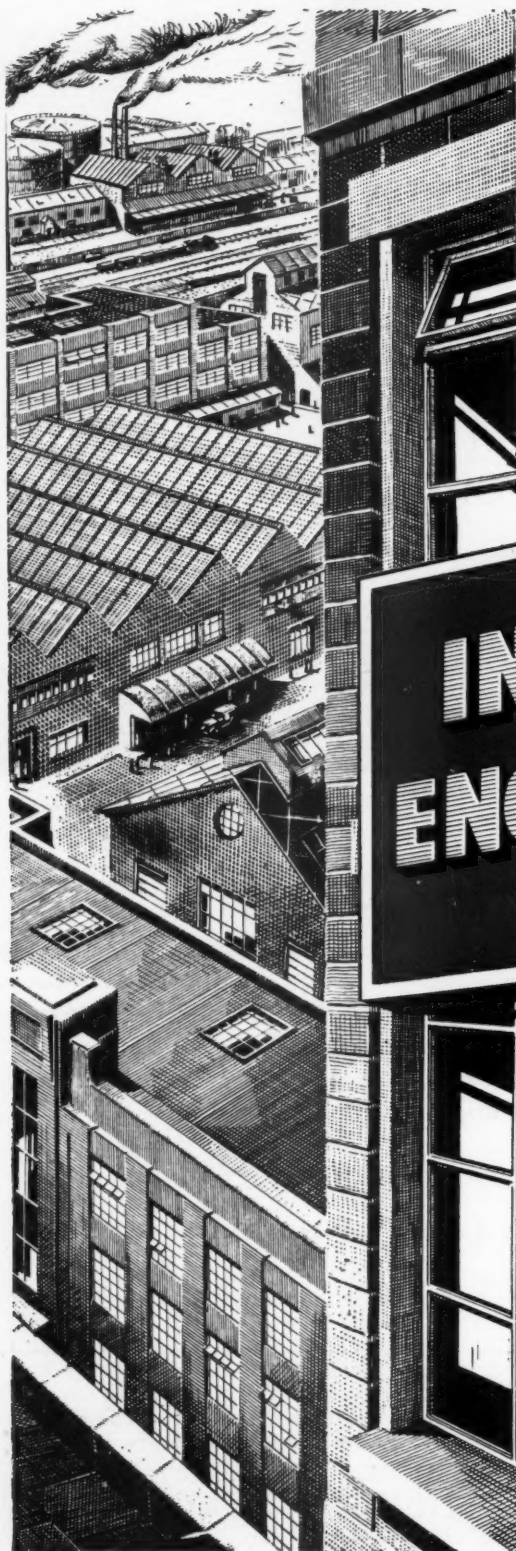
PRODUCTS

FREDERICK BRABY & COMPANY LIMITED

ECLIPSE WORKS, PETERSHILL ROAD, GLASGOW, N. TELEPHONE: SPRINGBURN 5151
 OTHER FACTORIES AT: London Works, Thames Road, Crayford, Kent. TELEPHONE: Bexleyheath 7777
 Havelock Works, Aintree, Liverpool, 10. TELEPHONE: Aintree 1721
 Ashton Gate Works, Bristol, 3. TELEPHONE: Bristol 64041. And Falkirk
 OTHER OFFICES: 352-364 Euston Road, London, N.W.1 (Head Office). TELEPHONE: EUSTON 3456
 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

AP293

For *everything* to do with **ROOFS** in *every* part of the kingdom



INDUSTRIAL ENGINEERING

LIMITED

Industrial Engineering Limited—Sheeters, Glaziers and Roof Waterproofing Engineers — specialise in the maintenance, repair, waterproofing and reconstruction of all types of industrial roofs.

British Railways, Government Departments, Nationalised Industries, principal Industrial Undertakings and Factories, and Architects enjoy the co-operation of Industrial Engineering Limited, who are pleased to survey and estimate throughout Great Britain, without cost, for the repair, reconstruction and waterproofing of industrial roofs by the MASTICON Process.

Head Office:

MELLIER HOUSE, ALBEMARLE ST., LONDON, W.1 (HYDe Park 1411)

Branch Offices:

BELFAST * BIRMINGHAM * BRISTOL * DUBLIN * GLASGOW * HEMEL HEMPSTEAD
KETTERING * LEEDS * LEYTONSTONE * MANCHESTER * MITCHAM
NEWCASTLE * SHEFFIELD

At last!

ALL-PLASTIC FITTINGS AND TUBES

FOR USE ABOVE
AND BELOW GROUND

NORMAL AND HEAVY GAUGE TO B.S. 1972

Wednesbury

have done it!

They have opened up new prospects in plumbing with a new 100% plastic assembly that is Guaranteed to do its job—yes, **GUARANTEED!**

HOW IT WORKS

Briefly, this is how it works. A rigid plastic ring is inserted with the special tool into the tube, raising a permanent external collar which is gripped between the body of the fitting and the end cap. The tool is withdrawn and the "Wednesbury" Fitting locks the tube solidly, sufficiently to withstand an end pull of over a quarter of a ton. Pressure in the tube further expands the collar and makes a still tighter joint.

WHAT IT DOES

These fittings and tubes at last make plastic plumbing practicable. Efficiency? This fitting will not pull out—'cold flow' does not affect it. Speed? A joint can be made in 20 seconds with the special tool available. Adaptability? Any end adapts to metal or reduces by means of special accessories. And no expensive tools are required.

Guarantee

We guarantee that if a "Wednesbury" Plastic Fitting is used on a "Wednesbury" Plastic Tube, and providing that the joint has been made in accordance with our instructions, it will not leak at any water mains pressure in this country.

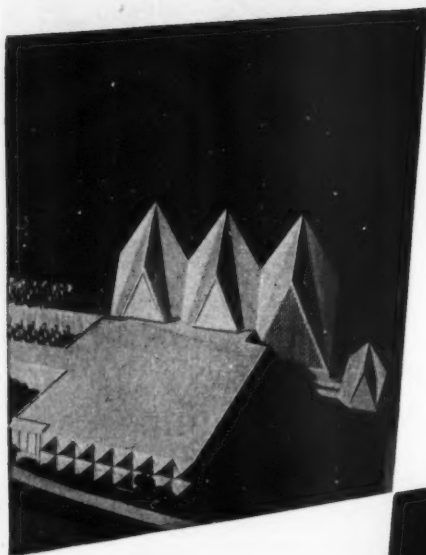
If any "Wednesbury" Plastic Fitting should fail to meet this standard we will replace it free of charge.

Write for List P.2.

WEDNESBURY TUBE CO. LIMITED
BILSTON, STAFFS.

Telephone: BILston 41483 (6 lines).

also at LONDON—PARK ROYAL RD., N.W.10 (ELGAR 7024)
MANCHESTER—TRAFFORD PARK
(TRAFFORD PARK 1444).



Armstrong

*paves the
way in
Brussels*



Photo: Hulton Press

MANY thousands will walk on Armstrong Flooring at the Brussels International Exhibition this year. Throughout the British Industries Pavilion and in the Government Pavilion extensive use has been made of Accotile, Accoflex and Cork Tile for this important occasion—ample proof of the confidence placed in Armstrong Flooring for modern building techniques and why Armstrong “paves the way in Brussels”.

Included in the many areas covered with Armstrong Flooring are the

*Royal Entrance Route
Pavilion Entrance Hall
City of London Exhibit
B.O.A.C./B.E.A. Stand
Rolls-Royce Stand, etc., etc., etc.*

Armstrong Flooring is also displayed on the Council of Industrial Design Stand.

ARMSTRONG CORK COMPANY LTD.

Kingsbury, London, N.W.9
Agents throughout Europe

FOR SERVICE COUNTER PROBLEMS . . .



CONSULT STOTTS

Architects faced with the technicalities of planning cafeteria serveries are invited to make use of Stotts specialist knowledge and advisory service, where they will find a refreshingly modern outlook on design and a spirit of co-operation in the use of the latest constructional methods.

Write for leaflet "Service Counters/II"



"Stotts of Oldham"



THE ARCHITECTS' JOURNAL

No. 3296 Vol. 127 May 1, 1958

9-13 Queen Anne's Gate, London, S.W.1. Tel. WHI 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 10s. 0d.; carriage 2s. extra.

NOT QUITE ARCHITECTURE

WHICH WILL CONSUME THE CONSUMER?

Some 75,000 of us have, over the past six months, become wiser and happier shoppers. No longer do we assume that the dearest article in its range must be the best and peevishly buy the cheapest. When we have indigestion we cheerfully drink bicarbonate of soda from the kitchen cupboard, when we have headaches we take the commonest of aspirins. Our glare glasses and night-driving glasses have gone into the dressing-up box, and will appear from time to time on spies, detectives and comic professors. And this notable increase in human wisdom and happiness is all due to the work of our two Consumer Research organizations, the semi-official Consumer Advisory Council, attached to the British Standards Institution, and the utterly independent Association for Consumer Research.

During its first six months, the latter has pressed forward and now has twice as many members as the older set-up: a membership of 50,000 was announced at a Press conference recently, called to celebrate the occasion, to launch the third quarterly issue of its journal, "Which?", and to announce that there is to be no amalgamation between the two bodies.

Negotiations for amalgamation, which have been going on for some time, have broken down, chairman Michael Young told us, on the issue of independence. CR insists that it must remain entirely independent of "manufacturers, retailers, Government and advertising," while CAC "values highly the aid it receives from retailers and other businessmen." With Miss Elizabeth Gundry of CAC an imposing figure in the front row of his Press conference, Mr. Young made his point with exquisite discretion, but he couldn't make his declaration of independence without to some degree implying that others value independence less. Inevitably Miss Gundry then had to explain that CAC is just as independent as CR and pointed to her "Shopper's Guide" as evidence that she pulls no punches. Mr. Young replied by



Ssh! No Talking In Church, Please!

The British Government Pavilion at Brussels is certainly achieving something that no other pavilion has done, though whether that's a good thing or not is a matter of opinion. But foreign visitors are said to be full of praise for our "church," as some of them call the Hall of Tradition. It is the only pavilion where visitors can be seen taking off their hats as they come in, and stepping lightly, reverently, almost silently over the deep carpet, as they make their way up the nave in the dim, purple light, past the displays of regalia and traditional emblems to the enlarged colour transparency of Annigoni's portrait of the Queen. What appears in the photograph to be an altar is in fact an

illuminated plaque stating that Her Majesty is, by the Grace of God, Queen, Head of the Commonwealth and so forth. The carpet and the fabric draping the stage on the left (which shows 16 figures in costume, ranging from the Speaker and an Oxford Doctor of Divinity to the Queen's Jockey and Barge Master) are both designed by James Gardner. The emblems on the right include such curios as a Judge's wig of state, the Lord Chancellor's purse, and the silver bell of the TUC, as well as replicas of the regalia, and jewels of the Order of the Garter. J. M. Richards's criticism of the British Pavilions appears on page 644 and further illustrations are printed on pages 649-656.

point
purch
the fi
have
leadin
on th
capac
ing m
Miss
not
advan
and a
call,
own
gumen
work
also
them;
encou
a pur
by C
in its

The
and
in fla
flavou
strictl
zines.
vario
forma
handt
humo
negat
issue
dogge
400 c
have
furnit
and
cover

Mos
to hin
the h
the y
hire p
lent c
(the r
charg
bicycl
nearly
shop,
on ar
a bicy
5 per
with
future
"read
joined
throu
which
accor
Servic
of bo
is ver
invest
public
makin
and
kettle
havin
large
stock
pass

pointing out that in an investigation of hire purchase charges in the latest "Which?", the findings showed that department stores have one of the best records. Now, if some leading department store director had been on the board of CR, even in a "personal capacity," said Mr. Young gently, this finding might have become just faintly suspect. Miss Gundry's strongest card, in fact, is not utter independence, but the practical advantage of having all the testing experts and apparatus of the BSI at her beck and call, whereas CR is having to build up its own testing apparatus from scratch. Consumers, however, can only benefit from the work of both organizations, and perhaps also from any rivalry that exists between them; for the existence of CR can only encourage CAC never to be tempted to pull a punch, and the high standard of testing by CAC must compel CR to be meticulous in its testing and reporting.

The rival journals "Shopper's Guide" and "Which?" are astonishingly different in flavour. The first has a more "womanly" flavour about it, its style resembling the strictly sensible corners of women's magazines. It carries letters and chatty items from various parts of the country, and its small format makes it easy to carry about in a handbag. "Which?", by contrast, is sexless, humourless, impersonal, and turns all these negatives into a positive virtue. Its latest issue carries an admirable piece of watchdoggery on hire purchase charges, in which 400 examples of h.p. and credit sale terms have been explored, covering cars, bicycles, furniture and radio and electrical equipment, and a startling diversity of charges discovered.

Most people don't realize when they start to hire purchase some longed-for object that the hire purchase charge is not the same as the yearly interest rate. For instance a hire purchase charge of 5 per cent is equivalent of an interest charge of $7\frac{1}{2}$ per cent p.a. (the normal rate for furniture), and the h.p. charge of $22\frac{1}{2}$ per cent which is normal for bicycles represents an interest charge of nearly 40 per cent p.a. "Which?" found one shop, however, charging 70 per cent interest on an electric fire and that you could buy a bicycle from Hammersmith Co-op for only 5 per cent h.p. charge. To help its members with these complex financial transactions in future, CR has now designed an h.p. "ready reckoner," consisting of two discs, joined in the centre, and with windows through which the answers can be read off, which it hopes to sell at 1s. 6d. or less, according to the number of orders received. Service to members . . . but the service of both these organizations to non-members is very much more important, in that their investigations and findings, now widely publicized by the daily press, are already making manufacturers look to their designs and their prices. Two makers of electric kettles criticized by CR have responded by having their models redesigned, and one large chain store has decided not to stock makes of electric fires which did not pass all CAC's safety tests. A good start.

SHEILA LYND.

The Editors

PERCEPTIVE LOYALTY WANTED AT THE AGM

THE annual report of the RIBA will be more closely studied this year than usual by members anxious to discover more about the Institute's financial embarrassment. In fact, very little extra information is available, but the Finance and House Committee would seem to be now determined to go about things in a more business-like way. Budget surveys are to be made annually for three years ahead and a Finance Officer is to be appointed. The most remarkable feature of the annual report, however, is the brief summary of the Council's current activities, printed over the name of the President, on the first page of the report. This shows just what sterling and valuable work is being, and has been, undertaken by the Council and its committees recently. Education, fees, appointments, publicity, byelaws, relationships with the industry and so forth, all are being studied and worked on. This does not mean that all now is well with the RIBA, and that the only thing wrong was that it had become out of touch with the membership and forgotten to tell members what it was doing. It means that while some members are struggling hard to put things right, the constitution of the council is such that it is weighted towards undue caution and conservatism, and is making progress only through the indefatigable efforts of a few and the stimuli of angry AGMs. More radical changes are necessary in the RIBA's constitution. The letter from Cleeve Barr and Anthony Cox, printed on page 642, undoubtedly reflects how many members must feel towards the RIBA. There should be strong criticism of the RIBA Council at this year's AGM, but that can do no harm if there is goodwill on both sides. There is vague talk heard nowadays of architects being so dissatisfied with the RIBA that they are leaving it. Such action would be disastrous. What the profession needs is not more splinter groups, but united action. The fore-runner of that is a common policy, and the way to achieve one is by the wide discussion of, and understanding of, professional problems. This year's AGM could be a further step towards attaining such a policy.

A DECISIVE STEP

After two years of discussion, negotiation and argument the RIBA has now taken the decisive step. The Local Government Architects' Society is to be launched within the next few weeks with the overwhelming support of architects in local government offices. On its success depend the status and the salaries of all salaried architects. Its failure would be a setback to the whole profession.

No effort should now be spared to ensure the success of the inaugural meeting, and the formation of the Society upon secure foundations.



NOT A BRICK DROPPED

Will the brick industry be sized out of the market if we use the 4-in. module? You couldn't have heard a brick drop the other day when Bruce Martin used skilful dialectic (at a Modular Society meeting) to allay the fears of the brick industry. His argument was something like this. The brick, taken by itself, is a hopeless case. But you never do take a brick by itself. Unlike the other components in a modular system, the separate brick does not have to gee with other, different components, but only with other bricks. Therefore the real component from the modular point of view is not the brick but "sections of brickwork"; and these are (or can be) modular without altering the brick size. Therefore the brick industry is already, in a real sense, in the 10 cm./4 in. system. And the industry has only to decide if it will, at its own convenience, rationalize sizes so that more (and smaller) brickwork dimensions will fit into the module grid.

As ASTRAGAL has always said, it's the way you look at a thing that matters.

THE OLD ADAM

Eighty-year-old L. Sylvester Sullivan has appeared quite frequently in the news lately, and is obviously an architect of spirit. His new Saddlers Hall,

in Cheapside, is in the Adam style because—he says—it is eminently suitable to the Saddlers Company, and is more graceful and delicate than Wren. When he told this to the Press, he added that he thought modern architecture was ugly to the point of being really hideous.

If by modern architecture Mr. Sullivan means the average city building, many of us would agree with him. And it is refreshing to find that we have progressed from Wren to Adam in so short a time. With such rapid progress we might—who knows?—get to Soane in a year of two.

Mr. Sullivan, to quote from the Press, "is not a tall man, but gains height from his upright bearing, and his grey-blue eyes watch kindly from an unlined face." With disarming modesty he says of his building: "I can't judge it yet. I have been living with it too closely. When I come across it in seven or eight years' time I shall know." He is clearly after Mr. Wright's laurels.

MARLEY'S GUEST

An invited audience assembled last week in Marley's basement showroom in Tottenham Court Road, to hear an illustrated talk on "Tropical Architecture" by Professor Corfiato. ASTRAGAL enjoyed the coloured slides of the indigenous mud buildings of Northern Nigeria, with their bold surface reliefs, their simple shapes and their pinnacles rising from the four corners of the parapets.

No projecting eaves in these buildings of character—no brise-soleil . . . no louvred verandahs or walls peppered with agricultural drain pipes; in fact, none of the paraphernalia which, tacked on to a mediocre shed, might pass as a less distinguished tropical building.

In his brief, polished introduction, Dr. Koenigsberger explained that the Professor had built some forty buildings in the tropics; it was therefore disappointing that none of his work was shown. Most of the photographs of modern buildings were familiar, dull or frightful. From where he sat—admittedly a poor vantage point—ASTRAGAL gathered that the Professor did not advocate any variation in approach to tropical design whether the

building was to be in Ibadan or Singapore.

A lot is now known about tropical conditions and their implications, but where—apart from Corb—are the architects to give poetry to the data?

SOMERSET PENGUIN

There is now another volume in the "Buildings of England" series, this time on North Somerset and Bristol.* ASTRAGAL, who watches this literary marathon with the awe and anxiety he gives to friends who swim the channel, wonders anxiously if Nikolaus Pevsner can keep it up. So far he can, and does. His description of this classic territory is as good as you could imagine possible. But there is a new kind of footnote in brackets which bothers me. It always ends with "from information kindly supplied by" somebody or other. This is a very clever sort of note, because it gives great satisfaction to the informant, and insures the author against blame for mistakes.

The part of England dealt with in this book has a grossly unfair share of the fruits of English architecture. And ASTRAGAL felt that Nikolaus Pevsner ought not to seem so distressed because he could not find anything good in the modern idiom. A county that found room for Bath and those 15th-century church towers is entitled to lie fallow for a few centuries.

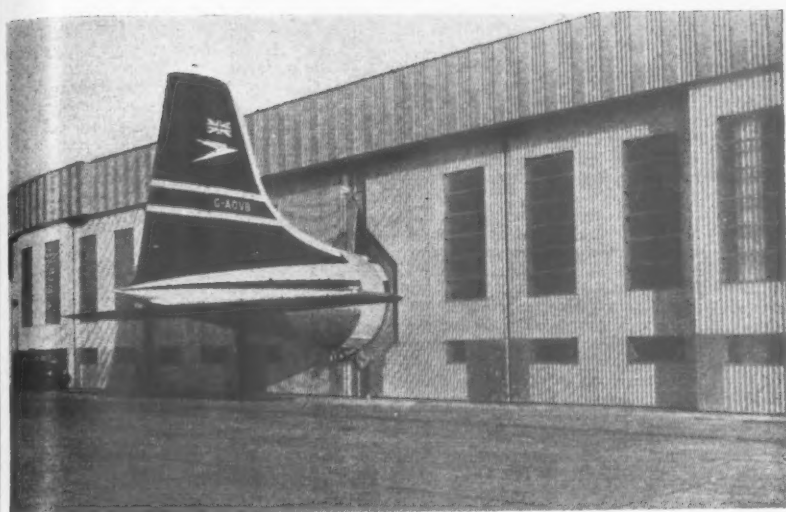
UNDERGROUND PROFESSION

An interesting follow-up to John Smith's recent survey of architectural schools (in *Architecture and Building*) is provided by *Design*† magazine's study of the training of what old-fashioned types like myself still think of as "industrial designers" (they are now "product designers"). It is horrifying to find that 30 qualified designers graduating in one year would be a bumper crop. We complain about the high percentage of building done without benefit of architect, but goodness knows what the situation must be like in the consumer goods line.

Anyway, the demand for graduate designers outruns the supply, and it is

*Penguin Books, 10s. 6d.

†No. 112. April, 1958.



BOAC have recently completed a "wing hangar" at London airport for aircraft maintenance. Only the forward part of the aircraft, on which most of the maintenance is done, is enclosed in the hangar, and the doors can be shut while the tail protrudes. A fabric gasket closes the gap round the aircraft. A solution to a problem which ASTRAGAL, perversely, finds ludicrously amusing.

the normal situation at the Central School, for instance, for the entire finals year to be bespoke by employers before they have qualified.

DOUBLE ACT, WITH PINEAPPLE

"Why do people still like Elvis Presley, in spite of the fact that Gropius thinks that beauty is good for you?" That sort of question was dealt with at the ICA's evening on "The Motivation of Culture." This subject sounded so grim that, but for a tip-off from the grape vine, ASTRAGAL would not have bothered with it. As it turned out, a heavy-weight subject was handled lightly, but without levity, by two casual young men armed with a battery of technical aids, including a tape-recorder, an epidiascope and a mysterious fresh pineapple, of which no use, ultimately, was made.

*

The two performers, Bill Cowburn and Cedric Price, are architects—"assistants," as chairman Lawrence Alloway said, "in the office of England's most famous woman architect." It was heartening to find that young architects are capable of thinking sanely, or even thinking at all, about subjects like this without taking up Angry Young Man poses, like their contemporaries in the other arts.

*

Lecture secretaries of provincial societies would do well to note their

names. The presence of the pineapple cannot be guaranteed, but the Price-Cowburn line on such things as Span, G-Plan and the Modular Society is something worth hearing.

GOOD FORTUNE

ASTRAGAL recommends you to get hold of a copy of the April issue of *Fortune* magazine. It includes an article, accompanied by Gordon Cullen illustrations and some caption notes by Ian Nairn, on the townscape of San Francisco. Jane Jacobs, of *Architectural Forum*, who wrote this article on "Downtown is for People," says that "if the downtown of tomorrow looks like most of the redevelopment projects being planned for it today, it will end up a monumental bore." She goes on to analyse—in the *Review* manner—what makes some parts of cities and towns so satisfactory, and it is amusing to read what she has to say about the first of the "greenways" streets developed in Philadelphia. "Here are the trees, broad sidewalks, and planned vistas—and there are no strollers. Parallel, just a few hundred feet away, is a messy street bordered with stores and activities—jammed with people."

*

The same sort of thing is very noticeable in the Brussels Exhibition. Go into the Belgian section, with its dull packing-case-cum-espresso pavilions,

and you will find that, even in places formally laid out, there is none of that cheerful gathering of people that you get in the superbly-townscaped areas around the German, Yugoslav or Dutch pavilions. It would be nice to see a cautionary film showing how people at the Exhibition react to good or bad townscaping.

POEME EN PANNE

A colleague who has been in Brussels reports that little sound or light had emerged by last weekend from Le Corbusier's pavilion, and a courteous attendant was on permanent duty at the entrance to tell visitors that performances of the *poème électronique* had been postponed until this week. He writes:

*

"Two select audiences of Press men and distinguished visitors were given a preview of its mysteries during the week after the opening. Unfortunately, though the audience were apparently impressed, the technicians discovered a number of technical faults including several inches of dust in the ventilation pipes. This took some time to clean because the pavilion conceals about its structure no less than four film projectors, eight rotating slide projectors, 400 loudspeakers, and 12 kilometres of wiring required for the production of Le Corbusier's elaborate scenario.

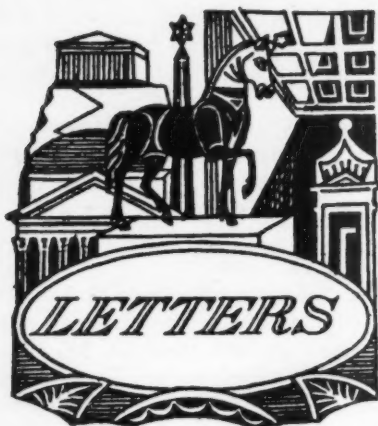
*

"Until these cleaning operations are finished it is impossible to criticise the end-product of Philips' technical ingenuity, though some titillating details have been revealed. "Woman" and "Mathematics" in the shape of a shop window dummy and a scientific formula, hang from the roof to be illuminated at intervals in brilliant colours. M. Corbusier himself is to be heard intoning some of his commentary. Pictures of shells, Greek statues, negro masks and hydrogen bomb explosions are flashed on the undulating walls, and stereophonic sound by M. Varèse comes from different combinations of the 400 loudspeakers. All is co-ordinated by a 15-track master tape.

*

"It appears that Le Corbusier only agreed to design the structure on condition that he could devise the scenario."

ASTRAGAL



Cleeve Barr, A.R.I.B.A.,
Anthony Cox, F.R.I.B.A.

Sir Hugh Casson, F.R.I.B.A.

Lionel Brett, F.R.I.B.A.
Chairman of SPUR

Walter Segal, Reg. Arch.

John Watson,
A.R.I.B.A., A.M.T.P.I.

R. A. Weedon,
of Holloway Metal Roofs Ltd.

"RIBA's Serious Failure"

SIR,—At the AGM, RIBA members will be asked to endorse the Annual Report of the Council, including the financial policy summarized in the Statement published in February this year. This Statement, it will be recalled, announced higher subscriptions for all classes of membership, increased entrance fees and examination charges, and a drastic curtailment of expenditure on public and professional activities with a transfer of all surpluses to the building fund. The main reasons given for the present financial plight were—under-estimation of the cost of the new building by some £19,700, falling off in share values, increased staff salaries and establishment charges (£29,300), and failure to anticipate the rapid falling off in new members following the end of the post-war training boom (£15,800 decrease in fees and subscriptions). The Statement also revealed the remarkable fact that the RIBA Journal does not pay its way.

To the undersigned, and to many others, this Statement revealed not only a serious failure to plan the Institute's business affairs, but also a remarkable state of complacency on the part of the Council, and a failure to appreciate the needs of the profession. We do not believe that resignations from the RIBA, either individual or *en masse*, are likely to achieve any worth while end. Yet many members because they see no return from their subscriptions, year after year, are seriously considering resignation. One might well ask, what is the likelihood, given increased fees and subscriptions, that the total income will in fact be increased, unless members are induced to remain members by receiving much better value for money.

We believe that the constitution of the Council itself, which is undemocratic and unrepresentative of the general body of members, is the main reason for the gulf

which exists between the feelings and needs of members and the actions of the Council. There appear to be too many opportunities—for example, by the nomination of "representatives" some of whom may have failed anyway to gain election through the ballot box—for nepotism, old-boy-ism, and other tactics reminiscent of the "rotten boroughs." No one would be against the attendance of friendly representatives, or observers, from other organizations in Britain and the Commonwealth, but why should non-elected members have full voting powers, on all issues, and even be appointed to office? We are fully in agreement with the principle of provincial representation through the Allied Societies, but would it not be more democratic, and effective, if representatives were chosen specifically for this purpose by the local ballot of members?

To conclude, we hope that as many members as possible from the Provinces as well as from London, will do their best to attend this AGM, and express their views. We suggest that the Council should be asked to think again on the financial issues, and further, that a special committee should be set up to reconsider the constitution of the Council to make it more democratic, and more representative of the majority of the membership.

CLEEVE BARR,
ANTHONY COX.

London.

Knight In Armour

SIR,—While not yet so desperately despairing as Mr. Whateley (AJ, April 24), may I rattle my rusting armour in tiny—not to say tinny—protest against a remark made in your otherwise sensible Editorial of the same date. What, sir, is this ludicrous myth about the RIBA Council being "controlled by a caucus of knight-architects"? I have not looked up the names, but so far as my memory goes our errand band consists of the following: Sir Ninian Comper who (to my knowledge) has never been seen at the RIBA, Sir Edward Maufe, Sir Thomas Bennett and Sir Thomas Worthington, whom I've never seen there since the war except on social occasions: Sir Albert Richardson, who has publicly proclaimed his life-long scorn for it and all its activities: Sir Percy Thomas and Sir Howard Robertson who, since their arduous terms of presidential office, are justifiably most rarely seen at Council meetings: that notoriously diehard couple of deadheads, Sir William Holford and Sir Leslie Martin; and myself, who throughout my Council service was never once given any opportunity—even had I wished to take it—of "controlling" anything any more than any other member.

I write, sir, not in defence of my honoured colleagues—each of whom is well capable of looking after himself—nor even in defence of truth, which in journalism is always an elusive quality, but in protest against slack writing which is a mark of slack thinking. To lay the blame for the state of our profession upon an imaginary group of sinister tyrants—be-knighted or not—meeting secretly in high places, is of all clichés perhaps the silliest and most boring, worthy only of the hack or the unthinking. To resurrect those poor old Aunt Sallies in order to give them another annual bashing is, sir, in my view, to waste time that could be better and more constructively spent.

HUGH CASSON.

London.

SPUR Onward

SIR,—Your readers may have seen the announcement some weeks ago of the birth, to the Housing Centre, of the Society for the Promotion of Urban Renewal.

SPUR sees as its first task a review and appraisal of recent work in this and other countries in the field of Urban Renewal.

For convenience, it has divided this huge field into six sub-divisions and has a group at work on each:

City structure; housing patterns and densities; social structure and employment; transport and utilities; economics of urban renewal; legislation and administration.

In addition, a group has been formed to assist in the organization and co-ordination of "live" planning and housing programmes in schools of architecture and planning.

SPUR is above all concerned at this stage not to do work that has been done already, but in the first place to act, as its parent has done for so many years, as a central clearing house for the collection and publication of ideas and research on contemporary ways of living in cities. But if we are later to work, as we mean to do, towards a new pattern of town life that will be as universally acceptable as the old ones were in their day, we must throw our net as widely as we can. For this reason I write to invite any individual or group which has done or is doing work in our field to get in touch with the Secretary of the Housing Centre, 13, Suffolk Street, London, S.W.1.

LIONEL BRETT.

Heralds Of Decline?

SIR,—It is fascinating to watch tenet after tenet of modern architecture going overboard nowadays as architects in their struggle with formal expression and obsession with art and sculptural effects (the latter the herald of decline) turn eclectic. The latest sin seems to have been committed by Messrs. Stirling and Gowan at Ham Common who:

(a) cast consistency of orientation to the winds in an effort which in this respect would grace—or rather outdo—any Victorian scheme. Having just had an experience what solar heat can do with proper orientation, I think this such a shame;

(b) are even less consistent in the use of fenestration (apparently art-conditioned?) particularly in regard to admitting light to bedrooms where an artificial conflict of window walls (for some) and pot-holes (for others) has been conjured into existence;

(c) who use the drop-window, tried and discarded by Messrs. M. de Klerk, Mart Stam and Otto Haesler; how outdated this looks on a 1958 scheme;

(d) who use gargoyles reintroduced for the first time since Gothic days by Le Corbusier (or am I making an error and omit to give the waterspouts of suburban porches their due?); gargoyles moreover that remind of the spouts of teapots that refuse to work properly;

(e) who step up the morosity of heavy brickwork and rough concrete to such a pitch that one cannot help wondering where the long-chinned *brutalité à l'anglaise* will end;

(f) and who—this the crowning glory of all—hand the plans of two of their units to make them perform the seeming job of lodges on either side of an imaginary axis leading to no manor house.

So sorry!

WALTER SEGAL.

London.

Basildon Shops

SIR,—I wish to bring to your notice that the "awkward plan shape," mentioned in your illustrations of a model for 37 shops at Basildon (AJ, April 3), has very largely been the result of planning and design within a regular site boundary. The site, apart from containing an angle in excess of 90 deg. at the junction of the pedestrian way and the Ring Road, provided nearly ideal conditions from which the proposed scheme has sprung.

JOHN WATSON.

Birmingham.

London Planetarium

SIR.—We were very surprised to see when reading the article on the London Planetarium (AJ, March 27, p. 459) that the dome was covered with 1-in. cork slabs and sheathed in copper on bituminous felt.

It is extremely bad practice to lay copper over bituminous felt and we, as copper roofing specialists, who carried out this particular job naturally supplied and fixed an immoderately felt underlay which is the correct underlay for copper roofing.

This may seem a small point to you but difficulties have been experienced in the past on this particular point with architects. We should be very pleased if you would make a correction pointing out this fact.

R. A. WEEDON.

London.



RIBA

Local Government Architects' Society to be Formed

The Council of the RIBA at its meeting on April 15 decided, in effect, to launch the Local Government Architects' Society. The inaugural meeting will probably take place in London early in June. The minute of the Council meeting reads:

"A report from the ad hoc committee on the Representation of Members in Salaried Employment was considered. This report gave the results of the enquiry sent out to architects in local authorities as to the likely support for a Local Government Architects' Society. In approving in principle the committee's recommendation, the Council agreed that the Royal Institute should offer its good offices and make available accommodation for an inaugural meeting to be called in connection with the formation of this Society."

In fact, it is understood on good authority that the response of local authority architects to the enquiry of the ad hoc committee was absolutely overwhelming, being in the region of 90 per cent. favourable to the formation of the new society. The society will not, formally, be sponsored by the RIBA, as was originally recommended by the ad hoc committee, but the RIBA will "offer its good offices and make available accommodation." It is expected that Richard Sheppard, chairman of the ad hoc committee, will take the chair at the inaugural meeting, which must form the society and elect provisional office-bearers and a committee to whom the responsibility of further action would then be handed over. The inaugural meeting will presumably be called by a provisional committee. The other professions concerned—lawyers, accountants, education officers, and municipal engineers—are con-

sulting with the architects about the further steps to be taken to bring about the formation of the professional panel within the National Association of Local Government Officers.

Resignation

R. Furneaux Jordan, who has been an Associate since 1928 and a Fellow since 1937, has resigned from the RIBA.

Symposium

The RIBA symposium *Design Pays: The Private House and Its Setting* takes place tomorrow, and not on May 31 as stated in Diary last week, through a printing error.

PYLONS IN KENT

Disturbing Report

Kent County Council is to call a meeting of local authorities to discuss the Central Electricity Board's proposal for erecting a high-tension line from Dungeness to Northfleet by way of Canterbury, to link the British and French electricity systems. The Kent Planning Committee has now received a joint report from an independent consultant, G. A. Jellicoe, and the County Planning Officer, James W. R. Adams, which points out that, as the C.E. Board is not proposing to place any of the lines underground, new pylons would straddle the County from the English Channel to the River Thames.

The report expresses disappointment that the C.E. Board has not through intensive research discovered methods of substantially reducing the relative cost of placing high-tension lines underground. Between Lower Halstow and Northfleet, the proposed line would cross the North Downs near Bluebell Hill crossing eight miles of some of the most attractive, unspoiled scenery in Kent, whereas a route north of the Medway Towns would cross only about two miles of comparable country, and be about two miles shorter. The Board has stated that the extra cost of going north would exceed £500,000 because of the high towers needed to cross the Lower Medway and the extra foundations for crossing the marshes, but the report expresses the view that the combined factors of visual and other amenities and the effect on rateable values would, to some extent, justify the question of cost being subordinated.

DIA

Design in the Post Office

A correspondent writes:—

"More original sin and less respectability" was the shot that Mr. Marples thought should be injected into design in the Post Office. He was speaking at a lunchtime meeting of the Design in Industry Association at Overseas House, St. James's, London, S.W.1, on April 21, and what he said was altogether encouraging. The way he said it, too, suggested that he meant what he said. Let us hope so. He disposed of professional critics of design by suggesting that they were often wrong, but never in doubt, and that they expressed themselves in incomprehensible language; he disposed of the danger of sterility in official advisors by saying that they should be changed from time to time, and that in any event he might not always take their advice.

And as for improving post offices, some of which he described as a mixture between gloomy warehouse and late lavatorial in style, he put forward the following ideas.

First make construction functional: two, make sure it works by models and full scale mock-ups; three, encourage the co-

operation of private enterprise with official administration.

He referred to the joint committee now sitting, on which two or three architects, time and motion experts, and others were represented, and which had been set up to disentangle some of the obvious shortcomings and inconveniences of present design both to the Post Office official and to the public; he also said that designs were being prepared for a new telephone kiosk—and in answer to questions he affirmed that the designers had been given an entirely free hand within the limits of a functional specification—this did not include the simultaneous use of a kiosk by the male and female of the species (one lady in the audience requested that she should go into a kiosk with Mr. Marples when he was trying it out), but he assured his audience that before embarking on the production of the new design he would take into consideration that ladies need to hang up umbrellas, dispose of handbags and parcels and so on, besides actually telephoning; so that their requirements would be well provided for.

"Greater versatility in design and violent controversy" were words he used approvingly, and he quite definitely gave the impression—not universally held—that some good could come of architects and designers who had not reached the generally accepted age of discretion—which, from observation, must be about 60 or over. "Living" artists, too, were to be encouraged by state patronage.

Unlike one's experience at so many occasions of this kind there was a lively and enjoyable discussion, with Mr. Marples giving answers that were witty, but not facetious; but what a pity it is that when such an opportunity occurs for questioners it seems out of place to dwell as long as one would wish on the seemingly unnecessary difficulties and frustrations to which private architects and designers, whom he avowedly encourages, are subject in practice when they are engaged on Post Office work of which, one feels, he ought perhaps to be more aware. In particular, personal contact with the persons from whom the requirements originate, freedom from rigid standards of design and specification, and a simplification of hierarchical administration, would give the minimum conditions under which truly imaginative work—such as Mr. Marples looks forward to—could emerge.

CABAS

T. E. North—President

The City and Borough Architects' Society announce the following new appointments as officers of the society.

President: T. E. North, Borough Architect and Planning Officer, West Ham.

Vice-President: Johnson Blackett, Borough Architect, Newport, Mon.

Hon. Secretary: S. A. G. Cook, Borough Architect and Director of Housing, Holborn.

Assistant Hon. Secretary: Maurice H. Forward, Borough Architect, Lewisham.

Hon. Treasurer: E. A. Tornbohm, Borough Architect, Darlington.

DIARY

Design Pays: the Private House and Its Setting. One-day symposium with Sir Hugh Casson in the chair. At the RIBA, 66, Portland Place, W.1. 10 a.m.-5.30 p.m.

MAY 2

Ten Years of Planning: Where Has It Got Us? Talk by L. W. Lane, Senior Planning Officer, LCC. At the RICS, 12, Great George Street, S.W.1. 5.45 p.m.

MAY 5

RIBA Annual General Meeting. At the RIBA, 66, Portland Place, W.1. 6 p.m.

MAY 6

CRITICISM

by J. M. Richards

The BRITISH PAVILIONS
at the BRUSSELS EXHIBITION,
designed by H. V. LOBB and PARTNERS
(interiors by JAMES GARDNER),
the ROYAL COLLEGE OF ART,
and EDWARD D. MILLS and PARTNERS.

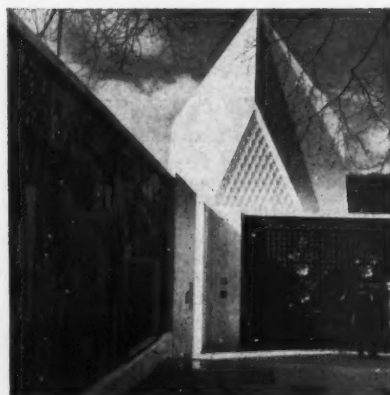
It is tempting to regard the group of national pavilions at a big exhibition competitively, placing each in order of merit. It makes an enjoyable game and a basis for exchanging opinions with other visitors. But although it is interesting—and indeed salutary—to note which pavilions do their country most credit, direct comparison is not really possible. Their object is not necessarily the same and—what is more important—all had

Below: the courtyard planted with Commonwealth flags, referred to in this article. Next to it, a corner of the same courtyard, which links the Government pavilion (seen in the background) with the sequence of walled garden courts illustrated in the other four pictures below. These show the varying display styles employed and the touches of whimsicality, like the enlarged Staffordshire figure.

not the same money to spend. In enumerating the architectural merits and defects of the British contribution, as compared with others, it has particularly to be borne in mind that it had to be produced relatively cheaply and that several of its defects are due to policy decisions outside the designers' control.

The British site is in the extreme south-east corner of the exhibition grounds, but although not so prominent as some it has the advantage of an agreeable landscape setting, including some well-grown trees, which it uses fairly well. It is part of a park-like area, bounded by grassy banks and a small ravine, shared by Britain with Germany, Portugal, Yugoslavia and Switzerland, which lie to the east and north-east. Most of these pavilions exploit the natural advantages by poising themselves above the undulating ground as delicately as possible, so that lawns and pools are seen flowing beneath and between light, transparent structures and connecting bridges. The British pavilion, in contrast, is opaque. Its gardens are enclosed within high brick walls and are, for the most part, seen only by visitors who have already passed through the main Government building, starting at the main entrance. For there is strictly controlled circulation; the exit from the walled gardens into the courtyard which separates the Government pavilion from the industrial pavilion has turnstiles operating one way only.

The walled gardens are laid out in the form of small interconnecting courtyards, used as an open-air extension of the Government pavilion—an intelligent way of providing additional display space without incurring the cost of a roofed-in building. They are diminutive in scale with wall decorations and displays well set off





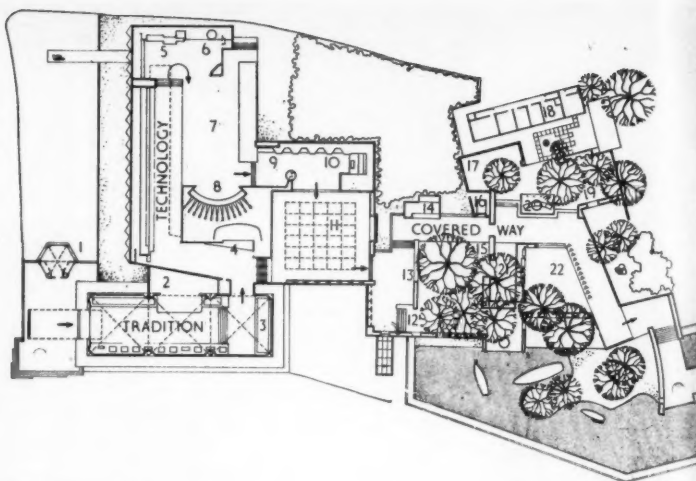
The British Government pavilion from the south. The entrance to the Hall of Tradition is at the far end. Behind the wall on the right are the open courtyards already illustrated.

by their background of whitewashed brickwork. Designed by the Royal College of Art, they have much the same character and purpose as the Lion and Unicorn pavilion on the South Bank seven years ago. They are witty and sophisticated (perhaps a shade too sophisticated) and have the same air of mild self-mockery which I myself feel is not really suitable for export. My other complaints are that too many somewhat whimsical ideas in competing styles are packed into the smallish space, and that the space appears even smaller with people in it too. Other countries' pavilions look bare when uninhabited but acquire some of the liveliness they need from the crowds moving through them. The British look full even when empty; witness in particular the first courtyard entered after leaving the Government pavilion. This is a gaily designed affair containing the flags of the Commonwealth countries on poles rising from neat photographic showcases. But the pattern of the massed flagstaves, which are themselves seen against a vigorously patterned yellow and white tiled wall instead of against the unassertive background they need most, becomes hopelessly confused when crowded with people as well.

One wonders how much the effect of people was taken into account.

Nevertheless this sequence of garden courtyards shows the most consistent taste, combined with skilful design, in the British section. Emerging from it, the visitor crosses an artificial pool of water by a bridge that takes him into the larger tree-planted courtyard—here there is a refreshing sense of space—which is closed on two sides by the industrial pavilion and the Britannia pub. The latter is a cheerful workmanlike attempt at a modern version of the traditional English pub, designed by Edward Mills. Only the lifebelts hung on the balcony railings (which would not in practice be found even on a seaside pub) give it a somewhat phoney air. The proportions and materials of the bars inside do achieve something of the proper pub character. The exterior is also marred by an appallingly banal inn-sign, which is quite unworthy of this enterprise on the part of Whitbreads and of the standards of British design that are supposed to be on show. There remain to be discussed the two principal buildings: the Government pavilion with which the planned sequence of the British section begins, and the industrial pavilion with which it ends, designed respectively by H. V. Lobb and Partners (who were also consultants for the whole layout) and Edward D. Mills and Partners. The idea behind the Government pavilion was to contrast an introductory section devoted to British tradition with one devoted to British scientific achievements. The first occupies a high dark hall, lit

- KEY
1. VIP Pavilion
 2. Costume
 3. The Queen
 4. Experimental nuclear reactor
 5. Radioastronomy
 6. Nucleic acids
 7. ZETA
 8. The British People
 9. Discovery
 10. Parliament
 11. Court of Commonwealth
 12. Country pursuits
 13. Lion and Unicorn feature
 14. Schools
 15. Architecture
 16. The Church
 17. Literature
 18. Administration
 19. Music
 20. Theatre
 21. The home
 22. Courtyard of invention

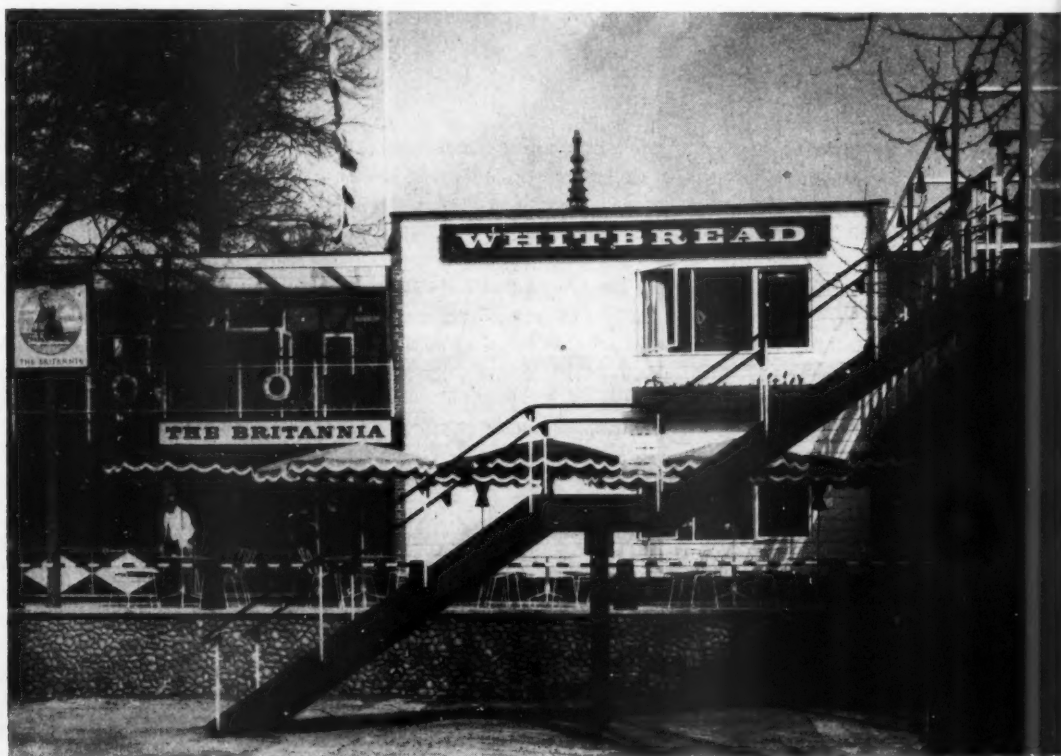


Plan of the British Government Pavilion. The arrows show the route taken by the visitors, who leave by the bridge shown on the left of the plan on the opposite page. [Scale: 1" = 1' 0"]

through small remote apertures filled with coloured glass. The long axis is closed at the far end by Annigoni's portrait of the Queen, beneath which the visitor turns at right-angles to reach the scientific section. An architectural article is perhaps not the place to discuss the wisdom of the official decision to introduce Britain with a display of traditional costume and pageantry. It does strike a note different from that of

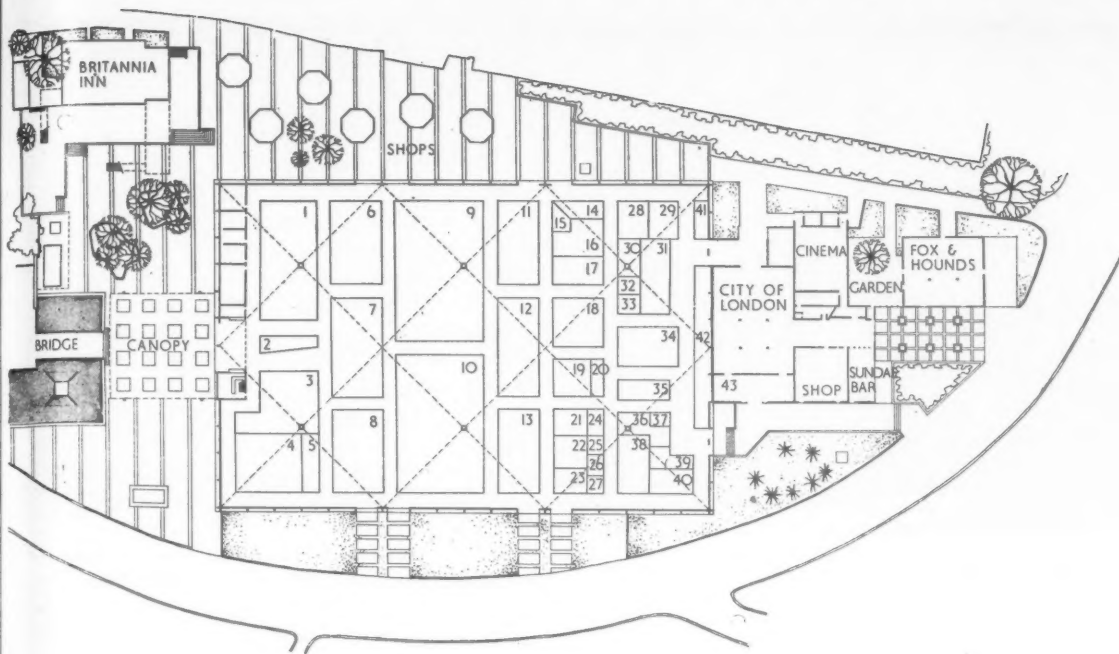
The Britannia inn, which closes one end of the large courtyard separating the Government and the industrial pavilions. The sign criticized in this article can be seen on the left.

other pavilions and I suppose has an appeal to the ordinary tourist, though it may be observed in passing that the same visitor who is impressed by Beefeaters and regalia and the Changing of the Guard will be utterly at sea when faced with the sophisticated allusiveness of the messages in the garden courtyards. But perhaps this is the intention: something for all tastes. Be that as it may, my personal feeling is that the theatrical style of presentation indulged in in the Government pavilion is altogether overdone. To prevent a display dealing with pomp from becoming merely pompous, perfect simplicity is surely required. And, as with old jewels, simple modern settings are best



Above,
British
Pavilion
[Scale: 1" = 1' 0"]

- KEY
1. British
 2. Petro
 3. Natio
 4. Ex.
 5. Tripl
 6. Scott
 7. Birm
 8. & En
 9. Impe
 10. Indu
 11. Disti
 12. Nucl
 13. Co.
 14. Briti
 15. Allie
 16. Stand
 17. & C
 18. Azon
 19. Autl
 20. Babo
 21. Briti
 22. Renc
 23. Show
 24. (incl
 25. Charl
 26. Rolli
 27. Briti
 28. Cor
 29. Pamp
 30. Rep
 31. Darl
 32. Ltd.
 33. Hoo
 34. Wil
 35. Briti
 36. Cor
 37. Saco
 38. Tric
 39. Sing
 40. Mac
 41. Briti
 42. Cle
 43. Gest
 44. Fed
 45. Boc
 46. Man
 47. Von
 48. Dou
 49. Cou
 50. Rev
 51. Ltd.
 52. Tho
 53. Co.
 54. W. S
 55. Bovi
 56. Toor
 57. Cou
 58. Des
 59. Cop
 60. (Spe
 61. BEA
 62. Agri
 63. Ass



Above, plan of the
British Industry
Pavilion
(Scale: 1" = 100')

KEY

1. British Iron & Steel Federation
2. Petroleum Bureau
3. National Wool Textile Ex. Corp.
4. Triple Crown feature
5. Scottish Industry
6. Birmingham Exchange & Eng. Centre
7. Imperial Chemical Industries Ltd.
8. Distillers Co. Ltd.
9. Nuclear Power Plant Co.
10. British Electrical & Allied Industry section
11. Standard Telephones & Cables
12. Atomic Energy Authority
13. Babcock & Wilcox
14. British Tinsmiths
15. Renold Chains Ltd.
16. Showcase Feature I (including Simoniz Ltd.)
17. Clarke Chapman
18. Rolls Royce
19. British Broadcasting Corporation
20. Pamphonic Reproducers Ltd.
21. Darlington Chemicals Ltd.
22. Acrow (Engineers) Ltd.
23. Hoover Ltd.
24. Wilmot Breeden Ltd.
25. British Cycle Corporation
26. Secomastic Ltd.
27. Trico Folberth
28. Singer Sewing Machines
29. British Vacuum Cleaner & Eng. Co.
30. Gestetner
31. Fed. Association of Boot & Shoe Manufacturers
32. Vono Ltd.
33. Doulton & Co.
34. Courtaulds Ltd.
35. Revco Electrical Co. Ltd.
36. Thomas De La Rue & Co. Ltd. (Formica)
37. W. S. Crawford Ltd.
38. Bovril Ltd.
39. Tootal Broadhurst Lee
40. Council of Industrial Design
41. Copeland & Sons Ltd. (Speed)
42. BEA and BOAC
43. Agricultural Engineers' Association Ltd.

in the absence of genuine antique settings. A style of display which tries to echo the ceremonial character of the objects displayed only throws doubt on the authenticity of the objects themselves, and this hushed chamber with its subdued lights, soft carpets, solemn music and heraldic draperies, with its air of a chapel in which the royal portrait occupies the place where the altar ought to be, misses for this reason the intended effect of dignity and comes near to vulgarity.

The setting given to the royal portrait, moreover, only draws attention to the trivial and sentimental qualities of this particular painting. The official insistence on the choice of the Annigoni portrait is aesthetically nothing less than a catastrophe, and even if the choice was made as a calculated attempt to pander to uneducated taste, that is itself unworthy of the purpose of the pavilion. There's not even the excuse that he is a British painter.

These criticisms of the Hall of Tradition are, of course, a matter of personal taste; others may not agree. But one more practical point needs making. The hall is, or appears to be, so complete in itself that it does not lead compulsively enough to the scientific section round the corner. It will be interesting to know, when the exhibition has been open for a little while, whether some visitors, after entering and penetrating some distance into the darkened hall, do not, as I fear they may, drift out again by the same entrance without realizing the existence of the far more exciting scientific exhibits round the corner.

The high roof of the hall is in three compartments, represented outside by the group of three spires (officially described as crystalline in shape) which indicate the position of the British pavilion to the approaching visitor. I wish I could find something admiring to say about this exterior, but it lacks scale, and therefore the dignity its position demands, and is

unfortunate in its proportions. For so contrived a series of shapes can only justify themselves if they achieve some effective emotional impact: tall slender spires might have created a feeling of elegance and drama—both excellent and appropriate qualities—but *dummy* spires do neither. And this weakness is emphasized by the triviality of the exterior details, especially round the entrance, and the dullness of the surface treatment, which is particularly disappointing because the method of construction (basically a number of self-supporting triangular units framed up out of double-skin plywood) is both ingenious and economical. If only some sense of the membrane nature of the construction had been transmitted to the outside, it would not have looked, as it does, more like a cardboard model of the building than the building itself. Unlike the best of the foreign pavilions, it has very little to do with what modern architecture is all about.

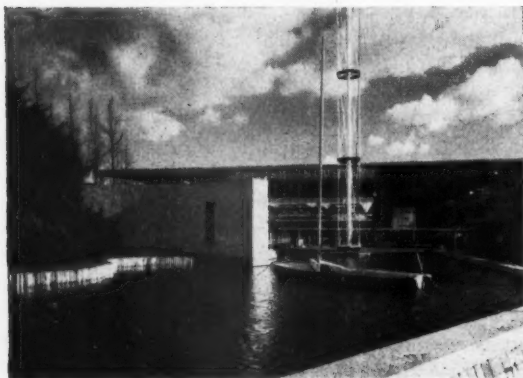
The remainder of the Government pavilion is very little seen externally, except in the form of one long diaper-patterned wall. Its rôle is simply to provide a roof for the sequence of scientific exhibits. Its ceiling is relatively low, furnishing an effective contrast to that of the Hall of Tradition through which it is approached, but it is a pity the chance was not taken of creating a contrast in lighting intensity also. From the religious gloom of the first hall it would have been stimulating indeed, as well as appropriate to the change of theme, to have emerged into clear and brilliant light. Instead, the subdued lighting is continued, its chief source being the exhibits themselves. This is an effective way of concentrating attention on them, but in my view, the science exhibit is badly underlighted all through.

The theme, however, is well worked out and ingeniously presented in a display of considerable variety



The steel and glass cage of the industrial pavilion, looking along its western flank.

and complexity. The only criticism to be made that is relevant to my purpose here, is that there is a tendency—to which British exhibitions are often prone—to over-design, with the result that display devices sometimes draw too much attention to themselves at the expense of the objects displayed. To remind himself of how effective a technique based on absolute simplicity can be, the visitor need only look at the German or the Yugoslav pavilions nearby or the Norwegian or the Japanese a little further away. Lastly, the industrial pavilion: this is a complete contrast to the others, being simply a glass-walled container for the trade exhibits. As such it is sensibly and economically designed and, because of its considerable size, the view along its exposed western flank is



The main front of the industrial pavilion, looking across the courtyard from the pool.

truly impressive. Inside, the steel roof-trusses strike the eye as being a little on the weighty side (at least as regards the main diagonal members). It is bad luck on this pavilion that it stands so near to the German, which is a model of how to construct a glass box and achieve real æsthetic distinction. But the curtain walls in the British, with their slim wooden mullions, have the lightness this type of building requires, and through

them the exhibits can be intriguingly glimpsed. Lit up at night they have real glamour.

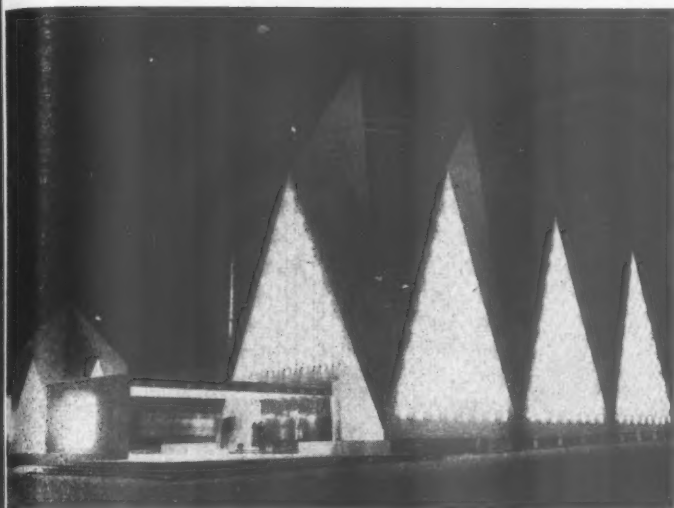
It is when one enters the industrial pavilion (after noticing with a little surprise that it is boldly labelled "British Industry" in English—not French or Flemish) that one becomes aware of its shortcomings—as an exhibit, not as a building. Inside, it is a close-packed jungle of competing trade stands. It is more than twenty years since Britain departed from the practice of leaving it to commercial firms to participate directly in these big international fairs (I think, as a matter of fact, the last occasion was also at Brussels, in 1935), and planned instead a selective officially designed display. That is what other countries do, and have done this year at Brussels. Britain alone has taken a step backwards, and simply erected (through the Federation of British Industries) a building in which floor-space has been sold to industry to exhibit what it wants.

If this was necessary for economic reasons, more co-ordination between stands would have helped a lot. As it is, the effect is bewildering, and is made the more so by the closeness of one stand to another: the gangways have been kept very narrow, presumably to get the maximum revenue. This is especially disappointing because individually many of the stands are excellent; there are highly ingenious displays by some of the best stand-designers we have. A few are poor, reminding one of Olympia at its worst, and some, otherwise well designed, are far too tall. The one selective exhibit is that of the COID along the far wall of the building, which is beautifully arranged, though somewhat overwhelmed by its neighbours.

Alongside the main industrial pavilion Britain goes even more blatantly commercial, with little kiosks advertising branded consumer goods; and it is rather shaming that these are overlooked from the main circulation of the far more restrained and dignified German pavilion. This question of cost is puzzling, because although the British Government felt unable to spend very much, the amount spent by individual firms on their stands must add up to a considerable sum. If the Government had given a lead, surely the same money could have been made available for a more dignified co-ordinated exhibit?

To sum up: the British is not one of the more distinguished sections architecturally (the best are, in my view, the German, the Dutch, the Spanish, the Yugoslav, the Japanese and the Norwegian, but readers must judge for themselves when they see them all illustrated in the JOURNAL later on). Nevertheless parts of it are entertaining and others at least workmanlike, and it does—for better or worse—attempt things that set it apart from other national exhibits. The emphasis on historical tradition, the frankly commercial treatment of the industrial side and the fact that it is shut in on itself instead of being largely visible through glass walls, may attract some interest simply because they are different.

One last observation: the designers should be given credit for the fact that the British pavilions were among the few that were ready on time. The catalogue, on the other hand, was not. On the day after the opening supplies were said to be expected soon.



The British Pavilions at the Brussels International Exhibition, which have been the subject of criticism in the preceding pages, are more fully described in this article. For the whole British site the co-ordinating architects were Howard Lobb and John C. Ratcliff of Howard Lobb and Partners (who also designed the Government Pavilion), the co-ordinating designer was James Gardner (who was also display designer of the Government Pavilion), the structural engineers were Felix J. Samuely and Partners, and the landscape consultant was G. P. Youngman. Edward D. Mills and Partners designed the British Industry Pavilion and the Britannia Inn, the display designer being John Lansdell. General contractors were Richard Costain Ltd. in association with Entreprise Blaton-Aubert. For designers and contractors, see page 671.

BRITAIN AT BRUSSELS

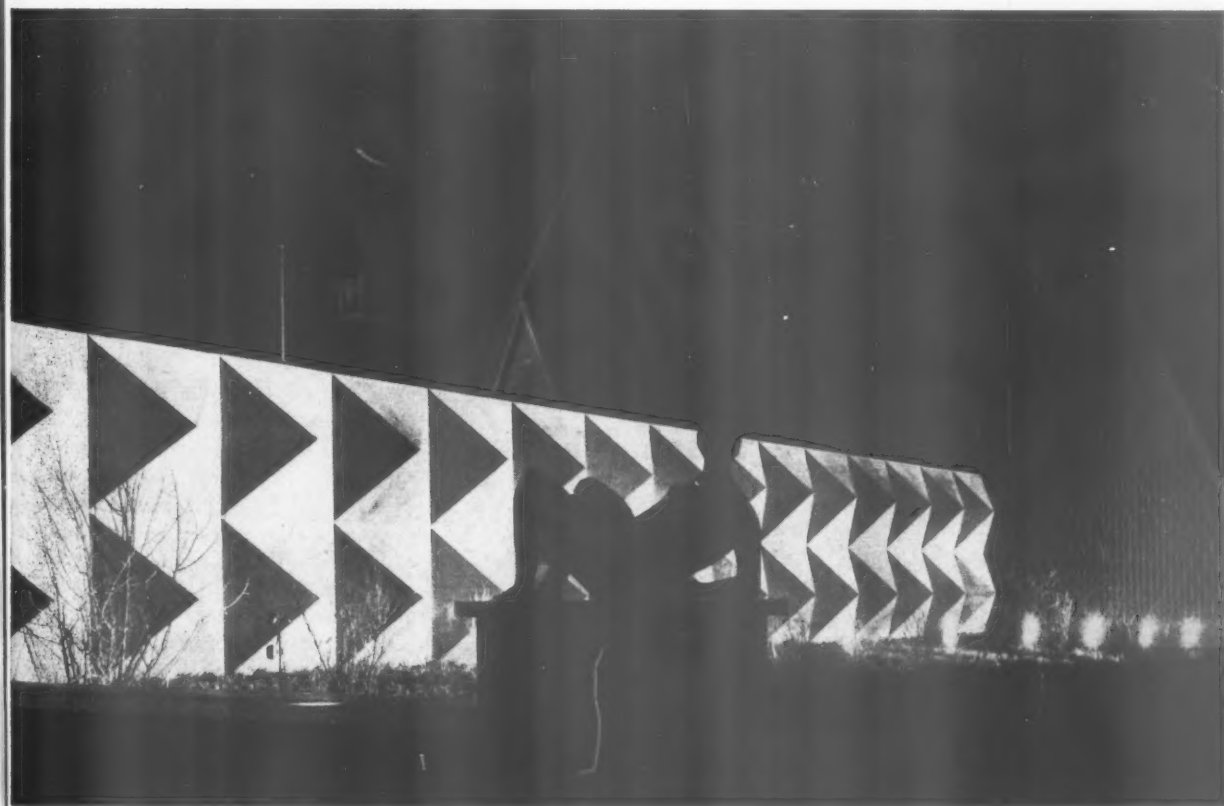
The British pavilions at the Brussels Exhibition are grouped on a rather narrow, curving and nearly level site of five acres at the top of the Avenue de l'Europe (which rises towards it), and are divided into two groups. At one end, at the point normally approached by visitors, is the British Government Pavilion. At the

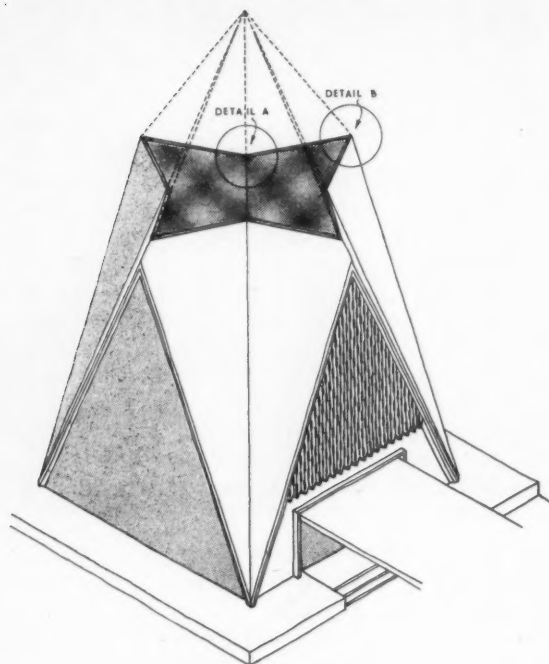
other end, occupying two-thirds of the site, is the British Industry Pavilion, which includes a small pavilion for the City of London, and a public house, the Fox and Hounds. In the centre there is an open space, flanked by the Britannia Inn.

Henry Moore's "Reclining Figure" silhouetted against the diaper-patterned wall of the Hall of Technology.

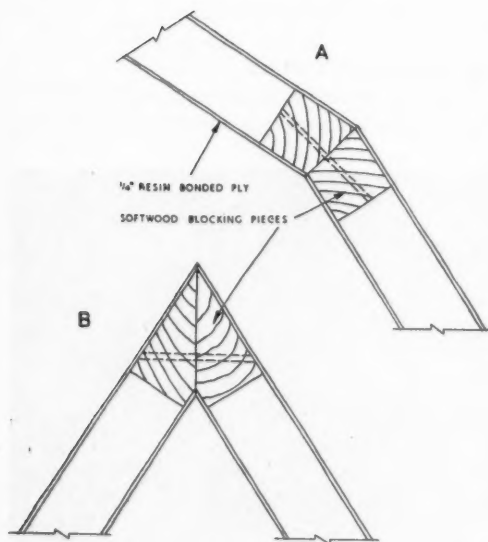
British Government Pavilion

The British Government Pavilion consists of three parts, which must be entered by the visitor in turn,





Above, drawing showing the construction of one of the spires of Hall of Tradition. Below, details A and B
[Scale: $\frac{3}{4}$ " = 1' 0"]

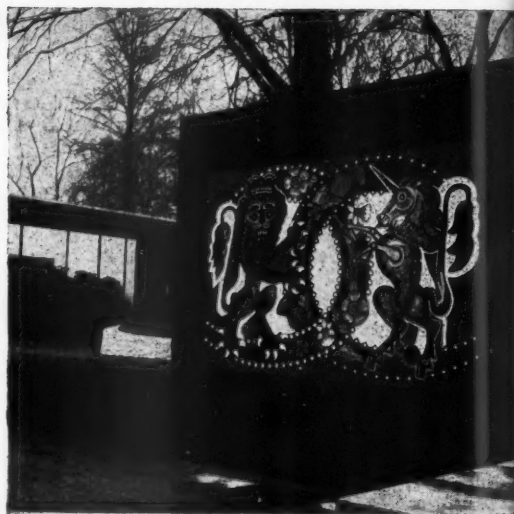


beginning with the so-called Crystalline Hall (the Hall of Tradition) followed by the Hall of Technology, and followed in turn by a series of open courtyards.

The Hall of Tradition

Visitors enter the Hall of Tradition by passing under a low timber canopy, in which a pattern of Tudor roses is cut in coloured perspex, supported at one end by a wall of green Westmorland slate enclosing the Royal Arms, also carved from a thick slab of perspex. A cut-down version of one of the "crystal" spires, standing on the left, is a reception hall for V.I.P.s, and beside it is the reclining figure by Henry Moore. The hall itself consists of three "crystal-

shaped" spires, is 70 ft. high, 111 ft. long and 37 ft. wide, each spire consisting of two $\frac{1}{4}$ -in. skins of plywood with 6-in. softwood spacers between. There is no internal framework, and it is self-supporting. The units were made in England on tubular steel jigs, coated inside and out with fire-resistant paint, bolted together in pairs on the site and swung into place by crane without scaffolding. The feet are pin-jointed. The triangular vertical panels which fill in the sides are constructed on the same principle, but on the side facing the road have numerous small coloured glass eyelets which provide the only natural illumination, apart from the entrance doors. The main illumination comes from the low-level spotlighting of the exhibits, a purple glow suffusing the whole from clusters of faint lights in the points of the spires, re-



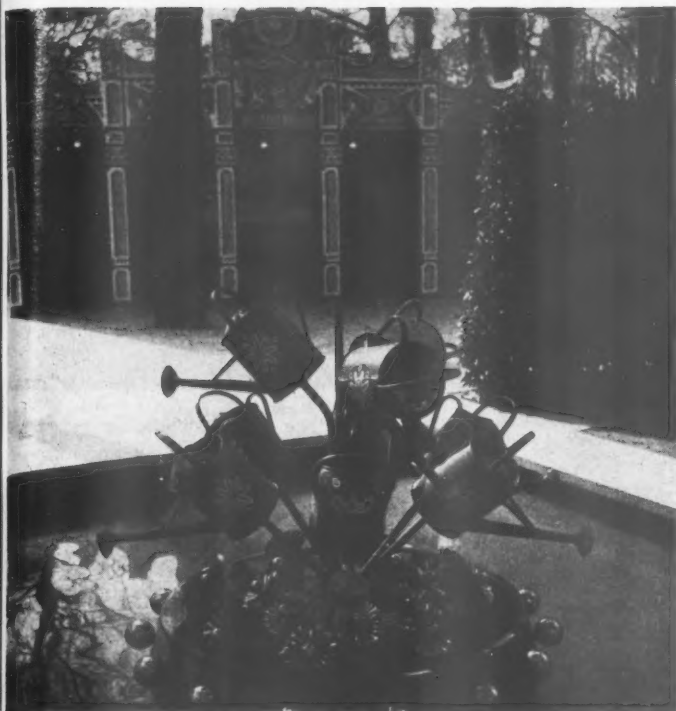
The "Coat of Arms" by Edward Bawden.

flecting on the deep purple in which the interior is painted. This hall contains on either side a display, spotlit in the purple gloom, of national flags, regalia, heraldic motifs and ceremonial dress, ranging from replicas of the crown, sceptre and orb to a copy of the TUC annual report, and culminating in an enlarged colour transparency hanging on the end wall of the portrait of the Queen by Annigoni.

The Hall of Technology

As the visitor leaves the Hall of Tradition he enters into the Hall of Technology, and faces an animated diorama (described as "huge" in the official hand-out, but in fact rather small) of Dounreay atomic power station. The contrast between tradition and achievement is expressed also in the contrast between the height of the Hall of Tradition, and the lowliness of the Hall of Technology, which is only 12 ft. high, though 182 ft. long and 82 ft. wide.

The construction is cavity-block walls supporting a space-frame in light steel tube, prefabricated in units, from which is suspended a ceiling of fire-resisting asbestos board, and decked with slabs of reeds, bituminous sheet and green spar. Externally the walls are concealed by a series of flat four-sided plywood pyramids, intended to harmonize with the shape of the



A watering can fountain, designed by James Symonds; in the background, the Edwardian theatre, which contains an exhibition of famous post-war English stage sets.

The Englishman at home: section of a mural by Kenneth Rowntree.



The Edwardian theatre on the right, exterior designed by John Griffiths and in the background a photomontage of musicians in the Royal Festival Hall by students of the RCA School of Graphic design.

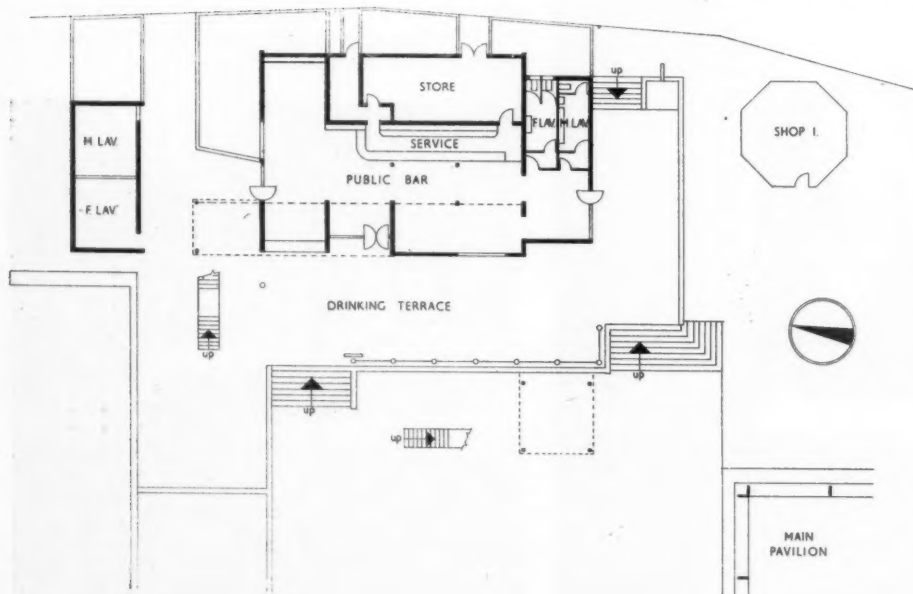
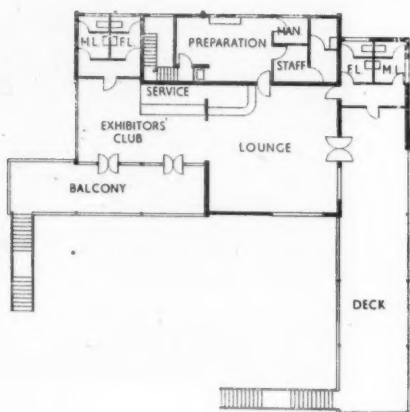


English literature: busts by Astrid Zydower caricaturing famous English writers, with lithographed book cases and lithographed books in display cases by T. E. La Dell. The title mural by Peggy Angus, below, alongside the lake between the two pavilions.





Above, the terrace of the Britannia. Right, the public bar.
Below, ground and first floor plans. [Scale: $\frac{1}{8}" = 1' 0"$]

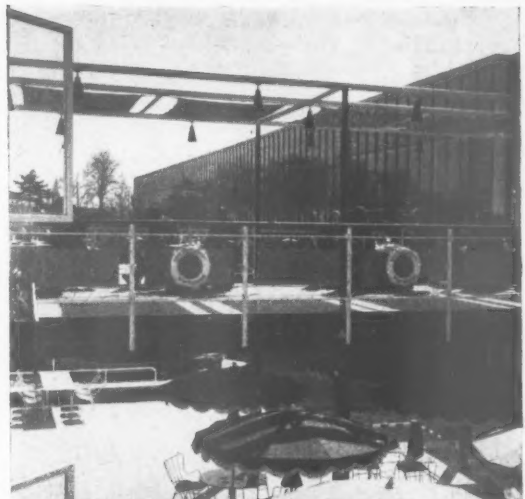


Hall of Tradition. The hall is divided in two by a tinted plate glass screen, daylight filtering through coloured perspex louvres so as to begin the transition from the darkness of the Hall of Tradition to the daylight outside. The visitor at first passes along a narrow corridor with the external wall on his left and the glass on his right, viewing spotlit scientific exhibits, and then turns round into semi-daylight to see a quarter-scale model of Zeta, from which he passes on to the external courtyards, grouped round some fine trees, and divided up by brick walls into a series of displays designed to show the British way of life. First there is the Commonwealth Court, in which the Commonwealth flags fly from stainless steel flagposts, with a small display case beneath each. Then there are the Courts of Humanities and the Arts, designed by a Royal College of Art group led by Hugh Casson, and including sections on architecture, country pursuits, literature, theatre, music, the British at home, and a display of a new school. Finally, there is the Courtyard of Invention, designed by Gordon Bowyer (in which are listed all the inventions for which Britain takes credit, including top-hats and trouser turn-ups), from which one passes out of the Government section (looking at an abstract mural in tiles by Peggy Angus) by a bridge over a lake on which three boats are riding, and into the British Industries section.

British Industry Pavilion

This pavilion is contributed by the Federation of British Industries, which has let stands within it to individual firms, groups or associations. The main exhibition hall is nearly 300 ft. long, over 200 ft. wide, and 35 ft. high, and covers 60,000 sq. ft. of floor area. The roof construction is made up of six square bays, each covering about 10,000 sq. ft., each with a column in the centre. Each segment of the roof was made up from six latticed girders spanning as a folded slab construction between the diagonal ribs. The diagonal ribs and columns act as three hinged frames with the horizontal members of the girders acting as ring ties. The welded lattice-steel girders are made up from 6-in. by 3 in. channels with 8-in. by 3-in. channels as chord members and 5-in. bore tubes as diagonal members. There are bolted connections between the girders, but the connections of the girders to the diagonal ribs are welded.

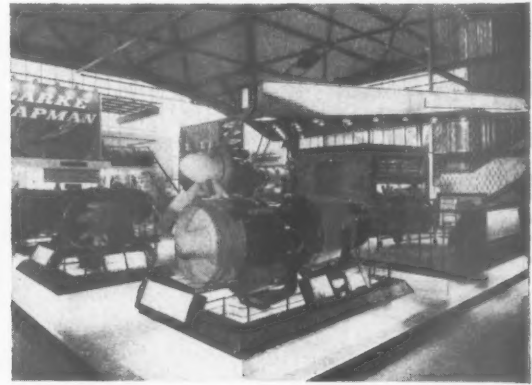
The structure is clad with steel decking and laid with a built-up roofing. The pavilion has been designed as an exhibition showcase, the external walls being completely glazed with clear glass, apart from an area at the south end where a mural executed in laminated



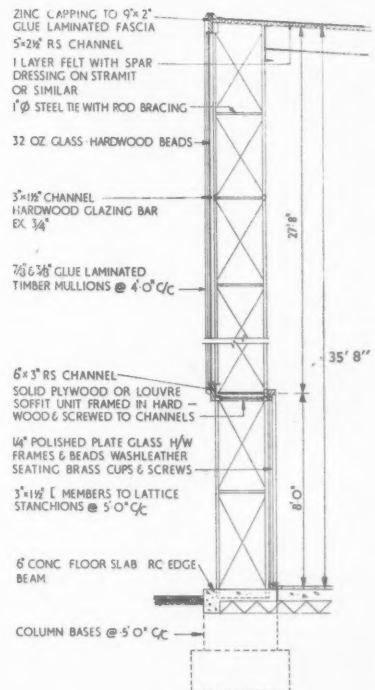
Commercialism intrudes rudely into the area to the north of the British Industry Pavilion where these kiosks are selling British consumer goods. Behind, the crisp, severe, black and white German Pavilion.

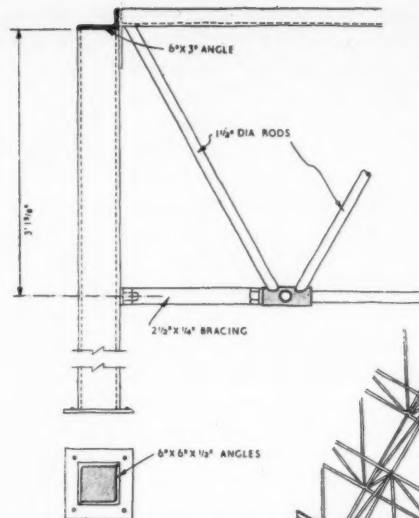
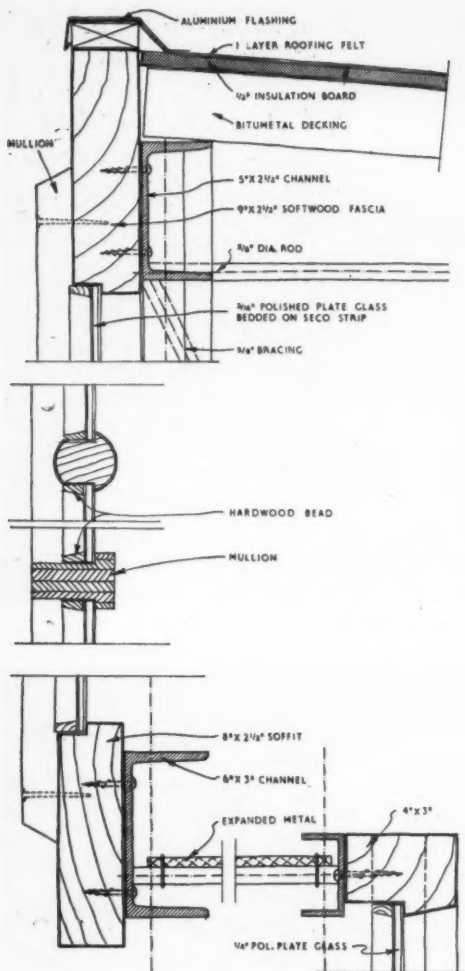


Above, Henry Moore's King and Queen stand at the entrance to the British Industry Pavilion. Above right, Olympia at Brussels: This view of the Rolls-Royce and other stands in the British Industry Pavilion shows how the pavilion has been packed with commercial stands. Courtauld's, on the right, is one of many which rises almost to the roof. Right, detail of external walling of the British Industry Pavilion. Further detail overleaf.

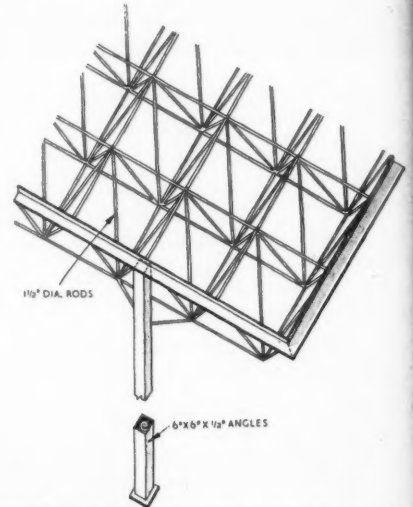


glass, designed by Cecil Stephenson, is used to reduce solar heat and glare. The lower 8-ft. of the wall is glazed with large sheets of plate glass, with smaller panes of glass above. There are no opening lights. The curtain wall system was designed in collaboration with the Rainham Timber Company in glue-laminated hardwood (selected as the framing material on the grounds of economy) stiffened by light steel lattice wind braces. The external timber surfaces are shop-finished with a synthetic french polish. The external walls were entirely prefabricated and shipped in bundles to Belgium. Site assembly was speedy, units being erected in the form of ladders and fixed back to the steel frame. The building is floodlit at night, and special illumination is provided for the main exhibition hall so that the exhibits can be seen at night when the pavilion is closed but the grounds are still open to visitors. At the south





Left, detail of the curtain walling of the British Industry Pavilion
[Scale: 2" = 1' 0"]

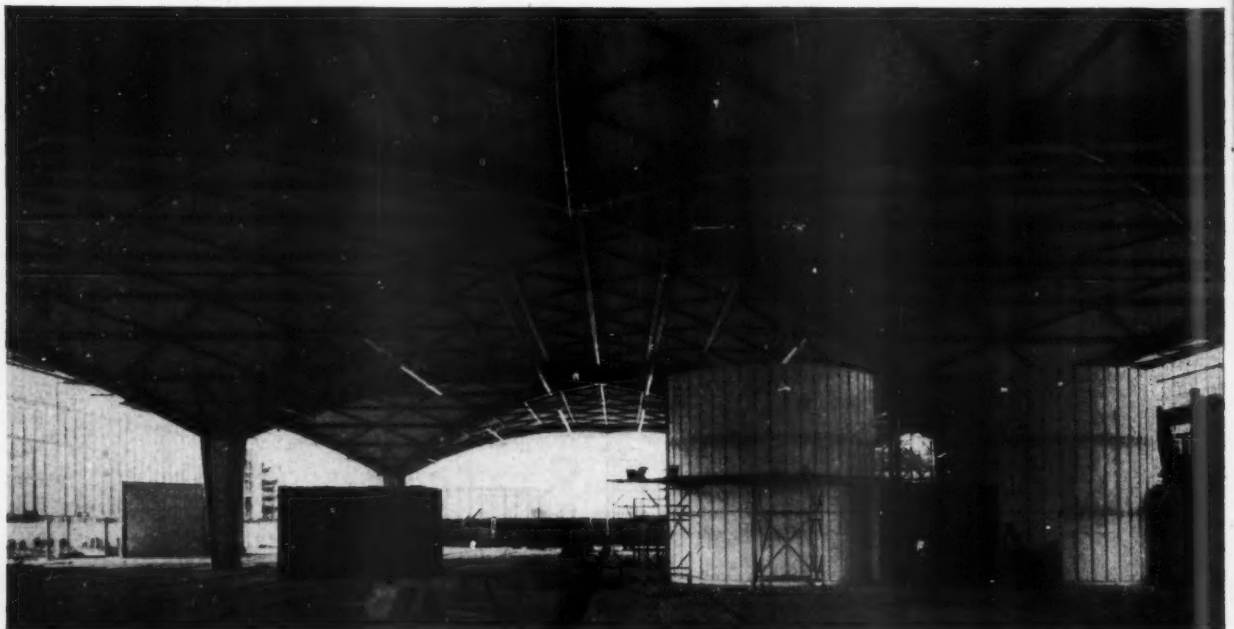


Left and below, details of the space frame entrance canopy to the British Industry Pavilion
[Scale: 3/4" and 1/2" = 1' 0"]

A progress photograph of the British Industry Pavilion, in which the roof structure is clearly visible. Already however the lofty stands which now cram the Pavilion are being erected.

end of the pavilion there is an annexe, housing a self-service shop, a cinema, the City of London Pavilion (designed by Beverley Pick Associates) which houses a display illustrating the work of such institutions as the Stock Exchange.

On the east of the main pavilion there are five kiosks selling proprietary articles or (in one case) doing dry cleaning. The Britannia Inn, at the east end of the courtyard separating the British Industry Pavilion from the Government Pavilion, is a two-storey build-





The British Industry Pavilion, and the vertical feature (designed by Edward D. Mills and Partners) rising from the lake are a blaze of light at night, illuminating the stands when the Pavilion is closed.



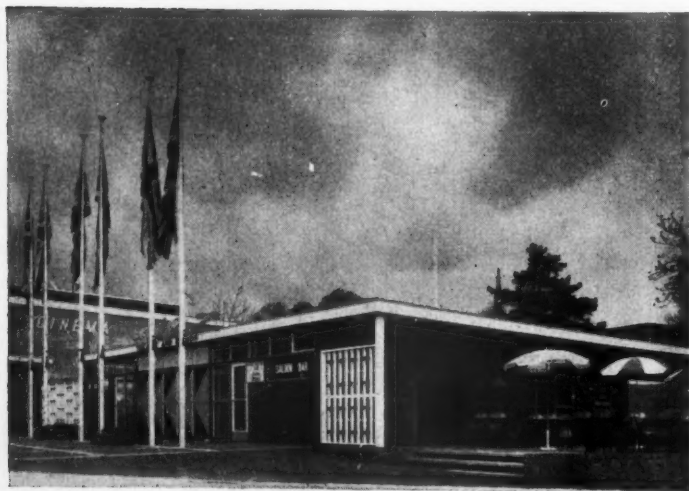
Rear view of the British Industry Pavilion, showing the mural by Cecil Stephenson.

ing, with a verandah approached by two external staircases from the terrace on which it stands. It is constructed of 9-in. brickwork with 6-in. by 6-in. laminated timber columns supporting beams of the same material. The exterior is clad partly with a local facing brick, partly with horizontal weatherboarding painted white. The ground floor is laid with thermo-plastic tiles on cement screed and concrete, the upper floor (including that of the verandah) of tongued and grooved boarding. The two outside stairs are of glued laminated West African hardwood.

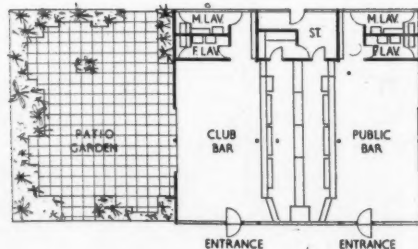
The Fox & Hounds

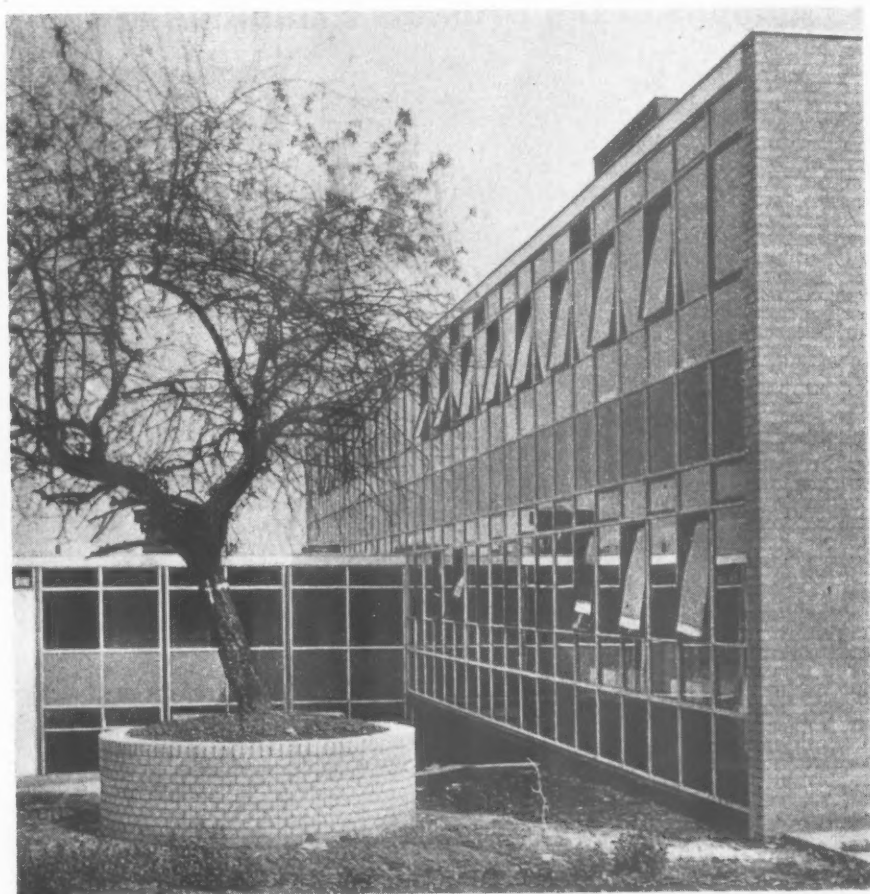
The Fox & Hounds, built for two Yorkshire Breweries, Messrs. John Smith's Brewery Co. Ltd. and the Hope

& Anchor Breweries Ltd., at the south end of the British Industry Pavilion, is a single storey structure housing a saloon bar and club bar, separated from the cinema by a screened patio garden accessible from the club bar, with a paved terrace to the south. The building is demountable for future use. It was made in parts in the workshop and assembled with bolts, on site. The posts and roof units were designed by the Rainham Timber Engineering Co. in consultation with the architects, Hadfield, Cawkwell and Davidson, and the scheme selected has sixteen laminated hardwood posts supporting a roof made up of plywood units about 7 in. thick, giving a flush surface top and bottom. The hardwood windows and wall panel units were designed by the architects and made by the general contractors. Generally speaking, the only expendable parts of the building are the ground floor slab and the felt roof finish.



The Fox & Hounds, at the rear of the British Industry Pavilion. It is a demountable timber structure and will be used for similar purposes elsewhere. Below, ground floor plan. [Scale: $\frac{1}{8}$ " = 1' 0"]





FAIRLAWN PRIMARY SCHOOL, LEWISHAM FOR L.C.C.


Peter Moro, F.R.I.B.A., F.S.I.A., Architect

HOPE'S

WINDOWS *and* WINDOGRID

Curtain Walling

HENRY HOPE & SONS LTD., *Birmingham & 17 Berners St., London, W.1*

MEMBER OF THE METAL  WINDOW ASSOCIATION

Britain's Pavilions at the Brussels Exhibition are

COSTAIN built...

Architects:
British Government Pavilion and
Co-ordinating Architects for
the entire site:
HOWARD V. LOBB & PARTNERS,
F.F.R.I.B.A.

Industrial Pavilion and Britannia Inn:
EDWARD D. MILLS & PARTNERS, F.A.R.I.B.A.

The "Fox & Hounds" Bar:
HADFIELD, CAWKWELL & DAVIDSON,
F.F.R.I.B.A.

Consulting Engineers:
MESSRS. FELIX J.
SAMUELY & PARTNERS.



At the great Universal and International Exhibition in Brussels British constructional industry is represented by these two striking pavilions. The contract for constructional work on the entire British exhibit — which includes also the Britannia Inn and the Fox & Hounds Bar — was awarded to Richard Costain Ltd. and has been completed in association with the Belgian firm of Blaton-Aubert.

Between 35 and 50 million people are expected to visit the exhibition. This important British exhibit is another example of the Costain combination of technical skill, experienced organisation and versatility.

Make

Richard
COSTAIN
Limited

a part of your planning

BUILDING & CIVIL ENGINEERING CONTRACTORS • LONDON • ENGLAND

Middle East • Rhodesia • Nigeria • Canada • West Indies

THE INDUSTRY

Brian Grant reviews the Factory Equipment Exhibition held recently at Earls Court, and describes some new lightweight roofing.

The Factory Equipment Exhibition, which in past years conformed fairly closely to its title, was extended this year to include heating, ventilating and thermal insulation, the latter having a floor to itself. The reason for this, no doubt, was the Thermal Insulation Act, but it was interesting to note that, while the draft regulations specify a U figure as high as 0.3 for factories with internal temperatures of 70 degrees, most manufacturers were showing roof constructions with U figures anywhere between 0.15 and 0.2. While there is little doubt that these improved figures would be financially justifiable, it seems probable that only the more enlightened factory owners will insulate to anything better than the minimum demanded by the Act, for the present Income Tax law encourages the cheapest possible type of factory construction regardless of maintenance and running costs. Moreover, since the recent budget taxes all profits at the same rate, the lower rate on profits ploughed back having been abandoned, this habit seems likely to become more common.

In general, most manufacturers showed various forms of roof structure, either flat decking or pitched, insulated with glass fibre or mineral wool in various thicknesses, with insulating boards and lightweight plastics as alternatives. There were also a number of double skin or sandwich constructions in various sheet materials such as asbestos cement and aluminium, again with glass fibre insulation, but with all these it is necessary to use some sort of spacing device between the inner and outer skins in order to avoid compressing the insulation.

Among the insulating boards pure and simple, *Universal Asbestos Manufacturing Co. Ltd.* (Tolpits, Watford, Herts) had a flameproof board known as *Ubesto*, having a low density and a high asbestos fibre content. This is in the Class I minimum

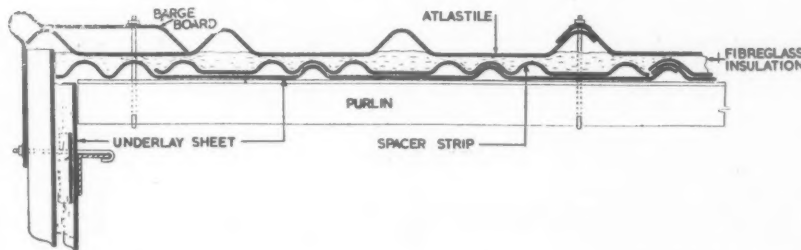
rate of flame spread, and costs 6s. 2d. a sq. yd., about 2s. 2d. more than standard flat sheet. Another material in Class I is *Tentest* fibre insulating board faced on both sides with asbestos paper: this costs about 3d. per sq. ft. more than the plain board (*Tentest Fibre Board Co. Ltd.*, Oakleigh Gardens, N.20).

The section below illustrates a typical double skin and glass fibre roof by the *Atlas Asbestos Cement Co. Ltd.* (*Artillery House, Artillery Row, S.W.1*). This weighs about 6½ lb. per sq. ft. with 1 in. of insulation and has a U value of 0.18. The spacer strips are applied at each purlin and are 4 in. wide. The same firm also carries out asbestos spraying, which can be applied to almost any surface and the optimum thickness is generally between ½ and 1 in., with a U value in the neighbourhood of 0.2.

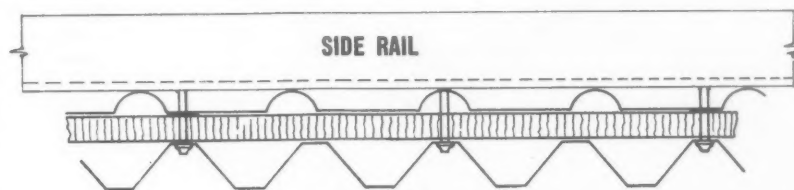
On the stand of *Fibreglass Ltd.* (*Ravenhead, St. Helens, Lancs.*) there was a glass fibre insulated roof covered with Northern Aluminium's *Snaprib*, and a sandwich wall made up with two layers of British Aluminium's *Rigidal*, the latter fixed with cap nuts to prevent the compression of the insulation. Several firms were also showing insulating board made from foamed plastics, *Marley (Sevenoaks, Kent)* having an expanded polystyrene called *Marleycel*, which is easily bonded to other materials and also provides an excellent base for plaster. For lining factory roofs it can be

stuck direct to corrugated or plain sheeting, and, having a light and smooth surface, it acts as an excellent light diffuser without any painting or other treatment. The material is made in standard lengths of 4, 6 and 8 ft., with a width of 2 ft., but any length can be supplied to special order. *Baxenden Chemicals* (83, Euston Road, N.W.1) showed a similar material named *Spandoplast*, and also a polyurethane foam-in-place material called *Spandofom* which can be used among other things for filling cavity walls, though U figures were not available on the stand.

Among the simpler types of equipment *Kapok* (which I have always associated more with sleeping bags and life jackets) was being used in heat retaining quilts for hot water cylinders and to protect cold tanks from frost. The material can easily be holed for pipes with a pair of scissors and either sewn or bound with adhesive tape, and is sold in 6 ft. by 3 ft. quilts at 22s. 6d. each. The same form of quilt is also sold for pipe lagging and is made up with snap fasteners: it has the advantage that it can be easily run round bends. *Kapok* quilting is also sold as a heat and sound insulating wall finish, as the p.v.c. covering can be easily washed, and it can also be used for roof insulation. It is more expensive than glass fibre, but is easier to handle (*Kapok Ltd.*, North Acton Road, N.W.10). Strip types of jacketing, each 7 in. wide and up to 36 in. long and



Above, section through a double-skin and glass-fibre roof by the *Atlas Asbestos Cement Co. Ltd.* Below, vertical section through the *Rigidal* sandwich wall.



technical section

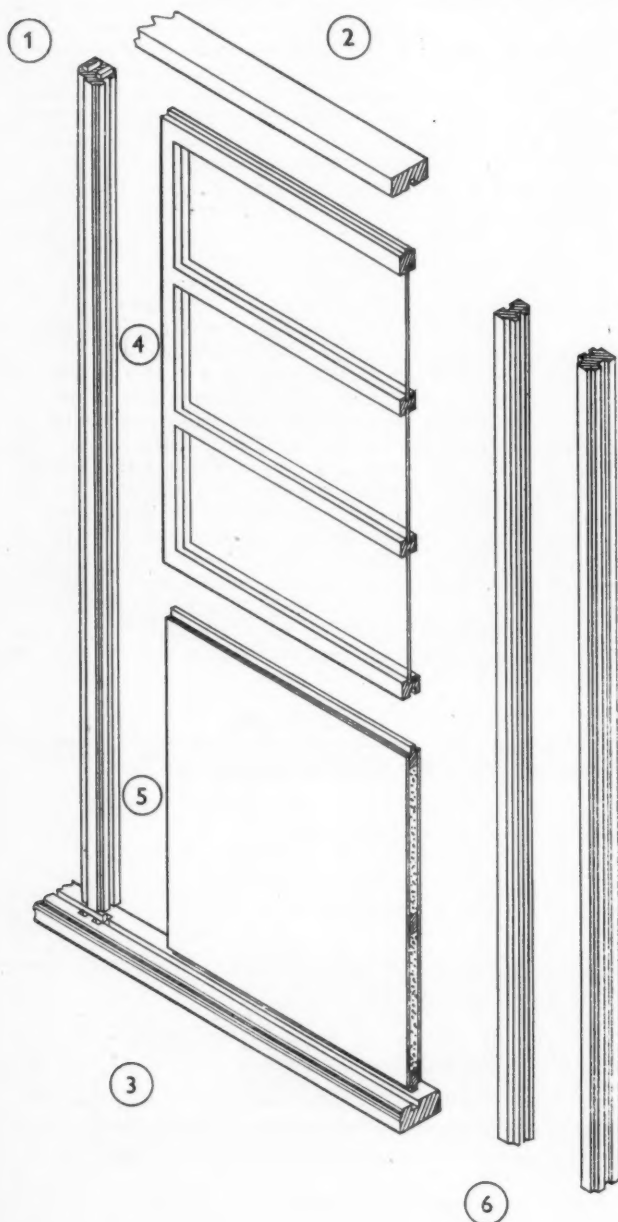
insulated with up to 2 in. of glass fibre or mineral wool, were being shown by *Hodgson & Hodgson* (Carrington, Nottingham) under the trade name of *Thermos*, though I gather that the firm is not related to the vacuum flask people. Cost for 2 in. of insulating for the average cylinder is about £3.

On the ground floor of the show, devoted to factory equipment, there was little of major importance new since last year, but I did find some quite handsome timber partitioning made by *Pochins Ltd.* (King St. Works, Middlewich, Cheshire). This is made in standard 3 ft. widths, and can consist of flush panelling filled with insulation, topped by single or double glazed units. The posts are made in two halves and T junctions are simple to arrange, while there is adequate room in each post for wiring runs. Doors can be arranged quite

simply and although the system is designed for 8-ft. ceilings variations for this figure are quite simple to produce. The panels are produced either in softwood in the white for painting, or in polished hardwood at prices from 7s. 6d. to 12s. 6d. per sq. ft.

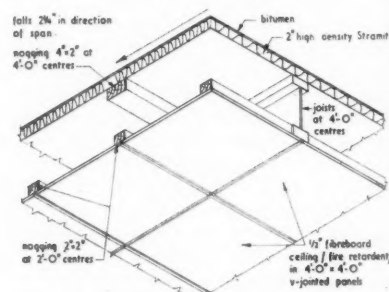
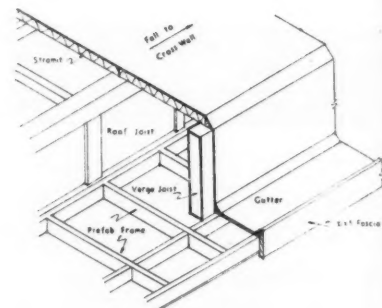
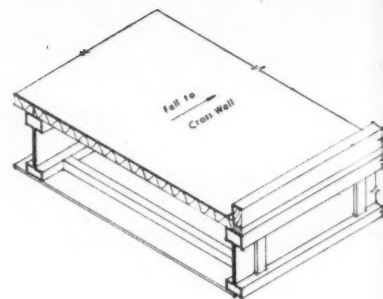
Lightweight Roofing

The drawings on the right show the construction of the Cawood lightweight roof, which is designed for spans of up to 45 ft., although with a modified type spans up to 53 ft. are possible. The roof is built up of I beams with plywood webs and laminated flanges, the standard beam spacing being 48 in. and the depth varying from 8 to 24 in. according to the span. The top flanges of the beams are furred to provide falls and the roof is clad externally with 2-in. high-density Stramit boards and three layers of bitumen, reinforced with a



1. Posts made in two interlocking sections for additional stability.
2. 4 in. by 2 in. head grooved to receive panel and morticed for posts.
3. 4 in. by 2 in. cill grooved and morticed. Packed on underside to overcome floor irregularities and covered both sides with skirting mould.
4. Top glazed panel adaptable for double glazing as required. Solid panel as alternative feature.
5. Bottom panel framed and plywood faced both sides and infilled with insulating material.
6. Rebated door jambs interlocking with one half of intermediate post.

Left, components of the timber partitioning made by *Pochins Ltd.*



Details of the construction of the Cawood lightweight roof.

membrane of woven glass canvas. The ceiling is lined with a Class I fire retardant board in 4-ft. by 4-ft. bevelled edge panels. The "U" factor of the complete roof is 0.13 and it weighs only 10 lb. per foot super. The roof is particularly useful in the construction of classrooms, ward blocks and similar buildings where a repetition of the same plan allows cross wall construction to be used. By spanning from one cross wall to the other it is possible to dispense entirely with a structural frame, and even though it may be necessary to return the ends of the cross walls for structural reasons, it is still possible to provide large areas of glazing without needing lintels to carry the roof. Flat, pitched or monopitch roofs can be used, nor is it necessary for the two pitches to be equal, while one half of the roof can, if necessary, be carried down over subsidiary rooms with a lower ceiling height. A long-span version of this roof is also produced, suitable for a maximum of 53 ft. The standard I beams are still used, but are either placed at 24-in. centres, or, if rooflights or other openings are required, the standard 48-in. spacing is retained and the joists are then used in pairs. (Cawood, Wharton & Co. Ltd., Southlands, Harrogate).

The
latest
Information
on

CURTAIN WALL
INFILL PANELS

MALLITE
INFILL PANELS

write
for
New Leaflet
giving
full technical
details

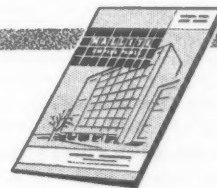
**William Mallinson
and Sons Ltd.**

TIMBER and VENEER MERCHANTS

130-150 HACKNEY ROAD • LONDON • E.2

Telephone: Shoreditch 7654 (15 lines)

Telegrams: 'Almoner' London

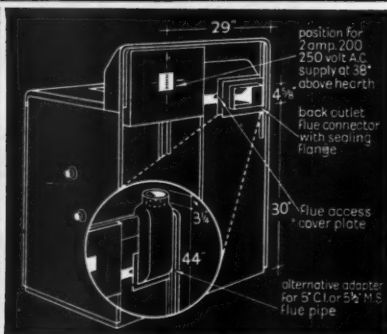
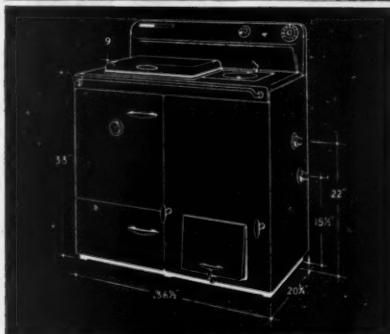


MANUFACTURERS OF PLYWOOD, ARMOURPLY, PANELS, COMPOSITE PARTITIONING, INFILL PANELS

this new solid fuel cooker goes in uncommonly easily

RADIATION YORKMASTER

It is delivered in one piece—ready assembled. There is no 'ex works' or delivery charge. Installation is quick and simple—it is done by the builder so you can save time on site.



And makes a big impression because—

It has a **Radostat heat selector**. Variable thermostat control of oven and water-heating. Electrically operated air inlet valve with exceptionally quick response. 5-hour clockwork cooking timer on control panel.

Hot water—plus a towel rail. Over 24 hours, the L-shaped side-outlet boiler can produce 80,000 B. Th. U., raising approximately 90 gals. of water from 50°F to 140°F. This allows for heating a towel rail or small radiator.

It burns with full efficiency on the cheapest fuels. Updraught (for coke) OR downdraught (for burning cheap low-grade coal virtually smokelessly)—at the flick of a lever.

It has two porcelain lined ovens: the larger is 2 cu. ft., flueless and air-flow heated, with porcelain-enamel lining and removable grid-guides, a dial thermometer on the oven door, and temperature thermostatically controlled over a full cooking range. Separate lower oven for slow-cooking.

It has one big, quick-action hotplate, 17 1/2" x 10 1/2". The user can fry, boil and simmer at the same time.

It is easy to look after. The fire need never go out. Daily refueling averages twice with coke—only once with coal. Sloping bottom-grate with shaker action for clearing ash, and dumper for removing incombustibles, both controls operated externally, with ashpit door closed.

It has clean lines. Enamel finish in white, cream or blue, with hob in black or grey.

It costs £125, list, assembled and delivered.

The Yorkmaster is a really modern solid fuel cooker

Connexions, etc.

Flue. Left hand rectangular back outlet spigot 8 1/4" wide x 4 1/4" high at 30" to underside. Adapter for standard 5" diameter sheet steel or cast iron flue pipe available. Recommended minimum height of chimney, 15 ft. above hearth.

Boiler. 1" B.S.P. connexions at right hand side. Not 'handed' but left hand flow and return pipes can be passed behind the cooker in the space provided, if required. Cylinder should be about 30 gals. lagged. Flow and return pipes should not exceed 25 ft. each. Water-jacker in steel-clad copper or welded steel, bower-barffed if required.

For Technical Information
Sheet please write to
Radiation Group Sales Ltd.,
Leeds 12.



technical section

1 SOCIOLOGY

hospital accommodation for the aged

On pages 663-670 of this issue we give a full description of Cowley Road Hospital, Oxford. This is an entirely new kind of hospital, designed to meet the needs of old people (*i.e.* it is a *geriatric* hospital) and has been brought about by a new approach to this ever-more-pressing problem. We publish below an article by Richard Llewelyn Davies, the Director of the Nuffield Foundation Division for Architectural Studies and architect of the Cowley Road Hospital, describing what this new approach means and the kind of hospital accommodation it requires.

Unlike most hospital problems, the provision of medical care for the aged, becomes more acute as a nation progresses towards higher standards of living, better housing, and improved social services. There are two reasons for this. The first is that social progress increases the expectation of life, while the birth-rate often falls. This results in an increase in the proportion of old people. It is estimated that the population of "over 60" in Britain will rise from 5,571,000, or 12 per cent. in 1941, to 9,576,000, or 21 per cent. in

1971.* The following table shows more clearly the rate of the rise.

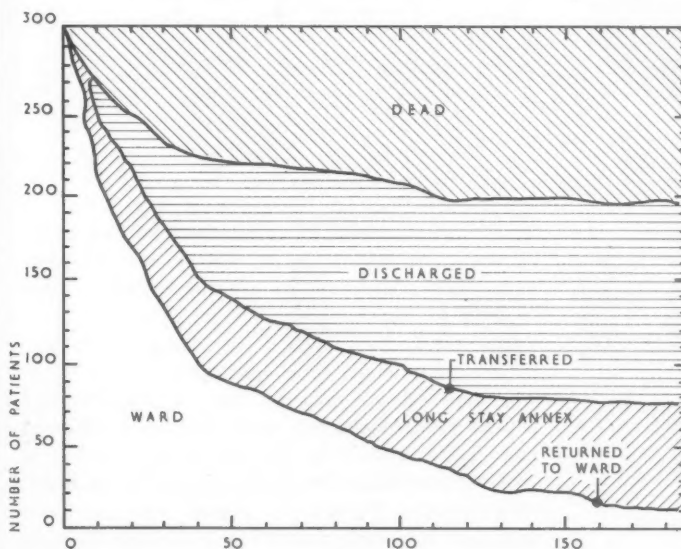
Table 1. Estimated ratio of elderly persons in Great Britain to total population, 1911-79 †

Census or estimate	Ratio of elderly to total population (per cent)
1911	6.7
1921	7.8
1931	9.5
1941	11.8
1951	13.5
1954	13.9
1964	15.3
1979	18.2

This naturally results in an increase in the relative numbers of old people who need hospital care. The second reason is sociological. It is unfortunately the case, that social progress has, at least up to the present, made it more difficult for old people to live with young families. This is partly due to housing policy, which has concentrated on building new houses and flats suitable for a small family, without the extra rooms to accommodate relatives. This policy is, however, itself a result of a general shift in outlook; the concept of a large family, of three generations, all living together, is no longer so acceptable in advanced societies. It is therefore not surprising that countries such as England and Sweden, where there is a high standard of living and advanced social policy, have the biggest problem to face in hospital care for the aged. Less advanced countries must expect the problem to grow progressively more serious. Even if the sociological factors mentioned above do not operate, progress in medicine itself will increase the number of old people in the population.

The number of beds per thousand of the population required for geriatric care has been variously estimated, from 1.5 to 3. These figures are, however, probably too high, based on a rather passive attitude by the hospital authorities on the problem of care for old people. It is only in comparatively recent years, that attempts have been made to grapple intelligently with this problem. Amongst others, Dr. L. Z. Cosin, Director of the Cowley Road Hospital at Oxford, has been a pioneer in developing a dynamic approach to geriatric medicine. He and others have been able to show that providing a really effective team is organized to work on all aspects of sickness in the aged, including the psychological and social problems—then the old picture of vast barrack-like hospitals with hundreds of chronically ill old people is out of date. Fig. 1 shows the results of dynamic geriatric treatment in Orsett Hospital, Essex. The results cover 301 patients over 60, admitted between January, 1947, and July, 1948, and show a picture very different from that normally associated with geriatric care. After six months in the ward, only ten patients in the original 300 admissions still required nursing care, all the rest had either been discharged to their homes, or died, or transferred to a long-stay annexe. These latter had recovered to a point where they could live fairly normal lives in

Fig. 1. Distribution of 300 patients admitted to a geriatric hospital by days after admission. Diagram by courtesy of Dr. L. Z. Cosin.



*Pension Systems and Population Change. Prof. R. Titmuss. The Political Quarterly. P. 153. Vol. XXVI. N.2. April-June 1955.

† The Chancellor of Exchequer's Report of Committee of Economic and Financial Problems of the Provision for Old Age. 1954.

technical section



Fig. 2. One of the sitting rooms in the long-stay annexe, or rest home at Cowley Road Hospital, Oxford, designed by Richard Llewelyn Davies.

accommodation more like a hostel than a hospital. The average length of stay of the patients is 53 days in all, part of the time being spent in the acute ward and the remainder in the long-stay annexe. Experience in dynamic care of the aged now enables

us to consider the type of hospital buildings most appropriate for this purpose.

The accommodation for a modern geriatric hospital or department falls into three groups, the ward, the long-stay annexe and the day hospital. New patients are all admitted to the ward, and undergo an intensive period of diagnosis and treatment; as our experience in handling this type of case increases, so we are finding it possible to shorten this period which allows us to reduce the number of beds in the ward. Used in this way, however, the wards must be very fully equipped and staffed and they must be equal in every way to a high-grade medical or surgical ward in an acute hospital. Its design will be, therefore, of similar design to that of a modern acute ward. The geriatric unit will need to have access to the services of first-class pathological, X-ray and operating departments. It would be a busy, active unit, in every way comparable to an acute ward. At the end of the period of intensive diagnosis and treatment, the majority of the cases are discharged home; some, however, have reached the limit of rehabilitation, but are still unable to go home for medical, psychological, or social reasons. These patients are transferred to the long-stay annexe. This building should have the character of a hostel. Patients accommodated there are ambulant and are not undergoing any further intense treatment. Buildings, therefore, can be simple and homely. A minimum of nursing care is provided and in the event

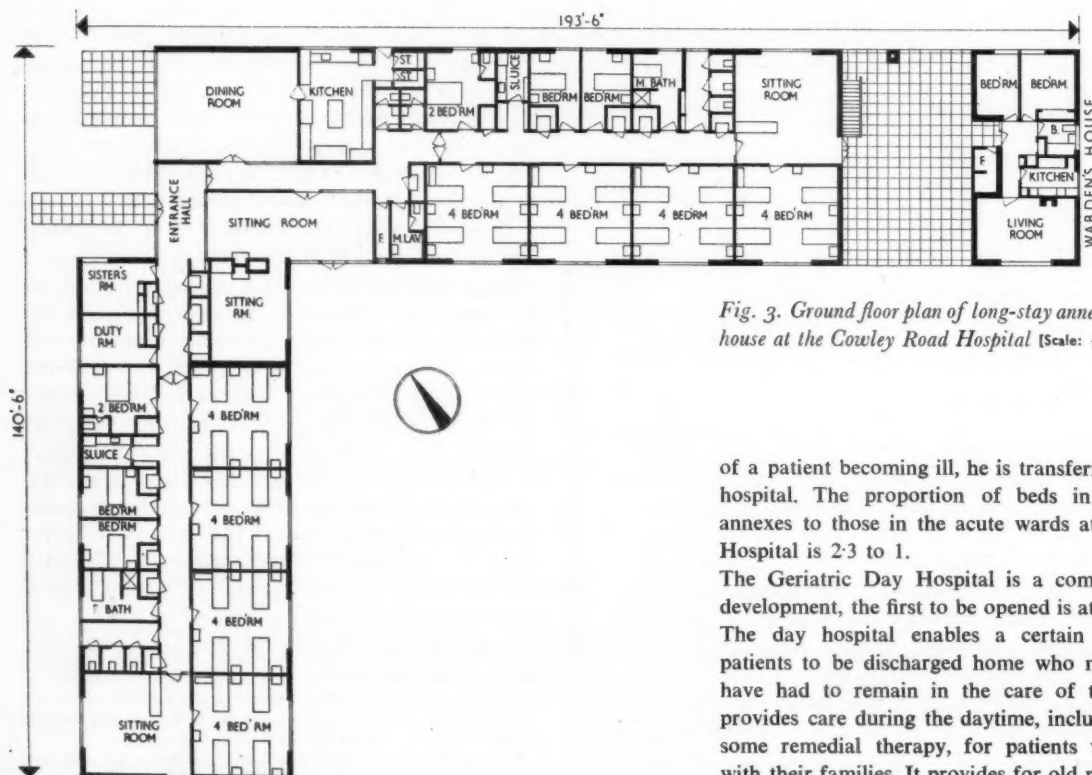
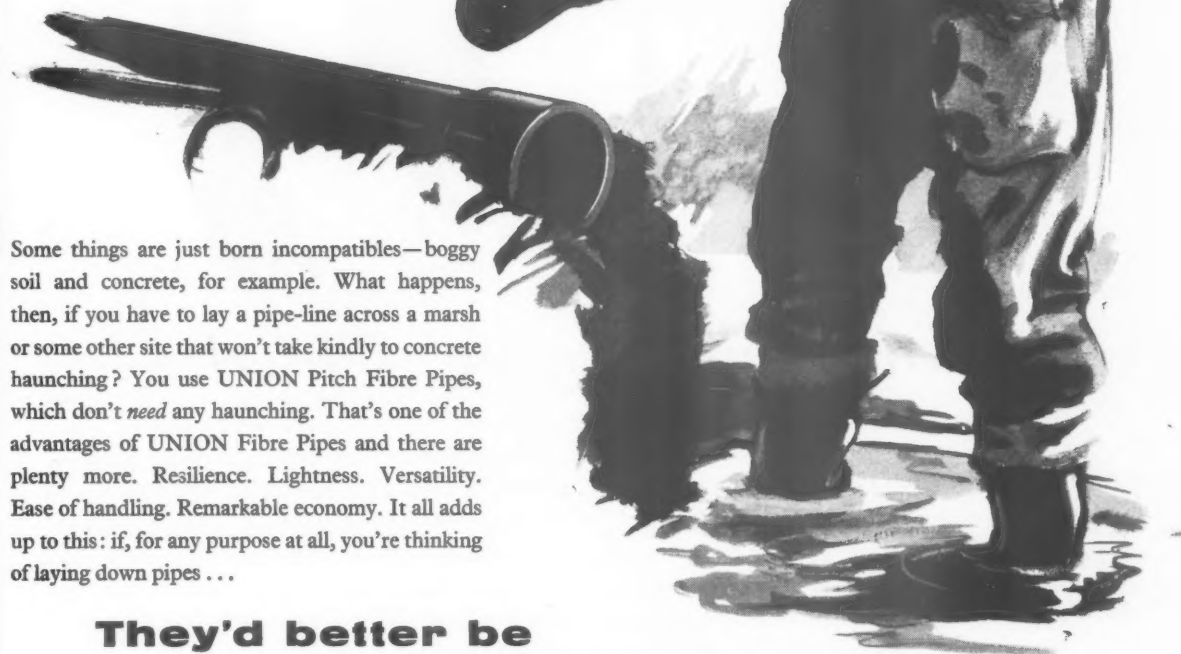


Fig. 3. Ground floor plan of long-stay annexe and warden's house at the Cowley Road Hospital [Scale: $\frac{1}{8}$ " = 1' 0"]

of a patient becoming ill, he is transferred back to the hospital. The proportion of beds in the long-stay annexes to those in the acute wards at Cowley Road Hospital is 2:3 to 1.

The Geriatric Day Hospital is a comparatively new development, the first to be opened is at Cowley Road. The day hospital enables a certain proportion of patients to be discharged home who might otherwise have had to remain in the care of the hospital. It provides care during the daytime, including lunch and some remedial therapy, for patients who are living with their families. It provides for old people the same

NO haunching here



Some things are just born incompatibles—boggy soil and concrete, for example. What happens, then, if you have to lay a pipe-line across a marsh or some other site that won't take kindly to concrete haunching? You use UNION Pitch Fibre Pipes, which don't need any haunching. That's one of the advantages of UNION Fibre Pipes and there are plenty more. Resilience. Lightness. Versatility. Ease of handling. Remarkable economy. It all adds up to this: if, for any purpose at all, you're thinking of laying down pipes . . .

They'd better be

UNION

PITCH FIBRE PIPES



Constant cold water, Charles!...

Modern buildings need modern amenities. And for piping, that means FORMICA *quality* polythene piping . . . the new cold water piping that makes bursts impossible, whatever the weather. It's flexible and light for easy handling, needs fewer joints, resists scaling, will not corrode, requires no protection or maintenance indoors or out. And it's O.K. for drinking water. Most

Water Authorities today approve FORMICA polythene piping. All the best builders' merchants stock it. And all the experts prefer it . . . for its consistent quality of material, for its high standard of finish, for its convenience of length-marking and grading (normal and heavy). Look for the name FORMICA stamped down the length of the pipe, and you'll *know* you're right . . .

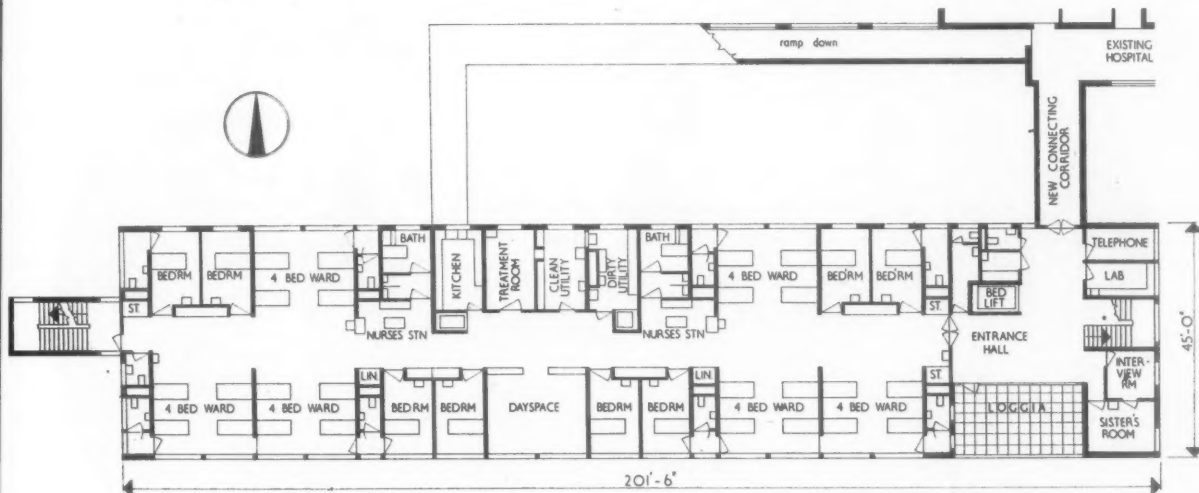
with **FORMICA**
polythene piping

FORMICA LTD., DEPT. P10, DE LA RUE HOUSE, REGENT STREET, LONDON W1



Fig. 4. Ground floor plan of the day hospital at the Cowley Road Hospital [Scale: $\frac{1}{4}$ " = 1' 0"]

Fig. 5. Ground floor plan of a ward at the Larkfield Hospital, Greenock, also designed by Richard Llewellyn Davies [Scale: $\frac{1}{4}$ " = 1' 0"]



sort of facilities that a crèche provides for babies. It has been found that many families are willing to accept old people back in their homes after rehabilitation at the hospital, if this sort of care can be provided during the daytime. This is particularly useful in cases where younger members of the family are all out during the day.

The success of the dynamic method in geriatrics just described, rests absolutely on the relations established by the geriatric unit and the family of the old person. The unit must be willing to accept patients immediately, and, where patients have gone home again, must be willing to take them back again whenever necessary; it must even be prepared to admit patients from time to time to give the family an opportunity for a holiday. These conditions can be met, and when they are, the service is far cheaper to the community; much more important, it keeps the aged in the stream of

life—and it does away almost entirely with the old concept of chronic hospitals.

Fig. 3 shows the new long-stay annexe attached to Cowley Road Hospital at Oxford. It is a very simple building of brick construction. It is divided into two wings, one for men and one for women. Most of the accommodation is in four-bed rooms, in addition there are four single rooms and two double-bedded rooms for married couples. It has been found that patients do best when they form into comparatively small social groups, and for this reason three separate sitting-rooms are provided, enabling groups of nine or ten to live together. Even these groups may be too large, and in future buildings, it is proposed to experiment with a great number of separate sitting-rooms. Sanitary accommodation is simple and treatment and sterilizing rooms are not provided on a hospital scale. The cost of the building works out at £750 per bed.

Fig. 4 shows the day hospital attached to Cowley Road Hospital. The patients will remain for the whole of the day and so a dining-room and kitchen are provided. Only one sitting-room (overlooking an enclosed garden) is included in this building, for most patients spend the greater part of the day in the two craft

rooms, where they are occupied on various projects, both on their own and in social therapeutic groups. As well as these two rooms, there is a domestic retraining room, and an occupational therapy room, where patients work on a partly industrial basis so far as output and standards of work are concerned. For treatment there are rooms for a doctor, a psychologist and a medical social worker, a room for physiotherapeutic treatment and a small laboratory. For the few agitated or depressed patients who need individual attention, there is a small room provided where they can receive any special medical treatment. The building cost was £18,000, and up to 40 patients can be accommodated.

Fig. 5 shows a ward at the Larkfield Hospital, Greenock, in Scotland, designed as a modern acute medical ward. This plan is very suitable as a basis for acute geriatric wards.

*It was a stormy
shareholders' meeting...*



but
RUNNYMEDE
RUBBER FLOORING
remained unruffled!

People who get cross and stamp their feet at meetings must find Runnymede Rubber very frustrating because it's one of the quietest of flooring materials.

It is also one of the toughest, safest and least expensive, which is why so many administrators choose it outright.

And for interior designers, Runnymede offers a range of tones and patterns which satisfy the most fastidious tastes. Write or 'phone us and we'll be happy to show you.

RUNNYMEDE RUBBER CO. LTD., 6 OLD BAILEY, LONDON, E.C.4. Tel: CITY 2471

HOSPITAL and REST HOME

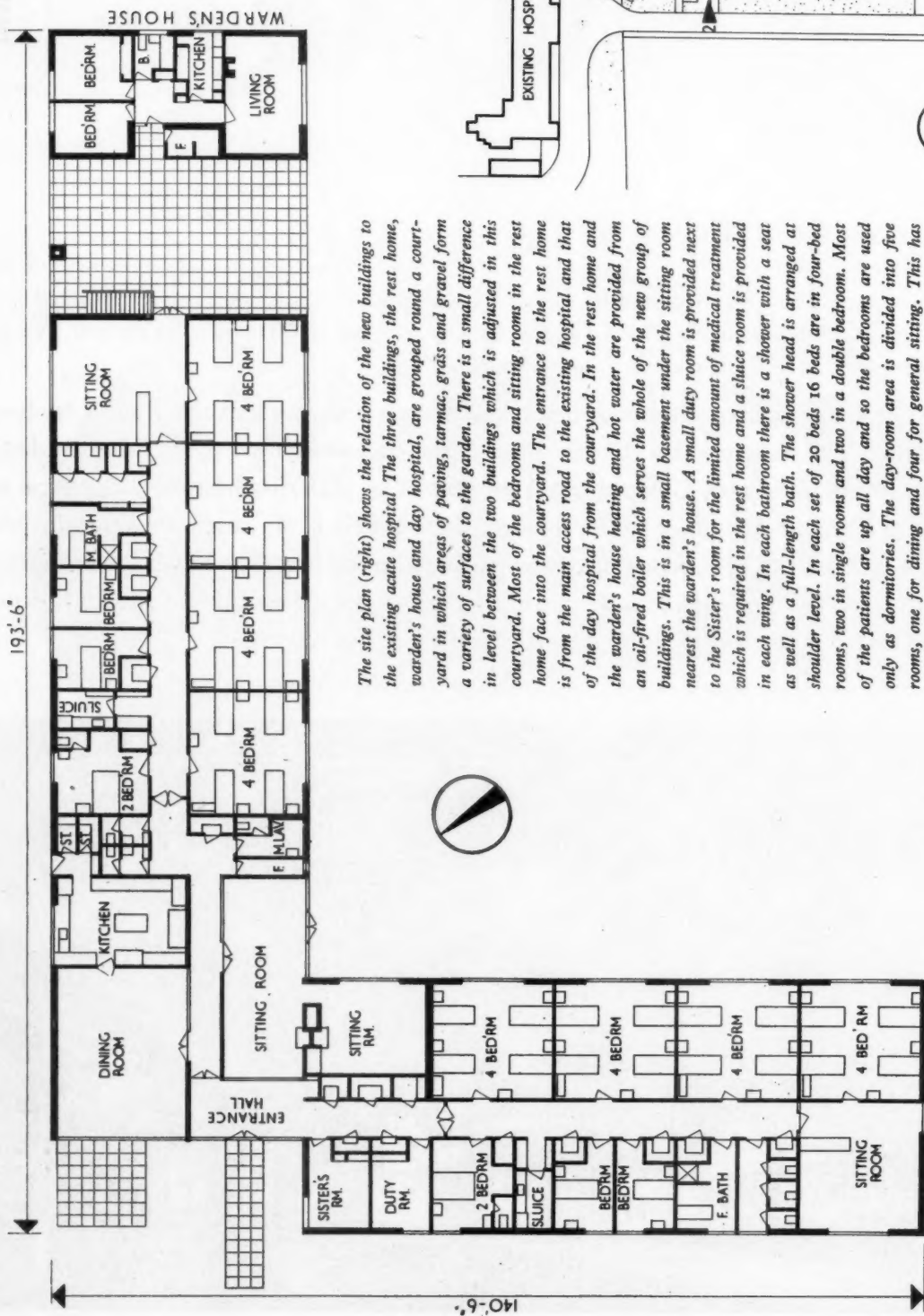
in COWLEY ROAD, OXFORD; designed by RICHARD LLEWELYN DAVIES; assistant architects JOHN WEEKS, WALTER GODDARD, DEREK BOWES; quantity surveyors DAVIS, BELFIELD and EVEREST; consultants (services) E. G. PHILLIPS SON and NORFOLK

The three single-storey buildings illustrated here, a rest home, a house for its warden, and a day hospital, have been designed to make possible the new trend in the treatment of old people which is described today in our Technical Section. Grouped in the grounds of an old Oxford hospital, they form a link between the hospital and the outside world, through which acutely ill old people are gradually brought back to health and activity by a period of rehabilitation and protection. The rest home provides for a convalescent period, the day hospital, daily care and light work for old people well enough to return to their families for the night. It is the first building of its kind in this country.

Viewpoint 1, from the south-west, with the rest home on the left and the day hospital on the right.

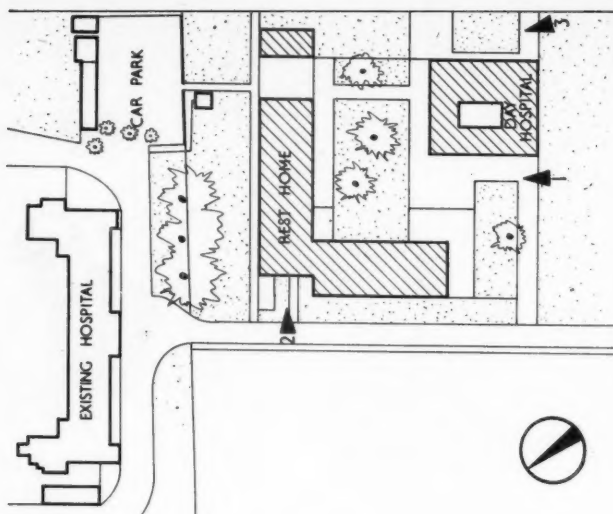


building illustrated

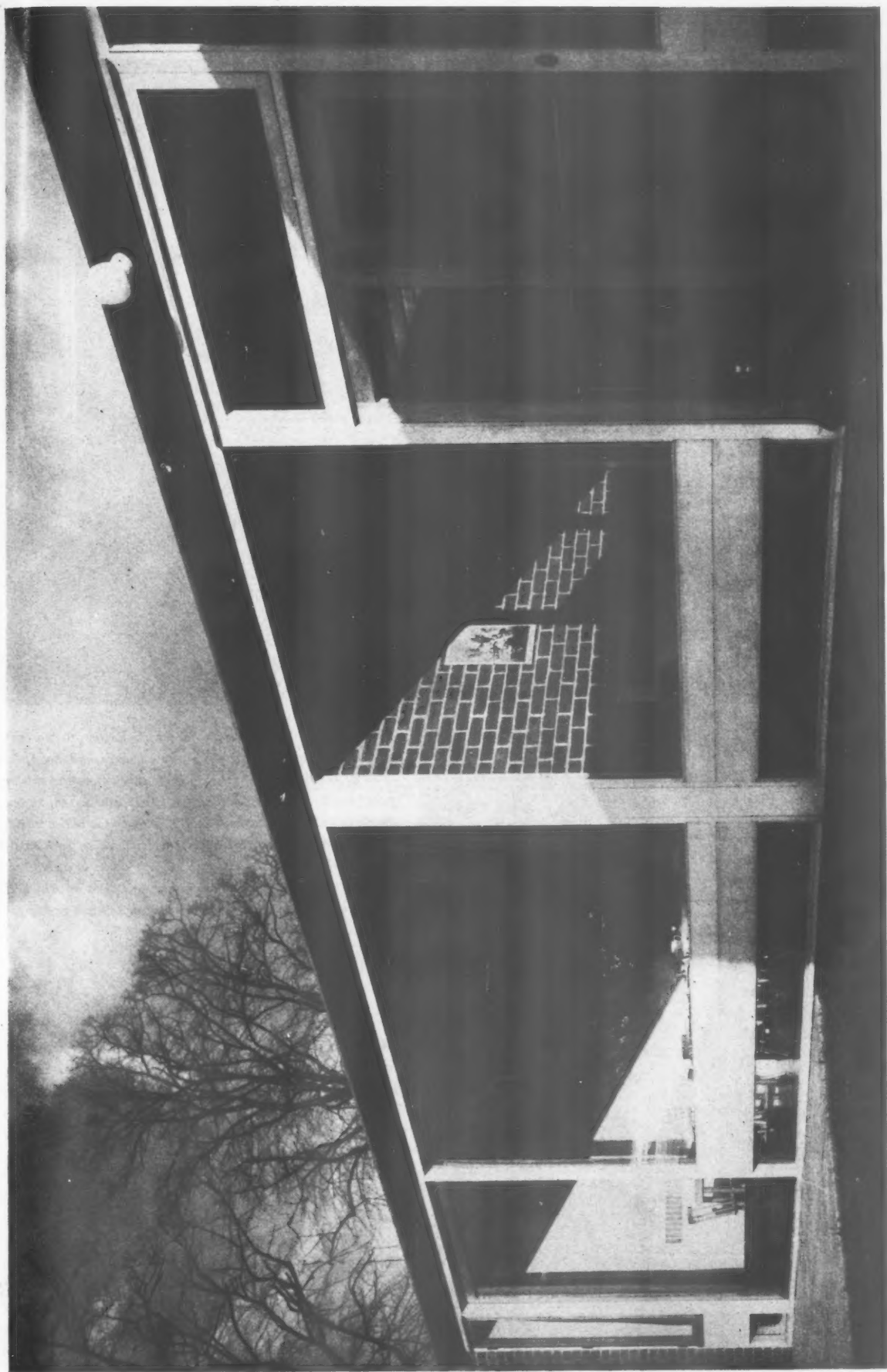


Ground floor plan of rest home and warden's house
[Scale: $\frac{3}{4}$ " = 1' 0"]

The site plan (right) shows the relation of the new buildings to the existing acute hospital. The three buildings, the rest home, warden's house and day hospital, are grouped round a courtyard in which areas of paving, tarmac, grass and gravel form a variety of surfaces to the garden. There is a small difference in level between the two buildings which is adjusted in this courtyard. Most of the bedrooms and sitting rooms in the rest home face into the courtyard. The entrance to the rest home is from the main access road to the existing hospital and that of the day hospital from the courtyard. In the rest home and the warden's house heating and hot water are provided from an oil-fired boiler which serves the whole of the new group of buildings. This is in a small basement under the sitting room nearest the warden's house. A small duty room is provided next to the Sister's room for the limited amount of medical treatment which is required in the rest home and a sluice room is provided in each wing. In each bathroom there is a shower with a seat as well as a full-length bath. The shower head is arranged at shoulder level. In each set of 20 beds 16 beds are in four-bed rooms, two in single rooms and two in a double bedroom. Most of the patients are up all day and so the bedrooms are used only as dormitories. The day-room area is divided into five rooms, one for dining and four for general sitting. This has been done so that patients may sit in smaller groups than is normally found in institutions. Two of the sitting rooms are communal and the other two will be used by men and women respectively. This makes it possible for a choice of company to be made by the individual.



Site plan showing photographic viewpoints

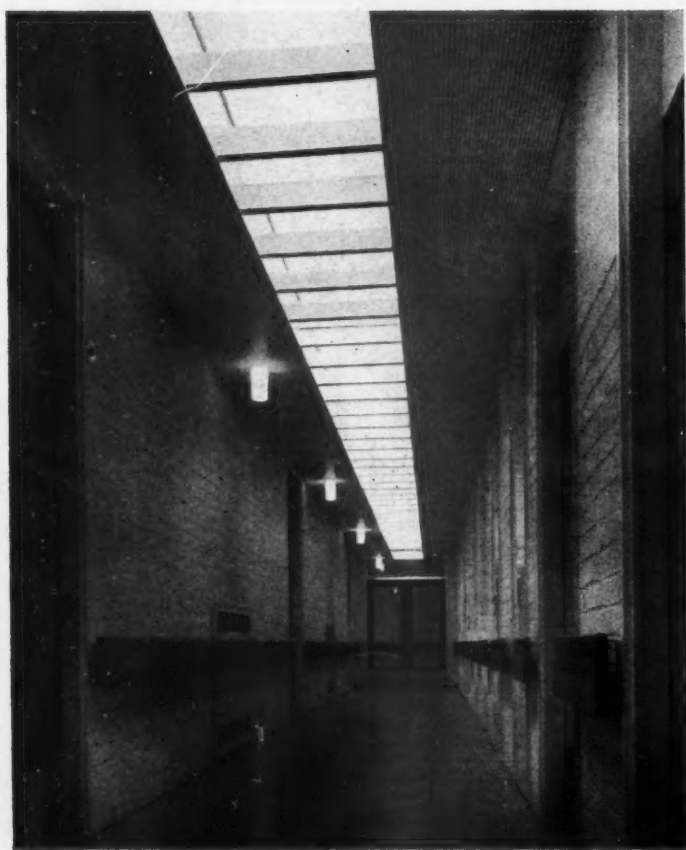


Viewpoint 2 shows the entrance to the rest home with, on the left, the sliding window to the dining room. The opening portions of all windows and external doors are varnished mahogany and are exposed in internal partitions the same brick is used as externally. Where bricks

Site plan showing photographic viewpoints

be made by the individual.

building illustrated



Each wing of the rest home has bedrooms for 20 patients; two sitting rooms, dining room and entrance hall are in the angle of the "L." The view above is taken from the entrance hall—the larger of the two sitting rooms can be seen through the glazed screen on the left—and looks down the centre corridor of the female wing. A continuous rail is fixed on each side of all circulation areas. In sitting spaces this serves as a chair rail. The corridor is lit from a continuous roof light in which the ceiling joists are exposed and painted white. These give a good diffusion of light down the corridor.

Ceilings in the sitting rooms and circulation areas are of perforated plaster board with a glass-silk quilt above. This has proved successful in giving overall quiet conditions in the building. The roof light is shown in greater detail on the left. The light fittings which are used generally in both rest home and day hospital were specially designed and consist of opal glass cylinders, open-bottomed, fixed against the ceiling. They are generally used with a 100-watt bulb and are placed at fairly close centres. The corridor walls are painted Flettons. Fair-faced brickwork is used only in corridors. The floors in the rest home are generally linoleum, but in the sitting rooms carpet, and in the kitchen plastic tiles are used. Day spaces and circulation areas have white walls and ceilings and white-marbled floors. The bedrooms have light coloured walls and fabrics. Bright coloured curtains are used for the windows at the ends of corridors.

building illustrated

Viewpoint 6 (right) shows the day hospital. The large windows light two of the craft rooms. The building is designed round an internal courtyard (below right); there is a continuous corridor from the reception and entrance hall which enables "confused" elderly people to walk without supervision but without getting



Ground floor plan of day hospital [Scale: $\frac{1}{4}'' = 1' 0''$]

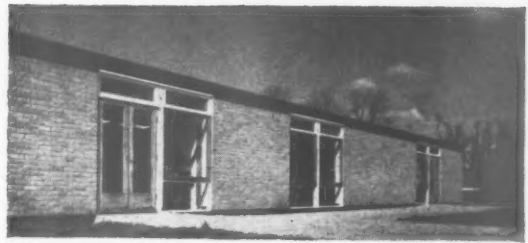
analysis

CLIENT'S REQUIREMENTS

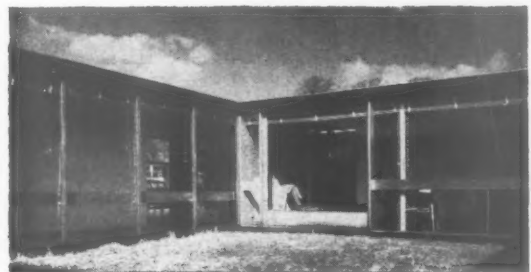
Rest home: a 40-bed rest home for convalescent patients discharged from the adjacent acute geriatric hospital. Provision for medical treatment on a hospital scale was not required here as patients would be up most of the time. A higher proportion of day accommodation was therefore required than in a hospital for acutely sick patients.

Day hospital: this building was required to provide for the day-time care of up to 40 old people, geriatric patients discharged from the main hospital to live with their families, but returning in the day to make use of remedial therapies and handcrafts. A mid-day meal is provided.

Warden's house: a self-contained two-bedroom house for the warden of the rest home.



into danger. This corridor is open to the courtyard on two of its sides, runs between two walls on the third side and has glass doors into the sitting room on the fourth side; in this way varying degrees of enclosure are experienced as a person walks through the building. A small kitchen is sufficient here as the meals come from the rest home kitchen and are delivered in heated and insulated trolleys as required. In addition to the craft rooms, sitting room and technical rooms, a dining room is provided here for patients' mid-day meals.



PLANNING AIMS

Rest home: of the two wings of the building, one is for men and one for women, but in each wing there is a double bedroom for an old couple. Separate sitting rooms are provided for each sex, as well as a communal suite of sitting and dining rooms.

Day hospital: the building surrounds a garden courtyard and all rooms are entered from a continuous internal corridor. This enables confused patients to walk about in safety without continuous supervision. A small sitting room is provided, but patients are mostly engaged in occupational therapy and crafts.

Warden's house: though physically separate from the rest home, visually the house forms part of the building group.

	Rest home		Day hospital		Warden's house	
	s	d	s	d	s	d
cost per sq. ft.	6 1/2		6 1/2		6 1/2	
preliminaries and insurances	4	10 1/2	4	0 1/2	4	11 1/2
contingencies	8	6 1/2	6	0 1/2	9	10 1/2

Work below ground level

Substructure strip foundations. 11-in. walls, excluding d.p.c. Concrete floors and ducts.

Rest home: a basement boiler house serving all three buildings, 19-ft. 3-in. \times 18-ft. 9 3/4-in. of 4 1/2-in. external skin, asphalt tanking, 18-in. internal structural brick wall, sandwich concrete floor of 3-in. blinding concrete with 7-in. concrete floor with waterproof membrane.

Tanking to boiler house

2 1/2 in. in 2 layers on walls, 1 1/2 in. in 3 layers on floor.

STRUCTURAL ELEMENTS

Frame or load-bearing element

Brick load-bearing structure described below. No frame.

analysis

External walls

11-in. cavity walls of hand made facing bricks, with inner skin of aerated concrete insulating blocks.

$$\text{Ratios: } \frac{\text{wall}}{\text{floor area}} \quad \text{rest home} = \frac{0.310}{1} \quad \text{day hospital} = \frac{0.305}{1}$$

$$\text{warden's house} = \frac{1.242}{1}$$

Windows

Softwood main frames with hardwood opening.

Sashes pivot centrally.

$$\text{Ratios: } \frac{\text{windows}}{\text{floor area}} \quad \text{rest home} = \frac{0.203}{1} \quad \text{day hospital} = \frac{0.323}{1}$$

$$\text{warden's house} = \frac{2.322}{1}$$

External doors

Hardwood, fully glazed.

$$\text{Ratios: } \frac{\text{doors}}{\text{floor area}} \quad \text{rest home} = \frac{0.023}{1} \quad \text{day hospital} = \frac{0.036}{1}$$

$$\text{warden's house} = \frac{0.088}{1}$$

Staircase

External staircase to boiler house in basement of rest home, with concrete treads let into brick walls and tanked.

Roof construction

Simple joists. Some r.s.j.s halving spans. Boarded on top. Asbestos fascias.

1-in. glass-fibre quilt.

Area in sq. ft.:	Rest home	Day hospital	Warden's house
	9,238	4,794	770

Roof lights

Wired glass jointed with lead cames. Copper flashings.

No. of lights: Rest home, 17. Day hospital, 18.

Total area: 432 sq. ft. 270 sq. ft.

There are no roof lights in the warden's house.

Glazing

Sheet glass in rest home and day hospital.

Drawn sheet and $\frac{1}{4}$ -in. plate in rest home, day hospital and warden's house.

Total of structural elements

Rest home	Day hospital	Warden's house
s d	s d	s d
3 4 $\frac{1}{2}$	2 9 $\frac{1}{2}$	7 3 $\frac{1}{2}$

1 4 $\frac{1}{2}$	1 6 $\frac{1}{2}$	1 11
-------------------	-------------------	------

4 $\frac{1}{2}$	7 $\frac{1}{2}$	1 9 $\frac{1}{2}$
-----------------	-----------------	-------------------

1 $\frac{1}{2}$

5 2 $\frac{1}{2}$	5 10 $\frac{1}{2}$	5 5 $\frac{1}{2}$
-------------------	--------------------	-------------------

5 $\frac{1}{2}$	4
-----------------	---

1 5	2 3 $\frac{1}{2}$	8 $\frac{1}{2}$
-----	-------------------	-----------------

12 3 $\frac{1}{2}$	13 5 $\frac{1}{2}$	17 2 $\frac{1}{2}$
--------------------	--------------------	--------------------

PARTITIONING AND FITTINGS

Internal partitions

Rest home

Type of partition	Area of each type
9-in. brick	400 sq. ft.
4 $\frac{1}{2}$ -in. brick	5,854 sq. ft.
2 $\frac{1}{2}$ -in. clinker block	1,745 sq. ft.

Day hospital

Type of partition	Area of each type
4 $\frac{1}{2}$ -in. brick	2,316 sq. ft.
2-in. clinker block	1,161 sq. ft.

Warden's house

Type of partition	Area of each type
9-in. brick	26 sq. ft.
4 $\frac{1}{2}$ -in. brick	55 sq. ft.
3-in. clinker block	486 sq. ft.

2 3 $\frac{1}{2}$

1 6

4 11 $\frac{1}{2}$

analysis

			<i>Rest home</i> s d	<i>Day hospital</i> s d	<i>Warden's house</i> s d
Internal doors			1 1½	2 1½	3 0½
Skeleton-framed flush doors.					
	<i>No. of single</i>	<i>No. of double</i>			
<i>Rest home</i>	63	5			
<i>Day hospital</i>	32	1			
<i>Warden's house</i>	8	—			
Ironmongery			1 9	1 11	2 0½
Aluminium.					
Fittings					
<i>Rest home</i> : Fitted cupboards, racks, pigeon holes, drawers, etc.			2 4½		
<i>Day hospital</i> : Ditto				5 1½	
<i>Warden's house</i> : Fitted cupboards.					3 8½
Total of partitions and fittings			7 7	10 7½	13 8½

FINISHINGS

Floor finishes					
<i>Rest home</i> :			4 7½		
<i>Type of finish</i>	<i>Area in sq. ft.</i>	<i>Price per sq. yd.</i>			
Lino	6,535	31s. 6d.			
Polyvinyl	370	21s.			
Tessellated tile	727	37s. 4d.			
Screed only for carpet	1,513	—			
<i>Day hospital</i> :				4 8	
<i>Type of finish</i>	<i>Area in sq. ft.</i>	<i>Price per sq. yd.</i>			
Special plastic	4,267	29s. 1½d.			
Tessellated tile	370	37s. 4d.			
Lino	239	25s.			
<i>Warden's house</i> :					3 8½
<i>Type of finish</i>	<i>Area in sq. ft.</i>	<i>Price per sq. yd.</i>			
Screed for carpet in beds and living rooms	477	—			
Polyvinyl tiles elsewhere	216	21s.			
Wall finishes			1 5½	7½	2 1
Plaster, except in corridors of rest home and day hospital, which are fairfaced brickwork.					
Ceiling finishes			1 0½	1 0½	10½
Acoustic plasterboard—skimmed plasterboard					
Roof finishes			1 9½	1 10½	2 8½
3-layer felt and granite chippings.					
Areas under "roof construction."					
Decorations			2 3	2 9	3 8½
2 coats of emulsion paint.					
Total of finishes			11 1½	10 11½	13 0½

SERVICES

External plumbing			1½	5½	4½
Copper flashings, mainly to roof lights in rest home and day hospital.					
Hot and cold water installation			2 0	1 4	2 10
Copper tubing.					
Sanitary fittings			1 11½	1 9½	1 9½
<i>Type of fitting</i>	<i>No. of each type</i>				
	<i>Rest home</i>	<i>Day hospital</i>			<i>Warden's house</i>
Basin	20	4			1
Sink	8	3			1
W.c.	11	6			1
Bath	4	1			1
Urinal	2	1			—

analysis

Heating and ventilation

Warm air convectors throughout, run by hot water system from one large, oil-fired boiler in boiler house of rest home, which also heats the water. There is also a small standby boiler for providing hot water only in summer. Internal temperatures: 70 deg. except in corridors, where it is from 60-70 deg. Air change: 3
 "U" of walls: 0.18
 "U" of roof: 0.17

Gas installation

Four points only in kitchen of rest home, from which meals in day hospital are supplied.

Electrical installation

Screwed steel conduit and Wandsworth fittings.

Type of point No. of each type

	Rest home	Day hospital	Warden's house
Lighting	132	107	10
Power	54 5-amp. 27 15-amp	4 5-amp 27 15-amp	6 13-amp
Clocks	4	4	

	Rest home s d 10 4	Day hospital s d 10 10	Warden's house s d 10 10½
	3		
	5 4	7 0½	5 7½
Total of services	19 11½	21 5½	21 5½
	2 8½	1 1	2 9½
Totals	68 4	68 2½	83 7

Drainage

Surface and soil drains, salt glazed stoneware.

SUMMARY

Type of contract: RIBA form.
 Tender date: March 19, 1955.
 Work began: May, 1955.
 Work finished: 1958.

Rest home:

Ground floor area: 9,220 sq. ft.
 Total floor area: 9,612 sq. ft.
 Tender price of foundations, superstructure, installations and finishes: £32,835 13s. 7d.
 Tender price of external works: £2,010 5s. 0d.
 Total: £34,845 18s. 7d.

Shillings per sq. ft. of floor area = $\frac{£32,835 \text{ 13s. 7d.}}{9,612 \text{ sq. ft.}}$
 = 68s. 4d.

Day hospital:

Total floor area: 4,926 sq. ft.
 Tender price of foundations, etc.: £16,793 16s. 7d.
 Tender price of external works: £1,222 15s. 9d.
 Total: £18,016 12s. 4d.

Shillings per sq. ft. of floor area = $\frac{£16,793 \text{ 16s. 7d.}}{4,926 \text{ sq. ft.}}$
 = 68s. 2½d.

Warden's house:

Total floor area: 705 sq. ft.
 Tender price of foundations, etc.: £2,946 19s. 3d.
 Tender price of external works: £151 6s. 0d.
 Total: £3,098 5s. 3d.

Shillings per sq. ft. of floor area = $\frac{£2,946 \text{ 19s. 3d.}}{705}$
 = 83s. 7d.

COST COMMENTS

This scheme, although straightforward in planning and using traditional material and construction, provides a cost analysis which, broken down between the separate blocks, shows very clearly the effect of quantity factors on cost per square foot of floor area. The two hospital blocks are closely related in costs throughout: the warden's house works out at a higher cost per square foot, using the same construction and finishes as the remainder of the buildings, but condensed into a relatively small floor area. It is debatable whether a small, two-bedroom house would cost nearly £3,000 if built as a single unit, by a smaller builder organized for house building, and without carrying the overheads of the remainder of the overall scheme. Note that although central heating is installed for the main buildings, the warden's house is still provided with an open fireplace and fuel store area. It is perhaps rather an unnecessary expense to include for this additional heating.

CONTRACTORS

General contractors: Ephraim Organ & Son. Sub-contractors: Electrical and mechanical fittings: N. G. Bailey & Co. Ltd. Heating, ventilating and sanitary fittings: F. Church Ltd. Furnishers: Elliston & Cavell Ltd. Light fittings: Hiscock Appleby & Co. Ltd. Curtains, etc.: Primavera. Curtain track: Silent Gliss Ltd. Facing bricks: The Sussex & Dorking United Brick Co. Ltd. Thermalite building blocks: Thermalite Ltd. Window frames: Boulton & Paul Ltd. Roofing felt: Permanite Ltd. Sanitary ware and fittings: Dent and Hellyer Ltd. Ironmongery: Alfred G. Roberts Ltd. Hose reels, fire blanket: Minimax Ltd. Lino tiles: The Lino Tile Co. Ltd. Venetian blinds: London Blinds Ltd. Paints: Hadfields Ltd. Doors: John Sadd & Sons Ltd. Flooring: Stephenson & Co. (Oxford) Ltd. Carter & Co.

rdem
ie
d
101

71

51

91

7

ost
ks,
per

me
ngs

ost
der

nain
open
ng.

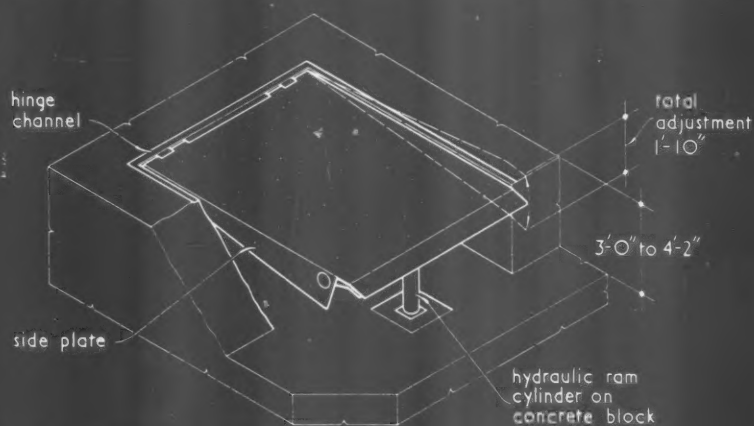
ctors
Ltd
Ltd
cod
rack
rkine
nalin
fel
ellye
fin
Ltd
Ltd
& Co

TRANSPORT | LOADING RAMP

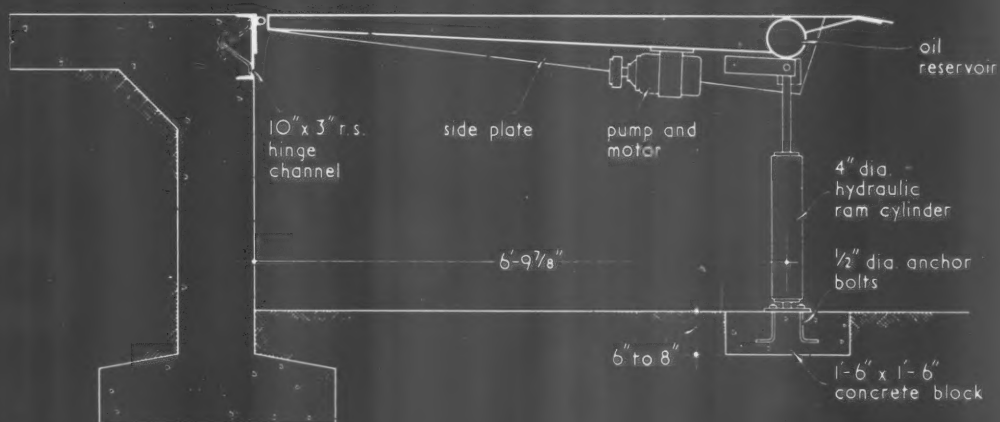
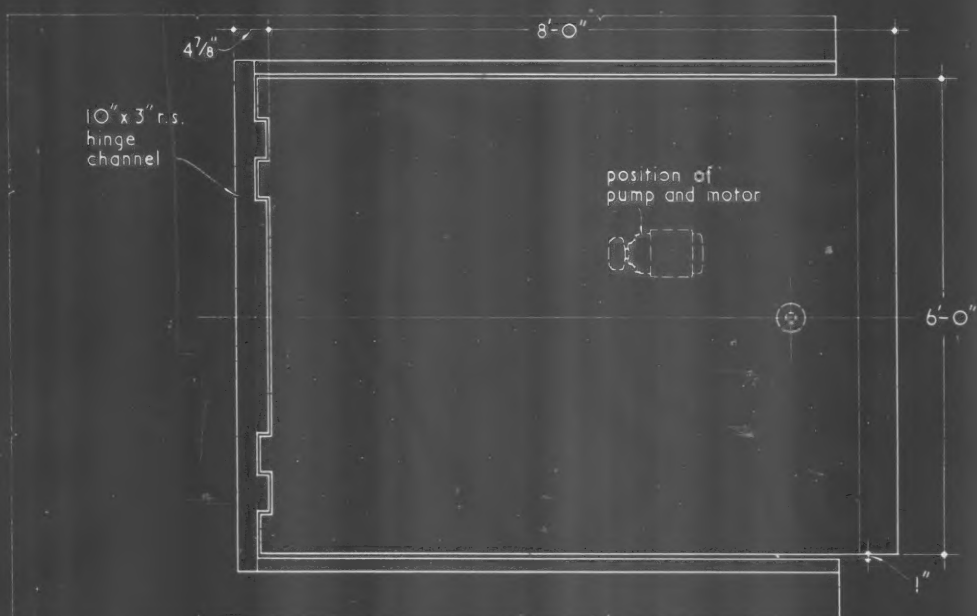
The Architects' Journal Library of Information Sheets 669. Editor: Cotterell Butler, A.R.I.B.A.

35.ZI

35.ZI



ISOMETRIC SKETCH OF TYPICAL INSTALLATION.



PLAN AND SECTION OF LOADING RAMP.

35.Z1 ·DOCK-O-MATIC· LOADING RAMP

This Sheet describes the Dock-O-Matic loading ramp. This is a platform which may be hinged to a loading dock and is hydraulically operated to adjust itself to the varying tailboard heights of lorries, thus enabling full use to be made of current handling techniques. When not in use the platform becomes an integral part of the loading dock.

Construction

The platform is a welded steel cellular structure of extreme rigidity which is hinged from a heavy channel section grouted to the top edge of the loading dock (as shown in the section on the face of the Sheet). The top surface is a non-skid plate and deep plates provide full protection at the sides. The capacity of the platform is up to 20,000 lb., depending on working conditions.

The ram cylinder is a single-acting unit, protected against the entry of dirt and moisture and fed from an oil reservoir built into the platform as part of its structure.

The power unit is a self-contained pump and motor compactly mounted on the underside of the ramp and feeding the ram cylinder through flexible hoses.

Power supply: The equipment is wired ready for connection to the power supply and control switch and is normally provided for 240 volts, 1 phase, 50 cycles supply.

Operation

A single switch controls the raising, lowering and stopping of the ramp. The forward edge of the ramp has a total adjustment of 1 ft. 10 in., and this is normally disposed equally above and below the horizontal. The dock height can vary between 3 ft. 0 in. and 4 ft. 2 in. For operating, the ramp

is elevated so that the vehicle to be loaded or unloaded can be reversed into position. The switch is then moved to "down" and left in that position; this lowers the ramp on to the tailboard of the vehicle. The platform is designed to float automatically with the change of load and a safety cushioning device prevents the ramp from descending rapidly should the vehicle be driven away unexpectedly. When in the horizontal position, the platform becomes part of the loading bay and can sustain rolling or static loads up to 20,000 lb.

Installation

The loading ramp is very easily installed as no pipework or special wiring is required. The only building work is the provision of the pit, which is quite simply constructed, the fixing of the hinge channel, and the grouting-in of the sole plate for the ram cylinder using the four anchor bolts supplied.

Further information

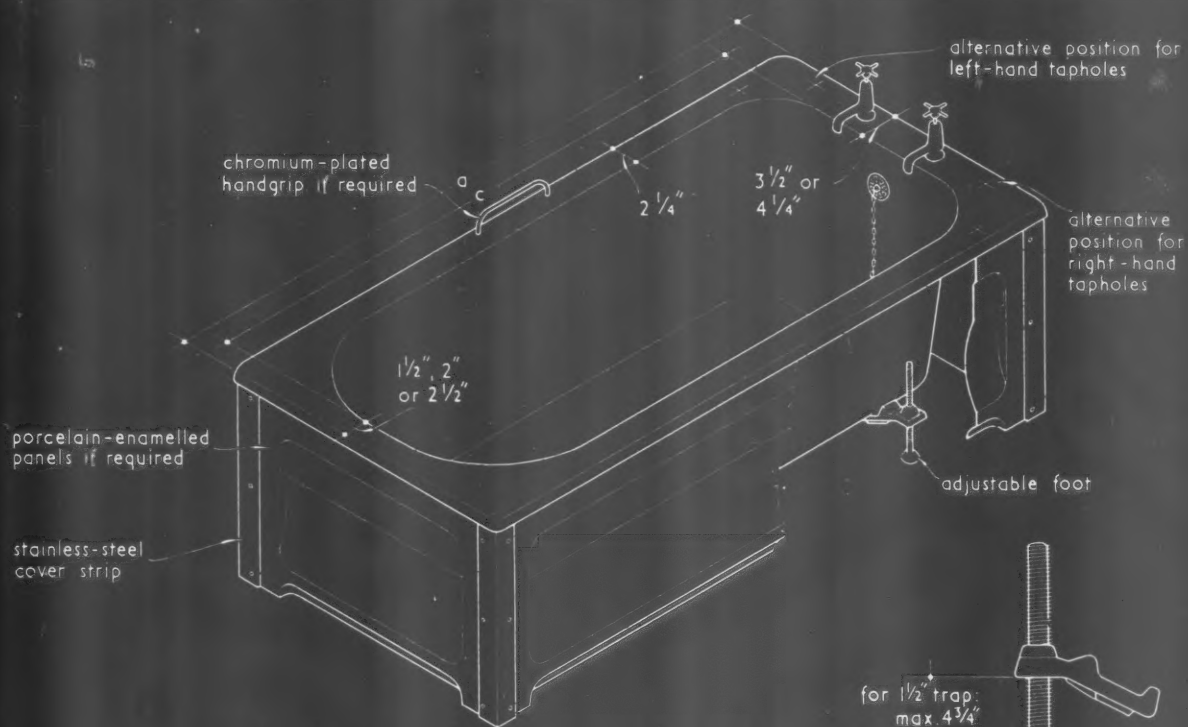
The manufacturer maintains a technical advisory service available to answer questions dealing with the installation, operation and servicing of Dock-O-Matic loading ramps.

Compiled from information supplied by:

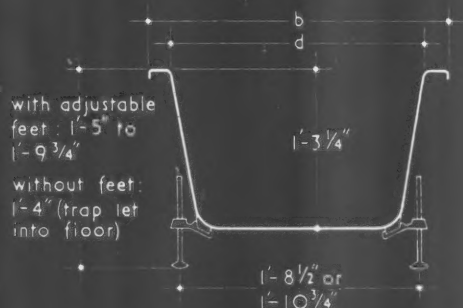
Wayne Tank and Pump Co. Ltd.

Address: Western Road, Bracknell, Berkshire.

Telephone: Bracknell 1600.



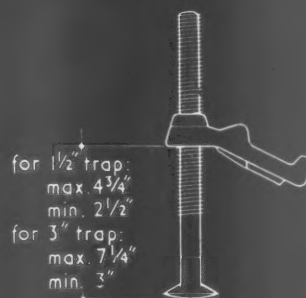
ISOMETRIC VIEW OF ATLANTA BATH.



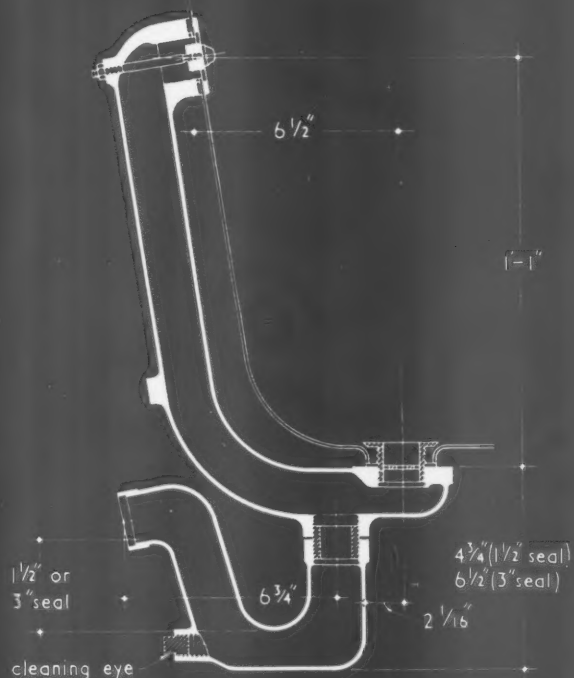
SECTION THROUGH BATH.

outside dimensions		inside dimensions	
length (a)	width (b)	length (c)	width (d)
4'-5"	2'-2 1/2"	4'-1"	1'-10"
5'-0"	2'-2 1/2"	4'-7"	1'-10"
5'-1" (A)	2'-2 1/2"	4'-7 1/2"	1'-10"
5'-1" (B)	2'-4 3/4"	4'-7 1/2"	2'-0 1/4"
5'-6"	2'-4 3/4"	4'-11 1/4"	2'-0 1/4"
6'-0"	2'-4 3/4"	5'-5 1/4"	2'-0 1/4"

TABLE OF DIMENSIONS.



DETAIL OF ADJUSTABLE FOOT.



WASTEFLO COMBINED TRAP, WASTE AND OVERFLOW FITTING.

33.S1 ATLANTA BATH AND WASTEFLLO FITTING

This Sheet describes the Atlanta bath which has been specially designed with a flat bottom and lower sides than is usual. It can be supplied with provision for taps in any of three positions, and matching panels are available for boxing-in the bath if required. The Wasteflo combined waste trap and overflow fitting is especially suitable for use with the Atlanta bath.

Design and Construction

The bath is of cast iron to B.S. 1452 : 1956, grade 10. The special design of flat bottom and lower sides makes it readily accessible to children and elderly or infirm people and reduces the danger of slipping. It is also particularly suitable where a shower is to be fitted over the bath. The feet can be adjusted to the required height to accommodate a standard 1½ in. or 3 in. deep seal trap, or they can be removed altogether where it is desired to sink the trap into the floor, thus obtaining the minimum overall height for the bath. Provision for taps can be central or in the right- or left-hand corner, as required. One or two hand-grips can be supplied. Cast-iron panels with toe recess, to match the bath, as shown in the drawing on the face of the Sheet, may also be obtained.

Connections: The bath is normally supplied with provision for ¾-in. pillar taps, 1½-in. overflow and 1½-in. waste, but variations can be made to suit individual requirements. It can be supplied without overflow if required.

Wasteflo combined waste and overflow fitting: This is specially designed for use with the Atlanta bath, a reduced trap height being obtained, but the cross-sectional area of the pipe maintained by increasing the lateral dimension at the U bend. The whole unit is prefabricated and has simply to be bolted to the bath and connected to the waste pipe. The trap can be pivoted through 180° minimum. The overflow pipe and trap are in cast iron and the

ittings mainly brass. Rubber washers, plug and chain are supplied.

Sizes

The range of sizes in which the Atlanta bath is available is given in the table on the face of the Sheet.

Finish

The bath is porcelain-enamelled inside and painted on the underside. Panels are also porcelain-enamelled with stainless steel cover-strips. Hand-grips are chromium-plated.

The Wasteflo overflow pipe and trap can be porcelain-enamelled inside if required and waste and overflow grilles are chromium-plated.

Colours

Any colour can be produced to match the range of colours in which sanitary earthenware is made and care is taken to reproduce the exact colour where differences occur between the products of different manufacturers. Colours outside this range can also be produced if necessary.

Compiled from information supplied by:

Bilston Foundries Ltd.

Address : Highfields, Bilston, Staffordshire.
Telephone : Bilston 42331.

working detail

ROOFS AND CEILINGS: 45

BOILER HOUSE ROOF: HOSPITAL AT OREBRO, SWEDEN

Nils G. Brink, architect (material supplied by Nicholas Thompson and Derek Thomas)



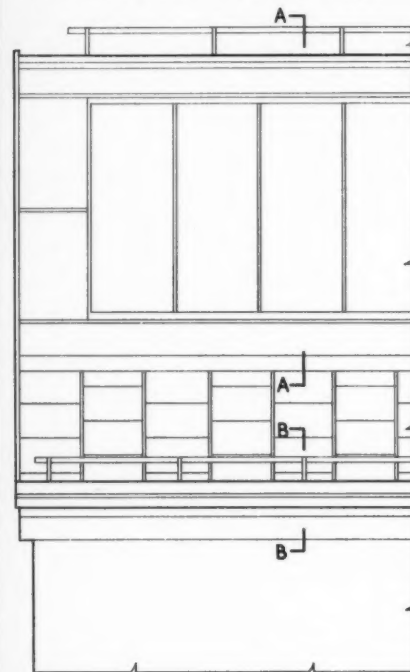
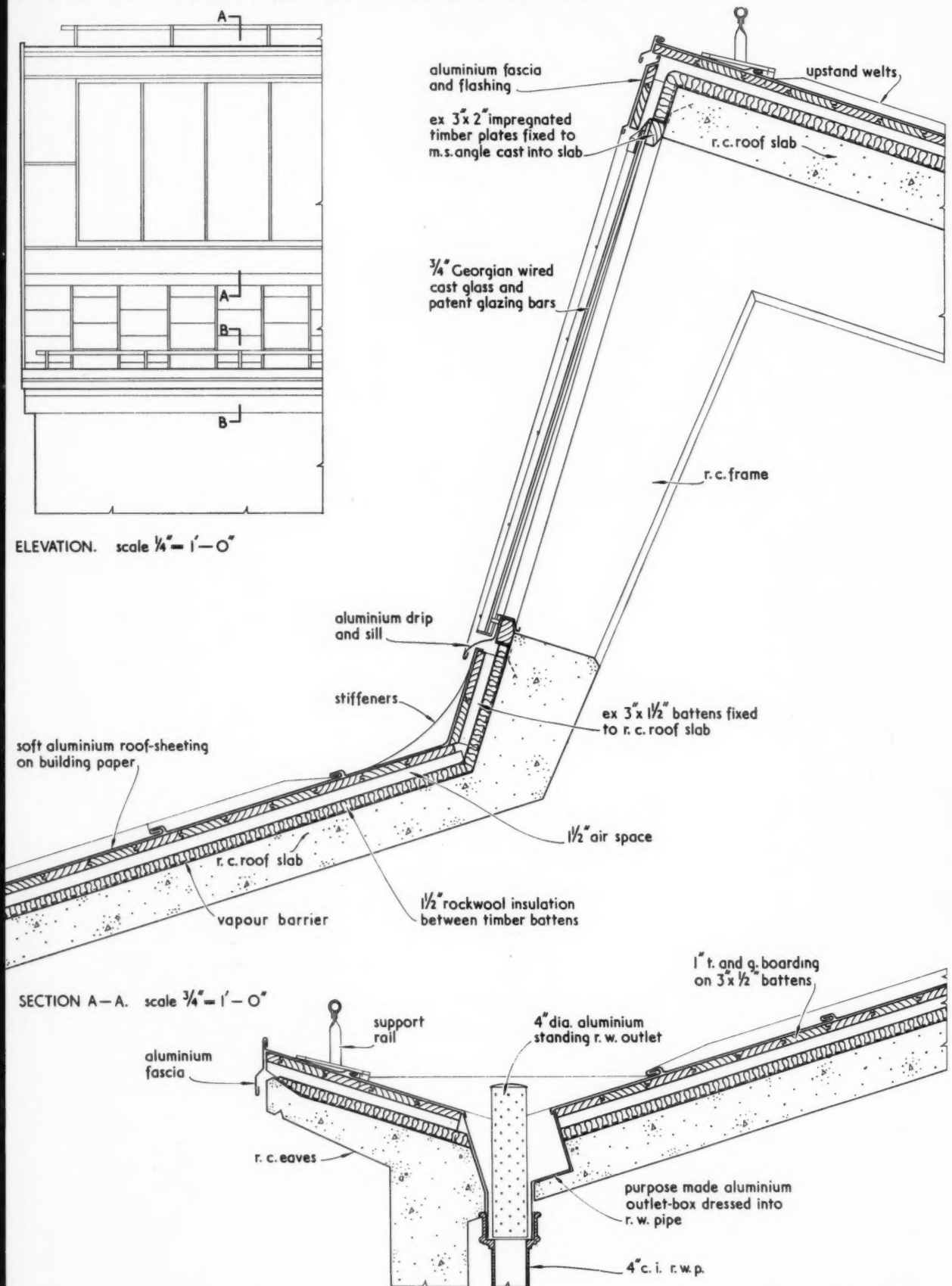
The Thermal Insulation (Industrial Buildings) Act which comes into force next January gives an added point to this roof. Note (on the drawing) the 1½-in. air-space between the boarding which supports the aluminium roofing and the insulation; the inclusion of a vapour barrier between the latter and the structural concrete roof; the sill detail, designed to lead off condensation falling from the inside of the glass.

working detail

ROOFS AND CEILINGS: 45

BOILER HOUSE ROOF: HOSPITAL AT OREBRO, SWEDEN

Nils G. Brink, architect (material supplied by Nicholas Thompson and Derek Thomas)

ELEVATION. scale $\frac{1}{4}'' = 1' - 0''$ SECTION B-B. scale $\frac{3}{4}'' = 1' - 0''$

note: figured dimensions in feet and inches are approximate

Fast delivery to any site

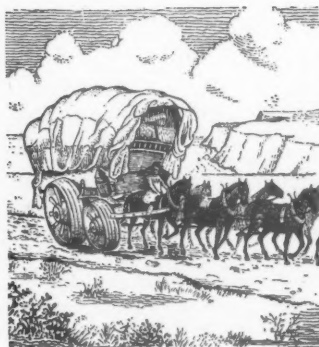
Today, delivery is fast and efficient
—when you order Ferodo
Stairtreads. For there are Ferodo
wholesalers and twenty Ferodo
Depots in major towns and cities up
and down the country.

Ferodo Non-Slip Stairtreads blend
with any interior decorations and
even after years of constant use
they give a reassuring foothold.
Staircases in many kinds of public
buildings and factories are fitted
with Ferodo Stairtreads because
they prevent accidents and are
easy to clean.

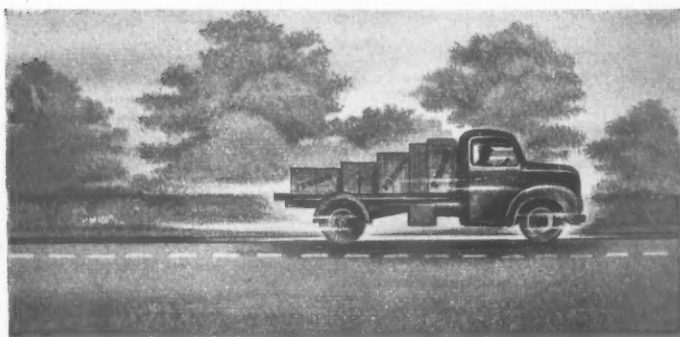
Ferodo Stairtreads are available
in 7 colours, 3 types of metal
channel and 39 types of tread to
suit any stair.

*A Ferodo technical advisory service
is available and a technical
representative is in your area.*

TEN MILES A DAY BY STAGE-WAGON



Sir Christopher Wren waited so long for deliveries of materials, but he expected nothing better. It was tough going for the teams of horses that drew the slow wagons of the 17th Century—the roads were deeply rutted and the wagons often overloaded.



FERODO

non-slip stairtreads

*For your Reference Files: New Illustrated
literature in full colour will be
sent on request to Stairtreads Dept.,*

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

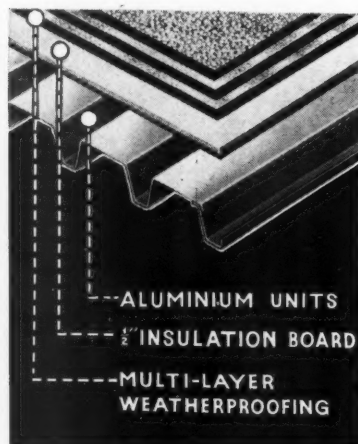
BITUMETAL on Top at BRUSSELS



BRITISH INDUSTRIES PAVILION

Architects: EDWARD D. MILLS & PARTNERS, LONDON
Contractors: RICHARD COSTAIN LIMITED, LONDON

HERE at Brussels Exhibition for the world to see are gathered many of Britain's finest products under one roof; a roof which itself testifies to the integrity of British Industrial skill. "Bitumetal" provides in one unit, roof plus ceiling plus insulation, and additional advantages are economy and quick erection with virtually no maintenance. Full details from any of the undernoted area offices.



WILLIAM

BRIGGS

& SONS LIMITED

VAUXHALL GROVE, LONDON S.W.8 · REGD. OFFICE: DUNDEE

OFFICES AND DEPOTS ALSO AT ABERDEEN · BELFAST · BRADFORD · CARDIFF · DUBLIN
BRISTOL · EDINBURGH · GLASGOW · LEICESTER · LIVERPOOL · NORWICH

Contractors

The Government Pavilion and the British Industries Pavilion at the Brussels Exhibition (pages 649-656).

Architects: Howard V. Lobb and John Ratcliff, F.R.I.B.A., of Howard Lobb & Partners (architects for the Government Pavilion and co-ordinating architects for the British site). Edward D. Mills and Partners, F./A.R.I.B.A., (architects, British Industries Pavilion). M. J. Blower, A.R.I.B.A. (resident architect for both pavilions). **Display designers:** James Gardner, F.S.I.A. (display designer for the Government Pavilion), and co-ordinating designer for the British site). John Lansdell, M.S.I.A. (display designer, British Industries Pavilion). Arthur Braven, A.R.I.B.A. (assistant display designer, British Industries Pavilion). Beverley Pick, F.S.I.A., Gordon Bowyer, A.R.I.B.A., and members of the Royal College of Art—a design group under the chairmanship of Sir Hugh Casson, F.R.I.B.A. (sub-section designers, British Government Pavilion). **Landscaping consultant:** G. P. Youngman, F.I.L.A., A.M.T.P.I. **Consulting engineer:** Felix J. Samuely, M.I.C.E., F.I.A.S. **Quantity surveyors:** C. E. Ball and Partners (British Government Pavilion) and Leslie W. Clark, F.I.A.S. (British Industries Pavilion). **General contractors:** Richard Costain Ltd. in association with Entreprises Blaton-Aubert. **Display contractors:** British Government Pavilion: Frank W. Clifford Ltd. **Sub-contractors:** (Government Pavilion): **Electrical sub-contractors:** Troughton & Young Ltd. **Timber structure:** Rainham Timber Engineering Co. Ltd. **Painting:** L. W. Bridges & Co. **Landscape:** Wm. Wood & Son Ltd. **Lining to pool:** Stephens Plastics Ltd. **Adhesive for lining to pool:** Evode Ltd. **Flooring:** Armstrong Cork Co. Ltd., Semtex Ltd. **V.I.P. Pavilion furnishings:** Russell Furnishings Ltd. **Main switchgear panel,**

heater panels, hot water heaters: Simplex Electric Co. Ltd. **Ceilings:** Cape Asbestos Products Ltd. **Fixing of ceilings:** Anderson Construction Co. Ltd. **Entrance canopy veneered panel:** Wm. Mallinson & Sons Ltd. **Bronze frames for V.I.P. grille panels:** The Crittall Manufacturing Co. Ltd. **Perspex louvres:** Imperial Chemical Industries. **Fabrication of 'perspex louvres:** Talbot Designs Ltd. **Tiled mural by Peggy Angus:** Carter & Co. Ltd. **Flagstaff:** Camper & Nicholson Ltd. **Erection of flagstaff:** Guthrie Murdoch & Co., S.A. **Glass to V.I.P. Pavilion:** Pilkington Bros Ltd. **Paints:** R. Gay & Co. **Front entrance doors:** Fr. Sage & Co. (Belgium) Ltd. **Slate facings:** Broughton Moor Green Slate Quarries Ltd. **V.I.P. Pavilion glass:** London Sand Blast Decorative Glassworks Ltd. **Coloured glass:** James Hetley & Co. Ltd. **Sanitary fittings:** Shanks & Co. Ltd. **Adhesive tapes:** Sylglas Co. **Roof structure, Hall of Achievement:** Space Decks Ltd. **Ventilators and fans:** Colt Ventilation Ltd. **Emergency lighting equipment:** Chloride Batteries Ltd. **Lamps:** Thorn Electric Co. Ltd. **Electric cables:** Mersey Cables Ltd. **Hose reels:** Pyrene Ltd. **Decorative screen panels:** Plyglass Ltd. **Tapestry over stage:** Edinburgh Weavers. **Carpet (to special design):** Federation of British Carpet Manufacturers. **Felt carpet:** Bury Felt Manufacturing Co. Ltd. **Wall facing in Wareite:** Bakelite Ltd. **Semtex flooring:** Dunlop Ltd. **Tile wall decoration—Commonwealth Courtyard:** Pilkington Tiles Ltd. **Steel masts:** Talbot Stead Ltd. **Sub-contractors (British Industries Pavilion):** **Steel frame:** Carter Horseley Ltd. **Curtain wall framing:** Rainham Timber Eng. Ltd. **Bitumetal roofing:** Wm. Briggs Ltd. **Extractor units:** Brooks Ventilation Ltd. **Abstrafom mural:** Plyglass Ltd. **Glazing:** Pilkington Bros. Ltd. **Mastic bedding to glass:** Secomastic Ltd. **Paint for steel frame:** Walpamur Ltd. **Paint for bitumetal roofing:** Lewis Berger (Gt. Britain) Ltd. **Lighting fittings:** A E I Ltd.

Electrical installation: James Kilpatrick & Son Ltd. **Sub-station equipment:** English Electric Co. **Plastic to counter fronts and tables, etc. (Entrance Hall):** Bakelite Ltd. **Thermoplastic flooring (Entrance Hall):** Armstrong Cork Co. Ltd. **Rain water chutes:** Rainham Timber Eng. Ltd. **Thermoplastic tiles (Mezzanine floor offices):** Arm-Ltd. **Automatic telephone equipment:** Stanstrong Cork Co. Ltd. **Lighting fittings:** A E I dard Telephones & Cables Ltd. **Sanitary fittings:** Doultton Sanitary Potteries Ltd. **Illuminated title panel:** Pearce Signs Ltd. **Muraglass infill panels:** Pilkington Bros. Ltd. **South End Zone:** **Steel frame:** Hills (West Bromwich) Ltd. **Woodwool roofing slabs and curtain walling:** Hills (West Bromwich) Ltd. **Glazed asbestos panels:** Universal asbestos Manufacturing Co. **Extractor units:** Brooks Ventilation Ltd. **Precast concrete cladding units:** Hills (West Bromwich) Ltd. **Fibrous plaster ceiling panels:** Hills (West Bromwich) Ltd. **Paint for south End generally:** International Paint Ltd. **Cinema:** **Seats in cinema:** Rank Precision Industries Ltd. **Cinematograph equipment:** Rank Precision Industries Ltd. **Cinema screen and gear:** Rank Precision Industries Ltd. **Sub-station No. 2:** Hackbridge & Hewitt Electric Co. Ltd. **Thermoplastic flooring (Self-service shop):** Armstrong Cork Co. Ltd. **Display racks and counters:** Frederick Sage & Co. Ltd. **Illuminated entrance sign:** Pearce Signs Ltd. **Main entrance canopy:** Spacedecks Ltd. **Lighting fittings thereto:** A E I Ltd. **Asbestos cement trays:** Turners Asbestos Cement Co. **Vertical feature. Steel tube and channel rings:** Carter Horseley Ltd. **Prestressed steel rods and prestressing equipment:** Lee McCall. **Lighting fittings:** Thorn Electrical Industries Ltd. **Britannia Inn:** **Glue laminated columns and beams:** Rainham Timber Eng. Ltd. **Thermoplastic flooring:** Semtex Ltd. **Extractor units:** Brooks Ventilation Ltd. **Timber windows:** King's of Teddington. **Paint:** Hadfields (Merton) Ltd.



Visibility and accessibility

are well combined in the Holmwood Garage showrooms of John Burchall Ltd., Enfield, Middx. Esavian Type 200 Straight Sliding Windows can open to either side, can be up to 10' wide, can be double-glazed if required. Simple and light to operate and completely weatherproof.

Write for Esavian Type 200 Data Sheet.

Architect: J. Kennedy Hawkes, F.R.I.B.A.

THE ESAVIAN

FOR FOLDING & SLIDING DOORS, WINDOWS, PARTITIONS AND SCREENS

Esavian Ltd., Esavian Works, Stevenage, Herts. Tel: Stevenage
Esavian Works, Carlin, Banarks. Tel: Holytown 391.

Wallpaper: A. Sanderson & Sons Ltd. *Travertine ceiling panels:* Armstrong Cork Co. Ltd. *Sanitary fittings:* Doulton Sanitary Potteries. *Refrigeration units:* G. B. Stern & Co. *Lighting fittings:* G E C Ltd., Falk Stadelmann, Courtney Pope Ltd. *Counter fittings:* Messrs. Sage, Brussels. *Electrical installation:* James Kilpatrick Ltd. *Outdoor furniture:* Ernest Race Ltd. *Curtain fabrics:* Tibor Reich. *Folding doors:* Home Fittings (Gt. Britain) Ltd. *Illuminated signs:* Pearce Signs Ltd. *Built-in seating and tables:* Charles Pateman Ltd. *Hardboard ceiling panels:* Celotex Ltd. *Plastic tops:* Bakelite Ltd. *Chairs:* Goodearl Bros. *Carpets:* Stockwell Ltd. *Upholstery fabric to furniture:* Edinburgh Weavers Ltd. *Hide upholstery:* Connelly Bros. *Lighting to bridge:* Thorn Electrical Co. *Kiosk shops:* Steel frame and timber roof units: Messrs. Sage Brussels. *Glazing:* Messrs. Sage, Brussels. *Landscap:* Wm. Wood & Son Ltd. *Public lavatory block:* W.C. Partitions: Venesta Ltd. *Sanitary fittings:* Doulton.

The Fox & Hounds Inn for John Smith's Tadcaster Brewery Co. Ltd. and The Hope & Anchor Breweries Ltd. Architects: Hadfield, Cawkwell & Davidson, F./F.R.I.B.A., London and Sheffield. (Partner in charge) James D. Shearer, A.R.I.B.A., A.R.I.A.S. *Quantity Surveyor:* Leslie W. Clark, F.I.A.S., London. *General contractors:* Costain-Blaton-Aubert Association, London and Brussels. *Sub-contractors:* *Electrical:* Jas. Kilpatrick & Son Ltd. *Roof structure and columns:* Rainham Timber Engineering Co. *Sanitary fittings:* Doulton Sanitary Potteries Ltd. *Bar sinks:* W. & G. Sissons Ltd. *Metal windows:* The Crittall Manufacturing Co. Ltd. *Internal "Weyroc" wall panels:* Airscrew Company & Jicwood Ltd., supplied through W. H. Newson & Sons Ltd. *Flooring and acoustic tiles:* The Armstrong Cork Co. Ltd. *Warerite plastics:* Bakelite Ltd. *Ironmongery:* Charles Constantine Ltd.

Flush doors: F. Hill & Sons Ltd. *Ventilation units:* Brooks Ventilation Units Ltd. *Landscap work and planting:* William Wood & Son Ltd. and H. Den Ouden & Son, Holland. *Furnishings:* Peter Jones (John Lewis & Co. Ltd.). *Refrigeration:* Pressed Steel Co. Ltd., Sobem, SPRL, Brussels. *Neon Lights and Lettering:* Pearce Signs Ltd.

Announcements

PROFESSIONAL

Frank Rutter, F.R.I.B.A., of 7, St. Martin's Avenue, Epsom, has opened a branch office at 2, Finchley Road, London, N.W.8 (Primrose 7614), where he will be pleased to receive trade catalogues.

Anthony Jackson, A.R.I.B.A., Dip. Arch., has now been transferred to Mence & Moore's Georgetown office, 71, Murray Street, British Guiana, where he will be architect in charge. Trade catalogues are requested.

Taylor & Crowther, BArch (Hons.), A./A.R.I.B.A., Chartered Architects, will be moving to Martins Bank Chambers, Truro, Cornwall, on June 24.

L. C. Patterson, F.R.I.C.S., F.I.Arb., has taken into partnership W. T. Seaton, A.R.I.C.S., who has been with him for nearly 10 years. The title of the firm will now be L. C. Patterson, W. T. Seaton & Co., Chartered Quantity Surveyors, 11, Cathedral Road, Cardiff.

Dennis G. C. Myner, A.R.I.B.A., M.R.S.H., has now moved to "Keys," Old Harpenden Road, St. Albans, Herts. He will carry on his practice here and will be pleased to receive trade catalogues and literature. The telephone number remains unchanged at St. Albans 55090.

W. W. Kerr, F.F.S. (Eng) (quant), has now moved his office to 38, Bedford Place, Bloomsbury, W.C.1 (telephone Langham 5705/6/7).

Raglan Squire & Partners have been appointed to design the new Parliament buildings for Pakistan on a site to the south of Karachi, known as Gizri Hills. The plan includes Parliament buildings, secretariat, Mosque and office buildings and overlooks the sea.

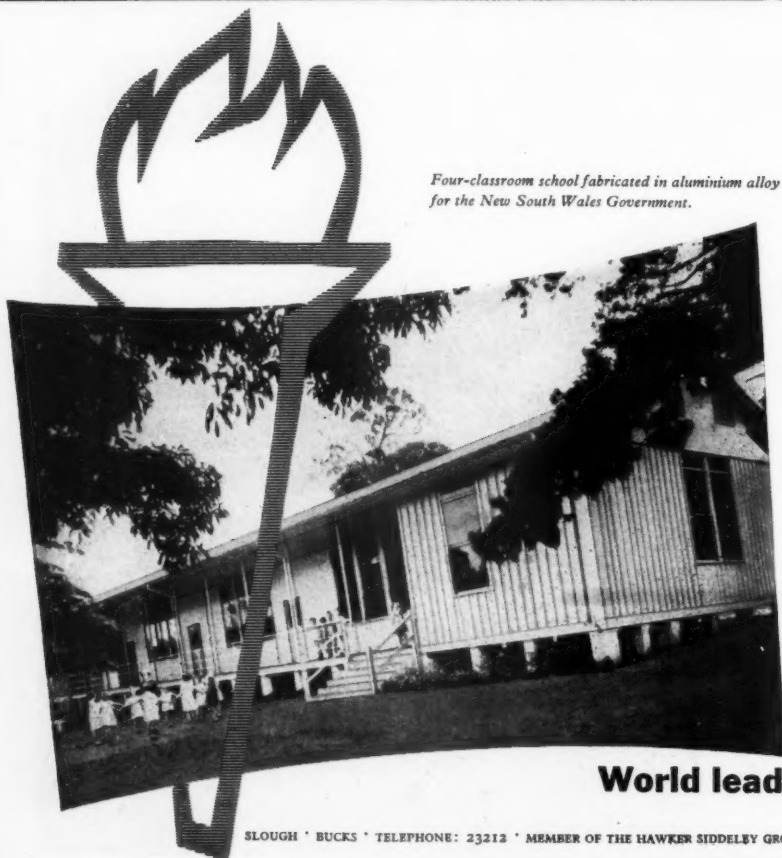
TRADE

Last month the Brixton School of Building Old Boys' Association held their AGM and supper at the Windsor Castle Restaurant. Seventy members were present representing every section of the building trade and the professions connected with it. The Association is gaining strength, but there is room for many more members. All those interested are asked to get in touch with the Secretary, L. Wilder, at the School, Ferndale Road, Brixton, S.W.4.

After May 1 all spare parts for Nu-Way products will be handled by a new associate company, Oil Burner Components Ltd., of Droitwich, Worcs.

Correction

In our issue of March 13 reference was made to the change of address of British Insulated Callender's Construction Co. Ltd. in Glasgow. In the same paragraph we mentioned an office in Aberdeen, but have now been informed that they have no office in Aberdeen and that the telephone number Aberdeen 53351/2 refers to the premises of their parent company, British Insulated Callender's Cables Ltd.



Four-classroom school fabricated in aluminium alloy for the New South Wales Government.

**Building schools in
the new school style
... that's a job for
TEMPLEWOOD
HAWKSLEY**

World leaders in aluminium structures

SLOUGH * BUCKS * TELEPHONE: 23212 * MEMBER OF THE HAWKER SIDDELEY GROUP

has
ace,
am

een
ent
the
ills.
ngs,
and

ting
and
ant.
ting
the
cia-
for
sted
ary,
oad,

Way
sso-
ents

was
itish
Ltd.
we
have
ffice
um-
nises
ated

res

BURGESS *All Metal Ceilings*

Electrically Heated

Acoustically Treated

... with selective sound control
Burgess Acoustic Tiles

BURGESS PRODUCTS CO LTD
ACOUSTICAL DIVISION, HINCKLEY, LEICS

The annual post free subscription rate payable in advance is £3.8.0. sterling; in U.S.A. and Canada \$10.50; elsewhere abroad £3.10.0.

21

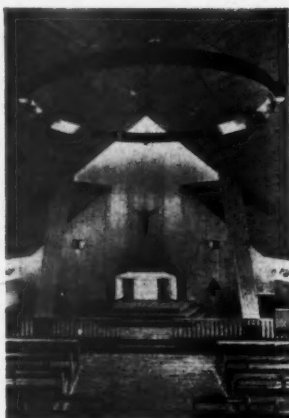
THE ARCHITECTURAL REVIEW
9-13 Queen Anne's Gate, Westminster, S.W.1. Whitehall 0611

Please send me the ARCHITECTURAL REVIEW until further notice:
name _____
address _____

The index for the Architectural Review for the half-year ending December, 1957 has just been published; it is reproduced as a supplement to the April issue and is not normally issued separately.

The Architectural Review's new standard binding, with alternate years bound in black and white, and alternate volumes initialled A and R, makes easier the identification of individual volumes, and their proper replacement on the shelf. The binding is buckram, and the price of binding per volume is 25s. Copies to be bound should be addressed, with the appropriate index, direct to the Architectural Press warehouse, AbbeyHouse, 8, Victoria St, London, SW1

APRIL



Triangular wooden church at Les Grés, France, by Rome Prize Winner Michel Marot; from Peter Hammond's article *A Liturgical Brief*, calling for a new functional approach to church design.



Another church from *A Liturgical Brief*, Klarenbach Lutheran, Düsseldorf, by Wilhelm Konigter.



House in the Isle of Wight, by James Stirling and James Gowan.

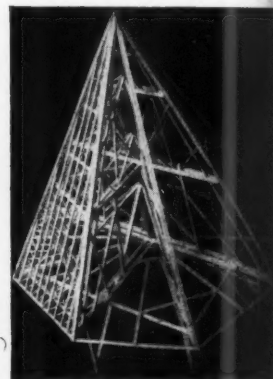
MAY



Ove Arup's house in Highgate, by the Danish architect Erhard Lorenz.



Street side clutter, such as will be imposed on any architect's ideal vision if it is built in a town; from Kenneth Browne's article *Streetscape with Furniture*, the street in this case being replanned Notting Hill Gate.

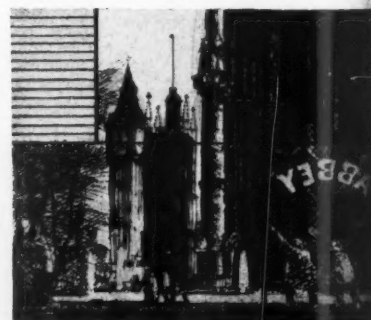


Great Gothic space-frame; Queen Hughes' magnificent model to illustrate his article on roof of York Chapter House.

JUNE



Town centre of Vallingby, above, and the market place of Harlow New Town, right; contrasts in animation from *Hubs Without Wheels*, a survey of two important new town centres.



Building development in Victoria Street near the Abbey touch off again the future of Westminster Precinct. This enfilade of the spires of Westminster highlights Gordon Cullen's proposals in *Westminster Revisited*.



The
NEW LOOK
in
**Floor
Covering**

Confetti
REGD

INLAID RUBBER FLOORING

Hard-wearing "Confetti," the deep colour inlaid rubber tiling will, day after day, silence the tread of a thousand feet in hospital, school and office.

With its warm, resilient, easy-to-clean surface "Confetti," now in 18" squares and thicknesses of $\frac{1}{8}$ ", $\frac{1}{4}$ " and $\frac{3}{8}$ ", is a delightful new addition to our famous range.

We still supply large quantities of the well-tried "Greyhound" (in 32 designs, 5 sizes and 4 thicknesses) and the safety "Studded" tiles for schools.

Write for full particulars and our very attractive prices.

MORRIS RUBBER INDUSTRIES Ltd
HIGH ROAD • BYFLEET • SURREY
Telephone: BYFLEET 2363, 2733. Telegrams: Rubber, BYFLEET

**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

... Evered in the Laboratory ...



A typical laboratory with Evered fittings.

Evered laboratory valves are designed to give long and highly efficient service. The range includes every type of single and multiple outlet for water, gas, compressed air, steam and other services.

All water fittings conform to B.S.S. 1010/1953 and are stamped accordingly.

Send for our comprehensive catalogue No. 364. Our technical representatives are at your service to discuss installation on site.

EVERED AND COMPANY LIMITED, SURREY WORKS, SMETHWICK 40, STAFFS.
Established 1809
 London Office: 23 Albemarle Street, W.1



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

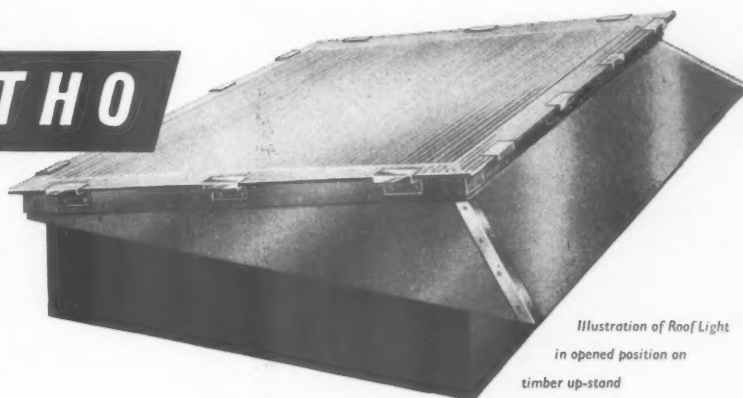
LOGICOL FUEL STORAGE UNITS · TAVU WORKS · WATERLOO · HUDDERSFIELD



Look into

QUICKTHO

Roof Light
advantages



*Illustration of Roof Light
in opened position on
timber up-stand*

Our technical staff
is always at
your service

The maximum light for area, complete weather protection and permanent natural ventilation are offered by QUICKTHO high-corrosion-resisting aluminium Roof Lights.

A simple, efficient balanced action operates for opening, closing and locking. Supplied factory glazed, complete for fixing. A fixed type QUICKTHO Roof Light is also available as single unit or for continuous runs.

Please send for details to :

QUICKTHO ENGINEERING LTD., POINT PLEASANT, WANDSWORTH, LONDON, S.W.18

Telephone: VANDyke 4115/6

Telegrams: Quicktho, Put., London

There is a Growing Need for the
FINEST WOOD CHIPBOARD

-most people will find the Answer with

BRITISH PLIMBER



BRITISH PLIMBER LIMITED, Dovers Corner, New Road, Rainham, Essex. Tel. Rainham 5363

make use of the *LOFT SPACE*



VELUX

ROOFLIGHTS

- Double Glazed
- Pivot hung
- Reversible

See Information Sheet No. 661 (24.H1) of 6.3.58.

Details and Price List from

THE VELUX COMPANY LIMITED • 167 VICTORIA ST. • LONDON • S.W.
Tel.: VICtoria 3570.



THE TWIN ENEMIES OF CHAIN LINK

FENCING DEFEATED BY

PLASTELLA

THE GALVANISED CHAIN
LINK FENCING
with the **PLASTIC COATING**

- ★ Plastic coating gives greater protection against atmospheric corrosion and rust—that's the great advantage of Plastella. Available in green, yellow and black. Write for further details to :

FLEXTELLA

FENCING & ENGINEERING LTD
PETERSFIELD • HAMPSHIRE



"Gas Coke is Ringelmann Zero!"

The following Coke Handbooks are freely available from the Coke Department, The Gas Council, 1, Grosvenor Place, London, S.W.1. They are designed to help you to implement the Clean Air Regulations.

- Coke-fired Central Heating Plant
- Coke-fired Small Steam Raising Plant
- Coke-fired Semi-producer Furnace for Drying and Process Heating Plant
- Coke-fired Grass Drying Plant
- Coke-fired Glasshouse Heating and Soil Warming Equipment
- Coke-fired Domestic Appliances and their application

The Gas Council's comprehensive 410-page handbook, 'Coke Burning Appliances' (new and revised edition), is essential for all concerned with fuel services in the modern home. Price 16/6 post free.

YOU'RE IN THE CLEAR WITH SMOKELESS GAS COKE

Issued by the Gas Council

THE RAILWAY STATION An Architectural History

by *Carroll L. V. Meeks*

THIS IS A STUDY OF THE ARCHITECTURE of the western world since the early nineteenth century as exemplified by a single building type—the passenger railway station. The great urban railway termini of the world's largest cities are familiar landmarks. Many are famous, most are exciting, some are distinguished for nobility of architecture, others for audacity of engineering. They constitute a fascinating field of enquiry which has not hitherto been fully explored. The author, who has devoted many years' intensive study to railway stations in Europe and North America, hopes that this book will 'reveal the possibility for a re-valuation of nineteenth-century architecture as a single style dominated and unified by the aesthetic doctrine of picturesque eclecticism.' He has attempted to follow chronologically three aspects of his subject: railway stations as architecture (serving new functions), as engineering (construction of huge roofs in new materials), and as works of art (expressing taste). His historical survey includes over 230 illustrations. Size 10½ in. by 8 in., 326 pages, including 96 pages plates and a detailed bibliography. 60s. net. Postage 2s. inland.

THE ARCHITECTURAL PRESS 9-13 Queen Anne's Gate, S.W.1



LATTICE BEAMS

Part of a large Warehouse for the Air Ministry for which we supplied all the steelwork

BEAMS OF RIVETED AND WELDED CONSTRUCTION

Enterprising Architects continue to specify our Standard-Beam System for modern Schools, Factories, Canteens etc. It is most economical and allows complete freedom of design.

Our Structural Design Office are pleased to advise and quote for THE COMPLETE STEELWORK OF ANY PROJECT. Please write for full details and data sheets.

ECONOMY

RIGIDITY

PROMPT DELIVERY

SOMMERFELDS LTD.

Head Office WELLINGTON SHROPSHIRE ENGLAND Tel: Wellington 1000
London Office 167 VICTORIA STREET LONDON S.W.1. Tel: VIC. 8843 and 1000

DIXON'S ROGGSTONE

THE TWO-PART SYSTEM SEALER & FINISH

The PAINT that
replaces BRITTLINESS with TOUGHNESS

on those "PROBLEM WALLS" arising from heterogeneous
accumulations of different types of paint and on all Mineral
Building Surfaces

Ask for particulars from

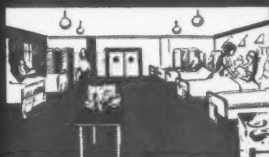
DIXON'S PAINTS LTD.

ALBION WHARF, BOW, LONDON, E.3

Telephone: ADVance 2504 (4 lines)

There is no other Flooring EQUAL TO **SURFEX**

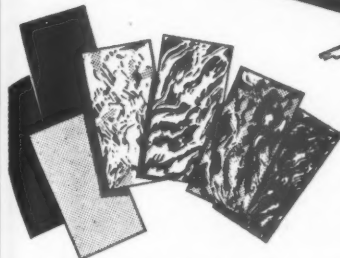
**TOUGH and
HARDWEARING**



**SEAMLESS
and
HYGIENIC**



EASY TO LAY



**CHOICE OF PATTERNS AND
COLOURS
GOES DOWN ONTO ANY
FIRM SURFACE
Wood, Parquet, Concrete,
Flagstones etc.**

**INEXPENSIVE • EASILY CLEANED • NON DUSTING
FIREPROOF • IMPERVIOUS TO GREASE, OIL ETC.
LASTS A LIFETIME**

INDUSTRIAL VINYL
surfex THE FLOORING THAT SMILES
JOINTLESS FLOORING AT **HARD WEAR**

Can be laid by your own staff or we will supply and lay.
Write NOW to the:

SURFEX FLOORING CO. LTD.

Dept. "D"

48, HIGH STREET, CAMBERLEY, SURREY
Telephone: CAMBERLEY 2263



Send also for details of -

SURFEX-SURODUR - Heavy Industrial Flooring
COLORAZZO - Super finish—hygienic
POLYFLEX-POLYVINYL - The original domestic
flooring with super veined finish

SURFEX have the perfect answer to every flooring problem

Save hours
of preparation...



the key to quicker plastering
is in the can!

PLASTAWELD goes on with a brush or spray gun—cuts out hacking, stippling or blinding with sand—provides permanent bond for gypsum plasters on any sound clean surface!

PLASTAWELD is a bonding fluid that is ideal for painted brickwork, tiles, engineering bricks, smooth shuttered concrete and, at the other extreme, asbestos, etc. PLASTAWELD is used extensively on Hospitals, Factories, Ministry of Works and Military establishments and other major projects everywhere.

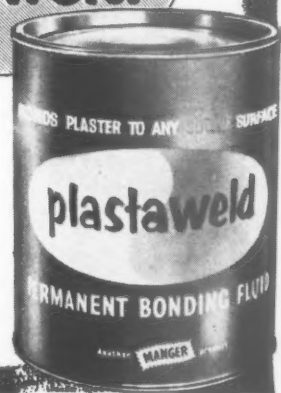


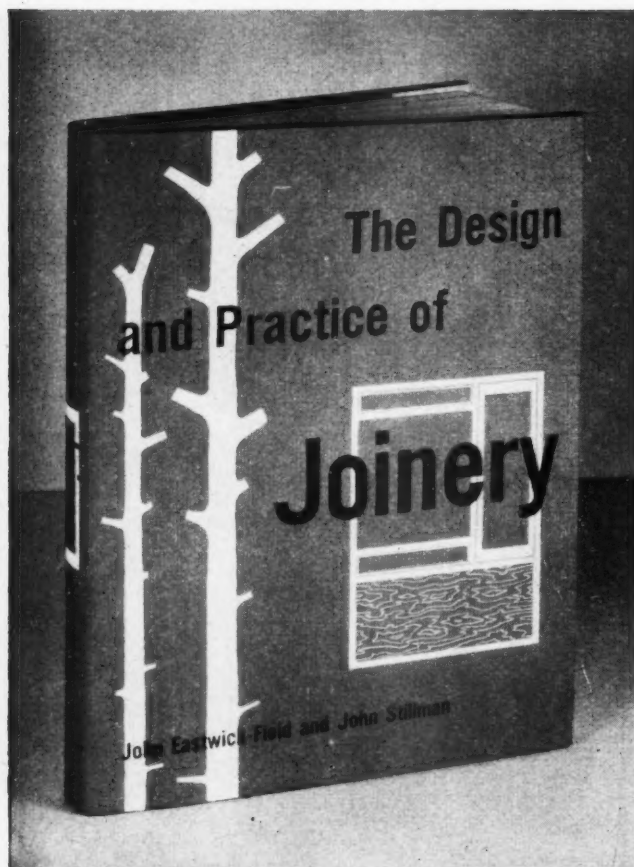
**PERMANENT
BONDING FLUID**

ANOTHER



Let our TECHNICAL DEPARTMENT
assist you to solve your particular problem.
Telephone or write to J. MANGER & SON
LTD. (Dept. K5) Kingsland, London E.8.
(CLIsold 5307)





just published

The Design and Practice of Joinery

by John Eastwick-Field, B.A.RCH.(HONS), A.R.I.B.A. and John Stillman, DIPL.LONDON, A.R.I.B.A.

Foreword by Robert H. Matthew, C.B.E., M.A., F.R.I.B.A.

THIS, THE ONLY AUTHORITATIVE, UP-TO-DATE BOOK about present-day joinery practice, is published at the recommendation of the Text and Reference Books Committee of the Royal Institute of British Architects and is intended primarily for architects, assistants and students of architecture. But, because its scope is broad and because it is concerned with the basic principles of design and practice, it will also be of great interest and value to the members of kindred professions, especially quantity surveyors, and to all who are engaged in the handling and conversion of timber, including joinery manufacturers, joiners, cabinet makers, carpenters, shop fitters and other woodworkers.

The text includes chapters on the timber yard; moisture movement in timber; an analysis of construction; the design and machining of sections; and of joints; specification and practice. Among its useful appendixes are a selection of timbers suitable for joinery, set out in tabular form, a complete list of British Standard Specifications and Codes of Practice applicable to joinery, and a general bibliography. It is comprehensively illustrated: there are nearly 90 photographs and over 200 specially drawn line illustrations—more than 80 in the chapter on joints. And there is a good index.

Size 9½" by 7½". 224 pages, over 290 illustrations in halftone and line, including 200 line drawings specially drawn by Robert Maguire. Price 42s. net, postage 1s. 9d.

THE ARCHITECTURAL PRESS, 9-13 Queen Anne's Gate, London, S.W.1

THE BARRYWALD REGD. BECAUSE —

Safety Automatic Incinerator

By the simple depression of a lever the Barrywald Sanitary Incinerator automatically destroys sanitary towels, surgical dressings, documents, etc.

It solves major and vital welfare and security problems in factories, offices, institutions, etc.

Write or 'phone today for illustrated leaflet or demonstration.



- ★ It is manufactured by the first and leading Sanitary Incinerator Specialists in the World.
- ★ It is guaranteed for one year and backed by a full service organisation.
- ★ It is simple and cheap to install.
- ★ It is the only Incinerator incorporating our patented safety devices.
- ★ It is approved by The Royal Institute of Public Health and Hygiene.
- ★ It is regularly supplied to and approved by all H.M. Government Departments, Local Administrations and Educational Authorities, Hospital Management Committees, General Industry.

**ECONOMICAL
EFFICIENT
FOOLPROOF
INDISPENSABLE**

SANIGUARD APPLIANCES LIMITED

62, LONDON WALL, LONDON, E.C.2

Telephone: NATIONAL 8881 8882 DIVISION OF ALLIED METALS LTD.

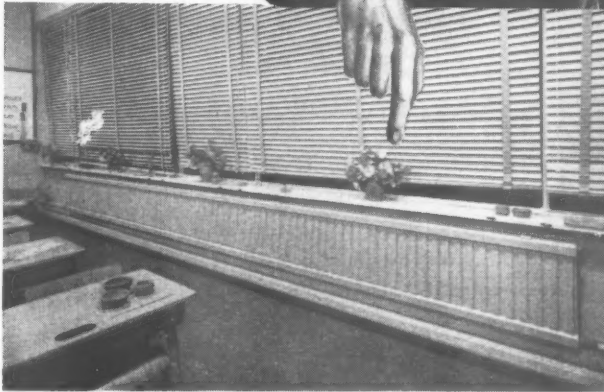
Everybody Knows a Stelrad

* *A los inglesitos les gustan estos Stelrads*

In South America where the winters can be cold there are many people who draw comfort from Stelrads.

You will find Stelrads on the Continent of Europe, in Australia, New Zealand and in the Middle East. Here, in the British Isles, they have been specified for every type of building. Our picture shows a classroom in Putney Vale Primary School.

* *These Stelrads are very good for the little English children.*



STEEL RADIATORS LIMITED

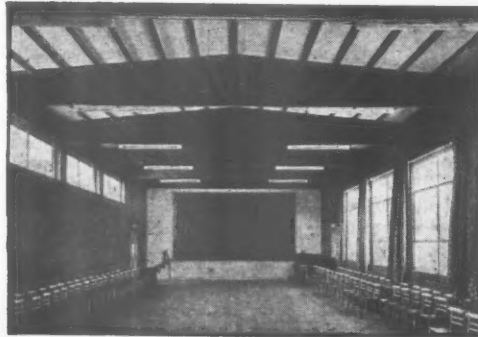
BRIDGE ROAD, SOUTHALL, MIDDLESEX
Telephone: Southall 2603

Preformed

TIMBER ROOF TRUSSES



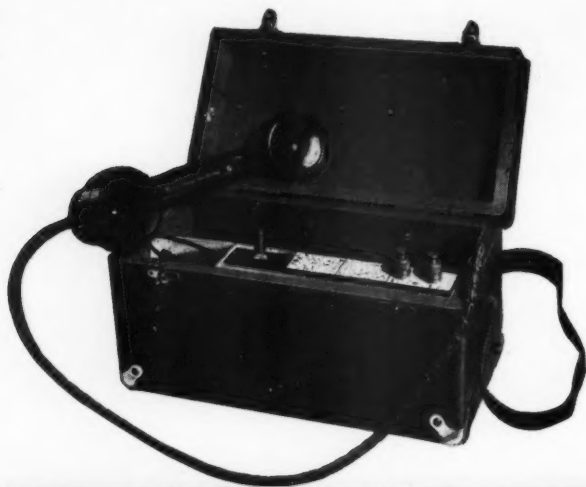
**100 FEET
CLEAR SPAN**



A NEW, PATENTED FORM OF ROOF TRUSS SUITABLE FOR SPANS OF APPROXIMATELY 35 FT. PARTICULARLY SUITABLE FOR SCHOOLS, PUBLIC HALLS, ETC., WHERE EXTERNAL APPEARANCE AS WELL AS STRUCTURAL STRENGTH IS OF IMPORTANCE.

SEND FOR FULL DETAILS AND DESCRIPTIVE LEAFLET.
CW.1723

WILLIAM KAY [BOLTON] LIMITED, BARK STREET., BOLTON, LANCASHIRE. TEL 3925/5/7.



No more shouting—no more misunderstandings. A "Sterdy" Portable Telephone located in the "operations room"—or any other suitable position—will put the manager or the foreman into direct contact with the operatives on the job. The whole outfit weighs only a few pounds, is completely self-contained and can be set up for use in a few minutes.

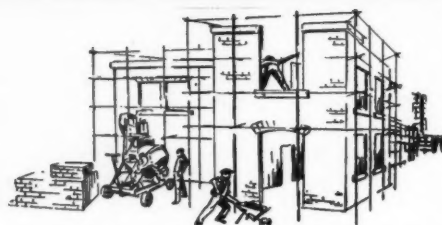
DIRECT THOSE BUILDING OPERATIONS with a "STERDY" PORTABLE TELEPHONE.

- ★ Dry battery operated
 - ★ Battery life 3 to 6 months
 - ★ Completely self-contained
 - ★ Easily portable
 - ★ Robust and reliable
- Supplied in strong, reinforced case with shoulder sling.



Write for further details to:—

W.C. DAVEY & CO.



180/2 TOTTENHAM COURT ROAD • LONDON • W.1 • TELEPHONES: MUSEUM 4414, 4415, 6388

NORTONIA

NON-MAGNESITE

a guaranteed product

A SYNTHETIC WOOD BLOCK toughened to give a durable surface simply maintained by soap and water washing. Laid in Sand and Cement, it is being widely specified for schools and technical colleges, and wherever concentrated traffic demands exceptional wear resistance.

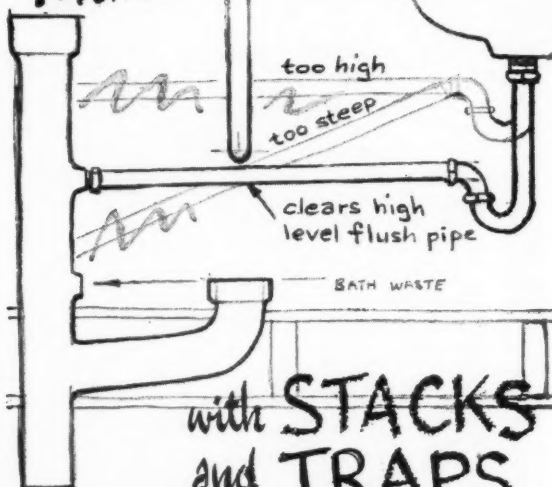
Technical literature available on request.

**THE
TERRADURA FLOORING
CO. LTD.**

PROVIDENCE WORKS, NORTON STREET,
MILES PLATTING, MANCHESTER 10.

Tel: COTLYHURST 1059 4533. Established 1909.

Make ends meet



with **STACKS**
and **TRAPS**
made by **ONE** firm

Econa

modern products limited
Aque Works · Highlands Rd · Shurley · Solihull · Warwickshire

PHONE: SOLIHULL 3078

**When you specify
BIG WOOD
Unicalor Coal and
Coke Stokers you
ensure your client
an economical
reliable smoke-free
boiler-firing system
using the cheapest
fuel available and
the fuel he can
always get -
home produced
coal or coke.**



**UNICALOR
COAL & COKE
STOKERS**

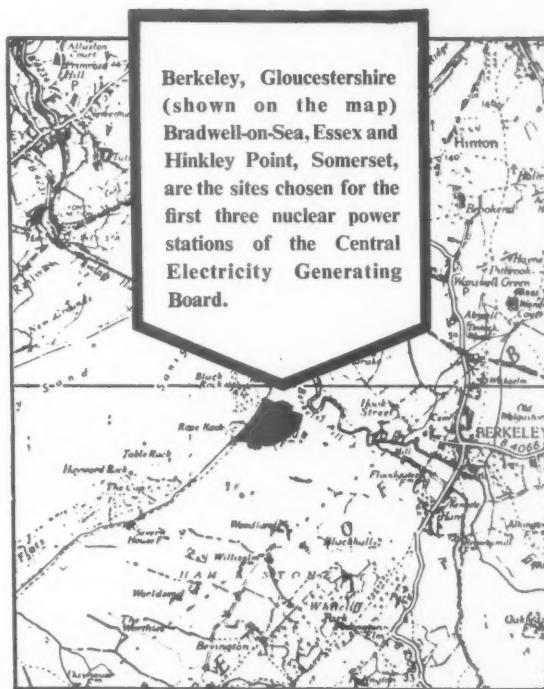
REPRESENTATIVES :

- NORTH-EAST.** B. Peace, 54, Benomley Crescent, Almondbury, Huddersfield. (Tel. No.: Huddersfield 2035.)
- NORTH-WEST.** G. P. Houlst, 295, Chester Road, Manchester, 15. (Tel. No.: BLAckfriars 9206.)
- WEST MIDLANDS.** E. Edwards, "Fairwood," Eveson Road, Norton, Stourbridge. (Tel. No.: Stourbridge 5583.)
- EAST MIDLANDS.** R. L. MacGregor, 88, Westcotes Drive, Leicester. (Tel. No.: Leicester 24372.)
- LONDON.** H. C. Williams, 75, Ebury Street, London, S.W.1. (Tel. No.: SLOane 6185/6.)
- SOUTH-WEST.** H. L. Boorne, "The Ridge," North Road, Bath. (Tel. No.: Bath 2545.)
- SCOTLAND.** I. E. Stewart, 29, Crarae Avenue, Westerton, Bearsden, Nr. Glasgow. (Tel. No.: Bearsden 0942.)
- IRELAND.** P. J. Casey, 38, The Rise, Mount Merrion, County Dublin. (Tel. No.: Dublin 882587.)

JOSHUA BIGWOOD & SON LIMITED

Head Office:
WEDNESFIELD ROAD, WOLVERHAMPTON • Tel: 24771

Electricity from Nuclear Energy



Crown Copyright Reserved

The growing need for power

As Britain's industrial efficiency increases, so does the need for power. The demand for power doubles every ten years. The Electricity Supply Industry has already met the doubled demand since 1st April, 1948, and has made provision for a similar expansion in the next decade.

Work on the first two nuclear power stations, at Berkeley in Gloucestershire and Bradwell in Essex, was started in January, 1957, and on the third in England, at Hinkley Point in Somersetshire, last September. These three stations will have an aggregate of some 850,000 kilowatts.

The Government's revised nuclear power station programme provides for enough nuclear power stations to be completed in the next decade to provide 5/6 million kilowatts of generating capacity. Provision is also being made for the construction of new main transmission lines and the extension of the distribution network.

As the demand for power grows, nuclear energy will become more and more important as a source of electric power, upon which the economic future of the country so largely depends.

THE CENTRAL ELECTRICITY GENERATING BOARD

Include in the specification

The
WELRISE *Overhead Door*
for Garages, Loading Bays, Farm Buildings,
Spray Booths, etc., etc.

A better door which will cost you less.

Smooth, balanced action gives finger light operation.
Light alloy construction, every door made
to measure, suitable for openings up to 16 ft. wide.

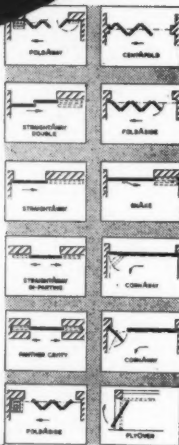
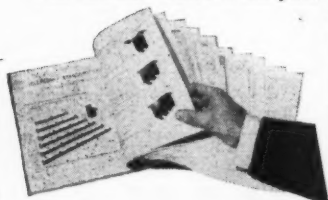


For full particulars write to:-

WESTLAND ENGINEERS LTD.,
YEOVIL, SOMERSET, Telephone No. 1109.

SLIDING DOOR
GEAR

Have you a copy of our book
entitled "The Sliding Door?"
Please tell us if you have not
received yours. When you have
a Sliding Door problem, let
"Hill Aldam" solve it for you.



HILLALDAM

FOR EVERY DOOR
THAT SLIDES

E. HILL ALDAM & CO. LIMITED Britannic Works, Haslemere Avenue,
LONDON, S.W.18
Telephone : Wimbledon 8080 (6 lines) Telegrams : Aldamillio. Put. London

TECHNICALLY SPEAKING . . .

No. 3

A series of advertise-
ments showing some
of the problems sent
to the Technical
Service Department
for solution.



A QUESTION OF FUME RESISTANCE

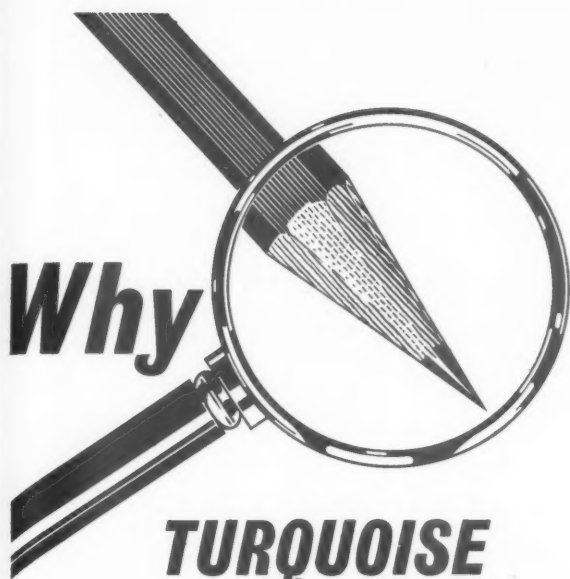
"...in a large factory chimney the joints between the tiled
lining are approx. $\frac{1}{8}$ " wide. Can you supply a material that
will not be affected by sulphur in exhaust gases having a
temperature of 350°F? . . . the material must not harden
and fall out or, soften and run out . . ."

Our Asbestumen* being a bituminous material is not
affected by sulphur and extensive tests on the material
at 350°F show that, although the compound appreciably
hardens, it maintains its adhesion to tiles and does not
crack; nor does it flow after the initial softening which
takes place at high temperatures. We are confident that
Asbestumen will prove satisfactory.

*Registered Trade Mark
Expandite's Technical Service Depart-
ment will gladly advise you impartially
and without obligation on any problem
concerning 'joints-that-move'.

EXPANDITE
LIMITED

CHASE RD., LONDON, N.W.10. TEL: ELGar 4321 (10 lines)
ASSOCIATES AND DISTRIBUTORS THROUGHOUT THE WORLD



Why TURQUOISE is not 'just another' drawing pencil

The lead in Turquoise pencils is something quite special. It is prepared from 100% electronic graphite, which after being cleansed of all impurities is spun to particles of 1/25,000 of an inch, then blended with clay and steeped in hot waxes. A finer, more compact lead structure results, because millions more minute graphite particles are compressed into every inch of lead.

TURQUOISE DRAWING HB

This lead structure makes Turquoise the most reliable pencil you can use. It ensures exceptional smoothness—this eases your work. It means less wear and greater resistance to point breakage—this saves time and money. It means denser, more opaque lines for cleaner, sharper reproductions.



TURQUOISE GRADING IS TRIED AND TRUE

Turquoise pencils are made in 17 gradings. Each is compounded from a separate precisely controlled basic formula of graphite and clay, and each is therefore as uniformly spaced as the inches on your rule.

NOW
ALSO AVAILABLE
Turquoise
drawing leads
2B to 6H



T.14A



'CHEMI-SEALED' Super-bonded

TURQUOISE

DRAWING PENCILS

with 100% 'ELECTRONIC' Graphite

EAGLE PENCIL COMPANY · ASHLEY ROAD · TOTTENHAM · N.17



Designed by Peter Bell, N.S.I.A.

Here's a new version of the efficient HA167 louvred light. In addition to all its valuable features the HA167 can now be supplied with a 22in. diameter aluminium reflector, enamelled in colour, allowing a high degree of upward lighting.

Features

45 deg. cut off and low surface brightness; it eliminates eyestrain and provides maximum light free from glare.
Perspex shade easy to clean and practically unbreakable.
All parts sprung together—no screws or fasteners—to form a permanently rigid fitting.
Speedy re-lamping through louvre.
Easy to install and maintain.

LIST PRICE

£3. 19. 4. plus P.T. 17/6.

including 2 ft. tube suspension and E.S. lampholder for 200 watt lamp.

Illustrated leaflet sent on request.

Hume Atkins & Co. Ltd.

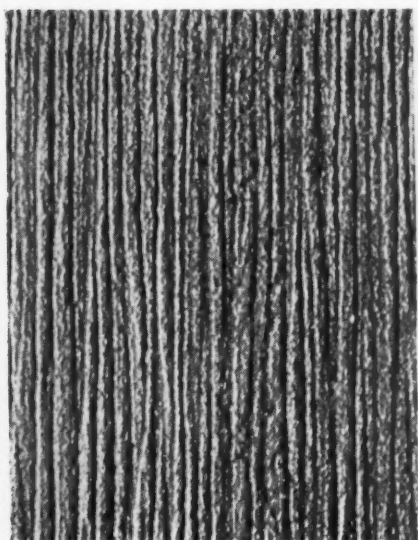
66, Victoria Street, London, S.W.1.

Telephone: VICtoria 0161.

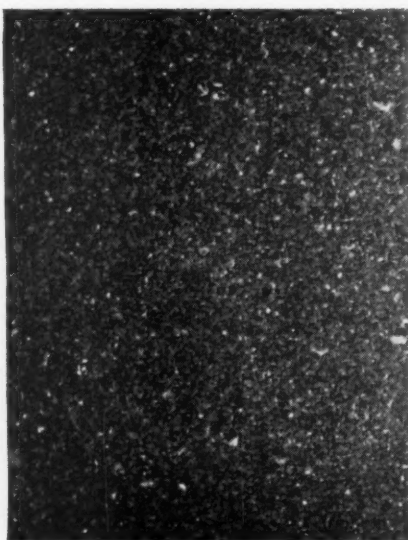
Works: Letchworth, Herts.

HA

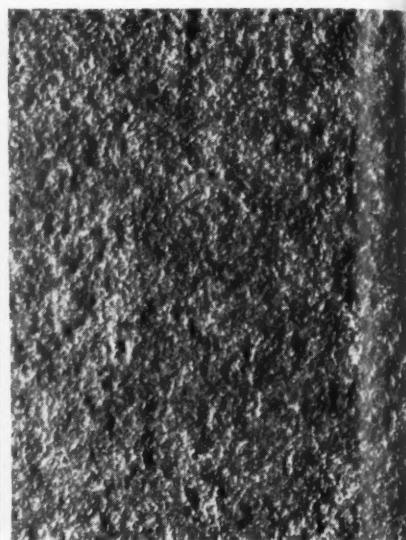
CLADDING PANELS IN KIRKSTONE GREEN SLATE



Frame Sawn Finish



Fine Rubbed Finish



Riven Finish

THE KIRKSTONE GREEN SLATE QUARRIES LIMITED

Quarriers, Sawyers, Polishers & Craftsmen in Green Slate for all Architectural Purposes

Head Office, Works & Studios, Skelwith Bridge, Ambleside, Westmorland.

Samples and further information on request.

THE ACME FLOORING & PAVING COMPANY (1904) LTD

ESTABLISHED 1864

River Road - Barking - Essex

THE COMPANY WILL GLADLY SEND

on request their latest

TECHNICAL BROCHURE

on IMMOVABLE-ACME HARDWOOD FLOORS for Public Buildings, Offices etc.,
and ACME PAVING for heavy duty factory floors.

Telephone :

RIPpleway 2771 (7 lines)

Telegrams:

Dowelled-Easphone-London

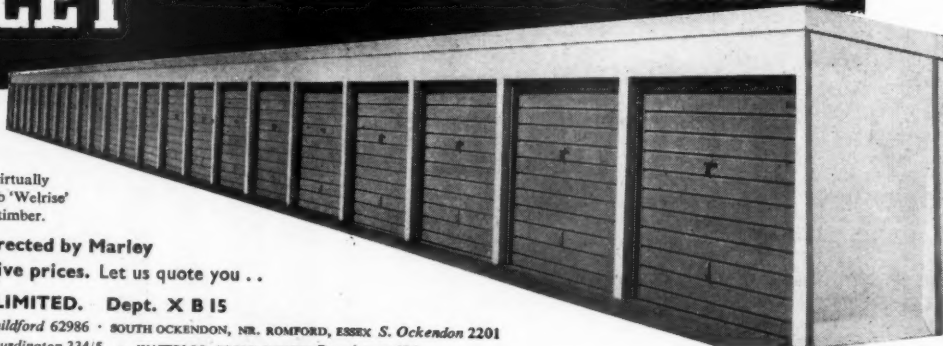
MARLEY MULTIPLE CONCRETE GARAGES

Of unsurpassed appearance and spacious dimensions, these fire-proof, rot-proof garages are virtually maintenance free. Choice of superb 'Welrise' up-and-over doors or traditional timber.

Supplied, delivered and erected by Marley experts at very competitive prices. Let us quote you . .

MARLEY CONCRETE LIMITED. Dept. X B 15

PEARMARSH, GUILDFORD, SURREY Guildford 62986 • SOUTH OCKENDON, N.R. ROMFORD, ESSEX S. Ockendon 2201
MURDINGTON, N.R. CHELTENHAM Shurdington 334/5 • WATERLOO, POOLE DORSET Broadstone 626



CLASSIFIED ADVERTISEMENTS

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

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.

Public and Official Announcements

No. per inch; each additional line, 2s. 6d.

BASILDON DEVELOPMENT CORPORATION
DEPARTMENT OF ARCHITECTURE AND PLANNING

Tower Blocks, Town Centre development, large factories and variety of housing to be built in next few years for New Town of 100,000 people. Architects, with flair and ability, are invited to join Groups for this work, which will include advanced design and construction techniques. Superannuable appointments will be made according to ability in the following grades:—

- (a) ASSISTANT ARCHITECT, Grade A.P.T. VI (£934—£1,146 p.a.).
- (b) ASSISTANT ARCHITECT, ASSISTANT ARCHITECT/PLANNER, Grade A.P.T. V (£844—£1,029 p.a.).
- (c) ARCHITECTURAL ASSISTANT, Grade A.P.T. III (£679—£811 p.a.).

A.R.I.B.A. required in all cases, and T.P.I. Final for the Planner, who will work on the implementation of the Master Plan.

Rented housing available. Application on the special form (obtainable from the Chief Architect) to the General Manager, Basildon Development Corporation, Gifford House, Basildon, Essex, endorsed with the relevant appointment by Friday, the 16th May, 1958. 9271

BOROUGH OF WILLESDEN
BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT

Applications are invited from suitably qualified and experienced persons for the following permanent appointments:—

- (a) ASSISTANT ARCHITECTS, Special Grade (£750—£1,030 p.a.).
- (b) ASSISTANT ARCHITECTS, Grade A.P.T. II (£725—£845 p.a.).
- (c) ASSISTANT ARCHITECT, Grade A.P.T. I (£675—£725 p.a.).

London weighting, maximum £30 p.a., is payable in addition to the above salaries.

The Council is unable to assist with housing accommodation. Forms of application and conditions of appointment may be obtained from the Borough Engineer and Surveyor, Town Hall, Dyne Road, Kilburn, N.W.6. Applications to be returned to the undersigned not later than 9 a.m. on Monday, 19th May, 1958.

When writing for application forms candidates must state for which appointment they wish to apply.

R. S. FORSTER,
Town Clerk. 9325

BOROUGH OF HEYWOOD
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above-mentioned appointment in the department of the Borough Engineer and Surveyor, at a salary in accordance with A.P.T. Grade I (£575—£725) of the Scale of Salaries.

The possession of some part of the R.I.B.A. Intermediate Examination will be an advantage. The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to the National Joint Council's Conditions of Service, and to one month's notice in writing on either side.

The successful applicant will be required to pass a medical examination.

Applications, endorsed "Architectural Assistant," stating age, qualifications and experience, and accompanied by copies of two recent testimonials, should reach the undersigned not later than Friday, 9th May, 1958.

Canvassing in any form will be a disqualification.

W. R. PARKER,
Town Clerk. 9234

YORKSHIRE ELECTRICITY BOARD

No. 4 (LEEDS) SUB-AREA
SECTION LEADER (CIVIL AND BUILDING)
Applicants should be experienced in the design and detailing of new buildings and in the conversion of existing buildings.

Experience in the preparation of Bills of Quantities and Estimates is essential and applicants must have the ability to design simple reinforced concrete or steel structures.

The successful applicant will be required to supervise staff engaged on the above work and should hold an appropriate qualification.

Salary—Schedule D, Grade 4, £895 × £20—£995 per annum.

Applications, giving full details of age, qualifications and experience, together with the names of two referees, should be forwarded to the Manager, No. 4 (Leeds) Sub-Area, Yorkshire Electricity Board, Bramhope, near Leeds, not later than 9th May, 1958. 9276

BOROUGH OF ERITH

Appointment of:—

- (a) CHIEF ARCHITECTURAL ASSISTANT.
- (b) SENIOR ENGINEERING ASSISTANT.
- (c) ENGINEERING ASSISTANT.

Applications are invited for appointments (a) and (b) at a salary in accordance with A.P.T. III (£245—£1,025), plus London weighting; and for appointment (c) at a salary in accordance with A.P.T. II (£175—£245), plus London weighting. Applicants should have had a good general Municipal experience.

The appointment will be subject to the scheme of Conditions of Service and the provisions of the Local Government Superannuation Acts.

Applications, stating age, previous appointments, qualifications and experience, together with the names and addresses of two referees, should be sent to the Borough Engineer and Surveyor, Town Hall, Erith, Kent, not later than Monday, 5th May, 1958.

The Council will assist in the provision of housing accommodation if required.

Canvassing will disqualify.

J. A. CROMPTON,
Town Clerk. 9243

COUNTY BOROUGH OF ROTHERHAM
ARCHITECTURAL ASSISTANTS

Architectural Assistants are required for established posts in Grade I (£575—£725) and in Special Grade (£750—£1,030), the grade and commencing salary to be according to applicant's qualifications and experience.

Housing accommodation will be available, if necessary, for the higher grade appointments.

Applications stating age, qualifications and experience with the names of two referees to be delivered to the Borough Engineer, Municipal Office, Rotherham, not later than Friday, 9th May, 1958.

Municipal Offices, Rotherham.
17th April, 1958. 9272

LONDON COUNTY COUNCIL
QUALIFYING EXAMINATION FOR THE
OFFICE OF DISTRICT SURVEYOR

An examination for certificates of proficiency to perform the duties of District Surveyor will be conducted in London in the week commencing 13th October, 1958. The minimum age limit for candidates is 25.

Possession of this certificate is necessary for appointment to positions as District Surveyor (salary scales £1,500 to £2,900 a year) or as Assistant District Surveyor (salary scale £1,245 to £1,482 10s. a year, plus allowance £59 a year).

Apply to The Architect to the Council (AR/ED/CTB), County Hall, Westminster Bridge, S.E.1, for application forms and further particulars (770). 9328

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

Vacancies exist for ARCHITECTS, Grade II (salary £1,037 10s.—£1,305) for Housing, Schools and General Divisions. Full and varied programme of new work including schools, multi-storey flats and town development. Starting salaries according to qualifications and experience.

Particulars and application form, returnable by 14th May, 1958, from Hubert Bennett, F.R.I.B.A., Architect to the Council, The County Hall, S.E.1, quoting Ref. AR/BK/18/58. (745) 9327

CITY OF SHEFFIELD
CITY ENGINEER & SURVEYOR'S DEPARTMENT

SENIOR PLANNING ASSISTANT

Special Classes Grade

Applications are invited for the position of Senior Planning Assistant, on the Staff of the City Engineer and Surveyor and Town Planning Officer (H. Foster, M.A., M.I.C.E., M.I.Mun.E.). The post is established in the Special Classes Grade (£750—£1,030 p.a.).

Qualifications: A.M.T.P.I., A.R.I.B.A. or A.R.I.C.S.; preference will be given to candidates with Planning and Architectural experience.

Consideration will be given to making housing accommodation available to a suitable applicant.

Superannuable post, N.J.C. conditions of service, medical examination.

Applications, stating age, education and training, experience, qualifications, present and past appointments (with dates and salaries), and quoting the names of two referees, should be submitted to the undersigned by the 26th May, 1958.

JOHN HEYS,
Town Clerk. 9324

BOROUGH OF GUILDFORD
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment at a salary in accordance with Grade A.P.T. I (£575—£725 per annum).

Applicants should have had a good training in design and construction, and other factors being equal, preference will be given to those having passed the Intermediate Examination of the R.I.B.A.

Applications, together with the names of two referees, must be sent to the Borough Engineer and Surveyor, Municipal Offices, High Street, Guildford, by the 9th May, 1958.

HERBERT C. WELLER,
Town Clerk. 9317

April, 1958.

COUNTY BOROUGH OF SWANSEA

BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the post of ASSISTANT ARCHITECT—Salary Grade IV (£1,025 × £50—£1,175). Applicants must be Associates of the R.I.B.A. and must have had considerable experience in the design and supervision of education buildings.

Candidates must be under 45 years of age unless in Local Government Service.

The appointment will be subject to the provision of the Local Government Superannuation Acts and may be terminated by one month's notice on either side. The successful candidate will be required to pass a medical examination.

Housing accommodation will be provided if required.

Forms of application may be obtained from the Borough Architect, The Guildhall, Swansea, to whom they must be returned not later than Monday, 12th May, 1958.

Canvassing disqualifies.

T. B. BOWEN,
Town Clerk.

The Guildhall,

Swansea.

17th April, 1958.

9316

COUNTY BOROUGH OF DERBY

BOROUGH ARCHITECT'S DEPARTMENT

1. SENIOR QUANTITY SURVEYOR, Special Grade (£750—£1,030 per annum). Qualifications: A.R.I.C.S. (Quantities) or A.I.Q.S. or A.I.A.S. with appropriate experience.

2. ASSISTANT BUILDING INSPECTOR, A.P.T. Grade I (£575—£725 per annum). The position is that of assistant to the Building Inspector and applicants must have a thorough knowledge of Building Byelaws and ancillary duties. Qualifications: Higher National Certificate in Building or equal.

Commencing salary according to qualifications and experience. Permanent superannuable appointments, subject to one month's notice and to medical examination. National Conditions of Service.

Application forms obtainable from and to be returned to the Borough Architect, The Council House, Corporation Street, Derby, not later than Monday, 12th May, 1958.

G. H. EMLYN JONES,
Town Clerk. 9310

18th April, 1958.

CITY OF SHEFFIELD EDUCATION
COMMITTEE
COLLEGE OF COMMERCE AND
TECHNOLOGY
Department of Building

Applications are invited for the following full-time posts:—

(a) LECTURER in BUILDING/QUANTITY SURVEYING to teach Surveying subjects in the full-time sandwich courses and in part-time professional courses. Experience and membership of a professional institute is desirable.

(b) LECTURER in STRUCTURAL ENGINEERING to teach Theory and Design of Structures in the sandwich courses and Higher National Certificate courses. Industrial experience and membership of an appropriate professional body is desirable.

(c) ASSISTANT (Grade B) to teach general building subjects in National Certificate courses. A good knowledge of Building Construction is desirable and ability to teach Building Science would be a further recommendation.

(d) ASSISTANT (Grade B) to teach Plumbing, Gas Fitting and Heating and Ventilating subjects. A good knowledge of Welding and Hard Metals linked with industrial experience is desirable.

Salaries will be in accordance with the Burnham Technical Scales: for posts (a) and (b) £1,200 × £30—£1,350 per annum; for posts (c) and (d) £650 × £25—£1,025 per annum, with appropriate additions for degree and training.

Forms of application may be obtained from the undersigned (s.a.e.) at P.O. Box 67, Sheffield, to whom they should be returned within two weeks of the appearance of this advertisement.

STANLEY MOFFETT,
Director of Education. 9277

BOROUGH OF HESTON AND ISLEWORTH

APPOINTMENT OF DRAUGHTSMAN

Applications are invited for the appointment of a Draughtsman in the Architect's Section of the Borough Engineer and Surveyor's Department. Salary grade A.P.T. I (£575—£725 p.a.) plus London weighting.

Candidates must be capable and expeditious draughtsmen and preference will be given to those with architectural experience.

The Council are unable to assist the successful candidate with housing accommodation.

Applications, on forms to be obtained from the Borough Engineer and Surveyor, 88, Lampton Road, Hounslow, must be returned to him not later than noon on 19th May, 1958.

D. MATHIESON,
Town Clerk. 9326

Town Hall,

Hounslow.

18th May, 1958.

COUNTY BOROUGH OF NEWPORT
Applications are invited for the appointment of MAINTENANCE ASSISTANT (Buildings) in the range Grade A.P.T. II (£725 to £845). Intermediate R.I.C.S. qualification required. Housing accommodation may be made available according to circumstances. Application forms from Borough Architect, Civic Centre, Newport, Mon., returnable by Monday, 12th May, 1958. 9315

METROPOLITAN BOROUGH OF BATTERSEA

Applications are invited for the following appointments to the permanent staff:—
(i) ASSISTANT BUILDING SURVEYOR, Grade A.P.T. II, £725—£845 per annum.
(ii) JUNIOR ASSISTANT BUILDING SURVEYOR, Grade A.P.T. I, £575—£725 per annum. London weighting (£30 per annum at age 26 and over) is payable in addition for each appointment.

The commencing salary in each case will be according to qualifications and experience. Preference will be given to students or probationers of the Royal Institution of Chartered Surveyors (Building Sub-division).
The appointments are subject to the Local Government Superannuation Acts, 1937-53.

Further particulars and forms of application obtainable from the Borough Engineer and Surveyor, Town Hall, S.W.11. Closing date 12th May, 1958.

**BOROUGH OF HARROW
APPOINTMENT OF ARCHITECTURAL ASSISTANT**

Applications are invited for this appointment in the Borough Engineer's Department, at a salary in accordance with A.P.T. Grade II (£725—£845 per annum, plus London weighting). Candidates should have passed the R.I.B.A. Intermediate Examination.

The appointment will be subject to the provisions of the Local Government Superannuation Acts, the passing of a medical examination and the National Joint Council's Scheme of Conditions of Service.

The Council are unable to offer housing accommodation.
Forms of application may be obtained from me, to whom they should be returned, not later than Friday, 9th May, 1958.

DAVID PRITCHARD,
Town Clerk.

Town Clerk's Department,
Harrow Weald Lodge,
Harrow, Middx. 9342

CITY OF PLYMOUTH—CIVIC CENTRE

APPOINTMENT OF CLERK OF WORKS

Applications are invited for the appointment of a Clerk of Works for the Plymouth Civic Centre. The scheme involves the construction of the Council House, the Administration Offices of 14 storeys, together with other two-storey office buildings, and an underground car park. It also includes the layout of the site between this group and the Plymouth Guildhall.
Excavation of the site is nearing completion, and tenders have been invited for the foundation and substructure contract.

The appointment will be made by the Plymouth Corporation, in consultation with the architects, Messrs. G. A. Jellicoe & Partners, 5, Princess Square, Plymouth, to whom applications should be addressed, giving details of previous experience with copies of at least two recent testimonies, and a statement of the salary required. The successful applicant will be required to commence his duties within one month of his formal appointment, and also to provide his own living accommodation in the Plymouth area. No applications received after the 31st May, 1958, will be considered.

CITY OF BIRMINGHAM 9329

CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following permanent and supernumerary posts at commencing salaries within the scales according to capabilities and experience.

(a) ASSISTANT ARCHITECTS, Special Scale, £750—£940.
(b) ARCHITECTURAL ASSISTANTS, Special Classes, Grade A.P.T. I, £595—£745.

Scope for progressive design of Schools and Educational Buildings of many kinds, a variety of Civic Buildings, and Housing Schemes, including tall blocks of flats, maisonettes and shopping centres.

Applicants are required to have passed Parts I and II Final R.I.B.A. for posts (a) and Intermediate R.I.B.A. for posts (b) or to hold equivalent qualifications.

Five-day week. Medical examination.
Applications, stating age, present position and salary, qualifications, experience and two referees to the undersigned by 9th May, 1958.

A. G. SHEPPARD FIDLER,
City Architect.

Civic Centre, Birmingham 1. 9314

CORPORATION OF LONDON

JUNIOR ASSISTANT required in the Building and Architectural Section of the City Surveyor's Department.

Applicants must be studying for the Intermediate R.I.B.A. or Intermediate R.I.C.S. Neat and accurate draughtsmanship and sound knowledge of building construction essential. Commencing salary £470 to £730 p.a.

Applications in writing stating age, qualifications and experience with names of three referees, to The City Surveyor, Guildhall, London, E.C.2, within 14 days of this advertisement. 9344

CORPORATION OF LONDON

Applications are invited for an ASSISTANT ARCHITECT (Auxiliary Staff) in the Building and Architectural Section of the City Surveyor's Department. Preference given to suitably qualified applicants. First class draughtsmanship and sound knowledge of construction and design essential. Commencing salary £580 to £1,325 p.a.

Applications stating age, qualifications, experience with names of three referees, to The City Surveyor, Guildhall, London, E.C.2, within 14 days. 9343

NOTTINGHAM AND DISTRICT TECHNICAL COLLEGE

SHAKESPEARE STREET, NOTTINGHAM

Principal: D. A. R. CLARK, M.Sc.(Tech.), M.I.Mech.E.

Due to an increase in the volume of advanced work, the following additional appointments to the full-time teaching staff are required for September next. The College will, in the main, concentrate in the future on post-Ordinary National Certificate and post-Intermediate City and Guilds work. A large new building costing approximately one million pounds will come into full use in September next and will provide accommodation for well-equipped Departments of Building and Civil Engineering, Electrical Engineering, Chemistry, Physics and Mathematics, and Mining. Increased accommodation is also available to the Departments of Mechanical Engineering, Arts and Commerce, Printing and Textiles. Research work by both staff and students is being rapidly developed. College senior teaching staff will be expected to undertake or supervise research work. Consultancy work by staff is encouraged.

Industrial experience, teaching experience and research experience will all be of considerable advantage to the selected candidate.

SENIOR LECTURER IN BUILDING MATERIALS.

LECTURER IN BUILDERS' QUANTITIES.

LECTURER IN CIVIL ENGINEERING.

Salaries in accordance with the Burnham Technical Scale as follows:

Senior Lecturer: £1,350 rising by annual increments of £50 to £1,550 per annum.

Lecturer: £1,200 rising by annual increments of £30 to £1,350 per annum.

Further particulars and form of application may be obtained from the Principal, to whom completed forms should be returned not later than 16th May, 1958. 9353

RADNORSHIRE COUNTY COUNCIL

ARCHITECTURAL DRAUGHTSMAN

Applications are invited for the supernumerary appointment of an Architectural Draughtsman in the office of the County Architect and Planning Officer.

Salary: A.P.T. Grade II, £725 × £30 to £845.

Good drawing board experience essential and candidates should have a knowledge of school and house design and construction.

Preference will be given to those holding the Intermediate R.I.B.A.

Travelling allowance on County Scale.

Applications (no forms) stating age, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned not later than Tuesday the 13th May, 1958.

PHILIP PARKER,

Clerk of the County Council.

County Hall, Llandrindod Wells. 9352

CITY ARCHITECT'S OFFICE, MANCHESTER

Applications invited for appointment of ASSISTANT ARCHITECT. Salary Special Grade £750 to £1,030 per annum. Commencing salary according to experience. Particulars and form from the City Architect, P.O. Box 488, Town Hall, closing date May 10, 1958. 9341

NEWCASTLE REGIONAL HOSPITAL BOARD

APPOINTMENT OF ARCHITECTURAL DRAUGHTSMAN

Applications are invited for the appointment of an Architectural Draughtsman to a permanent (supernumerary) post on the Headquarters' Staff of the Regional Architect in Newcastle. Applicants should have had previous experience in an Architect's Drawing Office and be neat and quick draughtsmen. Commencing salary £425 (at age 21 or over: subtract £20 for each year below 21) × 25 (6) × £30 (2) to £635 per annum. The post offers opportunity for gaining all-round general as well as hospital experience and for doing good class work in an expanding department. Evening study facilities are available at King's College of Durham University in Newcastle. Applications stating age, qualifications, past and present appointments, present salary and details of experience and training, together with the names of three referees (of whom at least two should be architects), should be forwarded to the Secretary of the Board, Benfield Road, Newcastle upon Tyne, 6, not later than 8th May, 1958. 9340

ISLE OF ELY COUNTY COUNCIL

PLANNING STAFF

Vacancies for (a) SENIOR PLANNING ASSISTANT (salary Special Grade (£750—£1,030)). Duties: mainly work on preparation of Town Maps, etc. Applicants must be A.M.T.P.I. or equivalent. (b) PLANNING ASSISTANT (salary A.P.T. I or II or Special Grade (£575—£725; £725—£845; £750—£1,030)). Duties: mainly Development Control work. Salary according to qualifications. National Conditions. Application Form and Conditions of Appointment from County Planning Officer, County Hall, March, Cambs., returnable by 17th May, 1958.

R. F. G. THURLOW,

Clerk of the County Council. 9339

Architectural Appointments Vacant

4 lines or under, 9s. 6d.; each additional line, 2s. 6d. Box Number, including forwarding replies, 2s. extra

ARCHITECTURAL ASSISTANT required for small expanding practice in W.I. State experience and salary required.—Box 9319.

RONALD WARD & PARTNERS require ARCHITECTURAL ASSISTANTS with contemporary outlook, and willing to use own initiative. Salary range £600 to £900. Congenial working conditions. 5-day week.—Apply: 28, Chesham Place, Belgrave Square, S.W.1. Telephone Belgravia 3361. 9312

YOUNG qualified ARCHITECT required whose main interest is design, preferably with office experience of practical design work. A high standard of draughtsmanship is essential. Write stating particulars to Box 9165.

OPPORTUNITY for advancement occurs for single young man of intermediate or better standard as **SECOND ASSISTANT** in Country Practice. Reply to Box 9207.

YOUNG SINGLE ASSISTANT of about Intermediate Standard required for Housing and Improvement Grant Schemes in Country Architect's Office. Car Driver. Reply to Box 9208.

J. DOUGLASS MATHEWS & PARTNERS Chartered Architects, 3, Ebury Street, London, S.W.1, require medium and junior grade ASSISTANTS. Salaries in accordance with experience. Please write giving full details of education and experience. 9294

WANTED, qualified or near qualified ASSISTANTS with practical experience for work on Licensed Premises. Apply: The Secretary, Benskin's Watford Brewery Limited, P.O. Box 105, Watford, Herts. 926

ARCHITECTURAL ASSISTANTS of Intermediate standard required for work on large and small projects at home and abroad. Salary according to qualifications and experience. Apply E. J. D. Mansfield, A.R.I.B.A., Sir William Halcrow & Partners, 47, Park Lane, London, W.1. 9266

ARCHITECTURAL ASSISTANTS, Intermediate standard and with a few years office experience, required in Barnet, Hertfordshire office by Architects with General Practice. Apply Box 9259.

ASSISTANT required for West End Architect's office. Good draughtsmanship and experience of industrial work essential. Salary by arrangement. Phone WHI. 0188 or write Box 9258.

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 developments. Details of age, experience and salary required please to Field and Shaw, Chartered Architects, 40, Station Road, North Harrow. Tel. Har. 7502. 9265

APPLICATIONS are invited for the appointment of **ARCHITECTURAL ASSISTANT** at a commencing salary of £850 to £950 per annum. Minimum qualifications: Intermediate R.I.B.A. or H.N.C. (Building), plus five years' office training.

Only candidates who are accustomed to the design, planning and preparation of working drawings of industrial buildings and offices, and who are competent to make necessary site surveys, should apply.

The appointment is permanent and pensionable. Assistance with housing will be given if necessary.

Excellent canteen, sports and welfare facilities. Please send curriculum vitae to (Mr.) A. C. McCombie, Michelin Tyre Co. Ltd., Stoke-on-Trent. 9268

JUNIOR ARCHITECTURAL ASSISTANT required in Branch Office, Birmingham, to work on a varied and interesting programme of commercial projects. Applications, giving full particulars, to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester. 9269

QUALIFIED ASSISTANT ARCHITECTS required to work under minimum supervision. Staff Pension Scheme. Good salaries paid. Apply in writing, giving full particulars, to Chippindale & Edmondson, Chartered Architects, Empire House, Piccadilly, Bradford. 9238

ARCHITECTURAL ASSISTANT required by Brewery Company with sound knowledge of building construction, able to produce working drawings, surveys, etc. Salary £650. Contributory pension scheme.—Applications to Company Architect, Andrew Buchan's Breweries, Ltd., Rhymer, Mon. 9325

EXPERIENCED ASSISTANT required, preferably qualified, for progressive Nairobi Architects. Single if possible. Passage, etc., paid by employer. London interview with applicants arranged.—Apply in first instance to G. Vámos, c/o Louis Erdi, 27, Knightbridge Street, E.C.4. 9330

ARCHITECT, qualified, with all-round experience. Knowledge of contemporary design, materials, construction and costs.—State age, qualifications, experience and salary required, to Personnel Manager, Granada TV Network, Ltd., 36, Golden Square, London, W.1. 9346

INTERMEDIATE ASSISTANTS immediately.—Write brief details to Musman & Cousens, 12, Upper Berkeley Street, W.1. 9346

ASSISTANT required, of Intermediate to Final standard, with some office experience.—Write brief details to F. Greenwood, A.R.I.B.A., 11, The Green, Richmond, Surrey. 9320

ARCHITECTURAL ASSISTANTS urgently required to staff proposed new offices. 5-day week. Overtime available at basic rates. Applicants must be capable and experienced. Salaries according to ability.—Telephone KNI. 9094 for appointment. 9323

EXPERIENCED SENIOR ASSISTANT required, preferably with knowledge of the design of Schools and/or Hospitals.—Applications, stating age, experience and salary required, to Box 9322.

WM. SAUNDERS & PARTNERS, Architects and Surveyors, 24, Castlegate, Newark-on-Trent, require **ASSISTANT ARCHITECT**. Qualified man preferred.—Write, stating salary, availability, etc. 9321

POWELL & ALPORT require **Intermediate ASSISTANT** in their Croydon office.—Write particulars, 106, George Street. 9318

MANCHESTER—**ASSISTANT** required for Manchester office of London firm of Architects. Intermediate standard or above, with some office experience.—Apply Box 9333.

MALE ASSISTANT, of Intermediate standard, to prepare structural schemes and finished projects under supervision required for Drawing Office in large Multiple Firm. Knowledge of shopfitting would be an advantage. Pension scheme and staff restaurant.—Reply, stating age, experience, and salary required, to Box 9332.

HARRY S. FAIRHURST & SON have a vacancy for a **SENIOR ASSISTANT ARCHITECT** in their Manchester office. The work is interesting and varied, including academic, scientific, commercial and domestic buildings, and applicants should be able to take responsibility. Really good presentation draughtsmanship would be an advantage.—Please write to 55, Brown Street, Manchester. 9304

LOUIS DE SOISSONS, PEACOCK, HODGES & ROBERTSON have a vacancy for a **SENIOR ASSISTANT**, experienced in design and presentation of sketch schemes, perspectives, etc.—Write, stating age, salary and experience, to the above at 3, Park Square Mews, Upper Harley Street, London, N.W.1. 9304

ARCHITECT'S Department of London Brewery require for their Industrial Buildings Section **ONE JUNIOR ASSISTANT**. Must be competent draughtsman, with good knowledge of building construction; also young **JUNIOR**, not necessarily experienced but keen and ready to learn.—Apply, giving full particulars, including salary required, to Box 9303.

ENTHUSIASTIC and capable **JUNIOR ARCHITECTURAL ASSISTANTS**, with office experience, required in busy and progressive office, W.1 area. Salary: £500—£600. 5-day week. David Stern & Partners, 24, Gloucester Place, W.1. 9301

ARCHITECTURAL ASSISTANT wanted for Interiors, Showrooms and Exhibitions.—Write Box 9302.

BIRMINGHAM Architects, Clifford Tee & Gable, P.F.R.I.B.A., have vacancies for **ARCHITECTURAL ASSISTANTS**, of varying experience, to take active part in large programme of industrial and commercial work. 5-day week.—Apply to Mr. R. G. Cox, P.F.R.I.B.A., 43, Frederick Road; telephone Edgbaston 3676. 9300

ARCHITECTURAL ASSISTANTS approaching Final standard required in busy Birmingham office. Excellent prospects and salaries for men with initiative.—Box 9299.

ARCHITECTURAL ASSISTANT, Intermediate standard, required in Luton office, to deal with survey work, estate layouts, working drawings and details for domestic, industrial and other projects.—Apply in first instance, with details of experience and salary required, etc., to Box 9298.

ARCHITECTURAL ASSISTANT required. Intermediate standard. Busy West-End Architects' office. Commercial work. Good draughtsman essential. 5-day week, vouchers. Good salary, according to ability.—Box 9297.

SHEFFIELD—Gollins, Melvin Ward & Partners are opening an office on the 19th May in Sheffield, at 281, Glossop Road, and require **ARCHITECTURAL ASSISTANTS**, to work on new buildings for the University and Technical College in that city. 5-day week. Quarterly bonuses, pension scheme.—Apply in the first place in writing to 15, Manchester Square, London, W.1. 9296

ARCHITECTURAL ASSISTANT, Intermediate standard, required for busy, varied country practice in Hampshire.—Particulars and salary required to Box 9295.

ONE SENIOR AND TWO JUNIOR ASSISTANTS required, at or near Finals or Inter., respectively, for office in Mayfair.—Write, stating age, experience, and salary required, etc., Box 9293.

CO-PARTNERSHIP firm requires **TWO ASSISTANTS**: one Intermediate standard, £600—£750; one qualified, £800—£900.—73b, South Side, Clapham Common, S.W.4. 9279

ASSISTANT wanted.—Write to John Morton, 15, St. John's Road, Wallingford, Berks. 9282

JUNIOR ARCHITECTURAL ASSISTANT required in Engineer's office of large Midlands Brewery. Sound knowledge of building construction essential.—State age, experience, and salary required, to Box 9281.

EDINBURGH—**ARCHITECTURAL ASSISTANTS** required for interesting and informal office:

- (1) One post (£600—£850) open now for experienced, but not necessarily qualified, man.
- (2) Vacancy for an enthusiast (not necessarily with experience), anxious to learn, and to be paid according to performance.
- (3) Applications may also be made now for further Assistants' positions becoming available June-September, 1958.

In all cases initiative and responsibility appreciated. Please send letters (confidential) of information and/or enquiry to Michael Laird, 11, Randolph Place, Edinburgh. 9280

SIMON-CARVES, LTD., specialising in the design and erection of heavy industrial plant, require:

- (a) **SENIOR ARCHITECTURAL ASSISTANT**. Applicant must have previous experience of industrial work, preferably on collieries, and must be able to control the work of 6-8 draughtsmen. Age range 30-45. Desirable qualification, A.R.I.B.A. Suitable unqualified applicants will be considered.
- (b) **COMMERCIAL AND TECHNICAL ARTIST**, whose duties will consist of making representational drawings and sketches of Power Stations, Chemical Plants, etc., or parts thereof. Previous experience of this type of work is desirable.

These positions are permanent and pensionable. A good salary will be paid to the successful candidates.—Send brief relevant details to Simon-Carves, Ltd., Cheadle Heath, Cheshire, quoting reference FG.12. 9305

BRIGHTON AND HOVE. **SENIOR AND JUNIOR ASSISTANTS** required for small expanding office, Box 9355.

Architectural Appointments Wanted
4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

ARCHITECTURAL ASSISTANT (34), Inter. R.I.C.S., requires position of responsibility. Varied experience, including stone districts.—Box 9200.

A.R.I.B.A., wide experience, car-owner, seeks responsible position. Temporary or part-time work considered. Box 9273.

A.R.I.B.A. (37), school trained, 10 years' experience, last 2 years junior partner in London practice, seeks post with similar prospects. London area.—Box 9347.

ASSISTANT, with 5 years' (post school) experience, requires part-time work. Approx. 3 days per week. Has working space. Central London.—Telephone Reigate 2340 (reg.). 9311

ASSOCIATE, aged 32, educated Sherborne & A.A., 5 years' experience in London practice, in charge of handling projects, now looking for responsible post in provincial practice with view to partnership. S. or S.W. England preferred. Capital available. Box 8228.

Other Appointments Vacant
4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra

FREELANCE Architectural Draughtsmen of all grades requiring extra work please write, giving brief description of experience, qualifications, fees required, and times available, to Box 9338.

QUANTITY SURVEYOR

THE ATOMIC WEAPONS RESEARCH ESTABLISHMENT, ALDERMASTON, BERKSHIRE
TO prepare estimates and contract documents, examine tenders and settle accounts for building and engineering works. Applicants must be chartered Quantity Surveyors. Experience of above duties in relation to Electrical and Mechanical Engineering contracts desirable. (Ref. No. 1819/119).

Salary: £815 (at age 25)—£1,110 (at age 34 or over)—£1,270 p.a.

ASSISTANT to assist the above in the working up and measurement of minor works both on site and from drawings. Applicants should have passed R.I.C.S. Intermediate (Quantities) examination or equivalent. Long experience in these duties will be advantageous. (Ref. No. 1817/119).

Salary: £375 (at age 30 or over)—£1,050 p.a. Contributory Superannuation Scheme. A house or assistance towards legal expenses on house purchase will be available for married officers living beyond daily travelling distance.

Postcards for application forms to the Senior Recruitment Officer at above address. Please quote appropriate Ref. No. 9309

SECRETARY with architectural experience required; drawing ability an advantage.—Apply Leslie Walker, Architect's Department, John Perring, Ltd., 25/28, London Road, Twickenham, Middlesex. POP. 3632. 9345

RECEPTIONIST/SHORTHAND TYPIST required by Architectural Representative in Birmingham Bank. Applicants, who must be single and preferably aged 23-27, should apply in writing, giving details of previous experience and educational qualifications.—Box 9330.

BRITISH RAILWAYS—EASTERN REGION
APPLICATIONS are invited for the position of **ASSISTANT ARCHITECT** in the office of the Architect, Eastern Region, at King's Cross Station. Salary range, £809 to £977 per annum.

Post (1): Applicants should have real ability in contemporary design and should be able to play a responsible part in the design, administration and site supervision of buildings, which are of a varied and interesting character.

Post (2): Applicants should be good designers, with a special interest in development work, including the dry construction of buildings and the standardisation of a wide range of equipment and furniture.

Applicants for either post should be qualified or should have passed the Intermediate R.I.B.A. examination with some practical experience. 5-day week and concessionary rail travel.—Apply in writing, giving particulars as to age, experience and qualifications, and stating which post applied for, to the Chief Civil Engineer, British Railways, King's Cross Station, London, N.1. 9307

WANTED—Young man capable copying garden plans, making surveys on sites, also act as salesman. Interesting nursery.—Sunningdale Nurseries, Windlesham, Surrey. 9308

REPRESENTATIVES, calling on Architects and local Authorities, required to follow up definite enquiries for new patent Sink Top.—Contact Freedman Bros., Ltd., Springwell Mills, Jarrow, for details. Tel.: Jarrow 897666. 9306

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 BR13 3843 or Hastings 1366. 1673

SITE SURVEYS, Levels, etc., undertaken, 50 miles radius Stratford-on-Avon.—H. G. Bengough, Brailes, Nr. Banbury, Oxon. Tel. Brailes 60. 8189

PERSPECTIVES of any description undertaken by experienced Perspective Artist at short notice. Moderate charges.—Please 'phone or write to the Studio, 39, Gt. Windmill Street (top floor), London, W.1. 'Phone GER. 1027. 9335

ARCHITECTURAL. Reinforced Concrete and Steel design and detailing work required. Over 30 Assistants available. MUS. 8753. 8146

SITE SURVEYS AND SURVEYS OF BUILDINGS prepared at short notice anywhere in Britain. MUSEUM 8753. 3103

TRACING SERVICES available at 5s. 6d. per hour. Reliable, quick and accurate service for any quantity of work. All work collected and delivered in London area; elsewhere work sent by registered post.—Tracing Services, Wilton House, 229, Lordship Lane, Tottenham, N.17. 'Phone TOT. 0166. 9336

THE SITE SURVEY COMPANY
Blackhead, S.E.3. Tel.: LEE Green 7444-5
Fully equipped to undertake urgent Engineering and Architectural surveys in any part of the country and abroad. Specialists in 1 in. scale detailed surveys for extensive city development areas. 1890

A.R.I.B.A., long and wide experience, offers any form of professional assistance to London Architects. Box 9238.

ARCHITECTURAL DRAWING SERVICES
offer the assistance of their staff in or out of architect's offices. Experienced in Land and Building Surveying, Working Drawings, Perspectives, etc.—Write or 'phone for further information to Architectural Drawing Services, 45, King Henry's Road, Hampstead, London, N.W.3. 'Phone Primrose 2421. 9337

ARCHITECTURAL MODELS, Presentation and Sketch Models, produced quickly and inexpensively to any scale.—Telephone KENSINGTON 0087. 9312

A.R.I.B.A., 8 yrs. post-grad., seeks part-time work. Own office and car. N. Riding, Co. Durham, Northumberland. Box 9354.

Partnership and Financial
6 lines or under, 15s.; each additional line, 2s. 6d.
Box No., including forwarding reply, 2s. extra.

NORTH-EAST ARCHITECT (35), with small modern practice, now feeling recession-pinch, seeks Partnership or amalgamation with expanding modern firm, preferably in Midlands or North, 9 years' wide experience with 5 years in private practice.—Box 9278.

For Sale and Wanted

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.
Box Number, including forwarding replies, 2s. extra.

SECONDHAND sectional timber buildings completely reconditioned, delivered free 100 miles. 24 ft. x 12 ft., £102. 30 ft. x 15 ft., £138. 30 ft. x 18 ft., £154. 60 ft. x 20 ft., £302. Floors extra.—Universal Supplies, Crabtree Manorway, Belvedere, Kent. Brith 2948. 9152

FOR SALE—Double Elephant Dyeline Photocopier (Halden). Regularly serviced by manufacturer. £50 o.n.o. Telephone: Regent 5489. 9346

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.I. Canonbury 2061.

CANTEEN and Restaurant Kitchens expertly planned and fitted. Reconditioned or new equipment available. Rental facilities if required. Designer will call. Commercial Catering Equipment Co., Ltd., 29, Abingdon Road, Kensington, W.8. Tel. Western 0936. 9042

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. 5823

OFFICE accommodation available in Ealing; up to 1,400 sq. ft. 3½ years' lease.—Phone PER. 1461 for inclusive price. 9313

ACCOMMODATION offered Architect's contemporary house, Dorking. Use office facilities, etc. Would suit married couple, or single man.—Write Box 9334.

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 R. (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. TM. 1603/4.

R. I.B.A. Inter. and Final EXAMS. TUTION. BY POST—C. W. BOX, F.R.I.B.A., 115, Gower Street, W.C.1. Tel.: BUS. 3966. 1942

COURSES for all R.I.B.A. EXAMS.

Postal tuition in History, Testimonies, Design, Calculations, Materials, Construction, Structures, Hygiene, Specifications, Professional Practice, etc. Also in general educational subjects.

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

GUARANTEED EXAMINATION COACHING

for R.I.B.A., R.I.Ch. Surveyors, I. Qty. Surveyors, I. Mun.E., I. Struct.E., etc.

FIRST-CLASS INSTRUCTION COURSES

In all aspects of Architecture, Building, Draughtsmanship, Surveying, Civil, Municipal, Structural, and Sanitary Engineering.

Write for FREE prospectus.

INTERNATIONAL CORRESPONDENCE SCHOOLS,
71 Kingsway, (Dept. CL. 72), London, W.C.2.

EXTERIOR BRICK & CEMENT SURFACES

Best decorated with

Cementone



Write today for colour card
JOSEPH FREEMAN SONS & Co. Ltd.
Cementone Works, London, S.W.18

The 'number seven' range also includes Gloss, Interior
Flat and Eggshell.

MODELS

for Architects & Civil Engineers

by **John B. Thorp**

EST. 1883
98 GRAY'S INN ROAD, LONDON,
W.C.1. Tel.: HOLborn 1011

FIBROUS PLASTERWORK OF EVERY DESCRIPTION

ALLIED GUILDS

King Edward Square
SUTTON COLDFIELD Tel: Sut 3809

BROAD-ACHESON BLOCKS for unvarying quality

PRODUCTION OF ALL SIZES NOW
CENTRALISED AT GREENWICH WORKS
BROAD & CO. LTD. PADDINGTON, W1

ARCHITECTURAL — contemporary

APPLIED LETTERS

IN A VARIETY OF METALS
& FINISHES

WARD & COMPANY

128 CHELTENHAM ROAD, BRISTOL 6
TELEPHONE 21536



WHITE FACING BRICKS

(S. P. W. BRAND)

Telephone: POLwell 27-9237 B 9 • Telegrams: "MacLins" POLwell, Nottingham

M. MCCARTHY & SONS, LTD

POLWELL • NOTTINGHAM

SCORES OF DOORS TO CHOOSE FROM



Send for our illustrated literature and choose your
doors from the largest and most varied stock in the
trade. Over 40 designs and 172 items.

BRYCE WHITE & Co. Ltd.

LANGLEY 232
St. Mary's Road, Langley, Bucks. Also at London,
Bristol, Southampton.



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

TUCK IN THIS END

Alphabetical index to advertisers

	PAGE	CODE
Acme Flooring & Paving Co. (1904), Ltd.	102	0004
Aero Research, Ltd.	57	0010
Allied Guilds, The	106	0016
Architectural Press, Ltd.88, 93,	96	0086
Armstrong Cork Co., Ltd.	74	0027
Associated Lead Manufacturers, Ltd., The.....	17	0034
Baird & Tatlock (London), Ltd....	39	
Bigwood, Joshua & Son, Ltd.	99	0910
Bilston Foundries, Ltd.	51	0614
Black Sheathing Felt	26	0063
Bow Slate & Enamel Co., Ltd., The	19	0075
Braby, Frederick, & Co., Ltd.....	71	0077
Bradford, F., & Co., Ltd.	67	0078
Briggs, William, & Sons, Ltd.	84	0082
British Electrical Development Association, The	31	0088
British Plumber, Ltd.	91	0100
Broad & Co., Ltd.	106	0784
Bryce, White & Co., Ltd.....	106	0114
Burgess Products Co., Ltd.	87	0116
Cape Building Products, Ltd.	44	0120
Carter & Co., Ltd.	61, 65	0123
Catesbys Linoleum Contracts	69	0125
Central Electricity Generating Board, The	99	0129
Colt Ventilation, Ltd.	3	0146
Colt Ventilation, Ltd.	36	0720
Costain, Richard, Ltd.	77	0157
Crabtree, J. A., & Co., Ltd.	70	0163
Crittall Manufacturing Co., Ltd., The	10, 11	0165
Crompton Parkinson, Ltd.	21	0168
Davey, W. C., & Co.	98	0831
Dimplex, Ltd.	68	0183
Dixon's Paints, Ltd.	94	0184
Eagle Pencil Co., Ltd., The	101	0198
Econa Modern Products, Ltd.	98	0201
Ellis School of Architecture, The	106	0212
Esavian, Ltd.	85	0216
Evered & Co., Ltd.	90	0801
Evode, Ltd.	5	0658
Expanded Metal Co., Ltd., The ...	58	0219
Expandite, Ltd.	100	0220
Ferodo, Ltd.	83	0229
Flexstella Fencing & Engineering, Ltd.	92	0944
Fordham Pressings, Ltd.	32	0240
Formica, Ltd.	81	0177
Freeman, Joseph, & Sons, Ltd. ...	106	0244
Furse, W. J., & Co., Ltd.	106	0248

	PAGE	CODE
Gas Council, The	93	0250
Gent & Co., Ltd.	34	0254
Glazed & Floor Tile Manufacturers Association, Ltd.	27	0256
Gypsum Mines, Ltd.	89	0264
Gypsum Plasterboard Development Association	49	0263
Harper, John, & Co., Ltd.	25	0633
Harris & Sheldon (Electrical), Ltd.	14	0976
Haskel Robertson & Co., Ltd.....	2	0277
Henley's, W. T., Telegraph Works Co., Ltd.	50	0285
Hill, Aldam, E., & Co., Ltd.	100	0290
Hollis Bros., Ltd.	60	0295
Holophane, Ltd.	40	0298
Holoplast, Ltd.	62	1005
Hope, Henry, & Sons, Ltd.	76	0302
Hume Atkins & Co., Ltd.	101	0846
Imperial Chemical Industries, Ltd. (Plastics)	12	0309
Industrial Engineering, Ltd.	72	0314
International Correspondence Schools	106	0788
Jury Holloware, Ltd.	24	0832
Kay, Wm. (Bolton), Ltd.....	97	0324
Kenyon, William, & Sons, Ltd. ...	68	0705
Kerner-Greenwood & Co., Ltd. ...	8	0325
Key Engineering Co., Ltd., The ...	53	0326
Kirkstone Green Slate Quarries, Ltd.	102	0636
Laing, John, & Son, Ltd.	110	0333
Leaderflush, Ltd.	54	0336
Logical Fuel Storage Units, Ltd....	90	0352
M.K. Electric, Ltd.	56	0392
Mallinson, William, & Sons, Ltd.	78	0367
Manger, J., & Son, Ltd.	95	0369
Marley Concrete, Ltd.	102	0370
McCarthy, M., & Sons, Ltd.....	106	0361
McNeil, F., & Co., Ltd.	66	0638
Mellor Bromley & Co., Ltd.	2	0378
Minerva Detector Co., Ltd.	52	0389
Montgomerie, Stobo & Co., Ltd....	15	0396
Morris Rubber Industries, Ltd. ...	89	0398
Newalls Insulation Co., Ltd.	33	0409
Olsson, Martin & Sons, Ltd.	28	0422

	PAGE	CODE
Peerless Built-In Furniture, Ltd....	46	0981
Phoenix Timber Co., Ltd., The ...	23	0984
Pilkington Bros., Ltd.	59	0814
Quicktho (1928), Ltd.	91	0760
Radiation Group Sales	79	0829
Rapid Floor Co., Ltd.	22	0459
Rawlings Bros., Ltd.	66	0460
Riley (IC) Products, Ltd.	42	0469
Rists Wires & Cables, Ltd.	109	0471
Robertson Thain, Ltd.	13	0472
Ronuk, Ltd.	41	0474
Ruberoid Co., Ltd., The	20	0479
Runnymede Rubber Co., Ltd., The	82	0481
Ryjack Products, Ltd.	43	0483
Saniguard Appliances, Ltd.	96	0491
Seaboard Lumber Sales Co., Ltd., The	16	0496
Secomastic, Ltd.	47	0501
Sherwoods Paints, Ltd.	61	0786
Silexine Paints, Ltd.	45	0511
Smith, Thomas, & Son, Ltd.	55	0521
Snap-Dek, Ltd.	63	0894
Sommerfelds, Ltd.	94	0529
Standard Maclean, Ltd.	18	0965
Steel Radiators, Ltd.	97	0530
Stelcon (Industrial Floors), Ltd....	4	0531
Stella Building Products, Ltd. ...	30	0533
Stott, James, Ltd.	75	0525
Sugg, William, & Co., Ltd.	29	0537
Surflex Flooring Co., Ltd.	95	0743
Templewood Hawksley, Ltd.	86	0899
Terradura Flooring Co., Ltd.	98	0540
Thorn, J., & Sons, Ltd.	9	0544
Thorpe, John B.	106	0533
Tomo Trading Co., Ltd.	37	0613
Turners Asbestos Cement Co., Ltd.	38	0560
Union Fibre Pipes	80	0664
Velux Co., Ltd.	92	0939
Vigers Bros., Ltd.	48	0594
Walpamur Co., Ltd., The	35	0588
Ward & Co.	106	0589
Wates, Ltd.	6	0594
Wednesbury Tube Co., Ltd., The	73	0599
Westland Engineers, Ltd.	100	0899
Wheatly & Co., Ltd.	7	0600
Zinc Alloy Rustproofing Co., Ltd.	109	0610

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous, Property, Land and Sales, see 103, 104, 105, 106

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 _____

0000
0001
0002
0003

0004

0005
0006
0007
0008
0009
0010
0011
0012
0013
0014
0015
0016
0017
0018
0019

0020

0021
0022
0023
0024
0025
0026
0027
0028
0029
0030
0031
0032
0033
0034
0035
0036
0037
0038
0039
0040

0041
0042
0043
0044
0045
0046
0047
0048
0049

0050

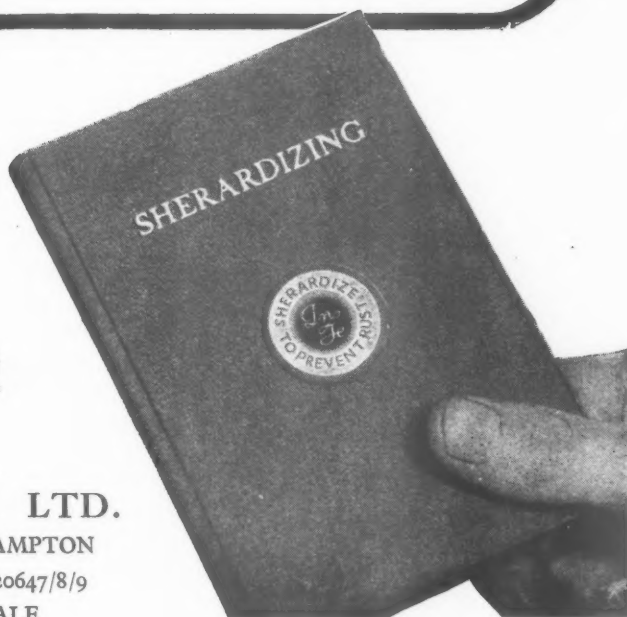
0051
0052

0053
0054
0055
0056
0057
0058
0059

0060

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

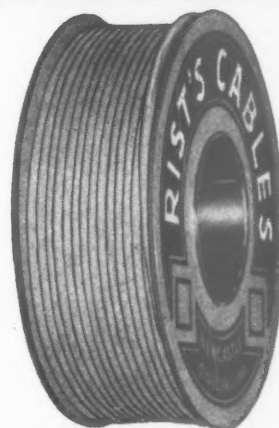
RIST'S

-the answer

TO ALL YOUR CABLE PROBLEMS

You can be sure of complete satisfaction from Rist's T.R.S and V.I.R. house wiring cables. Manufacturers of cables for internal maintenance wiring, electric fans, soldering irons, etc. All cables are made to the appropriate British Standard Specification.

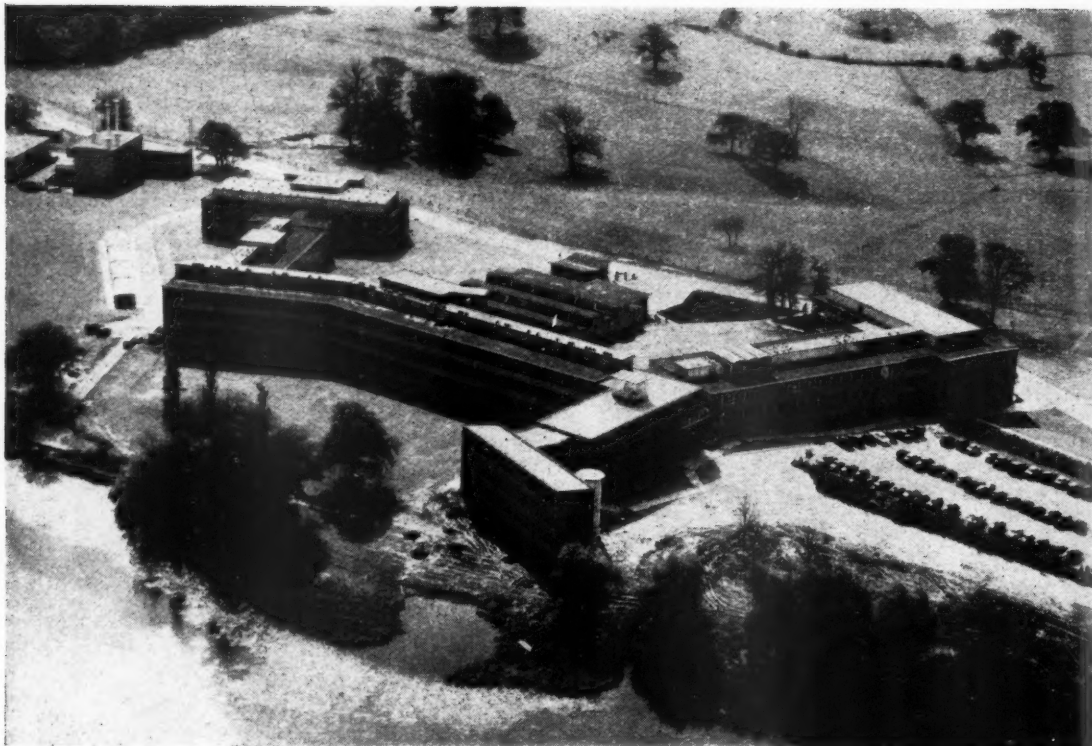
Write now for further details.



RIST'S WIRES & CABLES LTD

LOWER MILEHOUSE LANE • NEWCASTLE-UNDER-LYME • STAFFS

Laboratories at Alderley Park



Architects: Harry S. Fairhurst and Son F/A.R.I.B.A

These pharmaceutical research laboratories for Imperial Chemical Industries Limited comprise laboratories, administration block, a spacious canteen, boilerhouse and animal breeding units, occupying a total floor area of 250,000 square feet.

The various laboratories, animal houses and administration block form the main building. The administration block is clad in slate, the remaining parts of the building being brick faced with large areas of single or double glazing in metal frames. The structure has a reinforced concrete frame.

The buildings have a fine setting in woodland on the edge of Radnor Mere, and special attention was given to the landscaping to preserve the original character and contours of the site.

LAING

Building and Civil Engineering Contractors

JOHN LAING AND SON LIMITED

GREAT BRITAIN · CANADA · UNION OF SOUTH AFRICA · RHODESIA

