## ARCHIT



tandard

contents

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

COMMENT and

stragal's Notes and Topics

etters

ews iary

cieties and Institutions

SECTION ECHNICAL

formation Sheets formation Centre urrent Technique

Yorking Details

uestions and Answers

rices

he Industry

URRENT BUILDING

lajor Buildings described: etails of Planning, Construction, nishes and Costs

uildings in the News uilding Costs Analysed

rchitectural Appointments anted and Vacant

0. 32261 [Vol. 124 HE ARCHITECTURAL PRESS 11 and 13, Queen Anne's Gate, Westminster, 'Phone: Whitehall 0611

HC IAAS

ICA ICE

IEE

IES

Price 1s. od. Registered as a Newspaper. ★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to 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. glossary of abbreviations of Government Departments and Societies and Committees

Architectural Association, 34/6, Bedford Square, W.C.1.

Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley,"
Castle Hill Avenue, Berkhampstead, Herts.

Architects' Benevolent Society. 66, Portland Place, W.1.

Association of Building Technicians. 1, Ashley Place, S.W.1.

Arts Council of Great Britain. 4, St. James' Square, S.W.1.

Aluminium Development Association. 33, Grosvenor Street, W.1.

Architects' Registration Council. 78, Wimpole Street, W.1.

Board of Architectural Education. 66, Portland Place, W.1.

Langham 5721

Welbeck 2919

Langham 5721

Langham 5721

Langham 5721

Langham 5721 Museum 0974 AA ABS Langham 5721 Victoria 0447-8 ABT **ACGB** Whitehall 9737 ADA ARCUK Mayfair 7501/8 Welbeck 2915 Langham 5721 Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.
Reliance 7611, Ext. 1706
Building Centre. 26, Store Street, Tottenham Court Road, W.C.1. Museum 5400 BATC Reliance 7611, Ext. 1706
Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.
British Colour Council. 13, Portman Square, W.1.
British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.
British Cast Iron Research Association. Alvechurch, Birmingham.
British Door Association. 10, The Boltons, S.W.10.
British Electrical Development Association. 2, Savoy Hill, W.C.2. Temple Bar 9434
British Ironfounders' Association. 145, Vincent Street, Glasgow, C2. BCC BCCF BCIRA BDA BEDA BIA Building Industries Distributors. 52, High Holborn, W.C.1. Chancery 7772
Building Industries National Council. 11, Weymouth Street, W.1. Langham 2785
Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.
Trafalgar 8855 BID BINC BRS Building Research Station. Bucknalls Lane, Watford. Building Societies Association. 14, Park Street, W.1.
British Standards Institution. British Standards House, 2, Park St., W.1. BSA BSI Mayfair 0515 Mayfair 9000 Building Trades Exhibition. 32, Millbank, S.W.1. Tate Gallery 8134
City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A.,
Civic Centre, Newport, Mon. Newport 65491
County Architects' Society. C/o F. R. Steele, F.R.I.B.A., BTE CABAS CAS County Architects' Society. C/o F. R. Steele, F.R.I.B.A.,

County Hall, Chichester. Chichester 3001
Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1. Belgravia 6661
Council for Codes of Practice. Lambeth Bridge House, S.E.1. Reliance 7611 Ext. 1284
Copper Development Association. 55, South Audley St., W.1. Grosvenor 8811
Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.
Council of Industrial Design. 28, Haymarket, S.W.1. Trafalgar 8000
Council for the Preservation of Rural England. 4, Hobart Place, S.W.1. Sloane 4280
Coal Utilization Council. 3, Upper Belgrave Street, S.W.1. Sloane 9116
Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1. Reading 72255
Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1. CCA CCP CDA CIAM CPRE CUC DGW Reliance 7611 Design and Industries Association. 13, Suffolk Street, S.W.1. Whi Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1. DIA Whitehall 0540 Trafalgar 8855 English Joinery Manufacturers' Association (Incorporated). Sackville House,
40, Piccadilly, W.1. Regent 4448
English Place-Name Society. 7, Selwyn Gardens, Cambridge.
Faculty of Architects and Surveyors. 68, Gloucester Place, W.1. Welbeck 9966
Federation of Association of Specialists and Sub-Contractors,
Artillery House, Artillery Row, S.W.1. Abbey 7232
Fibre Building Board Development Organization, Ltd. (Fidor), 47, Princes Gate,
Kensington, S.W.7. Kensington 4577
Federation of British Industries. 21, Tothill Street, S.W.1. Whitehall 6711
Forestry Commission. 25, Savile Row, W.1. Regent 0221
Federation of Coated Macadam Industries. 37, Chester Square, S.W.1. Sloane 1002
The Flush Door Manufacturers Association Ltd., Trowell, Nottingham. Ilkeston 623
Friends of the Lake District. Pennington House, nr. Ulverston, Lancs. Ulverston 201
Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.
Chancery 7583 **EJMA** Sackville House, English Joinery Manufacturers' Association (Incorporated). **EPNS** FAS FASS **FBBDO** FBI FC FCMI FDMA FLD **FMB** Chancery 7583 FPC FRHB The Federation of Painting Contractors, St. Stephen's House, S.W.1. Whitehall 3902 Federation of Registered House Builders. 82, New Cavendish Street, W.1.

Langham 4341 GPDA Gypsum Plasterboard Development Association, 11, Ironmonger Lane, E.C.2. Monarch 8888 Gas Council. 1, Grosvenor Place, S.W.1.
Georgian Group. 2, Chester Street, S.W.1.
Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.
Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1.
Belgravia 3755 Gas Council. 1, Grosvenor Place, S.W.1. GC

Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1. Grosvenor 6186
Institution of Civil Engineers. 1, Great George Street, S.W.1. Whitehall 4577
Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.

Illuminating Engineering Society. 32, Victoria Street, S.W.1. Institution of Gas Engineers. 17 Grosvenor Crescent, S.W.1.

Temple Bar 7676

Abbey 5215 Sloane 8266

# ...you've got to hand

FOR SAFETY, SERVICE AND SATISFACTION

MILLS SCAFFOLD CO. LTD., (A Subsidiary of Guest, Keen & Nettlefolds Ltd.)
Head Office: TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON W. 6 · RIVERSIDE 3011 (TEN LINES)

Agents and Depots: BELFAST • BIRMINGHAM BOURNEMOUTH • BRADFORD • BRIGHTON • BRISTOL • CANTERBURY • CARDIFF COVENTRY • CROYDON • DUBLIN • GLASGOW • HULL • ILFORD • LIVERPOOL • LOWESTOFT • MANCHESTER • MIDDLESBROUGH NEWCASTLE • NORWICH • PLYMOUTH • PORTSMOUTH • PRESTON • READING • SHIPLEY • SOUTHAMPTON • SWANSEA • YARMOUTH





Problem No. 6

Condensation and excessive heat.



Above is a sectional view of the Colt SR type ventilator often used in bakeries. Without any of the disadvantages of noise, wear and tear, maintenance or running costs, one of these ventilators can provide continuous positive extract at a rate of 400,000 cubic feet per hour.

for over 9000 major industrial and commercial organisations is at your disposal. Whatever your problem, be it heat, fumes, smoke, steam, or condensation, Colt can cure it.

provided without obligation or charge by the Colt Technical Advisory

Service. Our wide experience gained in the ventilation of all types of buildings

Send for Free Manual on Colt Ventilation to Dept. L6/12.B



#### 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, Coventry, Dublin, Edinburgh, Glasgow, Liverpool, London, Manchester, Newcastle-upon-Tyne, Sheffield, and Warwick. Agents in: Australia, Belgian Congo, Canada, Cyprus, India, Indonesia, Madagascar, Malaya, Mauritius, New Zealand, Pakistan, Portugal, North and South Rhodesia, and South Africa.

G. 357

#### ABOVE ALL - DIGNUS TILES



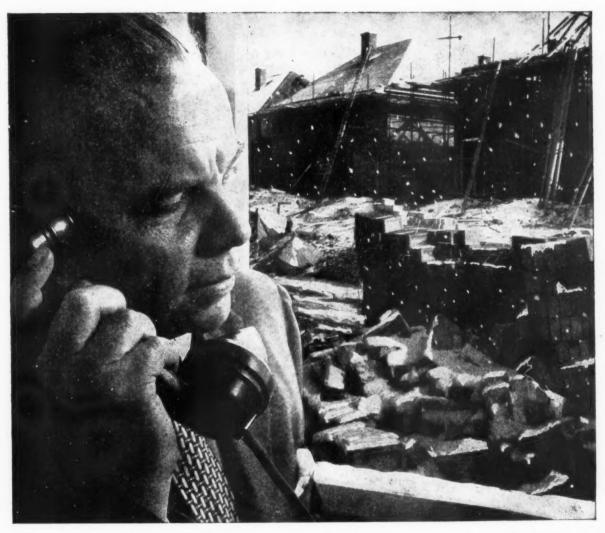
## DIGNUS

BEST QUALITY TILES ARE GUARANTEED FOR FIFTY YEARS

II" x 7" SANDSTONE CLAY ROOFING

DIGNUS LIMITED: KEELE: NEWCASTLE: STAFFS

MAXIMUM OUTPUT MAINTAINED - CONTINUITY OF SUPPLIES GUARANTEED



## Don't let Winter hold up building!

Tretol Anti-Freezer is a sure safeguard against bricklaying and concreting hold-ups during sharp frosts. Builders simply add Tretol Anti-Freezer to the gauging water; it prevents freezing of the mix in temperatures down to 5°F. and no alteration to normal working is required. If you have a copy of the Tretol Specification Handbook you will find details of this building technique on pages 13 and 14. Alternatively, we shall be glad to send you our Tretol Anti-Freezer folder AJ/1.



#### SIMPLE IN NO ALTERATION TO NORMAL WORKING

Approved by municipal authorities and architects throughout the country.

TRETOL LTD., TRETOL HOUSE, THE HYDE, LONDON, N.W.9.

Tel: COLindale 7223 (10 lines). Works: SLOUGH



simple, ingenious device which achieves the ideal of a cold water storage compartment completely insulated from the hot water storage compartment in one combined assembly. The FORTIC embodies the patent RANGE BOILER bottom assembly, all brazed seams, special boss connections and the PERMANIZED finish. Fortic tanks are available

RANGE BOILERS LTD.

(AND SUBSIDIARY COMPANIES)

STALYBRIDGE . CHESHIRE

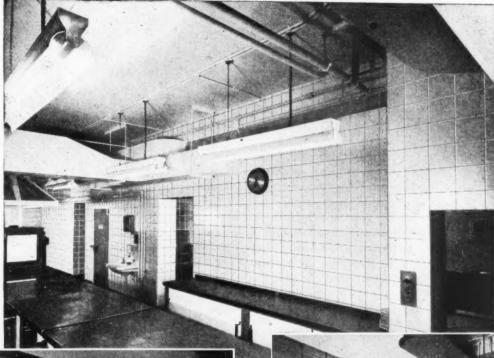
Telephone: Stalybridge 3353. Telegrams: Cylinders, Stalybridge.

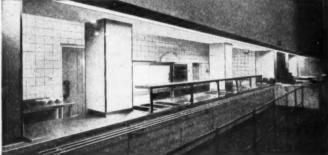
Arch Pla

Ge

Architects: Wornum & Playne, F/F.R.I.B.A. General Contractors: Richard Costain Ltd., London, S.W.1. Tiling Contractors: Parkinsons (Wall Tiling) Ltd., London, N.15.

View of the kitchen.





Servery in the refectory.

## ACADEMIC APPROVAL OF CERAMIC TILES



View of the kitchen.

A centre of learning underwrites the hygiene, economy and colour of Ceramic Tiles, by insisting on them for kitchens and refectories at the Queen Mary College of London University.

On all subjects related to cleanliness; grease, moisture and acid immunity; Ceramic Tiles graduate with honours.

Ceramic











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

## Double the strength at half the cost using 'Aerolite' 300

The efficiency of an 'Aerolite' glued joint is far higher than can be obtained by using mechanical connectors. This view of a box beam under construction shows how the simple butt joints, glued on end grain with 'Aerolite' 300, support the weight over the full span. Structures made in this way maintain better alignment and are less liable to sag. They can be constructed in the joinery shop and, being light in weight, are easily handled on the site. These advantages have enabled builders to halve their costs in comparison with structures made from heavier materials.

'Aerolite' 300 synthetic resin glue is available with an extensive range of hardeners. It is unaffected by heat, moisture and bacteriological attack and hardens rapidly at normal shop temperatures. 'Aerolite' 306, the powder form of the resin, has a shelf life of over two years and can be obtained through builders' merchants in 2 lb., 4 lb., 7 lb. tins and in larger quantities if required. Detailed technical information will be sent gladly upon request.

'Aerolite' Sa registered trade name glues for Wood.



AP. 264-19





· · 'coons use paws



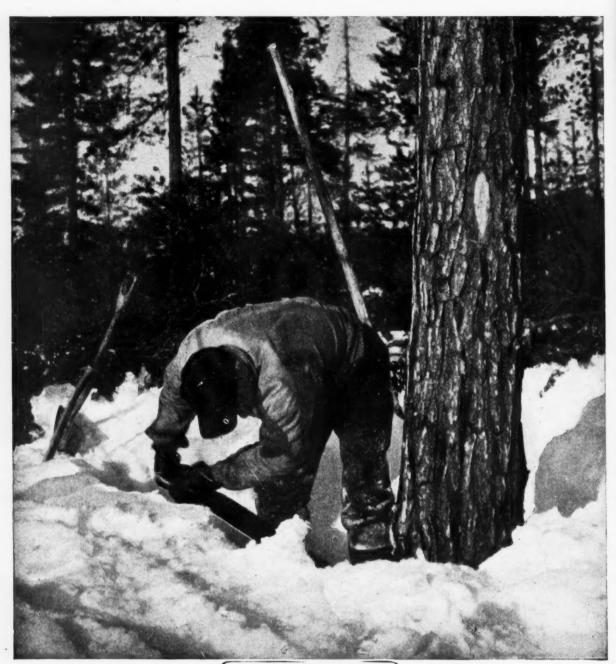


but lucky people use J&E Hall lifts and escalators

J&E Hall

DARTFORD KENT Tel. Dartford 3456

10 St. Swithin's Lane London EC4 Tel. MANsion House. 9811



LOG CUTTING FOR-



MADE IN SWEDEN

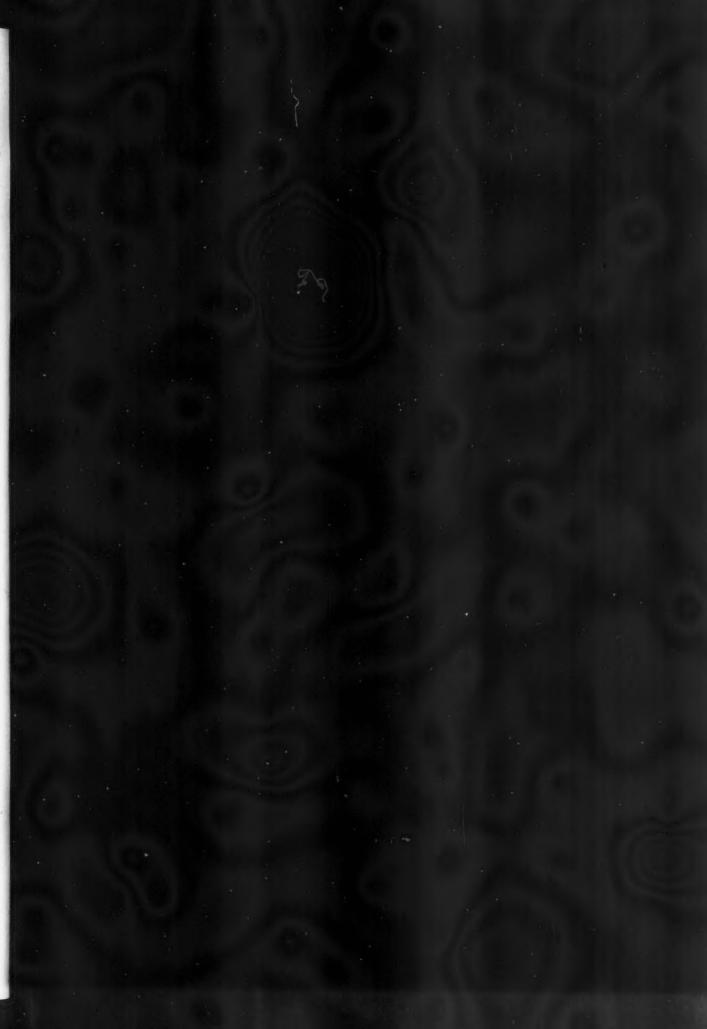
THE OUTSTANDING ALL WOOD FIBRE HARDBOARD

◆ ROYAL ◆

\* RMML\*

RMML

SOFTWOODS FOR JOINERY AND BUILDING





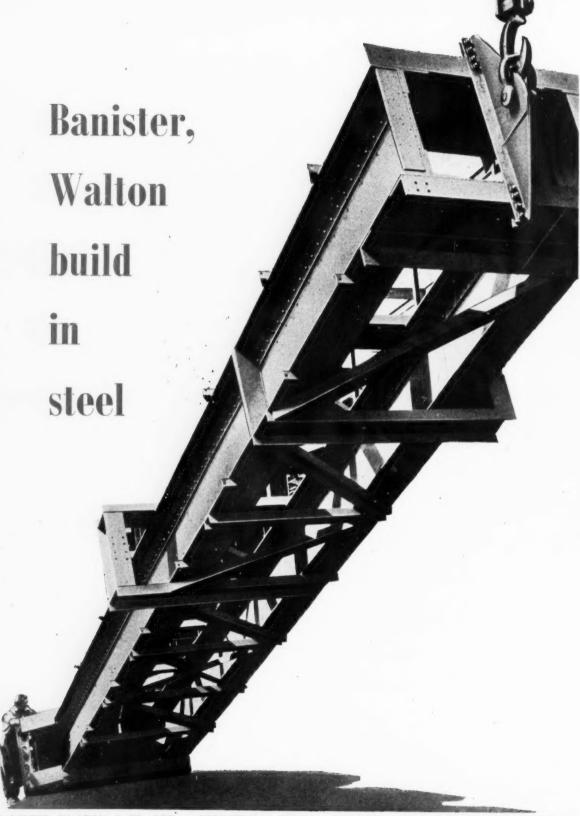
## HIGGS AND HILL LIMITED

LONDON

LEEDS

COVENTRY

JAMAICA, B.W. I.



BANISTER, WALTON & CO., LTD. · STRUCTURAL STEEL · LONDON · MANCHESTER · BIRMINGHAM MCNB259

# For non-bresent cut of the status, for the latters, latters, for latters, l

## 20% cut in Fuel Oil

Safeguard against Heat Loss in industry

ROBERTSON

Insulated Roofs

Roofs lined by the Robertson method combine R.P.M. or G.P.M. sheeting with a lining of insulating board secured above the purlins

All new buildings, buildings that are being rebuilt and those that are being resheeted need the ROBERTSON method of roof insulation

Unique advantages:-

- \* ECONOMY IN FUEL
- ★ GREATER WORKING COMFORT FOR OCCUPANTS
- ★ FIRE RESISTANT

Write NOW for literature



#### ROBERTSON THAIN LTD.

ELLESMERE PORT · WIRRAL · CHESHIRE

Telephone: Ellesmere Port 2341 Telegrams: 'Robertroof'
Sales Offices: BELFAST ' BIRMINGHAM ' CARDIFF ' EXMOUTH ' GLASGOW
LIVERPOOL 'LONDON ' MANCHESTER ' NEWCASTLE ' SHEFFIELD

Agents in most countries throughout the world

LR.4

#### **APPROVED:**

## NU-SWIFT

THE WORLD'S FASTEST AND MOST RELIABLE FIRE EXTINGUISHERS



Model 1301 Universal (Royal Navy) Extinguisher......Foc Ref. No. 104/6 for Class A fire risks (fires involving wood, paper, textiles and other carbonaceous substances).

Model 1003 Auto (CTC) Extinguisher.....FOC Ref. No. 104/5 for Class C fire risks (minor electrical risks and small petrol fires).

Model 2003 Auto (Chloro-Flash) Extinguisher.......FOC Ref. No. 104/7 for Class B & C fire risks (extra-hazardous fires involving spirits, alcohols, organic solvents and electrical equipment).

All these models comply with British Standard specifications, where these exist. No British standards exist for chlorobromomethane extinguishers or double-action nozzles like that of the Universal extinguisher. But special FOC approval has been given to these Nu-Swift features because of their increased efficiency.

#### COMPLYING WITH BRITISH STANDARD CODE OF PRACTICE

(British Standard Code of Practice C.P. 402.401 (1951) is published on behalf of the Council for Codes of Practice for Buildings by the British Standards Institution.)

Universal (Royal Navy) Extinguisher Model 1301 for .. Class A fires Air Foam Extinguisher Model 1400 ... .. Class B fires

#### ACCEPTED BY THE LONDON COUNTY COUNCIL

Consent granted under Sec. 20 of the London Building Acts (Amendment) Act 1930.

All Nu-Swift extinguishers that are approved by the Fire Offices Committee.

Why Nu-Swift are better: Nu-Swift extinguishers are the only ones on the market to combine these essential advantages.

instant pressure-charge operation eliminates waiting for a chemical action to build up pressure.

Quicker recharging all 2-gallon Nu-Swift extinguishers can be recharged and back in use in 30 seconds.

Standard System all Nu-Swift extinguishers are used in the commonsense upright position. There are dis-

tinctive colours for the models for different fire risks.

USE UPRIGHT

B PUSH OVER GUARD & STRIKE KNOB

U-SW

Greater reliability —

Nu-Swift pressure charges produce a pressure that is always exactly right for fire-fighting, never too great for safety. They do not leak, evaporate, or cause corrosion.

FOR EXTRA SAFETY IN BUILDINGS NEW AND OLD—SPECIFY NU-SWIFT EXTINGUISHERS

NU-SWIFT

Nu-Swift Ltd.,

25 Piccadilly, London, W.1

Telephone: REGent 5724

Telegrams:

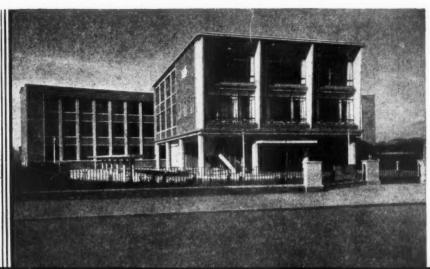
NUSWIFT PICCY LONDON

Factory and Head Office:

Elland, Yorkshire

Telephone: Elland 2852

Telegrams: NUSWIFT ELLAND



### Portsmouth Technical College studies comfort



Entrance Hall, heated entirely by panel coils embedded in the false ceiling.

The Portsmouth Technical College is heated by means of embedded panel coils in the ceilings, radiator panels in wall recesses and hospital type radiators.

The radiator systems receive hot water direct from cast-iron sectional boilers, which also supply the calorifiers feeding the embedded panels.

Building designed under supervision of the City Architect, F. Mellor, Esq., F.R.I.B.A., engineering services installed by Brightside to the specification of H. A. Sandford, Esq., M.A., F.G.S., M.I.Mech.E., M.I.E.E., M.I.H.V.E., M.Cons.E.

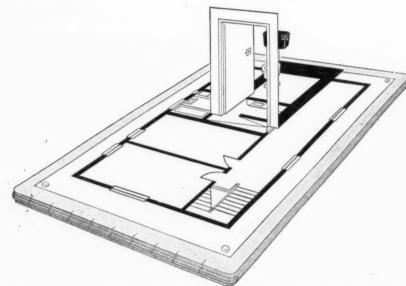
## BRIGHTSIDE

#### BRIGHTSIDE HEATING & ENGINEERING CO. LTD., SHEFFIELD

and at: Belfast, Birmingham, Bradford, Bristol, Edinburgh, Glasgow, Liverpool, London, Manchester, Newcastle, Portsmouth.

BP 54

# Planned for convenience



The toilet is one of the most important rooms in the house—its fittings are entitled to the same careful specification which is applied to the rest of the building. The smoothly-streamlined Lawley 'Britannia' plastic cistern lends itself admirably to today's demand for contemporary design and functional efficiency. Pleasing in appearance, easy-to-clean, ultra-hygienic, Lawley plastic flushing cisterns can be relied on for smooth, silent action and trouble-free service at all times. They are made in a range of four models, the 'streamlined' model in three patterns—front and side action low level, and high level. These are in 2,  $2\frac{1}{2}$  and 3 gallon capacities to BSS 1125, to meet all water regulations. The well-

bottom pattern, 2 gallon capacity only, is designed primarily as a replacement for existing installations.







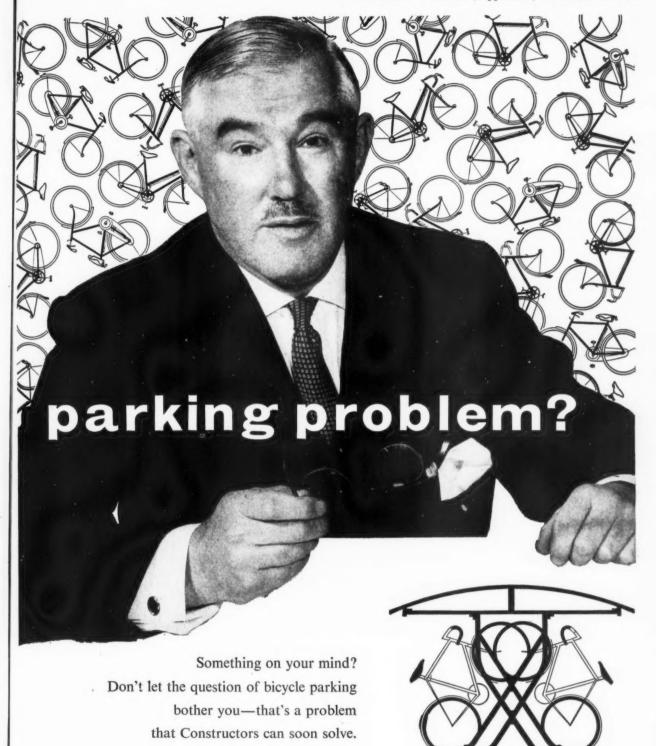


Vi

ONE OF THE OLDEST AND LARGEST CISTERN MAKERS IN THE WORLD

W. & J. LAWLEY LTD., BRITANNIA WORKS, SAMS LANE, WEST BROMWICH

M-W.7



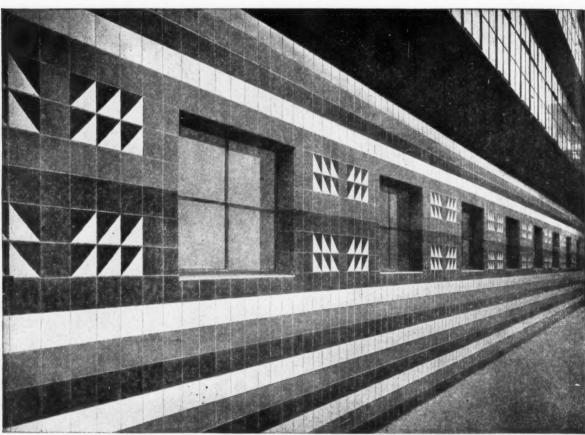
## CONSTRUCTORS

FOR FACTORY EQUIPMENT AND OFFICE FURNITURE

CONSTRUCTORS GROUP, Dept. AI, Tyburn Road, Birmingham, 24. Tel: ERDington 1616

London Office: 98 Park Lane, W.I. Tel: MAYfair 3074.

And at Manchester, Leeds, Bournemouth and Leicester.



18/20 Crucifix Lane, S.E.1. Architect: Edward H. Eames, A.R.I.B.A.

The choice of facing materials for this warehouse in Crucifix
Lane presented a problem. The site is in close proximity to
London Bridge Station and it was felt that any material, such as
brick, would soon become black irrespective of its original
colour. The problem was resolved economically by the use of
pre-cast aggregate slabs. The aggregate was densely
packed with very little cement surface visible, resulting in a
comparatively self-cleansing surface. The ground story is tiled
with attractive hand printed frostproof tiles. This is another of
the fine modern buildings constructed by Ford & Walton.



Ste

#### Ford & Walton Ltd

ESTABLISHED OVER HALF A CENTURY

Member of the "CHAMBERLAIN" Group of Companies.

OFFICE: 3 Buckingham Palace Gardens, Westminster, London, S.W.1. SLOane 0630/0639. works: Warton Road, Stratford, London, E.15

#### Steelwork to Architects' Specification



Spinning Mill Witney

Span 112 ft. 6 ins.

Pitch 1110

Architects : Fielding Dodd & Stevens Oxford.



CASE MAKING SHOP DE HAVILLAND ENGINE CO. LTD.

Architects: Monro & Partners Watford

After half a century of stagnation, steel is once again taking its place as the pre-eminent structural medium. In single and multi-storey work alike new forms and new design and fabrication methods take the place of the old.

CONDER is in the forefront of these developments.

Illustrated booklet with useful data on costing, roofing materials and insulation sent on request,

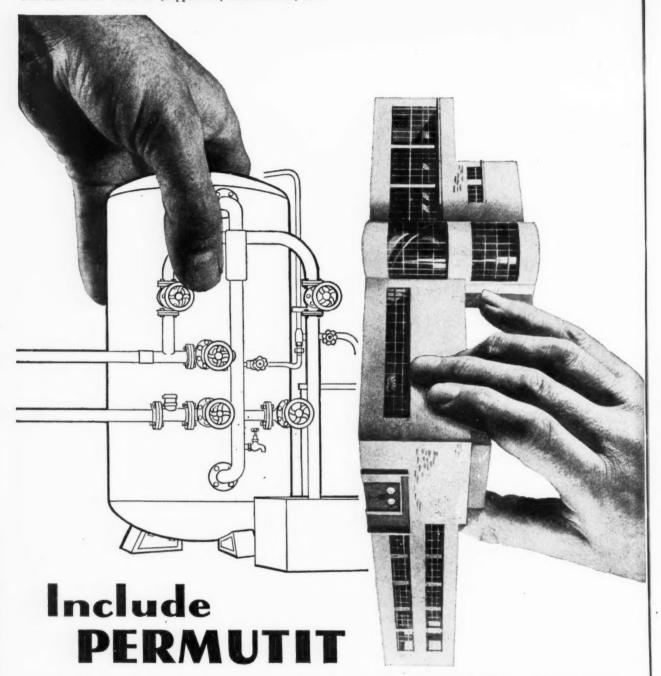


CONDER ENGINEERING CO., LTD.

WINCHESTER, HANTS.

TEL: WINCHESTER 5095

Midlands Branch: PEEL HOUSE, LICHFIELD STREET, BURTON-ON-TRENT Tel: 4690



#### IN YOUR PLANS FOR SCHOOLS AND BLOCKS OF FLATS

Plan for economy by including a Permutit Water Softening plant in new buildings—schools, blocks of flats, canteens, self-service laundries and other municipal buildings. By preventing the formation of scale in boilers,

pipes, radiators and valves, a Permutit Water Softener will effect substantial economies in fuel and maintenance. It will also save soap, soda and detergents and simplify cleaning operations and dishwashing.

For further details please write to:

THE PERMUTIT COMPANY LIMITED (Dept. Z.X.226)
Permutit House, Gunnersbury Avenue, London, W.4. Telephone: CHIswick 6431

#### F. HILLS AND SONS LIMITED

## announce...

...that their well-known

PLASTIC-SURFACED PLYWOODS

"DURETTE" (linen surfaced)

and "DURAMEL" (natural grain)

will in future both be known as



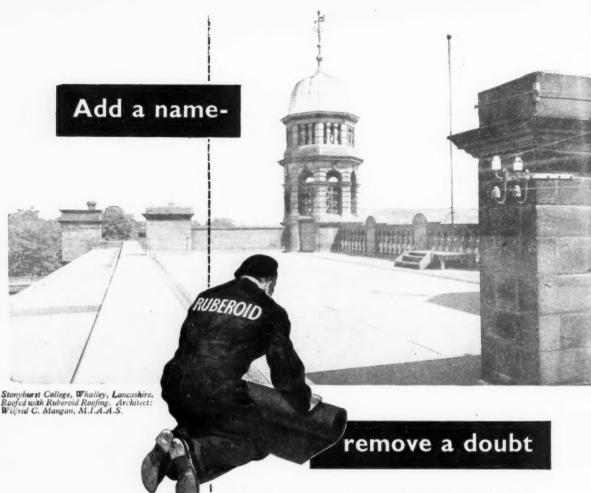
Serial No. 2-467
REPRESENT
GOOD HOUSEKEEPING INSTITUTE
GEV.A BRAINTEES
REGIO ON HOUSE OF REPACTMENT
IN NOT IN CONFORMET WITH HE
IN NOT IN CONFORMET WITH HE

#### Ideal surfacing material YOU WORK IT LIKE WOOD

- ALREADY BONDED, NO ADHESIVE NECESSARY DURABLE, WATERPROOF
- DECORATIVE—5 PASTEL SHADES HYGIENIC—WIPES CLEAN WITH A DAMP CLOTH
- STANDARD SIZED PANELS, IN 3 THICKNESSES 1/4", 1/2", 3/4".

AVAILABLE THROUGH THE USUAL TRADE CHANNELS

F. HILLS & SONS LTD.. NORTON ROAD, STOCKTON-ON-TEES. TELEPHONE: STOCKTON 6714



#### Special Features of The Ruberoid Roofing Service

- Built-up roofing undertaken on buildings of any shape or size anywhere in Britain.
- Specifications include roof decks of steel, aluminium and asbestos cement, all these being insulated externally and weatherproofed with Ruberoid.
- Representatives and Branches throughout the country will give immediate attention to plans and estimates.
- Comprehensive service includes consultation, inspection and maintenance. Call in Ruberoid at an early stage.

Built-up roofings carried out to standard specifications may differ widely in quality of materials and workmanship. But a specification which stipulates that the work is to be carried out by the Ruberoid Roofing Service ensures the highest standards every time.

#### The best possible materials . . .

The Ruberoid materials used are world renowned for their weather resistance and durability. By refining and blending selected bitumens, and by making the base felts from which the roofings are manufactured, the Ruberoid Factories are able to control quality throughout.

#### . . . laid in the best possible way

Ruberoid materials, in the hands of Ruberoid craftsmen, ensure a built-up roof without equal, in which the greatest care is taken with specified and unspecified details.

Ruberoid specifications are listed in detail in Publication No. 326.

## RUBEROID



**Roofing Service** 

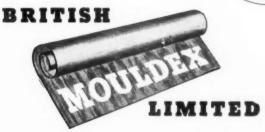
THE RUBEROID COMPANY LIMITED

343 Commonwealth House · 1-19 New Oxford Street · London · W.C.1



Durever Vinyl (Plastic) Flooring adds distinction to this already imposing entrance hall of the I.C.I. offices at Gloucester House, Park Lane, W.1. This hard-wearing, resilient flooring is available in a wide range of colours, in tiles or sheets and is suitable for laying on most types of sub-floors.

GOOD HOUSEKEEPING INSTITUTE
GOOD HOUSEKEEPING INSTITUTE
GUARRANTEES
RISHOO ONWAY OR RIPSCHAMI
II NOT IN CONCORNITY WITH het
INSTITUTES STRENGEN



Write for details and colour charts to :-

BRITISH MOULDEX LTD., Mouldex House, 27/29 Fitzroy Street, London W.I. Tel: LANgham 4211
WORKS AT: Wellingborough, Northantse



# BRITAIN'S ATOMIC FACTORIES

CALDER HALL 'A' UNDER CONSTRUCTION (By kind permission of the Department of Atomic Energy)

SELLAFIE
GAPENULU

SELLAFIELD · SPRINGFIELDS
GAPENHURST-CALDER HALL'A'
CALDER HALL 'B' · HARWELL
CHAPELCROSS · DOUNREAY

UNDER DIRECT CONTRACT WITH THE U.K.A.E.A. ALEX. FINDLAY & CO. LTD.,
MOTHERWELL, HAVE BEEN ENTRUSTED WITH THE SUPPLY, DELIVERY AND ERECTION
OF 55.000 TONS OF STRUCTURAL STEELWORK TO BUILD BRITAIN'S NUCLEAR POWER PROJECTS.

## ALEX. FINDLAY & CO. LTD.

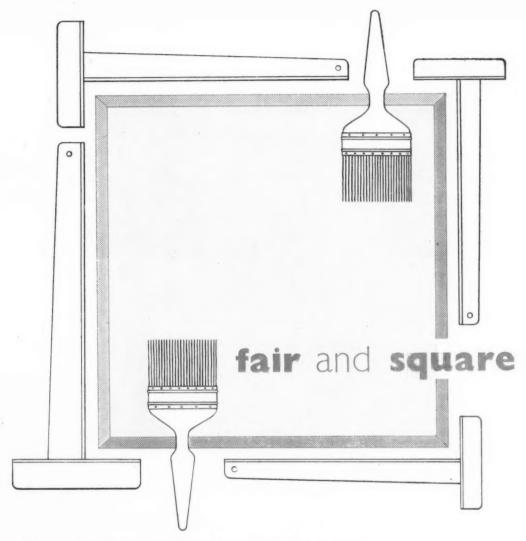
STRUCTURAL ENGINEERS

MOTHERWELL · SCOTLAND

Phone Motherwell 2301 (6 lines)

\* MEMBER OF THE NUCLEAR POWER PLANT CO LIMITED

LONDON OFFICE: HIGH HOLBORN HOUSE, 52/54 HIGH HOLBORN W.C.1 TELEPHONE HOLBORN 7330-5083



When you first see a ceiling constructed with ASBESTOLUX ceiling panels you are struck by its crispness and accuracy. Years later, you will still admire it for the same reasons. The qualities of an ASBESTOLUX ceiling do not disappear with time: they are there, like the ceiling itself, for good—not forgetting that vital quality you cannot see, the ability to give up to 4 hours fire protection to floors.

ASBESTOLUX precision-cut ceiling panels have a fine, smooth surface, with bevelled edges. They are made to a tolerance of plus nil minus  $\frac{1}{16}$ ", every one jig-checked for squareness before dispatch.

They are available in  $\frac{1}{2}$ " and  $\frac{3}{8}$ " thickness in the following sizes:

4' x 4' 4' x 2' 3' 4" x 2' 3' x 2' 2' 8" x 2' 2' x 2'



## dry construction needs ASBESTOLUX

non-combustible

PRECISION-CUT CEILING PANELS

CAPE BUILDING PRODUCTS LIMITED

Cowley Bridge Works, Uxbridge, Middx.

Telephone: Uxbridge 4313

and at Floor D National Buildings, St. Mary's Parsonage, Manchester 3 Tel: Blackfriars 7757 \* Eagle Buildings, 217 Bothwell Street, Glasgow, C.2 Tel: Central 2175

II, Waterloo Street, Birmingham 2. Telephone: Midland 6565-6-7
TA9081



#### LONSDALE

# from the FALKS range of weatherproof outdoor contemporary wall fittings



TYRONE

The metalwork consists of a 20 S.W.G. anodised aluminium reflector, supported on !" mild steel solid drawn tube, and spun aluminium domed cover to fixing plate. Visible metalwork is finished in blue-grey stove enamel, and the inside of the reflector is finished white stove enamel. Supplied with opal glassware, overall diameter 7". This fitting gives easy access to the Lamp by means of a lock-nut above the reflector. Suitable for use with a 75 100 watt Lamp, it is unaffected by vibrations, there being no glassware fixing screws which always tend to work loose or bind.

The anodised aluminium reflector, with shaped lower edge is finished inside, bright etched and anodised, the outside is stove enamel in blue-grey and also the aluminium alloy bracket and support quadrant. Fitted with porcelain B.C. Lamp holder for use with 100 150 watt Lamp. Fixing is by means of a quadrant plate holed at 2" centres for attachment to B.S. conduit box.

#### VICEROY

This fitting consists of a cast aluminium wall bracket with backplate, carrying an 18 S.W.G. anodised aluminium spinning. All visible metalwork finished blue-grey stove enamel. Glassware is in white opal,



lipless, and has an overall diameter of 9°. B.C.

Lamp holder provided for use with 100 150 watt

Lamp, which may be removed, for cleaning or replacement, through the aperture in the glassware.



LIGHTING ENGINEERS
AND MANUFACTURERS OF LIGHTING FITTINGS
FOR ALL INDUSTRIAL, COMMERCIAL AND
DECORATIVE PURPOSES

91 Farringdon Rd., London, E.C.1 & Branches HOL: 7654. London Showrooms 20 22 Mount St., Park Lane, London, W.1 MAY: 5671/2



advise Architects to specify

#### PERMANITE DAMPCOURSES

PERMALUME • ASBEX or LEAD ASBEX Aluminium Lined Asbestos or Asbestos and Lead Base



Manufactured and supplied by

PERMANITE LIMITED 455 OLD FORD ROAD - LONDON - E.3



## maximum strength . . . . . minimum obstruction

Yes, Coseley Standard Steel Framed Buildings give you just that—plus many other unique features.



Photo: Bowls Pavilion, Bexhill-on-Sea. Architect: Kenneth G. Higgs. A.R.I.B.A. Bexhill-on-Sea.

ADAPTABLE DURABLE ECONOMICAL EXTENDABLE

The Illustration shows just one of the counties applications of Coseley Buildings. Designed in clear spans of from 30ts. to 75fts with eaves heights of from 8ts to 20fts, there is an answer to any problem of accommodation within this range, which is readily and economically available.

Building and Civil Engineering work can be undertaken by our associate companies.

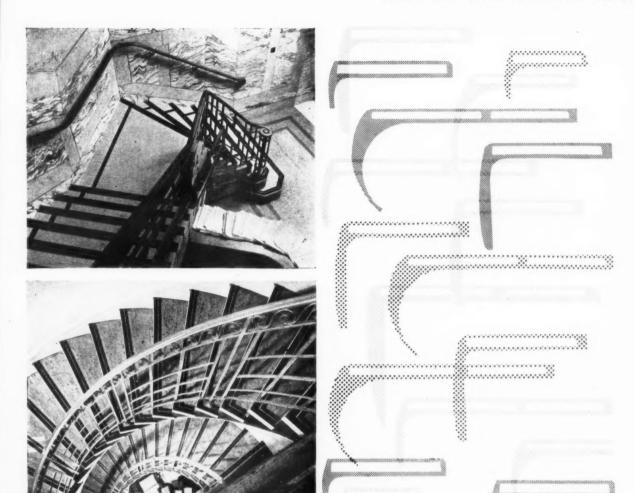
Why not send for detail drawings and full information—or ask for a representative to call?

LONDON OFFICE: 41/46 PICCADILLY, W.I. TEL: REG 4924/5/6

#### COSELEY

ENGINEERING CO. LTD.
LANESFIELD - WOLVERHAMPTON · ENGLAND

BILSTON 41927 (6 lines)



Top illustration: Crown House, Aldwych, London. Below: Times Furnishing Co. Ltd., Bermondsey, London.

#### Design in harmony

Ferodo Stairtreads combine safety and protection with handsome appearance. They have been proved by constant use over many years in public buildings of all kinds.

Available in seven colours—red, white, blue, green, black, brown and grey. Channelled in aluminium, or in the recently introduced silver bronze, or manganese bronze nosings.

A range of 31 types and sizes of tread, adaptable to every shape of stair.

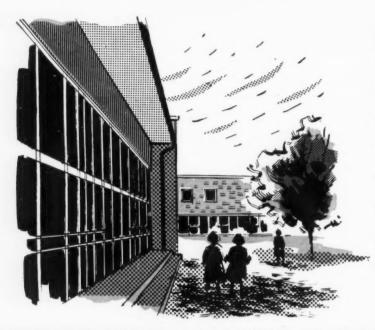
Supplied in any length, cut to fit each stair. Curved or straight as required.

Simply and easily fitted to any basic material—wood, stone, concrete, etc.—by concealed screws through ready-drilled holes.

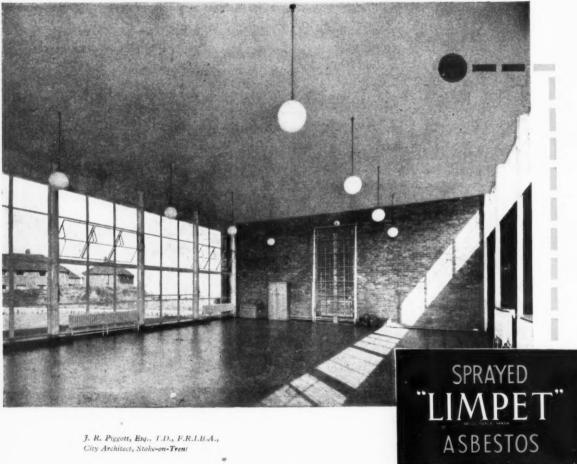
NON-SLIP STAIRTREADS

Illustrated Catalogue in full colour, will be sent on request to Stairtreads Dept., Ferodo Ltd., Chapel-en-le-Frith, Derbyshire.

FERODO LIMITED . CHAPEL-EN-LE-FRITH . DERBYSHIRE . A Member of the Turner and Newall Organisation



THE illustration shows a Main
Assembly Hall at Blurton
Farm, North School, Stoke-onTrent, where Sprayed
"LIMPET" Asbestos has been
applied to the underside of
flat roofing for the purpose of
providing Thermal Insulation
and also Sound Absorption.



TURNERS ASBESTOS CEMENT CO. LTD.

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

MANCHESTER 17

OF REAL PROPERTY AND PERSONS NAMED

THE ARCHITECTS' JOURNAL (Supplement) December 27, 1956

Goods

## ALL Hiduminium Rainwater

conform to B.S.S

that means you can rely on them—always. And that you can be sure that they will fit on to any existing B.S. unit.

Rainwater Goods in Hiduminium are light and strong; they're easier to transport and fit; they will not crack even in the coldest weather, and, because they are completely rustproof, cannot stain surrounding surfaces: they need no painting and are highly resistant to corrosion.

\*\* Conforming to British Standards Specification 1430/1947.



### Hiduminium

makes the most of Aluminium

HIGH DUTY ALLOYS LIMITED . SLOUGH . BUCKS

# CLAY TILES — for eight centuries England's roof . . .

The family name Tyler was firmly established and the twin crafts of tile-making and tile-laying traditional as far back as the sixteenth century. Roofs tiled three centuries before were then maturing just as roofs tiled in the sixteenth century are still maturing to-day. From the day of laying, clay tiles hold a natural beauty of texture and colour, and throughout the years, as they faithfully defend the house beneath, they mellow still further, richen, gain added character, making time and weather their friend.

## **CLAY** lasts

ACME clay roofing tiles combine the traditions and experience of centuries with modern manufacture and service. They are made from Staffordshire Etruria marls—acknowledged to be the best clay in the world for tile manufacture. Their colour, burnt in at high temperatures is absolutely permanent. Their superior strength saves on site breakage and maintenance. ACME tiles are available, with immediate delivery from stock, in a wide range of colours with fittings to match. Ask for the ACME catalogue, containing much valuable technical information.



Private Residence at Heswall.

### ACME clay roofing tiles

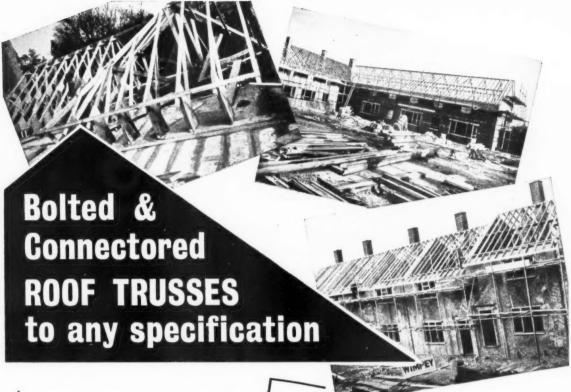
DOWNING'S range of roofing tiles includes:—

ACME M.M. ROOFING TILES
ACME SANDSTORM ROOFING TILES
ACME HAND-MADE SANDFACED & ACME REDFLOOR QUARRIES.

G. H. DOWNING & Co. Ltd. (Dept. C1), Box No. 3, BRAMPTON HILL, NEWCASTLE-UNDER-LYME, Staffs.

Telephone: Newcastle-under-Lyme 65381





Incorporation of prefabricated roof trusses in house construction saves labour and materials and gives the Architect freedom to plan the first floor independently of the ground floor. It gives the Builder the possibility of laying the floors and erecting the ceilings on the first floor in the ample uninterrupted area under the cover of a roof, before the partition walls are erected.

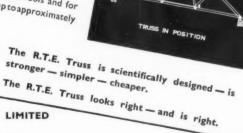
Roof trusses manufactured by Rainham Timber Engineering Co. Ltd. carry the guarantee of a precision built job, under strict factory supervision: connectors and splitrings are wholly and squarely embedded in the timber in the exact position specified; end distances are meticulously observed; quality is watched. The RTE built truss is competitive and good.

Rainham Timber Engineering Co. Ltd. manufacture any type of truss to specification and supply a sound engineering job for the purpose required. Ask them to estimate for your next contract.

RTE

# THE R.T.E. FOLDING ROOF TRUSS

designed by Rainham Timber Engineering Co. Ltd. shows many structural improvements over conventional truss design. In addition, it has the considerable advantage that it can be delivered to the site folded - yet requires only four simple movements and the insertion of two bolts in pre-drilled holes to transfer it into a rigid structure. The R.T.E. folding truss is suitable for all types of roof covering, for any pitch, for hipped and gabled roofs and for spans up to approximately 30 ft.



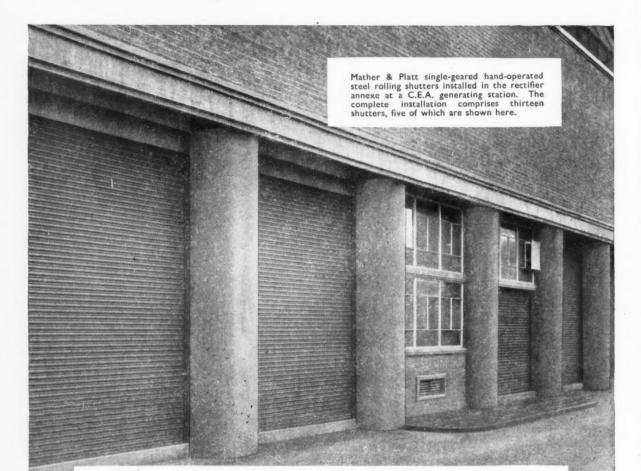
INFOLDING-TWO BOLTS TO INSERT.

#### RAINHAM TIMBER ENGINEERING COMPANY LIMITED

(Member of The Phoenix Timber Group)

FERRY LANE, RAINHAM, ESSEX. Telephones: Rainham 3311
Glued Laminated Timber, Bowstring Trusses, Bolted and Connectored Timber Trusses

TIR



HAND OPERATED OR ELECTRICALLY OPERATED

## STEEL ROLLING SHUTTERS

FOR ENTRANCES TO TRANSIT SHEDS, TRANSPORT DEPOTS GARAGES, POWER STATIONS, BOILER-HOUSES, WAREHOUSES, HANGARS AND NUMEROUS OTHER TYPES OF COMMERCIAL AND INDUSTRIAL PREMISES.

The high quality of materials and workmanship employed in the manufacture of Mather & Platt steel rolling shutters ensures reliability and long service, and the excellence of their design and construction is the result of practical engineering experience and continuous research during the firm's 150 years of existence.

Telephone: COLlyhurst 2321 Telegrams: Sprinkler, Manchester

Mather & Platt

PARK WORKS MANCHESTER 10

640



- I. PADDLING POOL
  Cementone NUMBER SEVEN Universal
  Decorative Finish.
- 2. HAGGERSTON CASTLE
  Cementone NUMBER SEVEN.
- 3. TILE SHED

  Cementone No. I Permanent Colours for Cement.
- 4. PEGSWOOD, LINTON & WOOD-HORN COLLIERIES Cementone NUMBER SEVEN.
- 5. BISHOPS MEADOWS
  Cementone No. 9 Waterproof Stoneface
  Composition.
- 6. NEWCASTLE UNITED FOOTBALL
  GROUND (Offices and Dressing
  Rooms)
  Cementone No. 1.
  SMITH'S CRISPS LTD.
  Cementone No. 1.
  MARTINS BANK
  Cementone No. 9.
- 7. SWIMMING POOL
  Cementone NUMBER SEVEN.
- 8. BARN CLOSE FLATS AND HOUSING ESTATE Cementone No. 1.
- 9. HOUSING ESTATE
- 10. CONSETT IRON CO. Cementone NUMBER SEVEN.
- II. SWIMMING POOL Cementone NUMBER SEVEN.
- 12. LLOYDS BANK Exelaero Wall Flat, Emulsion Paint.
- 13. SADLER STREET
  Cementone NUMBER SEVEN and Cementone
  No. 9.
  CARPET FACTORY
  Cementone NUMBER SEVEN.
- 14. MARKET PLACE
- 15. SECONDARY SCHOOL
- 16. JOHN COLLIER LTD., CLOTHING FACTORY
  Cementone No. 5 Concrete Floor Binder.
- 17. GLAXO LABORATORIES

  Cementone No. 10 Liquid Surface Tinter, and Presto Wax Polish.
- 18. HOUSING BLOCKS
- IP. STEPHENSON & HAWTHORNS LOCOMOTIVE WORKS Cementone NUMBER SEVEN.
- 20. BOOTS CHEMISTS LTD.
  Cementone NUMBER SEVEN.

# Cementone

Not only in the cities, but also in the smaller towns and villages, evidence can be found of the effectiveness of Cementone products. A cross-section of each in the Northumberland and Durham area is given in the map above.

Wherever the building contract, there is usually a place for one or other of the Cementone Range. Full details of all these products will be found in the Cementone Handbook, sent free on request.

JOSEPH FREEMAN, SONS & CO. LTD. CEMENTONE WORKS: WANDSWORTH: LONDON: S.W.18

Telephone: VANdyke 2432 (10 lines)

Telegrams: CEMENTONE, WESPHONE, LONDON





...say

...say

...say
Metal
Windows

-Rustproofed



ISSUED BY THE METAL WINDOW ASSOCIATION, BURWOOD HOUSE, CAXTON STREET, LONDON, S.W.1

# When only THE BEST is good enough



Bungalow for E.H. Herries, Esq., Edwalton, Nottingham. Builder: W.H. Herries, Carlton, Nottingham.



When the roof must be something much more than a simple weather shield, Tuckers authentic hand-made clay tiles may be relied upon to impart beauty and durability in full measure.

# TUCKERS "LOUGHBOROUGH" HAND-MADE CLAY ROOFING TILES

have that distinctive hand-made texture which cannot be reproduced by any other method. They are made from special clays by skilled craftsmen, correctly burned, rigorously sorted and GUARANTEED AGAINST LAMINATION.

Available in Red, Mottled Purple, Rustic Brown, Dun and Thatch colours, with Fittings to match. Black and other special shades to order. Size approximately 11in. by 7in.

AN ILLUSTRATED BROCHURE showing actual colours, or samples,

We have a permanent exhibit at THE BUILDING CENTRE, Store Street, Tottenham Court Road, London, W.C.I.

# G. TUCKER & SON LTD.

will gladly be sent upon request.

TUCKERS ROAD, LOUGHBOROUGH, LEICS. Also makers of high-class Facing Bricks.

Tel.: Loughborough 2446-7

Established in the year 1850

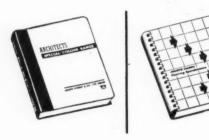
+ service

# TOOLS , FOR

#### ARCHITECTS

The patent self-acting pencil sharpener

We are told that this is made of only the finest materials, with machine-cut phosphor-bronze gears, self-oiling bushes and a 5-jewel double bearing pallet. Sharpening as it draws, the pencil is fed gradually downwards and finally discarded as a totally unusable stub, while the drawing board is covered with a litter of pencil dust, shavings and scraps of architect's or assistant's fingers. For export only. Home architects may prefer two unique tools readily available in book form - Joseph Mason Painting Specifications and The Architects' Special Colour Range. These are part of Joseph Mason's tangible service to Architects, including Initial Planning, Building Inspection, Advice on Site and Recommended Specifications.



Established architects are invited to apply on their official letter-headings for either of the above books.

MASOPAR Alkyd Enamels

MASOTEX Emulsion Paints

joseph mason paints

JOSEPH MASON AND COMPANY LIMITED DERBY

# G.E.C. specifies BILLING



Architects: G.E.C., WEMBLEY.

Vast enterprises have risen to pre-eminence through insistent concentration on one theme—" only the best is good enough."

It is natural therefore that The General Electric Co., Ltd., should choose the leaders in the field of roof covering to roof their new building at Ipswich.

"BITUMETAL" offers many advantages to Architects and Engineers. It combines in one unit, roof plus insulation plus ceiling—is thoroughly draught and dustproof and of neat and attractive appearance.

Briggs Advisory Service is ready to save your time—by providing Roofing Technicians to advise in the planning stage—preparing complete working drawings—and supervising contracts from inception to completion.

Ask our nearest Area Office for more information.

- Briggs 3 Layer Roofing with Green Mineral Cap Sheet.
- 2 in. Insulation Board.

INSULATION

CLEAT FIXING

METAL FLASHING

- "BITUMETAL" Aluminium Deck (corrosion free).
- Briggs Welted Roofing Drip.

  Bright reflective ceiling.

No maintenance.

# WILLIAM BRIGGS & SONS LTD.

VAUXHALL GROVE, LONDON S.W.8. REGD. OFFICE: DUNDEE
OFFICES AND DEPOTS ALSO AT ABERDEEN · BELFAST · DUBLIN · BRISTOL
EDINBURGH · GLASGOW · LEICESTER · LIVERPOOL · NORWICH



# **DOME VENTILATORS**

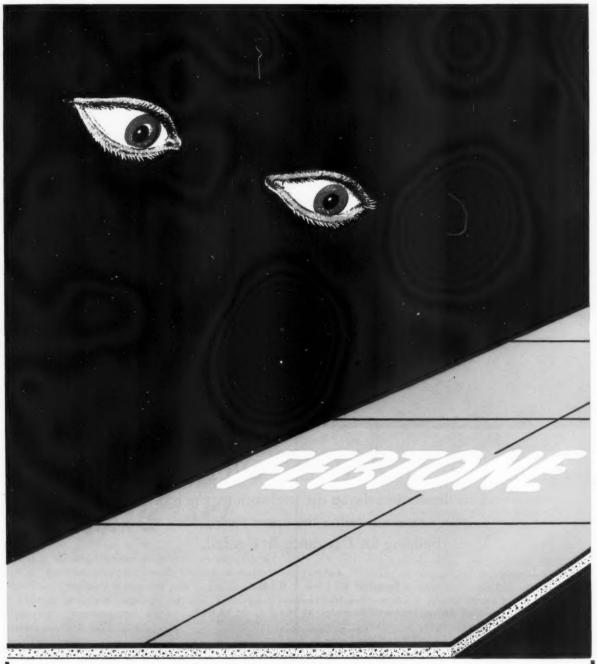
- Permanent or controlled ventilation
- For rectangular or circular domes in glass or perspex
- Increased lighting area over ordinary domelights
- All-steel construction, zinc sprayed
- Fully weathered external louvres
- Optional internal hit and miss shutters
- Unique toggle for hand or long arm control
- Designed for mounting on prepared concrete or timber curbs

Write for fully illustrated literature



# irvac ventilation

AIRVAC VENTILATING COMPA Patentees, Designers and Manufacturers of Ventilating Equipment and Electrical Conduit Systems CON HOUSE, MINGSWAY, LONDON, W.C.2. CHAncery 8135/6/7. 'Airvac', London



#### AN EYE FOR COLOUR

Wall renderings in attractive pastel shades and concrete floors in strong bright colours can be formed by mixing only 3 lb to 6 lb of FEBTONE with each one cwt. of cement

Febtone Super Permanent Colours for Cement also

Plasticise • Waterproof • Floor Harden and Rapid Harden cement and concrete work

THE COLOURING MATTER OF FEBTONE COMPLIES WITH BRITISH STANDARD 1014-1942 TYPE 2

Write now for the Febtone Shade Card

FEB

(GREAT BRITAIN) LTD.

ALBANY ROAD, CHORLTON-CUM-HARDY, MANCHESTER, 12 CHO 1063

102 KENSINGTON HIGH STREET, LONDON, W.8 Western 0444



# A FLAT-CAMBERED PORTAL ROOF

This illustration shows the steelwork for the roof of a canteen forming the upper storey of a building for Dewrance & Co. Ltd.

Architect:

Reginald W. Lone, F.R.I.B.A.

Consulting Engineers:

Hurst, Peirce & Malcolm, M M.I.C.E., M M.I.S.E.

General Contractors: John Laing & Son Ltd.

Steelwork for the whole building by

# DORMAN LONG

DORMAN LONG (Bridge & Engineering) LTD.

DORMAN LONG (Steel) LTD.

All steel
fabricated by us
is produced in
our own works and,
when required,
is erected in any part
of the world.



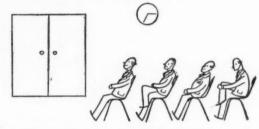


#### When it's time





for all good men to come to the party...



IT'S TIME TO UNSTACK THE

# LAMSTAK!

LAMSTAK is stacking furniture at its most attractive! It is made of moulded laminated wood, graceful in design, comfortable, immensely strong and easy to handle. Both the LAMSTAK chair and armchair can also be supplied

upholstered in furnishing fabric and the matching stackable dining table is available in two sizes, 48" x 27" and 30" x 30". LAMSTAK is the furniture you'll be glad you ordered!

Write today for brochure giving details of E.S.A. furniture to The Educational Supply Association Ltd., Esavian Works, Stevenage, Herts.Tel: Stevenage 500; or Esavian Works, Corfin, Lanarks. Tel: Holytown 391.

'Lamstak' Regd. Trade Mark



nd,

art

SPECIALISTS IN STACKABLE FURNITURE



THE ARCHITECTS' JOURNAL

No. 3226 Vol. 124 December 27, 1956

9-13 Queen Anne's Gate, London, S.W.1. Tel. WHI 0611.

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free 1s. 3d. Special numbers are included in Subscriptions; single copies, 2s.; post free, 2s. 3d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for 30s.; carriage, 1s. extra.

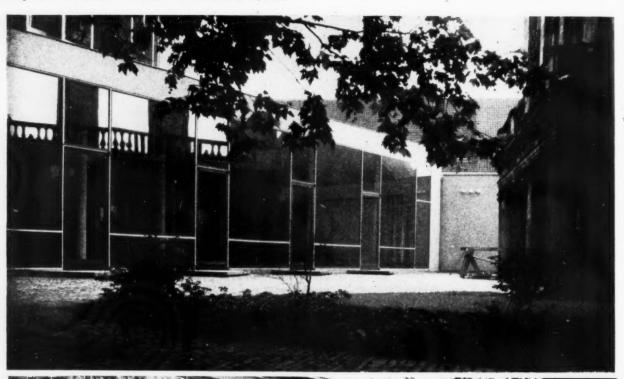
NOT QUITE ARCHITECTURE

### KIRK DOUGLAS— R.A.

The cinema's long devotion to the lives of famous painters has provided the Goon Show with a good deal of hilarious fun from time to time, but their most recent side-swipe at the field, quoted in the title-line above is the first time they have sent up such a film before its premiére. Lust for Life, in which Kirk Douglas plays Vincent van Gogh, has still been seen by limited audiences only, at the Edinburgh Festival, and in MGM's private basement in St. James's, but even without having seen the film, one could see why the Goons couldn't wait.

Van Gogh, when you stop and think about it, is probably the most widelyknown painter the last century produced. Everybody knows those blasted sunflowers; everybody knows about the ear. Far more people than you would expect (but not the distinguished Sunday Paper critic who sat near me when I finally got to see it) know that he was a minister's son, that he went mad, that Gauguin was something to do with it, that he had a devoted brother, and finally shot himself. Through innumerable magazine articles cribbed from Irving Stone's book (on which the film is based) he has achieved a position in the popular arts equal to that of Hamlet in the fine arts-the mythological archetype of the poor twisted sensitive boy. His legend is psychological dynamite, to be handled with kid gloves.

And then to cast Kirk Douglas in the part—Douglas whom I last saw playing a whalebone guitar to a drunken seal in





## Architectural Aide-Memoire

The Germans, in rebuilding their bombed cities, have occasionally skilfully included in their new buildings a fragment of an old one. These photographs were taken by Ian McCallum, the executive editor of the Architectural Review, during a recent tour of Germany, a tour on which he commented in a Third Programme talk last week. Top, the first floor, open-air promenade of Münster's new

municipal theatre (architects: Deilmann, von Hausen, Rave and Ruhnau) showing on the left the foyer, and, on the right, the rear façade of a bombed 18th century theatre. Above, the new offices of the Town-planning Department of Hanover, designed by City Architect Wierschke, which incorporates a stone arch, complete with a familiar royal coat of arms, as a main entrance.

the si much enou Holly migh facts is to his r of th Doug Mine own is po Quin Gaug logue write the (

film.

been phys here that play or fa the g tootl way floor

> All rest sumi quel slut-Lust Hus and Lau

ahea of th virg with with Aub with Moi Har

nun can Skie Wh the submarine Nautilus-that seemed too much. The pity is that, really it is not enough. The film is not the monumental Hollywood rewriting of history that you might expect, if anything it labours the facts too hard; Kirk Douglas's make-up is too much like the late self-portraits; his running stoop too close to the stance of the figures in Vincent's landscapes; Douglas and his producer, Vincente Minelli, fail to recreate van Gogh in their own imagery. What they might have done is pointed up, all too clearly, by Anthony Quinn's uninhibited performance as Gauguin (and also the uninhibited dialogue provided for him by the script writers), and the sequences in and around the Gauguin context are the best of the

In them one sees how things might have been. Here history is almost purely physical, the sun, the mistral, the brothels, the fights with Gauguin, the ear-and here Douglas and van Gogh are one, in that kind of absorption of part into player that justifies the star-system. The ear scene-by which the film will stand or fall on circuit-is entirely convincing, the grovellings in front of the mirror, the toothsome snarls (out of Rashomon by way of Vera Cruz), the howl from the floor, the bloody handsmears on the wall.

All that is for real, as they say, but the rest of the film is so busy falling between the stools of culture and entertainmentsummed up by Pamela Brown grotesquely miscast as the world's most unlikely slut-that there seems little chance of Lust for Life, Minelli and Douglas doing for van Gogh what Moulin Rouge, Huston and Ferrer did so handsomely and so permanently for Toulouse-Lautrec.

Never mind, the prospect that stretches ahead is almost unlimited, only the edges of the field have been trampled, acres of virgin corn remain. We can look forward with sober optimism, I hope, to The Man with the Golden Pen, with Sinatra as Aubrey Beardsley; The Kelmscaott Story with James Robertson Justice as William Morris; Son of Camille, with Lawrence Harvey as Lucien Pisarro; and others too numerous to mention-except one that I can hardly wait for, When there are Grey Skies, with Margaret Rutherford as Whistler's Mother.

REYNER BANHAM

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

Cotterell Butler, A.R.I.B.A. (5) Editorial Director, H. de C. Hastings.

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

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

ASSISTANT EDITORS: (18) Chief Assistant Editor, Kenneth J. Robinson. (19) Assistant Editor (Buildings), L. F. R. Jones. (20) Assistant Editor (Production), W. Slack. (21) Assistant Editor (Information Sheets), V. A. Groom. (22) Assistant Editor (Costs). J. Carter, A.R.I.B.A. (23) Photographic Department, H. de Burgh Galwey, W. J. Toomey. (24) Editorial Secretary, Monica Craire

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

#### The Editors

#### THE NEW-STYLE PRICES

THIS week we are presenting "Measured Rates and Market Prices" in a new way. Instead of publishing the quarterly rates and prices in different issues we are combining them from now on. This, we hope, will enable you to make a more realistic application of prices to your own problems. Our new method is to show an overall rate, say 12s. 3d. per yard super for a partition, with the price of the materials only, shown below it, in italic type. By deducting one from the other, and by making allowance for overheads and profit (explained on page 942) each rate can be split into its main components: materials, labour, and overheads with profit. Thus in making use of these rates for estimating or price checking, adjustments can readily be made for local variations or the particular circumstances of the job.

We are asking the compilers of these prices to try to keep them up to date with modern technical developments. Thus you will find a number of new items in this issue, among them machine excavation, piling, pitch fibre pipes and roof deckings. We hope that more items can be added later.

We made these improvements (and brought the typography up to date) to provide a more useful tool for the growing number af cost-conscious architects and quantity surveyors.

#### QUALITY CONTROL OF MATERIALS

The Scientific Branch of the LCC's Public Health Department reckons that since the LCC uses over half a million gallons of paint a year, the money the Branch saves on paint alone more than pays the salaries of the 26 B.Sc.'s, their 28 helpers and their five typists- and we can well believe it. During the past year they carried out tests on 176 brands of paint. Half of these they passed and half they rejected. It must be admitted that the standard set was high (for hard gloss "Grade A" paints, for instance, 6-7 years for exterior use); also that the overwhelming proportion of paint failures on the job are caused not by faulty materials but by mistakes in putting them Nevertheless, this result goes to show how much the profession and the nation would stand to gain by a systematic quality control of building materials and how much in fact both squander annually through the lack of it.



SIR GILES AND ST. PAUL'S

The St. Paul's precinct is likely to be the architectural cause célèbre of the present Government. Duncan Sandys' "compiled" scheme has not been exposed to the world (we may never see it), but we can, perhaps, get some idea of it from the scheme which Sir Giles Gilbert Scott has proposed (see page 924), for this scheme has that "opened up" look and formal west end piazza which we have been led to look for.

It could not be more different from Sir William Holford's scheme. William accepts the historical setting of St. Paul's, its non-alignment, its intricate visual involvement with its surroundings, the effectiveness of its parts, particularly the superb western towers, and the defects of the whole at close quarters; the utterly unsatisfactory western view (to which Wren avoided a direct approach both by bringing round his piazza, and by placing a baptistry in front of it). Sir Giles believes in being up to date. All this historical stuff and nonsense has been thrown overboard and Wren's cathedral which has always sprung so full and boldly from its city has been freed to deflate in a sort of municipal garden-cum-carpark scattered with somewhat trivial colonnaded thingamebobs. The west end, which both Sir William and Sir Christopher appear to have found un-

satisfactory, has been exposed in all its failure.

The Holford scheme not only has commerce and reason on its side, but also authority and history-an unusual combination. Those who, like the Minister, still hanker after a monumental approach should remember Via Della Consiliazione. Bernini closed that vista-at least on paper-but Mussolini opened it up, and long after his political career has been dismissed as amiably eccentric, this utterly dreary approach to St. Peter's will bring curses on his memory. Even if Mr. Sandys wished to emulate Il Duce (architecturally speaking, of course) he should remember that the time for such grandiosity is not now and the place not London.

#### A USELESS EXHIBITION

Don't let the pretty pictures of Czech buildings published in last week's JOURNAL deceive you: the exhibition of Czech Architectural Treasures is one of the most useless displays the RIBA has ever suffered from. If England's few surviving fellow-travellers will read on, I will explain that the word "useless" is here used in an exact sense, and not as a political flourish. This is an exhibition of historical architecture, held in what is (for better or worse) the nerve-centre of expert architectural opinion in England, and the centre of studies into the history of architecture. Why, then, are there (a) no plans of the buildings shown, and (b) no dates of buildings given in the catalogue, alongside the illustrations, or anywhere else. (The only date given is that of a battle in 1621.)

Nor are the exhibits numbered: you locate them by identifying in the catalogue the piece of socio-historical prose they most nearly adjoin, and then see which of the accompanying descriptions most nearly fits. This set of picture-postcard views is suitable for displaying in a travel agency, or to some other non-expert audience. If the exhibition is to stay in the RIBA then it would be no more than courtesy to stick some numbers on the screens and overprint some dates in the catalogue -and these dates do matter when arguable statements like "the Italian Renaissance style . . . appears earlier in

Bohemia than in other trans-Alpine countries" are being made in cold print.

#### THE BIRTH OF FRAMED STRUCTURE

Do you know the origins of modern steel-framed construction? ASTRAGAL confesses that he, for one, did not until he heard an exceptionally interesting paper read some days ago to the Newcomen Society at the Civils' HQ in The paper, prepared by architect H. R. Johnson, Planning Officer at Sheffield University, and engineer A. W. Skempton of BRS and world authority on soil mechanics, was read in a pleasantly informal way by Professor Skempton. It had the rather ponderous title "William Strutt's Fireproof and Iron-framed buildings, 1793-1812." But the talk was far from ponderous and proved to be historically important.

Modern framed structure owes its origin to William Strutt, F.R.S. (1756-1830), son of Jedediah Strutt, an early cotton king and partner of the more famous Richard Arkwright. owners were suffering heavy losses by fires, usually caused by friction in inadequately greased bearings, which spread rapidly through the inflammable piles of cotton and the traditional timber floors. So in 1792-3 William Strutt designed and erected the first fire-proof "mill" in Derby. Six storeys high, it had outer walls of brick and two rows of iron columns on each floor inside supporting timber beams spanning nine feet from which sprang brick vaults carrying an infilling of sand and a brick tile floor. The ceiling of the top floor was not of brickwork but of hollow clay pots. Unfortunately, this building was demolished some 80 years ago.

Strutt then built two other mills on the same principle, one at Milford in 1793 and the other at Belper in 1795, both of which stand almost in their pristine forms. Up till now it has been supposed that the beams were of iron and that these early Strutt jobs were the first complete iron-framed, multistorey structures in the world, but Skempton and Johnson, by removing part of the plaster covering, found the beams to be of timber. The first complete multi-storey, iron-framed structure was developed from the example of the storey in 179 Strutt colum iron earlie duced frame the s

credit

revol

The trans and I Profe articl tectu

NEW

Wh

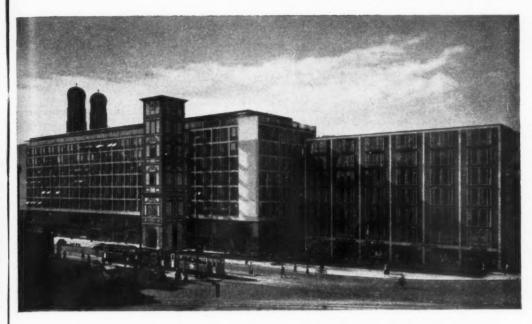
prop Hote toucl and agair that well. both Wha level they

> Th Reg feati

prob

fail

publ



Left, another example recorded by Ian Mc-Callum (see page 918) of an historic fragment incorporated with a modern building. The early 17th century campanile in the fore-ground is all that remains of the Prince-Max Burg, in Munich This former castle has been rebuilt as offices for the Bavarian Ministry of the Interior. and includes shops and restaurants on the ground floor. The design, by Professor Settruff, has been carefully related in colour and detail with the black, white, and grey elements of the original building.

of these early Strutt buildings in a fivestorey flax mill at Shrewsbury erected in 1797 by Charles Bage, a friend of Strutt. Here the beams as well as columns were for the first time of castiron. "Thus," the paper reads, "the earliest iron-framed building was produced from which the modern steelframed structures have evolved." All the same, it is still to Strutt that the credit must go for initiating a major revolution in the history of structure.

The paper will be published in the transactions of the Newcomen Society and I hear also that Mr. Johnson and Professor Skempton have promised an article on their subject for the Architectural Review.

#### NEW ZEALAND HOUSE

g

n

5.

ir

n

n

e

i-

ıt

g

le

What the New Zealand Government propose to do on the site of the Carlton Hotel is a problem which has been touched on before in these columns, and would not have been touched on again for the moment, but for the fact that it was touched on by the BBC, as well, on two successive nights, and on both occasions by J. M. Richards. What interested ASTRAGAL was the levels at which it was touched, since they indicate also the level at which problems of town planning, and so on, fail to communicate to the general public.

The first approach was on London Region's *Town and Country* magazine feature, where Richards and Osbert Lancaster had a gentlemanly set-to about the fate of the Carlton; the second was in the Third Programme's Comment, where it was primarily the town-planning issues that were at stake. Now this is a rather depressing microcosm of what happens to planning problems generally: Preservationist obstruction at parish-pump level (and Town and Country gets more parochial with every successive issue) and intelligent discussion only at the level of the specialist intellectual stratosphere of the Third and the Observer-and nothing in between. Yet, clearly, any alteration to the appearance of the Piccadilly-St. James area is neither a parochial, nor a specialist affair-it affects the tourist's London, the Royalist's London, the plain pleasure-seeker's London, the London the provincial visitor actually visits. But this issue doesn't yet appear to have invaded What's On, or Tanfield's Diary, or People Are Talking About (in spite of the fact that the tower will be visible from Prunier's). It looks as if the Ian Nairns of this world still have a big job to do in persuading people to "wake up in the middle there! "

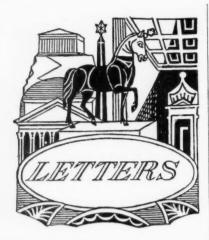
#### THE NEW ARK

ARK, that Royal College venture that started off looking like a student exercise in magazine typography, and in 17 issues, in spite of regular changes of editorial staff, has built itself up into an art magazine of world standing, has celebrated the fact by changing to a

larger page size, and a larger total print area for its 18th issue. The result looks just like a student exercise in magazine typography, but only by comparison with the last three or four issues, which had built up a body of editorial sophistication so slick that one tended to forget that it was only a student effort after all.

However, the lee-way should not take long to make up; the new management is punchy and clearly has lively ideas. In the 18th issue, the Smithsons lie cheek-by-jowl with Ivon Hitchens, the main book review concerns A Pictorial History of Jazz, there is Basil Taylor on televised cricket (well worth reading), a piece of very typical orthodox - constructivist art theory, followed by an equally typical but highly unorthodox piece on Action Painting by Robert Melville. And there is a heavily-slanted essay in technician-baiting (Bernard - Myers on aircraft form) that seems to be part of the new school of design criticism which was founded by Bruce Archer in Design, whose prize ploy is to imply, or say aloud, that engineers are not only hidebound (which we all knew anyhow) but also either lazy, ignorant or both. This particular example of the New Criticism is not as extreme as that, but it does imply quite clearly that American and Russian aircraft are not designed aerodynamically, which seems a pretty close call to saying their designers are incompetent.

ASTRAGAL



Dr. W. Davidson, of Radiation Group Sales Ltd. John K. Wearing, A.R.I.B.A.

Frederick Hill, F.R.I.B.A.

Wm. T. Glare, A.R.I.B.A.

W. F. Young, F.R.I.C.S.

#### Heating Costs

SIR,—I was most interested to read the article contributed by Baden Hellard and Mr. Playle in the JOURNAL for December 5. They have made the only true approach of heating costs by taking into account the costs of the equipment, plus installation, maintenance and fuel over a period of

25 years.

The article stimulates thought and calls for comment and I hope the authors will the authors will be a points. consider the following criticisms, on points

of detail, to be constructive.

It is, I agree, permissible and indeed desir-It is, I agree, permissible and indeed desirable to compare systems giving different standards of comfort so that the client may decide which standard of heating he can afford both from the aspect of capital and operating cost. He will normally expect to pay more for the system giving full comfort throughout than for the one giving full beating to the living recover and call to the heating to the living rooms and only a little background heating to the remainder of the background heating to the remainder of the house. I would suggest, however, that it is important to present to him clearly the variation of the heating standards to be expected. Schemes 2 and 4 give much higher comfort standards than the others and I would suggest that in addition to the costs for these higher standards, costs should also be given for the lower heating stanequivalent those to given Schemes 1 and 3.

For example, in Scheme 2 the fuel consumption for space plus water heating is taken as 5½ tons. Actually, using not more than 4½ to 5 tons it would be possible to heat the whole house to 55/60° F. at all times and to maintain the living room at 67° F. for eight hours per day, the bedrooms at 65° F. for four hours per day and in addition to provide 250 gallons per week of water at 140° F. at the tap.

With the other systems examined no heat is allowed for in the bedrooms except that provided by spill-over. Again, for Scheme 3 no direct heating is provided in the sitting area although an electric panel fire is shown, and it is very doubtful whether the system used will give full comfort temperatures in the sitting area by spill-over from the dining area. For example, in Scheme 2 the fuel con-

from the dining area.

It should be appreciated that with the Radiation warm-air system (Scheme 2) the heating may be easily shut off from the bedrooms by closing the warm air registers. In this case a heating standard at least equal to that given by Schemes 1 and 3 would be obtained and the fuel consumption would be no more than 34 to 4 tons per

one further point, for Scheme 2, a sum of £52 is included for partitioning forming a "focus point." This appears to be rather costly for such a feature and experience shows that an increasing number of people are finding no need for a focus point in a room which is heated to full comfort standard. The television set will, of course, play its part in this respect.

I do hope that the authors will consider these comments in their further studies

of total costs. London.

W. DAVIDSON.

B. Hellard writes in reply: It is admittedly a matter of opinion whether a focus point is required, but in this case it was required and the rather high costs given in Dr. Davidson's letter are common to both treatments, which will be appreciated from the sketches. Sketch (a) relates



Sketch A

to Schemes 2, 3 and 5 which do not have living-room fireplaces. Sketch (b) relates to the remainder. With regard to the potential output of Scheme 3 we have used this system on a larger house with similar standards of insulation and it has proved quite adequate.



Sketch B

SIR,-I was most interested in the comparisons of the heating systems having recently completed a factory and a bungalow using the Pyrotenax Heating cable; it would appear necessary, however, to add to the "other builder's work, etc." an item in respect of a solid first floor instead of a joisted floor—or are all the first floors and also an item for better quality wood block flooring (presumed used to part of ground floor) together with an increase in the cost of the mastic used whatever type of floor finish is provided. There is also an additional sum required for drying out costs—again, assuming wood blocks are laid to at least part of the floor; 1d. per hour per kW adds up over a four to five-week drying out period.

JOHN K. WEARING.

Surrey

R. B. Hellard writes: the first floor was a R. B. Hellard writes: the first floor was a normal timber joist with wood flooring and a heating cable was not used in this element of the structure. The only heating provided to the upper floor is background heating by natural upward flow of warm air from the ground floor, but since the building is an "open" plan this would be quite considerable and perfectly adequate if well insulated at first floor ceiling level. On the question of floor finish the client required a wood block floor but had the floor heating system. block floor, but had the floor heating system been provided this would have been substi-tuted by the much better material now available for use in this context. A resin-bonded able for use in this context. A resin-bonded sand tile, with a 4-mm. hardwood veneer finish, which is on the market, would have reduced the cost of the floor finish since it could be laid and polished at a cost of about 7/6 YS less than \(\frac{\x}{8}\cdot\)-in. or \(\frac{\x}{8}\cdot\)-in. block flooring of the same hardwood, which would require a finished screed and mastic bed. The veneer-finished tile would not shrink and would, in fact, increase the efficiency of the heating system by a reduction in the resistance to the upward heat flow—thinner timber—and increase the thermal storage of timber-and increase the thermal storage of timber—and increase the thermal storage of the floor. Drying out costs for the whole structure in the early days of occupation would certainly consume more electricity but it is thought that this drying-out proce-dure and extra cost would be common to all systems and would not amount to more than a very few pounds on any of them.

#### What To Do With Your Cigars

SIR,—Ever since commencing practice I have received many presents at Christmas from builders and others. Apart from keeping advertising matter such as scales, diaries and the like I always return anything larger, from a box of cigarettes upwards. That is how I was taught to behave. I find, however, that I appear to be almost alone in this respect and that even some of the most promisent pages in the profession.

the most prominent names in the profession

are said to accept quite expensive gifts.

As I am beginning to feel that my ethics are a little old-fashioned I should like to know your readers' views FREDERICK HILL.

Birmingham.

#### Poor Handles

SIR,—It is true, as you say (AJ: December 6, page 834) that "door handles do not normally receive enough attention" and that their design is generally poor.

Surely the handles illustrated in this issue

are just one more example. Is not fitness for purpose the first essential of good design, without which quality, colour and decoration are useless?

WM. T. GLARE.

Leamington.

#### Why Does Astragal Use "Lavatory Pan"?

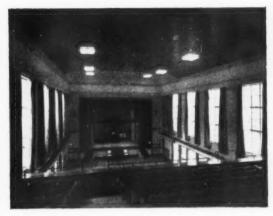
SIR,-I notice that ASTRAGAL uses the SIR.—I notice that ASTRAGAL uses the quaint term "lavatory pan" in the JOURNAL for December 6 (page 813). I am of course well acquainted with the terms "lavatory basin" and "W.C. pan," but it may be that ASTRAGAL has discovered in Algeria a new hybrid fitting which solves the washingup problem. W. F. YOUNG.

London.









Eighteen months ago the University College of North Staffs was criticised in the Press and by ASTRAGAL for putting up some rather dreary buildings to no kind of a master plan. The latter criticism can now be refuted, as ASTRAGAL learns that Some rather areary buildings to no kind of a master plan. The latter criticism can now be reflaced, as research some 500 acres and Provides ideal conditions for the university of the future"—to quote from a pamphlet which the university has issued. This pamphlet is concerned with an appeal for £500,000 for the university to enable it to build a college chapel, student residences, a library, and to complete the science laboratories. In addition to a development plan by Sir Howard, a landscape plan has been prepared by Mrs. S. M. Haywood. The illustrations above show two buildings recently completed, which were designed by the university's staff architect J. A. Pickavance. Right, the interior and exterior of the conference hall, which was finished last November; and left, the exterior, and a typical room, of the women's hall of residence. The preliminary work on the development plan of the university, which is now in the hands of Sir Howard Robertson, was carried out by J. A. Pickavance, in consultation with J. R. Piggott, the Stoke city architect.



d

n V 11 re

m

es,

pof on

22

to

nd

od nd

he AL

rse

a

ng-

Hungarian architects and students who have come to this country as refugees are creating come to this country as refugees are creating problems which the RIBA is asking the profession to solve. Anyone who can offer a refugee hospitality at Christmas or board and lodging for a longer period should get in touch with the RIBA secretary, C. D. Spragg, at 66, Portland Place, W.1. Offers of temporary or permanent employment should also be sent to Mr. Spragg. should also be sent to Mr. Spragg.

The RIBA dinner will be held at the Dor-chester on February 27. Tickets, at 35s, each, will exclude wines but will include speeches by Duncan Sandys, Minister of Housing and Local Government, and Sir John Cockcroft.

Free technical services offered by contractors in connection with housing and other standard buildings were considered recently by the RIBA Council. The Council is telling local authorities that "the cost of such professional services must necessarily form part the overall cost of the project would also be without any safeguard of independent advice as would be secured by the client from his private architects, or the official architect in the case of a local authority client." Allied societies should report any cases of such offers to the RIBA.

What is the effect on building of the credit squeeze? Members of the RIBA Council have been asked to help the Minister of Works, through the National Consultative Council, to answer this question. They are to "report confidentially on the trend of activity in the building industry in their areas as indicated by the level of work in their offices. their offices.

300 miles a month is not enough for architects, says the RIBA Council. Representa-tion to the Ministry of Fuel and Power is being made through the National Con-sultative Council of the Building and Tool Engineering Industries.

Classical Chinese Architecture may be among the subjects of future exhibitions at the RIBA.

Architectural Treasures of Czechoslovakia, exhibition at the RIBA, 66, Portland Place, 10 a.m.—7 p.m. Admission free.
UNTIL DECEMBER 28

Decorative Curtains and Wall-hangings in Appliqué. Exhibition by Gerald Holtom. At the BC, 26, Store Street, W.1.

DECEMBER 27 TO JANUARY 8

London's Changing Skyline. Talk by Sir Howard Robertson, at the R.I.C.S. (Janin Organisation), 12, Great George Street, Organisation), S.W.1. 6.15 p.m.

JANUARY 3

The Heating of Buildings by Warm Air. By Dr. W. Davidson. At RICS, 12, Great George Street, S.W.1. 5.45 p.m. JANUARY 7

Lighting as an Effective Aid to Architecture, By H. R. Buff, H. E. Bellchambers and R. V. Mills. At IES, 2, Savoy Hill. JANUARY 8

Futurism and Modern Architecture. Reyner Banham. At RIBA, 66, Portland Place, W.1. 6 p.m. JANUARY 8 DOES

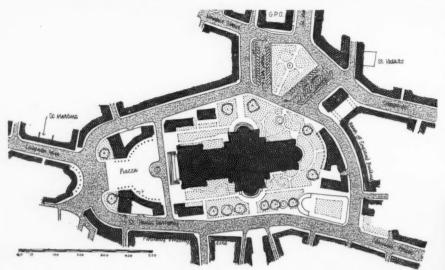
#### ARCHITECIS SOURNAL for December 27, 1930

MR. SANDYS

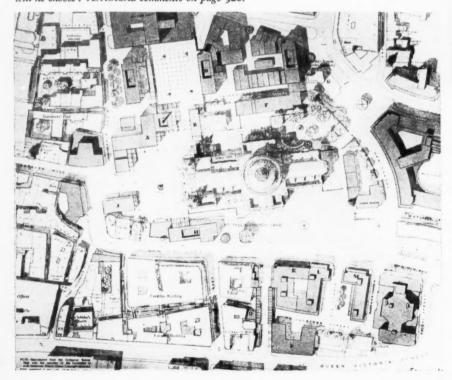
WANT

THE

HOLFORD



Sir William Holford's scheme for the planning and architectural treatment of the area around St. Paul's Cathedral (plan and photograph, below and right) has now been amended slightly by the Improvements and Town Planning Committee of the Court of Common Council of the City of London. As a result the LCC will be asked to make certain amendments to the County of London Development Plan, and the amended scheme will ultimately go before Duncan Sandys, the Minister of Town and Country Planning. Will the Minister accept even an amended version of the Holford scheme, which he is known to have no great regard for? Or will he press for a scheme on the lines of the one he himself submitted to the Royal Fine Art Commission and the City. More than a dozen architects advised Mr. Sandys on this scheme, and one of them is Sir Giles Gilbert Scott, whose own proposals for the St. Paul's area are shown in the plan above and the sketches opposite. This is the sort of thing Mr. Sandys is known to prefer. Which scheme will he choose? Astragal comments on page 920.



This is what Sir Giles Gilbert Scott has to say about his own scheme for St. Paul's (plan left, sketches on opposite page): "St. Paul's is designed in a style of architecture that has one very strong characteristic, viz.: symmetry around a main axis; the present fashion in architecture has an equally strong and opposite characteristics,

SCHEME



viz: asymmetry. Wren left a complete plan for the precincts, and detailed designs for the buildings forming precincts showing, as one would expect, a very formal layout. I have kept to Wren's plan at the West end, with its segmental Piazza, and also the height and scale of his buildings and the width of the entrance. His Deanery which exists is worked in as part of the Composition, and his Chapter House is retained. At important services in the Cathedral Royalty and

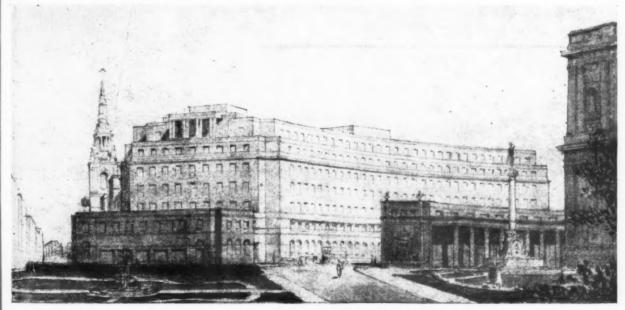
#### OR SOMETHING MORE LIKE THIS?



others could, if the weather is fine, alight at the entrance to the Piazza and form a procession to the West doors, through a guard of honour and the general public. For wet weather a road is provided to enable them to alight near the West doors.

"Personally I feel that the buildings forming the Piazza and the low building near the Apse at the other end of the

Cathedral, should be in the style of the Cathedral so that the transition from the formal classical style of the Cathedral to the informal office buildings around should be less violent than that shown in Sir William's model. Although classical in style and planning, the effect, with the modern office buildings showing beyond is not, I venture to think, unpicturesque."



Approval in principle has been given by the LCC Parks and Town Planning Committees to the proposed underground car park in Finsbury Square, E.C.2. The scheme is being promoted by Lex Garages Ltd. in co-operation with the Finsbury Borough Council, and the architects

are Shingler and Risdon; assistant-in-charge, John H. White. Finsbury Square is a particularly suitable choice for an underground park since the centre of the square is at present entirely derelict and contains no trees, whose roots would be disturbed by the excavations. Permission

#### SOUARE, LONDON, E.C.2

Y

has been granted for the demolition of air raid shelters in the square, since the car park would provide an admirable shelter in itself. The site is bounded on all four sides by traffic roads and it is hoped that this park will halt 350 cars entering the City from the north. Four ramps will be used from ground level to basement for entrance and exit of vehicles, and staircases will be provided for

pedestrians. Two petrol stations will be situated to the east and west of the square for through traffic or for car-parking customers. As shown in the foreground of the model photograph opposite, there will be a bowling green, a tennis court, changing rooms, cloakrooms, a café, a central paved area covered by a pergola and an informal garden. The car park, the upper half of the model, will be constructed of reinforced concrete columns and beams and r.c. slabs and ramps. The small buildings above ground will be of load-bearing brickwork, with timber



Section A-A

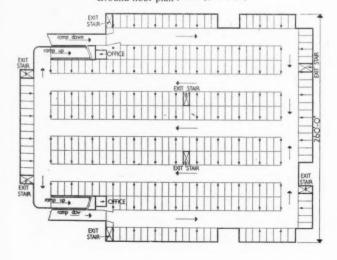
OF THE POWER TRANS

ATTROCT

CAR PRINT

CA

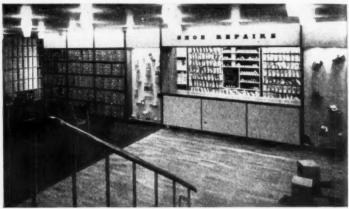
Ground floor plan [Scale: 01," = 1' 0"]



roofs and panel in-fillings. The light concrete canopies and screens of the entrance ramps will merge in with the small ancillary buildings. Recesses in the basement structure will allow for the planting of large trees. It is proposed to plant London planes and to give them the opportunity to attain normal size and strength. The estimated cost of the scheme is approximately £250,000, which is £714 per parking space, but includes buildings and site layout. The estimated cost of the first "Rotapark," designed by the same architects and illustrated in the JOURNAL for November 8, 1956, is £200,000. The same number of cars are accommodated at £500 per space.

#### SHOE SHOP AT BRIGGATE, LEEDS, YORKSHIRE







New premises in Briggate, Leeds, have recently been designed by T. H. M. Partners for William Timpson Ltd. This shoe shop is one of the largest of the client's 250 branches, and occupies three floors of a building designed by J. G. L. Poulson. Above left, the street facade, which has a sloping window on the first floor to avoid reflection and to allow a clear view of the women's department. At one end of this department is a large screen (left) faced with mirror glass and concealing storage space. Above, the children's department; in the background is the repair counter which is in the basement. Below, a general view of the children's department. The mural is based on the game of snakes-and-ladders.



#### HOSPITAL EXTENSION

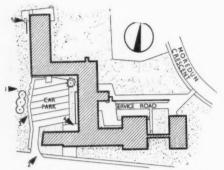
at WESTERN GENERAL HOSPITAL, EDINBURGH, for the South-Eastern Regional Hospital Board designed by John Holt, architect-in-charge WILLIAM WELLWOOD assistants J. WATSON, G. STEPHEN, J. LAING; consultants (structural) BLYTH and BLYTH (heating and electrical) DONALD SMITH, SEYMOUR and ROOLEY; X-ray division.

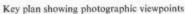
Department of Health for Scotland; quantity surveyors JAMES GENTLES and SON

This new building for the Department of Radiotherapy was the most urgently required of several proposed extensions (seen in the model photograph on page 930) to the Western General Hospital in Edinburgh. Although a comparatively small development, this building is significant in Scotland for its successful use of indigenous materials, slate and stone, within the grammar of the modern idiom. Financial restrictions unfortunately prevented the architect from realising some objectives, e.g. complete double-glazing, aluminium window frames, and embedded coil floor heating.

Viewpoint 1: looking along the south face of the east-west ward block.





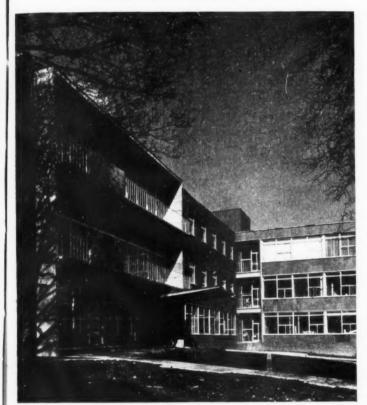




Above right: this model photograph, from the south-west, shows the proposed development of the Western General Hospital. The buildings are, extreme left, staff dining rooms and kitchens; left background, existing nurses' home; centre, main multi-storey ward block (to replace existing building); foreground, operating theatres; right foreground, outpatients, casualty and x-ray departments; right background,

radiotherapy department, illustrated in this article. Viewpoint 2 (below): looking north-east towards the southern end of the main ward block. The gable wall here is finished with stone facing slabs. The tank room structure on the roof incorporates a day room for patients. The boxed-out ground floor window on the left, fitted with venetian blinds, is to the medical staffroom.





nt

ne

nd

he

#### HOSPITAL EXTENSION

at WESTERN GENERAL HOSPITAL, EDINBURGH designed by JOHN HOLT

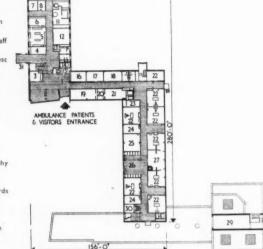
Viewpoint 3 (left): the main courtyard formed by the z-shaped plan. This area is used as a car park and the entrance on the left is for ambulance patients and visitors. Viewpoint 4 (below left): west side of south stair. The spandrel panels are faced with Westmorland slate slabs, and lower walls are finished in plum coloured Dunbrik. Viewpoint 5 (below): escape stair at the north-west corner of the north block. Note single supporting column (pre-stressed). Although the stair is some way out from the building face the landings are cantilevered from the floor slab and support the inclined beams which form the stairway—also being stiffened somewhat in this way.



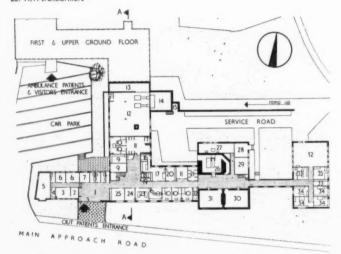


#### Key to ground floor

- I. Entrance hall
- Secretary
- Professors' room Still room
- Medical staff room
- Medical study room
- Sisters' room 8. Radiographers' staff room
- Haematological test room
- 10. Examination room 11. Patients' waiting
- 12. Boiler room
- 13. Air-conditioning chamber
- Coal storage
- 15. Ash birs
- 16. Dark room
- Clinical photography
- 18. Bed life
- 19. Services
- 20. Planning and records
- 21. Changing cubicles
- 22. Linen store
- 23. Radiographic room
- Female staff room 25 Reception and
- enquiries Linear accelerator
- Machine room
- 28. H.T. transformers



First and upper ground floor plan



- 29. L.T. transformers
- 30. 2-million-volt room
- 31. 2-million-volt room
- 32. Physics workshops 33. Store
- 34. Physicists' laboratory
- 35. Drawing office

Ground floor plan [Scale: "" = 1' 0"]

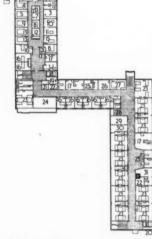


Outpatients' entrance hall. Note mushroom topped column at entrance doors: this column was eccentrically disposed in plan and so designed as to obviate beams in acsthetically compromising positions.

Key to upper ground and first floor:

- I Engrance hall
- 2. Waiting area
- Porter
- X-ray equipment store 5. Library
- 6. Linen repair room
- and store 7. Emergency batteries
- 8. Oxygen store 9. Air-conditioning
- plant 10 Domestic staff room
- 11. Radium working room
- 12. Telephone exchange
- 13. Store
- 14. Bed lift
- 15. Housemaids' closet
- 16. Isotope laboratory
- 17. Radiographers' staff room
- 18. Lecture room
- 19. Patients' dining room 20. Servery
- 21. Patients' dining room
- 22. Treatment room
- 23. Sister
- 24. Planning room
- 25. Examination
- 26. Patients' waiting
- area
- 27. Generators
- Trolley parking area 28. 29. Ventilation plant
- room
- 30. Equipment store Link with existing hospital





Third floor plan

Key to second floor: Operating theatre

- Scrub-up 3. Surgeons' changing room
- Dirty wash-up
- Autoclave
- Sterilizing room
- Dark room
- Sisters' and nurses'
- changing room Anaesthetic room
- 10. Recovery and preparation
- 11. Radium and X-ray
- mould room 12. Four-bed ward
- 13. Kitchen
- 14. Utility room
- 15. Bed lift
- Hou emaids' closet 17. Services
- 18. Store
- 19. Store
- 20. Patients' day room 21. Single-bed ward
- 22. Nurses' station
- 23. Doctors' room
- 24. Waiting space 25. Day room
- 26. Sisters' roor 27. Nurses' cloaks

Second floor plan

暖

14 =

19 14

#### building illustrated 3º p.c. concrete coping rc roof slob 3 layers of bit felt with granite chippings -51/2" hollow tile floor 6 facing stone on brick backing -rc beams c. balcony w i. ballustrade 2.0 # concrete on bit 2/2° site concrete hardcore column bases Section A-A [Scale: 32" = 1'0"]

Key to third floor:

- I. Main laboratory
- 2. Refrigeration centrifuge and oven
- 3. Laboratory office 4. Fine instruments
- 5. Glass washing room
- 6. Dark room
- 7. Constant temperature laboratory
- 8. Hot laboratory 9. Haematological laboratory

- 10. Secretary's office
- 11. Office
- 12. General store 13. Warm chemistry
- laboratory
- 14. Assay room
- 15. Clinical examination 16. Single-bed ward
- 17. Utility room
- 18 Red life
- 19. H.M. closet
- 20. Services
- 21. Store
- 22. Linen store 23. Four-bed ward

- 24. Patients' day room
- 25. Nurses' station 26. Doctors' room
- 27. Kitchen
- 28. Waiting space
- 29. Day room 30. Sisters' room
- 31. Nurses' cloaks

Key to fourth floor:

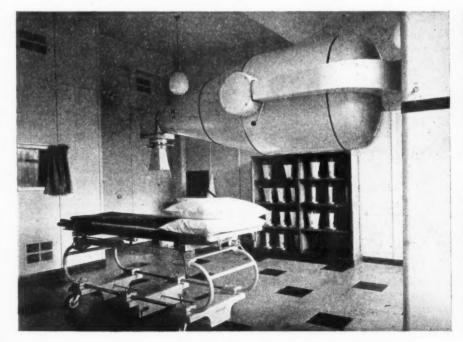
- 1. Senior nursing staff
- 2. Servery
- dining room
- 3. Maids and nonresidents' dining room
- 4. Bedroom
- 5. Resident doctors' lounge
- 6. Staff, and senior nurses' cloaks and lavatories
- 7. Maids' lavatories
- 8. Life
- 9. Sun room
- 10. Tank room
- 11. Lift machinery
- 12. Patients' day room



at WESTERN GENERAL HOSPITAL, EDINBURGH designed by JOHN HOLT



Left: entrance to the linear accelerator (high voltage X-ray) treatment room, showing external control panel at the observation window. Below: the treatment room with plate glass viewing window opposite foot of patients treatment table. Lead membranes are also incorporated in the walls as a necessary precaution. The viewing window will be illustrated as a Working Detail in a later issue of the JOURNAL. Below right: top of south stair, outside the patients' day room. Acoustic tiles are picked out in contrasting colours on the ceiling. The Munsell "archrome" colour range was used throughout. Bottom right: general view of typical 4-bed wards. It is a modified version of the Nuffield-type units.

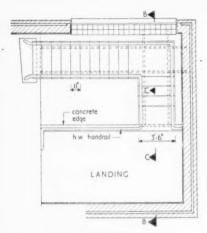




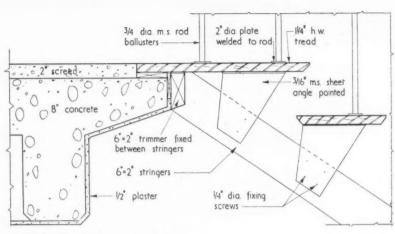


9341

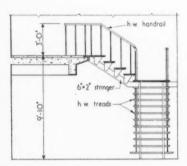
#### building illustrated



Plan of staircase outside linear accelerator room [Scale: 1" = 1' 0"]



Detail section C-C [Scale: 1" = 1' 0"]



Section B-B [Scale: 4" = 1' 0"]

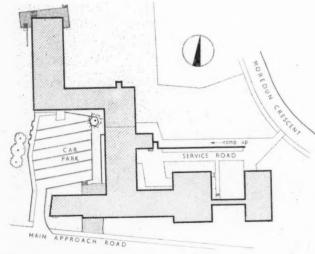


Stairway in hall outside the linear accelerator room. The wooden treads are supported on 3/16th-m.s. sheet angles from the 6-in. × 2-in. stringers. The timber for handrails, stringers and treads is sapele.

analysis

#### HOSPITAL EXTENSION

at WESTERN GENERAL HOSPITAL, EDINBURGH designed by JOHN HOLT



Site plan

## CLIENT'S BRIEF: his stated requirements

A building to accommodate at least 100 beds for patients suffering from cancer; a range of x-ray diagnostic and therapeutic equipment; an operating theatre suite for radium application; a group of research laboratories and dining areas for staff and patients. The building to be adjacent to and linked with the existing hospital, and easily accessible to outpatients approaching by the main hospital entrance road. The phasing of building was to be such that certain parts would be completed in time to receive high-voltage equipment being manufactured under Ministry of Health programme and allow treatment to proceed whilst building operations were in progress.

Reconstruction of the second o

# SITE: topography, surroundings, access and planting

The site, which lies to the east of the existing hospital, is L-shaped and bounded on the south and east by access roads and on the west by a row of large forest trees which act as a screen

#### analysis

between the old and new hospitals. A height restriction on building to the south and an arbitrary building line were imposed by the superiors of a block of flats situated at the northeast corner of the site. These factors and the 16-ft. slope from north to south influenced the plan shape considerably.

#### PLAN: general appreciation and relation of units

To confine the main block to four storeys, a ward plan was designed in which 4-bed wards are placed on both sides of the corridor and based, to some extent, on the recent Nuffieldtype plan. To give the wards the best orientation. the ward block was placed on the north-south axis but the entrance drive to the south and the imposed building line limited its length. To meet the total number of beds required and the need for isolation wards, a wing was placed at right angles to form the north side of the court used as a car park and ambulance entrance. To segregate visitor and out-patient traffic the outpatients department and administration were placed in a single-storey building lying at the south end of the ward block and parallel to the

upward road. The high voltage block was placed adjacent to the out-patient department but apart from the wards to avoid having to protect them from the considerable quantity of x-rays produced by the machines. The northmost wing contains the related departments for biochemical research laboratories, radium-operating theatre suite, radio-active substances and radium working areas. Dining rooms for the staff situated on the roof level were a requirement made after the project was under construction. Access for all servicing at workshops, H.V. machines, and boiler house can be had from a rear road branching off Moredun Crescent.

#### PLAN ANALYSIS

Expressed as a % of the whole

(a) Single-storey section (b) Treatment block on five level including sub-ground floor and dining space	sq. ft. 15,305	cu. ft. 296,238	sq. ft. 22.5	cu. ft. 24.95
and machine rooms at general roof level  (c) Dining and single bed block at three levels  (d) Laboratory and operating theatre block at four levels  (e) Link covered way	25,848 7,487 17,942 1,438	442,818 149,665 269,872 28,500	38 11 26·4 2·1	37.3 12.6 22.75
	69 020	T 197 004	100	100

#### MAIN CONSTRUCTION: general appreciation

The multi-storey block is a simple reinforcedconcrete structure with three columns in the width, one being placed on the line of the

corridor wall. The floors below and above the treatment level are solid reinforced-concrete slabs; the remaining upper floors are composed of hollow tiles set in reinforced-concrete rib panels. Expansion joints in the frames are situated at the junctions of each wing to permit movement due to thermal expansion. In contrast

to the ward block, load bearing cavity wall construction is used in the out-patient department and workshops where most of the floors are laid on two layers of concrete with bituminous membrane; the roof is of prestressed precast concrete slabs. The high-voltage treatment block walls are 24 in. to 64 in. thick concrete.

		S	d
	cost per sq. ft.		
F	oreliminaries and insurances	1	7
	contingencies		
	cost based on final figures		

#### STRUCTURAL ELEMENTS

Work below ground floor level: foundation type, basement	Location	Materials	Finish	Reasons and comments		
Reinforced concrete column foundations 5 ft 8 ft. square at varying depths	Ward and operating theatre wings	Reinforced concrete		Considerable stepping of foundations necessary when working against sloping ground. Reinforced concrete retaining wall at heating		
Strip foundations 2 ft. 3 in. × 9 in. continuous and stepped	Out-patient block and between columns	Mass concrete		chamber and brick retaining wall at north end of operating theatre wing		
				work below ground floor level	9	5
External walls and facings	Location	Materials	Finish	Reasons and comments		
Load-bearing 15½-in. cavity brick walls with continuous lintol beam with nibs at window apertures	Out-patient department and workshop block	Common brick and Dunbrik No. 10 concrete facing brick	Five courses to 1 ft., recessed beds and joints			
4-in. and 6-in. stone facing slabs on 9-in. brickwork and mass concrete	South gable and high- voltage treatment block	Blaxter stone and galvanized ties	Coursed stones in break bond with polished surface	Excluding high-voltage treatment. Concrete protection walling		
I-in. slate panels approximately I ft. 6 in. × 2 ft. 3 in. fixed by copper dowels and cramps to 9-in. brick inner skin	4-bed ward and operating theatre wings	1-in. thick Westmorland green slate, ½-in. diameter copper dowels, 1 in. × ¼ in. cramps	Riven finish, in polished edges for dry butt joints	Slate chosen for colour and natural beauty. Special concrete protection walling to H.V. treatment not included in this cost		
				load bearing brick walls	6	01
				stone facing slabs		83
				slate panels	2	21

Location	Materials R.	eam spans	Column grid	Reasons and comments		d
Throughout	Reinforced M concrete an	Sain beams 19 ft. and 26 ft. secondary	20 ft.	Provides freedom of planning and opportunity for revision of plan due to changing		
			fra		7	7
Location	Materials	Finish		Reasons and comments		
X-ray treatment floor	Reinforced concrete, 5	lb. Wood float i		As personnel work in the rooms below this floor, areas of varying thicknesses of lead sheet were placed where the X-rays strike the floor		
All upper floors except treatment floor and ceiling				Screed used to build up floor level to accommodate electrical, gas, water and oxygen pipes		
				in-situ reinforced concrete hollow-clay tile	2 3	11
Townson 3	Manufala	Einich		Pageone and comments		
Ward and operating	Reinforced concrete		ith reinforced	Fire resistant		
	Reinforced concrete	nosings Granolithic	on treads	Fire resistant		
exit	202200000					
a, 12 ft.; b, 12 ft. a, 4 ft.; b, 2 ft. 6 in.				staircases		9
	*					1
Location	Materials	Finish	buile	Reasons and comments		
Throughout	in 5½-in, thick reinfor concrete rib at approx mately 15-in, centres. Average 4-in, thick	rced- bituminous ki- with granit	roofing felt	Good insulation factor produced by hollow tile and vermiculite		
				roof construction	4	(
Location	Materials	Finish		Reasons and comments		
Corridors in out-patients' department	rough-cast glass held	by				
High-voltage treatment rooms	9-in. × 9-in. glass bl set in 4-in. reinforced concrete ribs	locks i		Area of roof light 100 sq. ft. Prevention of direct sunlight in rooms		
				dome lights glass and concrete		
Location	Materials	Finish	•	Reasons and comments		
Throughout	Purpose-made steel s in standard mullion sections			Large panes vertically-pivoted at centre to facilitate cleaning. Small panes vertically-pivoted off centre to reduce outward stretch		
Treatment rooms	Special glass with lea	ad ne		X-ray protection for operators		
				metal windows	2	
				X-ray observation	3	
Location	Materials	Finish	to the state of th	X-ray observation	3	
Location Service entrances	Framed and faced w	Finish rith Clear varr	nished		3	
	Framed and faced wagba lining  2-in. thick mahogany stiles and rails; ½-in.	vith Clear varr		X-ray observation  Reasons and comments  Double-swing-action doors set in lengths of glazing in	3	
Service entrances	Framed and faced wagba lining 2-in, thick mahogany	vith Clear varr	nished	X-ray observation  Reasons and comments  Double-swing-action doors	3	
Service entrances  Main entrances	Framed and faced w agba lining 2-in. thick mahogany stiles and rails; \(\frac{1}{2}\)-in. plate glass Purpose-made steel	y Clear vari	nished	X-ray observation  Reasons and comments  Double-swing-action doors set in lengths of glazing in both entrance halls  Cost included with metal	3	
Service entrances  Main entrances	Framed and faced w agba lining 2-in. thick mahogany stiles and rails; \(\frac{1}{2}\)-in. plate glass Purpose-made steel	y Clear vari	nished	X-ray observation  Reasons and comments  Double-swing-action doors set in lengths of glazing in both entrance halls  Cost included with metal windows  hinged doors	3	
Service entrances  Main entrances  Emergency exits	Framed and faced w agba lining 2-in. thick mahogany stiles and rails; ½-in. plate glass Purpose-made steel sections	y Clear varr  Hot dippe and paint	nished	X-ray observation  Reasons and comments  Double-swing-action doors set in lengths of glazing in both entrance halls  Cost included with metal windows  hinged doors full-length glazed doors	3	
	Location  X-ray treatment floor in 4-bed ward block  All upper floors except treatment floor and ceiling  Location  Ward and operating theatre block  North-west emergency exit a, 12 ft.; b, 12 ft. a, 4 ft.; b, 2 ft. 6 in.  Location  Throughout  Location  Corridors in out-patients' department  High-voltage treatment rooms  Location  Throughout	Location	Reinforced concrete   Main beams 19 ft. and 26 ft. secondary beams 20 ft.	Throughout  Reinforced concrete  Main beams 19 ft. and 26 ft. secondary beams 20 ft.  It is secondary beams 20 ft.  It is secondary beams 20 ft.  Materials  Reinforced concrete, 5 lb. lead sheet, sand-cement screed  All upper floors except treatment floor and ceiling  All upper floors except treatment floor and ceiling  Materials  Reinforced concrete and 12 in. × 12 in. × 4 in. hollow clay tiles  Materials  Reinforced concrete  Finish  Terrazzo with reinforced nosings  Finish  Finish  Join. layer built-up bituminous roofing felt with granite chips  Average 4-in. thick verinforced with granite chips  Average 4-in. thick verinforced concrete in a second concrete concrete concrete in a second concrete in a concrete concrete in a concrete concrete in a second concrete in a concrete c	Throughout  Reinforced concrete  Main beams 19 ft. 20 ft.  Materials  N-ray treatment floor in 4-bed ward block  Reinforced concrete, 5 lb. be short, sand-cement screed  All upper floors except treatment floor and 2 in. × 12 in. × 4 in. hollow clay tiles  Reinforced concrete and 12 in. × 12 in. × 4 in. hollow clay tiles  Reinforced concrete many celling  Materials  Reinforced concrete and 12 in. × 12 in. × 4 in. hollow clay tiles  Reinforced concrete many celling  Reinforced concrete and 12 in. × 12 in. × 4 in. hollow clay tiles  Reinforced concrete many celling  Finish  Reasons and comments  Finish  Reasons and comments  Finish  Reasons and comments  Finish  Reasons and comments  Area of colling and celling	Throughout Reinforced concrete and 36 ft, secondary 20 ft.    Materials   Finish   Reasons and comments

Interr Non-Load-X-ray

Coun

Scrul

Flusi

Inter-

Doo

FIII Floor Strip

Line

Ter

Wal

Lea

Tili Wai

#### analysis

DA	D	T	T	T	T 4	0	N	T	N	6

F			P1 1.5	n		
Internal partitions	Location	Materials	Finish	Reasons and comments		
Non-loadbearing Load-bearing	Multi-storey block Out-patient's department and workshop	4-in. hollow clay blocks  9-in. and 4½-in. common brick	Plaster painted Plaster painted	Reduced weight of walling on structure and speedy erection		
K-ray protection walls	Low voltage treatment floor	6-in. × 2-in. wood frames 2-ft. centres. 2-8 mm. load core plywood	Plywood painted	non-load-bearing partitions		7
				load-bearing partitions X-ray protection walls	1 2	113 71
Screens	Location	Materials	Finish	Reasons and comments		
Counter screens	Dining area on top floor	4½-in. brick wall to counter height, timber framing with plywood front to canteen plastered on kitchen side. Laminated plastic top	Painted panels and varnished mahogany frames	Cost included in <sup>st</sup> other fittings "		
Scrub-up screen	Operating theatre	9-in. brick low wall with precast terrazzo instru- ment cupboard facing theatre	Terrazzo precast 11-in., in situ 1-in.	Combined screen and fitment divides theatre proper from scrub-up area but allows observation of patient		
		1-in. plate glass screen above 4-ft. 6-in. in	1-in. plate glass sliding doors			
		chromium uprights		scrub-up screen		11
W.c. doors and partitions	Location	Materials	Finish	Reasons and comments		
Flush door and non-load- bearing partition	Throughout	2-in. in situ terrazzo partitions and 3-in. door joints	Terrazzo buffed and polished			
		13-in. flush doors	Doors, clear-varnished			
				w.c. doors and partitions		11
Internal doors	Location	Materials	Finish	Reasons and comments		
Plywood faced doors flush or with glazed panel	Generally	13-in. flush mahogany plywood doors with 3-in. framed core	Clear varnished	Varnished finish less main- tenance and brings up well figured plywoods		
Full length glazed doors	Departmental entrances	1½-in. mahogany stiles and rails. ½-in. plate glass	Clear varnished			
				internal doors	1	6
Ironmongery to internal doors	Location	Materials	Finish	Reasons and comments		
Door furniture	Generally	British manufacture brass handles 5 lever geared motion locks, floor springs, pull handles	Satin chromium on all exposed parts	Good quality to withstand heavy wear and requiring little maintenance		
FINISHINGS				ironmongery	1	91
Floor finishes	Location	Materials	Finish	Cost per sq. yd.		
Strip flooring	Ambulance entrance hall	1-in, nominal solid T & G boards of Guarea	Sanded and wax polished	s. d. 40 6		
Wood strip in tile form	Entrance halls and staff rooms	9-in. × 9-in. × §-in. articulated panels of sapele	Sanded and wax polished	36 9		
Linoleum	Generally	%-in. linoleum, various colours and patterns	Polished	18 2 plain brown		
				20 5 plain colours 22 10 marble colours		
Terrazzo	Operating theatre and kitchens	?-in. thick terrazzo floor, coves and skirtings	Buffed and polished	19 9 floor finishes	3	2 ¼
Wall finishes	Location	Materials	Finish	Reasons and comments		
Plastered walls	Generally	Egg-shell finish emulsion paints on \(\frac{1}{2}\)-in. hard wall plaster on brick, \(\frac{1}{2}\)-in. on hollow tile	Colours from Munsell range	Generally colours are light but non-reflective to counter glare to patients eyes. Small areas of strong colour used in corridors and entrance hall		
Lead-cored plywood	Treatment room	∄-in. × å-in. thick multi- core plywood with I or 2 layers of 2-mm. lead sheet built in	Painted	To make up fully protective wall plywood containing 4-mm. of lead had to be fixed to both sides of 6-in. × 2-in. frames (cost incl. in partitions)		
Tiling	Bathrooms, toilets, splash backs	Glazed tile 6-in. $\times$ 6-in.	Various colours	Impervious finish		
Wallpaper	Entrance halls and control hall	Contemporary wallpapers		Strong pattern used to reduce scale in large areas		
				plastered walls	1	63

#### analysis

					S	a
Ceiling Finishes	Location	Materials	Finish	Reasons and Comments		
On hollow tile and slab roofs	Generally	4-in. hard wall plaster, 3 coats paint	Painted Munsell range colours			
False ceilings	Corridors, landings and entrance halls	}-in. hard wall plaster on metal lath or 12-in. × 12-in. acoustic tiles nailed to frames		False ceilings contained ventilation ducting and large bore service pipes and electrical conduit. Access is possible at intervals		
				false ceilings	4	1
Decorations	Location	Paint types	Munsell or other ref.	Reasons and comments		
			cost, including w	all paper and ceiling finishes	2	1
FITTINGS						
Fittings	Location	Materials	Finish	Reasons and comments		
Benches, laboratory benches, library fitment, screens, etc.						
				fittings	3	3
Kitchen equipment	Location	Materials	Finish	Reasons and comments		
Electric dish-washers, water boilers, cafe sets, bain marie, refrigerators	Ward kitchens and ambulant patients dining serveries. Staff dining kitchen	All electrically-operated appliances	Stainless-steel and stoved enamel			
	Ritchen	1		cost not provided		
SERVICES						
Rain water disposal	Location	Materials	Finish	Reasons and comments		
To waste drains	Generally	Cast iron	Painted where occurring externally	All rainwater pipes in main building are taken down internally		
Plumbing internal: waste disposal	Location	Materials	Finish	Reasons and comments		
To waste drains, traps and main drains	Generally	Cast iron and copper	Painted where exposed			
Hot water storage	Location	Materials	Capacity	Reasons and comments		
Calorifiers	Heating chamber	Insulated copper cylinders				
Cold water storage	Location	Materials	Capacity	Reasons and comments		
Mains feed to storage tanks	Four tanks at roof level at 3 points for equal distribution	Pressed steel sheet sectional tanks with covers	Painted with bituminous compound inside, enamel outside. Total 6,400 gallons	Considerable storage was essential because of fluctua- tions in main pressure and need to keep some x-ray machines fed with water night and day		
Plumbing: sanitary fittings	Location	Materials	Finish	Reasons and comments		
Wash basins, w.c.'s, urinals, baths, slop sinks, bed pan washers, laboratory sinks and bench drips	Generally	Fireclay	Vitreous enamel and white glazed			
	plumbing, internal: was	te disposal, hot water calo	orifiers, cold water storage	e, plumbing: sanitary fittings	6	4
Heating installation: heat exchanger type	Location	Criteria temp.	Air change rate	Reasons and comments		
Low pressure accelerated hot water system	Generally	65° for 30° externally	2 changes per hour	Hospital pattern radiators in wards, offices and ancillary rooms		
Heated and washed air ventilation plant	Housed in boiler chamber for treatment floor	65° for 30° externally	6 changes per hour	Inlet baffle grilles set at high level. Non re-circulation exhaust	-	
Heated and washed air ventilation plant	N wing for operating theatre	70° for 30° externally	10 changes per hour	Inlet baffle grilles set at high level. Non re-circulation exhaust		
Boiler type and capacity	Location Boiler chamber in base-	Heat load and fuel type	Stoking method	Reasons and comments		

Oiled gases 2-in. gas main piped gases 41 Illumination level Electrical installation Location Quality Reasons and comments To keep ceiling projections to minimum at low ceilings Reflectors sunk into false ceiling Corridors and entrance Pendants Generally 80-watt fluorescent tubes Laboratory suite north wing

How distributed Reasons and comments Power supply type Location Trunking in corridor floor screed thence by conduit from draw-in bores, to switches, etc. 415 240 volt a.c. 50 cycles Generally electrical installation, power supply 7

Capacity and speed Reasons and comments Lifts Location All lifts have automatic South end 4-bed ward wing and ambulance entrance Patient, bed and nurse. 80 100 ft. min. Two bed lifts North end of 4-bed ward 4 persons each. 100 150 ft. min. One passenger, one goods lifts

Paved areas Location Materials Reasons and comments Ambulance entrance and service road behind single-storey building 9-in. hand-set bottoming on 3-in. clinker; 2½-in. tarmacadam plus ½-in. asphalt and chips carpet coat Car parks and service roads 5-in. × 10-in, precast concrete curbs Entrance 2-in. paving slabs with granite setts Out-patients approach

> 7 paved areas 3 total net cost per sq. ft. of floor 105 8 special items (cost included in sq. ft. price above) lead isotope and storage safe 11 doors to 2 million volt rooms 41 venetian blinds  $6\frac{1}{2}$ blackout blinds 14

special items (listed in detail below)

[939

91

31

0

3

5

linear accelerator and reinforced concrete work 3 4 ho e reels 1 smiths work 51

#### THERMAL INSULATION

Water heater type

Off heating system by means of calorifier

Two pipe system, soil and waste

Kitchen ventilation

Ventilation hood

Gas installation

2-in. gas main

Type U-value Reasons and comments Cavity wall brickwork (load bearing) Out-patient department and workshops 0.29 Cavity wall brickwork (panel infill) Single ward block 0.37 Slate facing slabs 4-bed ward and theatre blocks 0.33 Roof slab Throughout 0.21

#### analysis

#### FIRE

Structural precautions	Grade of protection apparatus	Sprinklers	Reasons and comments	
All reinforcement covered with Public building concrete			Edinburgh fire officers requirements were complied with throughout.	
Smoke movement limited by doors at departmental boundaries			Building equipped with fire alarn system, battery operated	
Planning precautions	Access for fighting	Means of escape	Reasons and comments	
Emergency exits to all public areas. Staircases at each end of each wing	Normal	Three staircases and four lifts. Ten exits at ground level		

#### TIME SCHEDULE

Drawings	Tender date	Contract signed	Work commenced	Work completed	Type of contract
August, 1951	June, 1952	July, 1952	August, 1952	October, 1956	Schedule of quantities and prices

#### RATIOS

Area of enclosing walls		0.65	Area of windows (including external doors)		0.2
Total floor area	=	1	Total floor area	= -	1
Area of solid wall		0.43	Total roof area	0	0.4
Total floor area	14	1	Total floor area		I

#### COST SUMMARY

Tender date	Gross total cost	Cost per ft. super of floor area excluding basement	Cost per ft. cube including basement
June 30, 1952	£359,490 (approximate final cost, excluding only loose furniture; soft furnishings and	£5 59. 8d.	6s. o≩d.

#### COST COMMENTS

This is the third hospital building to be published with a cost analysis. (The other two were the Vale of Leven Hospital, Dumbartonshire, AJ November 3, 1955, and the Admission Unit, Wallingford, AJ April 19, 1956.) The latter was a small building for the treatment of mental patients, and thus is not so easily comparable with Edinburgh as Dumbarton.

The analysis for the latter was split into three; ward units, nurses' home and administration unit. The ward unit (75s. 10d. per sq. ft.) is taken as a basis for comparison, a comparison which cannot apply to all the elements, since the Edinburgh analysis includes an out patients' department, and elaborate radiological treatment and surgical units and equipment. For example, "services" at Dumbarton total about 15s. 6d. whereas Edinburgh totals 28s. 6d. Similarly, "partitions and fittings"; for Dumbarton: 5s. 10½d.; for Edinburgh: 12s. 2d.

Taking the building fabric only:

Structure: adding together load-bearing walls windows and external doors: Edinburgh gives 12s. 6\frac{1}{2}d. (stone and slate-faced brickwork, steel windows), Dumbarton: 12s. 9d. (pre-fabricated hardwood panels, wood windows). But the frame at Edinburgh is of reinforced concrete at 3 and 4 storeys; whereas the frame at Dumbarton is of steel at 2 storeys (designed for a third storey), Adding frame prices to those above, the former becomes 20s. 1\frac{1}{2}d., the latter 18s. 9d.

Finishes: adding wall and ceiling finishes, Dum-

barton gives 2s. 4½d., Edinburgh 6s. 7½d. But the latter includes 4s. 1d. for a suspended ceiling which if deducted gives 2s. 6½d., Dumbarton having plastered and acoustic tile soffits. Floor finishes at Dumbarton are 4s. 2d. (cork and thermoplastic tile): at Edinburgh: 3s. 2½d. (mainly linoleum with some hardwood and terrazzo).

One useful feature of the Edinburgh anlysis is that some specialised construction, e.g. leadcored panels are shown separately.

#### SITE ORGANIZATION

Site labour and equipment: foreman plumber, foreman joiner, site agent, general foreman and gangers for dealings with all traues except electrical, heating and ventilation trades. Resident engineer and assistant during period of reinforced-concrete construction work. Resident quantity surveyor. Tower crane on railway on site for three years. Bulldozers when required for site scraping and re-levellin age areas, for short periods of time. Mecnanical excavator, concrete mixers, pneumatic spades, barrow lift pneumatic drills, cartridge-fired fixing tools. Sub-letting: specialist items sublet because of nature of work involved.

Job management: incentives in the form of bonuses were used for brickwork, plaster work, linoleum laying. Liaison between headquarters and site was done by site agent on site, 2 site managers by weekly visits and 3 periodic visits from heads of firm.

#### CONTRACTORS

1.
TR

we shi tee du Thi sta wh ve;

By

ing

wh

the

pla

to

the

pa

of

rer

me

wh

mo

inc

eve

rea

an

tra

tra

rer

ph

do

vai

de

Th

Clerk of works: John Goodlet. General contracwors: W. & J. R. Watson Ltd. Sub-contractors-Bricks: Scottish Dunbrik Ltd. Stone: Blaxter Quarries. Special roofings: J. A. King & Co. Ltd. Roofing felt: Wm. Briggs & Sons Ltd. Tiles: Toffolo Jackson & Co. Ltd. Slate: Broughton Moor Slate Quarries & C. S. Ormerod Ltd. Lead-core plywood partitions: Bakers of Wycombe Ltd. Glass, domelights and lead glass: James Thow Ltd. & T. W. Ide Ltd. Wood block flooring: A. M. Macdouglass & Son Ltd. Coppersmith mork. Archibald McMillan & Co. Ltd. Patent flooring: Concrete Ltd. Smith work and balustrading: H. Gibson's, Ventilation and boilers: Brightside Foundry & Engineering. Incinerators: Sugg & Co. Ltd. Gas fitting-mains: Scottish Gas Board. Electric wiring: James Kilpatrick & Sons Ltd. Electric light fixtures: Merchant Adventurers Ltd. Metal staircases: Mackenzie & Moneur. Door furniture: Harvey, Gordon Campbell. Casements: Frederick Braby & Co. Ltd. Sanitary fittings: Shanks Ltd. & J. R. Howie Ltd. X-ray protective doors: Adrian Stokes Ltd. Oxygen and vitreous oxide installation: The British Oxygen Company Ltd. Plaster: D. & J. Borthwick. Textiles and sunway blinds: Findlater Smith Ltd. Wallpaper: T. W. Scott. Floor finishes: Korkoid Decorative Floors Ltd. Light proof blinds: Douglas & Bryden Ltd. Lifts: Pickerings Ltd. Paint: Walpamur Co. Ltd. Fire equipment: Pyrene Co. Ltd.

technical section

# INFORMATION CENTRE

#### 1.16 sociology TRAINING FOR BUILDERS

Management Training in the Building Industry, (British Institute of Management. Price 5s. 0d.)

This twenty-five-page pamphlet presents the work of a committee under the chairman-ship of Sir Hugh Beaver, representing architects, builders, operatives, materials producers and management organizations.

The pamphlet begins with building industry statistics; an elementary explanation of what architects, builders and quantity surveyors do, and a verbose answer to the question (p. 10) "What is management?" By page 14 we get to management in building-how difficult, but how promising, it is then follows a rather rarefied account of what training (some) supervisory grades go through at present, leading up to part VI, the penultimate. This is a too-distant explanation of management courses available to industry generally at technical colleges. polytechnics, University summer schools and the like; and a strained attempt to persuade us that many of these courses would do (more or less) for builders. The last two pages give twelve conclusions. The second of these hits off the general level of the report: "The efficiency of future management depends on the selection, planned education and practical training today of those who are going to be the managers of tomorrow. This is as true of the building industry as of any other industry." However, No. 6 recommends a staff college for the building industry-but doesn't seem to realize what it is saying, for this is a big and bold idea. No. 7 proposes management training at about 28 years-after technical training, without explaining why. Those remaining, repeat more or less, the smooth phrases of the rest of the report.

It is very quickly clear that the report does not begin to take seriously its own terms of reference—"... consider the various problems ... in initiating and developing management training..."

The explanation of such an oddity is very

h

likely that the committee did not want to steal the thunder of the Board of Building Education who have promised us a comprehensive survey of building education—which no doubt will contain all the facts and "consideration of various problems" missing from this rather fruitless five shillingsworth.

#### 10.153 design: building types

#### HOUSING

Housing Type Plans. LCC Architect's Department Housing Division. (LCC. 17s. 6d, (board cover), 15s. (manilla cover)) This is an attractive folio showing 39 standard plans developed by the Housing Division of the Architect's Department of the LCC. The plans are printed at 1-in. scale and conveniently arranged in groups showing three- and five-storey balcony-access flats, three-storey staircase-access flats, 11and five-storey point blocks of flats, fourand 11-storey maisonettes and terrace houses. The latter group contains 21 type plans sub-divided into narrow- and mediumfrontage types and old persons' dwellings. Each section dealing with the different type

Each section dealing with the different type plans is preceded by a statement explaining the policy of the LCC regarding the use of the plans illustrated.

The folio is well produced, lucid and useful. It inevitably invites comparison with the 1949 Housing Manual produced by the Ministry of Health and does not suffer by this comparison. It is interesting to notice, however, that the type plans produced by the Ministry of Health's backroom boys seven years ago differ very little in principle from those now published by what is probably the world's largest housing architect's department. On the one hand, threestorey houses which at one time looked as if they had a future have not been developed by the LCC, but on the other the plans of 11-storey maisonettes shown in this publication go far beyond anything yet published by central government, which suggests that any initiative which the Ministry of Health had in the housing field in 1949 has now been lost to the large local authorities. In studying these type plans one is impressed by the apparent absence of standardization in the planning of the dwellings illustrated. A limited use of standardization is obvious, but on the face of it one would expect the LCC to concentrate on

producing standard plan forms using standard components. A standard kitchen layout, standard plumbing arrangements, a standard frontage with a flexible depth or vice versa. Moreover, one would surely expect this progressive office to have develoned modular co-ordination to assist it in its attack on the Authority's housing problem, but the influence of modular co-ordination, if there, is cunningly concealed. This can, of course, mean one of two things; either that the LCC architects have overlooked this aspect or (the most likely explanation) that they have considered and disregarded standardization as the basis of an approach to their problem.

The LCC housing programme, which is designed to meet differing demands arising from varying site conditions, fluctuating densities and family size, and which is also used as a vehicle for development work in cost reduction and structural techniques. must result in a certain lack of uniformity. It is probable that only in an atmosphere where slavish adherence to standard plans and details is not insisted upon but where individual initiative is encouraged that progress in these fields can be made. On the other hand, too much freedom can lead to chaos. From this publication it seems that the LCC have hit upon a valid compromise. This publication, illustrating plans which result from practical experience, may show that the application of standardization to housing work is limited and that the mass production of virtually one or two standard housing units, although the basis of the speculative builders' programme, is not applicable to an intelligent and imaginative programme carried out at high densities. A few points on the presentation should be mentioned. First, it would have been most interesting if each plan could have been accompanied by a little paragraph under the heading "Tenants' Reactions." Secondly, a definition of the "overall area" would have been helpful and thirdly, a consistency in the frontage dimensions, some of which are given as between party walls and some to centres of party walls, would avoid confusion. These small criticisms, however, in no sense detract from this valuable folio of plans by which the appetite is whetted for a similar issue illustrating the most recent LCC plans for multi-storey development, the fly-over maisonettes and the taller than 11-storey blocks.



cur mea

in the

Mari Price inten

"PUZZLECORNER", SOUTHAMPTON

Architects: Messrs Gutteridge and Gutteridge

# HOT-DIP GALVANIZED WINDOWS

# HENRY HOPE & SONS LTD

Smethwick, Birmingham & 17 Berners St., London, W.1. Local Office: 2–3 Brunswick Place, Southampton

MEMBER OF THE METAL WINDOW ASSOCIATION

#### 8 ESTIMATING

#### current wage rates, market prices and measured rates

Prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors. Market prices and measured rates last appeared in the JOURNALS for June 7 & 21

Rates of wages rose on April 16, 1956, and are now as follows:

	Cre	aftsmen	Lo	bourer
London District	S	d	S	d
Within 12 miles radius	4	5	3	101
From 12 to 15 miles radius	4	41/2	3	10
Liverpool and District	4	5	3	101
Grade classifications				
A	4	34	3	9
Al	4	3	3	81
A2	4	21/2	3	8

#### Market prices

Prices are given for the major items in each trade, they are intended as average prices and include delivery in the outer London area. They do not include overhead charges and profit.

#### Measured rates

Prices are for work carried out in the Outer London area and include 10% to cover overhead charges and profit except in the case of work which would be carried out by specialists when 5% has been allowed.

The prices given in italic represent the total value of the materials included in the measured rates, including an allowance for waste and 10% for overhead charges and profit. The cost of labour included in the measured rates (including its proportion of overhead charges and profit) can be ascertained by subtracting the prices in italics from the prices in heavier type.

#### **Abbreviations**

Inches: in. Feet: ft. Yards: Y. Yards cube: YC. Yards super: YS. Feet cube: FC. Feet super: FS. Ton: T. Feet run: FR. Thousand: M. Square: Sq. Number: No. Hundredweight: C. Pounds: lb. Gallon: Gal.

#### **Preliminaries**

To all estimates based on prices for measured rates add for Preliminaries, water, insurances, etc., depending on the nature of the job, say 10%

#### EXCAVATOR

#### Market prices

Carting away, up to 8 miles

Hand loaded Machine loaded

Hardcore

YC 10 0

Ashes

YC 10 6

s d

#### Measured rates

Hand excavation and disposal

NB: the following are applicable to excavation in heavy soil.

Excavating over site to remove top soil and veget-YS able matter, 6 in. deep As above, 12 in. deep YS 2

#### Excavating over site to reduce levels and getting YC 9 3 out

Excavating for basement and getting out

> Depth up to 5 ft. 10 Depth between 5 & 10 ft. Depth between 10 & 15 ft. 19

Excavating surface trenches and ditto

Depth up to 5 ft.	12	-
Depth between 5 & 10 ft.	17	!
Depth between 10 & 15 ft.	22	
Excavating basement		
trenches and ditto YC		

Commencing 5 ft. below existing ground level 17 5 Commencing 10 ft. below existing ground level 22 I Commencing 15 ft. below

existing ground level 26 Wheeling surplus excavated material not exceeding 100 yards and depositing YC 4 8

Add to last for: Roughly spreading and levelling Spreading, levelling and YC 1 5 consolidating to make up 3 0

Returning, filling-in and well ramming excavated material around foundations YC

Loading surplus material into lorries and carting to tip, not exceeding 8 miles

Excavating from spoil heaps selected top soil, wheeling. not exceeding 100 yards, and spreading, levelling and consolidating, not exceeding 6 in. to receive turf YS

#### Mechanical excavation and disposal

Excavating for shallow surface lorries or dumpers (using excavation and loading into § yd. cube excavator)

Excavating for surface excavation and removing, spreading and levelling not exceeding 200 yds. (using 6 yd. cube scraper)

Removing excavated material and depositing, not exceeding 200 yds. (using 3 yd. cube dumper)

#### Planking and strutting

Planking and strutting to sides of surface or basement excavation

Depth up to 5 ft.	8
Depth up to 10 ft.	9
Depth up to 15 ft.	11
Planking and strutting to sides of surface and	
basement trenches FS	
Depth up to 5 ft.	2
Depth up to 10 ft.	3
Depth up to 15 ft.	4

#### Hardcore, etc.

s d

5

each layer well rammed		20 13	3	
Bed of ditto, 4-in. thick	YS	3	4	

#### Ash filled-in in layers, each layer well rammed YC 19 10

#### CONCRETOR

#### Market prices

over	Т	106	0
Rapid hardening, 6 tons a over		116	6
3-in. down, washed, crush and graded shingle		17	1
1½-in. ditto	YC	16	2
Sharp sand	YC	21	I
a-in, diam, mild steel rod BS 785 delivered station		729	0

Portland cement, 6 tons and

Estimating. Current wage rates, market prices and measured rates

T 821 0

#### Measured rates

3-in, ditto

4 1

Portland cement mass concrete in foundations etc. 1: 12, 1½-in, " all-in "

						aggregate	31	3
							38	2
	I	:	3		6.	11-in. aggregate	65	0
					-	7 00 0	45	10
	1	:	2	:	4.	3-in. aggregate	71	11
			_		- 9	400 -0	52	
1		1	1	*	3.	1-in. aggregate	73	6
			2	-	- 9	700. 00.	54	4

#### Add for: Working around rod or mesh

4	8
3	3
6	3
	7
10 1	YC II

inches	· Y	C 44	1
Columns	72 to 144 sq. inche	s C 34	10
Columns	over 144 sa inches		10

Columns	over	144	sq.	inches	27	10

Suspended floors and roofs		
not over 4½-in. thick YC	18	7
Suspended floors over 41-in		

to 6-in. thick	•	16	3
5 4 4 0			

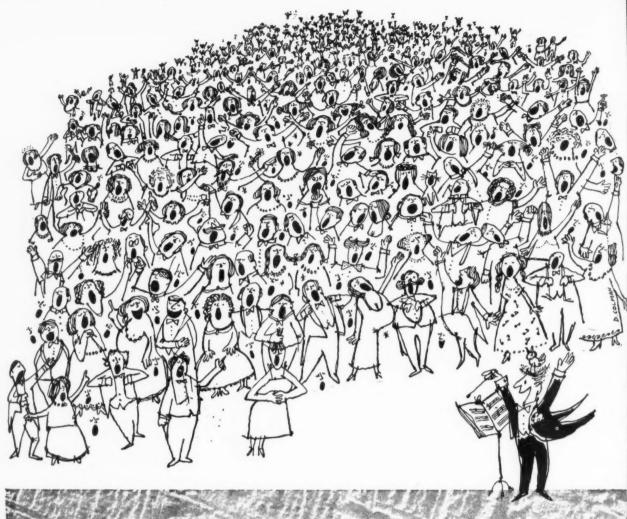
	12-in. th		3	046	1 0-	C	13	11
_		-				 	-	

Beds	not	over	4 <u>1</u> -in.	thick	YC	9	3	

Beds	41-in.	to	6-in.	thick	YC	7	0
Beds	6-in. t	0	12-in.	thick	YC	2	4

Hollow tile floor of clay
tiles 4-in. thick at 15-in.
centres laid on formwork
(measured separately), nibs
filled in with concrete
(1 . 2 . 4) and finishing ton

#### tiles with bed of concrete 11-in, thick including tamping



Let us sing the praises . . .

# of CABLITE pre-mixed plaster

A song of plaster progress, of a plastering revolution! Gypsum and Perlite, factory-mixed, saving weight and saving lathing, giving better insulation, greater fire and crack resistance, easier estimates and planning, tidy sites and far less storage. Five thousand years of sanded plasters—now Carlite strikes a clear new note! Write for technical details.

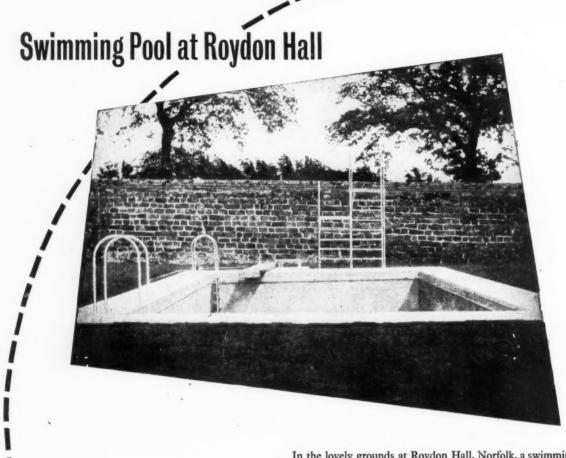


The Gotham Company Limited, Gotham, Nottingham.

The Carlisle Plaster & Cement Co., Cocklakes, Nr. Carlisle.

Thomas McGhie & Sons Ltd., Kirkby Thore, Westmorland.

Concretor continued		S	d			S	d		S	d
around reinforcement (mea- sured separately)	YS	16	10	$4\frac{1}{2}$ -in. $\times$ 6-in. lintols reinforced with one $\frac{1}{2}$ -in. rod FR		2 2	7	Second stocks	<b>55</b> 34	
Ditto, but tiles 8-in. thick	YS	26	2	$\frac{41}{2}$ -in. $\times$ 9-in. ditto with two			11/2	One brick wall built fair and pointed both sides YS		
Sundries		17	9	½-in. rods FR			11/2	Flettons Second stocks	37 17 55	
Finishing concrete with crowelled face to receive			İ	Piling Reinforced pre-cast concrete				Lingfield Grade B	34 53 31	7
inoleum	YS	1	2	piles, approximate prices for supplying, unloading, pitching				Sundries	٥,	
Applying horizontal damp- proof membrane of synthaprufe in three coats				and driving 12-in. × 12-in. up to 30 ft. long FR		33	6	Extra over common brick- work for internal fair face		
o surface of concrete and linding with sand to form sey	YS	5	8	14-in. × 14-in. up to 50 ft. long FR Sheet steel piling, ditto FS		39	0	and flush pointing YS  Horizontal damp proof course	1	4
supplying floor clips (p.c. 60	d.	4	1			20 t	6	of two courses of slates and bedding and pointing FS	4 2	3
each) and fixing N	lo.	1	01/2					Horizontal damp proof course	_	
<i>formwork</i> Formwork including strutti	ng			BRICKLAYER				of hessian base bitumen FS		8
easing and striking:			and the second	Market prices				Facings		
Vertical faces of foundation	YS	17	6 3	Soft sand YC		17	0	Extra over ordinary brick- work with bricks P.C. 115s. per 1,000 for facings as		
ertical faces of wall	YS	17				17		described		
offite of floors not over 12	-ft.	6	9		1 1	79	0	To solid wall in Flemish bond YS Facings P.C. 250s per M	15	7
nigh	YS	17 8	3	Lingfield Engineering wire				Facings P.C. 350s per M	22	10
loping soffite of stairs	YS	21 9	6	cuts Grade B M  Partitions	1 2	48	0	Facings P.C. 450s per M	17 30 24	
sides of columns	FS	2	3½ 10½	Clinker concrete, solid YS		3	9	To cavity wall in stretcher bond YS		
ides and soffites of lintols	FS	2	6	2½-in. 3-in.		5 6	4	Facings P.C. 250s per M	7	
		ī	0	4-in. Thermalite-Ytong YS		0	5	Facings P.C. 350s per M Facings P.C. 450s per M	13	10
Add to the above for wrot ormwork including rubbing lown concrete	g YS	2	4	2½-in. 3-in. 4-in.		8	3½ 9	Half brick wall in facings	18	7
Reinforcement				Hollow clay YS				built fair and pointed on one side YS		
-in. diameter mild steel ods, hooked, bent and tied	1			2-in. 2½-in. 3-in.		4 4 5	5 8 5	Facings P.C. 250s per M	28 15 34	10
and fixing		59 44	6 5	Normal quality wood wool	•	3	3	Facings P.C. 350s per M Facings P.C. 450s per M	21	
-in.	C	<b>66</b> 48	4	slabs YS 2-in.		8	0	Partitions	27	0
-in.	С	72	6	2½-in. 3-in.		9	3	Clinker concrete solid partition blocks and setting		
-in.	С	49 85	5	Measured rates  Reduced brickwork in				in cement mortar YS 2-in.	8	10
		54	7	cement lime mortar. Lingfields in cement mortar				2 <u>1</u> ·in.	10	2
iteel wire mesh fabric weighing 4·32 lb. per yd. super and laying in concrete	0			YS		31	9	3-in.	6	8
	YS	3	8	Second stocks		17 49 31	5 9	4-in.	8	
Ditto weighing 6.57 lb. per	YS	5	41/2	Lingfield Grade B		<b>48</b> 31	7	Thermalite-Ytong ditto YS $2\frac{1}{2}$ -in.	12	
Disco unichica 0 22 lb		4	8	Half brick wall ditto YS		17	5	3-in.	14	6
Ditto weighing 9·32 lb. per d. super	YS	7	7 7	Second stocks		8 26 16	3	4-in.	13	
r cast concrete				Lingfield Grade B	1	26		Hollow clay ditto YS 2-in.	9	7
Precast concrete (1 : 2 : 4) finished fair on exposed face	29			I I-in, hollow wall with 2-in, cavity and wall ties YS				2 <u>1</u> -in.		7 10
and hoisting setting and ointing:				Flettons		37		3-in.	12	4



In the lovely grounds at Roydon Hall, Norfolk, a swimming pool has been constructed for John Alley, Esq., J.P. The pool is 34 ft. long and 20 ft. wide, one end being 3 ft. 6 ins. deep increasing in the middle to 8 ft. and decreasing at the other end to 6 ft.

'PUDLO' Brand Waterproofer was specified to render the walls and floor waterproof, the bath having been built of brickwork with an ordinary non-waterproofed concrete floor 15 ins. thick composed of 4. 2. I.

The Waterproofing was effected by means of an internal lining of waterproofed cement and sand composed as follows:—2 parts of coarse washed sand, I part of Portland cement, 5 lbs. 'PUDLO' Brand Powder, to each 100 lbs. of cement.



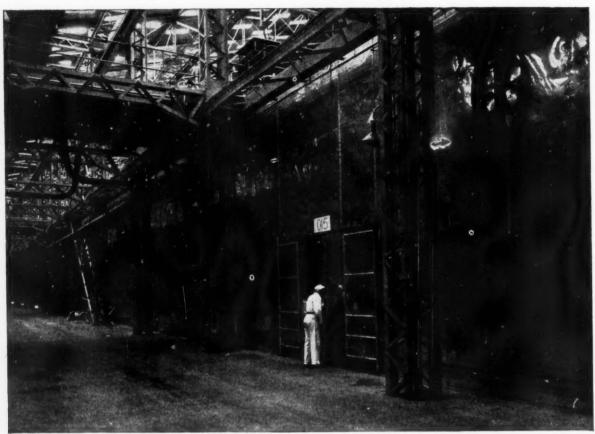
Stocked by most Builders' Merchants

The most reliable fire cement is 'FEUSOL'. Have you tried it?

The word 'PTIDLO' 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 & CO. LTD., KING'S LYNN, NORFOLK

technical section							
Bricklayer continued	s d		s	d		s	d
Vood wool slabs ditto YS	10.10	9-in.	5	41/2	Cast iron drains		
2-in. 2½-in.	9 7 14 10	" Best " quality salt glazed	4	4	Cast iron spigot and socket drain pipes and laying and		
3-in.	16 9	stoneware drain pipes and laying and jointing in			jointing in trench FR 4-in.		10
	12 4	trench FR 4-in.	2	61	6-in.	17	10
			1	10		14	9
		6-in.	2	9	9-in.	<b>32</b> 27	5
RAINLAYER		9-in.	5	01/2	Extra over cast iron pipes for		
larket prices		Extra over " Seconds "			bend No. 4-in.	29	2
alt glazed stoneware pipes		quality pipes for:			6-in.	23	6
nd fittings, " Best " quality:		Bend No.		_		59	7
tandard list plus 85%		4-in.	3	7	9-in.	158	0
s above "Seconds" quality: candard list plus 85%		6-in.	5	21/2 8	Spun cast iron spigot and		
ss 15%		9-in.		2	socket drain pipes and laying		
itch fibre pipe FR			14	0	and jointing in trench FR 4-in.	7	0
3-in. 4-in.	1 9 2 31	Single junction No. 4-in.	6	11/2	6-in.	10	
6-in.	4 8	6-in.	8	91	9-in.	8	5
ast iron s. and s. pipe to			7	11		14	
S 437 YR 4-in.		9-in.	17	0	Cast iron gullies		
6-in. 9-in.		Double junction No.			Cast iron gully trap with high		
		4-in.	10	3	invert and setting on and surrounding with concrete		
oun iron s. and s. pipe to S 1211, Class B YR		6-in.	14	8	and jointing to drain No.		
4-in. 6-in.		9-in.	28		4 in.	34	7
9-in.	33 1	Stoneware gullies	25		6 in.	91	9
leasured rates		Salt glazed trapped gully		1	9 in.		0
xcavate trenches by hand in eavy soil, including planking nd strutting, part returning, lling and ramming and wheeling and spreading urplus, for pipes 4-in., 6-in.		including setting gully on and surrounding with concrete and jointing to drain No. 6 in. × 6 in. grating 4 in. outlet 9 in. × 9 in. grating 6 in.	25 21	0	ASPHALTER Measured rates		
nd 9 in. dia. YR		outlet		3	4		
verage depth of trench 3-ft. 4-ft. 6-ft,	15 7 20 10 36 9	Grease and mud gully 9-in.	36	3	Damp proof course and tanking  1-in. vertical damp proof		
9-ft. xcavate trench as last but		diameter with 4-in, outlet, galvanized bucket and grating and setting gully on and			course in two thicknesses on brick or concrete YS BS1097	16	3
y mechanical trencher YR		surrounding with concrete	0.7		BS1418	24	
verage depth of trench 3-ft.	16 4	and jointing to drain No.		11	1-in. horizontal damp proof		
6-ft. 9-ft.		Road gully with 6-in, outlet including setting on and			course in one thickness on brick or concrete YS		
in, concrete bed and		surrounding with concrete		İ	BS1097 BS1418	11	0
enching for 4-in. pipes YR	8 11	and jointing to drain No. 15-in. dia. 30-in. deep				.,	7
s above, for 6-in. pipes YR	5 6 10 5	18-in. dia. 48-in. deep		6	Vertical tanking in three thicknesses YS		
in. concrete bed and	6 5		170		BS1097 BS1418	23 33	
arround for 4-in. pipes YR	8 11	Pitch fibre drains			Horizontal tanking in three		
s above for fire since VD		Pitch fibre drain pipes and		1	thicknesses YS	10	
s above, for 6-in. pipes YR	10 9	laying and jointing in trench FR			BS1097 BS1418	18	
		3-in.	2		Roofing		
		4-in.	2				
		6-in.		41	4-in. flat laid to falls in two thicknesses on and including		
toneware drains			5	21/2	felt underlay YS BS988	13	2
Seconds " quality salt		Extra over pitch fibre pipe for bend No.			BS1162	22	
lazed stoneware drain pipes nd laying and jointing in		for bend No. 3-in.	13		6-in. skirting with angle		
rench FR 4-in.		4-in.		7	fillet at bottom and rounded edge at top turned into		
6-in.	17	6-in.	18	10	groove FR BS988	2	4
J-111.	2 41	9-111.		11	BS1162	2	8

#### **Insulation at Capenhurst**



Architects: T. L. Viney, A.R.I.B.A., R. S. Brocklesby, A.R.I.B.A. Chief Architects to the Industrial Group of the Atomic Energy Authority

Contractors: Trollope & Colls Ltd.

For Cell Cladding many thousands of panels were used. These comprised heavy density cork faced with Sheet Aluminium to a modular size  $8' \times 4'$  in 1'' and  $1\frac{1}{2}''$  thicknesses, the joints being covered with solid Burma Teak strips.

We manufacture a variety of composite materials in this field for cladding, insulation and shielding purposes.

#### William Mallinson and Sons Ltd.

TIMBER AND VENEER MERCHANTS MANUFACTURERS OF PLYWOOD, ARMOURPLY, PANELS, COMPOSITE PARTITIONING AND INSULATING BOARDS

130-150 HACKNEY ROAD LONDON, E.2

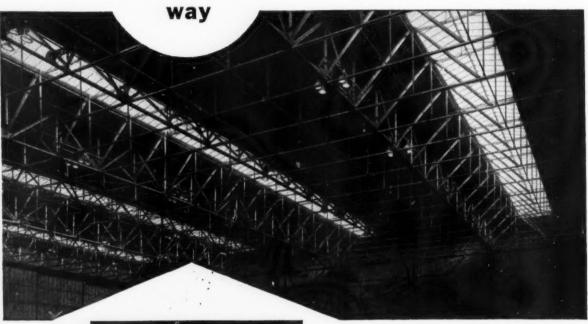
Telephone: Shoreditch 7654 (10 lines)

Telegrams: "Almoner" London

Asphalter continued	s d		S	d	s d
6-in. fascia with solid water check roll at top and under-		MASON			Grey corrugaged asbestos cement sheets YS 6 I
cut drip at bottom FR BS988	4 6	Market prices			Measured rates
BS1162	5 3	Stone in blocks in truckloads at stations in the London area:			16-in. × 10-in. best Welsh slates laid 3-in. lap Sq. 277 0
		Beer FC	8	5	
PAVIOR		Portland FC	8	5	20-in. × 10-in. best Welsh slates 3-in. lap Sq. 368 9
Market prices		Woodkirk Blue building			Westmorland green slates in
Granite chippings, 4-in. to	44 10		17	2	random sizes laid 3-in. lap Sq. 615 0
dust T Buff quarry tiles, 6 in. X	46 10	Broughton Moor slate in			Best hand made sand faced
6 in. $\times \frac{7}{6}$ in. YS 2-in. Noelite paving YS	21 9	blocks at stations in the London area FC	65	0	plain tiles, 10½in.×6½in. laid to a 4-in. gauge Sq. 202 0
Measured rates		Marble in blocks at works:			Best hand made sand faced
		Dove FC	70	0	plain tiles, $10\frac{1}{2}$ -in. $\times$ $6\frac{1}{2}$ -in.
Cement and sand floated screed to receive pavings YS		Roman stone FC	70	0	hung vertically to 4½-inch gauge Sq. 218 0
<del>1</del> -in.	3 11 2 3	Measured rates			Berkshire hand made sand
I-in.	4 8				faced red pantiles, 141-in.×
I4-in.	2 10½ 5 3	Stone and all labours in pilasters and quoins FC			10-in. laid 2½-in. head and 1½-in. side lap Sq. 195 0
	3 4	Portland Beer			Grey corrugated asbestos
Cement and sand paving		Jambs FC	**	.	cement sheets fixed to wood
trowelled hard and smooth YS		Portland			roofs Sq. 107 3
₹-in.	4 4 2 3	Beer	49	11	Grey corrugated asbestos cement sheets fixed vertically
I-in.	5 2	Lintols FC Portland	EA	7	Sq. 117 3
14-in.	2 10½ 5 9	Beer			Cedarwood shingles laid 5-in.
	3 4	Arches FC			gauge Sq. <b>240 0</b>
Granolithic paving laid on concrete YS		Portland Beer			Metal roof decking and fixing with hook bolts, finished
I-in.	7 0		31	,	with 1-in. insulation board
I½-in.	5 0 8 10	Ashlar average 7-in. on bed with plain dressed face FS			and three layers self finish felt roofing YS
•	6 6	Portland Beer			18 gauge for spans up to 10 ft. 57 6
1-in. red composition paving			20	,	20 gauge for
laid on prepared screed YS	16 6	Extra for each additional 1-in. thickness FS			spans up to 8 ft. 6 in. 51 9
§-in. terrazzo paving laid on prepared screed YS	38 4	Portland Beer		5	Two layer one ply bitumen felt and fixing with bitumen
1-in, rubber flooring and		4½ in. × 4 in. sill sunk,			to concrete or boarding YS 9 5
laying in rolls YS	55 2	weathered, throated and grooved for water bar, set and	1		Three layer bitumen felt YS 12 7
-in. rubber flooring and laying in rolls YS	73 6	jointed in cement mortar FR Portland	10	9	Patent ribbed aluminium roofing and fixing to purlins
5 in. cork tile flooring,		Beer Artificial		7	YS 287 6
12 in. × 12 in. and fixing					
with mastic and including polishing YS	45 11	4 in. × 12 in. coping, weathered and twice throated			
4-in. thermoplastic tile		FR Portland	21	5	CARPENTER
flooring and laying-on screed YS	14 6	Beer Artificial	20	0	Market prices
	25 0	Marble and slate			Softwood, carcassing quality Std. 1910 0
1-in. coloured linoleum and		2-in. Dove marble lining and			Softwood, joinery quality
fixing with mastic to cement screed or boards YS	28 7	fixing on brick backings FS	36	9	Std. 2100 0
i-in. coloured linoleum and	10 ,	3-in. Roman stone lining FS	36	9	$\frac{1}{2}$ -in. imported insulation board Sq. 43 6
fixing with mastic to cement screed or boards YS	22 10	3-in. Broughton Moor slate lining FS	39	11	Fin. imported hardboard Sq. 42 0
					Measured rates
7-in. buff quarry tiles laid on prepared screed YS	36 0				
7-in. blue black quarry tiles laid on prepared screed YS	33 2	SLATER TILER AN	D		Softwood and fixing in plates, sleeper joists and lintols FC 15 7
	33 A	Market prices			In floor and ceiling joists FC 15 7
2-in. Noelite paving laid on prepared bed, in random sizes		Welsh slates, best quality M			In stud partitions, purlins
and mixed colours YS	19 10	16 in. × 10-in. 20-in. × 10-in.	981		and struts FC 19 9
12 in. × 12 in. anchor steel		Best hand made sand faced			In hip and valley rafters FC 22 2
plates laid complete YS	54 0	plain tiles, $10\frac{1}{2}$ -in. $\times$ 6½ in. M	207		75 10

#### **Building the**

# modern





# with large Aluminium Structures

Few better examples for the employment of large aluminium structures can be found than aircraft hangars. These buildings require

totally clear floor areas combined with very high clearances and the all aluminium hangar illustrated is an excellent instance. Built for the Ministry of Supply, to Ministry of Works specification, it has a clear span of 200 feet through its huge power operated aluminium doors, a clear height of 50 feet and an unrestricted depth of 250 feet. Just another instance of modern building techniques developed through the specialist services of Hawksley SMD—readily available to architects everywhere.

That's the job of

#### HAWKSLEY SMD

**World leaders in Aluminium Structures** 

SLOUGH · BUCKS · TELEPHONE : SLOUGH 23213 · A member of the Hawker Siddeley Group

rectificat section								
Carpenter continued	s	d		s	d		s	d
Battening and boarding			Softwood		3	in. solid shelving on bearers FS		
Slate or tile battens 14 in. ×			Oak		8	bearers FS Softwood		31/2
3-in. and nailing to fixing for Sq.					71/2	Oak	4	7
	•		Extra for grounds plugged to				4	1
16-in. × 10-in. slating to 6½-in. gauge	36	5 0	brickwork FR Softwood		9	2-in. shelf bearers plugged		
20-in. × 10-in, slating to					2	to wall FR Softwood		71
8½-in. gauge	30	0 0	Windows			Oak	1	5 1 2
$10\frac{1}{2}$ -in. $\times$ $6\frac{1}{2}$ -in. plain tiling	_		2-in, rebated and moulded					111
to 4-in. gauge	5	5 0	sashes divided into squares FR			Staircases		
$14\frac{1}{2}$ -in. $\times$ 10-in. pantiles to 12-in. gauge	20	0 0	Softwood Oak		8	I-in. treads and 3-in. risers		
			Extra for side hanging Each Softwood	2	8	tongued together on and including framed carriages FS		
S.E. boarding in batten width close jointed and fixing to	IS		Oak		11	Softwood	4	61/2
flat or sloping roofs Sq	. 118	8 6	Doors			Oak	13	4
	8	7 9	2-in framed ledged and				11	101
1-10	. 14		2-in. framed, ledged and braced doors, filled in with			13-in. × 11-in, wall string plugged to brickwork FR		
T. & G. boarding in batten			I-in. T and G and V jointed boarding and hanging FS			plugged to brickwork FR Softwood	4	41
widths close jointed and fixing			Softwood	5	5	Oak	3	5 2±
to flat or sloping roofs Sq	. 13		F					112
1-in		8 0 67 6	Four panelled door square both sides and hanging FS			14-in. × 11-in. outer string_		
	1.	29 0	Softwood	6	8	Softwood	3	
3-in. wrot and cross tongued			Oak	19		Oak	6	10
eaves soffit F		1 0		10	-		6	
₹-in. × 6-in. wrot and			1½-in. Standard flush door, hardboard faced size 2-ft. 6-in.			Ends of treads and risers		
	S	10	$\times$ 6-ft. 6-in. and hanging No.	43	5	housed to strings No. Softwood	1	41
		6				Oak	6	
Wall and ceiling boards fixed vertically to softwood			Linings and frames			2½-in. × 3-in. moulded		
	S	6 3	Window and door linings,			handrail FR Softwood	3	2 71
1-III. IIIsalacion board		4 81	6-in. to 12-in. sectional area			Oak	6	7± 3±
in. hardboard		5 10	(per inch sectional area) FR				5	6
,		4 61	Softwood		4 3	$1\frac{1}{4}$ -in. $\times$ $1\frac{1}{4}$ -in. square balusters FR		
3-in. asbestos cement flat		7 9	Oak		9	Softwood		7 5
sheeting		4 4			0	Oak	1	4
1-in. asbestos cement flat sheeting		9 21	Frames wrot all round and framed (per inch sectional			Framed ends to balusters No.	,	
2-in. Stramit, showerproof		5 9	area) FR Softwood		34	Softwood		6
quality fixed to joists with			Oak		9	Oak		9
butt joints		15 4	Mullions, transomes and cills					
			(per inch section area) FR		4	IRONMONGER		
JOINER			Oak		101	Market prices		
Floors and skirtings			Mouldings, architraves, etc.					
Tongued and grooved soft-			4-in. to 6-in. sectional area (per inch sectional area) FR			As prices for ironmongery vary so greatly depending		
wood flooring and nailing to	q.		Softwood	1	4 3	upon the type and quality required no prices are quoted		
78-i	n. 1		Oak		10	here		
1-i	n. I				7	Measured rates		
	1.	37 9	6-in. window boards, 1-in. thick with rounded nosing			The rates which follow are		
I-in. nominal double groove	ed		tongued at back and includ- ing bearers	,		for fixing only and are inclusive of profit	- J.	
t. and g. Swedish softwood block flooring set in mastic			Softwood	1	2 111			
and polished	YS :	29 5	Oal	<	1 8	3-in. steel butts Pr. to softwood	4	4 2
European beech	YS	36 9			3 61	to hardwood		5 6
African Muhuhu	YS .	42 0	Shelving and fittings			Double action floor springs		
Burma teak	YS	54 8				to softwood	2	0 10
Moulded skirtings, 3-in. to			4-in. shelving of 2-in. slats spaced 1-in. apart on bearers			to hardwood	2	7 9
6-in. sectional area planted on (per inch in sectional			(measured separately) FS		2 5	6-in. barrel bolts to softwood		1 101
	FR		35.641000		īii	to hardwood		2 6

Contrasting Brickwork

is Permanently Decorative

FLATS AT HARLOW, ESSEX LLLE

Architect: Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.

Assistant Architect:

Build in BRICK

ISSUED BY THE NATIONAL FEDERATION OF CLAY INDUSTRIES - DRAYTON HOUSE - LON





ronmonger co	ntinued	s d		5	d		S	d
Cupboard locks	to softwood	3 II 5 2½	Measured rates Metal lathing			EXTERNAL PLUMBE Market prices	R	
Cylinder night la	atch to softwood	6 6	No. 24 gauge expanded metal lathing and fixing			Sheet lead, 3½ lb. and upwards, in quantities of 5 cwt. to 1 ton C I	57	3
fortice latch	to hardwood	8 8	To softwood soffits		3	Copper sheeting, 23 gauge, in 1-ton lots C 36	50	0
ortice laten	to softwood to hardwood	5 2½ 6 II	To metal	6	11	Zinc sheeting, 14 gauge, in		
lortice lock	to softwood	6 6	Lime plaster	5	11	I-ton lots C II		U
	to hardwood	8 8	Render float and set on brick			Super purity 5 Commercial quality 3	04	0
asement fasten	to softwood to hardwood	1 6	walls and partitions YS	2	3	Cast iron rainwater goods, standard list 3300 AB 1.2.55		
asement stays	to nardwood	2 1	R.F. and S. on concrete including hacking YS	8	21/2	plus 12½%		
,	to softwood to hardwood	1 6 2 1		2	3	Measured rates		
			R.F. and S. on expanded metal lathing		10½ 4½	Milled sheet lead C Flat roofs 2 Gutters and flashings 2		
TEEL &	IRONWOR	KER	Gypsum plaster	-	* 2	24 SWG copper sheet FS		
Market prices			Render in cement-lime-sand			Flat roofs Gutters and flashings	5	9
Structural steel			(I : I : 6) and set in gypsum plaster on brick walls and partitions YS	5	6	23 SWG copper sheet FS Flat roofs	6	7
x mills	Т 6	692 6			10	Gutters and flashings		7
extras for other pasis sizes vary Os. and 70s. pe	between		Render in gypsum fibred browning-sand (1 : 1½) and set in gypsum on concrete			14 gauge zinc FS Flat roofs Gutters and flashings		5
Measured rate			soffits including bonding coat YS	8	6	20 SWG super purity		3
Rsj in steel fran structures hoist			Render and set on expanded	3	31/2	aluminium FS Flat roofs Gutters and flashings	5	4
fixed complete Riveted compo	T 13	331 0	metal lathing including pricking up coat YS	8	11/2	20 SWG commercial quality	3	7
including plates	and rivets T 15	565 0		3	71/2	aluminium FS Flat roofs	4	3
Rs stanchions in pases, cleats etc		543 0	Plaster board			Gutters and flashings  Rainwater gutters and pipes	4	3.
Metal windows cutting and pin orickwork and	ning lugs to		fixed to softwood soffits finished to receive plaster YS		7	lain cast iron half round eaves gutter jointed and fixed to fascia with brackets		
Domestic type			Gypsum board finish setting coat on last YS		11	4-in.	3	3
Type ND2F 3	ft. 3¼ in. wide	87 5 72 7	- 3-in. gypsum plaster wall	I	01	6-in.	3	
	ft. 31 in. wide	94 4 79 7	board fixed to softwood studding finished to receive			18 gauge pressed steel half round eaves gutter FR		
Type NDIIF	6 ft. 6½ in. wide	149 8 123 7	decoration YS	62.59	3	4-in.		10
"Z" range, 4	ft. high ft. 0¾ in, wide	59 4	Plain face			6-in.	2	
	6 ft. 04 in. wide	49 6	$\frac{1}{2}$ -in. Portland cement and sand (1:3) plain face			Asbestos cement half round eaves gutter FR		
		125 0	trowelled smooth on brick walls YS	4	1 1 2	4-in.	1	6
PLASTER	RER		Tyrolean rendering		9	6-in. Aluminium half round	2	5
Market price			Render in cement, lime sand			eaves gutter FR 4-in.	3	10
Plastering sand	YC	21 0	(I : I : 6) and finishing with three coats Cullamix			Cast iron medium section	2	8
Plaster to BS I Class B in load			preparations applied with hand operated machine YS		9 4	rain water pipes jointed and fixed to walls with pipe nails		
to 5 tons 19 cv		154 3	Wall tiling		,	3-in.	5	
Fi	bred browning Board finish	157 3	6 in. × 6 in. × 3 in. standard			4-in.	5	10
in. plaster la		2 4	quality white glazed wall tiles set and jointed on	A	7 2	Pressed steel FR		1 3
600 yds. ≩ in. × 6 in. ×		2 4	prepared screed YS  Egg shell matt or glossy		7 3	3-in. 4-in.	6	10
glazed wall tile	es YS	26 8	glazed enamelled tiles YS	5	8 10		4	1 5

#### 948

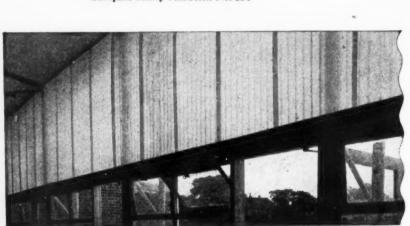
# Keep it light with SAROPANE and SAROLITE corrugated translucent fibre-glass roofing sheets

Saropane and Sarolite sheets have exceptional light diffusion, thus throwing an even, shadowless light. This makes Saro sheets the ideal material where a soft restful light is required—either for work or decoration.

Saropane and Sarolite sheets are reinforced with glass fibre and, weight for weight, are stronger than steel. Saro sheets save money because of their durability and low maintenance costs. They can be fitted cheaply and quickly, and are shatterproof. For decorative purposes they can be supplied in colour.

Where appearance is important, the special jointing clip can be used. This is attractive in itself and obviates unsightly overlap — prevents dirt and dust "creeping" between overlapping sheets.

★ Fire Rating: Sarolite F.R.O.S.I. No. 526 Saropane Heavy F.R.O.S.I. No. 530







Please write for technical data, samples and literature to :-

SARO LAMINATED WOOD PRODUCTS LTD . EAST COWES . ISLE OF WIGHT . Tel: Cowes 704, /8

External plumber cont	inued	s	d		s	d		S	d
Asbestos cement	FR 3-in.	3	5	Main supply fixed to walls			I½-in.	5 2	0
		2	1	and ceilings FR 1/2-in. 7		4	Class B tubing fixed to		
	4-in.	2	10	3-in. 11	7	9	walls FR	2	2
Aluminium	FR			1-in. 16	10	10	½-in.		81
	3-in.	3	9	1½-in. 28	8	9	≟-in.		101
	4-in.		101/2		14	11	1-in.	2	101
oil and ventilating pipes		3	,	I ½-in. 35	18	6	l4-in.	3	6
	ette e			Distributing pipes fixed to			I t-in.	4	6
ead soil, waste and vent ng pipes (15 lb. per yd. f	for			walls and ceilings FR 		71	Form for mellerble incom	,	
l-in. and 19 lb. per yd. fo l-in. diameter) fixed to v	walls		1	<u>3</u> -in. 5		4	Extra for malleable iron: Bend No.		
vith lead tacks	FR 3-in.	13	6	I-in. 7		8	I-in.	4	6
	4-in.	10	9	14-in. 9	4		1 <u>4</u> -in.	6	9
		13	4		5	3	1½-in.	4	2 5
Cast iron soil, waste and				1½-in. 12	8 7		7		11
entilating pipes with car oints fixed to walls with	pipe			Flushing and warning pipes			Tee No.		
ails 3-in. I	FR	6	7	fixed to softwood FR		9	½-in.	2	6
4-in. l	heavy	4	10	1-in. 5	2	4	3-in.	3	0
	,	6			2	11	I-in.	3	7 7
Asbestos cement soil and				14-in. 6	3	10	1 <u>4</u> -in.	2	0
entilating pipe fixed to vith holder bats	FR			1½-in. 7	4			2	9
	3-in.	2		Waste pipes and fixing to			$l\frac{1}{2}$ -in.	6	
	4-in.	5 2		softwood FF		0			
				I‡-in.	4	8	Copper tube		
NTERNAL PLU	IMPI	E D		13-111.	5		Copper tube to BS 1386 as supply pipe laid in trench		
	MB	ER		Joints to fittings No		1	(measured separately) to the		
Market prices				‡-in	. 5	9	following size and gauges FR ½-in. 18	2	
ead pipe in quantities of cwt. to I ton	of C			2-in	. 6		3-in. 17	2	9
	BS 602 S 1085			I-in	. 7		I-in, 16	2	51
Polythene tubing, heavy				I ¼-in	4		1½-in, 16	3	2
gauge, in quantities of 50				I <del>1</del> -in	5	7	1½-in. 15	4	
per i	$\frac{1}{2}$ -in.			17.0	. 6		7 10	6	
	‡-in. i-in.			Extra for:			C		
Steel tubes to BS 1387,				Bend No		2 4	Copper tube to BS 659 as distributing pipe fixed to		
tandard list plus Class B galv	vanised	1 15	54%	I ½-ir		3 3	walls FR ½-in. 19	2	0
Class C galv		33	34%	Branch joints No	).		3-in. 19	3	0
Galvanised malleable fits standard list less 31½% l						7 2	1-in. 18	2	
64% plus 40%	1033				2	2 3	1½-in, 18	3	10
Copper tube, basic price	e			3-ir		8 4 3 4		3	8
per lb.		2	91/2	I-ir		B B 4 6	1½-in, 18	4	6
Measured rates				1 <u>1</u> -ii	n. H	0 3 5 7			
				1 ½ - ir	1.		Extra for brass compression fittings joining copper to		
lead hipe to BS 602	in			Steel tubing to BS 1387	·	,	copper No.		
	111						Coupling ½-in.	6	7
Main supply and laying i trench (measured separa				Class C with screwed red lead joints as supply pipe			<del>3</del> -in.	7	0
Main supply and laying i trench (measured separa at the following sizes an weights in lbs.	nd FR							9	
Main supply and laying i trench (measured separa at the following sizes an weights in lbs.	nd	4	4 9 3 10‡	laid in trench (measured separately)	R		I-in.		
Main supply and laying is trench (measured separat the following sizes an weights in lbs.	nd FR	1	7 1½			2 2		6	7
Main supply and laying is trench (measured separat the following sizes an weights in lbs. $\frac{1}{2}$	FR -in. 7	10	3 10½ 7 1½ 6 0 0 1	separately) F	n. :	2 5	1 <u>1</u> -in.	12	7 7 5
trench (measured separat the following sizes an weights in lbs.	FR -in. 7		3 10½ 7 1½ 6 0	separately) F	n. :	81		12	7 7 8 5 4

technical section							
nternal plumber continued	s d		s	d		s	ď
-in. 1-in.	9 I 6 I 13 0	Black ribbon velvet and bedding to edge of glass FR		8	Add for each additional coat		9½ 3
	9 4	Patent glazing			Prepare, prime and apply one coat heat-resisting paint on		
1 <u>1</u> -in.	27 0	Patent glazing with rolled steel lead capped bars for			heating surfaces of radiators YS		
Top 1 in	21 2	8-ft. spans and glazing with 4-in. Georgian wired cast FS	4	6	Basis price	1	5
Tee ½-in.	6 9	Aluminium alloy patent glazing FS	4	11	Add for each additional coat	ı	8
I-in.	7 10	81421116	•	.	On wood		
	12 8				Knot, prime, stop and apply one coat oil colour on		
I ½-in.	18 4 37 5	PAINTER			general surfaces YS  Basis price	3	9
	29 7	Market prices	120	0	Add for each additional coat	1	7
		Washable distemper C.  Emulsion paint Gal.	120		On work not averaging 3 in		9.
		Hard gloss paint: Gal.	73	0	On work not exceeding 3-in. girth YR Basis price		6
LAZIER		Undercoat Finishing		0	Add for each additional coat		2
larket prices		Measured rates			For each additional 3-in.		,
heet glass cut to size FS 24 oz.	83	On walls and ceilings YS			girth YR Basis price		5
32 ozin. Polished plate glass,	1 23	Twice whiten plastered ceilings	1	4 3	Add for each additional coat		5 1 2 1
azing quality in plates ot exceeding: FS		Two coats distemper on			Stain and varnish		•
2 ft. super 5 ft. super 45 ft. super	3 10 4 .9 5 .7 6 . 0	plastered walls or ceilings	1	01/2	Prepare, size, stain and twice varnish on general surfaces		
100 ft. super		Two coats distemper on fair-faced brick or concrete walls	2	7	of woodwork YS	1	7
olled plate glass FS  \$\frac{1}{8}\$-in, rolled plate \$\frac{1}{4}\$-in. Georgian wired	10 <del>7</del> 5 6	Walls	î	3	On work not exceeding 3-in. girth $\Upsilon R$		6
ttention is drawn to eduction in certain glass rices offered by manufac- urers for acceptance of		Two coats emulsion paint on walls or ceil.ngs	2		For each additional 3-in. girth YR		5
pecified minimum quantities f one size and substance elivered to one address at ne time		Prepare, prime and apply one coat oil colour on plastered walls	3		Oiling and polishing Twice oiling general surfaces		,
1easured rates		Add for each additional coat	1	-	of hardwood with linseed oil	1	
lazing to wood				91			8
Ordinary quality sheet glass		On metal			On work not exceeding 3-in. girth YR		1
nd glazing with putty in quares FS		Prepare, prime and apply one coat oil colour on general surfaces			F		1
24 oz. O.Q. 32 oz. O.Q.	1 31	Basis price	-		For each additional 3-in. girth YR		1
-in. rolled plate glass	1 91	Add for each additional coat		7 91	Staining and wax polishing		,
or 1-in. rough cast glass	1 9	On metal casements YS			general surfaces of hardwood	1	0
rismatic glass	2 71	Basis price	1	51			
-in. wired glass	2 0	Add for each additional coat	2	91	Staining bodying-in and fully French polishing on general		
-in. Georgian wired	7 8	On bars, angles etc., not			surfaces of hardwood FS	2	6
late glass -in. Polished plate glass	7 81	exceeding 6-in. girth YR Basis price		11	Papering		
glazing quality) n plates 5 to 45 ft. super	7 91	Add for each additional coat		3 5 2	Preparing and sizing walls and hanging plain lining paper Piece	10	1
Glazing to metal		On small pipes YR Basis price		11	paper Piece	3	
Add to above rates Id. per ft. super		Add for each additional coat		3 5 2	Hanging wall paper, p.c. 10s. per piece Piece	20	
Sundries		On large pipes YR		2	Hanging border p.c. Is. per	12	3
Hacking out broken sheet	1 3	Basis price		91	yd. YR	1	8

## ALPHABETICAL INDEX TO DEC. 13, 1956 FU-P The Architects' Journal Library of Information Sheets 599. Editor: Cottereil Butler, A.R.L.B.S.

Furniture, Cabinets, clothes drying Counters, top, linoleum finish top, plywood, metal-faced Desks, top, linoleum finish General Stitchen, cooking, refrigerators cupboards, aluminium 43.E14 cupboards, steel 43.E1 43.E1 cupboards, timber plastic veneers 15.T9 sink units, aluminium 43.E14 sink units, steel 43.E1 43.E2 plastic veneers 15.T9 sink units, steel 43.E1 43.E13 water heater/refrigerator 28.J1 Lockers, steel, for clothes 42.C5 Schools Schools Steel, adjustable, fixed 42.C1 timber, industrial 42.C7 Storage Bins, steel, adjustable, fixed 42.C1 Storage Racks, steel, for bars, tyres Tables, tops, linoleum finish 19.G4	Halcrete Panels Limited, dome roof- lights	Insulation, Sound, mineral wool see also Ceilings; Floors; Partitions; Roofs; Walls  Thermal, general data 28.A1 28.A2 28.A3 mineral wool 28.B1 vermiculite screed 28.E2 see also Boards; Ceilings; Partitions; Roofs: Walls  Intervent, see Econa Modern Products Ltd.  Invisible Panel Warming Association, The, concealed panels 29.H2  Irish Wallboard Co. Ltd., Bowater boards 15.B1 Iron Fireman, see Ashwell & Nesbit, Ltd.  Ironstone, see George Woolliscroft & Son, Ltd.  Jenkins, Robert, & Co., Ltd., manhole covers  Joints, building boards 15.B1 15.C1 lead pipes, water 33.C4 33.C5 33.C6 plywood panels, metal-faced 15.Z2 sealing compound 26.M1 26.M2 26.M3 straw slabs 14.L4
tops, plywood, plastics veneered 15.88 15.19	Portcullis steel rolling grilles 23.H1 23.H2 23.H3 23.H4 23.H5 Rolador steel, interlocking steel, timber, rolling shutters 23.H1 23.H2 23.H3 23.H4 23.H5 23.H6 Heat Control but your beginning systems 23.H4	Jones, T. C., & Co., Ltd., steel reinforcement 9.C1  Jones and Attwood Ltd., sewage disposal units
Galt-glass, see Durasteel Ltd. Games, see Recreation, Games Garages, cars, private, dimensions, turning circles 4.E1 commercial vehicles, dimensions, turning	Heat Control, hot-water heating systems 29.A1 Heat Pumps, electric, water heater/ refrigerator 28.J1 Heating, Boilers, gas fired 29.F1 stokers, mechanical, details, general data	Kaye, E. and E. Ltd., aluminium 10.B2 Kencrete, see Kenyon (Meta Mica), Wm., & Sons, Ltd.
circles	29.J1 29.J3 29.J4 29.J5 29.J6 29.J10 29.J11 Space, Convection, ceiling panels 29.H1 29.H3	Kenyon (Meta Mica), Wm., & Sons, Ltd., Kisol vermiculite, Kencrete fire-resisting concrete. 28.E2 Rocksil mineral wool 28.B1 Keylock, see Packaged Buildings (Robert
controls for gas appliances flues for gas appliances gas-fired boilers installation and service pipes 37.D1 installation and service pipes 37.D1 instantaneous water heaters meters, types, installation space-heating appliances storage water heaters 32.C10 Gas, see Cooking; Heating, Space, Heating,	concealed panels         29.H2           convector stove         30.C1           open fire and heater chamber         30.C2           Electric, tubular heaters         29.G1           Gas, clothes-drying cabinets         37.D10           fires, built-in 29.C1 29.C2 29.C3         29.C10           fires, portable         29.C3           heaters, convector         29.C3           rail, towel         29.C3	Building Inventions, Ltd.)  Kisol, see Kenyon (Meta Mica), Wm., & Sons, Ltd.  Kitchen Fittings, see Furniture, Kitchen  Kynalok Secret-Fix, see Imperial Chemical Industries Ltd.
Water; Plumbing; Power Supply Gates, steel	Solid Fuel, convector stove	L.W., see Olsson, Martin, & Sons Ltd.  Laboratories, benches, lead lining
1.812   Curved surfaces, interpenetration   1.816	32.D8   32.D8   32.D8   32.D8   32.D8   32.D8   32.D7   32.D	Lanterns, see Roof Lights, Lanterns Lavatories, see Lavatory Basins; Plumbing; Schools; Tiles; W.Cs Lavatory Basins, multi-branch fittings ranges, plumbing, copper 33.B1 33.B2 ranges, plumbing, lead 33.C1 Lead, general data 10.F1 see also D.P.Cs; Flashings; Lead-burning; Metal Spraying; Plumbing, Gas, Water;
common figures, characteristics 2.H1 2.H2 plane sections, properties 2.B1 rectangles, areas 2.H2 Gesco, see Stephenson, G., & Co., Ltd.	storage heaters 32.C33 32.C34 systems, domestic 32.C10 32.C11 32.C22 32.C23 32.C24 32.C25	Roof Coverings, Sheeting; Weatherings Lead Sheet and Pipe Council, d.p.cs., chimneys 10.G15 d.p.cs., cloaks 26.A1 flashings 10.G1 10.G2 10.G4 10.G6 10.G13
Gibbons, James, Ltd., floor springs and checks 44.E2 Glass, fibres, general data 8.E1	Solid Fuel, domestic boilers 29.H4  Heywood, W. H., & Co., Ltd., glazed panels, aluminium 24.M3  lantern lights 24.J2	general data
plate glass, finishes, worked 8.F1 Glazing Bars, see Roof Lights	northlights, steel 24.N3 rooflights, double-glazed 24.M4 24.N4	plumbing 33.C1 33.C2 33.C3 33.C8
Golmet Limited, doors, rolling, sliding 23.H7 Grilles, rolling grilles 23.H2 23.H3 23.H4 23.H5	under-purlin insulation	roof construction 10.G3 10.G5 10.G21 10.G21 10.G21 10.G21
window grilles	lating Hope, Henry, & Sons, Ltd., door frames, step 23.C1 23.C2 23.C3 Hospitals, anti-static rubber flooring. 19.F11 Hot Water Supply, see Heating, Water Hotlit, see Frenger Ceilings Limited Hotstrip, see Frenger Ceilings Limited  Ignicide, see Spencer Lock and Co. Ltd. Illumination, plastic eggcrate ceiling . 34.Z1 Imperial Chemical Industries, Ltd., Metals Division, aluminium, general data 10.B2	traps 33.C12 weatherings 10.G10 Leadburning, general data 33.C6 Lettering, freehand, stencilled light sans serif 1.B7 1.B8 type-face letter forms 1.B6 1.B9 Libraries, shelving, timber 42.C6 Lightweight Construction, see Slabs; Wall Construction; Wall Linings Linoleum, see Floor Coverings, Floor Finishes; Furniture, Counters, Desks, Tables Linoleum Manufacturers' Association, linoleum 19.G1 19.G2 19.G3 19.G4
Plaxstele ceiling 22.F1  Gypstele, see Gyproc Products, Ltd.  Gypunit, see Gyproc Products Ltd.	aluminium cladding	L.M.F.A. Development, Ltd., aluminium 10.B2 Lockers, see Furniture, Lockers Loft Ladders, see Stairs

#### 46.Z ALPHABETICAL INDEX TO DEC. 13, 1956 (FU-P)

Loft Ladders, Ltd., loft ladders, disappearing	Orientation, sports grounds, southern England	Plaster, specifications, for building boards
26.F1 26.F2 26.F3 26.F4	4.L2	15.C3
London Brick Co., Ltd., blocks, hollow clay	sun movement, London 4.A1	vermiculite 28.E2
14.B1 14.B2 14.B3 Phorpres bricks 13.C10 13.C11 13.C12	Orthographic Projection, working drawings,	Plastering, building board, specifications 15.C3
Lundia, see Remploy Limited	presentation 1.B18 1.B19 1.B20 1.B21 1.B22	expanded metal lathing 22.F2 22.F3
Lutello, see Bratt Colbran, Ltd.	Oxylene, Oxylene-Boram, see Spencer Lock	26.K1
Luve-Tile, see Harris and Sheldon (Electrical),	& Co., Ltd.	gypsum plaster board 22.F1 insulating board 15.C1
Ltd.		sandlime bricks 13.H1
		wood-wool slabs 14.K1 14.L12
MacAndrews & Forbes, Ltd., Bulldog, Teco,	Packaged Buildings (Robert Building Inventions,	Plastics, see Furniture, Counters; Stairs;
timber connectors 11.C1	Ltd.), Keylock prefab. light alloy con-	Tiles, Thermoplastic, P.V.C.; Traps; Wall
Main Water Heaters, Ltd., gas water heaters	struction system 25.A1 25.A2 25.A3	Coverings
32.C3	25.A4 25.A5 25.A6	Plaxstele, see Gyproc Products, Ltd.
Manholes, covers, steel 33.P1	Painting, aluminium, general data 10.B1	Plimberite, see British Plimber Limited
Marley Tile Company, Limited, The, concrete	building boards, general data 15.C1 15.C4	Plumbing, Gas, Fittings, boilers 29.F1
flue blocks	plastic emulsion paint, specifications 38.D1	built-in fires 29.C1 29.C2 29.C10
Materials, building, weights 28.W1 26.W15	38.D2	controls 37.D4
Materials, building, weights 2.B5 Mathematics, conversion factors 2.A1	preparation of surfaces 38.A1	meters 37.D3 water heaters, instantaneous
conversion tables 2.A3 2.A4	rubber-based paints	water heaters, instantaneous 32.C20
formulæ 2.A2	38.C2 38.C3	32.C21 32.C27 32.C28 32.C31 32.C32
slide rule 2.A5	zinc, general data 10.11	water storage heaters 32.C3  Pipes, installation, service, details, general
Maxheat, see Wardle Engineering Co., Ltd.	zinc, general data 10.J1 Paints, enamel, general data 38.C2 38.C3	data 37.D1 37.D2
Mechanics, beam calculations. 2.B2 2.B3	flat oil, general data 38.C1 plastic emulsion paint 38.D1 38.D2 rubber-based 38.E1	Water, Fittings, electric automatic heaters
geometrical properties of plane sections 2.B4	plastic emulsion paint 38.D1 38.D2	32.D7 32.D8
superimposed floor loads 2.B1	rubber-based 38.E1	gas circulator and storage cylinder 32.C11
Metalace, see Harvey, G. A., & Co. (London),	Pammastic, see Blundell, Spence & Co., Ltd.	gas instantaneous heaters 32.C10
Ltd.	Paragon, see Newman, William, & Sons, Ltd.	32.C20 32.C21 32.C22 32.C23 32.C24
Metals, Perforated, typical standard patterns	Paramount Asphalte Limited, copper vents	32.C25 32.C26 32.C27 32.C28 32.C31
Metal Spraying, aluminium, lead, tin, zinc	Parapets, see Wall Construction, Parapet	32.C32 32.C33
40.B2	Parnall, see Ascot Gas Water Heaters, Ltd.	gas storage heaters 32.C3 32.C11
Metal Window Association Limited, The, steel	Parovent, see Paramount Asphalte Limited	sink, fireclay 33.T1
windows 24.C1 24.D1 24.D2 24.D3	Parsall, see Associated Builders Merchants	trap, polythene 33.P2
24.D4	Limited	wall fitting for heater 32.C34 w.c. flushing cisterns 33.Q2 33.Q6
Mills, William, Ltd., aluminium 10.B2	Partition Construction, building board 15.C11	w.c. flushing troughs 33.Q3
Modernphone, see Modern Telephones (Great	21.E2 21.G2	Pipes, Copper, lavatory basin ranges
Britain), Ltd.	fire-resisting, asbestos composition panels,	33.B1 33.B2
Modern Telephones (Great Britain), Ltd.	steel-faced       15.R1         straw slabs       14.L4         wood-wool slabs       14.L12	multi-branch fittings 33.B1 33.B2 33.D1
Modernphone telephone systems 37.H10  Modulux, see Cape Building Products Ltd.	straw stabs 14.L4	Lead, baths, lavatory basins, sinks. 33.C12
Monarch, see Newman, William & Sons, Ltd.	Partitions, Sound Insulation, building board	distribution, service, fixing, general data,
Morliss, see Bayliss, Jones & Bayliss, Ltd.	15.C11	joints 10.F1 33.C4 33.C10
Morris Singer Co., door frames, steel 23.C1	glass fibres general data 9 F1	lavatory basin ranges 33.C1 rainwater, fixing 33.C7
23,C2 23.C3	insulating boards 27.F1	sinks, laboratory, isolated, ranges 33.C11
Murac P.E.P., see Hall, John, & Sons (Bristol	insulating boards	soil, vent, waste, fixing, general data,
& London) Ltd.	wood-wool slabs 14.K1 14.L12	joints 10.F1 33.C5 33.C6 33.C7
Mural Designs, plastic veneers 15.S8	Thermal Histiation, building board 15.C11	33.C8
Muromatte, see Walpamur Co., Ltd.	glass fibres, general data 8.E1	urinal basins, stalls, ranges 33.C9 w.c. ranges 33.C2
Nairn, Michael, & Co. Ltd., p.v.c. tiles 18.H1	straw slabs	w.c. ranges 33.C2
Natural Rubber Development Board, adhesives,	Paxtile, see Newalls Insulation Co., Ltd.	Systems, one-pipe, two-pipe 33.C3 33.C8
rubber-based 12.N1	Perforated Metals, typical patterns 26.D1	Plywood, see Doors, Flush; Furniture,
anti-vibration mountings 27.Z1	Permadek, see Permanite, Ltd.	Counters, Tables; Panels, Plywood
flooring cement/rubber-latex 19.Z1	Permanent Shuttering, insulating board 15.C2	Portcullis, see Haskins (E. Pollard & Co., Ltd.)
flooring, rubber, sheets, tiles 19.F1 floors, sponge-backed rubber 19.F3	Permanite, Ltd., Permadek steel roof decking	Power Supply, Electric, service units, domestic
floors, sponge-backed rubber 19.63	Power Power Matel Co. Ltd. aluminium 10 P2	37.C1
paints, rubber-based 38.E1	Perry Barr Metal Co., Ltd., aluminium 10.B2 Perspective, curves	ducts in concrete 6.Z1 6.Z2 6.Z3
stairtreads, rubber, nosings, risers 19.F2 Nautilus, see Marley Tile Company, Limited,	exterior 1.B26 1.B27 1.B28 1.B29 1.B30	socket outlets 37.C2
The	1.B31 1.B33 1.B40	Gas, installation pipes 37.D2
New World see Radiation Ltd.	inclined planes 1.B32	liquefied petroleum gas, container sizes
Newalls Insulation Co., Ltd., Paxtile sound	instruments, for setting up 1.B41	32.C30
absorbing tiles 27.C1	parallel 1.B34 1.B35	meters 37.D3
Newhouse P.V.C., see Nairn, Michael, & Co.	reflections 1.B38 1.B39	service pipes 37.D1
Ltd.	shadows, artificial light 1.B37	Prefabrication, Structural Systems, aluminium,
Newman, William, & Sons, Ltd., Briton, Grip,	shadows, sun 1.B36	details, general data 25.A1 25.A2 25.A6 25.A6
Monarch, Paragon, Vanguard door springs	Phomene, see Pyrene Co., Ltd.	Prefatile (G.B.) Ltd., roofing tiles, aluminium
and closers 44.E1 doors, industrial, rubber 23.Z2	Phorpres, see London Brick Co., Ltd.	17.H1
Pvv coin-operated lock 44.E1	Photography, Architectural, common faults	Punt, see C.D. Productions Ltd.
Nomograms, r.c. design 6.A10 6.A11	1:A3	Putty, for metal windows 26.M3
Northern Aluminium Co., Ltd., aluminium	recommendations 1.A2	Pynford, Ltd., underpinning system 26.E2
10.B2	Picture Rails, steel, general data 26.J20	Pyrene Co., Ltd., Conquest, Phomene, Pyrene
Northlight, see Roof Lights, Northlight	Piling, see Foundations	fire extinguishers 36.B1
Olsson, Martin, & Sons Ltd. for Ljusne-Woxna	Pipes, see Plumbing Pland, see Stainless Steel Sink Co., Ltd.	Pyrene hose-reel 36.B1
AB., moulded hardboard 15.B5	runu, see Stainless Steel Sink Co., Lid.	Pyx, see Newman, William, & Sons, Ltd.

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

810413112463 212,0171,789281

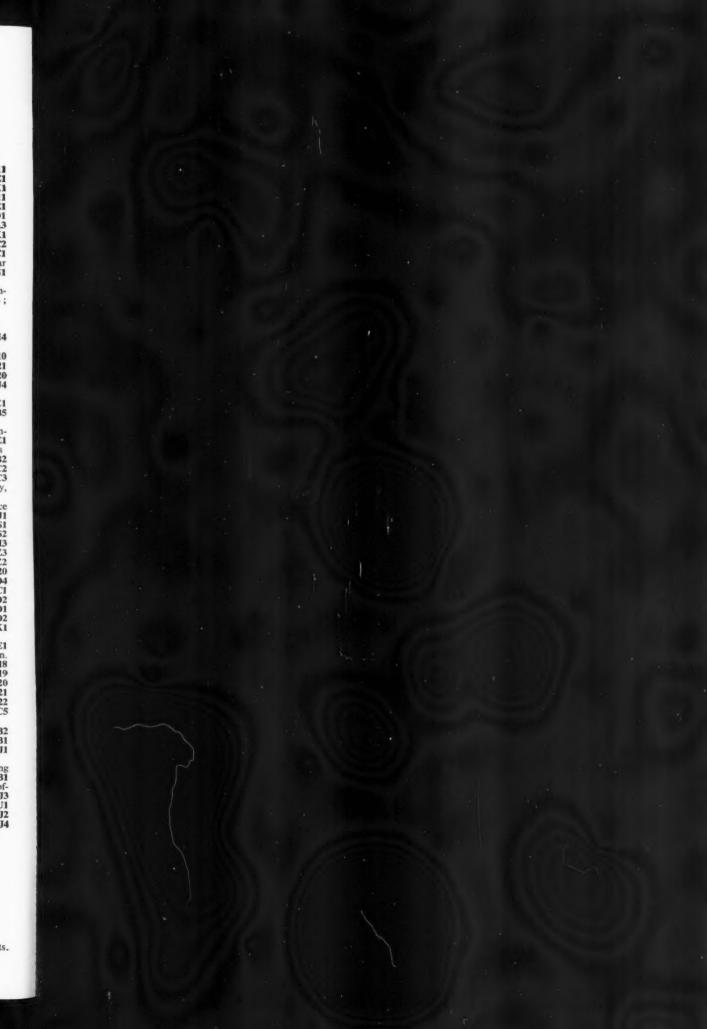
#### ALPHABETICAL INDEX TO DEC. 13, 1956 Q-Z

The Architects' Journal Library of Information Sheets 600. Editor: Cotterell Butler, A.R.I.B.A.

Q-deck, see Robertson Thain Limited	on insulating board 28.E10	lavatory cubicles, metal-faced plywood
R.T.E., see Rainham Timber Engineering Co.,	Copper, details 10.E1 on insulating board 28.E10	lavatory cubicles, tile, terrazzo slab 43.Z2 43.Z3
Ltd. Radiation, Ltd., New World gas fire. 29.C2	Corrugated Iron, on insulating board 28.E10 Lead, details 10.G11 10.G12	Shelving, see Furniture, Shelving Sherardizing, see Corrosion Prevention
New World Wenlock gas fire 29.C1	Metal Decking, aluminium 15.Q2 20.Z1	Shutters, Fire-Resisting, steel 36.D2
Rainham Timber Engineering Co. Ltd., timber	20.Z5 20.Z7 steel 20.Z2 20.Z6 20.Z8	Sills, see Windows
roof truss 20.E3 Rainwater Goods, copper, details 33.U1	steel 20.Z2 20.Z6 20.Z8 Zinc, details 10.J1 10.J2	Sinks, fireclay
flat roof outlets, lead flashing 10.G13	Tiles, clay, details 17.B1 17.B2	43.E14
pipes, lead, fixing	concrete 17.D1 17.D2 Roof Lights, Domes, acrylic sheet 24.L1	laboratory, lead lining, plumbing 33.C11 Sizes, Common, chairs, tables 4.A10
zinc, details 33.U1  Rebond, see British Plimber Limited	24.L2	china, cutlery, kitchenware 4.A11
Recreation, Games, billiards, table sizes 4.A10	Glazed Panels, aluminium glazing bars 24.M2 24.M3	miscellaneous items
sports fields, courts, orientation, sizes 4.L1 4.L2	corrugated translucent sheet 15.U1	schools, gymnasium, play, equipment 4.A14
table tennis, sizes 4.L1 4.L2	double glazing, aluminium, steel 24.M4 24.N4	Skirtings, aluminium 19.Z1 cement/rubber-latex 19.Z1
Redland Tiles, Ltd., concrete roofing tiles	lead-clothed steel glazing bars	linoleum 19.G2 19.G3
Reformite, see Selleck Nicholls & Co., Ltd.	24.N1 24.N2 24.N3 lead flashings 10.G20 10.G22	rubber
Refrigerators, gas	Lanterns, aluminium, lead-clothed, glazing	tiles clay 18.F1
electric 28.J1 Rely-a-Bell Burglar and Fire Alarm Co., Ltd.,	lead-clothed steel glazing bars 24.J2	tiles, cork 18.F1 tiles, thermoplastic
The, window grilles 26.D6	Northlight, aluminium glazing bars 24.M3	WOOD 18.F1 18.G1 19.F1 19.Z1
Rem, see Remploy, Ltd. Remploy, Ltd., locks	double glazing, aluminium, steel 24.M4 24.N4	Slabs, straw, general data, jointing 14.L4 wood-wool 14.K1 14.L12 14.L13 14.L14
timber shelving 42.C6 42.C7	lead-clothed steel glazing bars 24.N1	· 14.L15
Rendering, external 7.C1 7.C2 wood-wool slabs 14.K1	lead flashings, weatherings 10.G20	see also Partition Construction; Roof and Wall Linings
Rib-lath, see Expanded Metal Co., Ltd., The	Roof Linings, Fixing, asbestos board 15.B4	State, copings 5.B1
Riley (IC) Products, Ltd., mechanical stokers 29.J10 29.J11	22.D12 36.A2 36.A3 asbestos-cement sheeting 22.D12	sills
Ripping, see Hall, John, & Sons (Bristol and	fibre board <b>26.J6</b>	Slide Rule 2.A5
London) Ltd.  Robertson Thain Limited, steel roof deck 20.Z8	insulating board 22.D1 22.D2 22.D3 22.D4 22.D6 22.D12 28.E20	Small & Parkes, Ltd., aluminium, plastic-filled stair treads 19.Z10
Rocksil, see Kenyon (Meta Mica), Wm., &	plaster board 22.D12 22.E2	Smoothedge Ltd., carpet fixing 26.J10
Sons, Ltd.  Rolador, see Haskins (E. Pollard & Co., Ltd.)	wood-wool slabs 14.K1 14.L13 22.D12 24.L2	Socket Outlets, see Power Supply, Electric Sommerfelds, Ltd., beams, lattice 20.C10
Rolling Grilles, see Doors, Rolling Grilles	Roofs, Sound Insulation, anti-drumming, metal	20.C13
Rolling Shutters, see Doors, Rolling Shutters Roof Construction, Aluminium Frame, prefab.	roofs 10.J3 15.B1 insulating board 15.B1 28.E10	Sound Control, anti-vibration mountings 27.Z1 Specifications, linoleum flooring 19.G3
system 25.A1 25.A2 25.A3 25.A4 25.A5 25.A6	wood-wool slabs 14.K1 14.L13 14.L14	painting 38.C1 38.D1
Composite, aluminium, decking, insulated	Thermal Insulation, aluminium deck 15.Q2	windows, standard metal 24.C1 Speedwell Gear Case Co., Ltd., The, lockers.
20.Z1 20.Z5 20.Z7	20.Z1 20.Z5 20.Z7	steel 42.E1
aluminium sheeting, insulated 15.Q2 steel decking, insulated 20.Z2 20.Z6 20.Z8	glass fibres, general data 8.E1 insulating board 15.B1 22.D15	Spencer Lock & Co. Ltd. for Aktiebolaget Statens Skogsindustrier, hardboard 15.B3
Concrete, prestressed plank 20.D2	U values, typical constructions 28.A3	Spirax-Sarco Ltd., E.T.O. Controller for
screeding	steel deck 20.Z2 20.Z6 20.Z8 wood-wool slabs 14.K1 14.L13 14.L14	hot-water heating systems 29.A1  Sports Facilities, see Recreation, Games;
wood-wool insulation 14.L13 14.L14	14.L15	Swimming Baths
Fire-Resisting, plaster board lining. 22.E2 Gutters, box, zinc flat roofing . 10.J1	Royal, see Spencer Lock & Co., Ltd. Rubber, see Adhesives, Rubber-based; Doors;	Sprockets, precast blocks 20.D1 Stages, see Theatres
eaves, lead flat roofing 10.G11 10.G13	Floor Coverings; Floor Finishes, Tiles,	Stainless Steel Sink Co., Ltd., Pland stainless
eaves, zinc pitched roofing 10.J1 valley, lead, for tiled, slated roofs 10.G3	Jointless; Painting; Paints; Skirtings; Stairs; Tiles, Rubber	steel sinks and sink units
Leadwork, dormer windows, timber framed,	Rufflette, see French, Thomas, & Sons, Ltd.	escalators 35.B1 35.B2
lantern lights	Rustproof Metal Window Co., Ltd., door frames, steel 23.C1 23.C2 23.C3	fire escape, loft 26.F4 loft ladders, disappearing 26.F1
saddles, slates, lead, for tiled roofs 10.G4	Rust-Resisting Treatments, see Corrosion Pre-	26.F2 26.F3 26.F4
skylights, timber framed 10.G22 soakers, for tiled, slated roofs 10.G5	vention	nosings, aluminium, hardwood . 18.F1 18.G1
Lightweight Metal, wood-wool insulation 14.L15	Sadia, see Aidas Electric, Ltd.	nosings, metal, non-slip filling 19.Z10 19.Z11
Steel, beams, lattice 20.C10 20.C13	Sanacoustic, see Dale, John, Limited	nosings, rubber
glazed panels 10.G20 24.M2 24.M3 24.M4	Sandlime Brick Manufacturers' Association,	risers, rubber 19.F2
24.N1 24.N2 24.N3 24.N4 lantern lights	Ltd., sandlime bricks 13.H1 Sanitation, Fittings, see Chemical Closets;	risers, tiles 18.F1 18.F2 18.G1 treads, tiles 18.F1 18.F2 18.G1
northlight 10.G20 24.M3 24.M4	Cisterns; Incinerators; Lavatory Basins;	Steel, beams 9.C1 20.C3 20.C4 20.C10
24.N1 24.N3 24.N4 pitched, building board insulation 28.E10	Pipes; Sinks; Urinals; W.Cs Sanitation, Services, see Plumbing, Water	columns 9.C1
Timber, decking 20.E2	Sankey, Joseph, & Sons, Ltd., steel door frames,	fire protection 36.A1 36.A2 36.A3
precast sprocket blocks 20.D1 prefabricated trusses 20.E3	skirtings, picture rails, angle beads 26.J20 Sarco Thermostats, Ltd., see Spirax-Sarco Ltd.	r.w. goods, pressed 33.U4 33.U5 Stephenson, G. & Co., Ltd., Gesco cork tiles
wood-wool insulation 14.L14	Screeding, vermiculite 28.E2	18.F2
Roof Coverings, Aluminium, corrugated sheeting 15.Q2 16.B1 16.C1	wood-wool slabs	Sterling Metals, Ltd., aluminium 10.B2 Stic B Paint Sales Ltd., stone paints 40.C1
tiles 17.H1	26.M1 26.M2	Stokers, see Heating, Boilers
general data 12.F1	Selleck Nicholls & Co. Ltd., reconstructed stone blocks 14.F1	Stone, reconstructed, wall blocks 14.F1 Stone Paints 40.C1
lead flashings 10.G13	Semtex, Ltd., A Dunlop Company, anti-static	Stonite, see Callow & Keppich, Ltd.
Bituminous Sheeting, copper vents 26.Z1	rubber flooring 19.F11 Sewage Disposal, units	Stores, lock-up, steel 42.C5 Stores, see Heating, Space, Solid Fuel
flexible, built-up 16.J1 20.Z1 20.Z2 20.Z5 20.Z6	Schools, furniture, sizes 4.A13	Stramit Boards, Ltd., Stramit slabs 14.L4
'ead flashings 10.G13	gymnasium, play, equipment 4.A14 heating, water, gas 32.C26	Stressed Concrete Design, Ltd., prestressed concrete, principles 6.A1

#### 46.Z ALPHABETICAL INDEX TO DEC. 13, 1956 (Q-Z)

shell roofs 6.B1	True Flue, Ltd., domestic flues 30.C1 30.C2	Walls, Sound Insulation, building board 15.C11
Strowger, see Automatic Telephone & Electric Co. Ltd.	Trussed Concrete Steel Co. Ltd., expanded	glass fibres, general data 8.E1 wood-wool slabs 14.K1
Structural Insulation, Ltd., thermal insulation	metal lathing 22.F3	Thermal Insulation, building board 15.C11
general data 28.A1 28.A2 28.A3		glass fibres, general data 8.E1
roof linings, fixing 28.E20	Underpinning, precast concrete stools 26.E2	insulating board 15.B1 28.D1
Structures, see Framed Structures Sugg, William, & Co., Ltd., gas fired inciner-	United Steel Structural Company Limited, steel	U values, typical constructions 28.A3
ators 33 K1	beams 20.C3 20.C4	Walnamur Co., Ltd., Duradio paint 38.C2
Sunuminium, see Avery, J., & Co. (Est. 1834)	Universal, see Associated Builders Merchants	wood-wool slabs 14.KI Walpamur Co., Ltd., Duradio paint 38.C2 Muromatte paint
Ltd.	Limited	Wardle Engineering Co., Ltd., Maxheat tubular
Swimming Baths, covered, dimensions 4.L11	Urinals, basins, stalls, lead plumbing 33.C9	electric heater 29.G1
diving equipment 4.L10 fittings, ceramic, terrazzo 43.Z4	17.1.1. The state of the state	Water Heating, see Heating, Water Water Supply, Fittings, see Cisterns; Cylin-
intings, ceraine, terrazzo 45.24	Val de Travers Asphalte Ltd., general data 12.F1	ders, Water; Heating, Water, Pipes;
	asphalt tanking	Tanks, Water; Troughs, Flushing
Tarking carbolt 12 Et 26 A2	Veneers, plastic 15.S6 15.S8 15.T8 15.T9	Services, see Plumbing, Water
Tanking, asphalt 12.F1 26.A3 Tanks, Water, steel, galvanised, general	Ventilators, roof 30.D1 30.D10 30.D11	Watts Automatic Boilers, solid fuel boilers 29.H4
data 42.B2	30.D12	Weatherings, Lead, canopies, projections
data 42.B2 Teco, see MacAndrews & Forbes, Ltd.	extract, inflow, recirculating, roof 30.E1 shutters, roof 30.D21	10.G10
Telecommunications, private branch exchanges	Vermiculite, lightweight screeds, fire-	dormer windows, timber framed 10.G21
37.H11	resisting concrete 28.E2	northlight, raking edge 10.G20
sound distribution systems 37.H4 37.H10		Zinc, 10.J1 10.J2 10.J4 Webster, James, & Bro. Ltd., beech flooring
staff location systems 37.H3 telephone systems, internal 37.H1 S37.H1	W.Cs, flushing cisterns 33.Q2 33.Q6	20.E1
3/.H2 3/.H10	flushing troughs 33.O3	Weights, building materials 2.B5
Telephone Rentals, Ltd., sound distribution	multi-branch fittings	Wenlock, see Radiation, Ltd.
systems	ranges, plumbing, lead 33.C2 see also Chemical Closets	West's Piling & Construction Co., Ltd., concrete tubular shell piling 26.E1
telephone systems, internal 37.H1 S37.H1	Compartments, plywood, metal-faced 43.Z2	Wheath & Co Itd Triton Triton Romulus
37.H2	sizes 33.C2	clay roofing tiles
Tentest Fibre Board Co., Ltd., board fixing,	sizes	Williams & Williams, Ltd 23.C1 23.C2
metal, adjustable	Wall Construction, Aluminium, cladding 15.Q1	23.C3
Terrazzo, lavatory cubicles	prefab. system 25.A1 25.A2 25.A3 25.A4 25.A5 25.A6	Wincilate, see Bow Slate & Enamel Company, Limited, The
Theatres, planning 4.1.3 4.1.4 4.1.5	Blocks, Clay, Hollow, external, building	Windows, adjustable spring tape sash balance
Thermolok, see Anderson, D., & Son, Ltd.	board insulation 28.D1 general data 14.B1 14.B2	44.J1
Thermosteel, see Anderson, D., & Son, Ltd.	general data	control systems, distant operation 24.S1
Thermal Conductivities, various building materials 28.A2	Brick, Clay, external, building board insula- tion 28.D1	24.S2
Thor, see Ascot Gas Water Heaters, Ltd.	tion 28.D1 Cavity, cloaks, d.p.cs, lead 26.A1	sills, slate 24.Z1 24.Z3
T.I. Aluminium, Ltd., aluminium 10.B2	Concrete, external, building board insulation	joint sealing 26.M1 26.M2 26.M3 sills, slate
Tiles, Acoustic, asbestos composition 27.C1	28.D1	surrounds, state
bagasse fibre	wood-wool insulation 14.L13	Steel, direct fixing 24.D3 24.D4
Clay, floor 18.E1	Lightweight, external, building board insulation 28.D1	steel subframe, fixing 24.D2
lavatory cubicles, details 43.Z3	Parapet, D.P.Cs, bitumen flexible 16.J1	steel subframe, fixing 24.D2 wood surround fixing 24.D1
roofing, details, general data 17.B1 17.B2	lead 26.A1	Wirework, Woven, typical patterns 26.D2
Swimming pool fittings 43.Z4 Concrete, interlocking, roof 17.D1 17.D2	Parapet, Flashings, bitumen, flexible 16.J1	Wood-Wool Slabs, general data 14.K1 Woolliscroft, George, & Son, Ltd., clay tiles
Cork, details, general data 18.F1 18.F2	lead flat roofing 10.G11 lead, rain water outlet 10.G13	18.E1
Rubber, details, general data 19.F1	zinc flat roofing 10.J1 10.J2 10.J3	Working Drawings, 1/500, 1/32 in., 1/16 in.
Thermoplastic, details, general data 18.G1	Parapet, Weatherings, zinc 10.J1 10.J2	scale presentations 1.B18
p.v.c 18.H1 Timber, connectors 11.C1	Stone, blocks, reconstructed 14.F1	in. scale presentation I.B19
roof trusses, prefabricated	external building board insulation 28.D1 Wall Coverings, hardboard, moulded 15.B5	in, scale presentation 1.B20 in, and 1 in, scale presentations 1.B21
shelving 42.C6 42.C7	laminated plastics 15.S6 15.S8 15.T8	full size presentation 1.B22
see also Roof construction, Timber	tiles, clay 18.E1	Works Offices, steel 42.C5
Tin, coatings, metal spraying 40.B2	Wall Linings, asbestos board 15.B4 36.A2	
Town and Country Planning, development	ashestos_cement sheeting 36.A3 22.D12	Zinc, coatings, metal spraying 40.B2
control chart 4.N1 map notations 1.B5 1.B5a	asbestos-cement sheeting	coatings, sherardizing 40.B1
planning control, exemptions 4.N2	nore board 20.36	general data
Transport, cars, private, dimensions, turning	insulating board 15.C2 22.D1 22.D2	Zinc Alloy Rust-Proofing Co., Ltd., sherardizing
circles 4.E1 commercial vehicles, dimensions, turning	insulating board 15.C2 22.D1 22.D2 22.D4 22.D5 22.D6 22.D12 plaster board	40.Bl
circles 4.E2	plaster board	Zinc Development Association, Italianized roof ing 10.J.
Traps,, see Plumbing, Water, Fittings	22.D12	rainwater goods 33.U1
Triton, see Wheatly & Co., Ltd.	Wallboards, see Boards	roll cap roofing 10.J1 10.J2
Troughs, Flushing, for W.Cs 33.Q3	Wallpapering, building boards 15.C1	weatherings 10.J4





LOUVRED CLADDING: TIMBER DRYING STORE, ALDENHAM, HERTS

Thomas Bilbow, architect to the London Transport Executive; K. J. H. Seymour, architect-in-charge

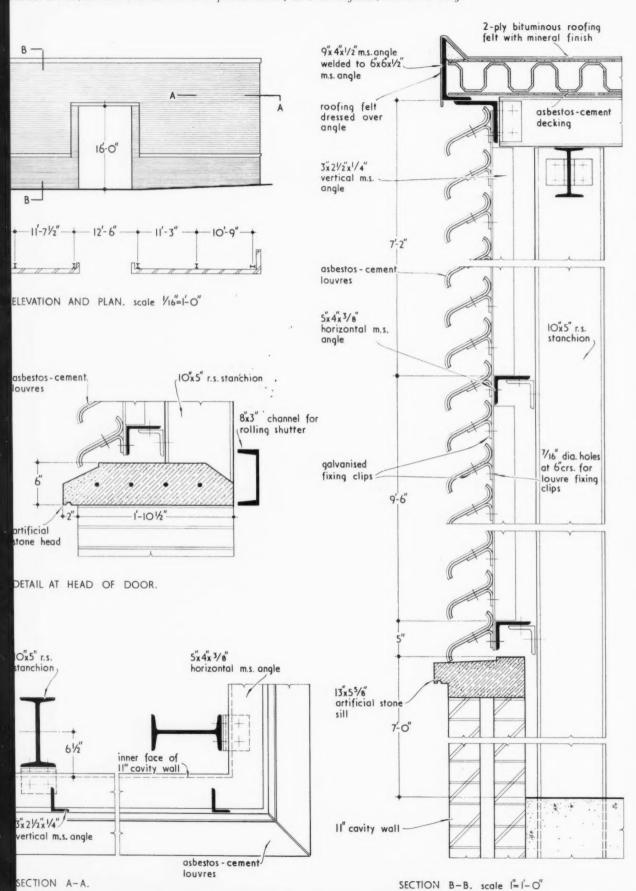


Asbestos touvre blades have been used instead of wood to save maintenance and because there was no serious danger of shattering. The neat appearance is largely due to the fact that all fixing is concealed from the outside.

#### working detail

OUVRED CLADDING. TIMBER DRYING STORE, ALDENHAM HERTS

Thomas Bilbow, architect to the London Transport Executive; K. J. H. Seymour, architect-in-charge





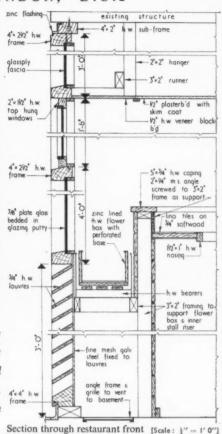


#### RESTAURANT IN BLOMFIELD STREET, LONDON, E.C.2

This new front to an existing restaurant in Blomfield Street, London, E.C.2, is the first stage in the conversion of the entire premises for Hastings and Easton Ltd. The architect is D. Tennyson Waters. The clients have found that there has been an increase in turnover



of 15-20 per cent since the restaurant entrance was modernized. The new facade was designed to make the passage-like approach to the premises appear wider. This effect has been achieved by the use of a plate glass window to the full width, beside the door and by lowering the ceiling to a height of 8 ft. between the front and the original counter. The contract price was approximately £800. General contractors Hudson Dodsworth Ltd.





## ROSEMARY ROOF TILES

"Rosemary" Clay Roof Tiles have been used on thousands of the new houses, schools and other buildings. The reason? Their proved durability and fine colour. Roofing Contractors like them because of their clean shape and freedom from distortion. This makes for speedy fixing. "Rosemary" Roof Tiles are made in a variety of browns, brindles, reds, and other colours.

State the colour required and quantity so we may quote and send sample tile.

G. W. LEWIS' TILERIES LTD., STOCKINGFORD, NUNEATON Phone: NUNEATON 3125

In association with THE HAUNCHWOOD BRICK & TILE CO. LTD., NUNEATON. Phone: Nuneaton 3419

#### SHOP AT MAIDSTONE, KENT



These new premises for the Times Furnishing Co. Ltd., in Week Street, Maidstone, Kent, were designed by Carl Fisher. The long facade, above, is clad above first floor level with aluminium curtain walling, except for a vertical panel on the right faced in Westmorland green slate. Windows are at a high level to allow free wall space internally for furniture display. The heating system is also designed to allow wall to be free from obstructions; high level built-in convection heaters are used throughout the shop.

#### Announcements

PROFESSIONAL

Hugh Wilson, O.B.E., A.R.I.B.A., A.M.T.P.I., Chief Architect and Planning Officer to the Cumbernauld Development Corporation, has now opened his office at Cumbernauld House, Cumbernauld, Dunbartonshire, and will be pleased to receive trade catalogues, etc. Representatives by appointment only at present.

Leonard Manasseh & Partners, A/A.R.I.B.A., have moved to 39-40, Bedford Street, Strand, W.C.2 (telephone Covent Garden 2907).

#### TRADE

The Copper Development Association, whose headquarters have been at Kendals Hall, Radlett, Herts, since the end of the war, have returned to London, to new premises at 55, South Audley Street, W.1 (telephone Grosvenor 8811).

Doulton & Co. Ltd. are pleased to announce that they are associating themselves with the firm of Mashman Brothers Pty. Ltd., of Sydney. A new company, Doulton Mashman Pty. Ltd., will operate as from January 1, 1957, to continue and develop the manufacture of sanitary ware at the Mashman Works at Chatswood.

#### Corrections

In the AJ for December 20, p. 900, the Information Centre item number should have been 9.60, not 9.59.

In the AJ for November 22 it was incorrectly stated that Kenneth Ward, A.R.I.B.A., had moved to 29a, Gowthorpe, Selby, Yorks. He has in fact moved to 49a, Gowthorpe, Selby, Yorks (telephone Selby 580).



ts

T.P.I the has nauld and gues, only .B.A., treet. rden

tion, idals the new W.1 anelves Pty. rom elop the

the bluc cor-B.A., rpe,

Office for the Telephone Manager, North Area, London Telecommunications Region, Crouch End Hill. Architect: N. W. Holder, B.Arch. F.R.I.B.A. General Contractors: Geo. Wimpey & Co. Ltd.

Bradford's were appointed by the Ministry of Works as contractors for the flooring of this building. Their hollow-block system was used throughout.

Specialities:

HOLLOW-BLOCK FLOORS CAST STONE GRANOLITHIC PAVING STAIRCASES PRE-CAST CONCRETE FLOORS PRE-CAST CONCRETE UNITS

BRADFORDS
FOR
CONCRETE DESIGN
AND
CONSTRUCTION

ir naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki naiki nai Naiki na

F. BRADFORD & CO. LTD. . ANGEL ROAD . LONDON . N.IS

Telephone: Edmenten 4267

# STANDARD STORAGE BUILDINGS



# offer rock-bottom economy from 6/6d. A SQUARE FOOT



Top illustration shows part of the works recently erected at Enfield for Thorn Electrical Industries Ltd., bottom illustration a storage building for Duple Motor Bodies Ltd., at Hendon.

By basing their design on the plastic theory, Sanders & Forster, Ltd., have achieved maximum strength with minimum overall weight of steel, thus providing the most competitive type of storage buildings. These are available in a multitude of combinations of various standard spans to suit every possible requirement. You should write for standard literature.



Member of the "CHAMBERLAIN" Group of Companies.

Thames Works, Hertford Road, Barking, Essex. Telephone: Rippleway 2401



ANOTHER

LONDON AIRPORT Entrance Hall to the Queen's Building Architect:
Frederick Gibberd Esq.
C.B.E., F.R.I.B.A.
Acoustical Engineers:
John Da'e Ltd., London, N.11
(Acoustics Division)



ACOUSTILE

INSTALLATION

The Merchant Trading Company Ltd. supplied the Acoustical Tiles for this wonderful new building.

METCO SERVICE is available for complete schemes and designs from the preliminary work to the finished job.



Stocks consist of: INSULATING AND
HARD BOARDS PERFORATED HARD BOARDS
ENAMELLED HARD BOARDS ACOUSTICAL TILES
CHIP BOARDS COVER STRIPS AND ACCESSORIES

Your enquiries and early consultation on your problems are invited

#### ℟℄℄ⅅⅅ℄ ⅋℞ℿⅅ℔℄

½ in. Insulating Board cut to sizes and edges processed with a "Vee and Lap" or a "Moulding and Lap".

# METCO METAL FIXING SYSTEMS

We can offer you a technical service including complete proposals for interior layouts utilising the 'Metco' Metal Fixing Systems.

Specialised contractors are available for installations if desired.

### The MERCHANT TRADING COMPANY Limited.

EFFINGHAM HOUSE, ARUNDEL STREET, STRAND, LONDON, W.C.2

Telegrams: "Themetraco, Estrand, London," Telephone: TEMple Bar 5303 (8 lines)

# The Finch

Clofit

solves the

cloakroom problem

The Research and Development Division of the Finch Organization conceived and developed these versatile and adaptable cloakroom units in conjunction with a number of leading architects and civic authorities. The result is a range of units that provide a complete answer for any municipal or industrial cloakroom problem in a form that can be accommodated

FOR FURTHER INFORMATION please write or phone for our descriptive 16 p.p. Booklet, which gives detailed specifications.

within most cloakroom plans.



**VERSATILE** For permanent or temporary installation; and in a variety of heights—"Clofit" provides the ready-made answer.

INEXPENSIVE Mass demand enables us to produce the "Clofit" units on a mass-production basis —you benefit by getting individually tailored units at an incomparably low price.

ADAPTABLE Each basic unit can easily be modified for specific industrial needs.



A view of the cloakroom in the new Marconi Building at Basildon, Essex.

B. FINCH & CO. LTD., Belvedere Works, Barkingside, Essex

VALentine 8888 (30 Lines)

Showrooms: FINCH CORNER, 679/687 EASTERN AVENUE, ILFORD, ESSEX

## ARCHITECTURAL METALWORK





d

GARDINER

Gardiner, Sons & Co. Ltd., Midland Works, Willway Street, St. Philip's, Bristol 2, and 8 William IV Street, Strand, London W.C.2

# GLASS in Hotel Bathrooms

In London's newest hotel—the American operated Westbury—

#### 'VITROLITE' FACING

provides an

# IMMACULATE & PERMANENT FINISH

With walls as lustrous and impervious as bath and basin, a bathroom faced with 'Vitrolite' is not only a joy to the eye; it is an assurance of complete freedom from maintenance. 'Vitrolite' is unaffected by moisture, grease, grime and chemicals, WILL NOT BLISTER OR PEEL, and cannot be defaced with pen or pencil. It is available in White, Black, Green, Green Agate, Ivory, Primrose, Turquoise, Pearl Grey, Eggshell and Cream.



Architect: Michael Rosenauer, F.R.I.B.A. Contractors: G. E. Wallis & Sons Ltd.

Clark-Eaton offer full technical service in the preparation of schemes, and teams of skilled fixers are available to undertake complete installations.

Please send enquiries or ask for ILLUSTRATED BOOKLET.



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

Telephone: WATerloo 8010 (20 lines)

Branches: CANTERBURY · BOURNEMOUTH · EASTBOURNE · READING · OXFORD (H. Hunter & Co.)

SEE OUR
EXHIBIT AT
THE BUILDING
CENTRE



## The Ceiling as a Feature

U.S.A.F. N.C.O's Mess, Manston Aerodrome. Architects: Major C. Carmichael, U.S.A.F. and L. R. Barlow, A.R.I.B.A. Contracting Agents: Jenkins & Sons Ltd., Romsey, Hants.

Effective treatment of the ceiling can be an important factor in the design of a hall or room.

'AND' methods of construction allow considerable latitude to the designer, enabling the ceiling to be brought into harmony with the interior scheme as a whole.

The Anderson organisation is widely experienced in work of this kind, and may be relied upon to produce sound and practical solutions to unusual structural problems.

Prompt and competent service is available in any part of the country.

Enquiries are invited.

B.A.

Ltd.

nical

xers

olete

for

G

(Co.)

of

# A.C.C ANDERSON CONSTRUCTION CO. CLIFTON HOUSE, EUSTON ROAD, LONDON, N.W.I. TELEPHONE:

TELEPHONE: EUSTON 7465

- THERMAL INSULATION
- PARTITIONING
- ACOUSTICAL TREATMENT

CONTRACTING AGENTS

ANDERSON CONSTRUCTION CO. AND GIBSON LTD. Thornton's Chambers, 57 The Headrow, Leeds 1.

BEAUMONTS (MANCHESTER) LTD. Head Office: Victoria Park, Manchester 14.

JOHN BLAND AND CO. LTD. Head Office: East Moors, Cardiff (and Branches). WM. GIBSON AND CO. (BUILDERS) LTD. Head Office: St. James Street, Paisley.

HALL AND CO. LTD. Head Office: Victoria Wharf, Croydon (and Branches).

JENKINS AND SONS LTD. Head Office: Laverton House, 4 Millbrook Road, Southampton (and Branches).

RUDDERS AND PAYNES LTD. Head Office: Aston, Birmingham 6 (and Branches).

# now ready the third and final volume in

#### the new series on modern building construction

These three volumes—of which details are given below—combine to provide a definitive work on modern building construction which has been written and published at the recommendation of the Text and Reference Books Committee of the Royal Institute of British Architects. The main object of the Series, written in a manner directly related to design, is to provide information in a suitable form for architectural students. It will, however, also be found useful by practising architects, students of building, and building technicians.

## building elements by R. LLEWELYN DAVIES, M.A.,

A.R.I.B.A. and D. J. PETTY, M.B.E., M.A., A.R.I.B.A. Foreword by W. A. ALLEN, B.ARCH., A.R.I.B.A.

This Book deals with the structural elements of which a building consists, its walls, roofs, floors, windows, etc., and explains the functional requirements a building has to meet. It then describes how these requirements are met in the actual design of the various structural elements.

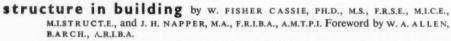
The book is divided into two parts, the first of which contains chapters on the requirements of building elements under the headings of Design and Expression; Weather Exclusion; Thermal Insulation; Sound Insulation; Fire Protection. In Part 2 chapters deal with the principal kinds of External Walls; Internal Walls; Roofs; Floors; Stairs; Flues and Fireplaces; Windows and Doors; which are in current use, and show how far and in what way, each of these elements fulfils the requirements described in Part 1.

Size: 8\(\frac{3}{2}\)in. by 5\(\frac{5}{2}\)in., containing 384 pages including over 190 diagrams and halftone illustrations. 37s. 6d. net, postage 1s. 4d.



This book provides up-to-date information on building materials in a form most useful to architectural students and practising architects. In addition to traditional materials, Mr. Handisyde deals with the many new materials which have come into use during the last twenty-five years, and takes full account of the very considerable amount of recent scientific research which has been brought to bear on both old and new materials. He examines thoroughly those problems of increasing concern to architects today—to what extent will alternative materials provide comfortable buildings, buildings that are warm and quiet and reasonably secure against fire, as well as being weatherproof and strong enough for their purpose.

Size: 8½ in. by 5½ in. Containing 336 pages including 58 diagrams and halftone illustrations. Second edition, 30s. net, postage 1s. 3d.



Steel, concrete, aluminium alloys, etc., have revolutionised structural design, and although this field is largely an engineering one, today it is essential for the architect to understand something about it. No attempt is made in the book to give the formulae and methods of analysis and design used by the structural engineer; rather it provides the architect and student with mental pictures of how structures behave, for without the ability to 'feel' how forces act and react in the support of buildings, the architect cannot hope to put into practice the spatial conceptions of present-day architecture.

The book fills a gap in the literature on structural design and provides the architect with all the information he needs about systems of construction, their character, possibilities and limitations, to enable him to produce designs for new buildings with economy and imagination.

Size:  $8\frac{3}{4}$  in. by  $5\frac{5}{8}$  in. Containing 268 pages including over 150 diagrams and halftone illustrations. Second impression, 30s. net, postage 1s. 2d.

The complete set of three volumes: price 97s. 6d. net. Postage 2s. 3d.







S ST. JAMES'S SQ, S.W.1

in

e

S.



TRAFALGAR 7833

# DEMOLITION & CONSTRUCTION

COMPANY LIMITED



Civil Engineering
Building and
Public Works
Contractors

Church of St. Andrew, Lambeth

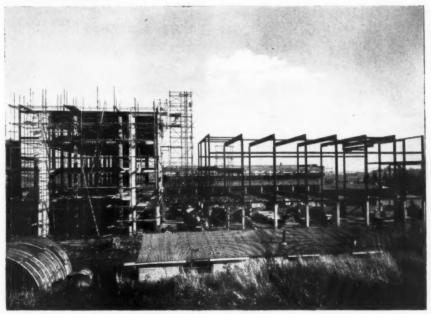
Architect:
David E. Nye & Partners

Construction

of
New Technical

College
for the
Newport, Mon.,
Borough Council

Architect: Sir Percy Thomas & Son





OFFICE BLOCK, NEW CAVENDISH ST., LONDON, W.I Gollins, Melvin, Ward & Partners, Chartered Architects

## OIL-FIRED CENTRAL HEATING

designed and installed by

## HOPE'S



HOPE'S HEATING & ENGINEERING LTD

Smethwick, Birmingham & 17 Berners St., London W.1. Branch Offices at Leeds, Cardiff & Hull

## First in the field—and still the best TRUE FLUE TRUE FLUE TRUE PLUE TRUE FLUE TRUE F

#### MEMBRANE ATTACHMENT for back boiler flues

Difficulty has been experienced in the past in adequately throating the "gather-over" above a back boiler appliance owing to provision having to be made for the back flue. The Triple Unit Type "U" has now been amended, so that the Membrane Unit can be bedded in the correct position spanning the flue opening, providing adequate space for the back flue and correctly throating the fire.

> Also, a new Back Attachment is available for converting Triple Units for use with open fires.



Send for complete catalogue

### TRUE FLUE LTD

-anything in refractory concrete

Convector House · Acacia Road · St. John's Wood, N.W.8 Tele: Primrose 7161/2



is cheap enough

TWO NISSEN TYPE SHEDS, SIZE 120' x 30' SUPPLIED TO :-STAFFORD ALLEN & SONS LTD.. LONG MELFORD.

> OTHER WIDTHS :-- 16' 24' & 35'. ALSO BLISTER HANGARS, 91' WIDE. PROVIDING INEXPENSIVE, LARGE, CLEAR WORKING SPACE



## THORNS

BUILDINGS too, provide inexpensive shelter

PLEASE WRITE FOR CATALOGUE AND QUOTATION GIVING DETAILS OR DRAWING OF BUILDING REQUIRED, TO:- Quickly!

& SONS LTD., (DEPT. 188), BRAMPTON ROAD, BEXLEYHEATH, KENT

ARTOLAC.PRIMO.ARTESCO.BAUMATTE, ROGART.RUSTRATION.DUROLENE.DUROCOL.MONSTO



It is with the highest confidence that our "Paints for every purpose and surface" can be specified.

Please get in touch with us - our laboratories, together with our technical and service departments are at your call to assist in solving your problems when paint specifications are up for discussion. We are continually developing and testing new paint mediums to meet the ever increasing demands for new surfaces and conditions.

## MONTGOMERIE, STOBO & CO., LTD

MAKERS OF FINE PAINTS, ENAMELS & VARNISHES

52 - 72 ROGART ST.

1/2

GLASGOW S.E.

ALSO AT

BELFAST & SLOUGH

DEESIDE, SALTNEY NR. CHESTER

#### THE ACME FLOORING & PAVING COMPANY (1904) LTD

River Road

Barking

#### The Company's latest Technical Brochure

on hardwood block and strip floors and softwood end grain paying will be gladly sent on request.

Telephone: RIPpleway 2771 (7 lines)

Telegrams: Dowelled-Easphone-London

## for all electrical installations

Tel: ABBey 8080 (8 Lines) Head Office: 39 Victoria Street London, S.W.I.

Branches: Manchester. Bournemouth, Glasgow, Birmingham, Southampton, Cardiff, Sheffield, York, Newcastle, Bristol.

### TIMBER DECAY calls for

prompt diagnosis . . .

Whether caused by prolific insect borers or insidious fungal rot (some species of which have the destructive effect of a slow fire), timber decay should be accurately diagnosed by specialists and arrested before expensive replacement becomes inevitable. The experienced survey staff of Richardson & Starling Ltd. undertake inspections and tender detailed advice on remedial measures.

#### effective control materials . . .

66 WYKAMOL \*\* This unique insecticide requires only one application to effect the total extermination of Death Watch Beetle and other woodborers, and confers complete immunity against further attack.

66 RESKOL \*\* Powerfully toxic to all fungi causing decay in timber, this special solution of pentachlorphenol can eradicate even the virulent Merulius (Dry Rot).

The superiority of these materials has been proved in practice time and time again. They are available to all users.

guaranteed treatment by experts...

Unless the varying characteristics of beetle infestation or fungal rot are fully understood, successful eradication should be rot are fully understood, successful eradication should be ensured by the employment of specialists. In the course of several years' reliable work, the services of Richardson & Starling Limited have been used in hundreds of important and historic buildings, including Cathedrals, Churches, Universities and ancient mansions. The careful treatment carried out by their highly trained team of expert operatives is covered by a ten-year guarantee of efficiency.

If you have a problem of timber decay, write now for full details of Services and prices of materials incorporated in our free technical brochure "The Control of Insect and Fungal Destroyers of Timber"

#### RICHARDSON & STARLING LTD

Members of the British Wood Preserving Association (DEPT. A.J.), HYDE STREET, WINCHESTER Winchester 5001/2

London Office: THE TIMBER DECAY ADVICE BUREAU
6 Southampton Place, W.C.I. Tel: HOLborn 3555-6





### Specify COPPER RAPS

for obvious reasons

Whether connected to Copper, Lead or Iron piping they will never leak; they are resistant to all climatic conditions; due to the smoothness of the bore they are more sanitary; they are lighter, cheaper, easier to handle.

For B.S.S. Copper Tube, use our Copper Traps in conjunction with the "TRAPEZE" patent Slip-in Joint. Simply wet end, push into joint and it is permanently leakproof. Available only to merchants through our distributors, a list of whom we will gladly supply on application.



LISTER STREET BIRMINGHAM, 7, ENGLAND

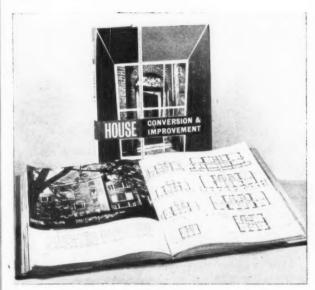
Telephone: ASTon Cross 3771-2 Telegrams: "TRAPPED, Birmingham 7"

See our exhibit at the Building Centre, 26, Store St., W.C.1.

### FELIX WALTER, F.R.I.B.A.

published

## House conversion and improvement



ius

ns

Lead

leak;

matic

hness

itary; er to

our

with

lip-in

into

proof.

rough

n we

LAND

.C.1.

n.

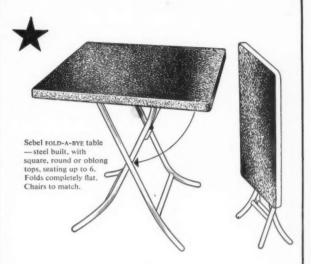
This is the first comprehensive illustrated book to be published on the subject of the conversion or improvement of properties of all kinds. It is based on the series of articles printed from time to time in the Architect's Journal, with the addition of a certain amount of fresh material. This book is designed to be of value to those architects concerned with the conversion of old or out-worn houses into groups of smaller units suited to present-day needs; to local housing authorities engaged in the rehabilitation of derelict urban and rural areas; and to those private owners who, for the purpose of investment or for their own occupation, are planning to turn old houses into new flats, or maisonettes, and seek the latest ideas on layout, materials and equipment.

A great many successful conversions, ranging from luxury
Belgravia terrace houses to remote rural cottages,
are thoroughly illustrated and described;
in the majority of cases full details of building costs,
rents, rates, &c., are given. Chapters written by
acknowledged experts in their own fields deal in
simple language with the legal aspects of conversion,
mortgages, loans and grants, management, and town
planning.

Size  $9\frac{1}{2}$ in. by  $7\frac{1}{4}$ in. 258 pages including over 420 halftone and line illustrations. 42s. net, postage 1s. 6d.

THE ARCHITECTURAL PRESS

9-13 Queen Anne's Gate Westminster S.W.1



problems. Our steel chairs and tables are designed for halls, canteens, and wherever people must be seated comfortably, quickly, but not too expensively. Sebel furniture is strong and handsome, but lightweight too—easily and quickly stacked or folded away into a very small space.

## Sebel

★ Write for free book about the complete range of Sebel

Steel Furniture to Department 16.J., Sebel Products Ltd.,

West Street, Erith, Kent.



#### LAKE ASPHALT

is a valuable component of good mastic, on account of its remarkable consistency and is provided for in

BRITISH STANDARDS 988:1941 1162:1944

Further particulars on request from

## & CO LTD

CAPEL HOUSE, 54 NEW BROAD ST. LONDON, E.C.2. Tel.:LONdon Wall 4313

for BUILDING W.& M. NEGUS LTP. Station Works. KING JAMES STREET, SEL and DOYLE ROAD, SOUTH NORWOOD, S.E.25, (Addiscombe 3427)

£2,108

for you at age 65

PENSION of £195 instead of lump sum

#### **FAMILY PROTECTION**

Capital Sums plus bonuses and a tax-free income to your wife and family in the event of your death before 65.

#### THE COST

£3.13.2d. per month (less than 2/6 per day). These benefits are based on age 30 next birthday and assume continued rate of bonus.

Particulars from:

The Secretary. A.B.S. INSURANCE AGENCY, Ltd. 66, Portland Place, London, W.I. (Tel. LANgham 5721)



### photo mura

are the vogue for interior décor of all buildings-municipal and business, restaurants, clubs, schools, shops, the home, etc. They are hung like wallpaper. Autotype (established 1869) specialises in their production and can submit subjects to choice.

Full details and illustrated folder from

AUTOTYPE

AUTOTYPE CO. LTD., BROWNLOW ROAD, W.13.



PAVE THE WAY

For factory and other floors exposed to heavy traffic, impact and corrosion, Accrington 'Nori' Paving Bricks may be specified material as with the utmost confidence. Made from the same on request the famous Accrington Engineering Bricks. Samples on request. THE ACCRINGTON BRICK & TILE CO. LTD., ACCRINGTON
Telephone: Accrington 2684

PAVING BRICKS

## In the sealing and waterproofing of roofs...

PLASPHALT is the ideal fibre-reinforced plastic Bitumen Emulsion. It is easily applied cold, straight from the drum, by trowel or float, and can be put on tiles, zinc, concrete—anything, in fact. It can also be incorporated into jointless floors and other mixes. The coverage is approximately 1½ to 2 sq. ft./lb., ½in. thick.

If you want to be sure of your waterproofing make sure that "Plasphalt" is used; Dussek products have no equal.

Bitite and bitrol bitumen solutions
Plasbestos bitumen emulsions
Colade bitumen emulsions
Lacol rubber/bitumen emulsions
Waterproofer P.B.7.

#### DUSSEK BITUMEN & TAROLEUM LTD. TI

Empress Wharf, Bromley-by-Bow, London, E.3. Telephone: ADVance 4127 Telegrams: TRINIDITE Bochurch London.

Warrington: Loushers Lane, Wilderspool.

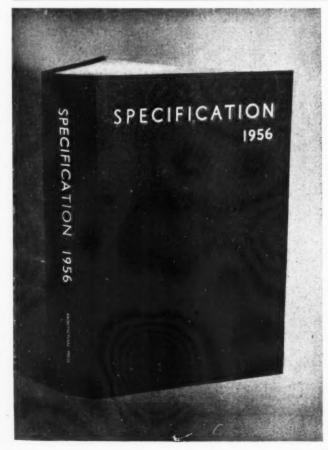
type

Glasgow: Barrhead South Goods Station

Cardiff: 12 Cathedral Road,

Branches, Associated Companies and Agents in Australia, Belgium, British East Africa, Denmark, Malta G.C., New Zealand, Norway, South Africa, Sweden and West Africa.

dmDB 20FB



#### **SPECIFICATION**

1956

just published

Editor: F. R. S. YORKE, F.R.I.B.A.

THE 1956 EDITION of this unique complete guide to the writing of building specifications, long acclaimed as the standard work covering all sections of the building industry, has been scrupulously revised throughout and now runs to 1,334 pages (1,288 pages in 1955, 1,246 in 1954). Model specification clauses are included in many of the sections, and the general arrangement is that laid down by the British Standards Specification for the sequence of trade headings in specifications. The 1956 volume contains a completely re-written section on concretor and reinforced concrete, and also major changes have been made in many sections including those on structural steelwork, electrical engineer, metal worker, structural aluminium alloys, heating engineer, contractors' equipment, floors, bricklayer, drainlayer, roofer. In each of its 36 sections will be found not only full details of the established methods of building construction but also the latest information about the constantly changing and ever increasing number of proprietary systems and materials.

You are urged to place your order now for the 1956 edition. Price 30s. net. Postage 3s. (3s. 3d. abroad).

THE ARCHITECTURAL PRESS, 9-13 QUEEN ANNE'S GATE, S.W.1

we thought you'd look at this-but try

THE ENGRAVERS GUILD LTD

MAKERS OF PRINTING BLOCKS

WINDSOR HOUSE · CURSITOR STREET · LONDON · E.C. 4

#### RECOMMENDED BY THE BOOK SOCIETY

## THE ENGLISHNESS OF ENGLISH ART



by Nikolaus Pevsner

THE 1955 REITH LECTURES, re-written to almost twice their original length, and fully annotated. With 130 illustrations in line and halftone.  $8\frac{3}{4}$  in. by  $5\frac{1}{2}$  in. 208 pages. Price 16s. net, postage 1s. 2d.

#### CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's morning for increases in section paper, Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

#### Public and Official Announcements 25s. per inch; each additional line, 2s.

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

THE CORPORATION OF GLASGOW
ARCHITECTURAL AND PLANNING
DEPARTMENT
ASSISTANT ARCHITECTS
ASSISTANT ARCHITECTS
ASSISTANT PLANNERS
Vacancies exist for a number of Assistants as above and for Architectural Assistants. Minimum qualification, Intermediate Examination of the appropriate professional body. Salary scale £580-£1,100 per annum, with placing according to age, experience and qualifications.
Form of application may be obtained from the Principal Administrative Officer, 20, Trongate, Glasgow, C.1.
NORTH RIDING EDUCATION COMMITTEE Applications are invited for the following posts in the Education Architect's Department:—
(a) ASSISTANT ARCHITECTS (Two), A.P.T. IV. Salary £727 15s.—£907 2s. 6d. A.R.I.B.A. required.

quired. ARCHITECTURAL ASSISTANT, A.P.T. II. Salary 4609 17s. 6d.—4691 17s. 6d. Student

(b) ÂRCHITECTURAL ASSISTANT, Sulary 2609 17s. 6d.—2691 17s. 6d.—Student R. B. A. C. ARCHITECTURAL ASSISTANT, A.P.T. I. Salary £545 5s.—£625 5s. Student R.I.B.A. (d) ASSISTANT QUANTITY SURVEYOR. A.P.T. IV & V. Salary £727 15s.—£994 5s. A.R.I.C.S. required. (e) ASSISTANT QUANTITY SURVEYOR, A.P.T. Special. Salary £707 5s.—£861. A.R.I.C.S. required. (f) LEARNER QUANTITY SURVEYOR, H.G.D. Salary £184 10s.—£512 10s. G.C.E. required. Previous experience may be taken into account in fixing commencing salary and experience with Local Authority not essential. Car, travelling and subsistence allowances, where applicable. Local Government Superannuation Act. Canvassing disqualifies. Further particulars from F. Barraclough, County Hall, Northallerton. 4773

ISLE OF ELY COUNTY COUNCIL
PLANNING DEPARTMENT
Vacancy for PLANNING ASSISTANT: Salary
within range £543-£561 (A.P.T. Grades I-II or
Special Grade). Candidates should be professionally qualified for Special Grade. Duties
concerned with preparation of Town Maps for
March and Ely. National Conditions. Application form and Conditions of Appointment from
County Planning Officer, returnable by 13th
January, 1957.

R. F. G. THURLOW, Clerk of the County County

County Hall,
March, Cambs.

BRACKNELL DEVELOPMENT
CORPORATION
invited for the

BRACKNELL DEVELOPMENT
CORPORATION
Applications are invited for the post of
JUNIOR ARCHITECTURAL ASSISTANT within
the salary grade £180 × £20 × £25(12)—£500.
Higher General Division. Commencing salary
within the grade will be decided according to
experience and ability.
Superanuation schemes. Medical examination.
Housing available in due course, Apply by 4th
January 1957, giving age, education and qualifications; experience and appointments held (with
dates and salaries) and two referees, to General
Manager (J.A.A.). Bracknell Development Corporation, Farley Hall, Bracknell, Berks. 4778

DURHAM COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
QUALIFIED ARCHITECT'S. Salary scale
A.P.T. V (£314 178, 6d. to £994 5s.). The appointments are subject to medical examinations for
the purpose of the Local Government Sanch
annuation Acts, the Council's regulations and the
National Joint Council's Scheme for the time
being governing payment of salary during sickness, annual leave and other conditions of service.
Applications, including the names and addresses
of two persons to whom reference may be made
should be addressed to the County Architect,
South Street, Durham. Canvassing members of
the Council is prohibited.

J. K. HOPE,

Clerk of the County Council.

Clerk of the County Council.

THE CORPORATION OF GLASGOW
ARCHITECTURAL AND PLANNING
DEPARTMENT
Applications are invited for the post of
PRINCIPAL ASSISTANT ARCHITECT.
Salary scale: £1,150×£20-£1,250.
Applicants must be Members of the R.I.B.A.
and must have had wide housing experience and
possess administrative ability. The appointment
will be superannuable, subject to medical
examination.

Form of application may be had from the Principal Administrative Officer, 20, Trongate, Glasgow, C.1.

City Architect and Planning Officer.

GLAMORGAN COUNTY COUNCIL Require PLANNING ASSISTANTS, Grade Special/A.P.T. IV. Salary £707 5s. to £907 2s. 6d.

per annum.

Candidates must hold a University Degree in Town Planning or Civic Design or have passed the final examination of an appropriate Professional Body.

Applications stating age, training, and other relevant details, accompanied by two Testimonials, should be sent to the County Planning Officer, County Hail, Cardiff. Closing date 7th January, 1967.

RICHARD JOHN, Clerk of the County Council. 4816

CAERNARVONSHIRE COUNTY COUNCIL
Applications invited for the post of PLANNING
ASSISTANT, County Planning Department,
Grade A.P.T. III/IV (£556/£997). Preference
given to candidates possessing an appropriate
university degree or equivalent technical qualification. Experience in research and surveying
will be an advantage. Further particulars and
application form from Clerk of County Council,
Caernarvon. Closing date 12th January, 1957. 4782

Gaernarvon. Closing date 12th January, 1957. 4782

GOVERNMENT OF UGANDA
ARCHITECTS, PUBLIC WORKS
DEPARTMENT
For general architectural duties under the
supervision of the Chief Architect.
Appointment on contract in first instance with
prospect of permanency. Salary according to
qualifications and experience in range £1,194£1,863 p.a. Substantial gratuity on termination
of contract. Free passages. Free medical
attendance. Generous leave.
Candidates aged 25-75 years, must be A.R.I.B.A.
Experience in tropical problems an advantage.
Write Director of Recruitment, Colonial Office,
London, S.W.I., giving briefly age, qualifications
and experience, quoting BCD 112/9/012. 4810

BOROUGH OF CROSBY
APPOINTMENT OF CHIEF PLANNING
ASSISTANT
Applications are invited for the appointment of a CHIEF PLANNING ASSISTANT in the Borough Engineer's Department at a salary in accordance with A.P.T. IV (£727 15s. to £907 2s. 6d.).
Candidates should have had considerable experience in the administration of planning Schemes and possess an appropriate qualification. Housing accommodation available on satisfactory proof of need.
Applications on forms obtainable from the Borough Engineer and Surveyor at the address below must be delivered, suitably endorsed, not later than noon on 10th January, 1957.
Canvassing directly or indirectly will be a disqualification.
HAROLD O. ROBERTS,

HAROLD O. ROBERTS, Town Clerk.

Town Hall, Waterloo, Liverpool, 22.

Town Hail,
Waterpool, 22.

COUNTY BOROUGH OF SUNDERLAND
PUBLIC WORKS MANAGER
Applications are invited for the above post.
The salary scale will be £1,790 rising by £55 to £2,065, the starting point in the scale to be fixed by the Council according to experience and qualifications. There will be a car allowance.

The duties of the Public Works Manager (a new appointment) will include responsibility for the repair and maintenance of Corporation buildings and civil engineering works and the carrying out of new building and civil engineering work for the Corporation, subject in each case to competitive tendering for larger works.

Applicants must have had control of large building or civil engineering establishments of local or public authorities doing work by direct labour, or of private contractors.

The appointment is subject to be Superannuation Acts and medical examination.

Forms of application and particulars of duties and conditions of appointment are obtainable from the undersigned at the Town Hail, Sunderland, to whom applications must be sent so as to arrive not later than 19th January, 1957.

G. S. McINTIRE.

Town Cerk.

4819

CITY OF WAKEFIELD
CITY ENGINEER'S DEPARTMENT
Applications are invited for the following superannuable appointments in the City Engineer'S Department:

(a) SENIOR ENGINEERING ASSISTANT, Grade A.P.T. IV (£727 15s. to £907 2s. 6d.). Candidates must be A.M.I.C.E. or A.M.I.Mun.E., and have good experience in Municipal Engineering works.

(b) SENIOR ARCHITECTURAL ASSOCIATION OF THE CORDER OF THE C

and have good experience in Municipal Engineering works.

(b) SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T. IV (1727 15s. to 1907 2s. 6d.).

Candidates must be A.R.I.B.A. and have had experience in the design and construction of schools.

experience in the design and construction of schools.

(c) ARCHITECTURAL ASSISTANT, Grade A.P.T. II (2609 17s. 6d. to £691 17s. 6d.). Candidates should have passed the R.I.B.A. Intermediate examination and should have some municipal experience.

Housing accommodation will be considered in the case of appointments (a) and (b). Applications stating age, qualifications and experience, together with the names of two referees should be received by the City Engineer, Town Hall, Wakefield, by the 7th January, 1957.

HARLOW DEVELOPMENT CORPORATION Vacancies exist in the office of the Architect-Planner, Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I., and the Executive Architect. V. Hamnett, B.Sc., A.R.I.B.A., A.R.I.C.S., A.M.T.P.I. JUNIOR ASSISTANT ARCHITECTS required to work on large and varied programme of industrial Development at Harlow New Town. Appointments offer excellent opportunities for work full of interest on development of contemporary factory buildings, offices and laboratories.

Appointments offer excellent opportunities for work full of interest on development of contemporary factory buildings, offices and laboratories.

Applicants, who should be Intermediate R.I.B.A., must possess sound knowledge of building construction, together with experience in the quick and accurate preparation of working drawings and deails. Knowledge of framed structures an advantage.

Posts will be in the Salary Scale A.P.T. III. 560—2766. Housing available for successful candidates.

Applications within 10 days to General Manager, "Terlings," Harlow, Essex. 4002
BOROUGH OF WANSTEAD AND WOODFORD BUILDING SURVEYOR (Grade A.P.T. VII—2999 × 246—21,230, plus L.W.) Applications are invited for the above established appointment in my department.

Applications are invited for the above established appointment in my department.

Applications are invited for the above established appointment of a recognised professional institution, and preference will be given to those with Municipal experience, including the surveying of properties, the design, preparation of drawings and specifications, the supervision of building contracts, and the preparation of estimates for such works. Housing accommodation is not allocated to this appointment, but a car allowance will be paid.

Forms obtainable from and to be returned to L. S. Jeffery, Borough Engineer and Surveyor, Municipal Offices, High Road, Woodford, E.18, by first post on 14th January, 1957.

GOVERNMENT OF SARAWAK

ASSISTANT ARCHITECT, PUBLIC WORKS

DEPARTMENT

To prepare working drawings and specifications of state-aided schools and institutions.

Contract appointment. Salary range £1,453 to £1,545 p.a. Grautily £37 10s. for each three months resident service. Quarters, if available, at low ret. Free passages for officer, Universional plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plantage and plan

Applications are invited for the appointment of an ARCHITECT, Grade II, at a salary up to 4900 per annum, in the office of the Divisional Architect at Divisional Headquarters, National Coal Board, Longbenton, Newcastle-upon-Tyne. Applicants must be Associates by examination of the R.I.B.A., with two or more years' experience in the preparation of working drawings and details of good class work.

Applications, stating age, training, and details of past and present appointments, should be submitted to Staff Department, National Coal Board, Northern (N. & C.) Division, Whitley Road, Longbenton, Newcastle-upon-Tyne, 12, by 31st December, 1956.

COUNTY BOROUGH OF HALIFAX

OXFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECT required, preferably
with experience in alterations. A.P.T. Grade III.
N.J.C. Conditions of Service. Applications giving
age, education, qualifications and experience, a
copy of a recent testimonial and the names and
addresses of two referees, to be sent in envelope
endorsed "Staff" to County Architect, Park End
Street Offices, Oxford, by 12th January, 1957.

GERALD GALE BURKITT,
Clerk of the Council.

LANCASHIRE COUNTY COUNCIL
PLANNING ASSISTANTS required at Wigan,
salary within £727 15s. to £994 5s., and ACCRINGTON, LIVERPOOL and MANCHESTER, £707 5s.
to £907 2s. 6d.
Applicants should preferably have a qualification in architecture, surveying, engineering and/
or planning, Candidates who are studying, however, would be considered on an appropriate
lower grade. The commencing salary for successful candidates will be according to qualifications
and experience.
Applications, stating appointment applied for,
giving age, qualifications, present appointment,
experience, etc., and two referees, to the County
Planning Officer, East Cliff County Offices,
Preston, by January 7, 1957.

4825

Architectural Appointments Vacant

ON itect-B.A., Ham-

uired In-

con-bora-

diate wild-e in king uned

neral

ORD

.W.) stab-

ation

peci-acts, orks.

d. d to eyor, E.18, 4821

KS

tions

and

three e, at d up

e in lirec-.W.1, ence, 4809

peri-and

tails L be Coal itley

ointp.a. etion hich

rain-ients com-ould

4805

rably III. ving e, a and

End T neil

4804

ficaand/ how-riate cess-tions

nent, unty fices, 4825

4 lines or under, 7s. 6d.; each additional line, 2s.

ARCHITECTURAL ASSISTANTS required.
State salary, age, experience, etc. Harvey
& Scott, 2, Lynedoch Place, Glasgow, C.3. 4278 K NIGHTSBRIDGE. — ARCHITECTURAL ASSISTANT required. Salary range ±500.—Telephone BEL. 3365, or Box 4777.

A RCHITECTURAL ASSISTANT required: qualified or Intermediate stage. Must have good experience, and considerable capacity for work.—Write, stating salary required, to David Carr & Stuart Matthew, 14, Lynedoch Place, Edinburgh.

A RCHITECTURAL ASSISTANT required, with about four to five years' office experience. Write or telephone giving full particulars, including age and salary, to Hasker & Hall, Architects, 13 Welbeck Street, W.1. (WELbeck 0061), 4561

POST-INTERMEDIATE ASSISTANT required, in large London Office with widely varied practice. Lewis Solomon, Son & Joseph, 21. Bloomsbury Way, London, W.C.1. Telephone Holls

CO-OPERATIVE WHOLESALE SOCIETY LTD.
ARCHITECT'S DEPARTMENT, MANCHESTER PROPERTIES DEPARTMENT, MANCHESTER SHOPFITTING DRAUGHTSMAN required, experienced in shop equipment and modernisation of interiors.

The position calls for the preparation of layouts and perspectives with a modern approach to store fitting problems.

The post is pensionable, subject to medical examination and there is a five-day week in operation.

operation.

Applications giving age, details of previous experience and salary required to G. S. Hay, A.R.I.B.A., Chief Architect. Co-operative Wholesale Society, Ltd., I, Balloon Street, Manchester 3056

JUNIOR ARCHITECTURAL ASSISTANT required by City firm. Minimum 3 years' drawing office experience (not domestic). Work of interesting character, with good scope. Salary 1450—1550.—Box 4750.

ASISTANTS required in medium sized busy office. Capable of taking complete charge of contracts under general supervision. General practice, including Housing Schemes, Office Blocks, Factories, etc.—Apply in writing only stating age, qualifications, experience, and salary required to Thomas Sibthorp, F.R.I.B.A., A.R.I.C.S., A.M.T.P.I., 10, Manchester Square, W.I.

A PRIVATE Office has several vacancies for ARCHITECTS interested in New Building Techniques. Previous experience not essential, and work will include the research and development of standard structural and building elements.—Apply A. M. Gear, F.R.I.B.A., 12, Manchester Square, W.1.

12, Manchester Square, W.1.

12, Manchester Square, W.1.

13, Manchester Square, W.1.

1467

15 DRAUGHTSMEN on the staff of their Planning Department.

(a) With experience in the design and constructional detailing of houses, shops, flats, factories, etc.

(b) With experience of land surveying, Estate layouts, road and drainage schemes.

Staff pension scheme in operation and housing accommodation can be provided.

Apply to Head Office at 183, High Town Road, Luton, giving particulars of previous experience and stating salary required.

4766

GOOD ARCHITECTURAL ASSISTANT or DRAUGHTSMAN wanted in small expanding Architect's office, Moorgate, for varied commercial work on large schemes. Good salary and prospects to suitable applicant.—L. Robinson, Chartered Architect, 120, Moorgate, E.C.2.

A DAMS, HOLDEN & PEARSON require ARCHITECTURAL ASSISTANTS.—Write, giving particulars of experience and salary re-quired, to 38, Gordon Square, W.C.1. 4791 A RCHITECTURAL ASSISTANT, Inter. to

ARCHITECTURAL ASSISTANT, Inter. to Final standard, required in small contemporary office.—A. F. Bennett, 35, Queens Gate Mews, S.W.7. KNI. 6937.

APPLICATIONS are invited for the post of Calender's Cables, Ltd., at Prescot. Candidates, who should be Associates of the Royal Institute of British Architects, must be well acquainted with modern building technique, and must have had extensive experience on the design of industrial buildings, including single and multistorey office buildings, laboratories, etc., and modifications to existing buildings. This post is permanent and pensionable, and salary will be commensurate with ability and experience.—Applications in writing, quoting reference P72 56, should be addressed to the Staff Officer, B.I.C.C., Ltd., Prescot, Lancs.

ARCHITECTURAL ASSISTANT required im-

A RCHITECTURAL ASSISTANT required immediately for busy Birmingham practice. A.R.I.B.A. and Intermediate qualifications. Salary scale £500-£750, according to experience, etc. Write, giving full particulars and when available, to Wood & Kendrick & Williams, 57, Colmore Row, Birmingham, 3.

A PPLICATIONS are invited for the following A PPLICATIONS are invited for the following appointments:—
Young qualified ASSISTANT ARCHITECT, with office experience, required to take charge of building schemes throughout the country. Excellent opportunity for capable designer. Young, experienced Shopfitting DRAUGHTS-MAN required in Architect's Department. Apply, stating age, experience, and salary required, to Staff Architect, Prices, Tailors, Ltd., Cardigan Crescent, Leeds, 4.

CHTY Architect's Office require ASSISTANT of about Inter, R.I.B.A. standard. Must be quick and reliable draughtsman, and accustomed to good class work. Interesting varied work and secure future. Apply, stating experience, age, and salary.—Box 4808.

ATOMIC ENERGY RESEARCH
ESTABLISHMENT, HARWELL,
requires an
ARCHITECT or SURVEYOR,
to assist the Head of the Building Section of
the General Services Group in connection with
the extension, conversion and maintenance of
the Establishment's buildings and its housing
estates.

the Establishment's buildings and tes housing estates.

The work involves liaison with scientific staff and covers a wide field, many aspects of which are novel.

and covers a wide field, many aspects of which are novel. Applicants should be Associates of the R.I.B.A. or R.I.C.S. (Building Section), but lesser qualifications may be accepted in the case of an applicant of exceptionally suitable professional experience. Wide experience in the preparation of schemes, specifications and estimates for the execution of work by direct labour and contract is needed.

Salary: The post will be graded as Assistant Architect: £775 (at age 25)—£1,210 p.a. (Highest starting salary, £1,060.)

Contributory Pension Scheme, 5-day week, excellent working conditions, and generous leave allowances.

excellent working conditions, and generous leave allowances. Married officers, living outside the Establishment's transport area, will be eligible for housing under Authority arrangements or, alternatively, substantial assistance towards legal expenses incurred in house purchase will be available.

Send post card for application form to Establishment Officer, A.E.R.E., Harwell, Didcot, Berks., by 9th January, 1957, quoting reference 680/119.

A SSISTANT ARCHITECTS required immediately for contemporary buildings. At least two years' post-graduate office experience required.—Write, with full particulars, to Alan Reiach, A.A.M.T.P.I., 22, Anisie Place, Edimburgh, 3.

YOUNG single ARCHITECT required for Libya.—Replies to Thornton Firkin, 17, Fitzhardinge Street, W.I.

A SSISTANT required, of Intermediate of Final standard, for Manchester practice. Work mainly of contemporary nature; some experience in school design helpful, but not essential. Congenial office, where keenness and initiative is encouraged. Progressive salary offered to suitable applicant.—Box 4622.

A SSISTANT required in London office, with ability to design and able to work up from Principal's sketches. Salary up to £800 a year.—Apply Box 4628.

A ACHESTER & LODGE urgently require male

Apply Box 4828.

LANCHESTER & LODGE urgently require male
Assistants for varied and interesting work on
Universities, Research Labs, etc. Five-day week
and lunch vouchers.—Ring Museum 0845 for interview or write 10, Woburn Square, London, W.C.1.
4827

View of write 20, 102 May 1975 Agree 1975 Ag

Architectural Appointments Wanted

4 lines or under, 7s. 6d.; each additional line, 2s.

A SSISTANT, R.I.B.A. Finals, 2 years' experience, including 5 months' practical site work, seeks position with progressive small or medium size office, with contemporary outlook. London area. Present salary £750.—Box 4813.

CHARTERED ARCHITECT, Associate, age 44, 20 years' varied experience, seeks West Country Partnership or senior position leading shortly thereto. Interviewed London, 23rd December-3rd January. Specialised hospital knowledge.—Replies to Box 4823.

Other Appointments Vacant

Other Appointments Vacant

4 lines or under, 7s. 6d.; each additional line, 2s.

THE BRITISH TABULATING MACHINE
CO., LTD., manufacturers of "Hollerith"
equipment, has a vacancy for a CIVIL
ENGINEER. This will entail responsibility for
progressing new building projects and development schemes, including negotiation and liaison
with architects and contractors, co-ordination of
factory maintenance services, and technical
advice to Works Engineering Staff.
Candidates should be members of a professional
institution and have had previous design and
construction experience, preferably in the industrial field—Write, in the first instance, giving
details of qualifications and experience, and
stating salary required, to Personnel Superintendent, The British Tabulating Machine Co.,
Ltd., Letchworth, Herts, quoting Reference A/490.

A RTICLED PUPIL or JUNIOR required by Quantity Surveyors; no premium. Age 15-18, with G.C.E. or equivalent for R.I.C.S. Must be keen, accurate at figures. Excellent prospects to learn the profession.—Reply in writing, stating age, education, etc., George Lewis & Son, 49, Sheepcote Road, Harrow, Middlesex.

D

S

5

0

4



#### New German Architecture

### by Gerd Hatje, Hubert Hoffmann and Karl Kaspar. With an Introduction by Hubert Hoffmann

The first illustrated survey of post-1945 German Architecture. The modern movement in Germany, under the leadership of Gropius, van der Rohe and Breuer, was forcibly halted in 1933; not until rebuilding began about six years ago were architects in Western Germany again free to develop a contemporary German architecture. Many of Germany's new buildings are outstanding. This book illustrates and describes 134 carefully chosen examples, Hubert Hoffmann, a former Bauhaus student, shows in his Introduction that although these present-day buildings are inevitably influenced by ideas developed elsewhere during Germany's intellectual isolation, the best of them have evolved directly from the German architecture of the modern movement in the 1920s. The building types illustrated include: houses, flats, hospitals, hotels, hostels, schools, churches, theatres and concert halls, sports buildings, department stores, offices, factories and transport buildings. Size 101 × 71 ins., 256 pages with over 540 illustrations in half-tone and line. Price 56s. net, postage 1s. 6d.

The Architectural Press, 9-13 Queen Anne's Gate, London, S.W.I

RITISH INSULATED CALLENDER'S QUANTITY SURVEYING ASSISTANT. Candidates should be experienced in estimating, the preparation of bills of quantities, site measurement and settlement of accounts, and be within the age group 25.55. Intermediate standard of the Institute of Quantity Surveyers should have been reached. Commencing surveys will be according to ability.—Applications in writing, quoting reference P 73.56, should be addressed to the staff Officer, B.I.C.C., Ltd., Prescot, Lancs. 4806

CLERK OF WORKS required for inspection and repair of subsidence damage to all types of property. Good knowledge of all building trades and ability to control direct labour force essential. Previous experience of repairs to buildings in mining areas an advantage. Salary within scale £690 × £25 to £840.—Applications, giving age, experience, etc., to Area Staff Manager, National Coal Board, Aliport Street, Cannock, Staffs, within 14 days of this date.

#### Services Offered

4 lines or under, 7s. 6d.; each additional line, 2s.

Blackheath, S.E.S. Tel.: LEE Green 7444-5. Fully equipped to undertake urgent Engineering and Architectural surveys in any part of the country and abroad. Specialists in \( \frac{1}{2} \) in, scale detailed surveys for extensive city development

Areas.

NamePLATES, PLAQUES, CRESTS, etc., in bronze, brass and plastic, quotations and lay-outs submitted.—Abbey Craftsmen, Ltd., 78, Osnaburgh Street, London, N.W.1. Euston 5722.

4165

A RCHITECTURAL, Reinforced Concrete and Steel Design and Detailing required—only huildings over £10,000. Large staff available. MUSeum 8753.

SITE Surveys and Surveys of Buildings pre-pared at short notice anywhere in Britain. MUSeum 8753. 3103

SURVEYS OF BUILDINGS, detailed drawings prepared, also land surveys by chain or theodolite, levelling, etc. LIV. 1839.

COOD LETTERING is essential for Commemorative Wall Tablets, Foundation Stones,
etc. Designs prepared and estimates given for
the finished work in any suitable material.
Renowned as a Centre for Lettering since 1934.
Sculptured Memorials, 67, Ebury Street, S.W.1.
9170

NAMEPLATES AND SIGNS, Bronze, Brass and Plastics. Church Metalwork. Quick delivery.—Austin, Luce & Company, 19, College Road, Harrow, Middlesex. Tel.: Harrow 3839,

A SSISTANT in control of contracts seeks part-time work, evenings and week-ends. 20-30 hours per week. Anything undertaken.—

JOE SOPE & ASSOCIATES available for Architectural Assistance. Working Drawings, Interior Designs, Surveys, Perspectives, Mural Designs and Paintings and Models.—

TOUNG, experienced ARCHITECTS

(A.R.I.B.A.) offer their services, All types of work, speedily, well executed; car owners. London, S.E. England.—Box 4184.

SURVEY of Sites and Buildings. Detailed drawings prepared. LIV. 1839.

EXPERIENCED DESIGNER, with original cutlook offers free lance services for preparation of Interior Schemes from initial sketches to final details.—John Carter, 38D, Upper Montague Street, London, W.I. PADdington 2702.

#### For Sale and Wanted

4 lines or under, 7s. 6d.; each additional line, 2s. SECTIONAL BUILDINGS, timber, timber and asbestos. 10 ft. to 24 ft. spans. A few secondhand buildings available. Enquiries invited for Site Huts, Temporary Offices, Club Rooms, Church Halls, etc. Free catalogue. Universal Supplies (Belvedere), Ltd., Crabtree Manorway, Belvedere, Kent (Erith 2948).

THEODOLITE required. State age, type, condition, and price required.—John Knox (Bristol), Ltd., Winterstoke Road, Bristol, 3, 4753

#### Miscellaneous

4 lines or under, 7s. 6d.; each additional line, 2s.

A J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works 96/107. 8t Paul's Road. N.1. Canonbury 2061

MANCHESTER.—Ideal Office space in centre of professional area. 850 to 1,000 sq. ft. can be made available; at present divided into two private offices and drawing office. Architect's furniture and fittings available to tenant.—W. H. Sutton & Sons. Chartered Auctioneers and Estate Agents, 60, Spring Gardens, Manchester, 2, DEA, 3103.

#### **Educational Announcements**

4 lines or under, 7s. 6d.; each additional line, 2s.

R. I.B.A. Inter. and Final EXAMS.
F.R.I.B.A., 115, Gower Street, W.C.I. Tel.:
EUS. 3966.

WELL qualified LECTURER will coach Students in Design. Personal or postal tuition.—Write Rox 4036.

tuition.—Write flox 4036.

J.B.A. and T.P.I. EXAMS.—Stuart Stanley
G. A. Crockett, M.A./B.A., F./F.R.I.B.A.
M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in
assn.), prepare Students by correspondence,
10, Adelaide Street, Strand, W.C.2. TEM 1603/4.

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 Phone: KEN 4477 and at Worcester

### FENCING



Information Sheet No. 26.C2. sent on request SPECIALIST MANUFACTURERS & ERE
OF ALL TYPES OF CONCRETE
AND CHAIN LINK FENCING ERECTORS

#### BELL & WEBSTER LTD.

ESSEX ROAD HOD. 3737 /8/9 HODDESDON, HERTS

#### ACADEMY MODELS

for ARCHITECTS AND DESIGNERS

#### ARCHITECTURAL contemporary

### SRGN LETTERS

IN A VARIETY OF METALS & FINISHES

### ARD AND COMPANY

128 CHELTENHAM ROAD, BRISTOL 6 TELEPHONE 21534



McCutchon Studio, 12, Maclise Rd., London W14

MODELS for architects, planners, designers, civil engineers

Telephone Number: SHEpherd's Bush 5939

## WHITE FACING

(S. P. W. BRAND)

Telephone:
BULwell 27-8237/8/9

M. MCCARTHY & SONS, LTD BULWELL NOTTINGHAM

### MODELS

John B. THORP

RY 98 GRAY'S INN ROAD,

TOWN PLANNING PUBLIC BUILDINGS ESTATES and INTERIORS

TELEPHONE: HOLBORN 1011

you can't galvanise a building, but you can prevent rust with **GALVAFROID** paint

SECOMASTIC LTD. BRACKNELL BERKS. TEL BRACKNELL FIR

People come



from everywhere

for a complete office

furnishing service from

#### OFFICE EQUIPMENT CO. 113, High Holborn, London, W.C.1. HOL 8235 Write, 'phone or call for 54-page catalogue

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.

AM TOL

W14

neers

3.

D, C.

int

CO. OL 8235 atalogue Postage will be paid by Licensee No Postage Stamp necessary if posted in Great Britain or Northern Ireland

BUSINESS REPLY FOLDER Licence No. S.W. 1761

THE ARCHITECTS' JOURNAL
9-13 Queen Anne's Gate
London, S.W.1.

FOLD HERE

## Alphabetical index to advertisers

Academy Models	59 <u> </u>	Falk Stadelman & Co., Ltd.  Finch, B., & Co., Ltd.  Findlay, Alex., & Co., Ltd.  FEB (Great Britain), Ltd.  Ferodo, Ltd.  Ford & Walton, Ltd.  Freeman, Joseph, Sons & Co., Ltd.  Furse, W. J., & Co., Ltd.	PAGE  26	National Federation of Clay Industries Negus W. & M. Ltd. Nu-Swift Ltd.	PAGE 49   66   14
				Office Equipment Co	72
Banister Walton & Co., Ltd.  Batley, Ernest, Ltd.  Bell & Webster, Ltd.  Bendz, Ltd.  Bowker, S. O., Ltd.  Bradford, F., & Co., Ltd.  Briggs, William, & Sons, Ltd.  Brightside Heating & Engineering Co., Ltd.  British Mouldex, Ltd.  British Reinforced Concrete Engineering	12	Gardiner, Sons & Co	57	Permanite Ltd	27   20   66
Co., Ltd	76	Hall, J. & E., Ltd.  Hangers Paints, Ltd.  High Duty Alloys, Ltd.  High Duty Alloys, Ltd. (Hawkesly, S. M. D.)  Higgs & Hill, Ltd.  Hills, F., & Sons, Ltd.  Hope, Henry, & Sons, Ltd.  Hopes Heating & Engineering, Ltd.	9	Rainham Timber Engiaeering Co., Ltd Range Boilers, Ltd. Richardson & Starling, Ltd. Robertson Thain, Ltd. Ruberoid Co., Ltd.	33 D 6 D 64 D 13 D 22 D
Cape Building Products, Ltd. Carlisle Plaster & Cement Co. Clark, James, & Eaton, Ltd. Colt Ventilation, Ltd. Conder Engineering Co., Ltd. Constructors, Ltd. Coseley Engineering Co., Ltd.	25	Kerner-Greenwood & Co., Ltd	16 🗌	Sanders & Forster, Ltd. Saro Laminated Wood Products, Ltd Sebel Products, Ltd. Secomastic, Ltd. Spencer Lock (Royal Board) & Co., Ltd	54   50   65   72   10
Demolition & Construction Co., Ltd  Dignus, Ltd.  Dorman Long & Co., Ltd.  Downing, G. H., & Co., Ltd.  Dussek Bitumen & Taroleum, Ltd.	61 4 4 42 42 42 67 67	Lawley, W. & J., Ltd. Lewis Tileries, Ltd.	16 <u> </u>	Thorn, J., & Sons, Ltd. Thorp, John B. Tretol, Ltd. True Flue, Ltd. Tucker, G., & Sons, Ltd. Turners Asbestos Cement Co., Ltd.	63
Econa Modern Products, Ltd.  Educational Supply Association Ellis School of Architecture Engravers' Guild, Ltd., The	75	Mills Scaffold Co., Ltd	72		72   72   72   64   0
For Appointments (Wanted or Vacant), Co Education, Legal Notices, Miscellaneous Pro	mpetiti perty a	ons Open, Drawings, Tracings, etc., nd Land Sales, see 68, 69, 70, 71, 72.			
		Write in block letters, or type	vour ne	ame, profession and address below,	
		and fold so that the post-paid a			
		NAME			

49 | 66 | 14 | 720 27 | 20 | 66 | 33 | 6 | 64 | 13 | 13 | 22 | 1 54 | 50 | 65 | 72 | 10 | 72 | 72 | 64 | 0





# Fits -always

cuts installation time and costs and automatically ensures correct levelling

No separate adjustment or packing is mecessary to bring depth switch assemblies perfectly flush with plaster surfaces-not with the Tenby Pilot ' Plaster Master'. By simply tightening two cover screws, the accessory is automatically raised to the correct level in relation to depth of plaster. Simplifies installation . . . saves time and trouble . . . cuts costs . . . complete rigidity ensured. This ingenious self-adjusting accessory forms an integral part of the base of all Tenby Pilot plaster depth pressed steel boxes, which are available for various types of 5 amp AC/DC wiring-T.R.S. wiring, oval grip and round grip conduit wiring. and 3in, screwed conduit wiring.

## S.O. BOWKER LTD.

Tenby works . WARSTONE LANE BIRMINGHAM 18 Telephone CENtral 3701

MMINGHAM IB Telephone CENtral 37

folial, Allenc Control (Other & Storms.—MA, Orload Street, W.1.

ghiner, M.15cm. 4995, Misaager H. Harding,

rehouter Office & Soure.—B, Mouley Street, Manchester.

photon: Office & Soure.—B, Mouley Street, Manchester.

photon: Office & Soure.—B, Mouley Street, Monthester.

photon: May 12, Charles (May 12, Cont.)

May 12, Charles (May 12, Charles )

May 14, Charles (May 12, Charles )

May 15, Monthest Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control (May 12, Control May 12, Control May 12, Control (May 12, Control May 







76 TRI







Write on phone TENBY Plaster Master' Publication No:76/1154



Full details and literature from ERNEST BATLEY LTD., 63d. COLLEDGE RD., HOLBROOKS, COVENTRY.

Size 7' 6" wide 'x 6' 3" high. Other sizes available, details on request.

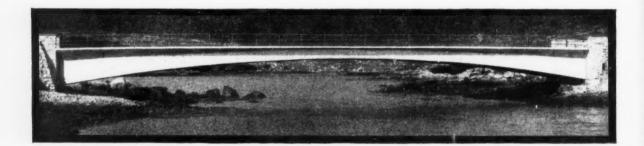


## Prestressed Concrete the modern construction for long spans





Not every concrete job is suitable for Prestressing. It is on those occasions when the design problem encountered lies beyond the range of normal reinforced concrete - as in the case of long span beams and bridges — that Prestressed Concrete can often provide the answer.





Specialists in Reinforced Concrete Design & Suppliers of Reinforcement

THE BRITISH REINFORCED CONCRETE ENGINEERING CO. LTD., STAFFORD London, Birmingham, Bristol, Leeds, Leicester, Liverpool, Manchester, Newcastle, Cardiff, Glasgow, Dublin, Belfast

