AR



andard

contents

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

COMMENT and

iary ews

rchitects' Commonplace Book

stragal's Notes and Topics

etters ocieties ana Institutions

SECTION **ECHNICAL**

aformation Sheets formation Centre

urrent Technique

uestions and Answers

rices

he Industry

PHYSICAL PLANNING SUPPLEMENT

CURRENTBUILDINGS STATISTICS HOUSING

Architectural Appointments Wanted Vacant

lo. 2862] [Vol. 110 THE PRESS ARCHITECTURAL , 11 and 13, Queen Anne's Gate, Westminster, W.1. 'Phone: Whit hall 0611 'Phone: Whitehall 0611

> Price 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 Ic one week, Ie to Z the next, In all cases where the town is not mentioned the word LONDON is implicit in the address.

Institution of Electrical Engineers. Savoy Place, W.C.2. Temple Illuminating Engineering Society. 32, Victoria Street, S.W.1. Al Institution of Gas Engineers. 1, Grosvenor Place, S.W.1. Skiller Street, S.W.1. Temple Bar 7676 IES Abbey 5215 IGE. Sloane 8606 IHVE

Sloane 3158 Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1. Euston IIBD

Euston 2450 Institute of Landscape Architects. 12, Gower Street, W.C.1.
Institute of Arbitrators, 35/37, Hastings House, 10, Norfolk Street, Museum 1783 II A I of Arb.

Strand, W.C.2. Temple Bar 4071 Institute of Builders. 48, Bedford Square, W.C.1. M. Institute of Refrigeration. Empire House, St. Martin's-le-Grand, E.C.1 IOB Museum 7197

Monarch 7391 Institute of Registered Architects. 47, Victoria Street, S.W.1.
Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.
Inland Waterways Association. 11, Gower Street, W.C.1.
Lead Industries Development Council. Eagle House, Jermyn treet, IRA Abbey 6172 Sloane 7128-29 ISE IWA Museum 9200 LIDC S.W.1

Whitehall 7264 London Master Builders' Association. 47, Bedford Square, W.C.!. MARS Group (English Branch of CIAM). 34, Gordon Square, W.C.1. Museum 3891 LMBA MARS

Euston 2158-9 Whitehall 3400 MOA Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1. Ministry of Agriculture and Fisheries. 33, Whitehall, S.W.I.
Ministry of Education. Curzon Street House, Curzon Street, W.I.
Ministry of Health. Whitehall, S.W.I.
Ministry of Labour and National Service. St. James's Square, S.W.I.
Ministry of Supply. Shell Mex House, Victoria Embankment, W.C. MOE Mayfair 9400 MOH Whitehall 4300 Whitehall 6200 MOLNS MOS Gerrard 6933

Ministry of Supply. Shell Mex House, VICTOTIA EITHORITIKITIENT, W.S. GERIAL 6333 Ministry of Transport. Berkeley Square House, Berkeley Square, W.1. Abbey 7711 Ministry of Town and Country Planning. 32-33, St. James's Square, S.W.1. Whitehall 8411 MOT MOTCP

MOW Ministry of Works. Lambeth Bridge House, S.E.1. Natural Asphalte Mine-Owners and Manufacturers Council. Reliance 7611 NAMMC 94, Petty France, S.W.1. Abbey 1010 Abbey 5277/8 NAS

National Association of Shopfitters. 9, Victoria Street, S.W.1. Abbey 5277/8
National Buildings Record. 37, Onslow Gardens, S.W.7. Kensington 8161
National Council of Building Material Producers. 2, Caxton Street, S.W.1. Abbey5111 NBR NCBMP National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham **NFBTE**

National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
National Federation of Housing Societies. 13 Suffolk St., S.W.1. Whitehall 2881/2/3
National House Builders Registration Council. 82, New Cavendish Street, W.1.
Langham 4041
Molecule 1380 **NFBTO** NFHS NHBRC

National Physical Laboratory. Head Office, Teddington. Molesey 1380
National Smoke Abatement Society. Chandos House, Buckingham Gate,
S.W.1. Abbey 1359 NSAS

NT

National Trust for Places of Historic Interest or Natural Beauty.
42, Queen Anne's Gate, S.W.1. Whitehall 0211/2
Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
Reinforced Concrete Association. 94, Petty France, S.W.1. Whitehall 9936
Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.
Edinburgh 20396 PEP RCA RIAS

Royal Institute of British Architects. 66, Portland Place, W.1.

Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1. Whitehall 5322

Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.

Royal Society. Burlington House, Pic-adilly, W.1.

Royal Society of Arts. 6, John Adam Street, W.C.2.

Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.

Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.

Wimbledon 5101

Society of British Paint Manufacturers. 20, Piccadilly, London, W.1. Regent 6347

Scriety for Cultural Relations with the USSP. 14 Kensienton Square London, W.8. RIBA RICS RFAC RS RSA RSI

RIB SBPM Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8. Western 1571

Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244 School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3. SFMA Mansion House 3921
Structural Insulation Association. 14, Moorgate, London, E.C.2. Central 4444
Society of Industrial Artists. Room 243, Empire House, St. Martin's-le-Grand,
E.C.1. Metropolitan 8344 SIA

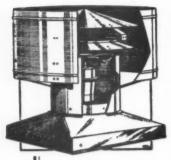
SNHTPC Scottish National Housing & Town Planning Council. Hon. sec., Robert Pollock, Town Clerk, Rutherglen. Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.

SPAB Holborn 2646 TCPA Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.

Temple Bar 5006 Timber Development Association. 75, Cannon Street, E.C.4. The Gas Council. 1, Grosvenor Place, S.W.1. TDA TGC City 4771 (6 lines) Sloane 4554 Town Planning Institute. 18, Ashley Place, S.W.1. Timber Trades Federation. 81, Cannon Street, E.C.4 TPI Victoria 8815

War Damage Commission. 81, Cannon Street, E.C.4. City 1476
Devonshire House, Mayfair Place, Piccadilly, W.1. WDC Welfare Equipment Development Association. 61, St. Paul's Churchyard, E.C.4. WEDA

Zinc Development Association. Lincoln House, Turl Street, Oxford. Oxford 47988 ZDA



CUT-AWAY VIEW SHOWING FAN INSTALLATION IN DUAL-PURPOSE "MECHAVENT" NATURAL AND MECHANICAL ROOF VENTILATOR

GREENWOOD'S

MULTI-LOUVRED

"MAXAIRE" PANELS.

"DIFUSEX", AND

HIT AND MISS

VENTILATORS

GREENWOOD-AIRVAC

COMPLETE SYSTEMS OF SCIENTIFICALLY BALANCED VENTILATION FOR BUILDINGS

TRUNKED HOODS WITH FANS FOR REMOVING UNWANTED HEAT, FUMES AND STEAM FROM THE KITCHEN EQUIPMENT OF SCHOOLS, HOSPITALS, CANTEENS, RESTAURANTS AND HOTELS

EFFICIENT VENTILATION FOR KITCHENS
AND CANTEENS

MECHANICAL AND STATIC EXTRACTORS
AND INTAKES FOR ROOFS AND WALLS
FAN UNITS AND VENTILATING EQUIPMENT
FOR HOUSING AND INDUSTRY



RING-MOUNTED WALL
FAN WITH HOPPA OR
AUTOMATIC LOUVRES.
A USEFUL EXTRACTOR
FAN ASSEMBLY

GREENWOOD'S

OUVRES

FOR CUPBOARDS, DOORS, WALLS, PARTITIONS, CEILINGS, AND FOR FITTING EXTERNALLY

GREENWOOD'S AND AIRVAC VENTILATING COMPANY LIMITED

SPECIALISTS IN THE DESIGN AND MANUFACTURE OF VENTILATORS AND VENTILATING EQUIPMENT

BEACON HOUSE . KINGSWAY . LONDON, W.C.2.

AIRVAC, LONDON

CHANCERY 8135/6/7



FLOOR WALL SURFACE

SPECIALISTS WITH 22 YEARS SERVICE TO INDUSTRY

GRANOLITHIC: All Types.

DIAMONITE: Hardened grano.

PRODORDUR MACHINE
FACED FLOOR TILES:

Coloured—non-slip—hard wearing.

"FERROGRAN" STEEL FACED FLOOR FLAGS: Hydraulically pressed, surface impregnated with metal for heavy duty. "CONSOL" STEEL ANCHOR FLOOR PLATES:

10 gauge steel for very heavy duty.

Also :-

Coloured Asphalt—Standard Asphalt—Acidproof Floors— "Accotile" Flooring. Head Office: Eagle Works,
Wednesbury, Staffs.
Telephone: 0284 (five lines)
London Office: Artillery House.
Artillery Row,
1547-8
1547-8

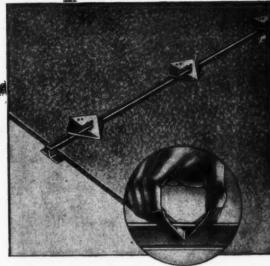


affs.
ines)
House,
S.W.I



FOR THE QUICK FOOLPROOF
FIXING OF ANY TYPE OF
BUILDING BOARD

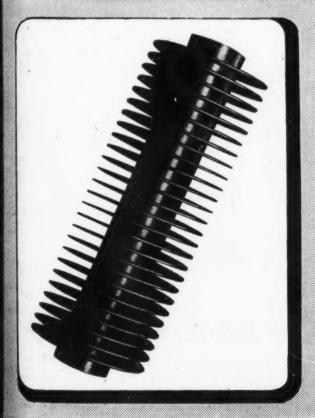
The permanent and rigid fixing of any type or thickness of interior wall or ceiling board is simplicity itself with the Sundeala "V" Clip method. Simply slide clips on the flanged T-Bar, fix latter to purlins with hangers provided, insert boards under clips and the job is done! Full details and information sheet on request.



UNDEALA BOARD Co. Ltd., ALDWYCH HOUSE, LONDON, W.C.2. Tele: CHAncery 8159. Works: Sunbury-on-Thames, Middx.

LASGOW: Baltic Chambers, 50 Wellington Street, C.2 NEWCASTLE-UPON-TYNE: Northumbria House, Portland Terrace, 2

Members of Building Board Manufacturers' Association



TO THE ARCHITECT-SURVEYOR AND BUILDER

> Yours the problem-Harveys the answer!

Whenever it is a question of "where-to-get"

GILLED TUBES

—remember Harveys. For the "Harco" Mild Steel "Tapergil" Gilled Tube is superior to any other form of Gilled Tubing. This type of Gill has no crimp, is twice as wide at the bottom of the Gill than at the outside odge and the cross section of the strip is tapered. For full particulars send for List AJ 806

Harvey

G.A.Harvey & Co.(London) Ltd. Woolwich Rd. London, S.E.7

MC NEILL'S give this EXTRA service

opucts of the state of the stat

PRODUCTS
AND FULL SERVICE
AVAILABLE FROM

TORIES

FACTORIES

BITUMEN ROOFING

A complete range for all needs: LION, the super quality felt; WEATHERTITE, medium-priced; and ACE, for buildings of lighter construction. All McNeill's Roofing Felts contain high quality Bitumen.

DAMP PROOF COURSES

Specify LEADONITE lead-lined, HESONITE Hessian based Danpcourse or M.O.H. Fibre based Damptourse, according to the type of building. Manufa tured to British Standard Specification from finest quality Bitumen.

SLAG WOOL INSULATION

For all forms of thermal and sound insulation in new or existing buildings. In these two main forms: Loose and Blanket. It is also available as Felted Slabs and Wire Netted Sheets. Ask for the SLAG WOOL booklet and details.

In addition McNeill's supply pipe wrapping of various kinds. Details are always available. Our Specialist Representatives are at your service to give expert advice.

LONDON

For deliveries in Greater London and Southern England.

MANCHESTER

Giving a full service for Central England and Wales.

GLASGOW

Covering Scotland and the North of England.

AND ALSO MULTI-LAYER ROOFING

We undertake contracts of any size for McNeill's Combinite Multilayer Bituminous roofing for flat or pitched roofs. It can be finished in Bitumen, Macadam, Tile or Grit, Our Contracts Dept. will be pleased to answer your queries.

Enquiries to Head Office: Fe McHeill & Co. Ltd., 10, Lower Grosvener Place, Lenden, SeW.J.

Telephone: VICtoria 6022,

Telegrams: Eyeball, London.

E

Bur

STRA

ALSO

Houses at Bath Road, Southsea. Super "Ribmet" used for the concrete floors. Architect: Mr. A. G. Goodair, A.R.I.B.A., Southsea. Builder: Mr. E. B. Greenwood, Southsea.

COMBINED SHUTTERING AND REINFORCEMENT?



ET EXPANDED METAL DO THE JOB!



As a combined shuttering and reinforcement for spans up to 15 ft. Super "Ribmet" is efficient and economical in the construction of concrete floors, roofs and similar decking. Its use gives the advantages of monolithic construction without the expense of preparing, erecting

and dismantling close-boarded shuttering. No waste of steel because Super "Ribmet" replaces reinforcing rods and fabric.

Super "Ribmet" is 'made to fit the job' and complete technical information to suit your requirements will be supplied upon request.

The EXPANDED METAL COMPANY LTD.,

Burwood House, Caxton St., S.W.I WHItehall 1736

STRANTON WORKS, WEST HARTLEPOOL, HARTLEPOOLS 2194

ALSO AT: ABERDEEN, BELFAST, BIRMINGHAM, CAMBRIDGE, CARDIFF, EXETER, GLASGOW, LEEDS, MANCHESTER.

EXPANDED METAL

'Expamet'

PRODUCTS

The English Scene



The efficient storage of liquids, wherever the scene may be, is ensured by the use of Braithwaite Pressed Steel Tanks.

BRAITHWAITE & CO ENGINEERS LTD



London Office:

Telephone: WHItehall 3993

KINGS HOUSE HAYMARKET LONDON S.W.1

Bridges . Piers . Jetties . Steel Buildings

Screwcrete Piles and Cylinders.

MODERN HOUSING

ESTATE



PETERBOROUGH CORPORATION HOUSING SCHEME, PETERBOROUGH, NORTHANTS, (BY KIND PERMISSION OF F. J. SMITH, ESQ., CITY ENGINEER AND SURVEYOR)

Some 400 houses on this modern estate are each fitted with a pair of sliding doors dividing the dining room and lounge, enabling these two rooms to be opened up into one large room for entertaining, etc., and allowing sunshine into opposite aspects of the houses

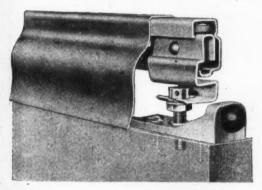
After comparison and trial, the fittings chosen for this scheme were :-

"ESTATE"

SLIDING DOOR GEAR

(Supplied through Messrs. Hayward & Tourell, Ltd., Wholesale Ironmongers, North Street, Peterborough)

The salient features governing this choice are summarized thus:



- * Silent operation
- ★ Inexpensive
 ★ Clear threshold
 ★ Speedy fixing
 - ★ Rustproof finish
- ★ Neat appearance
- ⋆ No maintenance
- ★ Full adjustments

"Estate" sliding door gear is used extensively in blocks of flats where kitchenettes and other small rooms necessitate space economy.

An exclusive "snap-on" pelmet conceals all fittings and will harmonize with picture rail or panelled effect.

"Estate" gear is stocked by hardware firms throughout the British Isles, also in many countries overseas, and supplies are quickly available from your local merchants.

MAY WE SEND YOU DESCRIPTIVE LITERATURE AND ERECTION DATA?

Clarke Ellard Engineering Co. Ltd. **WORKS ROAD** LETCHWORTH, HERTS

Telephone: Letchworth 979

SEE OUR EXHIBITS AT THE BUILDING CENTRE, 9, CONDUIT STREET, LONDON, W.I. & THE SCOTTISH BUILDING CENTRE, 425-427, SAUCHIEHALL STREET, GLASGOW, C.2.



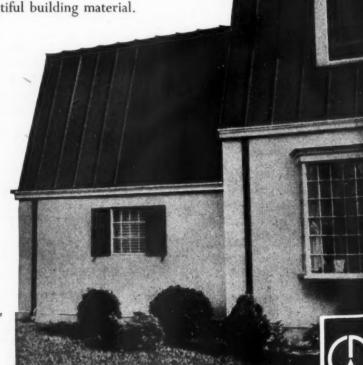
The Case for Copper

There are several very good reasons why copper is specified for use in making a building watertight. The material selected

must be extremely durable yet light and easy to apply. It must be absolutely weatherproof and economical in use. Copper combines these attributes better than any other weathering medium and, in addition, may effect a saving in controlled materials.

Many of the most noble buildings in the world are roofed with copper—a fact that bears striking testimony to the outstanding qualities of this beautiful building material.

Information and advice on any use of copper & its alloys will be sent free of charge or obligation, on request to Copper Development Association, Kendals Hall, Radlett, Herifordshire. Radlett 5616



An American all-copper House

COPPER DEVELOPMENT ASSOCIATION

E would like to take this oppor-

E would like to take this opportunity of wishing all our clients, associates, and the manufacturing firms with whom we have so closely worked, the compliments of the season and we look forward to the long continuance of this cordial relationship.

HARAKA KALAMAN KALAMAN



B. FINCH & CO. LTD. BELVEDERE WORKS, BARKINGSIDE, ESSEX

VALentine: 8888

BROADS NEW CATALOGUE SECTION I: DRAINAGE



Broads have much pleasure in announcing the issue of the First Section of their New Catalogue. For sixty-seven years it has appeared through many editions in the form of a General Catalogue. Now, because of widening activities and the growth of new departments, it has been found necessary to sectionalise.

This First Section is DRAINAGE GOODS, which will be followed as soon as possible by the other sections listed in the panel alongside.

64 pages printed in 2 colours, clearly indexed, with board covers wire bound for opening flat—a very practical and comprehensive catalogue

BROADS CATALOGUE

SECTION 1 DRAINAGE (now ready)

Others in course of preparation

SECTION 2 WALLING-ROOFING-FLOORING MATERIALS

SECTION 3 SANITARY EQUIPMENT

SECTION 4 LIGHT BUILDING MATERIALS Architectural and Industrial Ironmongery

SECTION 5 FIREPLACES & HEATING APPLIANCES

BROAD & CO., LTD., 4 SOUTH WHARF, PADDINGTON, W.2. Tel: PADdington 7061





FIRST IMPRESSIONS . . . LASTING IMPRESSIONS

Modern efficiency needs modern design and decor. First impressions are important. But the visual beauty of KLINGER Plastic Flooring, Tiles and Wall Boards is not just skin deep. Durable and long-lasting, their colour goes right through. They do not stain, do not create dust and are easy to maintain in good condition.





Tiles 12" x 12" x 5/32". Available in Marbleized colours - Buff/Green, Buff/Black, Buff/Blue, Buff/Brown, Buff/Red, or in Plain Colours - green, light brown, red, blue, dark brown, black, buff. **Boards** $12'' \times 12'' \times 5/32''$ in production. $3' \times 2' \times 5/32''$ ready shortly. Available in the same range of Marbleized or Plain colours as used for Klinger Tiles.

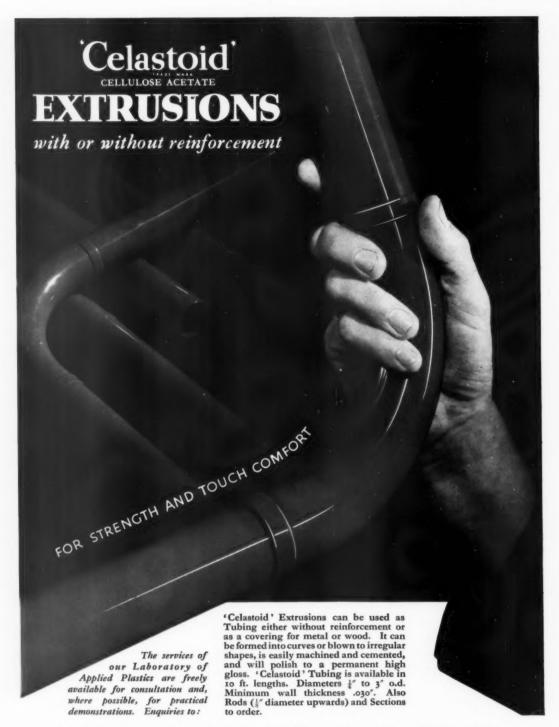
Further technical details and samples from the makers or the following Agents:

E. J. Elgood Ltd., Insulcrete Works, Yeoman Street, London, S.E.8. Telephone: BERmondsey 1144
F. W. Pipe & Wynne-Jones Ltd., Dowlais Chambers, West Bute St., Cardiff. Telephone: Cardiff 642
Alan G. Robinson Ltd., 5, Clarendon Road, Leeds 2. Telephone: Leeds 25944
Flooringcraft Ltd., 20, Kingsbury Road, Birmingham 24. Telephone: ERDington 0794

FOR OFFICES & SHOWROOMS; HOSPITALS & PUBLIC BUILDINGS; SCHOOLS & LIBRARIES; HOTELS & RESTAURANTS; AT HOME IN EVERY ROOM IN THE HOUSE

RICHARD KLINGER LIMITED

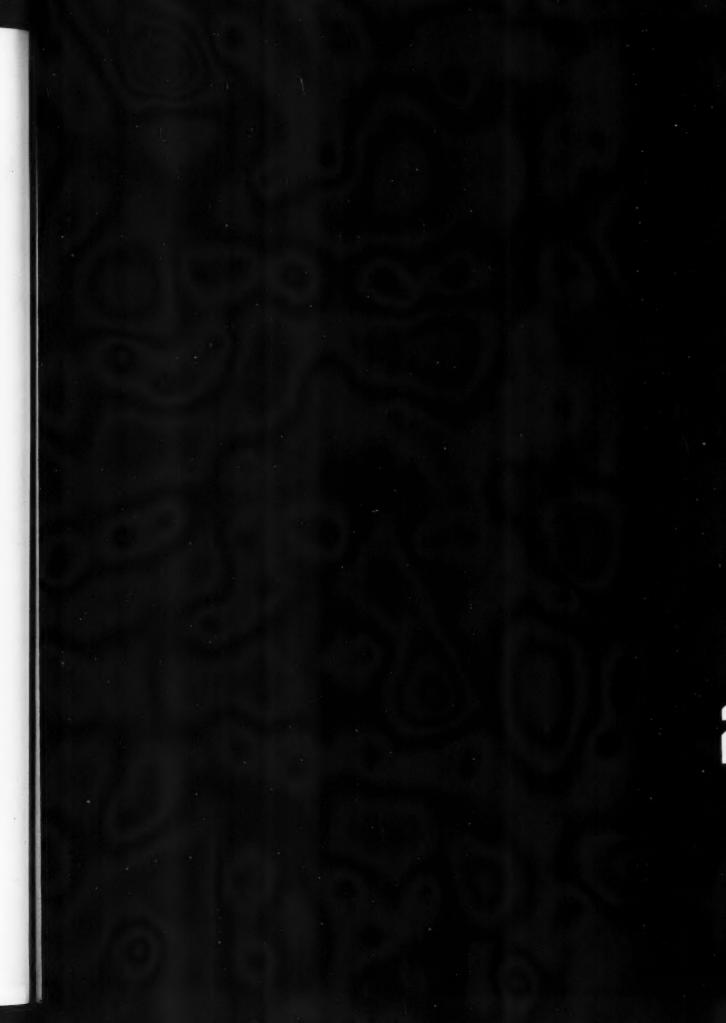
KLINGERIT WORKS . SIDCUP . KENT . TELEPHONE: FOOTSCRAY 3022



BRITISH CELANESE LIMITED

Plastics Division, Celanese House, Hanover Square, London, W.1

rouds







The Nautilus system of flue construction is fully described in "Precast Concrete Flue Blocks for Gas Fire and Ventilation." The full range of standard flue blocks is illustrated, and drawings of typical construction are included, together with notes on the computation of quantities. If you have not already received a copy, we shall be glad to send you one.

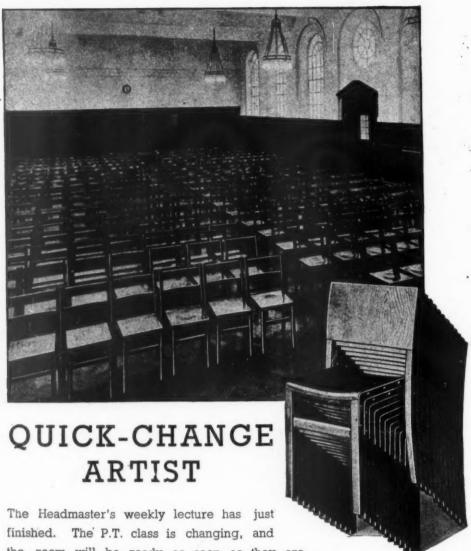
Nautilus precast concrete flue blocks

made by MARLEY

THE MARLEY TILE COMPANY LIMITED

London Road, Riverhead, Sevenoaks, Kent.

Telephone: Sevenoaks 2251-8



finished. The P.T. class is changing, and the room will be ready as soon as they are.

Kingfisher Wood Nesting Chairs, strong, light, easy to handle and economical in storage space, can be assembled or stacked away single-handed in a few minutes, thereby solving the problem of the quick-change furniture so necessary in education today.

FOR THE NEW EDUCATION



Kingfisher

WOOD NESTING CHAIRS

KINGFISHER LTD., CHARLES ST. & PHOENIX ST., WEST BROMWICH, STAFFS.

Telephone: Tipton 1631

Telegrams: Kingfisher, Phone, West Bromwich

LONDON: 139, KNIGHTSBRIDGE, S.W.I.

TELEPHONE: KENSINGTON 1331



"SILVER FOX"

SILVER FOX STAINLESS STEELS

are

HYGIENIC

In plant for the preparation and processing of food, dairy products, brewing and all activities requiring scrupulous cleanliness, "Silver Fox" Stainless Steel gives a smooth, polished, germ-inhibiting surface, free from attack by food acids, easily cleaned, obviously clean.

SHEETS · COLD ROLLED STRIP · WIRE · BARS · FORGINGS



SAMUEL FOX & COMPANY LIMITED

Branch of The United Steel Companies Limited

STOCKSBRIDGE WORKS 'NR. SHEFFIELD 'ENGLAND

RB F237



HOUGH today's difficulties may prevent you designing such a tremendous structure as the Grace Building, Sydney, you can at least still specify the same



J.&P. CABLES

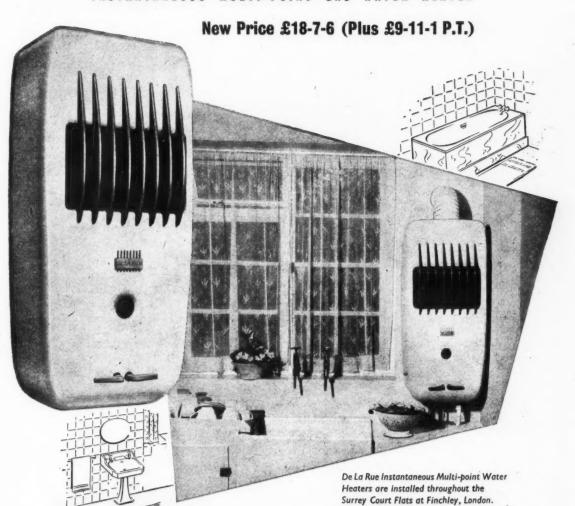
J.& P. ARE FOUNDATION MEMBERS OF THE C.M.A.

JOHNSON & PHILLIPS LTD., LONDON, S.E.7
ELECTRICAL ENGINEERS AND CABLE MAKERS SINCE 1875

DOWN IN PRICE ...

DE LA RUE

INSTANTANEOUS MULTI-POINT GAS WATER HEATER



Without doubt, the best instantaneous multi-point water heating unit. Smartest appearance. Most advanced design. One piece outer shell. Incorporates its own gas governor. Built-in draught diverter. Requires least maintenance. Built for long life. Easy installation. Maximum accessibility.

THOMAS DE LA RUE & CO. LIMITED, Potterton Gas Division

Imperial House, 84/86 Regent Street, W.I Northern Area: 4 Albert Square, Manchester, 2



Panel for Cocktail Bar in sandblasted.

engraved and anodised "Birmabright" designed and produced by

THE MIDLAND SANDBLAST COMPANY, HOCKLEY STREET, BIRMINGHAM.

Let Birmabright Aluminium Alloys help to solve your design problems.



BIRMETALS LIMITED }

WOODGATE WORKS

QUINTON

BIRMINGHAM 32

Here is a beautifully proportioned gas radiator, free-standing and portable, light yet robust—ideal for occasional heating of nurseries, playrooms, small flats, halls, landings.

Attractively finished in pearl-blue or coinage bronze, the top louvre and door chromium plated; internal baffle vitreous enamelled to prevent corrosion. Luminous jets give a cheerful glow: the door has a concealed self-closing hinge. The 4008 projects heat forward and upward, reducing the risk of wall discoloration.

Gas consumption, 10 cu. ft. per hour; Dimensions, height 21 in., width 12½ in., depth 5 in., weight 15 lb.

Distributed through Gas Undertakings and Wholesale Merchants

HARPER

Convector

GAS

RADIATOR



JOHN HARPER & COMPANY LTD . ALBION WORKS . WILLENHALL . STAFFS LONDON OFFICE . CHANDOS HOUSE, BUCKINGHAM GATE, S.W. 1 . Phone: ABBey 3:84



J. & E. HALL

LIMITED

SPECIALISTS IN LIFTS & ESCALATORS DARTFORD · KENT

London Office: 10 St. Swithin's Lane, E.C.4.



COUSTIC PLASTE

APPLICATION

Holland W. Hollies. cares

orestand to orestand cares. M. S.J. Helliss. was acces

Access Biffier Sieges Board Ing. .

hat speech or music be heard distinctly and comfortably. ound control is a model Cinemas, Restaurants, etc., -it is "THISTLE" ACOUSTIC PLASTER is not such, small areas are required to effect beneficial results.

BRITISH PLASTER BOARD

SOUTHERN SALES OFFICE MORRIS HOUSE. JERMYN STREET. LONDON, S.W. 1.

36. Waterloo Shuel. Bermingham.

2nd June. 1949.

NORTHERN SALES OFFICE BIRKENHEAD ROAD WALLASEY CHESHIRE



LONDON, S.W.I - 82 Victoria Street

AND STOCKHOLDERS

MANCHESTER 17 - Trafford Park

RIVETED AND WELDED BIRMINGHAM 18 — 61-63 Western Road



Messrs. GEORGE M. WHILEY LTD., High Vacuum Department, Ruislips

Architect: E. H. FIRMIN, A.R.I.B.A.

WORKS RADIANT HEATING BY SUNZWAY PANELS

RICHARD CRITTALL

RICHARD CRITTALL & COMPANY LIMITED, 151 Great Portland Street, London, W.1 Tel. Museum 3366
and at Martins Bank Building, Liverpool, Central 2383, Prudential Buildings, St. Phillip's Place, Birmingham, Central 2478, and 136 Wellington
Street, Glasgow, C.2, Douglas 8761





LONDON BRICK COMPANY LTD Head Office: AFRICA HOUSE, KINGSWAY, LONDON, W.C.2 Telephone: Holborn 8282.

Midland District Office: Prudential Buildings, St. Philip's Place, Birmingham, 3 Telephone: Colmore 4141. South Western District Office: 11

Orchard Street, Bristol, 1 Telephone: Bristol 23004/5. Northern District Office: Gascoigne Street, Boar Lane, Leeds, 1 Telephone: Leeds 20771.

A MAINTENANCE PROBLEM

Impossible to prevent. but easy to solve

Cracked walls due to soil movement caused by the abnormally dry summer could hardly be prevented—but they can be sealed quickly and easily. Just apply SECOMASTIC Joint Sealing and Weatherproofing Compound to the cracks. That will keep damp out, and take up any further movements in the wall.





SECOMASTIC is simply applied by means of an easy-to-use SECO hand gun and the new extra capacity cartridge, and once applied, it will not crack or fall out of joints or cavities. SECOMASTIC can be painted too, and it doesn't need any treatment before use, however cold the weather.

There are many other uses for SECOMASTIC in maintenance work as the following list shows:

- I. Sealing Flashings
- 2. Cracked Tiles
- 3. Jointing Ridge Capping
- 4. Leaking Roof Lights
- 5. Leaking Window Frames
- Cracks in External Rendering
- 7. Jointing Gutters
- 8. Door Frames
- **Bedding Window Frames**
- **Bedding Sills and Water Bars**
- 11. Glazing Roof Lights
- 12. Weatherproofing Overlap Joints
- Waterproofing Sills 13.
- **Jointing Down Pipes**
- **Expansion Joints in Wall Panels**

Why not write for further details?

SECOMASTIC LIMITED II UPPER BROOK STREET . LONDON . W.I

Telephone: Mayfair 9080



THE VAST RESOURCES OF THE HILLS ORGANISATION ENSURE QUALITY DOORS ... AND ALL OUR DOORS ARE GRADE I

The famous "Clymax" flush doors are made with plywood facings, offering a greater resistance to bursting or penetration by sharp corners. It is more stable in fluctuating atmospheric conditions. The core construction has been well and truly tried — made and designed by Hills, the people who have the complete "know how" on flush doors.

To maintain Grade I production of panel doors from Hills factories, Canadian door stock is augmented by selected prime quality hard wood shipped direct from Hills concessions in the Gold Coast Colony . . . which incidentally enable Hills to offer a price advantage to the purchaser. Details of standard designs for exterior or interior use on request.

Make the RIGHT choice for quality and price..

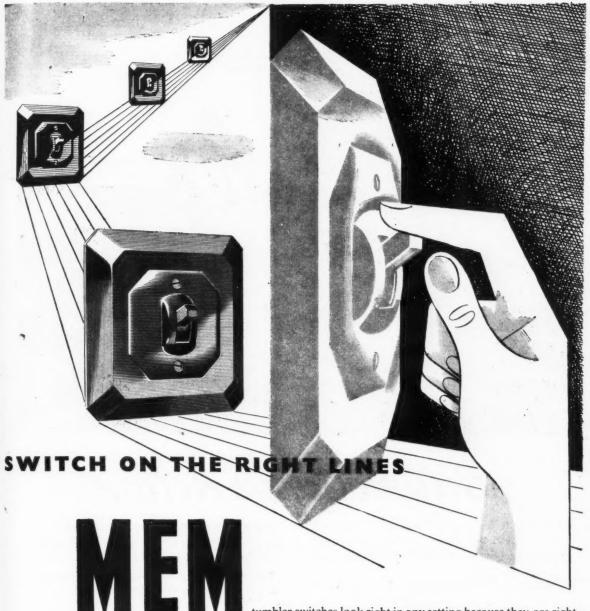


A CENTURY OF EXPERIENCE GOES INTO THE MAKING OF EVERY HILLS PRODUCT

Blockboard Factory
Joinery Factory
Log Extraction, Sawmills, Blockboard Factory
TAKOR
HEAD OFFICE: STOCKTON-ON-TEES

WEST HARTLEPOOL
TAKORADI, GOLD COAST COLONY
TELEPHONE 67141 (7 lines)

MANCHESTER

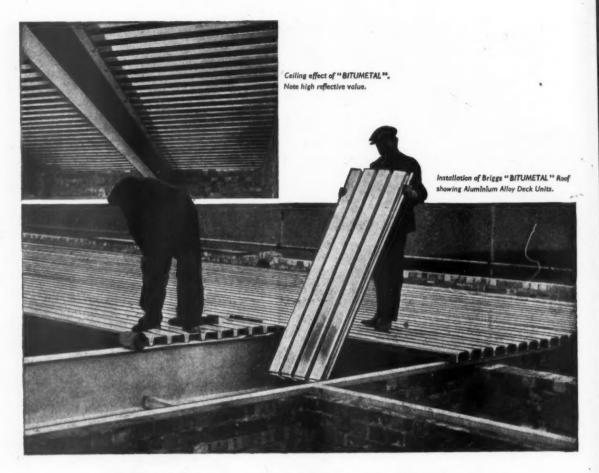


tumbler switches look right in any setting because they are right—right through. Their simple functional form is in fact first-rate design. And their engineering quality is extremely high because MEM make every part themselves in the world's most self-contained low-tension switchgear factory. There is even a MEM porcelain works to make certain of consistent excellence in the porcelain parts. This MEM policy shows savings too, as you will soon see if you compare prices.

Send for folder No. 293 for full details of the range—one and two-way, 5 amps, 250 volts, surface, semi-recessed and flush mounting—also flush plates and wood and iron boxes.



MIDLAND ELECTRIC MANUFACTURING CO. LTD. BIRMINGHAM II
Branches in London and Manchester



Bitumetal in Action

Contracts in every part of the country for schools, factories, etc. demonstrate the quickly growing popularity of "BITUMETAL" for modern roof construction.

"BITUMETAL" is speedily and easily erected with

pre-fabricated aluminium alloy units spanned purlin to purlin. The ceiling effect is clean and attractive with high reflective value.

"BITUMETAL" INFORMATION BOOK gives you full technical details. Send for a copy to-day.

BRIGGS



THE COMPLETE ROOF

WILLIAM BRIGGS & SONS LIMITED

DUNDEE LONDON: VAUXHALL GROVE, S.W.8 Offices & Depots at: Aberdeen, Edinburgh, Glasgow, Leicester, Liverpool, Norwich

RECENT CONTRACTS INCLUDE:



SCHOOLS Primary School, Brighton

Architect:
D. J. Howe, Esq., M.I.C.E.,
M.I.M.E., Brighton.

Leicester University College Architects:
Messrs. Pick, Everard,
Keay & Gimson, Leicester

Litherland Modern condary Sch. (2nd Phase) Architects: Lancs. County Council

New Primary School, Architects:
Messrs. W. S. Willan &
D. A. Stewart, F/A.R.I.B.A.

INDUSTRIAL PREMISES, etc.

New Steel Strip Mill for Steel Company of Wales, Ltd., Abbey Works, Port Talbot

Engineers:
Messrs. W. S. Atkins & Partners, Engineers

Stoneywood Paper Mills, Aberdeen

Architect:
A. C. Walker, Esq.,
M.I. Mech.E., Engineer

Prices (Tailors) Ltd., South Shields Architect: Evan E. Morgan, Esq., F.R.I.B.A., Leeds

U and The Wall

Just one course



upon another



but think what a brick wall



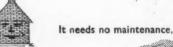


It makes it very strong



and gives it a pleasant







resists rain penetration



and keeps fire



at bay. But what of the interior? A brick house





Not quite sufficient, perhaps, if you talk in U's, but that

is easily solved.



An II" cavity brick wall, ventilated, plastered on the inner face



has a U-value of 0.34. Seal the cavity



and it becomes 0.30. With 3" plasterboard on battens



It is 0.23. Line the inner face with \(\frac{1}{2}'' \) cork, plastered



and the result is 0.21.

With I' wood wool, plastered



the U-value is 0.20. With 1 fibreboard on battens



it is 0.18. And there are many other methods. But the important thing is that, whatever

you put on the inner face of a brick wall

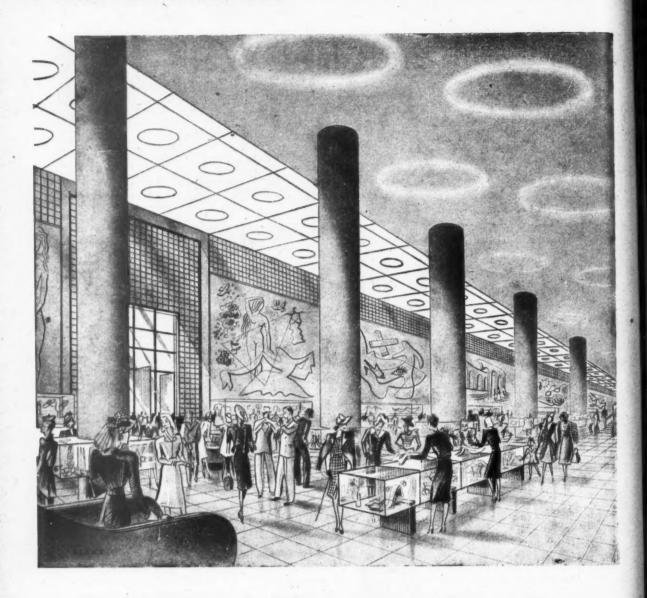


you still have a jolly good wall.



Note: The type of exchosing, whether North, South, East or West, & whether sheltered from wind or not, will, of course, vary the value of walls of similar construction.

Issued by The National Federation of Clay Industries



Fine weather in store.. or in any building for that matter!

Brightside technique in air conditioning enables surroundings of optimum comfort to be maintained in spite of climatic conditions outside, in any kind of public, private or industrial building.

BRIGHTSIDE Conditioned COMFORT

HEATING . PIPING . AIR CONDITIONING

THE PRICHTSIDE FOUNDRY & ENGINEERING COMPANY, LTD.

Head Office: SHEFFIELD; and BIRMINGHAM, BRISTOL, LIVERPOOL, LONDON, MANCHESTER, NEWCASTLE, PORTSMOUTH,
EDINBURGH, GLASGOW, BELFAST





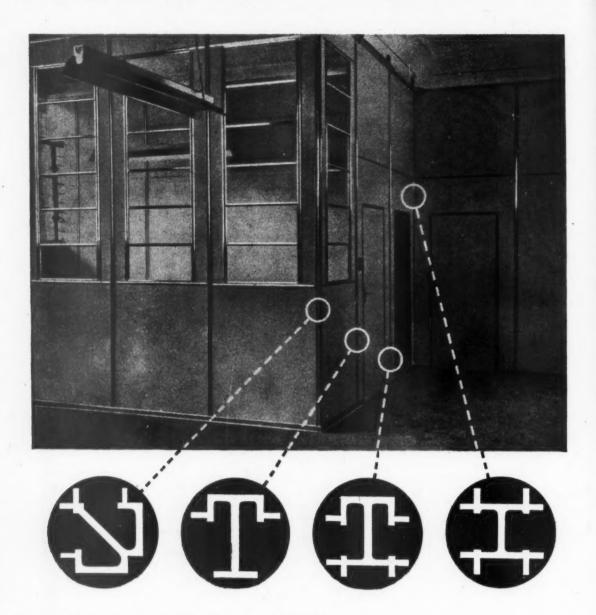
LESLIE

Builders since 1885



ST JAMES HOUSE KENSINGTON SQUARE LONDON WS

NORTHERN OFFICE · DARLINGTON



Noral sections for building

Noral extruded sections solve many problems in building construction, including speedier and simpler methods of assembly and fixing, and the production of new and improved equipment.

Above may be seen how the clean, attractive appearance of 'Holoplast' panelling is enhanced by using Noral sections, which do not tarnish, warp or shrink and, because of their lightness, are easily handled and erected. Already hundreds of Noral sections are being employed both functionally and decoratively in building and architecture. Let us help you on matters of application and design.

Northern Aluminium COMPANY LIMITED

MAKERS OF NORAL SHEET, STRIP, PLATE, SECTIONS, TUBING, WIRE, FORGINGS, CASTINGS, PASTE FOR PAINT SECTIONS. DEVELOPMENT DIVISION: BANBURY, OXON. SALES OFFICES: LONDON, BIRMINGHAM, MANCHESTER, BRISTOL, NEWCASTLE-ON-TYNE, LEEDS



BLUE CIRCLE CEMENT

BEING DELIVERED FOR

A NEW HOUSE OF COMMONS

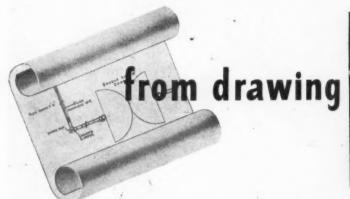
ISSUED BY THE CEMENT MARKETING COMPANY LIMITED

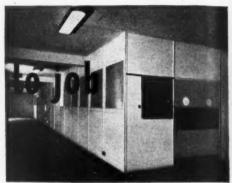
Selling Organisation of

THE ASSOCIATED PORTLAND CEMENT MANUFACTURERS LIMITED • THE BRITISH PORTLAND CEMENT MANUFACTURERS LIMITED

192 Ashley Gardens, London, S.W.1

PARTITIONING





General view of corridor for a shipping company designed by R. W. Symonds, L.R.I.B.A. Partitioning and doors of "HOLOPLAST" with aluminium junctions and fittings.

Compactom are specialists in the fabrication and erection of licencefree Partitioning and offer an unrivalled service. By employing a

measure of standardisation, time on the site is reduced to a minimum, costs are kept down, whilst still allowing considerable freedom in design and choice of materials. Photographs of recent contracts gladly sent on request.

Compactom

PARTITIONING

C O M P A C T O M Ltd OKGATE LANE, CRICKLEWOOD, LONDON, N.W.2. Tel.: GLAdstone 2600

the plastering and decorating of the

Chigwell Manford Way Junior & Infants School, Essex,

Architect: H. Connoly, F.R.I.B.A.,

illustrated on pages 676 to 683 of this issue,

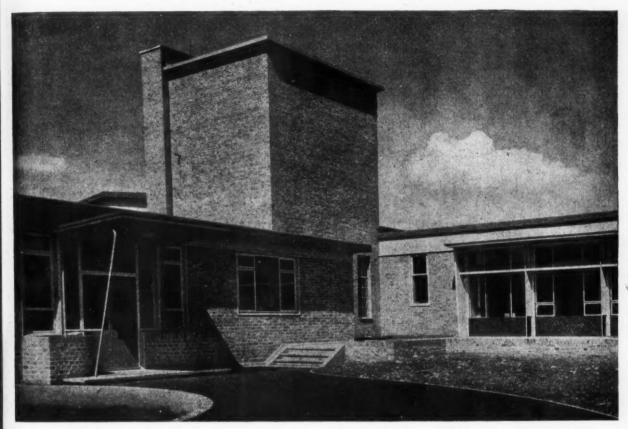
were carried out by

A. HORROCKS & SONS LTD

TRAFFORD WORKS, EAST ROAD, BURNT OAK, EDGWARE, MIDDX.

Telephone: EDGWARE 7674

Primary Mixed School, Grange Hill, Chigwell



Photograph by kind permission of the Essex County Council

WIREWELD all-welded high tensile fabric reinforcement was used extensively in this contract, approximately 10,000 square yards being incorporated in wall foundations, ground floor slab, stairs, suspended floors, and floors and walls to heating ducts.

st.

c,

The use of Wireweld fabric reduced to negligible proportions the tonnage of loose bars needed and thus reduced fixing time, costs and labour.

This is one of the advantages of Wireweld Fabric. We shall be pleased to quote for your needs.

TWISTEEL

REINFORCEMENT

LIMITED

*

LONDON: 43 UPPER GROSVENOR STREET, W.1. Telephone: Grosvenor 1216

BIRMINGHAM: ALMA STREET, SMETHWICK, STAFFS. Telephone: Smethwick 1991

MANCHESTER: 7 OXFORD ROAD, MANCHESTER, 1. Telephone: Ardwick 1691

GLASGOW: JOHNSTONS & PATON LTD. 224 INGRAM STREET, GLASGOW, C.1. Telephone: City 7661



Interior of the Norman Chapel, Tower of London.

SUCH examples of Norman building as remain to-day all suggest a grim and solid pattern of architecture. This is, perhaps, because the Norman era gave little to domestic construction. Its most typical work relied largely upon heavy masonry which was quite unsuitable for dwelling houses, except of the largest kind and even these were integral with some military strongpoint.

The Normans, in this country at least, were invaders with a sullen native population to keep subdued and so were more interested in erecting headquarters for their armed forces than mere domestic building. The only alternatives which attracted them were churches, and in this direction they produced some outstanding examples.

Norman building practice derived from the Romanesque and Teutonic, which account for its strength and solidity. It is characterised by the thick walls and massive pillars essential to support heavy roofs; the round arches; the narrow windows, flush outside and splayed within; and the lack of superfluous ornamentation. This simple, durable form of architecture is the reason why so much of the best Norman work survives to-day.

The inevitable change that comes to all times and manners gradually led away from the sombre Norman style with its harsh, bare interiors and began developing into the more elaborate Gothic period.

THOMAS BLACKBURN & SONS LIMITED

PRESTON, LANCASHIRE.

LONDON OFFICE: 8 BLOOMSBURY SQUARE, W.C.1.

TEL : HOLBORN 8638.

Fabricators in Steel Constructional Steelwork Iron Castings Railings & Gates Metal Windows Farm Implements

POTTERY THROUGH THE AGES NO. 20



Specially drawn by Gordon Nicoll, R.I.

EUROPE DISCOVERS THE SECRET OF PORCELAIN

Portuguese and Dutch traders introduced Chinese porcelain into Europe. Soon there developed among the wealthier classes a great wave of enthusiasm for this precious and translucent expression of the potter's art. Many imitations were made by European potters in tinglazed earthenware and there was a sustained and widespread search for the secret of true "hardpaste" porcelain.

glazed earthenware and there was a sustained and widespread search for the secret of true "hardpaste" porcelain.

An artificial or "soft-paste" material, known as Medici porcelain, was produced in Florence as early as 1580. Other "soft-paste" types, partly composed of glass, were developed nearly 100 years later in Rouen and Saint-Cloud by French potters. And finally in Saxony early in the 18th century, after many experiments, a German alchemist — Johann Friedrich Bottger — discovered the great secret of the all-essential materials which the Chinese called Kaolin and petuntse, now known to us as china clay and china stone. He also discovered how the ingredients should be

prepared, mixed and fired. Under Royal patronage, the famous Meissen porcelain factory near Dresden was founded in 1710 and retained the leadership in Europe for half a century, despite the betrayal of manufacturing secrets to rival potteries in Vienna and Venice.

The production of porcelain became a luxury art, depending largely on the patronage of princes and noblemen. It was strongly influenced first by the Baroque and later by the Rococo styles so much in vogue at the time. The fragile, delicate material lent itself to the shaping of an almost limitless variety of colourful creations, charming and playful at their best but only too easily becoming crude and over-elaborated.

It was said that every German prince wished to own a porcelain factory! Other European rulers followed suit and works were established in Capo-di-Monte, Vincennes, Sevres and many other places. The first English porcelain productions were those of the famous Chelsea and Bow factories, both of which were established about 1744, the former owing its origin to French and Belgian immigrants.

In the Chelsea productions in particular the influence of Chinese, German and French wares can be seen. During their comparatively brief existence the Bow and Chelsea works produced an astonishingly brilliant and varied output of figures, tablewares, snuff-boxes, scent bottles, powder boxes and other creations which were periodically disposed of at auction sales. These wares are today eagerly sought after by collectors all over the world.

18th century English porcelain, with the exception of that produced for a short period at Plymouth and Bristol, was all of the "soft-paste" variety, fired at a lower temperature than continental or chinese porcelain and comparatively easy to mark with file. *



DOULTON & CO. LIMITED

DOULTON HOUSE · ALBERT EMBANKMENT · LONDON · S.E.1

Makers of Fine China and Earthenware, Porcelain Insulators, Laboratory Porcelain, Chemical Stoneware, Ceramic Filters, Sanitary Earthenware and Fireclay, Stoneware Pipes and Conduits, etc.

WORKS: BURSLEM, DUDLEY, ERITH, HANLEY, LAMBETH, STOKE-ON-TRENT, TAMWORTH.



And when you order we won't keep you guessing. You get the items on time, delivered straight to your site.

Midland Woodworking

Standard Joinery where you want it, when you want it

THE MIDLAND WOODWORKING COMPANY LIMITED MELTON MOWBRAY



TO ALL IN THE BUILDING INDUSTRY

A Christmas Message from the President of the National Federation of Building Trade Employers

LIKE MY PREDECESSORS I SEND MY BEST WISHES FOR CHRISTMAS AND THE NEW YEAR TO ALL RANKS OF THAT GREAT ARMY — THE BUILDING INDUSTRY

HRISTMAS 1949 finds the nation in the grip, and in a much tighter grip than ever, of an economic crisis which has been with us since the war. It is not easy therefore either to rejoice or with any assurance to forecast the future. But we can be proud of a year's work well done. Thanks to the Industry the people of this country are better housed than they were a year ago and they spend their working day under better conditions.

QUITE APART from the forthcoming general election, the coming year will be a crucial one in the battle to maintain the country's standard of living. All of us earning our living in the building industry must be prepared to make our full contribution. We can only do this by working as a team with increased output as our goal. Management must go all out to increase its efficiency and we must all work harder even if we have to tighten our belts.

IN THIS WE SHALL, I hope, get considerable help, in the early part of 1950, from reports to be made by the Working Party appointed by the Minister of Works and by the team from the building industry which visited the United States under the aegis of the Anglo-American Council on Productivity. My Federation has

taken a leading part in the work of both these bodies. DURING NEXT YEAR we must continue to prepare for the day when the country is once again standing on its own feet so that we are ready when the green light shows to go full speed ahead. We must give increased attention to the training of the younger generation, whether for the crafts or for the managerial side of the industry, we must make the fullest use of mechanical aids and must be willing to experiment with new techniques. We must exercise the greatest economy in the use of materials and above all we must encourage the wider use of bonusing — the key to the problem of increased productivity and lower costs.

IF WE DO ALL THOSE THINGS and do them well, 1950 will, I am sure, be another year of good work carried out in spite of the many serious difficulties.

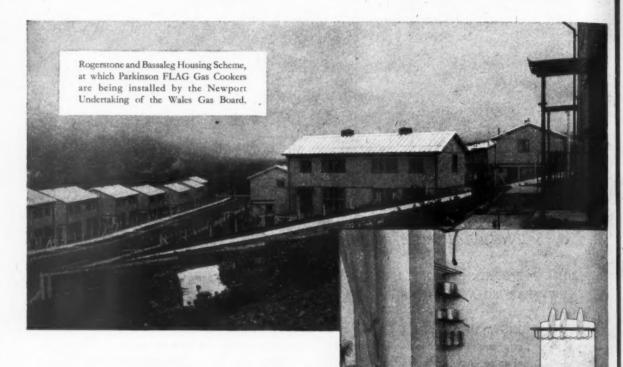
WHAT I HAVE SAID represents the policy of my Federation which, during the year, will continue to watch the operation of the Town & Country Planning Act and to press for a fair deal for those who wish to build their own houses without any cost to the rates or taxes.

I ASK BUILDING TRADES EMPLOYERS who are not yet members of my Federation but who have benefited from its work in the past, to strengthen its hands by joining us.

President

ISSUED BY THE

NATIONAL FEDERATION OF BUILDING TRADES EMPLOYERS - 82 NEW CAVENDISH STREET - LONDON - W.I



Steel Houses erected by the Magor & St. Mellons U.D.C. - one of the many Housing Schemes in the United Kingdom where the Cooker specified was



An attractive, low-priced Cooker of proved efficiency



The Flag Gas Cooker with Fixed Platerack and Splashplate . . .

A typical example of a modern planned Kitchen incorporating the FLAG Gas Cooker.

W

The Cooker can alterna-tively be supplied with either a short Splashplate (right) or Folding Cover Top (left).



The Flag Cooker has three boil-ing burners and a grill burner and can be supplied with either Stoved Black 'Open' Top Bars (left) or Black Vitreous Enamel-led 'Dished' Top Bars (right).







ARKINSON

In common with every other periodical, this JOURNAL is rationed to a small part of its pre-war consumption of paper. Circulation is therefore temporarily restricted but would-be subscribers are advised to have their names put on the waiting-list. Their names will then



on the waiting-list. Their names will then be added to the subscription list as soon as possible. Subscription rates: by post in the U.K. or abroad, £1 15s. 0d. per annum. Single copies, 9d.; post free, 11d. Special numbers are included in subscription; single copies, 1s. 6d.; post free, 1s. 9d. Back numbers more than 12 months old (when available), double price. Volumes can be bound complete with index, in cloth cases, for 17s. 6d. each; carriage 1s. extra.

DIARY FOR DECEMBER JANUARY AND FEBRUARY

Titles of exhibitions, lectures and papers are printed in italics. In the case of papers and lectures the authors' names come first. Sponsors are represented by the initials given in the glossary of abbreviations on the front cover.

A BERDEEN. S. Lister. Seasoning, preservation and Diseases of Wood. Clerk of Works' Offices. (Sponsor, TDA.) 10 a.m. (To be repeated at Clerk of Works' Offices, Glasgow, at 10 a.m., on Dec. 23.)

DEC. 16

L ONDON. W. Allen. The Acoustics of Studios and Auditoria, IEE. Savoy Place, W.C.2. 5.30 p.m. Dec. 19

Professor L. Dudley Stamp. The Use and Misuse of Land. 12, Great George Street, S.W.1. (Sponsor, RICS.) 5.30 p.m.

JAN. 2

Hope Bagenal. Concert Halls. 66, Portland Place, W.1. (Sponsor, RIBA.) 6 p.m. JAN. 3

The Painting of Buildings. Colour film by ICI. At Waldorf Hotel, Aldwych, W.C.2. (Sponsor, IRA.) 6.30 p.m. JAN. 6

H. R. Humphreys. Acoustics and Sound Insulation. Kent Room, Caxton Hall, S.W.I. (Sponsor, IAAS.) 6 p.m. Jan. 11

W. K. B. Marshall. The Welding of Light Alloys in Structural and Similar Applications. ICE, Great George Street, S.W.1. (Sponsor, ICE.) 6 p.m. Jan. 25

E. S. Hodges. Fire Prevention in Buildings. Kent Room, Caxton Hall, S.W.1. (Sponsor, IAAS.) 6 p.m. Feb. 8

COMPETITIONS

mple nned orat-Gas

lternawith York Festival, 1951, Competition. The York Festival Society, Ltd., invites architects resident in Great Britain and Eire to submit designs in competition for a block of flats in Paragon Street, York, to be built by the corporation of the city of York as part of the city's housing programme. Organized in connection with York Festival of 1951 (June 2-16), when it will be open for public inspection. Premiums: £250; £150 and £75. Assessor, W. A. Eden. Conditions may be obtained, on payment of £2 2s., from Keith Thomson, York Festival, 1, Museum Street, York. Designs to be received by January 18.

Competition for designs for interior treatment of two saloon bars and two public bars. (Sponsor, The Architectural Press Ltd.) Prizes: (1) £500; (2) £250; (3) £100. Assessors: Hugh Casson; J. S. Eagles: R. Furneaux Jordan; E. B. Musman; and

J. M. Richards (representing the editors of The Architectural Review). Designs must be received by mid-day, February 28, 1950, Art School, Jersey, Channel Islands. The Association of Old Victorians invite architects of British nationality to submit designs in competition for war memorial buildings proposed to be erected in the Victoria College Grounds, Jersey, Channel Islands. Assessor: A. B. O. Geens. Premiums: £75, £50 and £25. Completed designs should be sent to A. H. Worrall, hon. treasurer, The Association of Old Victorians, 25, Cleveland Road, Jersey, C.I., not later than April 3, 1950. Questions must be received on or before December 31 by Mr. Worrall, who will also provide a copy of the conditions on the deposit of £1 ls. Following are extracts from the conditions:—The elevation should be treated in a restrained and dignified manner, having regard to the existing buildings of the Victoria College, which are mainly built of granite in the Gothic style. The entrance porch should be approximately 14 ft. by 12 ft. It is the intention of the promoters to use this entrance porch as a War Memorial to past students of the College. Adequate space should be provided for a memorial tablet. The main studio should be approximately 34 ft. by 20 ft. by 14 ft. in height. Four smaller studios are also required.

NEWS

THURSDAY,	December		15,	1949
No. 2862			Vol.	110
News				665
Netted Sky				666
This Week's Le	ading	Article		667
Astragal's Note	s and	Topics		668
Letters .				669
Housing for Inc	dia			670
Conversior Bournemouth		Hall 	for 	671
Review Pub Co Answers to C				672
Societies and I	nstitut	ions		673
School at Chig	well			676
Housing at Por	tadow	n		684
Information Sh 20.Z12 Lewis Steel Sheet Dovetailed T	Dov	Plain		face
29.C10 · Lute Burner Gas		Neat	pag	ge 686

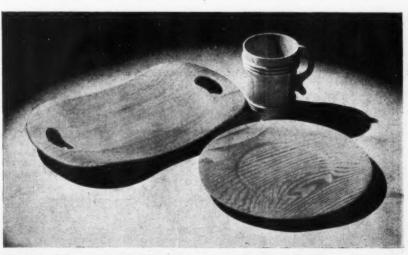
Technical Section:

The Industry.	By Brian	Gra	int	687
Information C	entre			688

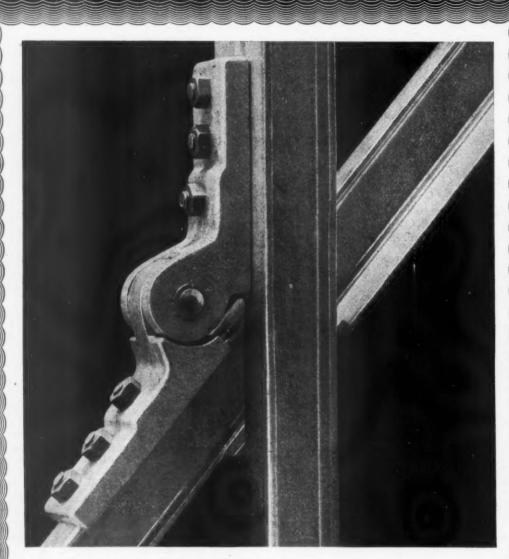
Though no feature in the JOURNAL is without value for someone, there are often good reasons why certain news calls for special emphasis.

* means spare a second for this, it will probably be worth it.

★★ means important news, for reasons which may or may not be obvious.



Examples of Swedish craftsmanship which are on view at the CID, Tilbury House, Petty France, S.W.1. These are part of an exhibition of souvenirs collected by the Scottish Committee of the CID to show the use of simple materials by craftsmen to produce attractive handicraft articles. The exhibits come from Sweden, Denmark and Switzerland.



SE

HOPE'S Pivot

FOR POWER STATION WINDOWS

prevents casement being jammed by coal dust, etc.

HENRY HOPE & SONS LTD

SMETHWICK, BIRMINGHAM & 17 BERNERS STREET, LONDON, W.1

From AN ARCHITECT'S Commonplace Book

SELF-CONFIDENCE IN ARCHITECTURE. [From Heavenly Mansions, by John Summerson (The Cresset Press, 21s.).] The most successful buildings of the pre-1939 period were buildings of an almost purely diagrammatic character. They were successful, in relation to the great mass of confused architecture around them, because they did clearly state a relationship between architecture and life. Sometimes, it is true, this statement has been made with so much wit, sensibility and resource that the buildings do have a certain vivid reality of their own. But running through the whole of modern architecture one is aware of this curious reservation that it is not architecture but the relation of architecture to everything else which has been the architect's concern; that he has not sufficient confidence in his own art to believe that it can be anything more than a neat prose account of this or that situation—a correct answer to a rather complicated examination question. Now it is rather obvious that this distortion of the architect's attitude has, during the past thirty years, been not only inevitable but of high importance. It has nearly got rid of the intolerable burden of "the styles." It has restored the architect's confidence in the worthiness of his profession vis-à-vis that of the engineer. But, on the other hand, the distortion remains a distortion. There is an uncomfortable tension in the modern architect's point of view. He still stands off-centre, designing diagrammatically, staking a claim for architecture rather than producing architecture, hugging the mythical coast of "functionalism" and the "calculated" result. And he has, at the moment, no alternative.

** There should be NO RESTRICTION on the freedom of LOCAL AUTHORITY ARCHITECTS.

This is the view of members of the RIBA Council who have considered evidence from various sources that local authorities are being encouraged to refuse to appoint persons who have served only a short period with their present employers.

are being encouraged to refuse to appoint persons who have served only a short period with their present employers.

The Council deprecate the irresponsible changing of employment by architects and architectural assistants but, at the same time, are opposed to any attempt to enforce unilateral restriction on freedom of movement. They point out that in the past employers have exercised their right to dismiss staffs for reasons of redundency or economy and that now the demand for assistants is in excess of the supply, it would be unjust and improper to prevent employees from moving to posts in which they might receive improved remuneration and conditions of service. Moreover, an objectionable feature of the proposed restriction is that it operates unknown to the applicant for a position.

PROPOSALS for DECENTRAL-IZATION OF LONDON have been made by the MOTCP.

Eight new towns are expected to take about a quarter of a million Londoners, and homes for many more will be provided in other reception towns. This is announced in a memorandum issued to all local authorities concerned by the MOTCP. The memorandum also contains

the following points:—

The plans for linking particular exporting districts with particular reception towns are based on the natural inclination of people to move outward along the lines of communication. The Greater London area has accordingly been divided *into five sectors, three to the north of the Thames and two to the south. In each sector the authorities in the inner part are linked for decentralization purposes with reception towns in the outer part

towns in the outer part.

In this way, people from the congested inner areas of Essex, for example, are expected to find homes and work either in the new towns of Harlow and Basildon, or in the reception areas of Billericay, Brentwood and Thurrock. Those from the laner areas of Surrey may move either to the new town of Crawley or to Frimley.

Camberley and Woking. Within the County of London, the people living north of the Thames may be expected to move out northwards to any sector, and those living to the south southwards.

living to the south southwards. It is the aim in building up the new communities to provide work as well as houses. To achieve this, industry and population must be moved out together, and it is pointed out that for this reason not only the order in which names appear on the housing lists of the authorities in the congested areas, but also the work that applicants can do must be taken into account in allocating the available houses. At first most of the new houses in the reception towns will be given to building workers willing to settle in the towns. Later, houses will be given to workers in the new factories and to those engaged

cinemas, and local authority work.
People who wish to move to new towns or reception towns should apply to their present local authority and not to the authorities of the towns to which they want to go. A separate list will be kept for such applicants, and in addition to the usual information about size and composition of family, it will contain details about the work the applicant can do, and the reception town to which he would like to go.

in the various local services such as shops,

A reduction in the EXEMPTION LIMIT FOR BUILDING LICENSING has been imposed.

An Order has been made reducing from £1,000 to £500 the amount which may be spent without licence on individual properties in the categories of industrial and agricultural building in the twelve months from July 1, 1949, to June 30, 1950; the corresponding amount for office buildings, storage buildings and educational buildings is reduced from £1,000 to £100. This was announced by the Minister of Works, Charles Key, in the House of Commons on Monday. These new limits will take effect from February 1 next, so that work started under previous limit, but costing more than the new limit, will not require a licence if it is finished before February 1; otherwise an application for a licence should be made in good time before that date. The Order makes no change in the £100 exemption limit for the remaining classes of building.

LOCAL AUTHORITIES should make the fullest possible use of PRIVATE ARCHITECTS.

This recommendation is made in a report on "Present and Future Supply and
Demand for Persons with Professional
Qualifications in Architecture," published
by HMSO (price 6d.) for the Ministry of
Labour and National Service. The recommendation that central and local government authorities should make greater use
of private architects for works "which
are in excess of the output capacity of
their permanent establishment of architectural personnel" arises out of one of
the reports main conclusions. This states
that until and unless architects in private
practice are more fully employed as a
result of an increase in the availability of
building labour and materials for private
enterprise, or the wider use of their services on schemes for central and local
government authorities, the supply of
assistants of a suitable grade for appointment to official posts will remain short
of the demand.

Other conclusions reached in the report are that the number of architects needed in the future may be slightly higher than before the war, and that if the present rate of entry into the universities and technical colleges for architectural training is maintained after the present shortage has been made good, there will be more trained men and women than the profession can economically absorb. It is recommended that a tendency towards a further increase in the number of entries should be discouraged.

The report, which is one of a series designed to throw light on the future demand for professional personnel in the various branches of science, engineering, surveying and architecture, was prepared by an Architects' Sub-committee appointed by the Technical Personnel Committee.

by the Technical Personnel Committee.

The panel includes the following:—
Arthur Bailey, Kenneth M. B. Cross and
A. C. Bunch (RIBA); G. B. J. Athoe, C. D.
Spragg, C. D. Stillman, P. G. Fairhurst and
J. W. R. Adams, succeeded by W. J.
Pickering (Architecture and Public Utilities
Advisory Committee); W. A. Rutter, L. W.
Johnson (MOW); M. B. Blackshaw
(MOH); G. I. Smith, succeeded by
M. F. B. Bell (MOTCP); C. H. Bradley
(Colonial Office); P. H. Brind, succeeded
by H. F. Rossetti, M. Pinto (MOLNS).
The chairman was T. E. Scott and the
secretary, E. V. Eves, who is a representative of the MOLNS.

Netted Sky

Our physical environment, states the Architectural Review, in its December number, can be seen in two ways which may be called the associational and the objective. The objective way which, to the town planner, is of first importance, has become the familiar one, and to recapture it demands a mental re-orientation. Gordon Cullen, in an article called "Townscape Casebook," endeavours

with sketches and photographs to revive the objective way of looking. The illustration above, taken from the Review article, is used not for the beauty of the subject, but for the way the arched portico appears to hold and bring close the infinity of space. The building is the Albi cathedral in the Department of Tarn in the province of Languedoc, France.

for BU.
The arch

as be guii of plo assorbio out me Ti in the of sio exit Bu Sq pe The unto coopl rep pl al th

Architects are invited to submit designs for an extension to MEDICAL BUILDINGS at EDINBURGH.

The University of Edinburgh invites architects to submit designs in competition for extension to the Medical Buildings to be erected on a site on the north side of George Square, Edinburgh. They have appointed Mr. A. G. R. MacKenzie to act as assessor. The following premiums will be paid: First, 1,000 guineas; second, 600 guineas; third, 300 guineas. The author of the design placed first will be 2mployed to carry out the work unless the assessor is satisfied that there is some valid objection to his employment, in which case the second prize winner will be employed, subject to a similar condition, and so on. The amount of the premium payable to the author whose design is carried out is to merge in any subsequent payment made by the University.

The Medical Buildings will be extended in two stages:—Part 1: To provide for the departments of anatomy, physiology and pathology, the medical library, and the administrative offices of the Faculty of Medicine. Part II: For future extension. The site available for the proposed extension lies between the existing Medical Buildings and the north side of George Square, and for the purpose of the competition may be treated as a cleared area. The accommodation given under the heading Part II which it is found possible to include, in particular staff and students' common room accommodation, is to be

common room accommodation, is to be placed on the western area plan, and the remainder of Part II on the eastern area plan which will only become vacant as alternative accommodation is found for that in the existing buildings.

The plan for the future development of the University, prepared by Dr. Charles Holden, envisages the rebuilding of the whole of George Square for University purposes, but the present project concerns only the north side, it being agreed by both the University and the Corporation of the City of Edinburgh that the University will not seek the approval of any scheme contemplating alteration on the other sides of the Square, unless and until it is satisfied that such a proposal is the only method by which a satisfactory scheme is possible.

In view of the architectural and historical interest of the Square, it is desirable that the new buildings should not be out of harmony in form, materials, and scale with the remainder of the Square, whether that remainder is redesigned or not.

Photographs of the existing buildings are supplied with the conditions, together with a perspective illustrating Dr. Holden's proposals for further University development. Reference may also be made to the City Centre Plan, plate XXIII, opposite page 54 in the publication A Civic Survey and Plan for Edinburgh, prepared for the Town Council by Sir Patrick Abercrombie and Mr. Derek Plumstead. It is to be noted, however, that the recommendations of this advisory plan have not yet been dealt with by the Corporation.

Designs should be addressed to "The Secretary to the University, Old College. South Bridge, Edinburgh 8," and endorsed "Design for Extension to Medical Buildings," not later than 12 noon on Saturday, September 2, 1950. Questions must be addressed to "The Secretary to the University." on or before Saturday, February 18, 1950. The deposit of £2 2s. paid by the applicant for the conditions will be returned to him on receipt of a bona fide design, or, in the event of the applicant declining to compete, on the return of the competition documents at least two weeks before the last date for submitting designs.

ay

ect.

ind

lbi

of

THE HANKEY REPORT

A SLIGHT, ill-timed and ill-considered report titled "The Present and Future Supply and Demand for Persons with Professional Qualifications in Architecture" was issued last week by the Ministry of Labour.

The foreword to the report states that its purpose is "to throw light on the future demand for professional personnel in the various branches of architecture, and also on the relationship of demand to future supply." Here, at last, the reader might suppose, are the facts and answers concerning a whole number of problems which are of vital importance to the constitution of the profession. It is interesting to note how the architects' panel attempts to "throw light" on

the scene

It is obvious that, before attempting to discover the present and future requirements for architects, the present and future demands should be at least roughly assessed. The action the panel took was to ask the bodies and Ministries concerned for a general statement on the demand position. The RIBA's view was that the only reliable basis for estimating the future needs of the profession was to equate the number of architects to the amount of building labour available, as set out in the memorandum entitled "Architects Required for the Post-War Period," which was submitted to the MOLNS and the MOW over five years ago. The conclusion they draw is "that the present shortage (of assistant architects) is a passing phase and that there may be overcrowding in the profession if the present rate of recruitment continues."

The first recommendation of the report, therefore, is to the effect that an increase in the rate of entry should be discouraged, and that the employment position in the profession should be closely studied in order that recruitment should not

exceed demands.

This, of course, is an extremely suitable, if rather obvious action to take. The only fly in the ointment is the lingering suspicion that there is not enough material available on which to base these assumptions. With the exception of student numbers, there are no figures or statistics in the report at all. For instance, the RIBA merely state that in pre-war years architects in private practice were under-employed to the extent of 15 per cent. But what was the proportion done by architects of the total building work of the country before the war, compared with today? And what are the comparative amounts of work done by public authorities and private architects both pre- and post-war? What are the sizes of architectural offices, and what is the proportion of qualified architects in architectural firms to unqualified draughtsmen?

The answers, of course, will partly be found when the results of the RIBA Questionnaire (sent out in March of this year) have been announced. The extraordinary thing is that the RIBA should make statements so closely concerning the profession before all the facts, at long last asked for by

themselves, are marshalled and made known to the profession. The RIBA may well be right in supposing that the profession is in danger of being overcrowded. But before any action is taken to limit the numbers, it should be made quite clear how this supposition is arrived at. For instance, to challenge a specific point, the report says that the strength of the profession should, fundamentally, be related to the capacity of the building industry in labour and materials. This is putting the cart before the horse. The demands of a fluctuating and moving population, and knowledge of the rate of obsolescence of the country's buildings, all related to the economic state of the country, should provide the key to the number of architects required.

The supply of materials and the labour of the building industry should, ideally, be subservient to the demands of the architect. It is not the function of a Ministry to adjust the size of the architectural profession according to the number of operatives in the building industry, or to the number of bricks produced in a year.



The Architects' Journal

9, 11, and 13, Queen Anne's Gate, Westminster, S.W.1.

Phone: Whitehall 0611

 \mathcal{N} O T E S

TOPICS

PAUL NASH

When Paul Nash died in 1946 he was at work on his autobiography, and it adds to the tragedy of his early death that he was never able to finish it. In fact he only completed it up to the beginning of the first world war. It has now been published*

together with some of his war-time letters to his wife and various later writings, and a very moving volume it makes.

He writes admirably, and the picture of his childhood and his slowly emerging consciousness of what the visible world was to mean to him is beautifully done. His personal vision, incidentally, was of an essentially architectural kind, and modern architecture in its early days owed a lot to his interest and understanding. There is much talk again today about collaboration between architects and the other arts; to make such a collaboration fruitful we badly need a Paul Nash.

MARRIAGE IN STATE

Matrimonial designs have been made public by two American patrons of art. The Institute of Technology in the State of Illinois is entering the state of marriage with the Chicago Institute of Design. We wish them well. And, incidentally, there are several British organizations engaged in similar work which might benefit from such a wholly practical union. Someone should introduce these bodies and kindle a flame between them. Match-makers please note.

END OF BUFFALO BUILDING

I see from the US Architectural Forum that the Larkin Building. Buffalo (1904-1949) is about to be torn down. Its architect, Frank Lloyd Wright, said of it in his autobiography: "This entire building was a great fire-proof vault, probably the first completely fire-proof furnished building. The furniture was all made of steel and magnesite, built into place. even the desks and chairs were made with the building." In these offices. which were for a mail order firm, Wright incorporated many new inventions. "The hanging water closet partition, the long automatic multiple chair-desk, the wall-water closet were only several among them. . . . The top storey was a restaurant and conservatory, the ferns and flowers seen from the court below. The roof was a recreation ground, paved with brick."

00

CO1

wa

to

wi

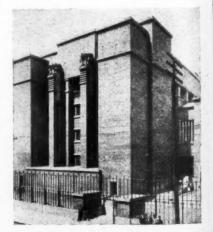
ist

of

th

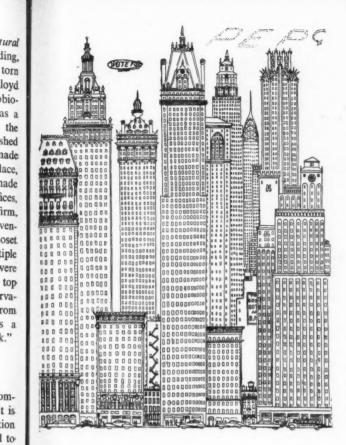
0

It was also one of the first completely air-conditioned buildings. It is remarkable to think that the nation which can find the millions required to restore Colonial Williamsburg cannot find the \$5,000 (if the Forum figures are accurate) necessary to preserve so significant a landmark. A glance at my illustration of this building will make it obvious at once how great a debt European architecture of the '20's and early '30's owes to it and its architect.



The Larkin Building, Buffalo, designed by Frank Lloyd Wright, which is to be demolished. (See Astragal's note).

^{*} Outline: an autobiography. By Paul Nash. / Faber & Faber Price, 30s.



" Art begins above the snow-line." Sketch by Osbert Lancaster, who has recently returned from America.

POSTSCRIPT ON LCC HOUSING

tural

shed

lace. nade ices

ven-

oset

iple

vere

top

rva-

rom

s a C. "

om-

t is

ion

l to not ires

SO

at

will

t a

20's

its

Readers will not have forgotten the controversy about LCC housing last summer in which the JOURNAL took a leading part. One of the arguments was that it was all wrong for housing to be in charge of a Valuer. The RIBA have now provided the Valuer with a complete answer to this criticism: they have elected him a Fellow.

STUDENTS ABROAD

One of the most dismal aspects of the post-war suspicion between nations is the virtual cessation of personal cultural exchanges save via carefully selected individuals by official "way of life" promoters. Nobody who travelled abroad as a student between the wars could deny the enormous stimulus received from contacts with other countries, civilizations foreign architects in their own homes and studios.

For more than one generation of students these possibilities have been denied. Today, however, there is some

evidence that students are beginning to move about Europe again, although, alas, on too small a scale. That these contacts lend impetus and enthusiasm was amply demonstrated at an AA meeting recently, when recorded, for the benefit of members and their fellow students, the results of their travels. We heard of the excavations at Leptis Magna in Tripolitania from Ian Colquhoun, Czechoslovakia from Hugh Morris and the CIAM Congress at Bergamo from Andrew Derbyshire.

Though delivered at breakneck pace, the talks bore witness to the fact that students, at least at one school, are as lively, enquiring and vigorous as they ever were, and probably reflect upon what they see more acutely and intelligently than ever before. Mr. Jordan, the principal, referred to the great number of countries from which he had received postcards sent by students. Next year it is hoped that there will be many more students able to visit each country.

ASTRAGAL

LETTERS

Michael Waterhouse, P.R.I.B.A

G. B. J. Athoe

G. Metcalf

Christmas Appeal

SIR,—I am appealing to you at Christmas time on behalf of the Architects' Benevolent Society, which for nearly a hundred years has helped members of the architectural pro-fession and their families when in need. Illness, accident, sudden bereavements and other special difficulties will sometimes bring a family to the verge of disaster, but the society can help if it has the funds.

Our annual Christmas Half-Crown Appeal

has been the means of greatly extending the has been the means of greatly extending the work of the society. Last year we sent out 16,500 appeals, and in reply received 1,135 donations; will you please help us to do much better this year? Please send me at least one half-crown, or as many half-crowns as you can, as a Christmas gift to the society for the benefit of those who are urgently in need. We, and those who appeal to us, will be truly grateful to you for whatever you are able to send.

MICHAEL WATERHOUSE

London

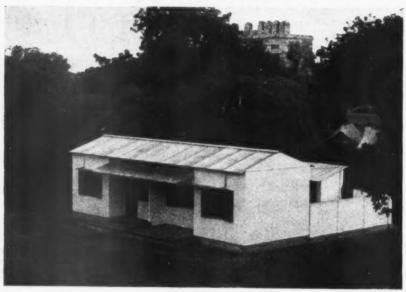
Architects Registration Act

SIR,—Mr. L. C. Howitt, in the opening paragraph of his letter (AJ, 24/11/49), says:—"Mr. Athoe knows quite well that my questions are by no means irrelevant to the considerations behind his depre-catory references to the RIBA's attitude in catory references to the RIBA's attitude in regard to qualification for admission to the Register of Architects." But had Mr. Howitt, as I had hoped, asked of Messrs. Wicks and Haynes the further question, "Who are preventing the IAAS from holding examinations in architecture?" those gentlemen would have experienced some difficulty in replying.

Let me then inform Mr. Howitt and any other of your readers, who may be instead of the programmer of the programme

other of your readers, who may be in-terested, exactly what the "considerations behind my references" were: (1) For several years before the passing of the Act, the IAAS held examinations in archi-tecture and successful candidates have tecture, and successful candidates have since proved their ability in their pro-fession—some indeed becoming prominent members of the RIBA. (Of course the IAAS has held and continues to hold examinations in surveying subjects, but such examinations are not in question).

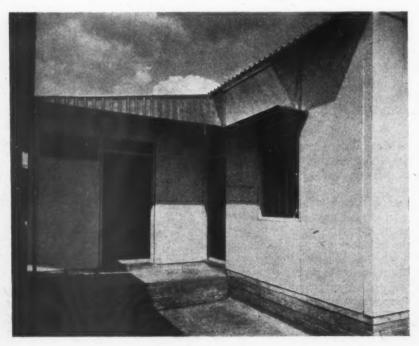
(2) The IAAS seems to have committed an unforgivable sin in challenging the claims of the RIBA when that body promoted a series of Registration Bills, resulting in Parliament refusing to give the RIBA the Parliament refusing to give the RIBA the all-embracing powers that body sought in the measure. (3) The IAAS was given statutory rights of representation in the Act, which the RIBA has ever since been at pains to nullify. (4) The RIBA has used every effort to increase its voting power on the Registration Council, the Board and the various committees. Indeed, I challenge anyone aware of the facts to deny that "steam-roller" tactics and every artifice have been used to stifle disevery artifice have been used to stifle dis-cussion and to prevent the fruition of any project or proposal which



shuters Shuters Shuters Shuters Loopy Shuters Loopy Loop Shuters Loop Loop

HOUSING FOR INDIA

The Government of India, in conjunction with Structural & Mechanical Development Engineers, Ltd., have installed the first Alcrete housing factory in New Delhi. It will produce 5,500 houses per year. The ultimate project envisages a number of similar "unit" factories throughout the country, planned to suit transport and material facilities. The house is an adaptation of a design made by SMD engineers for Mysore State and published in the JOURNAL for November II, 1948. The house is planned on a 3-ft. 2-in. module. The structural wall panels are of 4-in. cellular concrete with a thermal insulation of 0-26 BTUs. The architects are A. F. Hare & Partners. Top, general view, below, the rear entrance.



approved in the first instance by the RIBA executive. (5) The IAAS, as the second of the constituent bodies on the Registration Council, has made repeated applications for its Examinations in Architecture to be recognized for the purposes of Registration, and it is only fair to add that the Registration Council itself has been sympathetic and helpful, but the Board (which, in fact, is run by a committee almost wholly composed of RIBA members) has done everything in its power to prevent the IAAS exercising its right to hold examinations. (6) The IAAS has submitted its syllabus for the Board's approval, and the Board has accepted the syllabus without comment or criticism (7) The IAAS has invited the Board to appoint one of its members as overseer, all fees and costs to be defrayed by the IAAS. (8) Alternatively, the IAAS has proposed that the Board carries out its real duties (as provided in the Act) by holding its own examinations for Registration. (9) Both proposals have been turned down by the Board, which has proved itself neither a Board of Education nor an Examinations Board.

That something must be done, and will be done, to correct the unsatisfactory and grossly unfair state of affairs is beyond dispute. Meantime, I suggest that to ensure a spirit of unity in the profession and to put an end to the "police state" and schisms which now obtain, the Registration Council and the RIBA might unite in a common effort. The Registration Council, by insisting that its Board of Architectural Education fulfils its obligations, as envisaged by Parliament in creating it; and the RIBA by living up to the terms of its Charter "for the general advancement of Civil Architecture."

G. B. J. ATHOE

Ju Ab

me for tio

800

mi un wi Bi

ati

Westminster

SIR,—There is not the slightest doubt that Athoe and Howitt have enjoyed a tilt at one another. Neither is there any question about the looker-on seeing most of the game. To a spectator tucked away in a comfortable, albeit sometimes wet and windy crevice, in the Welsh hills, the debates which from time to time flit in and out of your columns carry so often a discordant note lacking in realism and balance. An old saying has it that "it takes all sorts to make a world," and while I have the privilege of belonging to the IAAS, but not to the RIBA, I nevertheless acclaim the outstanding contributions which the latter body has made to the profession. But there have been and still are errors and omissions in its policy (and in that of the IAAS), and the contributions made by the IAAS, have done something towards repairing the damage. It seems to me that a very good case can be made for the complementary nature of these Institutes. Is such a conclusion likely to be distasteful to either? Is it seriously held that the profession and the section of the community it serves would be better off if there were only one institute with compulsory membership as the prerequisite of designation and practice? Would local authorities then, with their vast responsibilities in housing, etc., find it more or less difficult to obtain reasonably experienced staff?

Would the private practitioner, who is in the game, when all is said and done, to make a living out of it, find the level of assistant-ship more, or less, practical and helpful? These are no days for parochialism, bickering and jealousy: such qualities are entirely destructive. We face big issues, which will only be solved if we think big.

G. METCALF

Brodawel, Llandrindod Wells

(This correspondence must now cease.—Bn.)

CONVERSION OF HALL BOURNEMOUTH

Left, view of the concert hall from the northeast. Bottom, the converted interior showing the new concrete platform with its nine tiers for choir use. This photograph shows the system of lighting used. Natural lighting is obtained from the two laylights running longitudinally in the ceiling. At night the small fittings set in the ceiling give an even distribution of light over the hall.

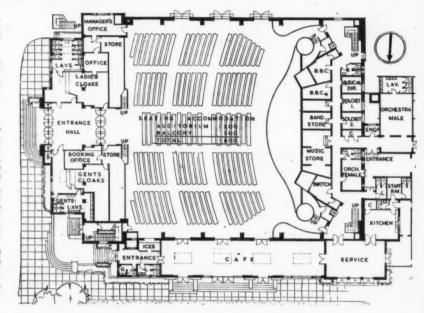
The building was erected in 1937 as an indoor Bowling Green, Conference and Exhibition Hall, and was used for these purposes until 1940 when it was requisitioned by the Air Ministry until

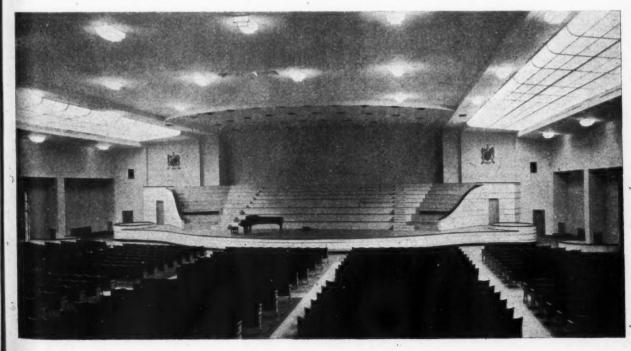
It was requisitioned by the Air Ministry and July, 1946.

About this time it was decided by the Bournemouth Council that their musical policy should be based on a symphony orchestra of 70 members, and that the hall should be converted for such use, with suitable platform accommodation for the orchestra, and provision for choirs

non for the orchestra, and processon for chests of up to 250 voices.

To meet the above requirements a new platform was constructed inside the main hall. It is of concrete, supported on brick walls, and the floor is finished in teak. Behind the platform are mine tiers to accommodate the choir. The space under the platform and behind the new splayed wings at each side is utilised for the provision of BBC control rooms, band store, music store, BBC control rooms, band store, music store, switch room, artistes rooms, and lavatories. The auditorium seats 1,600. Acoustic properties were given careful consideration with regard to both music and speech, and certain alterations were carried out to ensure satisfactory reverberations. These consisted of the provision of 10 ft. radius plaster coves at the junction of wall and ceiling at each end of the hall and a limited amount of curtaining to reduce the echo effects. The cost of the adaptations, excluding seating, was £17,500, and were carried out by John was £17,500, and were carried out by John Burton, the Borough Architect.





HOE t that tilt at of the in a and he dein and a dis-

RIBA

ond of tration cations

to be gistra at the been Board mittee mem wer to ght to

S has Board's

ed the

ticism.

ard to nd to rerseer, by the S has out its ct) by Regis-

been h has

cation

d will actory irs is

st that police in, the might

gistra-Board its S ent in up to

eneral

and at "it ing to nevercontrimade en and policy cone done amage.

se can ure of

clusion Is it nd the would ne inas the their find find

o is in one, to evel of al and paroe face ved if

CALF -Ep.)

REVIEW PUB COMPETITION

ANSWERS TO QUESTIONS

On October 20 the Journal published in full the conditions of the competition for the design of public house interiors, which is being sponsored by The Architectural Review with the support of the Brewers' Society. Answers to questions sent in by intending competitors have now been circulated in the usual way, and are printed below. These answers now become part of the competition conditions.

- Q: Is it to be assumed that the pubs are for people living in a world of plenty—that the commodities which pubs sell in addition to drinks may be on display and not under the counter?
 - A: Yes.
- 2. Q: There are several different types of pub tradition, e.g., country pub, town pub for residential district, town pub for business district, etc. Is the choice of type left to the competitor?
 - A: See answer to question 3.
- 3. Q: Are you expecting designs to be confined to any one type of pub, such as a London pub, a suburban pub, a country market town pub, or a village pub, or do you suggest that all the four examples in the entry should show two or more of these different types?
 - A: Separate unrelated bars are asked for. Clearly, therefore, they may be all of the same type or all of different types, or of any intermediate grouping. The choice of type and locality is left to the competitor's discretion.
- 4. Q: Are the four bars intended for London, country, or provincial town?
 - A: See answer to question 3.
- 5. Q: Is the scheme primarily for urban 11. or rural area?
 - A: See answer to question 3.
- 6. Q: Are competitors free to assume that all or any of the rooms are intended for city, suburban or country pubs, and submit designs accordingly?
 - A: See answer to question 3.
- 7. Q: Ideally, the licencee's character and personality would be taken very carefully into account by a pub's architect. Could a pen picture of two or four hypothetical licencees be provided for competitors? Failing this, could indication be given of the following important factors: (a) location of house—type of neighbourhood; (b) type of trade—whether local or motoring; (c) whether "managed" or "tenant" house.
 - A: The assessors cannot give the pen picture asked for. The competitor's own conception of an imaginary licensee may be reflected, if he so wishes, in the design. (a) and (b) See answer to question 3. (c) This is immaterial.

- 8. Q: On pages 249 and 250 of the October Review, where the traditional pub colours are depicted, was it intended to imply that all these colours were obtained by the use of paint, rather than by the use of natural woods and other materials? And if so, what is the meaning of the term chocolate mahogany?
 - A: Ist part: The pub tradition illustrated was emphatically a paint tradition. 2nd part: This was an error in the writing of the caption. Chocolate-coloured paint is one traditional use of paint; mahogany graining another.
- Q: I should appreciate answers to the following questions: (a) Type of building; (b) size of spaces; (c) accommodation.
 - A: (a) See answer to question 3. (b) See conditions. (c) See conditions.
- 10. Q: Can details be given of the following: (a) Type of building in which the bars are to be placed; (b) drainage and pumping facilities available; (c) conditions of floors and walls; (d) class of customer to be catered for; (e) structural details which may be relevant; (f) expenditure allowed; (g) overall area of bars, together with ceiling heights.
 - A: (a) See answer to question 3. (b) Assume that normal service and facilities are available. (c), (d), (e), (f), (g) See conditions.
- 11. Q: In the two bars, provision is to be made respectively for "snacks" and "darts and other games." Are these provisions to be within the areas stipulated for the bars in question?
 - A: Yes
- 12. Q: Are competitors governed by any regulations concerning minimum ceiling heights?
 - A: They should recognize the normal minimum ceiling height of 8 ft.
- 13. Q: Will there be waiter service at the tables?
 - A: At competitor's discretion where appropriate, but not to the exclusion of bar service.
- 4. Q: Is waiter service to be provided for in any of the bars?
 - A: See answer to question 13.
- 5. Q: Can terraces or loggias be included with any or all of the bars. and, if so, can they be exclusive of the areas stipulated or must they be included within these areas?

- A: No designs for terraces or loggias are required, but access to them may be indicated.
- 16. Q: Does storage space included in the service space refer to bottles used for display, or is additional storage space required?
 - A: See answer to question 17.
- 17. Q: Does "storage" mean that provision has to be made for anything other than is normally contained in the back fitting and under the counter?
 - A: No.
- 18. Q: May the provision for service of snacks in bar 1 take the form of a separate room (having only the ceiling and one partition wall in common with the Saloon Bar, but not having separate access from the street?)
 - A: At competitor's discretion.
- 19. Q: Is the relation of the four bars an essential part of the scheme or would it be possible to produce a scheme for four separate rooms for the particular type of client?
 - A: The relationship between bars is important and each bar may be related visually to some additional bar or bars, but it is not a condition that the four designs submitted must be related to each other.
- 20. Q: Is it permissible to relate, say, bars 1 and 3 to each other as part of a hypothetical pub? And, if so, may the plan of the two bars and their connected service space be drawn as a whole?
 - A: 1st part: See answer to question 19. 2nd part: Yes.
- 21. Q: Should the drawings be primarily sketch perspectives?
 - A: See conditions.
- 22. Q: Is there a standard size required for the drawings submitted?
 - A: See conditions.
- 23. Q: May a reasoned argument in support of one's choice of plan forms be given in the Report as well as of "colour" finishes, methods of heating, lighting and ventilating?
 - A: Yes.
- 24. Q: Does a set of drawings mean plan and elevations only of the interiors, or can perspective or other projections form part of the drawings submitted?
 - A: See conditions.
- Q: Can models be submitted: (a)
 As well as perspectives; (b) instead of perspectives.
 - A: No.
- Q: Is the list of drawings required:
 (a) The only ones required;
 (b) the maximum ones required;
 (c) the minimum ones required.
 - A: See answer to question 27.
- 27. Q: Is there a limit to the number of drawings submitted for each of the four sections of the competition?

ŀ

28.

30.

31.

_

34.

35.

30.

- A: See conditions. There is no limit to the number of drawings submitted under (e) of the conditions, but these should not exceed the number required to illustrate the design adequately.
- Q: Is it advisable that the coloured perspectives should indicate the in-teriors as being occupied, or would representations of empty bars be con-sidered as offering more complete evidence of essential design detail?
 - A: The inclusion of figures is not barred, but they must not obscure the essential features of the design.
- Q: Does the reference to "line only" for the plans and elevations prohibit the use of monochrome rendering to suggest shadow or to facilitate the reading of the drawing?
 - A: Yes.

ggias may

d in

ottles stor-

pro-

d in

ce of a

ceil-

bars ne or

s for

ers is e re-l bar

that

st be

say,

may

vn as

estion

narily

uired

nt in forms

mean

e inother

wings

(a) ad of

ired:

) the

mini-

ber of f the

com

- Q: Are the four bars to be variations of one basic design or four unrelated designs? If the latter, is the award to be made for the best design for any one bar or for the best four?
 - A: See answer to question 19. The award will be made on balance of merit taken over the four bars.
- Q: Are all four bars to be used by both sexes?
 - A: Yes.
- Q: As locality has some bearing on suitability, are the bars to be situated in town or country; one might also add north or south country?
 - A: See answer to question 3.
- Q: "Service areas to include storage space"—does this include barrels, empty bottles, etc., or may normal cellar and bottle stores be assumed with current supplies only in the services. In the case of snacks are preparation and cooking facilities to be included in service or is a nearby kitchen to be assumed?
 - A: See answer to question Assume nearby kitchen available.
- Q: Is it intended that the service of snacks in the Saloon Bar (1.000 square feet of public space) shall comprise meals with part of the service area allocated to this?
 - A: At competitor's discretion.
- 35. Q: It is stated in the competition schedule that the four bars are four bars are ed. I therefore separate and unrelated. I therefore assume that the bars could be owned by four different publicans—is this correct?
 - A: See answer to question 3.
- Q: Drawings required: 1. With reference to (a), (b) and (c) will it be in order to present the floor plan (ceiling, if necessary) and elevations of each wall for one design on one imperial sheet? 2. With reference to (d) must the "small sketches of characteristic detail at competitor's discretion" be shown on the same sheet as the actual perspective sketch or can they be shown separately? 3. with reference to (e) are competitors restricted to one sheet only for these requirements?
 - A: 1 and 2, at competitor's discretion. 3, No.

- Q: Have you any objection to at least two of the bars being planned in conjunction around a common service
 - A: No objection.
- Q: Have you any objection to the design of at least one Saloon Bar to allow for the sale of food? A recent advertisement of the Brewers' Society in the Statesman announced their encouragement of the sale of food.
 - A: No objection.
- 39. Q: Do you want full details of sinks and glass storage behind the bar, or merely the decorative bar-back?
 - A: Sinks and glass storage should be indicated, but not in detail.
- Q: May a competitor assume that the bars are situated in a Free House, and NOT a Tied House, thereby allowing freedom in the display of various Brewers' products and advertisements?
- Q: The locality of the pub conditions the type of clientele (e.g., Queen Anne's Gate area, or Dock area, or Mayfair area). Different sets of Anne's Gate area,
 Mayfair area). Different sets on
 people have differing standards of
 taste in the decor of their surroundings. Particularly in respect of the ings. Particularly in respect of the place in which they drink. Do the promoters envisage the four bars asked for to be situated in some locality—in a country pub, in a town pub, or if in the London area in which district of London? Or is each unrelated bar to be assumed to be unrelated bar to be assumed to be in a different locality?
 - A: See answer to question 3.
- Q: In the Public Bar (800 square feet) provision is to be made for darts and other games. What other games? Is other games. What other games? Is the choice of these left to the com-petitor, or do the promoters favour beer and skittles to gin and pin tables?
 - A: The choice is left to competitors.
- Q: What exactly is the idea in asking for interior designs for large and not-so-large Public and Saloon Bars? Should the designs for both large and small be on the same lines or is a different scheme required for each?
 - A: See conditions.
 - Q: Are the large bars supposed to be for a town or urban district pub and the smaller bars for a country or rural district pub? If so, the design for the interiors should presumably be distinct and consistent with the exterior design of the pubs.
 - A: See answer to question 3.
- Q: Our query is whether, as Gordon Cullen's drawing shows, the Public Bar may be on two levels.
 - A: At competitor's discretion.
- Q: Are the four bars to be treated collectively as being in one building, or are they to be treated as two pubs one Public and one Private Bar to
 - A: See answer to question 3.



Speeches and lectures delivered before societies, as well as reports of their activities are dealt with under this title, which includes professional societies, trade associations and government departments. To save space they are represented by their initials—see front cover. Lectures cannot usually be reported in full, but the extracts given are in the speakers own words.

RIBA and Society for Theatre Research

Richard Southern, Frederick Gibberd and Alec Clunes

December 7. Symposium of talks THEATRE ARCHITECTURE, TRADITION AND FUTURE. RIBA, 66, Portland Place, W.1. The chairman was Norman Marshall.

There is in Richard Southern: torical development of the theatre in Great Britain a great deal of interest to the architect, which we do not always appreciate. tect, which we do not always appreciate. There is one point in that development of outstanding importance to the form of theatre building today, and I propose to discuss that single point, and that is the matter of the modern theatre arch. Always we have to get over what the player says. It is always the player who must have first consideration. It is absolutely necessary that the voice of the actor should be heard well everywhere in the theatre. We must have a theatre which is capable of have a theatre which is capable of must have a theatre which is capable of modification to the greatest possible degree, to give the best possible dramatic effects as and when required, and a building capable of concentrating attention on the players. We must see that the building brings into close relationship the player and the audience around him. If that point is not present in a theatre, the player will find it heavy, hard work. The theatre must have a definite quality of this kind. It is not enough just to be a happy and pleasant place for an actor to work in. He must be heard and seen perfectly clearly He must be heard and seen perfectly clearly in an almost intimate relationship with his audience. The use of the phrase "forestage" comes into the historical record of the English theatre constantly, and there can be little doubt that the individual life and tradition of the early English theatre, quite different from the Continental pattern,— and indeed the most outstanding school of drama which the world has known—de-pends a great deal on the use of the fore-In its early development, the back wall of the theatre was the line of cutting off the audience from the actor. The audience watching the forestage went right down and round the players to the back wall. By comparison today, we seem cold and distant from the stage and its players as they were in the Middle Ages. With the projecting forestage the player usually worked on the edge of the stage in the centre point of the auditorium. The forestage brought with it its own acting technique. And then it became necessary to have a roof on the theatre building. even when the stage proper began, about the time of the first Drury Lane theatre, the players were entering it from side doors and made little use of the back of the theatre. The emphasis was always on a close relationship between the audience and players. Little by little, the stage receded from its original position in the auditorium, and during the period at the end of Garrick's time, and when sentiment began to come into the drama, concentration centred on the picture scene, and the forestage re-In Victorian, and more tracted further. modern times, there has been a greater interest in the perfection of the picture, and one of the root difficulties of architects and theatre people is caused by a determination to keep the player in the picture made by the proscenium arch, and not to let him out of it. That is the present tendency. If the forestage is not used, in order to see the picture scenes the audience must be pushed and wedged higher and tighter together, rather than spread around the stage in a more natural fashion.

There is no doubt about the value of the arena stage, which is pre-eminently suitable for big visual action shows, but the most popular device providing for a degree of participation by the audience is the forestage with public on three sides.

Frederick Gibberd: As a profession we are very self-assured. We can design almost anything from tea trays to towns, but on the subject of theatre design we are, to put it mildly, very shaky. Not because we can't design theatres, but because we do not know what kind of theatre we should design. And it is not for us to decide what kind of theatre is required; it is for the managers, producers, actors and authors. Until the theatrical profession makes up its mind what its building requirements are, the architectural profession cannot provide it. I would like to use my own limited experience of theatre design to illustrate this.

to illustrate this. I visited America with a party of Oxford Dons and theatre people to find out how drama was studied in American Universities. Incidentally, I never really discovered why, in fact, I went unless it was because I knew nothing about theatre design. It took us three weeks to cross the Atlantic in a very small boat, but it only took me a day or two to discover that there can be two quite different ideas about what form a theatre should take. One member of the Commission, the theatre expert, explained to me that the architect's attitude to back-stage requirements was criminal. No architect ever provided proper equipment. I learned that stage depth of 60 ft. was the minimum requirement, and that the fly gallery must be at least 80 ft. above the stage. He gave me hints and tips on the design of proscenium arches, cycloramas, lighting bridges and all the other paraphernalia. I got to know the technical jargon. It was all very interesting and exciting until another member of the party said that all this talk about back-stages was nonsense, and that all that was necessary was a bare room, a raised platform and some chairs grouped around it. He

said that fly galleries, bridges, and, in particular, the proscenium arch were vicious contraptions that had killed the art of the theatre by creating a barrier between the actors and audience. I arrived in America slightly bewildered, and what I saw there only added to my confusion.

AMERICAN THEATRES

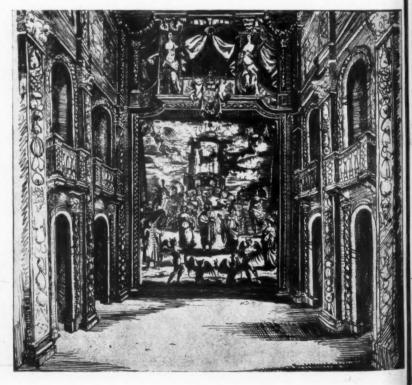
At Washington we saw a large University auditorium seating 1,500. The directors complained that the fly height should have been 100 ft. and the stage depth 80 ft. At Cleveland, a manager of a repertory theatre had a very pleasant and intimate theatre seating 500. It was a simple rectangle with the usual proscenium arch and a narrow forestage with side doors on to it. It seemed to work very well, but he got out designs for a new theatre with a large semi-circular apron front, with seating grouped round it, and no fly tower at all. It was quite a different shape from the theatre he had, and entirely different from the Washington scheme. Then we went to one of the most complete theatres in the world, the Chicago Opera House, which cost five and a half million pounds, with a stage depth of 75 ft., and the fly grid 147 ft. high. The lighting almost reduced our theatre experts to awed silence. There was a sort of giant control box in the orchestra pit. We went to the basement, and saw the battery of hydraulic lifts which enabled the stage to be raised or lowered in sections. That basement was, I think, the turning point.

The commission came down in favour of small, intimate theatres, seating not more than 700 and with no elaborate mechanism. They had by this time decided that Oxford needed a theatre, and that the last thing they wanted was a school of drama. They decided it would be of great value to the University to have a theatre because it would enable students to study drama in the form for which it was written, that is, as a play and not just a literary study. And they gave me the task of designing a theatre which would provide the apron stage, with side seating, inner stage, and roof of the heavens of the Elizabethan theatre, the proscenium doors, forestage, and backstage of the Restoration theatre,

and the modern picture-frame stage behind a proscenium arch. I also had to try to provide the orchestra and changing rooms and platform or upper stage of the Greek theatre, but under no circumstances was this to require intricate mechanism. With the advice of Nevill Coghill I designed a building with these stage types in it. And I also threw in one or two other types, such as a Græco-Roman open-air theatre, Georgian theatre, and a cinema. The design has been published, and so I will not found the only possible solution was to provide a sort of floating area between the normal proscenium arch and the audi-torium proper, which could become either stage or auditorium, or both. The floor of the area could be raised or lowered to form an apron stage, forestage, orchestra pit, or seating. The sides were sliding doors or shutters which could be used to form proscenium doors, stage boxes, ordinary boxes, or just a first floor gallery, or to be just shut off to become an extension of the walls of the auditorium. And a roof which could be used for lighting this area in front of the proscenium arch proper.

DESIGNERS' DILEMMA

Behind all this I had to provide the usual back stage fly tower and wings. My building was very much a compromise, and in particular it illustrated the dilemma we architects are in. Are we to be brave and do what Frank Lloyd Wright has juit done for Hartford in the States? He has designed a circular stage with the one half as a backstage and the other as a semi-circular apron with the audience grouped round it, with no proscenium arch and no fly tower. Or are we to provide the rectangular auditorium or proscenium arch fly tower, and orchestral pit such as in the new theatre at Utrecht, designed by another famous architect, Dudok. Neither of these theatres seats more than 900. Something much bigger is required, such as the new theatre at Malmo, which can be subdivided into smaller theatres by wood screens hung from the auditorium ceiling. As I see it the form of the theatre is at the parting of the ways. If we wish for an intimate link between the actors and the

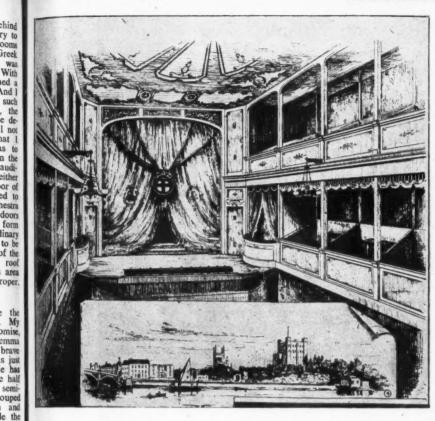


audie ward group ing a fan-si sight backs then form straig wide futile

audie with must lt mi the a his si of h happ pitch face audie

cinen





audience, then the stage must come forward into the theatre. The audience must ward into the theatre. group round it. This implies curved seat-ing and a fan-shaped auditorium. But a fan-shaped auditorium concentrates the sight lines on to one point. If the deep backstage and proscenium arch is required, then a rectangular auditorium is the right because more people can look straight through the proscenium arch with a wide view of the back of the stage. It is futile for the theatre to compete with the cinema. The theatre should exploit the human relationship between the actors and audience. The theatre has to be in scale with the actor. The human personality must not be dwarfed by a vast building. It must be possible to see the subtleties of the actor's facial expression, to appreciate his smallest gesture, and catch the inflection of his voice. None of these things can happen in a vast auditorium with the actor pitching his voice 150 ft. or so, and his lace a small spot to a large part of the audience. I believe the theatre will need to be small, say 700 seats or so, and as the small theatre will not do for ballet or opera, they must have their own building types. I believe too it is important that

e

4

arch

in the

y an-her of

Some-

as the

e sub

wood

eiling

is at

sh for

nd the

it should be possible to provide the stage type for which the play was written. I believe that elaborate lighting, revolving stages, pneumatic lifts, and all elaborate equipment do not justify the capital cost in terms of admission prices, that the theatre has to be much more simple. I feel the actor has to come forward into the auditorium and the audience has to be grouped round him, which implies the fan shape. How we get over the problem of the drawing-room play that demands the picture frame I don't know. Perhaps by some device, by which a proscenium arch is dropped, the apron lowered and seating placed on it, but we do still need the tall fly tower and the wide wings. It would be

a brave architect who dispensed with them. Who is to decide these things? you may think that a few architects should specialize in theatre design, and get to know all the problems and all the answers. I think this would be very dangerous indeed, because the specialist soon begins to harden in his ideas, and to provide a set of answers which may lead to type plans and sterile solutions.

In the projec-tion of the actor Alec Clunes: on a forestage into his audience, you give him both advantages and disadvantages. There is not so much value in enabling you to focus the audience's attention easily by this method, because that is an essential part of the producer's job anyway, and he can do it on any kind of stage. As for elevated audiences round the stage, I think it is still true that results as in the boxes. it is still true that people go into boxes more to be seen than to see—not that you can see anything of a play from a box.

ACTORS AND AUDIENCE

My own feeling is that there is great value in a confined relationship between the audience and stage, but that you cannot overdo the forestage idea. One of the best things about a close relationship with their audience, however, is that the actors can discipline the audience to stop coughing and prevent distractions for the sake of the perfect playeour.

ing and prevent distractions for the sake of the perfect playgoer.

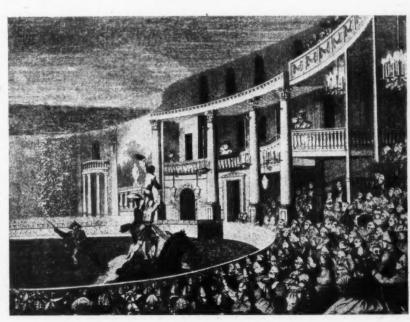
I do not think there is any danger of the actor's technique reverting to a declamatory quality. There is still room in the English theatre for verse with a quality of majesty. With all the limitations of the picture stage, it is still possible to have majesty of verse. Christopher Fry has proved it. We are not condemned to the drawing-room play either.

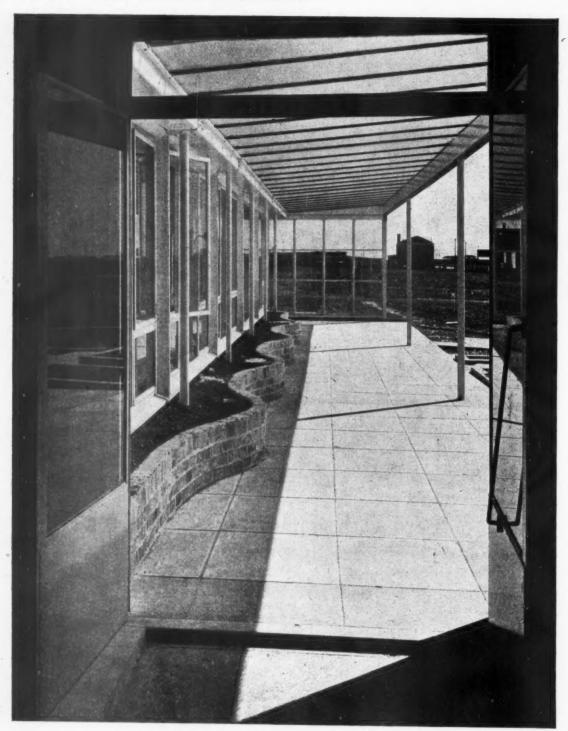
drawing-room play, either.

There is still a lot of improvement to be done with the picture stage, and I feel that the continued use of the picture stage shows that people want this sort of theatre. On the point raised about stage mechan-

On the point raised about stage mechanism I feel that good equipment reduces running expenses of a theatre over a long-term period, and is a good substitute for the hordes of stage hands needed for the spectacular show. Set moving by hand must always be unwieldy, and the hands have developed their trade unions to such an extent that soon we may be forced to an extent that soon we may be forced to make use of mechanism for economic reasons alone.

The examples of the use of arena theatres and the forestage, which are shown on these two pages, were used by Richard Southern to illustrate his talk on the theatre's tradition. On the opposite page is a reconstruction by Mr. Southern of the forestage of the Restoration theatre in Dorset Garden. R ght, a Georgian print of the Royal Circus, later the Surrey, showing an arena stage (late Georgian). Above, a typical late Georgian theatre which survived until the end of last century.





The open-air veranda outside the nursery classrooms.

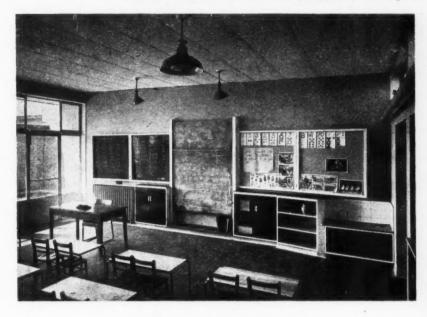
SCHOOL AT CHIGWELL

DESIGNED BY H. CONOLLY,

GENERAL.—The Manford Way primary school Chigwell, is on a site of approximately 5 acres. It is designed for 320 juniors, and 200 infants, and has a nursery for 40. On the east and

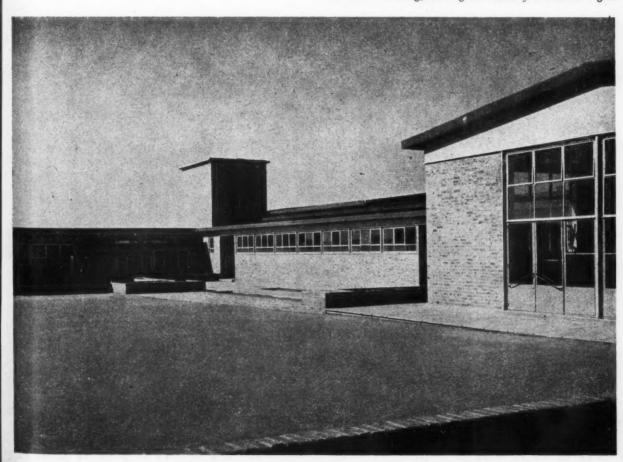
west boundaries 'there are to be screens of flowering trees, and shrubs and flowers are to be planted. The nursery garden is provided with winding paths, mounds and a screen of trees to give privacy.

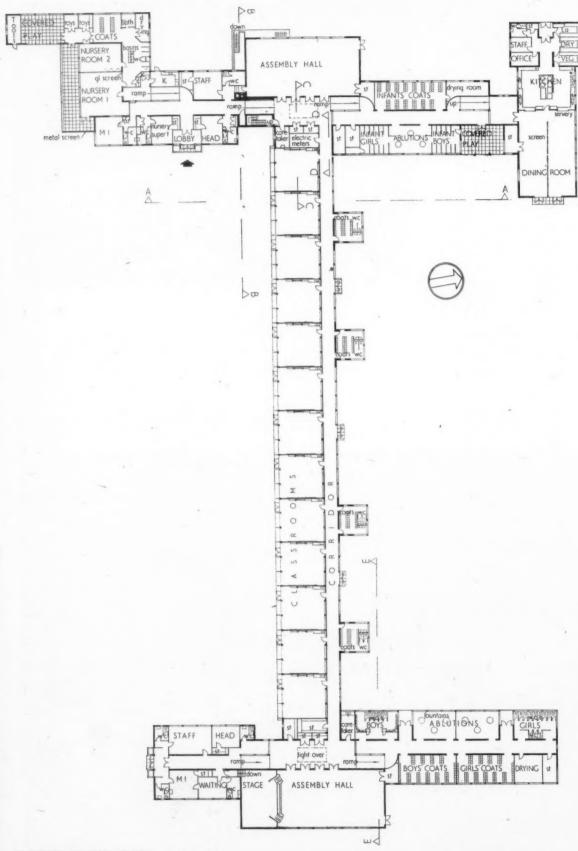
PLAN.—The H-plan shape was determined by the necessity to give the maximum amount of space for a grass playing area on the south side of the classrooms and a paved play area at the back of the school. The main range of classrooms, which faces south, is screened from the surrounding properties by east and west wings. The terrace for outdoor teaching is to be divided into areas corresponding to the adjoining classrooms by hedges. Although the school has been designed to accommodate juniors, infants and nursery children it is virtually two schools. The junior school has its own administrative block and is controlled by a headmaster. The infants' school which also has its own administration rooms is controlled by a headmistress, who has charge of the nursery



class. The cloakrooms and ablutions are planned so as to give easy access to classrooms and playgrounds. An assembly hall is provided for each of the two departments, situated centrally at the east and west ends, the junior hall having a stage equipped for small dramatic performances. The nursery unit has a large playroom with windows to the south reaching to floor level and overlooking

Above, a typical infants' classroom. Below, the junior school administration wing, showing the assembly hall on the right.





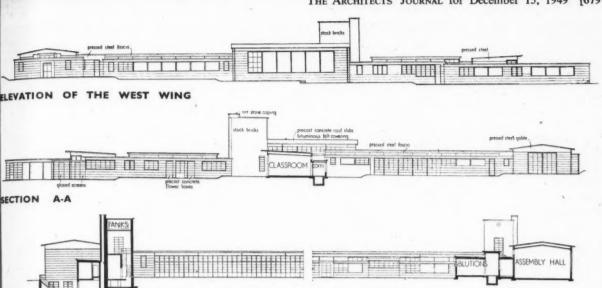
ELEV

SECT

SEC

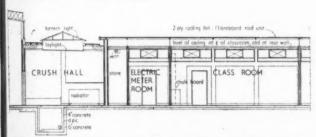
GROUND FLOOR PLAN [Scale: 48"=1"0"]

SCHOOL AT MANFORD WAY, CHIGWELL



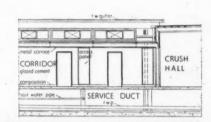
SECTION B-B [Scale: 1. =1'0"]

L



SECTION C-C THROUGH HALL AND CLASSROOM

SECTION E-E



SECTION D-D THROUGH CORRIDOR
[Scale: \(\frac{1}{4}''=1'0''\)]

The nursery classroom wing.

The nursery classroom wing, with play-area and pond.



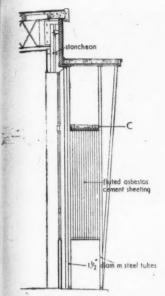
BY THE COUNTY ARCHITECT, ESSEX

D



The south façade of a typical classroom showing canopies and baffles for light control.

SCHOOL AT MANFORD WAY CHIGWELL



flused as basitos cement sheare eg

concrete on 5 sabestos
cement sheating
lightweight concrete on
1 woodwool slates
rendered

F metal panel—

1 s diam m steel tube

ELEVATION OF CLASSROOM WING

SECTION THROUGH CANOPY

fabric reinforcement

DETAIL AT A

bituminous (elt roofing

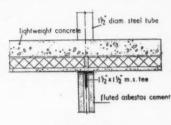
1/2 x 1

wood fillet

4 x 2 m s channel

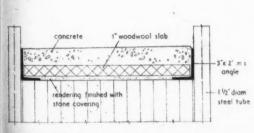
3 corrugated asbestos
sheeting

DETAIL AT B



[Scale: \ \ '=1'0"]

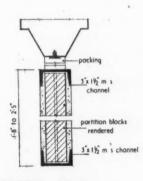
DETAIL AT D



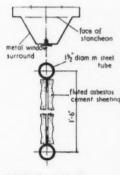
partition blocks

rendered

DETAIL AT C [Scale: } full size]



DETAIL AT E



DETAIL AT F

the nursery garden. A glazed door leads from the playroom to the veranda, which is protected on the east side by a glazed screen. To the south of this veranda is a paddling pool and sandpit. The dining hall and kitchen in the west wing serve the whole school.

CONSTRUCTION.— The buildings are constructed with a light steel frame faced with stock bricks. Generally the walls of the rooms are plastered and the ceilings are of fibre board. Instead of steps,

ramps are provided. The daylighting in the classrooms is adjusted by a hood or canopy, supported by vertical fins, which runs along the entire length of the classroom wing. All classrooms have bilateral ventilation and lighting. The baffles and hoods are light steel with asbestos and woodwool infilling. The entrance hood is also in light steel and there are brick flower boxes flanking the entrance.

INTERNAL FINISHES .-- In the

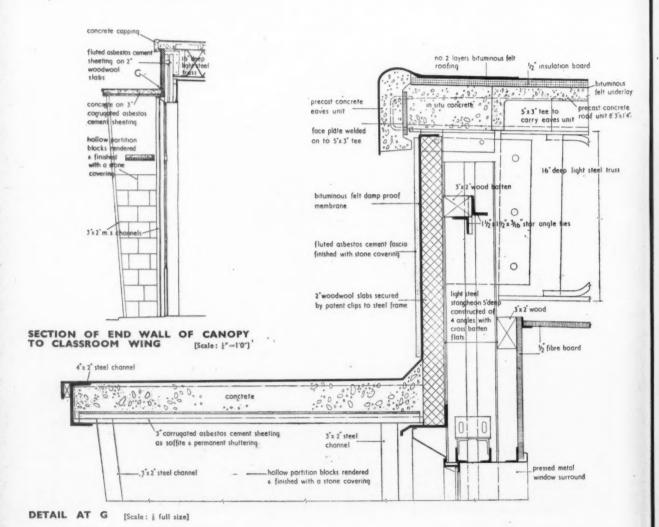
classrooms bright colours on the flank walls have been offset by neutral greys on the end walls, and there are a variety of colour schemes throughout the building. The corridor and cloak room walls are finished in cold glazed cement of a mottled grey colour and contrast with primrose yellow ceilings and various bright colours on the doors. The junior assembly hall proscenium is of fibrous plaster. The general contractors were

Messrs. Gilbert-Ash, Ltd. For list of sub-contractors, see p. 692.

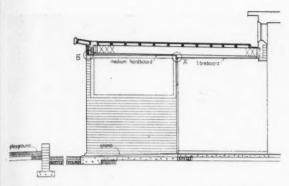


Left, nursery ablutions. Right, wash fountains in the infants' school cloakrooms.

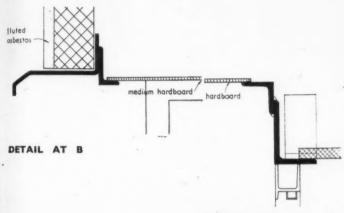




SCHOOL AT MANFORD WAY, CHIGWELL



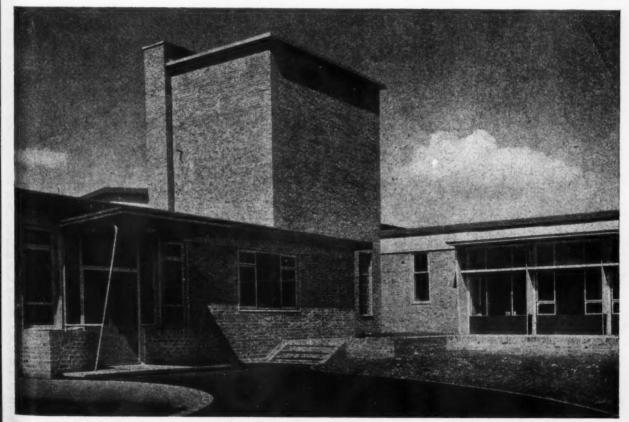
SECTION THROUGH ENTRANCE TO JUNIOR SCHOOL [Scale: §"=|10"]



DETAIL AT A [Scale : } Full Size]



Above: stage and proscenium opening in the assembly hall in the junior school; below, the juniors' entrance, the water tower, and part of the classroom block.



BY THE COUNTY ARCHITECT, ESSEX

ous derlay crete

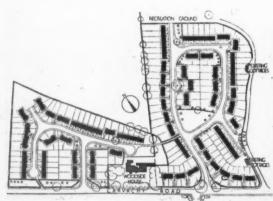
L



A typical terrace of large threebedroom houses, with the service entrance at the front of the house.

HOUSING AT PORTADOWN

DESIGNED BY F. JOHNSON



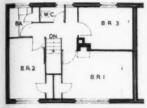
SITE PLAN

GENERAL.—The Woodside Estate in the newly-formed Borough of Portadown, N. Ireland, is on a site formerly occupied by a 24-acre farm. The original farmhouse site will be used eventually for a community centre. The estate is a continuation of the open garden layout of the adjoining public park and market gardening establishment. The existing forest trees have been preserved and distant views of the Mourne and Tyrone mountains have been retained. There is footpath access

throughout the site, but road traffic is restricted and the layout is kept open, with concrete curbs 7-in. high to front gardens, and roads and houses following the natural contours of the ground.

Righ

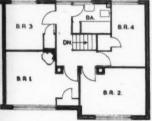
PLANS.—Three- and four-bedroom houses were required, with minimum standard accommodation to keep rentals low. There are three types of house plans. Each has a "through" living room, to give maximum sunshine, and a fire-place on the Right: top, semi-detached three-bedroom houses; centre, a general view, with four-bedroom houses in the foreground; bottom, the three-bedroom terrace houses.



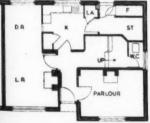
FIRST FLOOR PLAN



GROUND FLOOR PLAN OF THREE-BEDROOM HOUSE



FIRST FLOOR PLAN



GROUND FLOOR PLAN OF FOUR - BEDROOM HOUSE [Sale: 1/2"-1'0"]

ON

road layout

curbs

s, and

ng the

round.

ar-bed-

l, with

moda

There

plans. living

sun.

n the

internal wall. The back door leads into the kitchen through a lobby for stores. The storage of fuel is in a main block to give clear rear elevations to the houses. Each terrace house has a through passage for deliveries, collection of bins, etc., All bedrooms will accommodate at least one 4-ft. wide bed.

CONSTRUCTION.—The external walls are cavity with the outer skin either of 4½-in. facing bricks or 4½-in. concrete blocks and the inner skin of 4-in. concrete blocks. Party walls are also cavity with





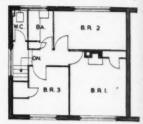








Left: top, block of four-bedroom houses; centre, three-bedroom houses with e rough-cast external finish; bottom, fourbedroom houses with a rough-cast finish



FIRST FLOOR PLAN



GROUND FLOOR PLAN OF SMALL THREE-BED-ROOM HOUSE [Scale: #"=1"0"]

two skins of 4-in. concrete blocks tied with wire butter-fly tiles. Partitions are of concrete ar breeze blocks. The timber pitched roofs have concrete inter-locking tiles laid on felt. The out side shed roofs are of 1-in. wood wool, screeding and three layer of mineral finish felt. is a one-pipe system of draina for bathrooms and w.c.'s and pipes are concealed in 2-in. deep recesses covered with an asbest cement casing. Staircase balu strading is constructed of 12-in deep plywood panels, open-frame between polished mahogany handrails and stringers.

FINISHES .- Some of the houses have natural rough-cast external walls with off-white reveals and soffits. The doors are painted in various shades of yellow, remaroon and blue. The roofing tile are thatch coloured and the gutter and downpipes dove grey. other cases exterior walls faced with local red brick. The houses have dark red interlocking tiles. The sitting room and living room floors are covered with 1-i cork tiles; kitchens and halls ha nut brown concrete tiles. The are built-in cupboards in bedroom and kitchens. The heating is bliving room fires with back boiler which burn all night. The gener contractors were Messrs. Colle Bros., Ltd.

nouses;
with e

fourfinish

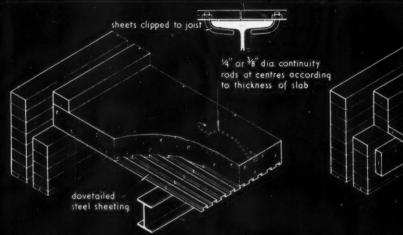
blocks
tiles,
te and
pitched
er-lockte outwoodlayen
Ther
rainage
and all
to deep
sbesto
balu12-in
ramed,
hand-

houses
xternal
ds and
nted is
r, red,
ng tile
gutten
yy. In
lls are
locking
d living
th 1-in
ls have
There
droom
y is by
boilen
general
Colles

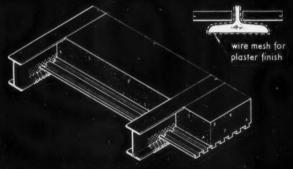


FLOORS | COMPOSITE

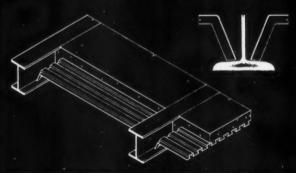
The Architects' Journal Library of Information Sheets 231. Editor: Cotterell Butler, A.R.I.B.A.



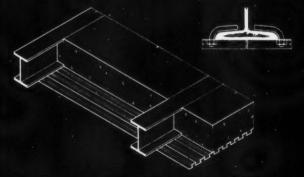
SHEETS BEARING ON STEEL JOISTS OR BRICKWORK.



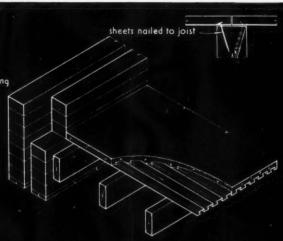
SHEETS FIXED ABOVE FLANGES OF FILLER JOISTS.



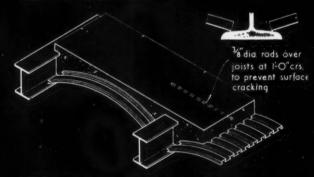
BENT SHEETS RESTING ON FLANGES OF FILLER JOISTS.



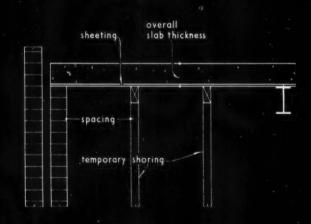
SHEETS FIXED BELOW FLANGES OF FILLER JOISTS.



SHEETS ON TIMBER JOISTS.



CURVED SHEETS RESTING ON FLANGES OF FILLER JOIST



gauge	thickness of slab overall (in.)								
	1	2	3	4	5	6	7		
26	4-0"	3-6"	3-0"	2-6"	2'-3"	2-0"	1-9"		
24	4-3"	3-9"	3′-3″	2-9"	2-6"	2-3"	2-0"		
22	4-6"	4-0"	3'-6"	3-0"	2-9"	2'-6"	2-3"		
20 .	4'-9"	4'-3"	3'-9"	3′-3″	3-0"	2-9"	2-6"		
18	5-0	4-6"	4'-0"	3-6"	3'-3"	3-0"	2-9"		

MAXIMUM SPACING OF TEMPORARY TIMBER SHORING DURING CONCRETING

20.Z12 LEWIS DOVETAILED STEEL SHEETING: PLAIN DOVETAILED TYPE 1: FLOORS

This Sheet is the first of a group dealing with the applications of dovetailed steel sheeting and built-up units and describes the application of plain sheeting to floor construction. The steel sheet is folded to a dovetail section in such a way that it is not torn or unduly stressed and results in a rigid corrugated sheet which forms a positive key for concrete, plaster, asphalt, etc.

Materials

Sheeting: Black or galvanised sheet in 12 to 26 gauge steel. The standard sizes of sheets available are 6, 7 and 8 ft. long by 2 ft, wide by § in. deep with 9 corrugations at $2\frac{1}{18}$ in. pitch. Sizes, pitch and depth can be adjusted to suit individual requirements.

Concrete: To obtain the strengths given in the table a mix of 1:2:4 should be used. The aggregate should not exceed 1 in.

Construction Generally

Jointing: Side joints are lapped one corrugation. End joints can either be butted or special sheets ("joiner sheets") can be supplied in which the corrugations are slightly tapered and will slide into each other.

Fixing: Methods of fixing to steel and timber structural supports are shown on the face of this Sheet. Temporary Shoring: The lower right-hand diagram and table shown on the face of this Sheet give the maximum spacing of temporary timber shoring during concreting.

Safe Load-Span Table

The following table gives the safe distributed loads for floors made with different gauges of steel and thicknesses of concrete for sheets $\frac{1}{6}$ in. deep and $2\frac{1}{16}$ in. pitch corrugations and covered with 1:2:4concrete.

	Overall	Dead- weight	'Safe distributed loads (lb,/sq. ft.)								
Gauge	depth (in.)	(lb./				Spa	ns (ft.	.)			
	(in.)	sq. ft.)	4	5	6	7	8	9	10	11	12
26	No concrete	1.25	60	33	27	20	_		_	_	_
	2 2½	22 28	166 234	98 140	61 87	42 58	38	_	_	_	=
	3	34	371	226	147	99	68	46	_	_	-
	31	40	491	300	196	133	93	65	45	30	-
	4	46	-	354	260	179	126	90	54 83	45	30
	5	52 58	-	485	321 359	222 254	158 176	114	92	66	40
	51	64	-	_	404	280	200	144	104	75	5
	6	70	-	-	452	314	224	162	118	85	66
24	No concrete	1.64	76	48	33	24	15	-	-	_	-
	2	22	180	107	68	44	_	-		_	_
	2 2½	28	282	171	110	73	50	=	-	_	***
	3	34	403	245 332	160	108	75	52 75	26 53	37	-
	31/4	40 46	-	430	219 285	150	106 139	101	73	53	3
	41	52	_	430	364	254	179	133	98	72	5
	5	58	-	_	440	307	214	163	121	90	6
	51	64	-	-	_	368	267	198	148	111	8
	6	70	-	_	-	436	317	236	178	135	10
18	No concrete	3.10	135	86	60	49	38	-	-	-	-
	2	23	223	135	87	58	40	-	-	_	-
	2½ 3	29	343 492	210 301	137	93 138	65 98	46 70	51	-	-
	34	35 41	494	409	271	189	136	99	73	53	3
	4	47	-	-	355	248	179	132	99	74	6
	41	53	-	_	449	316	230	171	129	98	7
	5	59	-	_	_	405	296	202	169	129	9
	51/2	65	_	-	-	466	342 409	257 308	196 237	151	11
	64	71	=	_	_	_	478	362		217	17
	72	83	-	_	_	_	-	419		253	
16	No concrete	3.87	162	104	72	52	40	-	_	-	-
	2	24	294	142	92	62	42	-	-	-	-
	2½ 3	30	363	227 334	146	100	76	50 80	-	42	-
	34	36 42		433	221	201	145	106	58 79	42 58	4
	4	48	-	433	386	267	194	144	108	80	6
	41	54	-	_	-	338	247	185	140	107	8
	5	60	-	_	-	423	311	233	178	137	10
	5½ 6	66 72	-		-		368 428	277 332	213 256	163	12
	61	78	_	-	=	_	428	388	300		
	72	84	1	-				499		274	

This Series of Sheets covers general data on and applications of plain dovetailed sheeting and builtup units to floors, roofs, walls and ceilings; aluminium dovetailed sheeting with fillers other than concrete; unit-formed louvred windows and metal wall tiles, and the construction of columns, beams, trusses, lightweight portable buildings and large buildings.

Compiled from information supplied by:

Steel Ceilings Ltd.

Works: Float Works, Port Talbot, Glamorgan, South Wales.

Telephone: Port Talbot 703.

Telegrams: Ceilmetast, Port Talbot.

London Office: 62, New Broad Street, E.C.2.

Telephone: London Wall 1813.

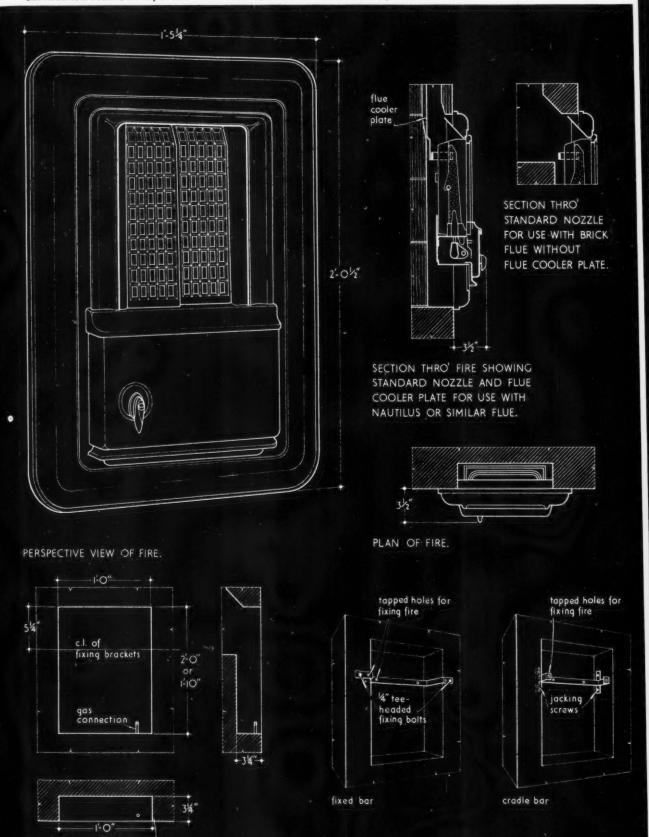
Copyright Reserved. The Architects' Journal Library of Information Sheets. Editor: Cotterell Butler, A.R.I.B.A.





SPACE HEATING UNITS GAS

The Architects' Journal Library of Information Sheets 232. Editor: Cotterell Butler, A.R.I.B.A.



ELEVATION, PLAN AND SECTION OF BRICK RECESS.

ALTERNATIVE TYPES OF FIXING BRACKET.

29.C10 · LUTELLO · NEAT BURNER GAS FIRE

This Sheet describes the Lutello neat burner gas fire. On gas C.V. 500 this fire is rated at 24 cu. ft./hr. (Thermal input: 12,000 B.th.u./hr). It is designed primarily as a bedroom fire or for similar applications where a two-radiant fire is required, such as dining space, etc. The fire has an overall size of 1 ft. 5½ in. wide by 2 ft. 0½ in. high and the projection from the wall face is 3½ in. It may be used with a brick flue or, with the special flue cooler plate fitted, in a 12-in. pre-cast Nautilus or similar economy flue. The fire is designed with luminous type (neat) burners, which are silent in operation and require less maintenance than the aerated type. Being a plaque fire no surround is needed and it may be fixed against plaster or other wall finish.

Components

Front: Pressed steel stove enamelled finish with chromium plated surround to the radiants. In addition to concealing the fixings the polished surround protects the paint finish.

Radiants: Two neat Portcullis type radiants are fitted; to avoid errors these are not interchangeable with the standard Portcullis radiant used with aerated type burners.

Burners: Burners of various jet sizes are available for use with gases to cover a range of calorific values from 375 to 570.

Tap: The control tap is an integral part of the design and is in black plastic.

Finish

Stove enamelled in a wide range of standard lustral colours, including beige, gold, bronze and green.

Fixing

Recess: Dimensions of the recess to take the fire are shown on the face of this Sheet.

When a pre-cast economy flue is used, the building-in set is raised, and 8 in. to 9 in. is a convenient height either with 3 courses of brickwork below, or with one course of straight pre-cast blocks fitted to the brickwork on each side and with the flueways filled in solid. The pre-cast building-in set is erected on either of these foundations and the flue carried up in the usual manner. The base of the radiants should be about 1 ft. 6 in. from the floor. If a fire is fitted to a pre-cast flue in a 4½-in. brick wall, the flue cooler plate should be fitted. The gas supply should be brought through the base of the opening. Connection is normally from the right or back, but if necessary can be made from the left-hand side.

Q

11

n

0 0

g nit

Brackets: Two methods of fixing may be adopted, either by means of a fixed bar or a cradle bar. These are illustrated on the face of this Sheet, the fixed bar being attached to the wall by two tee-bolts grouted in the wall. With the cradle bar no holes are required in the wall since the bar is secured by the pressure of pointed jacking screws. This latter type of fixing is particularly suitable where it is required to fit the fire into a decorative marble or similar surround, and its use greatly reduces the fitter's labour and time. The correct position of either bracket is found by means of a special location plate which acts as a template or jig.

Gas connection: This must be made to the governor inlet which is tapped ‡ in. B.S.P. female thread.

Compiled from information supplied by:

Bratt Colbran Limited.

Address: 10, Mortimer Street, London, W.1. Telephone: Museum 9411.

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

INFORMATION CENTRE . QUESTIONS AND ANSWERS · CURRENT TECHNIQUE

INFORMATION SHEETS THE INDUSTRY · PRICES · TECHNICAL ARTICLES

TECHNICAL SECTION

This feature covers both the production and marketing of new materials and designs of equipment, as well as the general trend of developments within the Building Industry.

THE INDUSTRY

By Brian Grant

SMALL COOKERS

One of the more interesting small gas cookers is on view in the recently revised gas display at the Building Centre. Intended for the small flat or bed-sitting room, it measures only 20 in. by 12 in. by 12 in. and has an owen and two boiling rings. If necessary, one of the boiling rings may be replaced by a grill. The oven is well insulated and the manufacturers make a point of the fact that it can be stood on a table or shelf without it can be stood on a table or shelf without the need for any asbestos mat or other heat resisting material underneath it. Only 1-in. pipe is needed for the gas supply. The oven has a drop door, as one would guess from the illustration, and the taps are of the pushin safety type. Price is from £10 to £11 and varies in different parts of the country, according to the supply company concerned. Incidentally, will the nationalization of the gas industry put an end to anomalies of this kind?

The cooker is finished in cream and black vitreous enamel and is of quite good appearon the oven door, though it is very much better than the average piece of advertising which nearly all makers of gas and electric appliances seem to think improves their products. (General Gas Appliances Ltd., 37, Mortimer Street, London, W.1.)

GALVANIZING STEEL WINDOWS

The winter edition of the Zinc Bulletin, as usual, contains quite a lot of interesting information. The drawing reproduced here formation. The drawing reproduced here shows the stages in the making of a standing seam zinc roof, and is typical of the clear and easily understandable drawings which the ZDA always produces. This particular issue is also quite informative on the subject of hot dip galvanizing for steel windows, a subject of some interest, as the relevant BSS demands rust-proofing, but leaves the method very largely to the manufacturer, suggesting only that "zinc will probably prove the most useful metal, and a coating of not less than 0.803 per square foot of surface should be applied." After the zinc coating has been applied the specification recommends that applied the specification recommends that, before the priming coat of paint is applied, the surface should either be phosphated, washed or allowed to weather for not less than six months, though here one should note that one or two firms appear to consider two months long enough.

Of the galvanizing process itself, there is

not a great deal to be said. The frames are pickled, washed and fluxed before they are dipped in the molten zinc, from which they should be slowly withdrawn. The withdrawal speed is a most important factor in obtaining good finish. If it is too fast, the coating will be rough and uneven. Slow withdrawal gives a coating between 3 and 4 thousandths of an inch thick and free from blobs, runs and tears. This is important, as good contact between outer and inner frames is essential.

After they have been drained and cooled, the frames may be etched by being dipped the frames may be etched by being dipped into a tank containing a phosphate-phosphoric acid solution which roughens the freshly galvanized surface and gives it a phosphate coating. This is necessary if the frames are to be painted immediately, as otherwise they must be left to weather for several months before paint will adhere satisfactorily. The exact time depends on the season

The table below shows estimated rates of corrosion of unpainted galvanized steel, from observations made over a number of years, and illustrates the probable life of a zinc coating of 2 oz. per sq. ft. of surface.

aimg of 2 on per	er or o	Probable lif		
Type of atmosph	ere.		in	years.
Dry tropical				150
Dry inland	***			80
Marine tropical	-			70
Rural	***			25
Marine				25
Urban and indu			1	

A galvanized coating will provide effective rust-proofing for many years in most atmospheres and painting is not, therefore, neces-



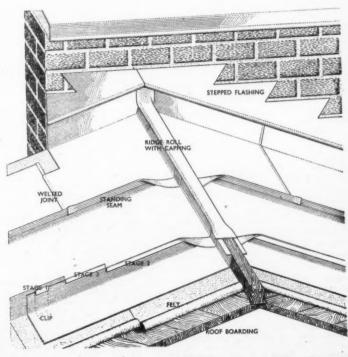
Junior General new gas breakfast cooker. (See note.)

sary. For decorative purposes any paint of normal quality will be satisfactory and the life should be considerably longer than if painted over ungalvanized steel. The lower maintenance costs more than compensate for the cost of galvanizing. Where rough indus-trial conditions occur, attention to the paint used will considerably help maintenance.

Windows have been exposed in a sugar beet and fine sugar dust in suspension. Under these conditions, synthetic materials, contain-ing chromated red oxide and also materials based on china wood oil modified with other oils, have demonstrated that no maintenance

oils, have demonstrated that no maintenance is required in five years.

It will be seen, therefore, that a robust coating such as 2 oz. of zinc per sq. ft. applied to steel windows by hot dip galvanizing constitutes a good and lasting protection in all the degrees of humidity and corrosion which can be expected in this country and the strength and rigidity of the steel remain unimpaired. (Zinc Development Association, Lincoln House, Turl Street, Oxford.)



Standing seam zinc roof. (See note.)

A digest of current information prepared by independent specialists; printed on one side of the paper only, to allow readers to cut out the items for filing and paste them up in classified order. Headings below.

INFORMATION CENTRE

SOCIOLOGY. 2 PLANNING: General. 3 PLAN-NING: Regional and National. 4 PLANNING: Urban and Rural. 5 PLANNING: Public Utilities. 6 PLAN-NING: Social and Recreational. 7 PRACTICE-8 SURVEYING, SPECIFICATION. 9 DESIGN: General. 10 DESIGN: Building Types. 11 MATERIALS: General. 12 MATERIALS : Metal. 13 MATERIALS : Timber. 14 MATERIALS : Concrete. 15 MATERIALS : Applied Finishes, Treatments. 16 MATERIALS: Miscellaneous. 17 CONSTRUCTION: General. 18 CONSTRUCTION: Theory. 19 CONSTRUCTION: Details. 20 CON-STRUCTION: Complete Structures. 21 CONSTRUC-TION: Miscellaneous. 22 SOUND INSULATION-ACOUSTICS. 23 HEATING, VENTILATION. 24 LIGHT-ING. 25 WATER SUPPLY, SANITATION. 26 SERVICES EQUIPMENT : Miscellaneoue. 27 FURNITURE, FIT-TINGS. 28 MISCELLANEOUS.

4.54 planning: urban and rural CAPITAL OF CANADA

The Preliminary Report on the Plan for the National Capital of Canada. Reviewed by H. Spence-Sales. (Layout for Living, Bulletin of the Community Planning Association of Canada, Ottawa, No. 26, 1949, pp. 2-7.)

Illustrated review and summary of recently published report on development of Ottawa and Hull, prepared by French town planner Jacques Gréber.

Critical comments by Chairman of Physical Planning Committee, McGill University, on main proposals, including the creation of a single urban unit consisting of the towns of Ottawa and Hull, the disposition of central and governmental areas, and the planning of road, rail and park systems.

5.35 planning: public utilities ATMOSPHERIC POLLUTION

The Investigation of Atmospheric Pollution: A Report on Observations in the 5 Years Ended 31 March, 1944. Department of Scientific and Industrial Research. (HMSO, 1949. 2s. 6d.)

Useful notes, statistical data and charts concerning observations in connection with rates of deposit, trend of deposited matter, methods of measurement, and changes in atmospheric pollution during war years. Short list of relevant official publications.

The report of the Superintendent of Observations is preceded by brief reports of the Standing Conference of Cooperating Bodies and the DSIR Atmospheric Pollution Research Com-

mittee. In the latter reference is made to the Leicester Survey, work on which was concluded in December, 1939 (see No. 2438:14.3.46). It is stated that "information obtained from the survey marks a real advance in knowledge of the causes, and of the mechanism or dispersion, of atmospheric pollution . . . As a result of tests at Leicester on design of filter clamps . . . it was possible to take measurements of suspended impurity by placing a filter in the air intake of the standard volumetric suiphur apparatus, and . . . useful information about the state of the air could be thus obtained." The Leicester survey also provided data on the influence of domestic and industrial heating on atmospheric pollution, and led to a theoretical examination of the effect of a smokeless zone in a town, the results of which were confirmed by measurements in a park. In Commette gave advice to local authorities in the setting-up of pollution recording apparatus in various parts of the country, and suggested methods for making rapid surveys of deposited and suspended matter. It also paid "attention . to the development of an apparatus for measuring daylight, and several methods of a daylight integrator have been constructed for experimental use."

The Superintendent's report consists of a number of statistical tables accompanied number of statistical tables accompanied by explanatory notes and comments. Regions in which observations of pollution were made are listed, together with the authorities concerned, and the recording instruments used. Other tables give a summary of all deposit-gauge observations at the various stations in operation, and attention is drawn to the trend of deposited matter during the war years when changes in industrial productivity had a marked effect on atmospheric pollution. Subsequent tables provide information on sulphur measurements by the lead-peroxide method, on the observation of yearly cycles of sulphur dioxide by the volu-metric method and of suspended impurity determined with the automatic filter and the daily smoke filter. A further table gives a record of the monthly total day-light, received within towns, as a per-centage of the daylight received in the adjoining country for areas where comparable observations have been made regularly within and just outside a town. Information in this respect is significant as "one important effect of atmospheric pollution is to absorb daylight and ultraviolet radiation, thereby reducing the amount of solar energy received at the ground." Lastly there are several tables showing observations concerning the showing observations concerning the weekly cycle of smoke and sulphur dioxide, the daily cycle of smoke and the time of morning maximum concentration of smoke in Glasgow, London and Stoke-on-Trent. In the concluding remarks to the Super-

In the concluding remarks to the Superintendent's report reference is made to the recorded changes in the amount of atmospheric pollution. These are due to a variety of causes, including the following aspects:—Industrial changes due to increased or decreased industrial activity; population shifts arising from the development of new housing estates or from evacuation of strategically vulnerable areas; increased agricultural land use; changes in the use of fuel; and fuel economy.

There are a number of appendices to the report. No, 1 contains a description of the sites of observation stations in operation in March, 1944, and the types of recording instruments used. Appendix No. 6 is a reprint of a Chadwick Public Lecture by A. Parker on Coal in Relation to Atmospheric Pollution. delivered in March, 1945, and dealing with the quantity of coal used in relation to popular

tion, the main uses and efficiency of use of coal, the nature and amount of pollution, its detrimental effects, and the means to reduce it.

10.64 design: building types HOUSING, HOLLAND

The Housing Problem in the Netherlands. H. G. van Beusekom. (Information Department of the Ministry of Reconstruction and Housing, The Hague, Holland. 1949.)

Pamphlet containing reprint of informative article written by Chief Engineer and Director of Housing, Amsterdam.

Retrospective review of developments since passing of Housing Act, 1901, which provided for the "improvement of national housing" meaning "the determination of the most favourable conditions for the creation and use of domestic dwellings for the entire people." Notes on extent of housing problem after second world war measured by means of a family and housing census in 1947. Formulation of a number of hypotheses regarding housing demand and the supply of dwellings based on the census results. Estimates regarding the provision of dwellings during the next twenty years in relation to the composition of households. Reason for steep rise in housing costs showing an increase of between 350 and 400 per cent. over 1938-39 level. System of financial relief grants from public authorities. Need to reduce building costs by means other than factory production methods of houses which does not as yet show an appreciable saving in costs in comparison with traditional building methods.

10.65 design: building types DEPARTMENT STORE

Two Department Stores. (Architectural Forum [USA], Sept., 1949, pp. 81-87, 130.)
Single-bay reinforced concrete framing with cantilevers proved to be the most

Single-bay reinforced concrete framing with cantilevers proved to be the most economical type of construction in two department stores recently built in USA.

The width of the buildings is approximately 70 ft. The division of this width into two bays would have been awkward and was not even considered. Comparison of cost between a triple bay frame of equal spans and a single-bay frame of 46 ft. span with two 12 ft. cantilevers showed that the latter arrangement was 11 per cent. cheaper. The economy lay primarily in the possibility of placing the column footings far enough back from the walls of existing buildings so that practically no money had to be spent on shoring and underpinning. The structural system was also more con-

The structural system was also more convenient from the point of view of sales department layout. The 12 ft. flanking spaces are ideal for the location of elevators, stairs, washrooms, offices, etc., and the large open area in the centre gives a favourable visual effect to the customers. The tapered columns are a distinctive feature of the sales floors.

14.27 materials: concrete ROAD JOINTS

Filling and Sealing Materials for Joints in Concrete Roads. Road Research Note No. 7. (HMSO, 1949. 4d.)

Types of joint. Spacing and width of joints. Filling and sealing compounds—their application, maintenance. Although a specialist subject the information is of a kind required

HILLS standard components for permanent school construction

use

of the

artand tive

oroonal

of

the sing ired

po-

sion

ears lds. ow-

per

leed ther

able

ural (0.) ning nost deoxiinto and of qual pan per. ossi-far ting had g. conking tors, arge able

s in 0.7.

ppliialist By specifying Hills Presweld Structural Components, the architect is assured of complete freedom in the planning and execution of his designs. Presweld is suitable for most types of buildings and, in addition, offers considerable economies in material, money and man-hour erection time. The flexibility of this system is particularly evident in modern school construction, where Presweld Components are being extensively used. Based on the 8' 3" grid, buildings of almost any size and number of storeys can be plotted from standard parts, and the framing is suitable for various types of cladding and roof coverings. In conjunction with the framework Hills also supply metal window and door frames, gutters, fascias and Hilcon lightweight precast reinforced concrete Roof, Floor and Wall units. Architects are invited to write for fully descriptive literature. Junior Mixed & Infants School, Cheshunt, Herts. Junior Mixed & Infants School, Essenden, Herts. County Architect: C. H. Aslin, F.R.I.B.A., M.I.Struct.E.

I III LOLIMITED

ALBION RD., WEST BROMWICH Phone: WESt Bromwich 1025 (7 lines) LONDON OFFICE: 125 HIGH HOLBORN, W.C.1 Phone: HOLborn 8005/6



STOURPORT POWER STATION. Architects: FARMER & DARK, FF.R.I.B.A.

For this modern power station

—the architects specified:—

Our Jaconite Hydraulically Pressed Terrazzo Floor and Wall Tiles. In situ Terrazzo wall linings Coves and Staircases. Jaconite Heavy duty floor tiles

laid throughout this contract

by are should of ref

18.3 STEE

Repo at Ca design practi

This

to sa

design neare

danc ing m sulted stanc Prof. signe in pr

at th

STR Stren (Lon

pp., work

sylla instit

The

Branches at: BIRMINGHAM

238 - 9, Monument Road, Edgbaston. Tel. Edgbaston 1178

CARDIFF

High Street Chambers, 17, High Street. Tel. Cardiff 2491

MANCHESTER

10, Corporation Street, Tel. Deansgate 5971

READING

571-3, Basingstoke Road. Tel. Reading 81560



by architects from time to time and the Note should be remembered as a useful source of reference for authoritative information.

18.35 construction: theory STEEL: PLASTIC DESIGN

The Design of Steel Frames. Professor J. F. Baker. (The Structural Engineer, Oct., 1949, pp. 397-431.)

Report on steel structures research, mainly at Cambridge University, since 1936. New design methods ready for application in practice.

This paper, presented and discussed at the Institution of Structural Engineers on October 27, provides the designer with modern tools to produce better steel structures and to save steel at the same time. By taking into account the plastic behaviour of steel when stressed beyond its yield point, the designer can base his calculations on assumptions of bending moment distribution much nearer the truth than before. In a multistorey steel frame, for instance, the degree of rigidity of the joint between beam and tanchon will decisively influence the bending moment in both. The orthodox "simply supported beam" assumption usually resulted in unnecessarily heavy beams and in stanchions much less safe than on paper. Prof. Baker makes a strong appeal to designers to use the plastic methods of design in practice, to work on load factors based on collapse loads, and to publish their results, in the interest of steel economy. This applies especially to portal frames, retangular or pitched, pinned or restrained at the base, and to multi-bay portals.

This report may well prove a landmark in the evolution of modern structural analysis.

18.36 construction: theory
STRENGTH OF MATERIALS

u

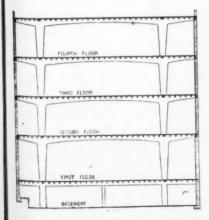
e

t

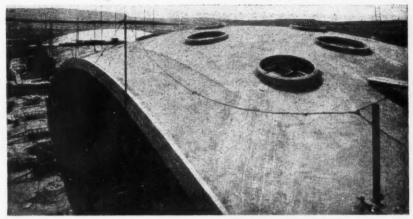
Strength of Materials. Bevis Brunel Low. (Longmans, Green & Co. Ltd., 1949, 231 pp., 260 illus., 254 exercises and many worked examples, 12s. 6d.)

A textbook for students. Covering syllabus of universities and professional institutions.

The need for another book on this subict is explained by the author: he believes in dealing with the simpler theory first and showing its practical application before going on to more difficult problems.



Economical department store structure USA. RC framing with cantilevers. See 10.65.



One of the nine domes over the main production floor of a factory at Brynmawr. See 20.153.

Throughout the 16 chapters the first principles are clearly set out and immediately followed by worked examples, also by series of exercises at the end of each chapter. In addition to the orthodox subjects, a short chapter on welded joints is included. This book with its many clear sketches should be a great help to students, but also to busy architects and engineers for quick reference.

19.81 construction: details
CONCRETE DWELLINGS: DAKAR

Low Cost Concrete. (Eng. News Record [USA], Aug. 25, 1949, p. 34.)

Native housing at Dakar, French West Africa. Novel type of formwork.

A 1,000-dwelling programme has been started, the semi-spherical shell (about 15 ft. diameter, judging from the photograph) made of concrete placed pneumatically on forms produced by inflating balloons of rubbercoated nylon fabric, tied to the floor slab. Mesh reinforcement is used, doors and windows being placed in position against the inflated form.

19.82 construction: details ALUMINIUM ROOF

A New Aluminium Roof at Warrington. (The Builder, Oct. 28, 1949, pp. 557-558.)

Old timber roof on steel trusses replaced by aluminium sheeting. New aluminium trusses inserted between existing trusses.

The old factory roof, 280 ft. long, 40 ft. span, had to be replaced. Corrugated aluminium sheeting was used, also light alloy sheets for roof glazing. Al-trusses were introduced halfway between the existing steel trusses which were spaced at 20 ft., the new Al-purlins thus spanning over 10 ft. only. Independent bracing had to be designed to compensate for the rather rigid old timber covering on heavy timber purlins. Each of the 14 new light alloy trusses weighs 186 lb, and each 10 ft. bay of light alloy purlins only 140 lb. The work was carried out in stages, from outside, without seriously interfering with work in the factory.

20.152 construction: complete structures
PRESTRESSED CONCRETE BRIDGES

Bridges in Prestressed Concrete. (Civil Eng. & Public Works Rev., Oct., 1949, pp. 586-588.)

Bridge girders of minimum depth were essential. Prestressed concrete was the answer.

The electrification of certain lines of the British Railways in the Manchester and Sheffield districts led to the adoption of latest designs for prestressed concrete bridges, because these bridges could achieve the reduced construction depth to provide head room for the overhead wires without having to secure parliamentary approval for raising the level of the public roadway above. The bridge deck is formed by concrete beams (about 25 ft. long for one of these bridges) of I-cross section, with 18 in. wide bottom flange and 7 in, wide at the top, with in situ concrete poured between. The lower flanges thus form the shuttering and a monolithic bridge deck is obtained. Extensive loading tests showed no hair cracks at a load corresponding to 150 per cent. of the maximum live load, in addition to dead load. It seems that the shallow depth of these deck slabs will open a wide field for prestressed concrete bridge construction on restricted sites.

20.153 construction: complete structures
A FACTORY AT BRYNMAWR

A Factory with Thin-Slab Roofs at Brynmawr, South Wales. (Concrete & Constructional Engineering, Sept., 1949, pp. 268-277.)

Factory covering an area 325 ft. by 450 ft. shows many interesting features both architecturally and structurally.

The main building includes a production floor of about 77,000 sq. ft. This floor is a flat slab on columns at 19 ft. 1½ in. centres, supported on bored piles. The roof consists of nine domes in 3-in. thick reinforced concrete shell construction, each 70 ft. by 90 ft. in plan. The crown is about 8 ft. above the springing. The curved surface is formed to two radii, that in the longer direction being 108 ft., and that in the shorter direction 82 ft. 9 in. The domes are designed for a superimposed load of 15 lb/sq. ft., but greater loads have been applied during construction without causing noticeable deflection or vibration. Large circular roof lights are provided. The underside will be coated with asbestos sprayed on to a thickness of ½ in. Each of the domes is supported by a reinforced concrete girder on each edge. In the valleys between the domes walkways are provided.

The article also describes the cylindrical barrel vaults over the drug room and over the mill room and the method of construction in general. Of particular interest is the boiler house, which has a semi-elliptical barrel vault roof of 4 in. thickness.



xlv

RWICH

CRC68

DESIGN . FABRICATION . ERECTION

20.154 construction: complete structures PRECAST CONCRETE ARCHES

A Large Storage Building in Holland. (Concrete & Constructional Eng., Oct., 1949, pp. 323-328.)

Abutments 20 ft. high designed as reinforced concrete retaining walls, to take thrust from the material stored.

This building at limuiden, Holland, 110 ft. wide and 330 ft. long, had to provide storage room for 35,000 tons of chemicals. The roof is supported by three-pin arches of 97 ft. span and 54 ft. rise, in precast concrete, and the thrust at the abutments is taken by reinforced concrete retaining walls 20 ft. high. Arches are at 8 ft. centres, the roof being formed by slabs without the use of purlins. Lateral support is provided by cross beams between the arches. Each of the half arch ribs weighs about 23 tons. The gable walls, 80 ft. high, were designed to resist the lateral forces from the stored material and the wind (pressure or suction). Their outer face is of masonry, with reinforced concrete inside, to accommodate the maximum bending moments.

21.32 construction: miscellaneous CONCRETE DETERIORATION

Deterioration of Concrete Stadiums Can be Avoided by Good Design. Elwyn E. Seelye. (Eng. News Record [USA], June 23, 1949, pp. 56-59.)

The main causes of crack formation in northern climates. Experience with several large-size stadia. Extensive repairs of defective structures. How to design for permanence.

Several of the older stadia have deteriorated badly, mainly because no expansion joints had been provided for monolithic concrete structures between 1,000 and 1,500 ft. long. The concrete formed its own expansion joints by cracking, and the reinforcing bars corroded. Freezing water in these cracks acted as an explosive. Beam-to-column connections were broken and had to be replaced by new collar seats. Early attempts at large-scale repairs, e.g., by guniting, were as defective as the original designs. The annual bill for such repairs has been very high and quite unnecessary. Foundation trouble made things worse, columns were distorted and main girders cracked. The following requirements are laid down for new construction, to withstand a northern climate for decades without serious trouble: (1) to use dense concrete with unrubbed surfaces; the skin next to the forms is relatively impervious to water. (2) No construction joints with steel bars passing across. (3) Minimum cover for reinforcement 2½ or 3 inches. (4) To use galvanized steel in cold climates.

23.118 heating and ventilation

LAGGING

DB

e a

lete

fa

gh!

aul

an.

ON

Lagging Hot and Cold Water Systems in Houses. (MOW Advisory Leaflet No. 3, 1949.)

The third of a series of leaflets intended primarily for small builders, clerks of works and foremen. Deals briefly and clearly with reasons for and methods of lagging small installations, including cisterns, tanks and pipes.

24.123 lighting SCHOOL LIGHTING

Studies of Lighting and Vision in Schools. By R. G. Horkinson (Trans. IES, Great Britain, Vol. XIV, No. 8. p. 244.)

Visual acuity, glare, levels of illumination,

chalkboard conditions. Background material; illustrated photographs.

This is the first publication of BRS work on school children's eyesight, undertaken as a background to the development of school lighting. They have examined the range of visual acuity in children and the extent to which light can be used to compensate for deficient acuity in a reasonable proportion of children.

The test charts had black letters on white cards, and whites on greys of varying density, to cover the chalkboard conditions.

They also examined the effect of illumination on ease of reading and found this an important factor, different from the reading conditions for tests by charts. An analysis of the visual difficulty of school work was made by the Med cal Research Council in connection with the researches.

Glare studies are presumably fundamental for all research on lighting. Reference is made to the glare work of the Station in general terms, and some new knowledge about discomfort and disability is recorded

The conclusion is reached that if illumination falls below 10 foot candles (or Im/sq. ft.), visual work will become difficult for many children. This, fortunately, is the value mentioned in the regulations on artificial lighting, and it is not very far from the intensities provided by 2% sky factors on many typical dull days in this country. These findings relate to eyesight for chalkboard conditions, but it is pointed out that merely by moving a child four feet nearer to the board, conditions for him will improve as much as if his light had been increased by 30 times. Perhaps this points to the advantage of group teaching rather than a great deal of chalkboard work.

24.124 tighting OSTWALD COLOUR SYSTEM

Basic Colour. Egbert Jacobson. (Paul Theobald, pp. 207. Chicago, 1948. \$14.75.)

Ostwald System; fundamental colour sensation and development of the Ostwald colour solid; principles of colour harmony; light, colour and vision; artists and colour; analysis of paintings. Appendices on comparison with Munsell and on the use of the system. Outstanding book; generously illustrated in colour.

This is a good exposition of the Ostwald colour system and its use. The author is with the Container Corporation of America. It is very much to be regretted that the book will not be readily available to many British readers, for it can be recommended without reserve as a clearly written statement of one of the two main colour systems in use today.

main colour systems in use today. The Ostwald solid has 24 segments. The number could be greater but 24 is thought sufficient. They are arranged in plan so that exact complementaries are opposite one another. One of the criticisms levelled at the system is that this leads not to equal steps between colours but to smaller differences between the individual colours of the blue and green segment than the rest; but this may not be a serious disadvantage in practice. Another criticism is that while the full colours are the most saturated possible at present, they are not equally saturated, but are nevertheless equidistant from the centre grey scale as if they were. A note in an appendix argues that the system can be revised if stronger colours become available, but it would seem a bad thing to alter the colour from time to time. The difficulty may not have serious repercussions in practice, but it is at least unfortened.

tunate. The Munsell avoids these problems, but lacks some practical advantages of the Ostwald. All the colours are identified by a Code. The hues are graded inward from the full colour to a grey scale in the centre of the solid, the gradation being expanded to lead to white at the top of the grey scale and black at the bottom. The solid hues look like a double cone with one tip white and the other black, with the equator in full colours. The full solid is printed in the book with fair accuracy, but the proper book of colour chips has to be obtained if one wishes to practise effectively with the idea. Unfortunately this, like the present book, is not easy to obtain, and is also expensive. The outstanding part of the book is the discussion of harmony; this is where the Ostwald system is claimed to have singular merits, for it is possible to use known relationships within the solid, rather as a slide rule is used, to arrive at combinations of colours which will be in harmony. Naturally no claim is made that the use of these will automatically be beautiful, beauty involving something more than the mere choice of colours. But the book describes the full set of two, three and multiple-colour combinations, in triads, chords and other systematic arrangements, and their application can be developed from the test without further explanation. The remainder of the book is devoted to characteristics of vision and some of their effects (e.g., after-images) on the artistic uses of colour, drifting finally over

The remainder of the book is devoted to characteristics of vision and some of their effects (e.g., after-images) on the artistic uses of colour, drifting finally over the views of artists and the analysis of paintings. This last item is surprisingly interesting. It has nothing to do with the creation of art, of course, for there is no assumption that anyone will paint with an Ostwald colour book in one hand: but there are many uses in building design where the system obviously can help (as the Hertford schools have demonstrated) and the verification that it conforms to the practises of artists is reassuring.

This is a good book, but we should clear

up this argument between Munsell and Ostwald in this country before we embark on any expensive publications of one or the other on our own account.

This feature answers any question connected with building confidentially and free of charge. Questions to T the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.

QUESTIONS AND ANSWERS

3010 ORGAN GALLERY

Please give me information regarding the minimum height of ceiling required in a gallery to accommodate a pipe organ suitable for a church seating about 600 persons on the ground floor.

A The minimum height of a gallery should be approximately from 15 ft. to 17 ft.; this will accommodate all the pipework of a modern electrically controlled organ and give sufficient "speaking space" for the pipes. The "synthetic" type of electric organ which needs only a sound chamber, would do with considerably less space—say not exceeding 12 ft. in height.

Announcements

Mr. E. Donald Haigh, A.R.I.B.A., A.M.T.P.I., chartered architect, has changed his address to Lowther House, Lowther Street, Kendal.

Mr. T. H. Huxley Turner, B.SC., F.I.O.B., of the firm of Messrs. E. Turner & Sons Ltd., of Cardiff, has been appointed Chairman of the Development Corporation of the new town at Cwmbran, Monmouthshire, by the Minister of Town and Country Planning. This is the first appointment of a builder as chairman of one of the new towns, and, indeed, the first appointment of a builder to the board of a Development Corporation.

The Birmingham firm of Jack Cotton, Ballard & Blow, architects and surveyors, have opened an office for the Newcastle area at Norham Road, West Chirton, North Shields, where they will be pleased to receive technical literature and catalogues.

Corrections

In our issue for December 8 we omitted Belsize Nurseries Ltd. from the list of contractors for alterations to No. 4. Old Bond Street. This firm supplied plants for floral decoration and a wall of York stone, which was wrongly described as being of Cotswold stone.

The name of H. J. Reifenberg was misspelt in our feature on the 1951 Exhibition on December 1.

In a note by ASTRAGAL on the Abercrombie-Nickson plan for Warwick, which appeared in our issue for December 8, Mr. R. Nickson's name was wrongly spelt.

Messrs. W. N. Froy & Sons Ltd. regret that in their advertisement in the JOURNAL for November 17 they quoted in error the name of Messrs. E. H. Smith (Croydon) Ltd. as contractors for the Hamsey Green School, Upper Warlingham. The contractors for this school were Messrs. Walker (Tooting) Ltd., of Epsom.

Buildings Illustrated

Chigwell Manford Way Junior and Infants' School (pages 676-683), Grange Hill Estate, Chigwell, Essex. Architect: H. Conolly, F.R.LB.A. General Contractors: Gilbert-Ash, Ltd.. Sub-contractors: Asphalt tanking to basement heating chamber, General Asphalt Co. Ltd.; roof blocks, structural steel, patent glazing, metal casements, Hills (West Bromwich); reinforced concrete, Twisteel Ltd.; bricks, Eastwood Sales Ltd.; Milton Hall (Southend) Brick Co.; roofing felt, D. Anderson & Sons Ltd.; partitions, London Brick Co. supplied through Broads, Paddington; flooring, Terradura Flooring Co. Ltd.; tile flooring, Summers & Co. Ltd.; classrooms, Korkoid Decorative Floors; central heating, J. E. Heath; electric wiring, Tucker Bros.; sanitary fittings, The Leeds Fireclay Co. Ltd.; door furniture, James Gibson Ltd.; external gates, S. W. Farmer; circular wash fountains, Farrers Ltd.; cast alloy sinks, Froy & Son Ltd.; plaster, Horrocks & Son; suspended ceiling, Eastwoods Sales Ltd.; metal work, cloakroom fittings, Clark, Hunt & Co., Brent Metal Co.; joinery, Gilbert-Ash Ltd.; wall treatment. Modern Surfaces Ltd.; paints, Sherwoods; shrubs and trees, R. C. Notcutt & Son; school fittings, Kingfisher; lavatory partitions, Venesta Ltd.; clocks, The Synchronome Co. Ltd.; signs, The Lettering Centre.

The form printed below is to assist readers requiring up-to-date information on building products and services. Complete and post it to The Architects' Journal 9, 11 and 13, Queen Anne's Gate, S.W.1, and the advertisers listed will be asked to supply information direct.

ENQUIRY FORM

I am interested in the following advanti

Journal." this issue of "Ti	ie Arc	chitects'
•••••••••••••••••••••••••••••••••••••••	******	*****
•••••		*********

Please ask manufacturers to particulars to:—	send	further
NAME	*****	******
ADDRESS	*****	**********
***************************************		***:*********
BLOCK LETTERS Block	A.J.	15.12.49

Works: STOCKTON & GLASGOW



Head Office: 46, RUTLAND PARK, SHEFFIELD

PORTCULLIS GAS FIRES

forand to 13, the

M ents ects

rther

12.49

.C.

mel

vith



THE 'LUTELLO' PANEL FIRE

THE INFORMATION SHEET IN THIS ISSUE GIVES FULL DETAILS OF THIS FIRE

BRATT COLBRAN LIMITED . 10 MORTIMER STREET LONDON W1 . TEL: MUS 9411

xlvii

8



For Goods or Passengers

Executives who are Interested in the provision of new lifts or the safe and efficient maintenance of existing lifts are Invited to consult:-

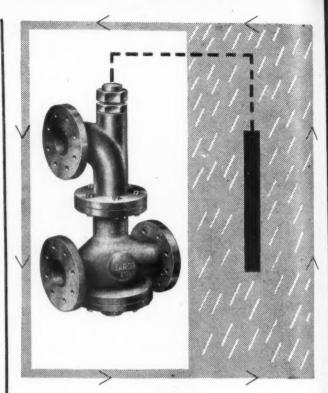
ETCHELLS CONGDON & MUIR LTD
25 MILL STREET ANGOATS
M A N G H E S T E R 4

LONDON 31 HIGH ST MERTON SWIP

ALSO AT BIRMINGHAM CARDIFF



3 - 71 ---



External Temperature Operated

CONTROLLER FOR ACCELERATED HOT-WATER HEATING SYSTEMS

A FULLY-AUTOMATIC CONTROL for regulating temperature on accelerated hot-water systems in advance of the effect indoors of outdoor temperature changes. Thus it controls heat input at the minimum required to balance heat losses, whatever the outside temperature conditions.

It allows for the fact that the heat emission from a radiator is proportional to the difference between the mean radiator and room temperature to the 1·3 power.

It can also be designed to suit other heat emission curves appropriate to the type of heating surface installed.

It can, after installation, be corrected to allow for any variation between design and site conditions.

It allows a boiler to operate at a constant water temperature, putting less strain on the boiler and reducing corrosion risks.

It is entirely self-operating and quite independent of any auxiliary sources of power.

It is reasonable in cost; easy to install and easy on maintenance.

For details of the Sarco ETO Controller please send the request slip to SARCO THERMOSTATS LTD., Cheltenham, Glos.

Sarco

ETO

Controller



PLEASE SEND THIS ENQUIRY SLIP FOR DETAILS

NAME ADDRESS

AJ 1249



Messrs. Joseph, Architects. Contractors: Messrs. I Follops & Colle Lin.

The wall and floor tiling

TAILS

AJ 1249

at Bearsted Memorial Hospital was made and fixed by

CARTER

Other Hospital contracts include

Portway Hospital, Weymouth

and Churchill Hospital, Headington

CARTER & CO. LIMITED . POOLE & LONDON





SOIL MECHANICS

Site Investigation FOR FOUNDATION DESIGN

The Essential Preliminary to Economical Construction in Civil Engineering

Engineers agree that scientific site investigation is essential to effect economy in design and to increase the safety factor.

In addition to our Test Boring facilities, we are able to offer the services of our fully equipped Soil Machanics Laboratory, where soil samples are subjected to the appropriate tests, and their properties determined. Comprehensive reports are provided on completion of the investigation.

> Our Publication No. 59-" Site Investigation" is available, and copies will be supplied on application.

GRAN

SUTCLIFF & GELL LTD LONDON SOUTHALL

Telephone: Southall 2211.

Telegrams: "Legrand," Southall

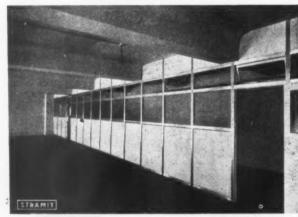
Overseas Contracting and Supplies:

ASSOCIATED DRILLING AND SUPPLY CO. (Overseas) LTD.

I, VICTORIA STREET, LONDON, S.W.I.

THE STRAMIT SYSTEM

SYSTEM



A recent example of STRAMIT Partitioning erected in London.

FOR ECONOMICAL, SPEEDY AND RIGID PARTITIONING

- LIGHT WEIGHT DRY CONSTRUCTION
- SPEEDY ERECTION
- ATTRACTIVE APPEARANCE
- EASY RE-ERECTION
- GREAT RIGIDITY
- GOOD ACOUSTIC PROPERTIES
- QUICK DELIVERY
- LOW COST
- LICENCE FREE

MIDDLESEX
Telephone: WEST DRAYTON 3021

QUOTATIONS FOR STRAMIT PARTITIONING IN ALUMINIUM SECTIONS OR HARDWOOD TIMBER FRAMING SUPPLIED ON REQUEST.

THE STRAMIT SYSTEM



INSTALL CYCLONE

FANS AND AIR CONDITIONING **EQUIPMENT**

AND INCREASE PRODUCTION!

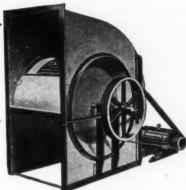
CYCLONE SPECIALITIES

Multivane Fans-Forward and Reverse Curve Laminated Fan Casings for Super-silence Paddle Blade Fans Air Propellers (Belt and Electric) · Copper Gilled-pipe Heaters · Unit Heaters · Air Filters . Air Washers (Water-Spray) · Cyclone Separators · Closed Circuit Motor Cooling

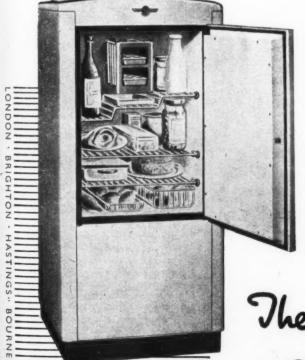
MATTHEWS & YATES LTD

SWINTON (MANCHESTER) AND LONDON

mee : SWInton 2273 (4 lines) London, CHAncery 7823 (3 lines) Also at GLASGOW . LEEDS . BIRMINGHAM . CARDIFF



Please write for illustrated Brochures, quoting AJ/12.



N

Noiseless . . Trouble-free . . .

because there is no motor or moving parts to vibrate or wear

The P.M.K.350 is not only a showpiece, but also a practical development in refrigeration suitable for incorporating in planning schemes. It operates efficiently from Kerosene, Cylinder or Mains Gas and can be easily converted to electricity if required.

Its large 3½ cubic feet storage capacity, low Kerosene or Gas consumption, and amazingly low cost makes the P.M.K.350 the ideal family 'frig' for Town or remote Country homes.

Write for illustrated, fully informative literature about our complete range of Domestic and Industrial refrigerators.

The new

POWER MASTER



P.M.K.350 HOUSEHOLD REFRIGERATOR

LE BRYAN GROUP PRODUCTS (Gt. Britain) LTD. Head Office: 372 HIGH ROAD, LONDON, N.I7. Tel.: Tottenham 6344/5

A NEW first coat PLASTER



with greater covering capacity

The surest way to eliminate decoration failures is to use SIRAPITE BROWNING. This new plaster contains no injurious alkalis, and there is virtually no expansion and contraction once it has set.

SIRAPITE BROWNING SPEEDS UP WORK by enabling the setting coat to be applied earlier and promotes more rapid drying out because a high proportion of the gauging water combines chemically with the plaster.

Directions for use and Specification Clauses will be sent on request.

THE GYPSUM MINES LIMITED
MOUNTFIELD · ROBERTSBRIDGE · SUSSEX

KEMAPAC

A SPECIALISED PRODUCT



Here is a new enamel finish that makes decorating history! The outcome of intensive research in the laboratories of Allied Paints and Chemicals Ltd., KEMAPAC is specially designed for the exteriors of houses, factories, schools and public buildings. It dries in 8-10 hours to give a tough, resistant film that far exceeds hard gloss paints in durability and covering power and will retain its original gloss and colour for years, impervious to the ravages of climate and weather conditions. It is supplied ready for use in sixteen shades of colour as well as black and white.

ALLIED PAINTS & CHEMICALS LTD.

WHARFDALE ROAD, TYSELEY, BIRMINGHAM 11



SAFETYLYTE guards The Adelphi Hotel Liverpool

It is not only in buildings required by law to provide emergency lighting that you will find Tudor 'Safetylyte' equipment installed. This automatic system, instant in action and particularly reasonable in its need for battery maintenance, is in demand wherever mains interruption can cause risk to life or property. When you are planning new buildings, the Tudor Company's engineers are always ready to discuss and advise.



fore

THE TUDOR ACCUMULATOR COMPANY LIMITED. TO GROSVENOR GARDENS, LONDON, S.W.



WORKS: PENARTH ROAD, CARDIFF.



spective drawings. It provides positive location of vanishing points outside the drawing board, and car-ries a series of scales with which foreshortened dimensions can be instantly plotted. These features diminate the involved projections necessary when ordinary orthographic instruments are used-

making the MEDIGRAPH an invaluable addition to drawing office equipment.

vide

fety-1. in-

need nains Vhen

any's

se.

The * ELLIPTOGRAPH

A universal instrument provided as an accessory to every MEDIGRAPH, gives a means automatically generating ellipses of any desired size by a simple movement.

ENGINEERING CO., LTD.

THE MOLLART For further details or monstration write to KINGSTON-BY-PASS, SURBITON, SURREY. Phone: Elmbridge 3352/3/4.

'Grams: Precision, Surbiton. A.M. Gauge Test House Authority No. 89755/31.

THORNS INDUSTRIAL BUILDINGS

WORKSHOPS - STORES - GARAGES OFFICES - CANTEENS





red Building

Thorns range of industrial buildings includes designs to suit every purpose. They are constructed of unlicensed materials and are easily erected with a minimum of site labour. Prompt dispatch. Free lorry delivery 250 miles.

Write, 'phone or call for full details and specifications. Please state type and size of building required.

J. THORN & SONS LTD. BOX 185, BRAMPTON ROAD, BEXLEYHEATH, KENT

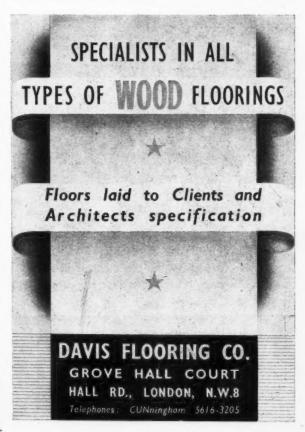
Telephone: Bexleyheath 305.

CHIGWELL MANFORD WAY PRIMARY SCHOOL. HEATING & DOMESTIC HOT WATER SERVICES INSTALLED BY

J.E.HEATH

SANITARY, HEATING & VENTILATING ENGINEERS. 97 B CRANBROOK ROAD, ILFORD, ESSEX.

Telephone No: VALentine 2130.





HOLDS THE TEMPERATURE STEADY

WARM WATER

SAFETY

The Thermostatic control makes it virtually impossible for the valve to deliver water at any temperature other than that which is required. Consequently the risk of scalding, or the risk of damage in process work is eliminated.

ECONOMY

Where there is a Leonard Valve there is no wastage; hot, warm, or cold water is delivered from the one tap, as and when required. No heat storage is necessary, and consequently radiation losses do not occur.

SIMPLICITY

The Leonard Thermostatic Mixing Valve can be quickly and easily introduced into your existing hot water system, and is as simple to service and maintain as an ordinary stop valve.



If you have available

STEAM AND WATER

You can obtain an unlimited quantity of warm water at whatever temperature you require. The two supplies are simply connected to the valve,

and the thermostat in the mixing chamber does the rest! It holds the temperature steady.

Please write for leaflet S.B.2

WALKER, CROSWELLER & CO., LTD. WHADDON WORKS, CHELTENHAM, GLOS.

Telephone: Cheltenham 5172 (3 lines)

London Office Manchester Office

4. YERNON PLACE, LONDON, W.C.I. I, RIDGEFIELD, DEANSATE, MANCHESTER
Telephone Nickfrars 0558
Telephone Nickfrars 0558





Two desk lamps giving

through diffusing glassware

direct and Indirect lighting

Public

fur Ix Surveys archites quiring

£660; £495; Appli the Ar mlaries Placing and en Appli aminat Archite qualific The Establi to the anuat require The and by Appli lng, c address

Housin

Appliappoint (a) A VIII, annum (b) A A.P.T

A.P.T.
to qua
(g) J.
Divisi
(f) J.
A.P.T.
(g) J.
IV, A

8T.

from the



collection

43 Portland Road, London, W. II

5 Fortiana Roda, London, VV. II

Telephone: Park 5617-8

Atec

Merchant Adventurers Ltd

A technical and design

service exists for architects



MERCHANT ADVENTURERS OF LONDON LTD.

CLASSIFIED ADVERTISEMENTS Assertissments should be addressed to the Advi-tionaer. The Architects Journal. 9. 11 and Queen Anne's Gate, Westminister, S.W.1. and sould reach there by Arst post on Friday seming for inclusion in the following Thursday's

peper. Beplies to Box Numbers should be addressed was of "The Architects' Journal." at the address yes of "The architects" Journal," at the address given above.
Available only to applicants excepted from the Captrol of Angagement Order, 1947.

Public and Official Announcement 21s. per inch; each additional line, 2s.

THE INCORPORATED ASSOCIATION OF ARCHITECTS AND SUPPRIORS MAINTAINS a register of qualified architects and surveyors (including assistants) registing posts, and invites applications from public suthorities and private practitioners having staff seascies. ADDRESS: EMPLOYMENT REGISTER, WEST PARK, WHYTELEAFS. Tel.: Uplands 0935. 991

READCIES. ADDRESS: EMPLOYMENT ROLISTER,
WHITE PARK, WRYTELEYS. TOL: Uplands 933. 991

CORPORATION OF GLASGOW
HOUSING DEPARTMENT.
ASSISTANT ARCHITECTS:
GRACE II. Salary scales: A.P.T., VI, £595£660; A.P.T., V. £520-£570; A.P.T., III, £450£660; A.P.T., VI, £20-£465.
Applications are invited for appointments to
the Architectural Staff of the Department, at
slaries in accordance with the above scales.
Racing on these scales will be according to age
and experience.
Applications of the Royal Institute of British
inchitects or should hold other equivalent
qualifications.
The appointments will be to the Permanent
skablishment of the Department, and are subject
to the provisions of the Corporation's Superannation Scheme. Successful applicants will
require to pass a medical examination.
The appointments are terminable on either
sho by one month's notice in writing.
Applications, stating age, particulars of train
ting, experience and qualifications, should be
addressed to the undersigned and should be
advertisement.

A. G. JURY,

A. G. JURY, Director of Housing. Eousing Department, 20, Trongate, Glasgow, C.1.

STAFFORDSHIRE COUNTY COUNCIL.
EDUCATION COMMITTEE.
Applications are invited for the following appointments on the permanent establishment of the Architect's Department:—
(a) ASSISTANT ARCHITECT (ONE). Grade VIII. A.P.T. Division (£685×£25—£760 per annum)

vili, A.F.T. Branding, annual (b) ASSISTANT ARCHITECTS. Grade VI, A.F.T. Division (£596×£20 (2)×£25—£660 per

AP.T. Division (£520×£15 (2)×£20—£570 per

APT. Division (£520×£15 (2)×£20-£570 per annum).

(d) JUNIOR ASSISTANTS. Grades II to IV, APT. Division (£420-£525 per annum, according to qualifications and experience).

(e) JUNIOR ASSISTANTS. Grade I, A.P.T. Division (£390×£15-£455 per annum).

(f) MEASURING SURVEYORS. Grade IV, APT. Division (£30×£15-£2525 per annum).

(f) MEASURING SURVEYORS. Grade IV, A.P.T. Division (£480×£15-£525 per annum).
(g) SPECIFICATION WRITER (ONE). Grade IV, A.P.T. Division.
Applicants for posts (a) and (b) are required to be Associate Members of the R.I.B.A.
Applicants for (c) are required to be Registered Architects. Preference will be given to addidates having a sound knowledge of and applicants for (d) are sound to the survey of the surv

mediate Examination of the R.I.B.A. and have bad some experience.

The appointments will be subject to the protisions of the Local Government and Other Officers' Superannuation Act, 1937, and successful andidates will be required to undergo a medical camination. The appointments will also be milled to the Scheme and Conditions of Service of the National Joint Council for Local Authorities' Administrative, Technical and Clerical Services.

Serices.

Canvassing, either directly or indirectly, will operate as a disqualification, and candidates must describes in their applications whether to their indirectly of their control of the council.

A lodging allowance of 25s. per week, and return allway lare home every two months, will be paid for a maximum period of six months where the second of a control of the control o

dation.

Applications, endorsed according to the particular post in respect of which consideration is desired, should be addressed to the Director of Stucation (A), County Education Offices, Earl Street, Stafford, stating age, qualifications and revious experience, and should be accompanied topics of three recent testimonials.

All applications are required to be received not later than the first post on Friday, the 23rd December, 1949.

TD.

T. H. EVANS, Clerk of the County Council

BOROUGH OF WILLESDEN.

APPOINTMENT OF ARCHITECTURAL

ASSISTANTS.

The Council invite applications for the appointment of ONE ARCHITECTURAL ASSISTANT on the Permanent Staff and one on the Temporary Staff of the Borough Engineer and Surveyor's Department.

The salary attaching to the post will be Administrative, Professional and Technical Grade, V, of the National Whitley Council's Scheme for the London area, namely £520 per annum, rising by two annual increments of £15 each and one of £20 to £570 per annum, plus London weighting, according to age.

Candidates must be Associates of the Royal Institute of British Architects or hold an equivalent qualification, and preferably have general knowledge and experience of architectural work in the service of a local authority.

The permanent appointment will be terminable by one month's notice on either side, is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, giving age, experience, etc., accompanied by copies of not more than three testimonials, should be addressed to the undersigned, endorsed "Architectural Assistant," not later than 10 a.m. on 19th December, 1949.

It will be necessary for the successful candidate to provide his own housing accommodation as the Council is not in a position to assist.

Canvassing, directly or indirectly, will be deemed a disqualification.

(Sgd.) R. S. FORSTER,

Town Hall, Dyne Road, Kilburn, N.W.6.

Canvassing, directly or indirectly, will be deemed a disqualification.

(Sgd.) B. S. FORSTER,

Town Hall, Dyne Road, Kilburn, N.W.6.

16th November, 1949

STAFFORDSHIRE COUNTY COUNCIL.

SMALL HOLDINGS DEPARTMENT.

APPOINTMENT OF ARCHITECTURAL

DRAUGHTSMAN.

Applications are invited for the above appointment at a salary in accordance with A.P.T.,

Grade V (£520-£570 per annum). Applicants should be registered Architects. The appointment is subject to the National Joint Council's Scheme of Conditions of Service; the successful applicant will be required to pass a medical examination and to contribute under the Local Government Superannuation Act, 1937. The post is terminable by one month's notice. Applications, stating age, experience and qualifications, should be forwarded, together with copies of three recent testimonials, to reach the County Estate Agent, County Buildings, Stafford, within 14 days of the publication of this advertisement. Applicant must state whether or not they are related to any member of the County Council. Canvassing, directly or indirectly, will be a disqualification.

T. H. EVANS.

Stafford, and they are related to any member of the County Council. Canvassing, directly or indirectly, will be a disqualification.

TURAL ASSISTANT.

Applications are invited for the permanent appointment of a Junior Architectural Assistant, in the Berough Engineer's Department. Salary Grade A.P.T., I.

Applications are invited for the permanent appointment will be required to pass a medical examination applications and housing.

Appointment will be subject to one month's notice on either side, and to the Local Government Officers' Superannuation Act, 1937. The person appointed will be required to pass a medical examination appointment will be required to pass a medical examination appointment will be required to pass a medical examination and the required to pass a preference on either side, and to the Local Government Officers' Superannuation Act, 1937. The person appointed will be required to pass a medica

November, 1949.

COUNTY BOROUGH OF BURNLEY.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.
Applications are invited for the appointment of a SENIOR PLANNING ASSISTANT, at a salary in accordance with A.P.T., Grade VI, of the National Scales, viz., 2585 to 2660 per annum. Applicants for the appointment should be Associate Members of the Town Planning Institute, and the holding of other qualifications will be an advantage. Experience in a similar capacity in a Planning Office is essential. Conditions of service are those formulated by the National Joint Council, and the appointment is on the established staff and subject to the provisions of the Local Government Superannuation Act, 1937, the successful applicant being required to pass a medical examination. The appointment is terminable by one month's notice on either side.

Act, 1937, the care to pass a medical examination. To pass a medical examination is terminable by one month's notice on established.

Canvassing, either directly or indirectly, will disqualify the candidate, and any relationship to a member or senior officer of the Council must be clearly stated in the application.

Forms of application may be obtained from the Borough Engineer and Surveyor. Town Hall, Burnley, to whom applications should be returned in the envelope provided, not later than 12 noon on Friday, the 6th January, 1950.

C. V. THORNLEX.

Town Clerk.

Town Hall, Burnley. December, 1949.

NORTH-WEST METROPOLITAN REGIONAL HOSPITAL BOARD. ARCHITECT'S DEPARTMENT. Applications are invited for the following

posts:—
(i) ASSISTANT ARCHITECTS. A.P.T., VI
(£595 to £660 p.a., plus London weighting).
Applicants should be Members of the R.I.B.A.
or about to take final examination; good general

or about to take final examination; good general experience in design and construction essential.

(ii) ARCHITECTURAL ASSISTANTS. A.P.T., V (£520 to £570 p.a., plus London weighting). Applicants should have passed Intermediate Examination of the R.I.B.A., and have good general experience in design and construction.

(iii) ASSISTANT QUANTITY SURVEYOR. A.P.T., VI (£595 to £560 p.a., plus London weighting). Applicants chould hold an approved qualification of the R.I.C.S., or by about to take final examination; good general experience in the preparation of specifications for public buildings, ability to make structural surveys and reports, and working knowledge of contract procedure essential.

Knowledge of hospital work desirable for posts

Knowledge of hospital work desirable for posts (i), (ii) and (iii).

(iv) TRAINEE ARCHITECT. A.P.T., I-III (£390-£395 p.a., plus London weighting). Applicants should possess School Certificate and have taken up an approved course of study in rreparation for the examination of the R.I.B.A. Experience in an Architect's office is desirable Commencing salaries will be at the minimum of the grades.

non for the examination of the R.I.B.A. Experience in an Architect's office is desirable Commencing salaries will be at the minimum of the grades.

The appointments will be subject to the National Health Service (Superannuation) Regulations, 1947-49, and conditions prescribed by Ministry of Health, and will be terminable by one month's notice.

The Architect's Department is responsible for the actual preparation and supervision of schemes for building hospitals for acute sick, mental, mentally defective and tuberculous patients, including staff housing schemes, and for extensions and adaptations to existing hospitals and other premises in the Region which covers the whole of the Bedfordshire and large areas of Hertfordshires, Middlesex, London, Berkshire and Buckinchamshire.

Applications. giving details of experience, together with names and addresses of two referces, should be addressed to the Secretary, North West Metropolitan Regional Hospital Board, 11a, Portland Place, W.1, not later than 28th December, 1949.

COUNTY BOROUGH OF STOCKPORT.

HOUSING COMMITTEE.

ARCHITECTURAL ASSISTANT, on Grade I (£390-£455).

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications are invited for the vacancy of 3RD ARCHITECTURAL ASSISTANT, on Grade I (£390-£455).

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Apolications are invited for the vacancy of 3RD ARCHITECTURAL ASSISTANT, on Grade I (£390-£455).

The appointment will be caldidate will be required to pass a medical candidate will be required to pass a medical of the applications and

Town Hall, Stockport. 2885
CITY OF LEEDS EDUCATION COMMITTEE.
APPOINTMENT OF SURVEYOR.
Applications are invited from Members of the
Royal Institute of British Architects or the
Institute of Chartered Surveyors for the post of
Surveyor to the Education Committee. Under
the National Scheme of Conditions of Service, the
commencing salary is £750 per annum. Apolicants
should have had experience in school planning,
furnishing and maintenance of buildings.
Forms of application may be obtained by sending a stammed addressed for scap envelope to the
undersigned, to whom completed forms should be
returned within 15 days of the appearance of
this advertisement.
The post is recognised for superannuation

The post is recognised for superannuation purposes, and the successful applicant will be required to pass a medical examination.

Canvassing in any form, either directly or indirectly, will be a disqualification, GEORGE GUEST,

Education Offices, Leeds, 1.

December, 1949.

Applications

Applications are invited for filling vacancies the South-Eastern Regional Office at Tunbridge

Applications are invited for filling vacancies in the South-Eastern Regional Office at Tunbridge Wells.

MINISTRY OF WORKS DIRECTORATE GENERAL OF WORKS.

ARCHITECTURAL AND ENGINEERING DRAUGHTSMAN, having had a full period of recognized training and experience in the preparation of drawings for good class building work. The work is varied and not confined to standard schemes. Starting pay will be assessed according to ace, qualifications and experience within a scale rising to £495 per annum.

Applications, starting age, present and previous appointments. training qualifications, etc., should be sent to the Assistant Regional Director (Administration). Ministry of Works, Government Buildings, Hawkenbury, Tunbridge Wells, Kent.

NATIONAL COAL BOARD—EAST MIDLANDS
DIVISION.

Applications are invited for the following
permanent and superannusted poets in the
DIVISIONAL ARCHITECT'S DEPARTMENT
IN MOTTINGHAM.

SENIOR, QUANTITY SURVEYOR. Salary
scale £850×£25 to £1.150 per annum.
Applicants should be Fellows or Associate
Members of the R.I.C.S. Quantities Section). with
considerable experience in the preparation of
Bills of Quantities. Specifications, detailed
approximate estimates, measuring up, making
valuations and settlement of final accounts.
Ability to control staff is essential.

ARCHITECTURAL ASSISTANTS (Grade I).
Salary £410×£20 to £550 per annum.
Applicants should have passed or be working
for Inter. R.I.B.A. Examination and have had
at least 5 years' office experience, with considerable experience of Sketch Plans and Working
Drawings.

Applicants should have passed of be working for Inter. R.I.B.A. Examination and have had at least 5 years' office experience, with considerable experience of Sketch Plans and Working Drawings.

ARCHITECTURAL ASSISTANTS (Grade II).

Salary £300×£20 to £440 per annum.

Applicants should have passed, or be working for, the Inter. Examination R.I.B.A., and be able to assist in the preparation of Sketch Plans and Working Drawings.

SENIOR STRUCTURAL ENGINEER. Salary according to experience and qualifications.

Applicants should be qualified Structural Engineers, with considerable practical experience in the design of Structural Steelwork and Reinforced Concrete for Industrial and Welfare Buildings, and Structures of all types. Must be able to control staff and supervise construction through all stages.

STRUCTURAL ENGINEERING ASSISTANTS.
Salary according to experience and qualifications.

Applicants should be proficient in the design of Structural Steelwork and Reinforced Concrete, and able to prepare detail drawings under supervision. A good general knowledge of Building Construction is essential.

The point of entry into the relevant salary scales will depend on the qualifications and experience of the successful applicants.

Applications, stating age, education, qualifications, seperience, present appointment and salary, should be submitted by 3ist December, 1949, to the Secretary, National Coal Board. East Midlands Division, Sherwood Lodge, Arnold, near Nottingham.

Applicants should state clearly the appointment for which application is made, both in the letter and on the envelope.

COUNTY BOROUGH OF ROTHERHAM.
SENIOR ARCHITECTURAL ASSISTANT.
Applications are invited for the above appointment in the office of the Borough Engineer in coordance with Grade VI of the A.P.T. Division in the National Scale of Salaries, namely, £595

accordance with the control of the National Scale of Salaries, names, to 2669 per annum.

Applicants must be Associate Members of the Royal Institute of British Architects.

The architectural work in the department is very varied and consists of Educational, Housing, Health and other types of Local Authority Buildings, and the volume of work is rapidly

Heaith and other types of Local Authority Buildings, and the volume of work is rapidly expanding.

The post is superannuable and the candidate selected for appointment will be required to pass a medical examination. The appointment will be subject to the conditions of service adopted by the Council and based on the National Scheme of Conditions of Service. It will be determinable by one month's notice on either side.

Applicants must state whether they are related to any member or officer of the Rotherham County Borough Council. Deliberate omission to disclose any such relationship will disqualify any candidate. Canvassing of members of the Council. whether direct or indirect, will disqualify.

Applications, endorsed "Senior Architectural Assistant," stating age, qualifications and experience, accompanied by copies of three recent testimonials, should be delivered to the undersigned not later than the 7th January, 1350.

JOHN S. WALL, Town Clerk. Municipal Offices, R. 7th December, 1949. Rotherham.

The December, 1949.

SOUTH-WESTERN REGIONAL HOSPITAL BOARD.

ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(1) SENIOR ARCHITECTURAL ASSISTANT. Applications to the members of the Royal Institute of British Architects, and have had considerable experience in hospital design. Salary A.P.T., Grade VII, £635 per annum, rising by annual increments of £25 to £710.

(2) QUANTITY SURVEYOR. Applicants should be Members of the R.I.C.S., with considerable experience in a Quantity Surveyor's office, and be experienced in the preparation of Bills of Quantities for all trades, detailed approximate estimates, valuation and measurement for interim certificates, and the settlement of final accounts. Salary A.P.T., Grade VII, £635 per annum, rising by annual increments of £25 to £710.

The appointments will be subject to the prevision of the National Health Service (Superannuation). Regulations, and the successful candidates will be required to pass a medical examination.

candidates will be required to pass a medical examination.

Applications, setting out qualifications and ex-perience, and giving names and addresses of three referees, should reach the Secretary of the Board at 5/6, Cotham Lawn Road, Bristol, 6, hot later than 10th January, 1950.

BOROUGH OF SOUTHGATE.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

ARCHITECTURAL STAFF.

Applications are invited for the following appointments in the Department of the Borough Engineer and Surveyor:—

(a) CHIEF ARCHITECTURAL ASSISTANT.

A.P.T., VII-VIII.

(b) ARCHITECTURAL ASSISTANT. A.P.T., IV-V.

In both cases the

IV.V.

In both cases the appropriate "London weighting" will be paid. For appointment (a) the commencing salary will be the first step of A.P.T., VII.

For appointment (a) applicants must be Associate Members of the Royal Institute of British Architects, and for appointment (b) applicants must at least be in possession of the Intermediate Examination of that Institute.

Forms of application may be obtained from the Borough Engineer and Surveyor, and should be returned to the undersigned not later than 9 a.m. on Monday, the 9th January, 1950.

Canvassing, directly or indirectly, will be a disqualification.

GORDON H. TAYLOR,

GORDON H. TAYLOR Town Hall, Palmers Green, London, N.13.

DUNDEE COLLEGE OF ART SCHOOL OF ARCHITECTURE.

The Governors of the Dundee Institute of Art and Technology invite applications for the postion of LECTURER AND STUDIO INSTRUCTOR.

Applicants should be applied to the post of the post of

The Governors of the Dundee Institute of Art and Technology invite applications for the position of LECTURER AND STUDIO INSTRUCTOR.

Applicants should be Members of the R.I.B.A. and should preferably be holders of a degree or diploma of a recognised School of Architecture.

Salary scales: Men. £450 by £20 to £700; women. £400 by £15 to £575, with placing according to qualifications and experience.

Applications should be lodged as soon as possible and should be on the prescribed form, copies of which, with full particulars, may be obtained from the undersigned.

G. R. HALL. Clerk and Treasurer.

Bell Street, Dundee. 3rd December, 1049. 2884

LEEDS REGIONAL, HOSPITAL BOARD.

Applications are invited for the appointment of a SENIOR SURVEYOR. Candidates must be qualified Quantity Surveyors, possessing considerable experience, and be capable of preparing estimates, bills of quantities of preparing accounts. Salary scale £688-£760 per annum. The appointment will be subject to the passing of a medical examination and the provisions of the National Health Service (Superannuation) Regulations, 1947/49.

Apolications, stating age, qualifications and details of experience, together with the names of three referees, should be forwarded to the Secretary to the Board. 29/31, Eastgate, Leeds. 2. not later than Saturday. 24th December, 1949.

COUNTY COUNCIL OF THE COUNTY OF LANARK.

PLANNING DEPARTMENT.

In consequence of the re-organisation of the County Planning Department, the County Council have a number of permanent appointments now vacant, and they invite applications from qualified and experienced persons for these posts.

Many of the appointments will be of a highly responsible nature, dealing with (a) the preparation of the County Planning Surveys, (b) the preparation of the County Planning Surveys, (b) the preparation of the County Planning Surveys, (b) the preparation of the County Planning Officer. whose offices are at Hamilton.

In filling the higher appointments, preference will be given to those candidates who

qualification in writing, stating in the following order age, whether married or single, education, qualifications, training, present appointment and salary, previous appointments and experience, date when able to commence duties, the names of two referees, and the salary required, and enclosing copy of one testimonial, should be forwarded to the County Planning Officer, 19, Auchingramont Road, Hamilton, not later than 14th January, 1950.

WM. C. BROWNLIE,

unty Clerk. Lanarkshire House, 191, Ingram Street, Glasgow, C.1.

OXFORDSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following pointments:—

(a) ONE PRINCIPAL QUANTITY PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF THE PROPERTY OF T

There
Works I
Draughts
fications
DRAU
AND F

oncrete, Must be DRAU CHANIC Certifica

Certifical
ing or elleast fout
trical, G
lating I
a Drawi
DRAU
less than
dice, an
mediate
of design

Salary a grant

apply itali di

CARM

Appli in the (a) A VII (b) A V (£5% (c) A IV (£ (d) A A.P.T. (e) A A.P.T. Appl

above of Bri

Nation

Salar allow Ap Insti good desig

Ap

rece Arci Kin Jan C: disc Thou can

Cor

Applications are invited for the following appointments:—

(a) ONE PRINCIPAL QUANTITY SURVEYOR. A.P.T., Grade VII., £655-£710.

(b) TWO ASSISTANT ARCHITECTS. A.P.T., Grade V., £520-£570.

(c) ONE ASSISTANT ARCHITECT. A.P.T., Grade IV., £480-£525.

(d) ONE BUILDING SURVEYOR. A.P.T., Grade III., £450-£495.

Candidates for (a) must be Associates of the R.I.C.S. (Quantities).

Candidates for (b) must be Associates of the R.I.B.A., with sound knowledge of school design and construction.

Candidates for (c) should have passed the Intermediate Examination of the R.I.B.A. or equivalent, and have had office experience for at least two years.

equivalent, and have had office experience for at least two years.

Candidates for (d) should have experience in surveying and maintenance work and have passed the Intermediate Examination of the R.I.C.S. (Building Surveying) or equivalent.

The appointments will be subject to the provious of the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination to the satisfaction of the Council.

The Scheme of Conditions of Service of the National Joint Council for Local Anthorities' Administrative. Professional, Technical and Clerical Services, as from time to time amended, and as adopted by the Council, is at present applicable to persons appointed on the established Staff.

Applications, stating age, qualifications and ex-perience, accompanied by copies of three recent testimonials, are to be sent to the County Architect, 3, Becket Street, Oxford, not later than Architect, 3, Becket Stre the 29th December, 1949.

F. G. SCOTT, Clerk of the Council.

County Hall, Oxford.

METROPOLITAN BOROUGH OF PADDINGTON.

Applications are invited for the following appointments on the permanent establishment of the Housing Department, Architectural Section (which also deals with all Council's building work).

the Housing Department, Architectural Section (which also deals with all Council's Luiding work).

(a) TWO ARCHITECTURAL ASSISTANTS.
Salary A.P.T., III (£450×£15—£495 per annum), plus London "weighting," according to age. Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects, be used to preparing working and detail drawings, and be good draughtsman. Particular stress is laid on the desirability of candidates having been engaged on, and having an interest in. the best contemporary architecture.

(b) JUNIOR ARCHITECTURAL ASSISTANT. Salary A.P.T., I (£390×£15—£435 per annum), plus London "weighting," according to age. Applicants should be preparing for the latermediate Examination of the Royal Institute of British Architects, be used to preparing working and detail drawings, and be good draughtsman. These appointments will be subject to one month's notice on either side, to the provisions of the Council's Superannuation Acts and Standing Orders, and to the National Joint Council's Scheme of Conditions of Service.

The commencing salary will, in each case, he at an appropriate point within the grade dependent upon the qualifications and experience of the successful candidate.

Applications for these appointments, stating age qualifications, present and previous appointments with salaries, and experience, together with the names of three authorities or persons to whom reference may be made, should be delieved to the undersigned, in an envelope clearly indicating the appointment for which application is being machen, 1949. No forms of application will be issued. Candidates must state in writing whether, to their knowledge, they are related to any member or senior officer of the Council.

Canvassing, directly or indirectly will disqualify.

W. H. BENTLEY. Town Clerk.

Town Hall, Paddington, W.2. 15th December, 1949.

Town Hall, Paddington, W.2.

15th December, 1949.

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS, with recognized training and fair experience. Successful candidates will be employed in London and sleewhere on a wide variety of Public Buildings, including Atomic Energy and other Research Establishments. Telephone Exchanges, and Housing. Similar vacancies also exist for ASSISTANTS, with specialized knowledge and experience in stonemasonry, particularly in detailing and jointing of ashiar and carved stonework. Salary: Architectural Assistants, 2505–255 pul annum; Leading Architectural Assistants, 2506–255, pul annum; Leading Architectural Assistants, 2506–2625, plus overtime. Starting pay will be assessed according to age, qualifications and experience. Although these are not established posts, some of them have long-term possibilities, and competitions are held periodically to fill established vacancies.

vacancies.

Apply in writing, stating age, nationality, full details of experience, and locality preferred, by Chief Architect, W.C.10/T. Ministry of Works. Abell House, London, S.W.I.

WAR OFFICE, There are vacancies in the Fortifications and Works Directorate at Chessington, Surrey, for Draughtsmen of the following types, with quali-

L. NT.

SUR. A.P.T. A.P.T.

A.P.T., of the of the

Inter-A. or for at

nce in Jassed I.C.S.

e pro-nation vill he to the

of the

and ended. eresent olished

nd ex-

ouncil. 2921

owing ent of ection ection T8. num).

and smen.

ty of

num)

ite of orking non.

stand-incil's

se, be rade, rience

z age, nents, h the whom

alify.

lerk. 2920

iling £500paughtsmen of the following types, with qualifeations as stated:—
DRAUGHTSMEN (CIVIL ENGINEERING AND FORTS). Capable of design of reinforced oncrete, steelwork or general civil engineering. Hust be able to survey and level.
DRAUGHTSMEN (ELECTRICAL AND MECHANICAL). Should hold Ordinary National Criffact in Electrical or Mechanical Engineering or equivalent qualification, and have served at least four years' apprenticeship with firm of Electrical, General Engineering or Heating and Ventilating Engineers, including at least one year in Drawing Office.

ing Engineers, including at least one year in a brawing Office.

DRAUGHTSMEN (ARCHITECTURAL). Not test than three years' experience in an Architect's office, and preferably not less than R.I.B.A. Intermediate standard. Should have a good knowledge of design and construction.

Salary £283-£495 per annum, according to age, qualifications and experience. Paid annual leave in granted. The offices are adjacent to Southern Ealway Station and on bus route. A good restaurant supplying cheap meals is available. Apply in writing, stating age, nationality, and fall details of experience to Employment Exchange, water Laue, Kingston-on-Thames. 2930 GARMARTHENSHIRE COUNTY COUNCIL.

GARMARTHENSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the following posts
is the Department:—
(a) ASSISTANT ARCHITECT. A.P.T., Grade
VII (£635-£710). II (£635-£710). (b) ASSISTANT ARCHITECTS. A.P.T., Grade. (c) ASSISTANT ARCHITECT. A.P.T., Grade

(£230 £570).

(c) ASSISTANT ARCHITECT. A.P.T., Grade IV (£487.£525).

(d) ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade V (£520-£570).

(e) ASSISTANT QUANTITY SURVEYOR. A.P.T., Grade III (£450.£495).

The appointments will be subject to the Rational Joint Council's Scheme of Conditions of Service, the provisions of the Local Government Superannuation Act, 1937, and to one month's audice on either side.

The successful applicants will be equired to pass a medical examination.

Forms of application may be obtained from W. T. Lloyd, A.R.I.B.A., County Architect, County Hall, Carmarthen, to whom applications abould be submitted by 7th January, 1950.

DANIEL JOHNS,

Clerk of the County Council.

County Offices, Carmarthen.

SURREY COUNTY COUNCIL.

SURREY COUNTY COUNCIL.

SURREY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT ARCHITECT. Grade VIII.

Balary £685 to £760 per annum, plus London allowance of £30 per annum.

Applicants must be Members of the Royal Institute of British Architects, and have had a good training and an adequate experience in the design and construction of modern buildings.

Applicants should give full details of present and previous appointments and the salary attaching thereto.

The appointment will be subject to the control of the Lorest Council of the Lorest Council of the Lorest Council of the control of the Lorest Council of th

and previous appointments and the salary attaching thereto.

The appointment will be subject to the provisions of the Local Government Act, 1937, and the successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials should be sent to the County Hall, Kingatr-nupon-Thames, not later than the 4th January, 1950.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

The Council will be unable to provide any housing accommodation, and the successful applicant will be expected to make his own arrangements in this direction.

DUDLEY AUKLAND,

Clerk of the Council.

County Hall, Kingston-upon-Thames. 2927

County Hall, Kingston-upon-Thames. 2927
SURREY COUNTY COUNCIL.
OUNTY ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of an ASSISTANT ARCHITECT, Grade VII, at a commencing salary of £655, rising by annual lacrements of £25 to a maximum of £710 per annum. Just London allowance of £30 per annum. Applicants must be Associate Members of the Boyal Institute of British Architects.
The appointment will be subject to the provisions of the Local Government Act. 1937, and he successful applicant will be required to pass a medical examination.
Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 23rd December, 1949.
Canvassing, either directly or indirectly, will disqualify a candidate from consideration.
The Council will be unable to provide any louing accommodation, and the successful applicant will be required to make his own arrangements in this direction.

DUDLEY AUKLAND, Clerk of the Council. County Hall, Kingston-upon-Thames. 2914

GOVERNMENT OF PAKISTAN.

GOVERNMENT OF PAKISTAN.

Applications are invited from eminent ARCHITECTS for the post of Architect and Consulting Adviser to the Government of Pakistan, to perform the following duties and functions in connection with the development of the permanent Federal Canital of Pakistan in Karachi:—

(1) Within the framework of the master plan and, in consultation with the Consulting Engineers and Town Planners, recommend where important buildings, such as the Parliament House, the Secretariat. Hostels for Members of Parliament and Ministers' Residences, etc., should be located in the area reserved for the Federal Capital;

(ii) Prepare detailed drawings and designs for all Government buildings in general and those mentioned above in particular;

(iii) Prepare detailed drawings and designs for all Government buildings in general and those mentioned above in particular;

(iii) Prepare detailed drawings and designs for all Government buildings in general and those mentioned above in particular;

(iii) Prepare detailed drawings and designs for the Parliament House, the Secretariat and the Hostels for Members of Parliament;

(iv) Work as a Consulting Adviser to the Government of Pakistan in all matters connected with the planning and development of the Federal Capital site.

The post is to be filled for 3 to 5 years in the first instance, which tenure may be extended at the discretion of Government. Apart from extensive experience in architectural work candidates should presses high administrative and technical ability, initiative and drive. The status, nay and allowances of the post will be fixed having regard to the qualifications of the person selected. Application (a form for which will be sent on request) should be made to the High Commissioner for Pakistan, 35, Lowness Source, London, S.W.I. Closing date ist January, 1950.

CORPORATION OF KIRKCALDY.

Apolications are invited for the following posts in the Burch Engineers Department.—

(1) SENIOR TOWN PLANNING ASSISTANT. Grade VI (£595-£610 per annum).

Applicants mus

Fergus Place. Kirkcaldy, not later than 12 noon on Monday, 26th December, 1949.

NEWPORT COUNTY BOROUGH COUNCII. Applications are invited for two appointments as ASSISTANT PLANNING OFFICERS, in accordance with A.P. and T., Grade VIII. £685. rising to £760 per annum. The Officers are required to take charge of the Development Plan Section and the Survey, Research and Programme Section of the Borough Planning Department. The Council will consider providing suitable housing accommodation for successful applicants. Details of duties and forms of application to be obtained from me. must be delivered not later than the 31st December. 1949.

H. F. ALSTON.

Rewport, Mon.

CITY AND COUNTY OF KINGSTON-UPON-

Corn Exchange Chambers, Thomas Street,
Newport, Mon.

Newport, Mon.

2009

CITY AND COUNTY OF KINGSTON-UPONHILL.

Applications are invited for the above post in
the Town Planning Department. Salary in accordance with Grade VIII (2568-2769) of the A.P.T.

Division. Applicants should hold a recognised
qualification in Fugineerine. Architecture or
Surveying, and preference will be given to those
who in addition possess a diploma in Town
Planning.

The appointment will be subject to the Local
Government Superannuation Act, 1937, and to the
National Conditions of Service for Local Authorities' Administrative, Professional, Technical and
Clerical Services, to such other canditions of
service as have been specified from time to time
by the Council, and to one month's notice in
writing on either side. Successful can'didates will
be required to mass a medical examination. Applications, whether or not they are related
to any member of the Kingston-upon-Hull
County Boroush Council, or Chief Official of the
Corporation. Canvassine will be a dismulification. Applications, stating age, qualifications, experience and present salary, together with the
names and addresses of two persons to whom
reference may be made, should be delivered to
the undersigned on or before the 21st January,
1950: U. AYLMER COATES, B.Arch., A.R.I.B.A.,
MT.P.I., Town Planning Officer, Guildhall.

Kingston-upon-Hull.

CITY OF PORTSMOUTH.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

(a) ASSISTANT SENIOR ARCHITECT. Grade VII (£655-£710).

Considerable experience in general Municipal and Health work essential.

(b) ASSISTANT ARCHITECT. Grade V (£520-£570).

£570).

Good experience in Housing and/or Educational work essential.

Applicants for the above posts should be Associates of the R.I.B.A.

(c) ASSISTANT ARCHITECT. Grade IV (£480-£255).

(d) ASSISTANT ARCHITECT. Grade III

(2450-2495).
Candidates for (c) and (d) should be of Intermediate B.I.B.A. standard, with adequate office

Candidates on the mediate E.I.B.A. standard, with adequate omce experience.

(c) ONE ASSISTANT ARCHITECT. Miscellaneous Division, Grade I (£315-£360). Candidates should be preparing for the Intermediate Examination of the R.I B.A.

A special subsistence allowance may be paid to a married applicant for a period of slx months after taking up the appointment if he is unable to secure housing accommodation immediately. Applications, setting out in tabular form, name, age, qualifications, present post and salary, previous posts with dates, details of experience, with names of three referees, must be delivered to the undersigned not later than 10 a.m. on Saturday, 31st December, 1949.

Canvassing will disqualify.

V. BLANCHARD,

Town Clerk.

City Council Chambers.

1. Clarence Parade, Southsea.

2890

COUNTY COUNCIL OF RENFREW.

Anolications are invited for FOUR ARCHITECTURAL ASSISTANTS in the Education Department. The salary scales for the respective appointments are as follows:

10 Grade A.P.T., V (£520-£570 p.a.).

(iii) Grade A.P.T., II, III (£420-£495 p.a.).

(iii) Grade A.P.T., II, III (£420-£495 p.a.).

All the above appointments are on the permanent staff of the Council, and are subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937. Successful candidates will recuire to pass a medical examination.

Applications, stating age, qualifications and experience, together with cooles of two recent testimonials, should be lodged with the undersigned immediately.

ROBERT URQUHART.

County Clerks

ROBERT URQUHART,

ROBERT URQUHART.
County Buildings, Paisley.

BOROUGH OF SURBITON.

APPOINTMENT OF ARCHITECTURAL
ASSISTANT, A.P.T., V.

Applications are invited for this permanent post. Salary Grade A.P.T., V, of the National Scheme of Conditions of Service (£520-£570 per annum). plus London "weighting."
Conditions of appointment and forms of application may be obtained from the undersigned. Housing accommedation will be provided, if necessary, at an economic rent.
Applications should be delivered to the Borough Engineer and Surveyor at these offices by 30th December, 1949.

R. H. WRIGHT.

R. H. WRIGHT, Town Clerk Council Offices, Surbiton.

Council Offices, Surbiton.

CITY OF LEICESTER.

Applications are invited for the appointment of a MAINTENANCE ASSISTANT in the City Surveyor's Department. The salary will be in accordance with Grade A.P.T., IV to VI (£480 to £660), according to qualifications and experience and the appointment is subject to 'he provisions of the Local Government Superannuation Act, 1037

Applicants should have a good knowledge of architectural practice and be experienced in the maintenance of buildings, preparation of specifications, plans, and supervision of work. Applications, including age, qualifications and experience, together with copies of testimonials, should reach the undersigned not later than 31st December, 1949.

JOHN L. BECKETT, M.I.C.E.,

City Surveyor.

Town Hall, Leicester.

Town Hall, Leicester.

CITY OF NOTTINGHAM.

HOUSING ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of ASSISTANT QUANTITY SURVEYOR, in the Housing Architect's Department, at a salary in accordance with A.P.T. Division, Grade II. commencing at £420 and rising to £465 per annum. The appointment is in accordance with the National Joint Council's Scheme of Conditions of Service, and will be subject to the provisions of the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination.

Applications, giving details of age, training, qualifications, present appointment and salary, together with the names and addresses of two persons to whom reference can be made, should be forwarded to C. A. Flikington, L.B.I.B.A., Housing Architect, The Guildhall. Nottlingham, flot later than Thursday, 39th December, 1949.

J. E. RICHARDS,

COUNTY BOROUGH OF BURTON-UPONApplications are invited for the following appointments in the Architectural Office of the Borough Surveyor.

(1) TWO QUANTITY SURVEYORS. Grade VII, A.P.T. Division (2635-2710).
The commencing salaries within the grade will be in accordance with the successful candidates qualifications and experience.

(2) TWO ARCHITECTURAL ASSISTANTS. Grade VI, A.P.T. Division (2595-2660).
Housing accommodation will be available, if required, for one of the Architectural Assistants. Preference will be given to candidates who are Associate Members of the appropriate Institute. The appointments will be subject to the provisions of the Local Government Superannation Act, 1937, to determination by one month's written notice on either side, and to the successful candidates passing a medical examination by the Medical Officer of Health.

Applications in sealed envelopes, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must be delivered to the Borough Surveyor, Town Hall, Burton-upon-Trent, not later than 10 a.m. on Friday, the Stron-upon-Trent.

Hall, Burton-upon-Trent, not later than 10 a.m. on Friday, the 23rd December, 1949.

H. BAILEY CHAPMAN.

Town Hall, Burton-upon-Trent.

3rd December, 1949.

SURREY COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of an ASSISTANT QUANTITY SURVEYOR, Grade VI. Salary £598 to £660 per annum, plus London allowance of £30 per annum.

Preference will be given to applicants who are Members of the Royal Institution of Chartered Surveyors (Quantities Sub-Division), and who have an adequate experience in the preparation of Bills of Quantities, site measuring, and in settlement of final acounts.

Full details of past and present appointments should be given.

The appointment will be subject to the provisions of the Local Government Act, 1937, and the successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications, full details of experience, salary required, and accompanied by copies of three testimonials, should be addressed to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, to reach him not later than the 23rd December, 1949.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

The Council will be unable to provide any housing accommodation, and the successful applicant will be required to make his own arrangements in this direction.

DUDLEY AUKLAND,

County Hall, Kingston-upon-Thames.

2883

COUNTY BOROUGH OF SMETTEWICK.

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the above appointment, a salary in accordance with A.P.T., Grade VI (£595-£560) per annum.

The post is subject to the provisions of the Local Government Superannuation Act. 1937, and to the passing of a medical examination, and will be terminable by one month's notice on the cision of houses, flats and other municipal buildings, be suitably qualified, and preference will be given to the council.

and will be terminable by one month's notice on either side.

Applicants should have had experience in the design of houses, flats and other municipal buildings, be suitably qualified, and preference will be given to Members of the Royal Institute of British Architects.

Applications, suitably endorsed, stating age, details of education and qualifications, full particulars of experience, past and present appointments and salary, accompanied by copies of two recent testimonials, should be addressed to the Borough Engineer and Surveyor, Council House, Smethwick, to reach him not later than 30th December, 1949.

E. L. TWYCROSS.

E. L. TWYCROSS, Town Clerk.

E. L. TWYCROSS.

The Council House, Smethwick.

2nd December, 1949.

2870

LONDON COUNTY COUNCIL.

Applications are invited for unestablished positions of (i) ARCHITECT, Grade III (salaries up to £700 a year) and (ii) ARCHITECTURAI.

ASSISTANTS (salaries up to £580 a year) in the Housing and Valuation Department. Commencing salaries in either grade will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the ecurrence of vacancies.

Successful candidates will be required to undertake the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's Division. Preference will be given to candidates holding a recognized prolessional qualification.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S. E.1 (stamped addressed envelope required, and quote Ref. G.R.3). Canvassing disqualifies. (2269)

LONDON ELECTRICITY BOARD.

Applications are invited for the post of ASSIS-TANT QUANTITY SURVEYOR, in the Architect's Section of the Chief Engineer's Department in Central London.

Applicants should preferably have passed an Intermediate Examination of the R.I.C.S., and have had good general experience in the preparation of Bills of Quantities for all trades, remeasurement and checking of final accounts,

The commencing salary will be £590 per annum. This salary is provisional, and the salary and conditions of employment will be in accordance with those laid down from time to time by the appropriate negotiating body.

Application forms, on receipt of a foolscap envelve, from the Establishments Officer, 46/47, New Broad Street, E.C.2, should be returned duly completed not later than 31st December, 1949, quoting reference EST/V/53s.

Applications are invited for the following appointments in the Borough Engineer's Department:—
RFGISTERED ARCHITECT. Salary, Grade

REFGISTERED ARCHITECT. Salary, Grade A.P.T. V (£520,£579).
ARCHITECTURAL ASSISTANTS, holding the Intermediate Certificate of the Royal Institute of British Architects. Salary Grades II (£420,£465), III (£450,£495), or IV (£480,£252), according to experience.
The appointments are subject to the Local Government Superannuation Act, 1937, and medical examination.
Applications, stating age, details of training, qualifications and experience, together with the names and addresses of two referees, must be forwarded to me not later than Saturday, 17th December, 1949. ent :-RFGISTERED

EDWARD S. SMITH. Town Clerk. Municipal Offices, Bank Street, Bury, 3rd December, 1949.

STO December, 1949.

WELSH REGIONAL HOSPITAL BOARD.
Applications are invited for the following post in the Architect's Division on the Board's Head-quarters Staff ...
SENIOR ASSISTANT QUANTITY SUR-VEYOR. Salary A.P.T., Grade VIVI (2675-2760).
Applicants must have passed the Final Examination of the Royal Institute of Chartered Surveyors (Quantities Division) or be otherwise suitably qualified, and should be familiar in all respects with a quantities surveyor's duties, including the preparation of all estimates and bills of quantities.

The appointment is subject to the provisions of the National Health Service (Superannuation) Regulations.

The appointment is of the National Health Service (Superannuation) Regulations.
Applications, stating age, qualifications and experience, together with the names of two referees, should be addressed to the Servetary, Temple of Peace and Health, Cathays Park, Cardiff, not later than 31st December, 1949.

ROROUGH OF POOLE.

BOROUGH OF POOLE.

BOROUGH OF POOLE.

Applications are invited for the appointment of an ARCHITECHRAL ASSISTANT. A.P.T. Grade V (£520-£570).

an ARCHITECTURAL ASSISTANT. A.P.T. Grade V (\$250-\$250).
Applicants must be suitably qualified and have had considerable experience in the design and construction of educational buildings.
The appointment is on the permanent establishment and will be subject to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination.
Applications, giving the names of three references, must be submitted to the undersigned in an envelope suitably endersed by not later than Saturday, 24th December, 1949.

WILSON KENYON, Town Clerk December, 1949.

December. 1949.

ESSEX EDUCATION COMMITTEE.

MID-ESSEX TFCHNICAL COLLEGE AND
SCHOOL OF ART.

Required suitably qualified full-time
LECTURER IN ARCHITECTURE. as from 1st
January, 1950, to assist in the instruction of
full-time Day and Evening Students preparing
for the Inter. and Final Examinations of the
R.I.B.A. Salary in accordance with the Assistants' Scale of the Burnham Further Education
Report.

Report.
Further particulars may be obtained (stamped addressed foolscap envelope) from the Clerk to the Governors, Mid-Essex Technical College.
Market Road, Chelmsford, to whom completed application forms should be returned as soon as

D. N. BUNGEY.
Acting Chief Education Officer.
2888

CITY OF LEICESTER EDUCATION
COMMITTEE.
COLLEGE OF ART.
Applications are invited for a post of ASSISTANT INSTRUCTOR. The duties will be divided between the School of Architecture and the School of Drawing and Painting.
Candidates should be sound draughtsmen. with special interest in, and knowledge of, Architecture. Salary in accordance with Burnham Scale. with appropriate additions for training and experience. Applications by letter, accompanied by copies of recent testimonials, should reach the Registrar, College of Art, The Newarke, Leicester. by 31st December.

ELFED THOMAS,
Director of Education.
2922

Archi

s lines

NOR T N T ably a mainter of prepared and appeared tions;

and pe short l Appli of trai Staff (Kensin referen

EAS

the M TECT; struction estima

tanity SEN ing a experie

particu

repairs

malary

REG

up to Pov

House, AR

CORPORATION OF THE CITY OF LONDON.
Applications are invited for the appointment of TOWN PLANNING ASSISTANTS, in the City Plaffning Department of the Corporation of London, at saiaries up to 28 per week, according to ability.

The appointments will be temporary only and tenable for a period of not more than one year, subject to one week's notice on either side. Partime assistance will be considered.

The duties will consist mainly of collecting data relating to the City, by surveys or such other methods to be decided by the Planning Officer and the plotting of such information on Ordnane Sheets by means of colour, for inclusion in the series of surveys supporting the Development Plan. Experience in this type of work will be an advantage, but is not essential. Successful applicants will be required to pass a nedical examination and to comply with the Conditions of Service of the Corporation of the City of London.

London.

Applications, stating age, education, experience, present position and salary, hours and/or days of work if rart-time only and any other relevant details, should be sent, together with two testimonials, to the City Planning Officer, 55/61, Moorgate, E.C.2, so as to arrive not later than the 31st December, 1949. PICKFORD.

Tenders for Contracts

Tenders for Contracts

BOROUGH OF BEXLEY.
HALCOT NO. 2 ESTATE.

TENDERS FOR ERECTION OF HOUSES.
Tenders are invited for the erection of 112
traditional Dwelling Houses, sub-divided inte
three groups as follows:—
Group A: Eleven pairs of Type A. Houses.
Fourteen pairs of Type A. Houses.
Group B: Three pairs of Type B. Houses.
One pair of Type C. Houses.
Group C: Eight pairs of Type B. Houses.
Ten pairs of Type B. Houses.
Three pairs of Type B. Houses.
Three pairs of Type B. Houses.
All of these houses are on adjoining sites, and tenders may be submitted for one or more of the

All of these house and the tenders may be submitted for one or more of the Groups.

Bills of Quantities, Specification and Forms of Tender may be obtained from the undersigned on deposit of £3 3s. (by crossed cheque made payable to Bexley Corporation), which will be refunded on receipt of a bona fide tender not subsequently withdrawn. Drawings and the general conditions of contract (R.I.B.A. Form may be inspected at the office of the Borough Engineer and Surveyor, West Lodge, Broadway, Bexleyheath, Kent.

Tenders on the form provided must be delivered to the Town Clerk, Council Offices, Broadway, Bexleyheath, in the special envelope provided, and without any name or other distinguishing mark, not later than 7th January, 1950

The Council do not bind themselves to accept the lowest or any tender, and reserve the right to divide the work as they deem desirable.

W. WOODWARD,

Town Clerk.

BOROUGH OF BEXLEY.

GLENMORE ESTATE, WELLING.

TENDERS FOR ERECTION OF HOUSES.

Tenders are invited for the erection of 86 traditional Dwelling Houses, sub-divided into three groups as follows:

"Four pairs of Type A Houses.

"Four pairs of Type B Houses.

"Three pairs of Type C Houses.

Group B: Five pairs of Type A Houses.

"Seven pairs of Type A Houses.

"One pair of Type C Houses.

One pair of Type C Houses.

Thirteen pairs of Type A Houses.

"The concept of Type B Houses.

"Thirteen pairs of Type A Houses.

All of these houses are on adjoining sites, and tenders may be submitted for one or more of the Groups.

Bills of Quantities, Specification and Forms of Tender may be obtained from the undersigned on deposit of £3 3s. (by crossed cheque made payable to Bexley Corporation), which will be refunded on receipt of a bona fide tender not subsequently withdrawn. Drawings and the general conditions of contract (R.I.B.A. Form) may be inspected at the office of the Borough Engineer and Burveyor.

West Lodge, Broadway, Bexleyheath, Kent.

Tenders on the form provided must be delivered to the Town Clerk, Council Offices, Broadway, Bexleyheath, in the special envelope provided, and without any name or other distinguishing mark, not later than 7th January, 1950.

The Council do not bind themselves to accept the lowest or any tender, and reserve the right to divide the work as they deem desirable.

"Extended to the Town Clerk."

Partnership
6 lines or under, 10s.; each additional line, 6 lines or under, 10s.; each additional line, 1s. 6d.

CHARTERED ARCHITECT (R.I.B.A., T.P.I.).
40, with efficient office, staff and car, would
use all above assisting others, and offers same
to parties having work waiting to whom advertiser's wide experience in factory, school, large
housing and civil engineering contracts, materials
cost accountancy, quantity surveying. War
Damage, Town Planning and Compensation claim
accotation, land, building, catate surveying,
valuation and negotiation would be an asset of
partnership; fee or salary or business basis by
arrangement. Box 2828. Architectural Appointments Vacant

N. of ity of

ays ant

2918

s of

pay-re-not the

erm)
ough
way,

rered

lerk.

three

and the

ms of ed on yable led on aently litions ted at veyor,

dway, vided, ishing

Clerk

P.I.),

large terials War claim veying. seet on sis by

Hass or under, 5s.; each additional line, 1s. 6d. NORTH THAMES GAS BOARD.—ARCHITECTURAL ASSISTANT required, preferably experienced in the design, alteration and
maintenance of Industrial buildings and capable
i preparing surveys, working drawings, details
and specifications; starting salary range £486
ger annum, according to age and qualifications; the appointment is of a permanent nature,
and pension arrangements will be discussed with
short list candidates.
Applications, stating age and full particulars

abort list candidates.
Applications, stating age and full particulars of training and experience, should be sent to the Saff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.S., quoting reference 9646.

Standing. 2706

ENIOR and INTERMEDIATE ARCHIing and varied work; salary according to
superience and qualifications. Apply, with all
particulars, to Mackintosh, Beccroft & Partners,
1, Orchard Street, Bristol, 1. 2786

Northard Street, Bristol, 1. 2786

WANTED, for South Wales Brewery Company. an ARCHITECT to take charge of spairs and maintenance of properties, including improvements of Licensed Houses; state age, many required, and qualifications. Box 2817.

DEQUIRED, at Company's Head Office, Guildford, ARCHITECTURAL ASSISTANT; spot R.I.B.A. Intermediate standard; 5-day week: salary by arrangement. Box 2813.

DOWELL & NORTH, F./A.R.I.B.A., require an ASSISTANT for their office in Chesham (5 mins, from West End), to take charge of mall contracts in an extensive and varied country practice; must have had at least 3 years' effect experience; good salary to right man. Write, giving full particulars, or call at Norfolk Bouse, Station Road, Chesham, Bucks. Chesham 696.

Chesham 696.

ACHITECTURAL ASSISTANT wanted in Mest Riding of Yorks; minimum standard B.B.A., Inter. Full particulars, salary required, etc. to Box 2931 A West Riding R.I.B.A., Inter. 1 de., to Box 2931.

A RCHITECTURAL DRAUGHTSMAN required; capable of working drawings; permanency; living accommodation available. Write, stating experience and salary. T. F. Parker, L.R.I.B.A, 9, The Crescent, Wisbech, Cambs. 2861

LR.I.B.A., 9, The Crescent, Wisbech, Cambs. 2861.

LR.I.B.A., 9, The Crescent, Wisbech, Cambs. 2861.

LR.I.B.A., 9, The Crescent, Wisbech, Cambs. 2861.

LR.T. TANT required at once in Architects' office, London; must be good draughtsman. Apply, stating age, experience, and salary required, to Box 2860, or telephone Central 1651.

ENIOR ASSISTANT required in a Bank's Architect's office; good previous experience in the design and maintenance of office buildings essential; age 35-40; preferably an Associate of R.I.B.A.; permanency, with pension, for suitable applicant. Box 2610.

ASSISTANT ARCHITECT required to take charge of small branch office in pleasant Country Town 40 miles from Birmingham, under the supervision of principal with main office in Birmingham; position is suitable for recently qualified man with initiative, and has good prospects. Box 2925.

ASSISTANT ARCHITECT required in New-

A Scistant Architect required in New-castle-upon-Tyne office; good position for 1st class enthusiastic man capable of working drawings and detailing of quality buildings; 5-day week; salary according to qualifications and experience. Box 2894.

A RCHITECTURAL and or QUANTITY SUR-VEYOR'S ASSISTANT required for Country Practice carrying out all types of work; salary according to experience and qualifications; partnership prospects for the right man. Apply with all particulars to Wales & Wales, A./A.R.I.B.A., 19, High Street, Skipton, Yorks.

A RCHITECTURAL ASSISTANT required in Bournemouth office. Write, stating age, experience and salary required, Box 2896.

perience and salary required, Box 2896.

SCOTTISH SPECIAL HOUSING ASSOCIATION. LTD., invite applications for the
appointment of ARCHITECT, Grade I, £700 ×
£25-£900; the post is superannuable; no bonus is
payable in addition to the salary stated; housing
acommodation may be available if necessary.
Forms of application, with full particulars, can
be obtained from the Secretary, 15/21, Palmerston
Place. Edinburgh, 12. Canvassing will be a disqualification.

SENIOR ARCHITECTIRAL ASSISTANT

qualification. 2915
SENIOR ARCHITECTURAL ASSISTANT required for Dublin office; small private practice; interesting and varied work; salary according to qualifications. Box 2876.
ARCHITECTURAL ASSISTANT wanted in private office; Westminster area; 1st class draughtsman and constructionalist essential; good prospects. Box 2900.

A RCHITECTURAL ASSISTANTS required immediately for varied practice; experience in factory work an advantage; salaries from £400.£450, graded according to experience and ability. Box 2904.

LAVENDER, TWENTYMAN & PERCY,
F./A.R.I.B.A., require a SENIOR ASSISTANT, interested in good quality building and
contemporary design; salary according to experience. Box 2897.

A RCHITECTURAL ASSISTANT required, with at least 5 years' office experience and R.I.B.A. Intermediate standard. Weich & Lander, FF.R.I.B.A., 38, Gloucester Place, Portman Square, W.1. Telephone: WELbeck 6551/2. 2880

A RCHITECTS' CO-OPERATIVE PARTNERSHIP require ASSISTANT for working
drawings and detailed design; salary £400-£550,
according to experience. Apply in writing to 34,
Gordon Square, London, W.C.1. 2881

A RCHITECTURAL ASSISTANT needed in Country Practice (chiefly housing); good prospects; salary according to ability. Reply, with full particulars, to Antony Lamb, A.R.I.B.A., A.M.T.P.I., The Town Hall, Ottery St. Mary.

Other Appointments Vacant

4 lines or under. 5s.: each additional line. 1s. 6d.

INTELLIGENT and enthusiastic young man, with some knowledge of building construction and materials, wanted for unusually interesting selling job, mainly in London (full-time). Write, with full particulars of age, training, experience, salary required to Box 366.

ESTIMATORS wanted; used to Brakepress work. Apply personally or by etter to Morris Singer Co., Perry Lane Works, Forest Road, Walthamstow, E.17.

ESTIMATORS required; used to Architectural Metalwerk Apply personally or by letter to Morris Singer Co., Ferry Lane Works, Forest Road, Waithamstow, E.17.

PRAUGHTSMEN wanted; used to Metal Windows and Brakepress work. Apply Morris Singer Co., Ferry Lane Works, Forest Road, Walthamstow, E.17.

FIRST-CLASS DRAUGHTSMAN required by London Architects; experience of baths an asset. Write, giving details of experience and salary required, Box 2763.

The perfect board



The MAVITTA Drafting Machine stamps your drawoffice as EFFICIENT. Made of steel tube with adjustable ballbearings. The main angles are located automatically, intermediate angles by lock. Scales have inlaid celluloid edges and are divided to order on two edges.

MAVITTA DRAFTING MACHINES LTD. Highlands Road, Shirley, near Birmingham, Eng. Telephone: Solthull 2231/2

Ask about the new Minor Model and new type Set Square

MOULDEX

RUBBER FLOORS

FOR

ELEGANCE

AND

DURABILITY

ESTIMATES & DESIGNS ON APPLICATION IMMEDIATE DELIVERIES

BRITISH MOULDEX RUBBER CO. LTD.

AGINCOURT ROAD, N.W.3



TELEPHONE: GUL 5508

SURVEYORS required for carrying out Site Measurement on large building contracts in Central London. Apply in writing, stating age, experience, salary required, etc., to Box 2750.

CONTRACTS MANAGER required by well-known Specialist Building Firm to organise and build up Contract Department; experience estimating and control essentials excellent opportunity for man of technical and administrative ability. Apply in first instance to Box 2775

RSTIMATORS required by Persian Gulf Oil years' experience in taking off quantities and estimating; experience of mechanical and electrical estimating and knowledge of costing an advantage, though not essential; age about 35; salary according to age and experience, tut not less than starting £910, tax free; messing and accommodation free; kit allowance. Write, giving brief details age, experience, etc., and quoting K.9145; to Box "G.D." c/o J. W. Vickers & Co., Ltd., 7/8, Great Winchester Street, London, E.C.2. E.C.2.

JUNIOR DRAUGHTSMAN required by Poulton & Freeman, Chartered Architects (WEL. 8898).

OLD-ESTABLISHED Terrazzo Flooring Contractors require MANAGER for London office; must possess sound experience of the trade, be competent estimator, able to take off quantities, interview architects and conduct relevant correspondence, etc. Write full particulars of experience, salary required, etc., to Box 2877.

FIRST-CLASS ASSISTANTS and DRAUGHTSMEN required for buildings and varied architectural practice. Write, stating salary required, experience, ctc... to Nightingale & Ambrose, 21, John Adam Street, Adelphi.

RICHARD COSTAIN, LTD., require a DESIGNER/DRAUGHTSMAN to work in their Civil Engineering Design Office in Westminster; salary according to experience and qualifications. Apply in writing, giving age, qualifications and a résumé of experience, to Personnel Director, Richard Costain, Ltd., Dolphin Square, London, S.W.1.

JOINERY REPRESENTATIVE. — First-class practical man required for Greater London area; good connection Architects and Contractors desirable; age 35/45; fine opportunity for a career with a leading firm; pension scheme; applications treated in strict confidence. Box 2839.

MANUFACTURERS' MANUFACTURERS' AGENT required to represent Producers of Pre-cast Concrete Products and Buildings, on a commission basis only, in the counties of the Midlands and North Midlands; the Agent must already have close contacts with Municipal Departments, Builders' Merchants, Builders and Civil Engineers, and be able to maintain our present connections and create new outlets for established and new concrete products. Write Blakeley (Sheffield), Ltd., Bridge Works, Hope, Derbys.

Architectural Appointments Wanted

A RCHITECTURAL ASSISTANT requires work in London area. Box 433.

A SSOCIATE, A SSOCIATE, now employed by County Council, desires appointment in office with progressive outlook, where design ability and initiative would be appreciated; local authority or private practice; anywhere in South England where there is some hope getting accommodation.

YOUNG ARCHITECT requires position; experience abroad; survey and construction.

Box 432.

Services Offered

4 lines or under, 2s. 6d.; each additional line, 1s

DESIGNS, Plans, Perspectives, Illustrations for all trades and professions. Also Bungalow and Caravan designs; Joinery and Cabinet work; Architectural Metalwork; Interiors; complete pencil service. C. Leslie New, A.N.Inst.E., Architectural Designer, 85, Heath Street, Birmingham, 18. MID, 5421.

MANUFACTURERS of exclusive hand-made Lampshades; architects' contracts carried out. J. & M. Beagley, 51, Great Ormond Street, London, W.C.L. CHAncery 9999.

SPARE-TIME WORK undertaken by Architect, A.R.I.B.A. (London area), in preparation of working drawings, perspective sketches; experience with school and exhibition work.

COM

Seniors B. D. Becker

4 lines TO BE

500

and S SHIPS to 2 in (various For fus Ltd., Teleph "Nords

UNI LOGS SCAFI

e us Railin

and th

HUT9
TARP
SCAFI
DECO
(hard
ROPE
BOAR
PLAS'

lding

rods, ALUM TUBI TABL TRUS SKIN

NO 30

line

F

A RCHITECTURAL MODELS and Dioramas Edward J. Ashenden, A.R.C.A., 15, Chem Studios, 183, Kings Road, S.W.3. Tel.: Flax 6103

WOODWORKING-MODELLING. — Architectural and General First-class Craftsmanip guaranteed. Wm. Perrin, 13. St. Georges Street, London, S.W.1. VIC. 3306.

FREE-LANCE FREE-LANCE Surveyor offers Services to Architects requiring accurate surveys of land and buildings, levelling, contouring, etc.; own car and complete equipment.

SPARE-TIME evening work executed at home by Architect and Senior Assistant; design-ing, working details, specifications, etc., speedily completed; surveys undertaken at week-ends. Telephone COL. 6661 or write to Box 2856.

A R.I.B.A. offers Part-time Assistance at own London office; all-round architectural experience, exhibitions, and surveys; references

DUPLICATING.—All Duplicating and Type-enced service offered for Bills of Quantities, Specifications, Estimates, etc.; moderate terms Price list on application from The Woodford Duplicating and Typewriting Agency, 3, Chigwell Road, South Woodford, E.18. Wanstead 224-6106.

MODELLER seeks position in Architectural or Geographical capacity, in London or Sussex area. Box 2928.

NOTICE TO ARCHITECTS, ETC.—A small group of fully qualified Architectural Assistants offer to assist professionals in the preparation of Designs, Working details, Surveys, Perspectives; etc., on part-time basis; superb draughtsmanship; moderate remuneration. Box 2932.

HAND-FORGED Sussex Ironwork adds grace and character to any building; Ornamental Gates, Railings, Door Grilles, Knockers, Lanterns, etc. Designs, estimates from Southern Ironcrafts, Ltd., 18a, Arthur Street, Hove, Sussex.

The BUILDING CENTRE CONDUIT STREET, LONDON, W.I. TELEPHONE: MAYEAIR 8641

EXHIBITION

... a permanent and constantly changing Exhibition and free information service for all interested in building and its equipment

Daily 10-5 ADMISSION FREE Saturday 10-1





FOR ELECTRICAL SCHEMES

consult

OHMLITE INSTALLATIONS LIMITED

62, Old Brompton Rd., South Kensington, S.W.7

KENsington 0259/2890

RECENT CONTRACTS:-

FLATS:-

Clifien Court,

Twickenham

HOUSES:-

Roe Green Estate, Kingsbury, N.W.9

FACTORIES, OFFICES Etc.:-

Westcott's Laundries. Chingford, Essex

Thames Valley Pattern Wks.

Teddington

Tote Investors Ltd., 1/3, Ridinghouse St., W.1

EXHIBITIONS:-

"Dai'y Mail" Ideal Home

Exhibition 1947/8/9

British Industries Fair 1947 & 1948

Annual Dairy Show

FOSALSIL" AGGREGATES FOR INSULATING CONCRETE

FLUE BRICKS POWDERS PARTITION BLOCKS

FOSALS FLUE BRICKS E SETTING POWDER

PRODUCTS COLCHESTER Telephone COLCHESTER 3191

COMPLETE full-time ARCHITECTURAL ASSISTANCE offered by two competent geniors (30); own office and car. S. C. Hahn & B. D. Rdwards, S, Station Parade, Elmers End, Beckenham, Kent. Tel.: BEC. 1277.

on of

2736

amas. Chenil 6103.

hitec.

es to

OWB 2772

home esign-eedily ends.

t own al ex-rences, 2854

Type-

experi-ntities, terms. odford nigwell

2829

ectural on or

small ectural he pre-urveys, superb Box

STACE mental nterns, crafts, 2901

For Sale

4 lines or under, 5s.; each additional line, 1s. 6d

times or under, 5s.; each additional line, 1s. 6d
TO BE CLEARED OWING TO REMOVAL TO
NEW PREMISES.

500 POLES, 2 CONCRETE MIXERS, 3
LORRIES, 50 tons Wire, 300 tons IRON
and STEEL FLATS (various sizes), 100 tons
SHIPS' PLATE, 3 HUTS, 500 tons rods (3/16 in.
to 2 in.), 500 DRAIN PIPES, 50,000 ft. TUBING
various sizes); all lying at our HAYES DEPOT.
For further details apply to: Norda Gt. Britain),
id., 162-166. Broadway, Southall, Middlesex.
Telephone: Southall 3755 and 3227/8. Grams.:
"Norda," Southall.

2314

Felephone: Southall 3755 and 3227/8. Grams:
Norda," Southall.

FOR SALE.

UNLIMITED supplies of SECONDHAND
UTUBULAR STEEL SCAFFOLDING, PUTLOGS and NEW ALUMINIUM TUBULAR
SCAFFOLDING complete with FITTINGS. Can
be used for Scaffolding, Cow Pens, Fencing,
Ballings, Grand Stands, Sports Grounds, Racking
and the tike. FENCING STAKES, TIMBER and
ASBESTOS HUTS. TIMBER HUTS. NISSEN
BUTS and other HUTS. STEEL BUILDINGS,
TARPAULINS, all types. light and heavy,
SCAFFOLD BOARDS, SCAFFOLD POLES,
DECORATORS' STEPS and TRESTLES, PAINT
GARD SEAS AND S

UANTITY of old Panelling contained in three rooms of a country mansion, rear Bristol; pprox. 2.000 sq. ft.; offers required. Apply, John E. Pritchard & Co., Chartered Auctioneers and Estate Agents, 82, Queens Road, Bristol, 8. 2886

Miscellaneous

lines or under, 5s.; each additional line. 1s. 6d.

A J. BINNS, LTD., Specialists in the supply

and fixing of all types of fencing, guard
ail, factory partitions and gates. Harvest Works,

"ld", 8t. Pauls Road, N.1. Canonbury 2061.

DECORATIVE or Plain Spray or Brush Work
required on: Offices, Factories, Business
Fremises, etc. specialising in plastic and cellulose,
speckling, shading and abstract designs; 18 years'
apperience in cinema work; can quote well-known
West End jobs as sub-contractor. Please write
or phone to Messrs. W. F. White, 23, Avery
Gardens, Ilford, Essex. Tel.: Valentine 5221.

PLOORS OF DISTINCTION Laid; in wood. rubber, composition, cork, mosaic; existing for sepaired, resurfaced and polished; also melling restored. Davis Floorings. Grove Hall Court, Hall Road, N.W.8 CUN. 3205/6 and 5616.

ALL Kinds of Fencing supplied and erected; established over 100 years. Parker, Winder Lachurch, Ltd., 80, Broad Street, Birmingham, 1.

\$\$ for ONE JOB. Architectural Modelling pays! We supply Plans, and sell your work. Details free. 1986

A. A. Fifth Year Student, married. 8-year-larnished Flat, London. "Phone BAL. 5982, or Pite Box 2899.

A.C./D.C. Ruther Stat No. 3 modition, for photographic and drawing reproduction; complete with 4 white enamel developing tree £80; can be inspected North London. Reply Box G.A. 379, 4/7, Salisbury Court, Fleet Street, 2013 A.C./D.C.

Educational Announcements

lines or under, 5s.; each additional line, 1s. 6d.

R. I.B.A. EXAMS.—Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I., Dist. in F.P. (Tutor in the Sch. of Arch. Lond. Univ.), repares Students by correspondence tuition. North Road, N.S. MOU. 3104.

INTER, FINAL & SPECIAL FINAL.

ostal Courses in all subjects of the examination sylla-bus (including Professional Practice) are conducted by THE ELLIS SCHOOL OF ARCHITECTURE

Principal; A. B. Waters, M.B.E., G.M., F.R.I.B.A 163, OLD BROMPTON RD., LONDON, S.W.7 Telephone: KENsington 8641

PROFESSIONAL

through



STUDY COURSES

I.C.S. Home Study Courses help the professional man to further his career. They include many courses for Membership Examinations of the various technical bodies. Brilliant successes have been recorded in the spheres of architecture, building, and surveying.

Here are some of the subjects in which we offer fully qualified instruction:-

Architecture
Architectural Drawing
and Designing
Building Contracting
Building Construction
and Interior Work
Building Construction
and Quantities
Building Specifications
Quantity Surveying
Civil Engineering

Surveying and Mapping Plan and Map Draughtsmanship Structural Engineering Concrete Engineering Structural Drawing Construction Draughtsmanship Sanitary Engineering Air Conditioning Heating and Ventilation

Special Courses for the examinations of the R.I.B.A., I.O.B., R.I.C.S., Inst.C.E., I.M.E. (Building Inspectors), Inst.Struct.E., A.E.A.I., Inst. Clerk of Works, etc.: Examination students are coached till successful.

Write to-day for free booklet describing our Courses in any of the subjects mentioned above.

International CORRESPONDENCE SCHOOLS.

Dept. A.J. International Buildings, Kingsway London, W.C.2.

ROOKS BY POST-

THE BUILDING OF SATELLITE TOWNS

by C. B. Purdon

51s Od

The planning and development of Letchworth and Welwyn Garden City entirely rewritten in the light of new legislation and the adoption as a national policy of "garden city" principles, with further chapters on the practical problems of building new

CIVIC THEATRE DESIGN by Richard Leacroft IIs Od

The essential requirements of the smaller theatre of the type contemplated for the new provincial civic theatre. A detailed analysis of all the working parts of the theatre as well as auditorium and public rooms.

WOOD SPECIMENS

100 Reproductions in Colour 43s 0d

The most outstanding book yet published presenting reproductions of the better-known timbers in full-and natural colours. Each plate is of generous sie, and is faced by notes on location and availability, structure, characteristics, uses, etc.

FLETCHER'S QUANTITIES Revised by A. E. Baylis, M.B.E. 30s 9d

Revised by A. E. Daylis, Ph. 2007. Revised to accord with "The Standard Method of Measurement," and with additional matter on works on site, repairs, reconstruction and dilapidations, alternative estimates, and adjusting confracts to accord with present-day conditions.

Prices include postage from

STOBART & SON LTD. 9 Victoria Street, London, S.W.I.

LINOLEUM

Information Sheets

19/G1, 2, 3 & 4
Reprints available on application to:— Linoleum Manufacturers' Association, 273/287, Regent Street, London, W.I.

DRAUGHTSMAN DESIGNER

with first class experience of Architectural Metalwork required by the

MORRIS SINGER COMPANY LTD.

Apply giving full particulars to:-FERRY LANE WORKS, FOREST ROAD, WALTHAMSTOW, E.17

CIRCUIT BREAKERS of up to 4000 cmps, and STARTERS for

Electric Motors of up to 1000 H.P.

Made by GEORGE ELLISON LIMITED, Perry Barr. Birmingham, 228

FIBROUS PLASTERWORK OF **EVERY DESCRIPTION**

ALLIED GUILDS

King Edward Square,

SUTTON COLDFIELD. Tel.: Sut 3809

STEELWORK BY

Head Office: The Parade, Sunbury-On-Thames, Middlesex

Works: Swan Works, Hanworth, Middlesex and at Hayes, Middlesex.

Phone: Sumbury 3210,

Telegrams: "Sharman, Sunbury" Feltham 3007, (All communications to be addressed to Head Office.)

TILYARD TILES

WALL & FLOOR TILING TILED FIREPLACES

APPROVED SPECIALISTS FOR

ARMSTRONG'S "ACCOTILE" FLOORING.

182 EARL'S COURT ROAD, S.W.5

Phone: Frobisher 3479-6762

8HOWROOMS: 1-5 CHILD'S PL. EARL'S COURT

WHITE FACING

(S. P. W. BRAND)

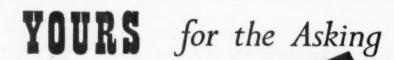
TELEPHONE & TELEGRAMS BULWELL 78237-8

M.MCCARTHY&SONS,LTD

Alphabetical Index to Advertisers

* Y & 3	PAGE	Formum Filmonia V.	PAGE	76 TF 711 - 4.1 - 7.1 -	PAGE
Aerex, Ltd	xlvi	Ferguson Edwards, Ltd	-	M.K. Electric, Ltd.	-
Allied Guilds	lxi lii	Finch, B. & C., Ltd.	ix	Moler Products, Ltd.	lx
	m	Fordham Pressings, Ltd		Mollart Engineering Co., Ltd., The	110
Anderson Construction Co., Ltd		Fox, Samuel, & Co., Ltd	XV	Morris, Herbert, Ltd	-
Banister, Walton & Co., Ltd.	xxii	Gillett & Johnston, Ltd		Morris Singer Co.	lxi
Bath Cabinet Makers & Arteraft, Ltd	XXII	Ltd	11	Mumford Bailey & Preston, Ltd	-
Benham & Sons		Griffiths Bros. & Co., London, Ltd	ii	National Federation of Clay Industries National Federation of Trades Em-	XXIX
Birmid, Ltd.	xviii	Gulf Radiators	lii	ployers, The	
Booth James, & Co., Ltd.	ATM	Gypsum Mines, Ltd.	lii	Northern Aluminium Co., Ltd.	XXXIX
Booth, John, & Sons (Bolton), Ltd		Habin, Ltd.		Ohmlite Installations, Ltd.	xxdi
Boulton & Paul, Ltd.	xlv	Hall, J. & E., Ltd.	xx	Parkinson Stove Co., Ltd.	14
Blackburn, Thomas, & Sons, Ltd	xxxvi	Harper, John, & Co., Ltd. (xix	Permacem Paint Co., Ltd.	X
Braby, Fredk., & Co., Ltd		Harvey, G. A., & Co. (London), Ltd	iii	Pilkington Bros., Ltd	- 7
Braithwaite & Co., Ltd	vi	Heath, J. E.	liii	Poles, Ltd.	198
Bratt Colbran, Ltd	xlvii	Henderson, P. C., Ltd.		Prodorite, Ltd	-
Briggs, Wm., & Sons, Ltd	xxviii	Hills, F., & Sons, Ltd	xxvi	Pritchett & Gold & E.P.S. Co., Ltd	
Brightside Foundry & Engineering Co	XXX	Hills (West Bromwich), Ltd	xliii	Radiation, Ltd	
Bristol Aeroplane Co. (Housing), Ltd		Hollway, W. F., & Brother, Ltd		Redhill Tile Co., Ltd	- 10
British Aluminium Co., Ltd		Hope, Henry, & Sons, Ltd	xlii	Richardson & Starling, Ltd	-
British Celanese, Ltd	xii	Horrocks & Sons, Ltd	xxxiv	Sadd, John, & Sons, Ltd	-
British Mouldex Rubber Co., Ltd	lix	International Correspondence Schools	lxi	Sankey, J. H., & Son, Ltd	-
British Plaster Board, Ltd	xxi	Imperial Chemical Industries, Ltd	**	Sarco Thermostats, Ltd	ZIVI
Broad & Co., Ltd.	X	Jaconello, Ltd.	xliv	Scaffoldirg (Great Britain), Ltd	-
Broughton, James, & Son (Engineers),		Jiewood, Ltd.	-	Secomastic, Ltd	XXX
Bryce, White & Co., Ltd.	lxiii	Johnson & Phillips, Ltd. Jointless Flooring (Oxychloride) Asso-	xvi	Semtex, Ltd.	-
Building Centre, The	lx	ciation	lxiii	Setright Registers, Ltd	-
Buildings Industries Services, Ltd	I.A.	Kelvinator, Ltd.	IXIII	Sharman, R. W., Ltd Smith's Fireproof Floors, Ltd	ixi
Cargo Fleet Iron Co., Ltd.		Kingfisher, Ltd	xiv	SouthernLime Association, The	
Carter & Co., Ltd.	xlix	Klinger, Richd., Ltd.	xi	Stobart & Son, Ltd.	lxl
Cement Marketing Co., Ltd	xxxiii	Korkoid Decorative Floors		Stramit Boards, Ltd	IXI
Clarke Ellard Engineering Co., Ltd	vii	Le Bryan Group Products, Ltd	li	Sundeala Board Co., Ltd.	- 10
Colt. W. H. (London), Ltd		Leatherflor, Ltd		Temple Varnish Co., Ltd	- 18
Colthurst Symons & Co., Ltd		Legrand, Sutcliffe & Gell, Ltd	1	Tilyard Tiles, Ltd	lui
Compactom, Ltd	xxxiv	Leslie & Co., Ltd.	xxxi	Thomas (Richard) & Baldwins, Ltd	4.00
Copper Development Association	viii	Linoleum Manufacturing Association	lxi	Thorn Electrical Industries, Ltd	-
Costain, Richard, Ltd	111	Loft Ladders, Ltd		Thorn, J., & Sons, Ltd	188
Crittall, Richd., & Co., Ltd	xxiii	London Brick Co., Ltd	xxiv	Tudor Accumulator Co., Ltd	161
Davis Parquet Resurfacing, Ltd	1111	Mallinson, Wm., & Sons, Ltd		Turners Asbestos Cement Co., Ltd	-
De La Rue & Co., Ltd., Thomas	xvii	Marley Tile Co., Ltd., The	xiii	Twisteel Reinforcement, Ltd	XXXX
Doulton & Co., Ltd.	xxxvii	Matthews & Yates, Ltd	, li	United Steel Co., The	XV
Downing, G. H., & Co., Ltd Eagle Pencil Co., Ltd		Mavitta Machines. Ltd	lix	Vulcanite, Ltd	-
Ellis School of Building	lxi	McNeill, F., & Co., Ltd.	lxi	Walker, Crosweller & Co., Ltd Watco (Sales), Ltd	liv
Ellison, George, Ltd.	lxi	Merchant Adventurers, Ltd.	liv	Wellington Tube Works, Ltd.	
Empire Stone Co., The		Metropolitan-Vickers Electrical Co., Ltd.	11.4	Wheatley & Co.	
Etchells Congdon & Muir, Ltd	xlviii	Midland Brick Co., The		Wheeler, F. H., & Co., Ltd.	lxiii
Evans, William, & Co. (Manchester), Ltd.	-	Midland Electric Manufacturing Co.,		Williams & Sons (Cardiff), Ltd., John	LXIII
Excel Asphalte Co., Ltd	lxiii	Ltd.	xxvii	Williams & Watson, Ltd.	
Expanded Metal Co., Ltd	v	Midland Woodworking Co., Ltd	xxxviii	Williams & Williams, Ltd.	
Farmer, S. W., & Son, Ltd		Mills Scaffold Co., Ltd	lxiv	Zinc Alloy Rust Proofing Co., Ltd	lxi
					123
For Appointm	ents (Wa	nted or Vacant), Competitions Open. Dea	when T	recines etc Educational	

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational Legal Notices, Miscellaneous Property, Land and Sales, see Py, Ivi, Ivii, Ivii, Ix, Ix.



LEARN HOW TO:-

SPECIFY.

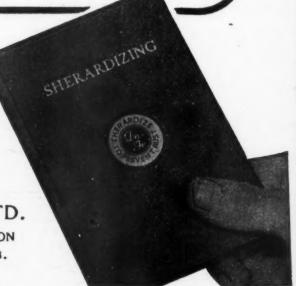
TEST,

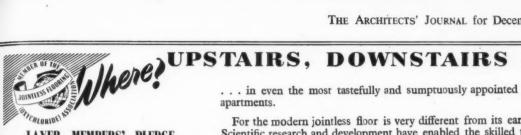
USE.

SHERARDIZING.

ZINC ALLOY
RUST PROOFING CO. LTD.

SHAKESPEARE STREET, WOLVERHAMPTON TELEPHONE: WOLVERHAMPTON 20647/8. ALSO AT LONDON & ROCHDALE.





LAYER MEMBERS' PLEDGE

"... to work strictly in accordance with the British Standard Specification for Materials for use in the manufacture of Magnesium Oxychloride Compositions, No. 776-1938, and the Code of Practice for the laying of Magnesite Composition Flooring and Dadoes."

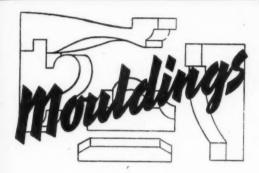
. . . in even the most tastefully and sumptuously appointed of my lady's

For the modern jointless floor is very different from its early prototype. Scientific research and development have enabled the skilled technician to adapt standard mixes to every domestic and industrial requirement.

You are taking a wise precaution if you employ a firm equipped with modern mixing plant, pledged to buy only first grade materials and to lay to B.S.S. The Association's seal ensures this guarantee.

Free technical advice gladly given from: -

THE JOINTLESS FLOORING (OXYCHLORIDE) ASSOCIATION, 69 CANNON ST, LONDON, E.C.4 5427



are available now in a wide variety of patterns. Special sections will be machined for you if you tell us your requirements.

* Send your trade card for free fully illustrated, comprehensive details of Bryce White doors, mouldings, wallboards, etc.

You Buy RIGHT from

ANGLEY SOUTHAMPTON BRISTOL & LONDON ESTABLISHED 1879

Head Office: DESERONTO WHARF, LANGLEY, BUCKS
Telephone: LANGLEY 232 & SOUTHALL 2231

ASPHALTE

Send us your Enquiries for

Asphalte • Laminated Felt Roofings Pitchmastic • Tar Paving

ON APPROVED LIST OF ALL GOVERNMENT DEPARTMENTS

EXCEL SERVICE ENDURES

EXCEL ASPHALTE CO. LTD.

Broadway Chamber, Hammersmith, W.6

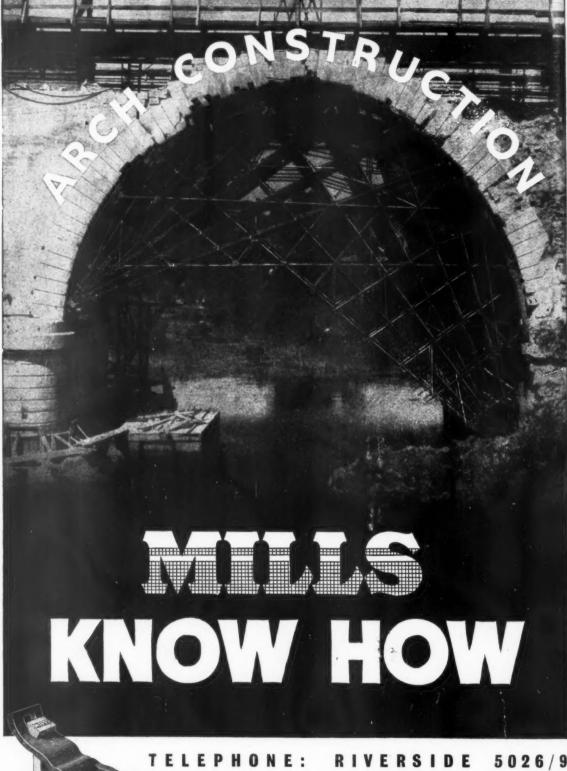
Telegrams: "CESLYM," LONDON. Telephone: RIVerside 6052 (5 lines)

for all electrical installations

H. Whee

Head Office: 39 Victoria Street, London, S.W.I. Tel: ABBey 8080 (18 Lines)

Branches: Manchester, Bournemouth, Glasgow, Birmingham, Hull, Southampton, Hereford, Sheffield, Thetford, York, Bristol, Edinburgh, Aberdeen.



OR YOUR NEAREST

BELFAST . BIRMINGHAM . BOURNEMOUTH . BRIGHTON . BRISTOL . CANTERBURY . CARDIFF COVENTRY . DUBLIN . EXETER . GLASGOW . HULL . ILFORD . LIVERPOOL . LOWESTOFT MANCHESTER . NEWCASTLE . NORWICH . PORTSMOUTH . PLYMOUTH . SOUTHAMPTON SWANSEA . YARMOUTH

MILLS SCAFFOLD CO. LTD., Head Office: TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6

OFF

9

N.6