

# THE ARCHITECTS' JOURNAL



## standard contents

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

## NEWS and COMMENT

Diary

News

Astragal's Notes and Topics

Letters

Societies and Institutions

## TECHNICAL SECTION

Information Sheets

Information Centre

Current Technique

Questions and Answers

Prices

The Industry

## PHYSICAL PLANNING SUPPLEMENT

## CURRENT BUILDINGS

## HOUSING STATISTICS

Architectural Appointments  
Wanted and Vacant

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

IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266
IHVE	Institution of Heating and Ventilating Engineers. 75, Eaton Place, S.W.1.	
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1. Euston 2450	Sloane 3158 1601
ILA	Institute of Landscape Architects. 12, Gower Street, W.C.1.	Museum 1783
I of Arb.	Institute of Arbitrators. 35/37, Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197 5176
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
IWA	Inland Waterways Association. 11, Gower Street, W.C.1.	Museum 9200
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	Modern Architectural Research Group (English Branch of CIAM). Gontran Goulden, Building Centre, 26, Store Street, W.C.1.	Secretary: Museum 5400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Saville Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine-Owners and Manufacturers Council. 94-98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers. 10, Princes Street, S.W.1.	Abbey 5111
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1.	Langham 4041 4054
NFBTO	National Federation of Building Trades Operatives, Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 13, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1.	Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington.	Molesley 1380
NSA	National Sawmilling Association. 14, New Bridge Street, E.C.4.	City 1476
NSAS	National Smoke Abatement Society. Chandos House, Buckingham Gate, S.W.1.	Abbey 1359
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Whitehall 9936
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Edinburgh 20396
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1.	Whitehall 5322 9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London, W.8.	Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House, 3921
SIA	Structural Insulation Association. 14, Moorgate, London, E.C.2.	Central 4444
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	Holborn 2646
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Temple Bar 5006
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	City 4771
TDA	Timber Development Association. 21, College Hill, E.C.4.	Victoria 8815
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	City 4444
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4.	Mayfair 8866
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Oxford 47988
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	

No. 3003]

[Vol. 116

THE ARCHITECTURAL PRESS  
8, 11 and 13, Queen Anne's Gate, Westminster,  
S.W.1. 'Phone: Whitehall 0611

Price 1s. 0d.

Registered as a Newspaper.



**3 REASONS WHY**

# Maxheat

**OVAL**

## TUBULAR ELECTRIC HEATERS

Command the largest sale in the world  
**Appearance — Efficiency — Economy**  
 Obtainable from all leading stockists or direct from the  
 Wardle factory, where "Prismalux" directional lighting  
 units, "Workslite" reflectors and Wardle floodlights  
 are also made.

Please write for Information Sheet 29.G1, to

THE **Wardle** ENGINEERING CO. LTD., OLD TRAFFORD, MANCHESTER, 16.

Hopwood

## You won't forget the doors, *but-*

are you forgetting the security those doors must provide for your clients? Cases of burglary, still increasing, disclose advanced methods and equipment. Ingersoll have met this challenge with the new Ingersoll 'Steel-Clad' 10 (yes, TEN) lever series of locks—for residential and business property. Ingersoll Steel-Clad locks harmonise with any type of door, and their clean design will please the most fastidious.

### UNIQUE MASTER-KEY SYSTEM

Your clients can Ingersoll-lock anything from a two-roomed flat to a group of factories, each with a different and exclusive combination—one master-key to open all. Employees or family can have sub-master keys to open only those buildings or rooms they are authorised to enter.



AT YOUR SERVICE — THE INGERSOLL SECURITY ADVISORY BUREAU. The services of technical experts are offered to you and your clients. Write for details or, better still, ring BYRON 3456 and ask for a representative to call.



The Ingersoll Automatic Rim Deadlock



The Ingersoll Braced Xortise Clawbolt Deadlock



The Ingersoll All-Steel Padlock

- Steel-Clad for Maximum Security
- Positive Deadlocking
- Concealed Fixing
- Exclusive Combination
- No unauthorised Duplicating of Keys

INGERSOLL SECURITY  
 ADVISORY BUREAU  
**INGERSOLL  
 LOCKS LIMITED**

23 INGERSOLL CORNER, RUISLIP,  
 MIDDLESEX

ち

ERS

16.

opw30d



# Permanent ventilation with locked window security!

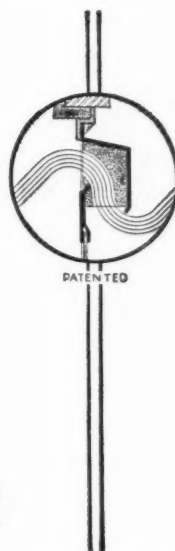


Specialists in the design of ventilation equipment for buildings, vehicles and vessels

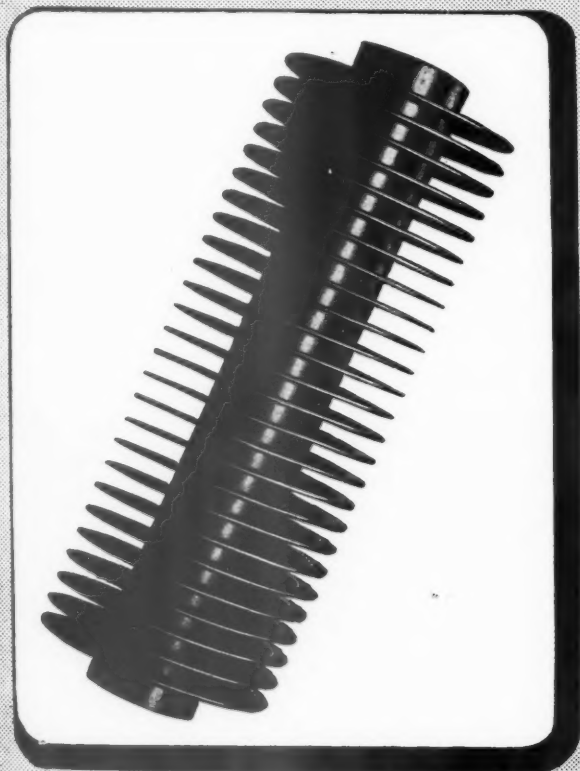
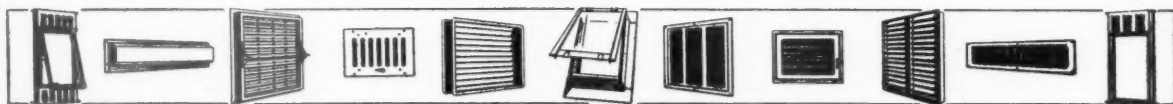
## THE GREENWOOD-AIRVAC "PERMAVENT" HORIZONTAL WINDOW VENTILATOR OFFERS THESE UNIQUE FEATURES

- \* COMPLETELY WEATHERPROOF
- \* SUPERSEDES UNSIGHTLY AIRBRICKS
- \* MADE TO FIT ANY SIZE OR TYPE OF WINDOW
- \* CAN BE FITTED TO WOOD OR METAL FRAMES
- \* SUITABLE FOR INTERNAL OR EXTERNAL GLAZING

EXTENSIVELY APPROVED AND SPECIFIED BY ARCHITECTS AND ENGINEERS FOR USE IN SCHOOLS, HOSPITALS, FACTORIES AND HOUSING SCHEMES



**GREENWOOD'S AND AIRVAC**  
*Ventilating Company Limited*  
BEACON HOUSE CHANCERY BUILDING KING'S WAY LONDON W.C.2



## TO THE ARCHITECT - SURVEYOR AND BUILDER

**Yours the problem -  
Harveys the answer!**

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

## GILLED TUBES

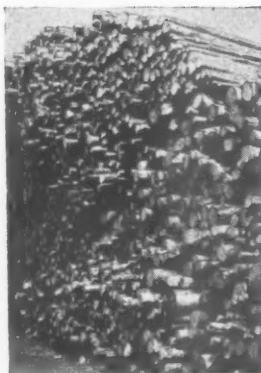
—remember Harveys. For the "Harco" Mild Steel "Tapergil" Gilled Tube is superior to any other form of Gilled Tubing. This type of Gill has no crimp, is twice as wide at the bottom of the Gill than at the outside edge and the cross section of the strip is tapered. For full particulars send for List AJ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

**Harvey**

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



*Logs arrive at the Sundeala factory.*



*Log pile.*



*Converting logs into chips.*

## *From Raw Material to the Perfect Building Board*

Specially selected wood and proved methods of production (the outcome of over 50 years experience in board making) gives you SUNDEALA . . . Britain's Best Building Boards. Made in a variety of substances, thicknesses and finishes for interior and exterior work, SUNDEALA is specified by leading architects and used with first-class results by builders and workers in wood. The SUNDEALA range covers every possible specification.

*Be British —  
Buy British*



**BRITAIN'S BEST  
BUILDING BOARDS**

# **SUNDEALA**

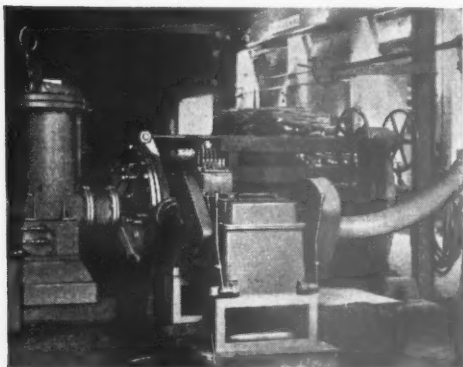
*Specially processed to withstand*  
**DAMP AND MOISTURE**

ALL SUNDEALA BOARDS ARE IMMEDIATELY AVAILABLE  
*If you experience any difficulty in obtaining Britain's Best Building Boards please write to us direct regarding your requirements.*

**SUNDEALA BOARD CO., LTD**

HEAD OFFICE: ALDWYCH HOUSE, LONDON, W.C.2. TEL: CHANCERY 8159. WORKS: SUNBURY-ON-THAMES, MIDDX.  
GLASGOW: BALTIC CHAMBERS, WELLINGTON ST., C.2. NEWCASTLE: NORTHUMBRIA HOUSE, PORTLAND TERRACE, 2

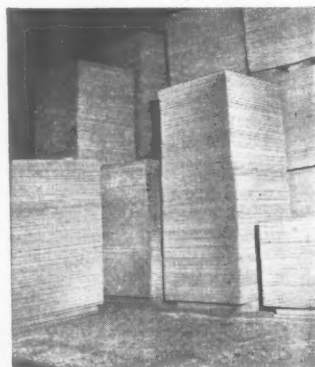
*Converting wood chips to wood pulp.*



*Beating the wood pulp.*



*Boards ready for despatch.*



# How to see stars—in comfort



*Installation by Hope's Heating & Engineering Ltd., Hull.*

The answer is simple . . . . . visit the Regal Cinema, Hull. Whether it's Marlene or Mickey Mouse, Melodrama or "Mush", there are no frigid film fans or cold critics there, for whenever the weather is unfriendly, there are three regular performers

who work ceaselessly to get the right audience reaction. At the top of the building, if not at the top of the bill, these POTTERTON Gas-Fired boilers make it certain that, for star-gazing in comfort, this cinema is the place to glow.

**THOMAS DE LA RUE & CO. LTD. (GAS GROUP)**

*Imperial House, 84/86 Regent Street, London, W.1.*

*Tel. Regent 2901.*

**POTTERTON**  
GAS FIRED BOILERS  
MADE BY  
**DE LA RUE**

# 10 COLOURS!

ONLY WITH



COLOURFILLED  
ALUMINIUM  
STAIRTREADS

*do you get...*

## SO WIDE A RANGE OF COLOURS

The range of ten colours—BROWN · SILVER · GREEN · GOLD · BLUE · MAROON · BLACK · WHITE · PINK & RED—offers to architects, flooring specialists and interior decorators a choice of colours which will harmonise with a wide variety of colour schemes.

## SO WIDE A CHOICE OF NOSINGS

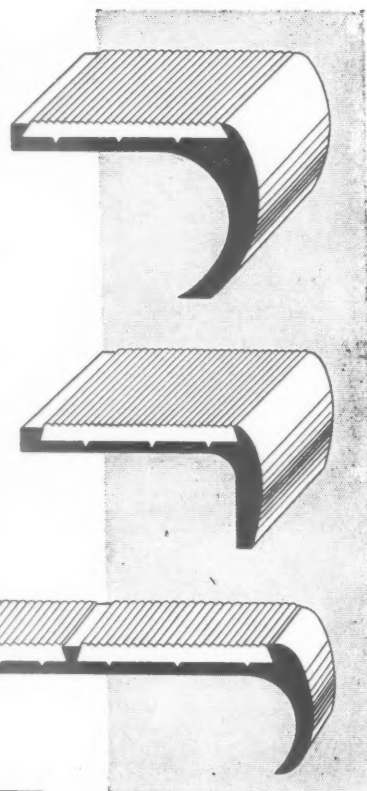
From a range of some nineteen different nosings—all sections can be shaped to your special requirements. Curved sections can be supplied with the nosing inside, or outside, of the required radius. The bends and curves to which "Don" stairtreads can be supplied are limitless. Wood, concrete or iron stairs, new or old can be fitted with "Don" stairtreads—colour or fabric filled.

## SUCH A LONG LIFE

There is no upkeep expense with "Don" stairtreads. Easy to clean they give many years of colourful service under the heaviest traffic. All "Don" stairtreads remain "colour-constant" throughout their life.

## SUCH COMPLETE SAFETY

Throughout their life "Don" stairtreads provide a safe and confident foothold. Being waterproof and non-skid they give a safe tread under all conditions.



Can be inspected and discussed at:—

BELFAST .. .. 25103  
BIRMINGHAM 4, Aston Cross 1447  
BLACKBURN .. .. 6581  
BRISTOL .. .. 27214  
CARDIFF .. .. 27026  
CARLISLE .. .. 589  
CHESTER .. .. 21280  
COVENTRY .. .. Coventry 64914

(Towns & Telephone Nos. of Depots)

EDINBURGH 1 .. Central 4234  
EXETER .. .. 3813  
GLASGOW C.2. .. Central 4595  
HULL .. .. Central 52072  
LEEDS 3 .. .. 20664/5  
LEYTON .. .. Leytonstone 6068  
LIVERPOOL 1 Royal 1251 and 5202  
MANCHESTER 3 Blackfriars 0596

NEWCASTLE-ON-TYNE 2 27142 and 27942  
NOTTINGHAM .. .. 43646  
SHEFFIELD 1 .. .. 25529  
SOUTHAMPTON .. .. 71276  
STOKE-ON-TRENT .. .. 44021  
WIMBLEDON .. .. 4248/9

Republic of Ireland:  
DUBLIN 35 Westland Row, 66597

Write for  
Brochure to:

**SMALL & PARKES LTD · MANCHESTER 9**

LONDON: 76 VICTORIA STREET S.W.1

## Preposterous Pyrotechnics

Does your customer, Mrs. "A", have pre-breakfast fire troubles ?  
Does she still mess about with fire-lighters, sticks and paper together with naughty words ? Is the hot water barely tepid from the previous night's fire ?



## Perspicacious Purchase

If all this is so, then it's high time she changed to a modern fire — a Sofono, of course. You can guide her to this best possible buy — one that will save pounds in fuel bills and pounds in energy.



## Paeans of Praise! (and peaceful people!)

With the fire happily installed (possibly by you), she cannot help but notice the splendid difference. She tells her friends, Mrs. "B" and Mrs. "C" who come to you for their Sofonos, and so it goes on — just like a snowball — and everybody is happy !



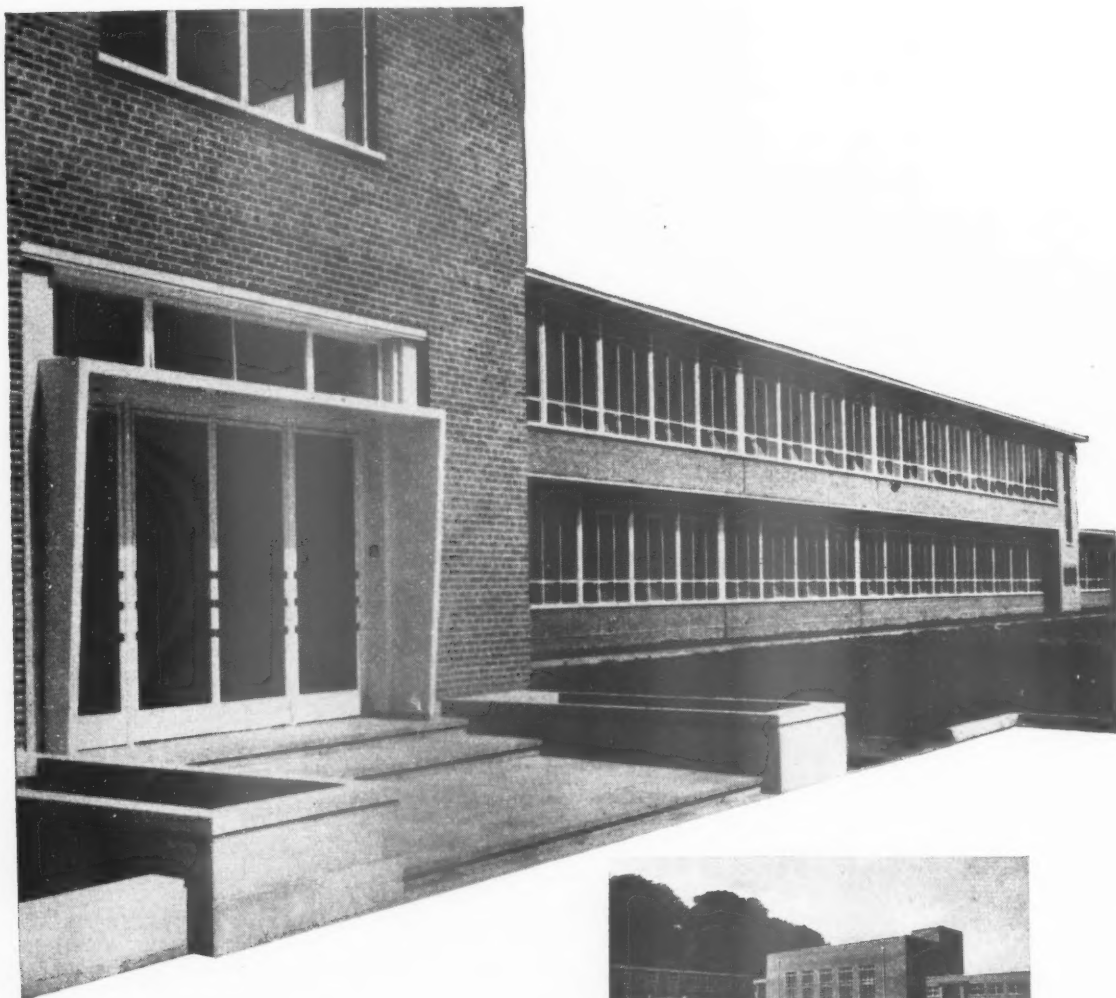
*The* **SOFONO** ALL FUEL FIRE  
BURNS ALL NIGHT—EVERY NIGHT

Fully approved by the Ministry of Fuel & Power  
— and by thousands of satisfied users!



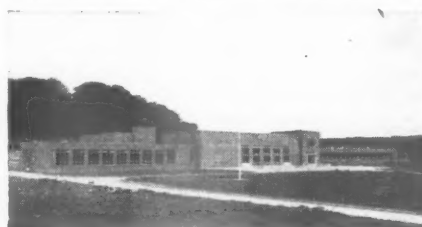
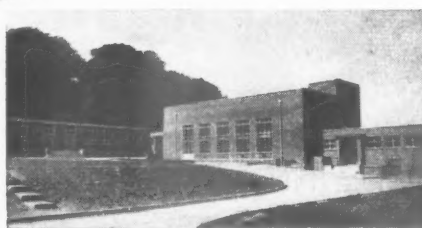
**GRANGEMOUTH IRON CO. LTD., FALKIRK**

A MEMBER COMPANY OF FEDERATED FOUNDRIES LIMITED



*Secondary Modern School  
Midhurst*

*Mr. R. Steele, F.R.I.B.A., Dist. T.P., F.R.I.C.S., M.T.P.I.  
Architect, West Sussex County Council*



# SIEGWART

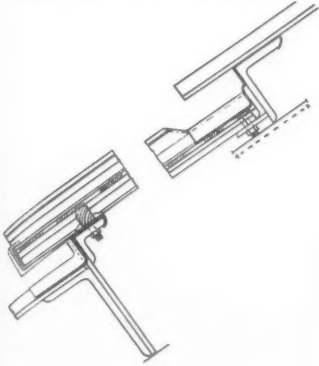
## PRECAST FLOORS & ROOFS

**SIEGWART FLOOR CO. LTD.**, GABLE HOUSE, 40 HIGH STREET, RICKMANSWORTH, HERTS. Telephone: Rickmansworth 2268  
Branch Offices at Birmingham, Manchester and Glasgow.

Works at Croxley Green, Enderby near Leicester, and Paisley

S/1/52

## THE AYGEE B.A. SYSTEM

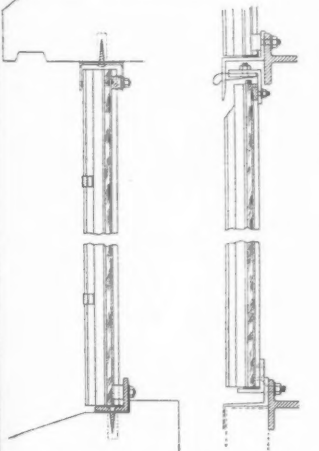


### TO STEEL

One  $\frac{1}{8}$  in. bolt at top and bottom on centre line of bars. Drill one  $\frac{3}{8}$  in. dia. hole in purlins at Standard back mark.

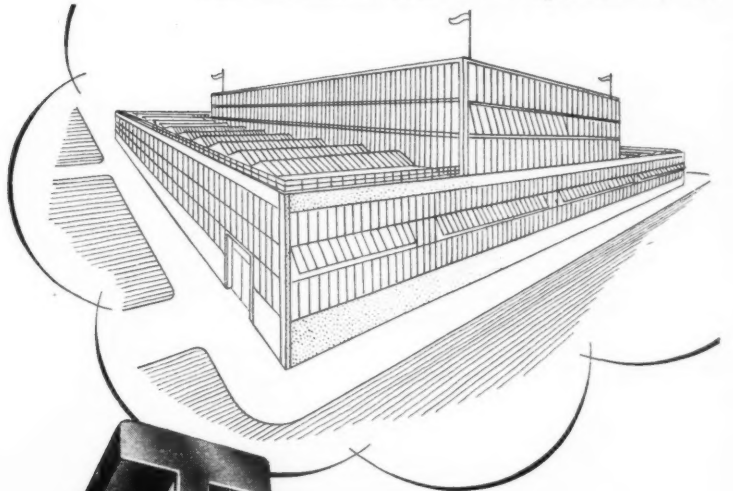
## THE AYGEE B.A.I. SYSTEM

Applied to VERTICAL GLAZING



Section  
through fixed  
portion

Section  
through opening  
portion



...and we must  
have Aygee  
patent glazing !



# AYGEE PATENT GLAZING

Immediate delivery

For further details write or phone the Patent Glazing division of AYGEE LIMITED  
Head Office: 100 WESTMINSTER BRIDGE ROAD, LONDON, S.E.1. Telephone: WATERloo 6314 (10 lines)  
Branch Works: Aintree Road, Perivale, Middlesex. Telephone: PERivale 6211 (6 lines)

See our exhibit at  
the Building Centre  
26, Store Street,  
Tottenham Court  
Road, W.C.1

PIONEERS OF ALUMINIUM PATENT GLAZING

A PRODUCT OF ENGLAND'S LARGEST GLAZING CONTRACTORS

# INFANTS' SCHOOL

IN WESTVILLE ROAD, LONDON, W.14

designed by : ERNÖ GOLDFINGER, D.P.L.G., L.R.I.B.A.

contractors : C. F. KEARLEY LTD.



BY APPOINTMENT  
BRICKMAKERS TO THE  
LATE KING GEORGE VI



PHORPRES

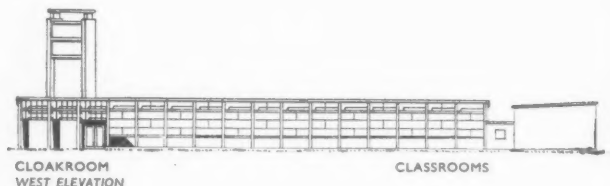


ASSEMBLY HALL  
SOUTH ELEVATION

COVERED WAY

CLASSROOMS

This L.C.C. school occupies the site of an old school destroyed by bombing in 1944. It is designed to accommodate 240 children. The structure is a precast concrete frame with brick infilling. Considerable flexibility of plan has been achieved by using *in situ* "links", consisting of free shapes constructed of brickwork, between the framed portions of the building. 80,000 'PHORPRES' SAXON FACINGS were used for interior and exterior facing, in addition to 100,000 'PHORPRES' COMMONS and KEYED BRICKS.



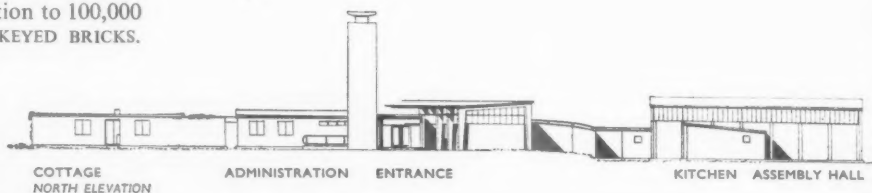
CLOAKROOM  
WEST ELEVATION

CLASSROOMS

WINGS  
DAY

SEPT 20th

Give for those  
who Gave

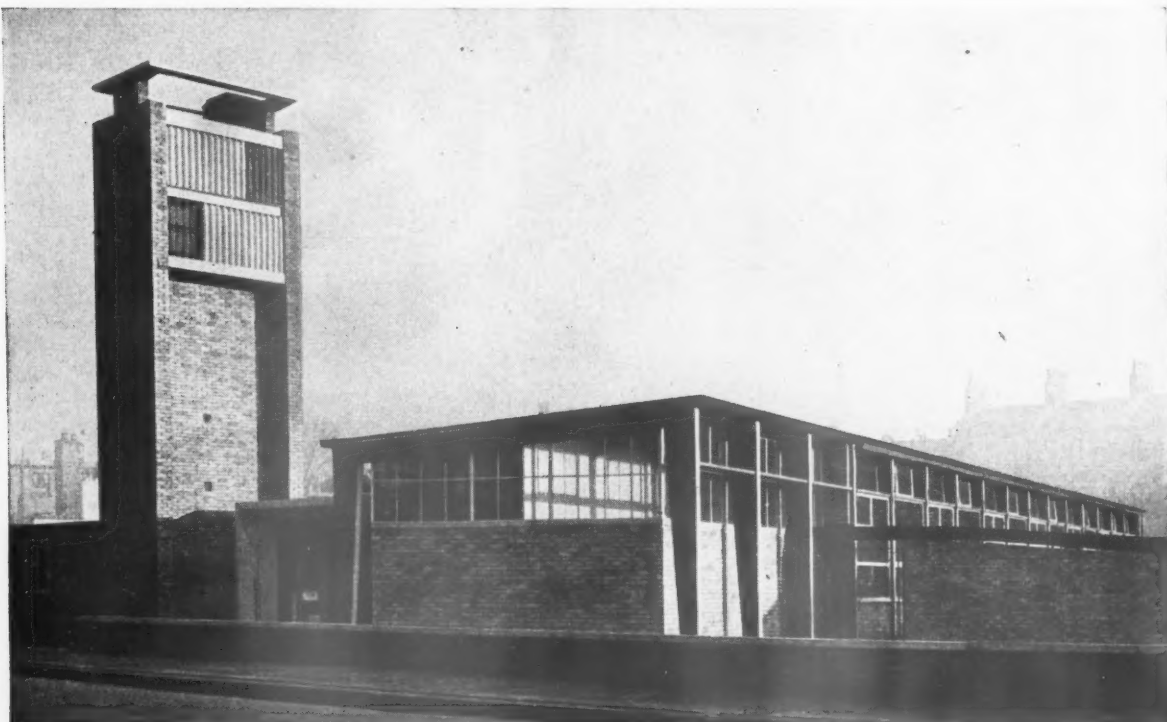


COTTAGE  
NORTH ELEVATION

ADMINISTRATION

ENTRANCE

KITCHEN ASSEMBLY HALL



## LONDON BRICK COMPANY LIMITED

Head Office : AFRICA HOUSE, KINGSWAY, LONDON, W.C.2 Telephone : Holborn 8282. Midland District Office : Prudential Buildings, St. Phillip'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.



TMENT  
TO THE  
GEORGE VI



OMS



ALL



District  
ristol, 1



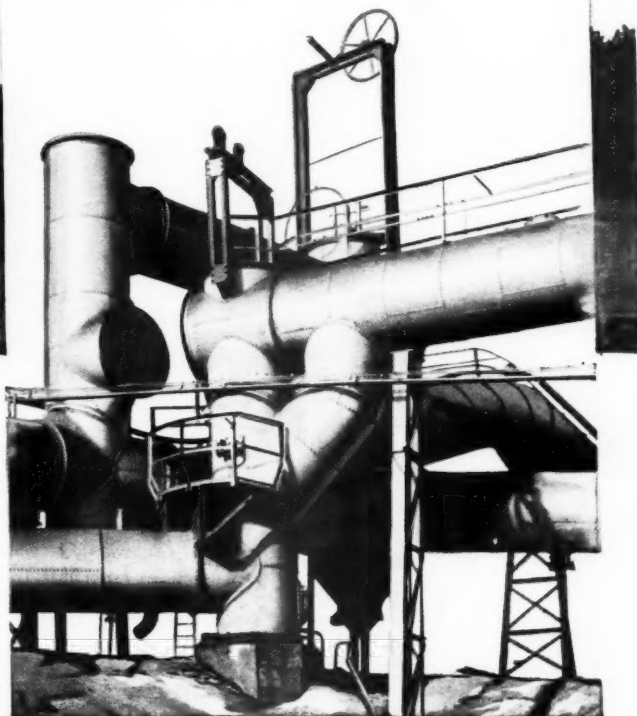


## THE VERSATILITY OF STEELWORK

### Contrasts in steelwork

Steelwork, the most adaptable structural medium in the world for buildings, is used for all manner of other purposes, of which two examples are illustrated. The first is a slender-looking observation tower—one of several made for surveying purposes. Each tower consists of two distinct but concentric structures, so that the movement of the observer—carried upon one structure—does not disturb the special theodolite upon the other. Each dismantled member is light enough to be handled easily by one man.

The lower photograph, of steel ducting for conveying coke-oven gas, shows the complex three-dimensional shapes into which steel plate can be manipulated.



# B.C.S.A.

BRITISH CONSTRUCTIONAL STEELWORK  
ASSOCIATION,  
ARTILLERY HOUSE, WESTMINSTER, S.W.1

# THE TILES ARE *MARLEY* ANGLIA

THE MARLEY TILE COMPANY GUARANTEES

1. That Marley tiles will not laminate or decay for 50 years.
2. Free maintenance of roof tiling fixed by Marley craftsmen for 10 years.



"Not for an age—but for all time"



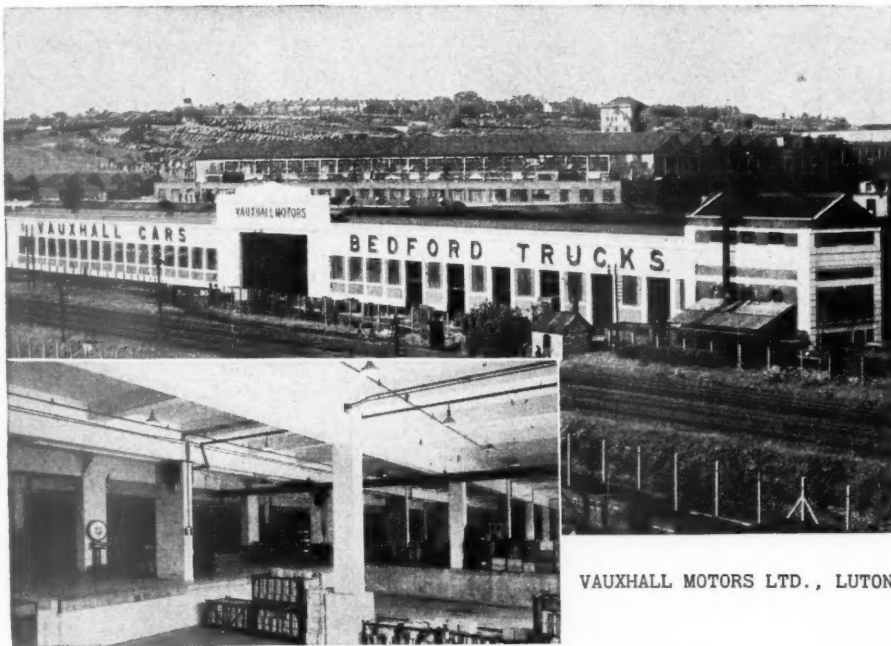
HATFIELD DEVELOPMENT CORPORATION HOUSING Architects: Lionel Brett, M.A., A.R.I.B.A. and Kenneth Boyd, A.R.I.B.A. Contractors: H. C. Jones Ltd.

The Marley Tile Company Ltd., London Road, Riverhead, Sevenoaks, Kent. Sevenoaks 2251

Scotland: Bishopbriggs 1093. Wales: Pencoed 376. Northern Ireland: Belfast 24447. Eire: Dublin 51794

# MARLEY

## THE SNOWCEM CASE BOOK



VAUXHALL MOTORS LTD., LUTON.

An extensive Snowcem programme is in progress at the Works of Vauxhall Motors Ltd., Luton. All external concrete and cement rendered surfaces have already been painted—also areas internally.

The above show the recently treated railway frontage of the pre-war factory and the basement of the new factory. Snowcem was applied to the concrete columns and ceiling of the latter over a year ago.

Architects: Howard Souster & Partners.

Contractors: J. Jarvis & Sons Ltd.

Building Contractors (Luton) Ltd.

Contractors for new factory: George Wimpey & Co. Ltd.

**SNOWCEM** is easily applied to concrete, cement rendering, stone or suitable brickwork by brush or spray.

Seven colours: White, Cream, Deep Cream, Buff, Pink, Silver Grey, Duck-Egg Green. Our Technical Department is always at your service.

**SNOWCEM** WATERPROOF CEMENT PAINT  
*DECORATES and PROTECTS at low cost*



THE CEMENT MARKETING COMPANY LIMITED

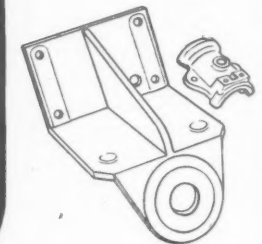
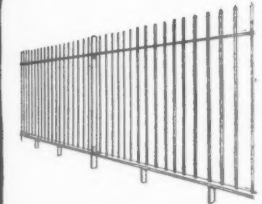
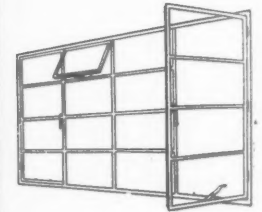
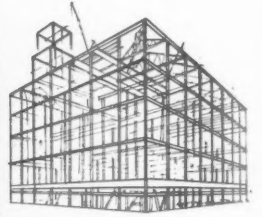
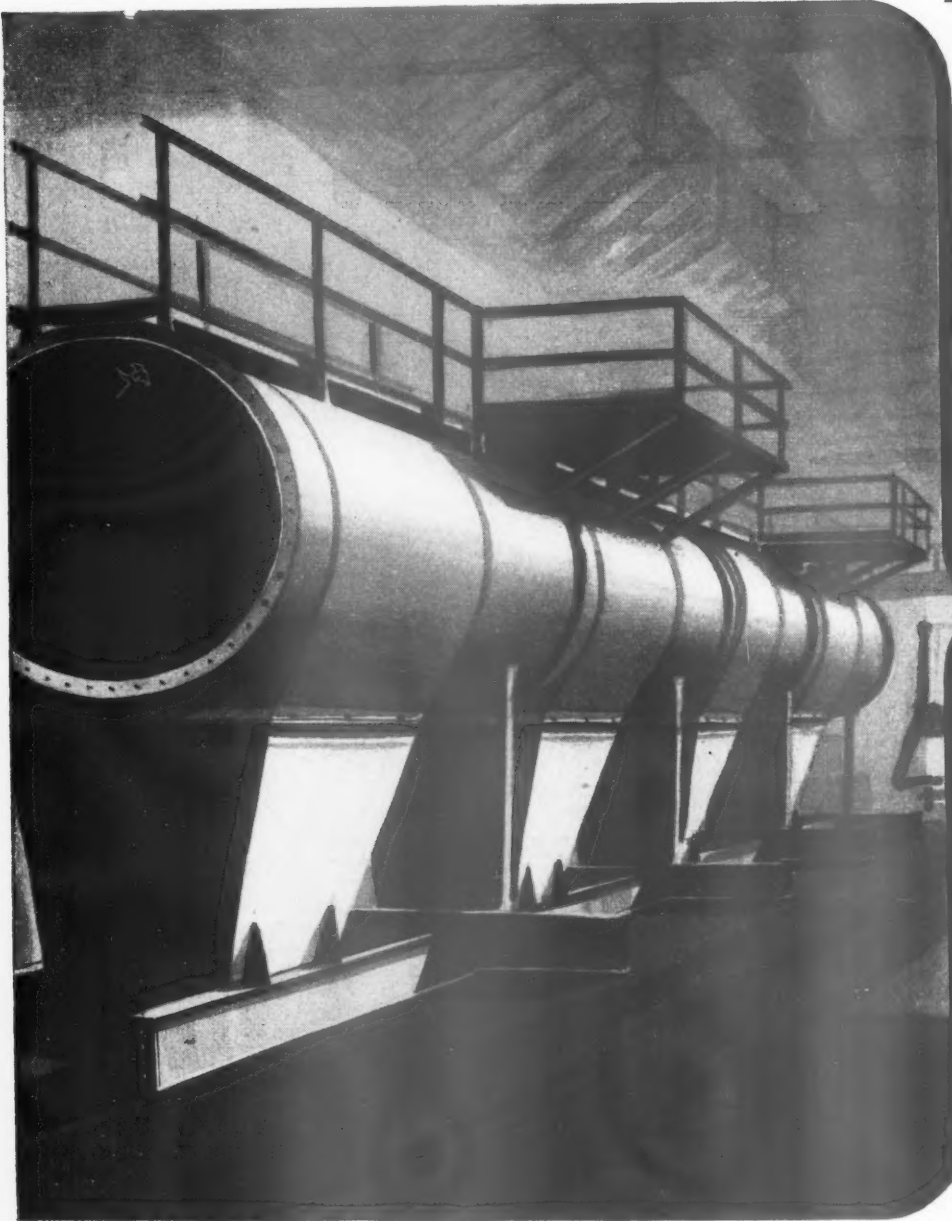
Portland House, Tothill Street, London, S.W.1.

or G. & T. EARLE LTD., Cement Manufacturers, Hull.

THE SOUTH WALES PORTLAND CEMENT & LIME CO. LTD., Penarth, Glam.



T3352



## WELDED TANKS

Strength, durability and purpose are the great features of our Welded Tanks and Vessels. A fine job made to last and to stand the test of time. The manufacture of Welded Fabricated Platework, Welded Tanks, Large Steel Pipelines, Cupolas, etc.,

has been our speciality for a long time. Our knowledge and advice is yours for the asking and we shall be glad to serve you.

We specialise also in Structural Steelwork, Metal Windows, Railings and Castings.

## THOMAS BLACKBURN & SONS LIMITED PRESTON · LANCASHIRE

London Office: 8, Bloomsbury Square, W.C.1. Tel.: Holborn 8638.

DUNSTON

BRAEHEAD

LITTLEBROOK

MEAFORD

# PICKERINGS LIFTS

BROMBOROUGH

HAMS HALL

SKELTON GRANGE

CLIFF QUAY

## Have been installed in these Power Stations

Earley  
Portishead  
Meaford  
Sculcoates  
Tir John  
North Tees

Braehead  
Kirkstall  
West Ham  
Dunston  
Hams Hall  
Blackwall Point

Peterborough  
Barking  
Skelton Grange  
Birkenhead  
Littlebrook  
Halifax

Southampton  
Trafford  
Cliff Quay  
Bradford  
Huddersfield

Modern Pickerings lifts are contributing to the working efficiency of many new Power Stations throughout the country

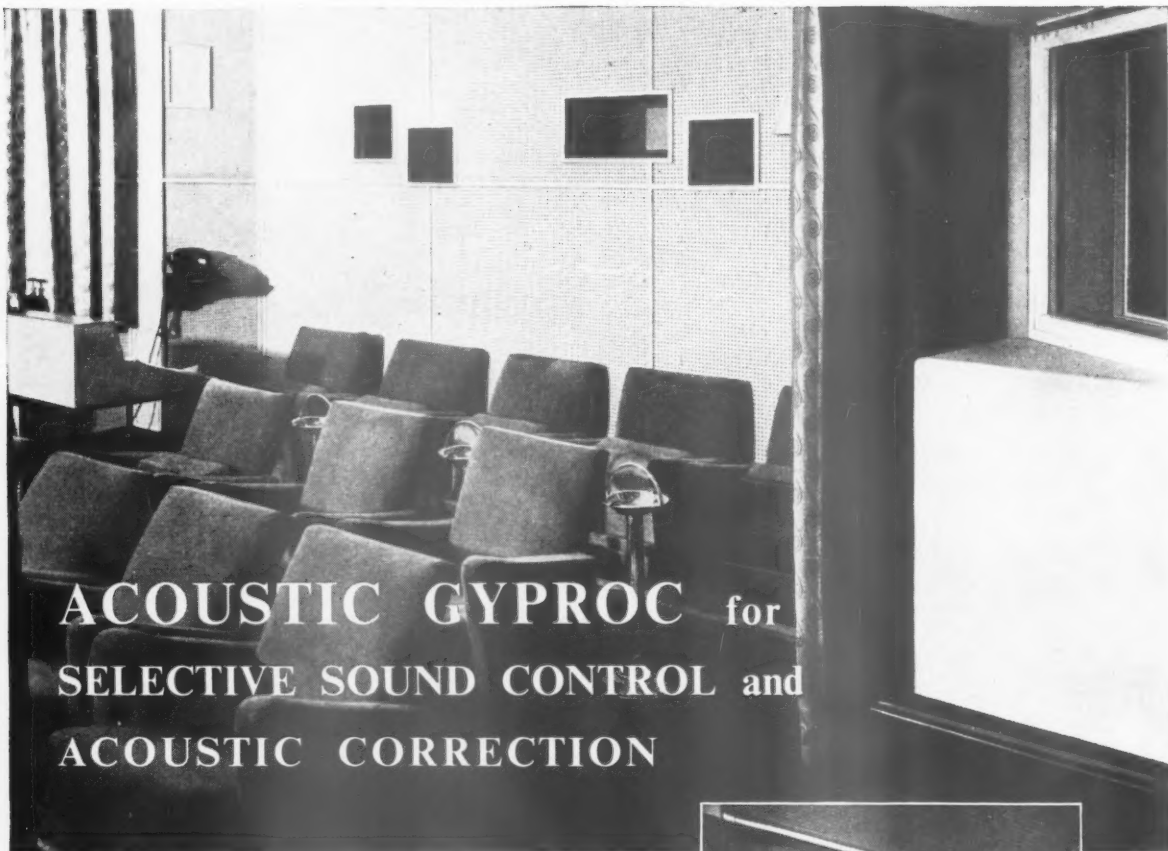
## PICKERINGS LIMITED

GLOBE ELEVATOR WORKS · STOCKTON-ON-TEES

LONDON OFFICE: 116 VICTORIA STREET S.W.1

TEL.: VICTORIA 9860

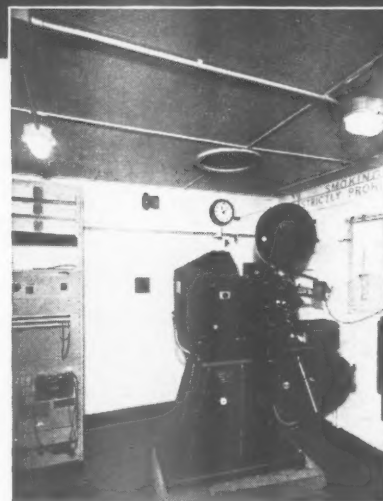
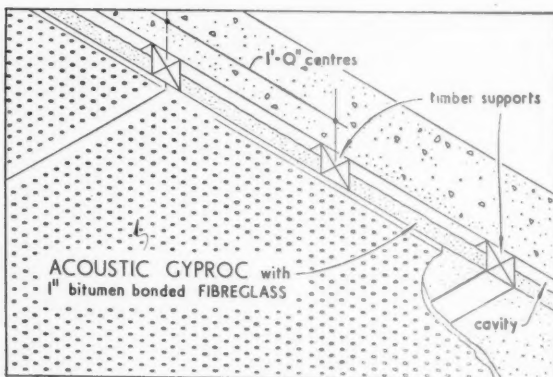
NEWCASTLE · BIRMINGHAM · MANCHESTER · BRISTOL · LEEDS · HULL · WORTHING · GLASGOW



For walls and ceilings at the B.B.C. Studios, Maida Vale, Acoustic Gyproc with a 1" bitumen bonded Fibreglass backing has been used. Above, a section of the Private Theatre and, right, the ceiling in the Projection Room.

*Architects: B.B.C. Building Department and Acoustic Specialists*

*Contractors: S. J. Franklin & Co. (Builders) Ltd.*



*Acoustic Gyproc is a fire-protective gypsum plasterboard containing small perforations of specific diameter and optimum centres, allowing the correct admission of sound waves to an absorbent backing. Acoustic Gyproc has an ivory surface for immediate decoration.*

Makers of thermal insulation and acoustic products including GYPKLITH Wood Wool Slabs, GYPKLITH Acoustic Tiles, GYPKLITH Fluted Panels, INSULEX and ZONALEX Mineral Loose-fill Insulation Materials, ACOUSTIC GYPROC, SONAPLAX, VERMICULITE Insulating Plaster, DEKOOSTO Acoustic Plaster.

## GYPROC PRODUCTS LIMITED

Head Office: Westfield, Upper Singlewell Road, Gravesend, Kent. Telephone: Gravesend 4251-4 Telegrams: Gyproc, Gravesend. Glasgow Office: Gyproc Wharf, Shieldhall, Glasgow, S.W.1. Telephone: Govan 2141-3. Telegrams: Gyproc, Glasgow. Midland District Sales Office: East Leake, near Loughborough. Telephone: East Leake 231. London Office: Morris House, 1-5 Jermyn Street, London, S.W.1. Telephone: Whitehall 8073-4.

A 3

## At the Cavendish Primary School, Chiswick . . .

**LIGHT SHUTTERS & VENTILATION BY**

**COLT**

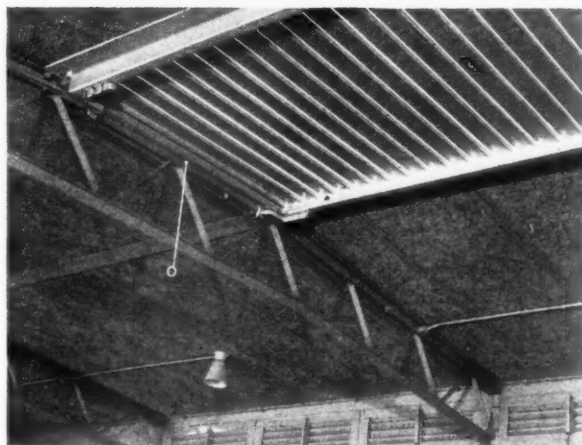


The scientific knowledge and resources of Colt, called in at the drawing-board stage, solve yet another ventilation problem.

Many years' experience of all types of ventilation problems enables us to bring a supremely practical approach to the science of air induction and extraction. If you want maximum flexibility of ventilation in any new plans you are working on, we shall be glad to give our advice at the earliest possible stage. If your problem is one of improving existing conditions . . . then Colt again can call on a vast background of knowledge and experience. Our experts are always keen to tackle new problems or advise on more familiar ones.

The illustrations show the system designed by Colt to London County Council requirements. The Light Shutters are Standard C.O. type ventilators giving flexibility of lighting. The shutters open for maximum light, close to shut out all light, or adjust to deflect the sun's rays in any direction.

The G.P. ventilators shown in the service ducting in these pictures allow the vitiated air from the classrooms to be extracted by the P.R. type ventilators. To prevent sun-glare Light Baffles are used to break up and diffuse the light.



A FREE MANUAL with full specifications of the types of standard Colt Ventilators is available on request from Dept. E.2.

## **COLT VENTILATION**

*Chosen by over 4,000 prominent firms*

Colt Ventilation Ltd · Surbiton · Surrey · ELMbridge 6511-5

Manchester, Newcastle-on-Tyne, Sheffield and Warwick.

These ventilators have been installed in the following schools:

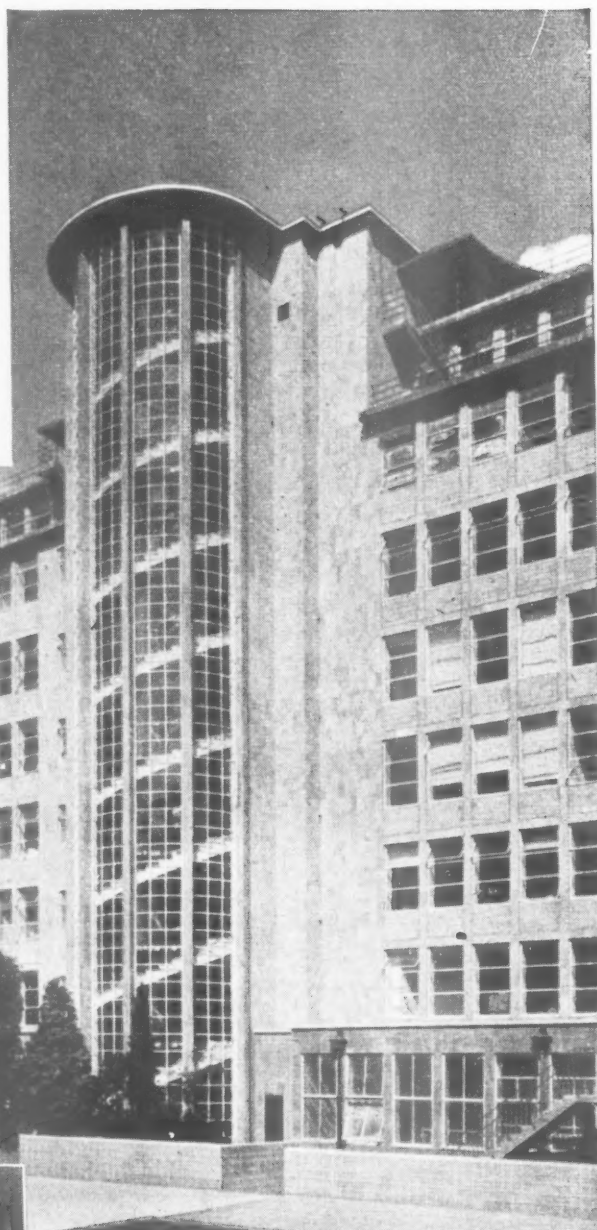
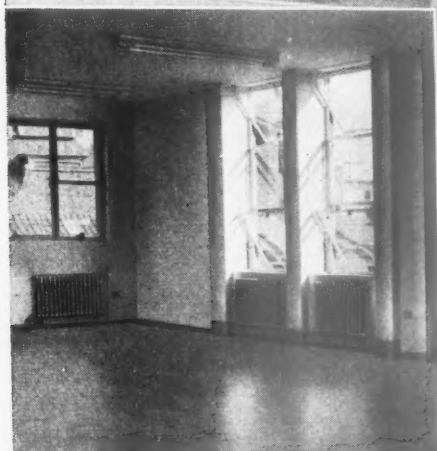
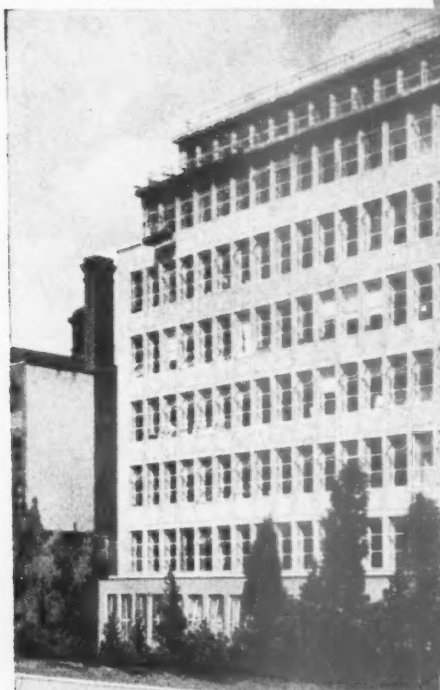
Newnham Avenue School, Eastcote; Rhodes Avenue School, Wood Green; Edensor Road School, Chiswick; Anson Road School, Willesden; Falloden Way School, Finchley; East Lane School, Wembley; Coteford School, Eastcote; Grove Park School, Chiswick; Dickens Avenue School, Finchley; Broadfields Avenue School, Edgware; Apex Corner School, Edgware; Northolt Grange School, Northolt; Matthew Arnold School, Staines; Hounslow Town School, Hounslow; Wilbury Way School, Edmon-  
ton; Clitterhouse School, Hendon; Sussex Road School, Ickenham; Broad Lane School, Hampton; Bullsmore Lane School, Enfield.

Also at Birmingham, Bradford, Bristol, Cambridge (Glouc.), Edinburgh, Liverpool, Manchester, Newcastle-on-Tyne, Sheffield and Warwick.

E3/163

# 500 PALL MALL RADIATORS UNDER ONE ROOF!

*Photograph by courtesy of "The Builder"*



BUILDERS AND  
BUILDING OWNERS  
*Messrs. Trollope &  
Colls Ltd.*

ARCHITECTS:  
*Messrs. Trehearne  
& Norman,  
Preston & Partners*

HEATING ENGINEERS:  
*Messrs. Young Austen  
& Young Ltd.*

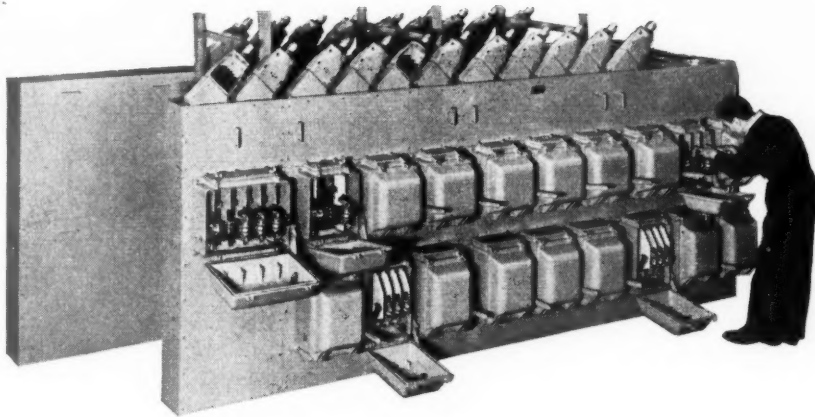
ST. BRIDGET'S HOUSE, BRIDEWELL PLACE, E.C.4.—another new building for the City of London and another new job for Crane! 500 Crane Pall Mall Cast Iron Radiators, 2, 4 and 6 column patterns, will have a warm welcome waiting for St. Bridget's House workers on those cruel, cold winter mornings. Crane have had plenty of experience in supplying heating equipment, for modern designers and engineers know that only the very best raw materials are allowed to enter the Crane Factory — and only the very best equipment is allowed to leave it!

## CRANE

HEATING EQUIPMENT VALVES & FITTINGS

CRANE LTD., 45-51 LEMAN STREET, LONDON, E.1. Works: IPSWICH. Branches: BIRMINGHAM, BRENTFORD, BRISTOL, GLASGOW, MANCHESTER

# Unity is sense



This large semi-cubicle type switchgear panel, manufactured by Simplex especially for T. P. Bennett & Son, Architects, was installed on the premises of Hammonds Ltd., the big drapery and furnishing stores in Hull. A further 30 Simplex Unit Panels for sub-distribution have been installed

This Simplex Unit Panel incorporates no less than 32 Simplex Monarch switch-fuses—an excellent example of how, with the Unit Panels, all main or sub-main gear can be grouped together to simplify supervision and control. Panels of any form are easily—and economically—built because of the enormous Simplex range of standardized fittings. And there's a special Simplex Service to design unit panels for you

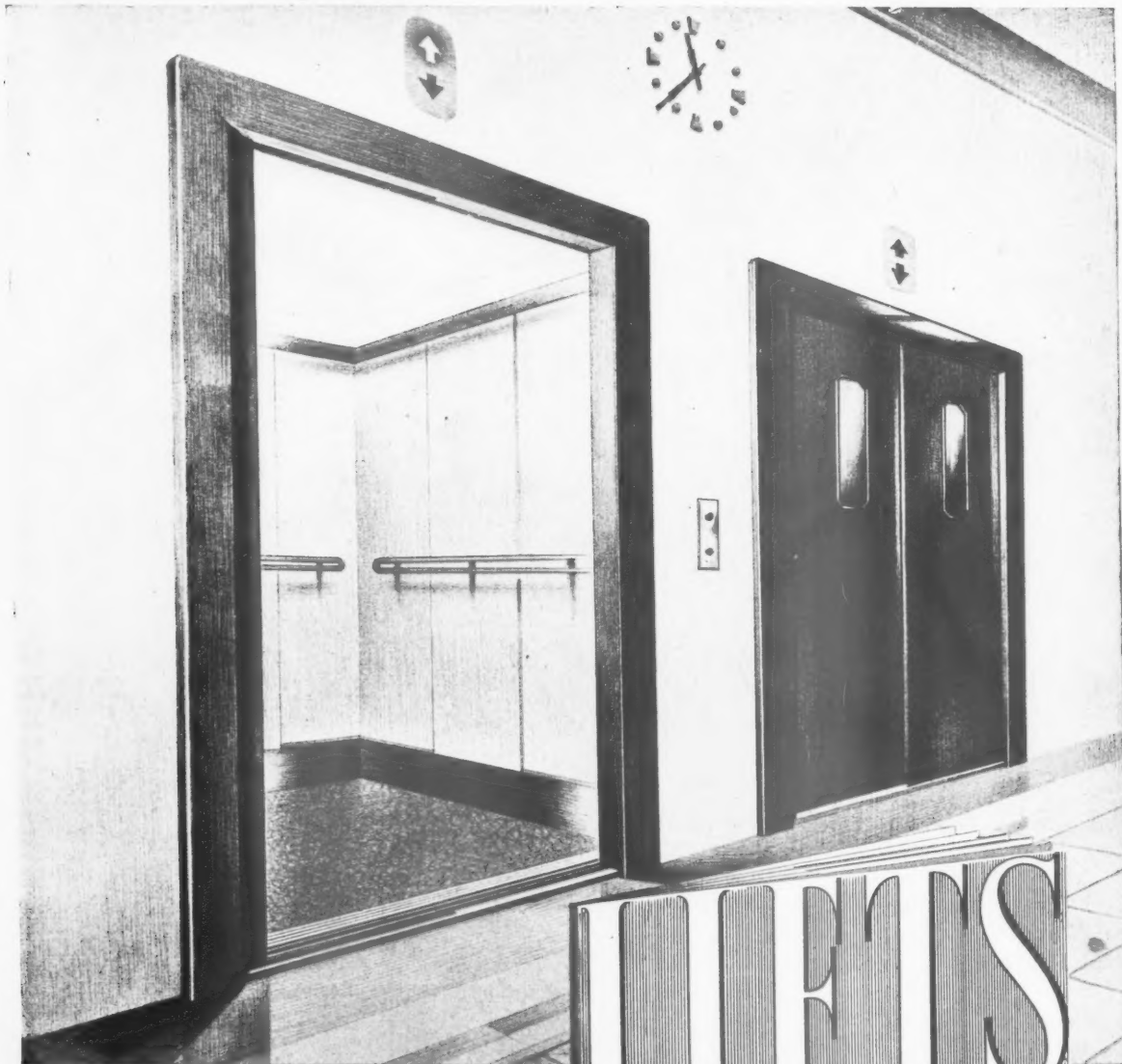
## UNIT PANELS

made by the house of

# Simplex

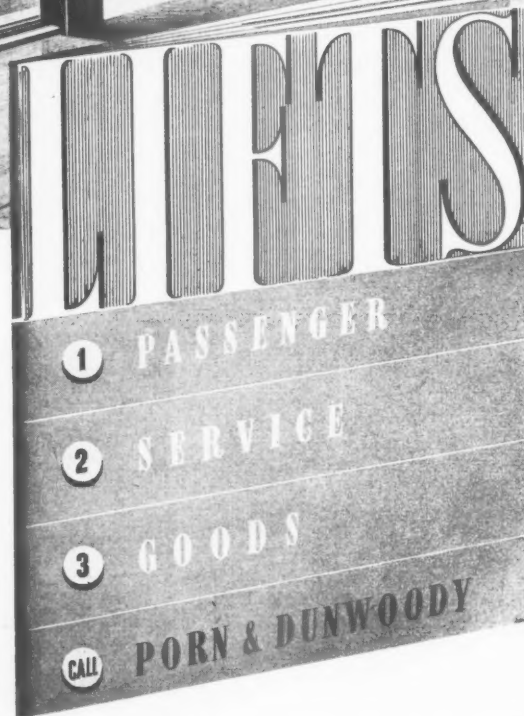
Simplex Electric Company Limited Oldbury Birmingham and Branches

A  COMPANY



**This illustrated  
Booklet free  
on request**

*We make lifts suitable for  
EVERY purpose. Consult us  
before completing your plans.  
We can offer quick deliveries  
of certain types of lifts. Send for  
our illustrated booklet A.J.10.*



**PORN & DUNWOODY**  
(LIFTS) LIMITED

UNION WORKS, BEAR GARDENS, LONDON, SE1. Tel. : WATerloo 7107 (4 lines) Telegraph : Ingporma, Sedist, London



Y

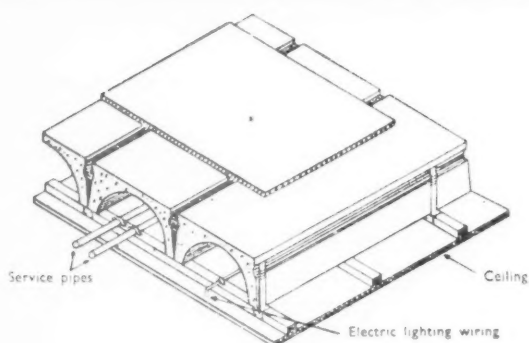
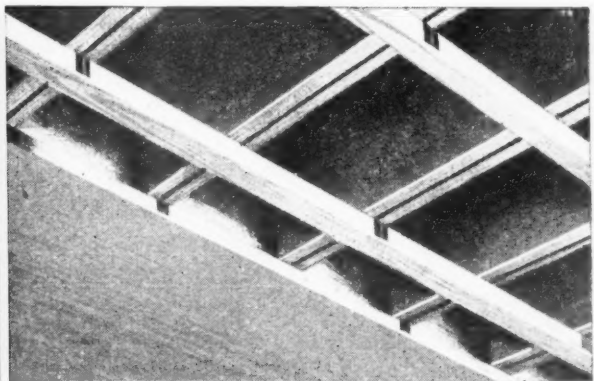
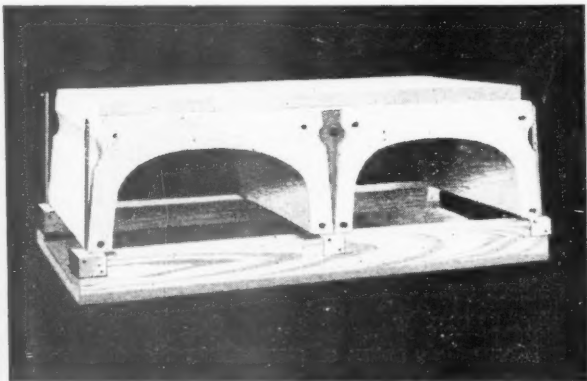
ndon

Sup  
sou  
(re  
Dig

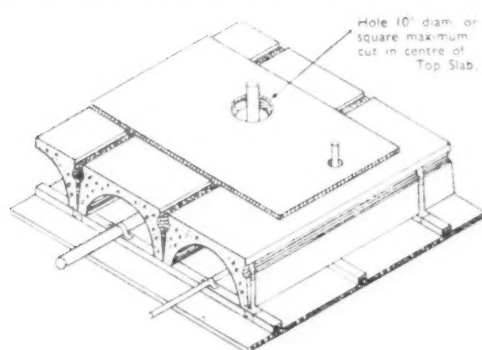
TH

Sound insulation is of the utmost importance in dwellings, particularly in flats. Amongst the types of floor which the Building Research Station recommends for sound insulation in flats, is the ribbed concrete floor, a type to which the Truscon floor conforms. TRUSCON PRECAST FLOORS, with suspended or semi-suspended ceilings provide a satisfactory insulation against sound transmission.

Suggested method of constructing a sound resisting floor, showing finishes (refer to Building Research Station Digest No. 15).



Domestic services can be housed within the voids of the Truscon units.



Details of the advantages of Truscon Precast Floors will gladly be sent on request



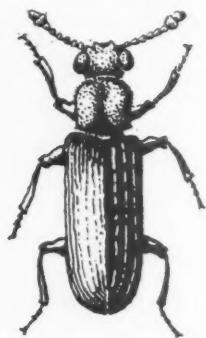
*Lyctus brunneus*

## The enemies of woodwork

### ... and the modern antidote

Damage costing several million pounds a year is caused by destructive fungi and wood-boring insects. Some of the most effective methods of modern preservation are provided by Monsanto's 'penta' chemicals.

**P**ENTACHLOROPHENOL gives protection against all of the wood-destroying fungi and insects found in this country—including dry rot, furniture beetles, etc. When the annual cost of dry rot alone is estimated at £20,000,000, such a preservative speaks for itself.



*Lyctus planicollis*

Remember — impregnated timber is the best guarantee of future immunity. 'Penta'—made by Monsanto in several forms—can be easily applied to whole timbers before construction by simple cold dipping; or it can be brushed on to woodwork already

in service which cannot be treated by dipping.

'Penta' preservatives are clean and safe to handle

under normal operating conditions. Timber treated with 'penta' is free from stain and can be painted over.

#### What to specify

Monsanto's range of pentachlorophenol preservatives includes:—

**PERMASAN.\*** Monsanto's own oil solution of pentachlorophenol, ready for application.

**SANTOPHEN\* 20.** Pentachlorophenol (technical) for solution with oil; chemically stable, involatile, virtually insoluble in water—the cheapest, most versatile good preservative.

**SANTOBRITE.\*** Sodium salt of pentachlorophenol, water soluble. A short-term preservative, especially for sapstain control in newly-converted timber.

Full information and bulletins from Special Products Sales Department, Monsanto Chemicals Limited. (\*Registered Trade Marks)



#### MONSANTO CHEMICALS LIMITED

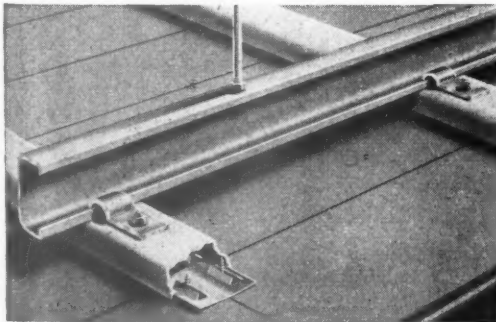
Allington House, Allington Street

London, S.W.1

In association with: Monsanto Chemical Company, St. Louis, U.S.A. Monsanto Canada Ltd., Montreal. Monsanto Chemicals (Australia) Ltd., Melbourne. Monsanto Chemicals of India Ltd., Bombay. Representatives in the world's principal cities.



*"Don't you know it's twenty to six?"*



The day goes quicker and employees finish work fresher in an office with an Acousti-Celotex Ceiling. Noise of typewriters, accounting machines and telephones is reduced to a minimum and there is no need for raised voices. Offices, Travel Bureaux and Banking Halls represent some of the many applications of sound absorbing materials which are being installed by the Cullum Staff.

Canteens, Factories and Schools with sound absorbent treatment on ceilings or walls also give quieter conditions.

Illustrated alongside is the Cullum Channel Fixing System showing the method of forming suspended ceilings of Acousti-Celotex Tiles. A coloured brochure with full details will be sent on request or a practical expert will be pleased to call.

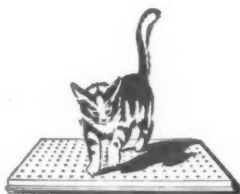
From analysis to installation we provide a complete acoustic service.

## HORACE W. CULLUM & CO. LTD.

ACOUSTIC AND SOUNDPROOFING CONSULTANTS AND CONTRACTORS

F L O W E R S M E W S  
L O N D O N N 1 9

Telephone : ARChway 2662/3/4



PROGRESS WITH QUIETNESS



Specimens of Wheatly Tiling may be seen at the Building Centre, London. Wheatly products include Single-lap Roofing Tiles, Ridge Tiles (blue and red). Floor Quarries and Briquette Fireplaces.

*"TRITON" Quarry Flooring in the Plunge Baths of the Tooting and Mitcham Football Club carried out in 6" Red Quarries with Coved Skirtings.*

*Builders: M. Howard (Mitcham) Ltd.*

*Flooring Contractors: Roberts and Burling Ltd. Croydon.*

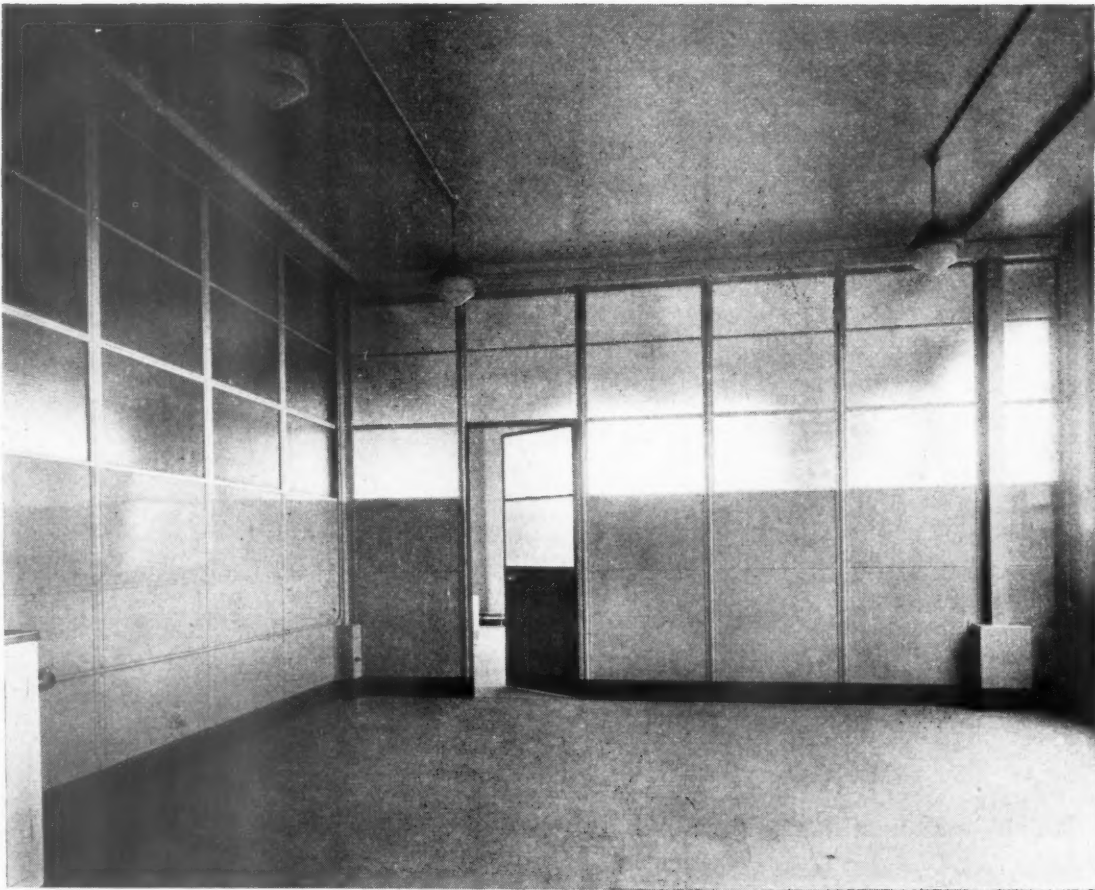
## **WHEATLY & COMPANY LIMITED**

**SPRINGFIELD TILERIES • TRENT VALE • STOKE-ON-TRENT**

Telephone: NEWCASTLE (Staffs) 66231 • Telegrams: WHEATLY, TRENTVALE

WH3B

# Walls of Daylight



Photograph reproduced by courtesy of  
Paints Division of Imperial Chemical Industries Limited

## LITA unit partitions

- Send for our  
illustrated brochure  
"WALLS OF DAYLIGHT"

provide a maximum of daylight and adequate sound insulation.

Though of robust steel and glass construction they are easily erected and just as easily dismantled.

JOHN WILLIAMS & SONS (CARDIFF) LTD  
EAST MOORS ROAD, CARDIFF

## Non-traditional in the traditional style



*The prototype Orlit house designed and built at their factory at Colnbrook, within 18 miles of Charing Cross. A cordial invitation is extended to architects, local authorities, etc., to make a visit of inspection.*

**I**N BUILDING, breaking with tradition need not always be deplored; new methods deserve welcome if they reduce costs and erection time.

The essence of the Orlit principle is to make as much as possible in the factory. This means greater speed of building, the minimum use of scarce materials, such as steel, and the lowering of site-erection time.

Orlit buildings, through the collaboration of architects, are sound in construction and natural in their surroundings.

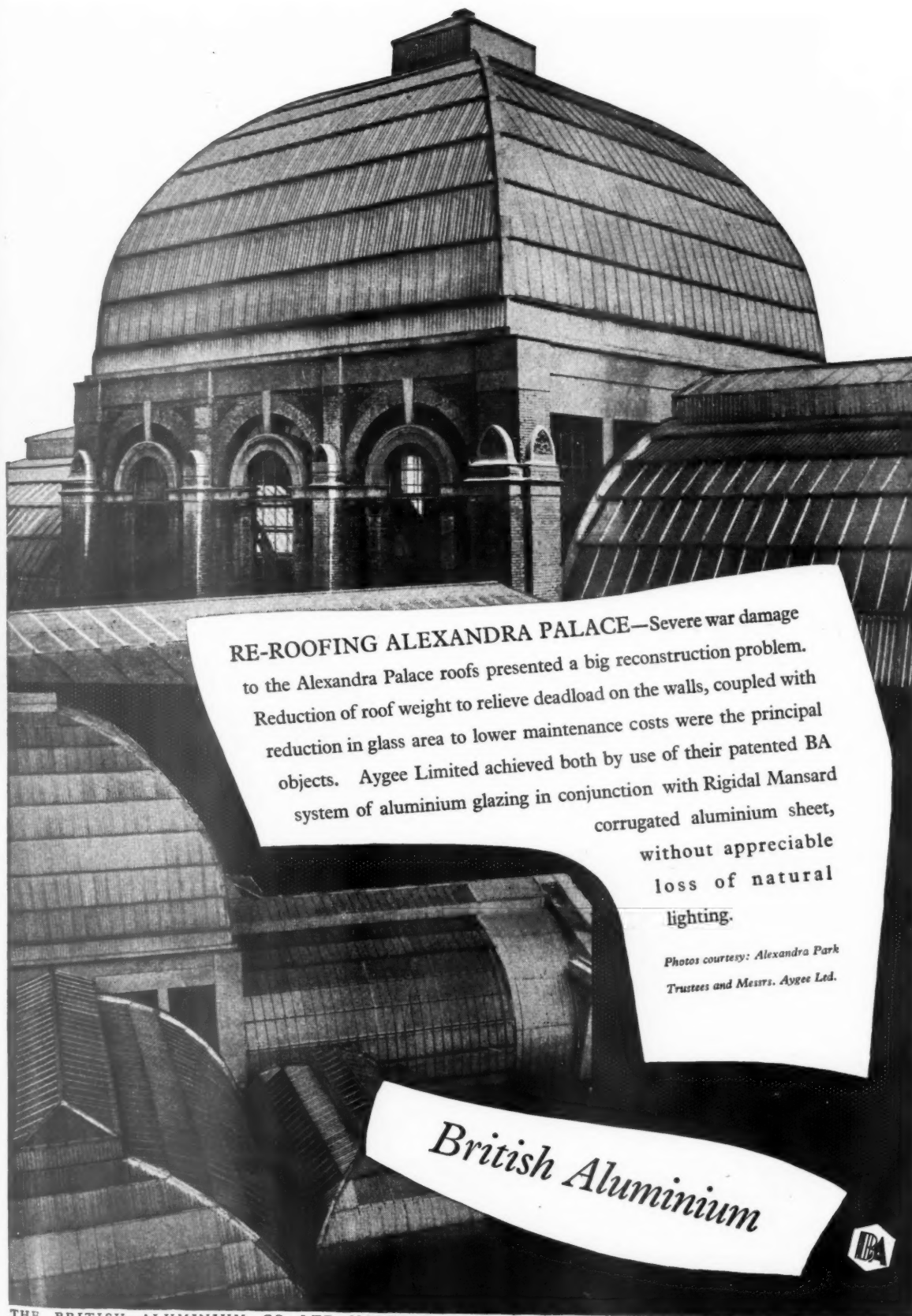
### A NATION WIDE SERVICE

ORLIT LTD, 18 Buckingham Gate,  
London, S.W.1. Tel: Victoria 6701  
ORLIT (Lancashire) LTD, 3 Brown Street,  
Manchester 2. Tel: Blackfriars 0718  
TARSLAG LTD, Economac House,  
Wolverhampton. Tel: 23881  
TARSLAG LTD, Tees Bridge,  
Stockton-on-Tees. Tel: 6355  
ORLIT (N. Ireland) LTD, Benson Street,  
Lisburn, Co. Antrim. Tel: 2051

# ORLIT

## CONSTRUCTION

PRE-CAST CONCRETE  
PRE-STRESSED CONCRETE



**RE-ROOFING ALEXANDRA PALACE**—Severe war damage to the Alexandra Palace roofs presented a big reconstruction problem. Reduction of roof weight to relieve deadload on the walls, coupled with reduction in glass area to lower maintenance costs were the principal objects. Aygee Limited achieved both by use of their patented BA system of aluminium glazing in conjunction with Rigidal Mansard corrugated aluminium sheet, without appreciable loss of natural lighting.

*Photos courtesy: Alexandra Park Trustees and Messrs. Aygee Ltd.*

*British Aluminium*

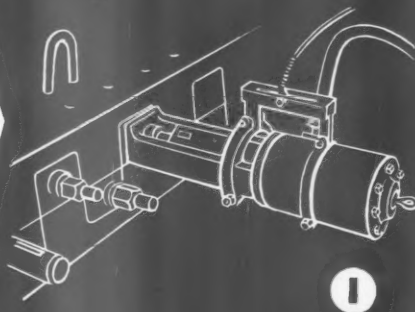


THE BRITISH ALUMINIUM CO LTD NORFOLK HOUSE ST JAMES'S SQUARE LONDON SW1 138-721

# *Constructional* **SAVE STEEL** *McCALLS can show you 3 ways*

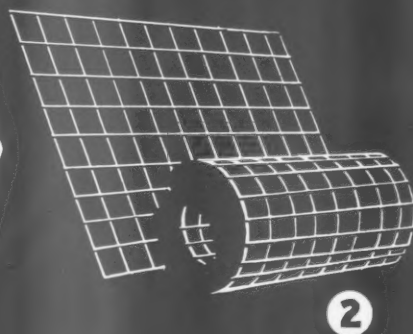
## **PRESTRESSED CONCRETE (LEE-McCALL SYSTEM) WITH MACALLOY BARS**

An economical and effective system of prestressing concrete, using high-tensile alloy steel in bar form. The steel is provided with positive end-anchorage and does not rely upon bond to transmit the stresses to the concrete.



## **'MATOBAR' WELDED FABRIC REINFORCEMENT**

Economical for all types of concrete construction. Hard drawn, high tensile steel wire mesh, electrically welded at every intersection; permissible working stress 27,000 lb. per sq. in. in tension.



## **ISTEG STEEL REINFORCEMENT Manufactured under licence**

Steel bars with a combination of twist and cold working, giving 50% improvement in tensile stress; 30% less weight of steel. Improved bond, hooks and overlenghts eliminated.



*Write for further details to -*

**McCALL & CO. (SHEFFIELD) LTD.**  
TEMPLEBOROUGH, SHEFFIELD and at LONDON

For every lighting need there's a

"just right"

HARCOURT fitting



**EDISWAN**

HARCOURT

*Industrial and Commercial Lighting Equipment*

**THE EDISON SWAN ELECTRIC CO. LTD., 155 CHARING CROSS ROAD, LONDON, W.C.2**

*Member of the A.E.I. Group of Companies*

*and Branches*  
LE147

# The Ring of Truth



The metallic ring of  
clay roofing tiles is a promise  
of long and faithful service.

They are the cheapest in the long run;  
ask the maintenance contractor.

The British climate continues to prove the superiority of—

# *Clay* Roofing Tiles

"The Clay Tile Bulletin", published quarterly, post free on request.  
Issued by The National Federation of Clay Industries, Drayton House, W.C.1



May we please take at least three worries off your mind.

**Quantity?** We can produce from stock or make in a very short time any number of window frames, staircases, kitchen cupboards and other items of standard joinery and deliver them to your site *on time*.

**Quality?** The standard of workmanship is first class. The standard of timber is the best we can get.

And **Price?** You've nothing to worry about there.

Please write to us for full particulars.

## Midland Woodworking

→ Standard Joinery where you want it, when you want it

THE MIDLAND WOODWORKING COMPANY LIMITED · MELTON MOWBRAY  
GRO 13

# *Stelcon*

## INDUSTRIAL FLOORS . . . .



**STEEL CLAD FLAGS**

..... provide permanent, level,  
armoured surfaces able to  
withstand the terrific abrasive  
wear of heavy industrial traffic



**ANCHOR STEEL PLATES**

Units are approx. 12" x 12" and are excellent  
for repair work as well as new work.  
Full details sent on request.



**dustless**



**hygienic**



**wear resistant**

STELCON (INDUSTRIAL FLOORS) LTD . CLIFFORD'S INN . LONDON . E.C.4.  
TELEPHONE: HOLBORN 2916



*From one of a series of originals by Robert Arrowsmith commissioned by the Finch Organization*

**LEADERSHIP** Fitness for leadership demands an unerring instinct for what is needed, and the courage to put it into effect. Finch hold their enviable position in the building industry by constantly applying these qualities, wherever creative thought and decision are called for.



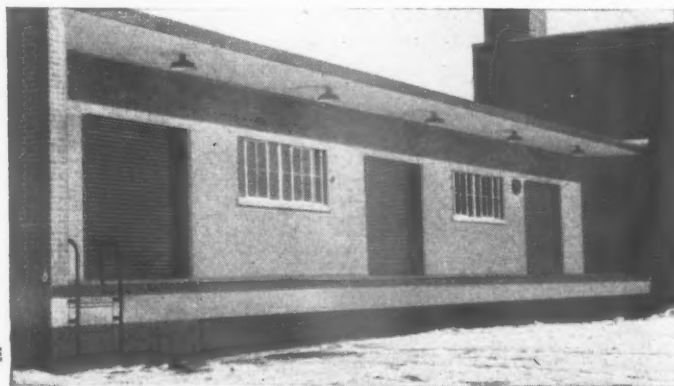
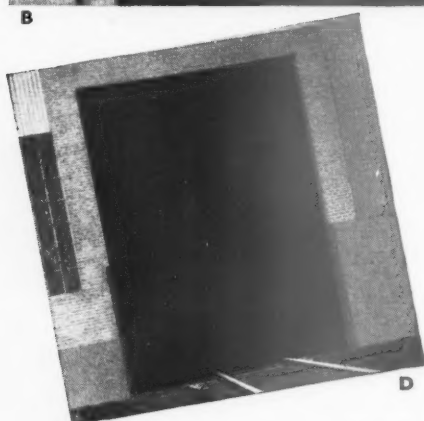
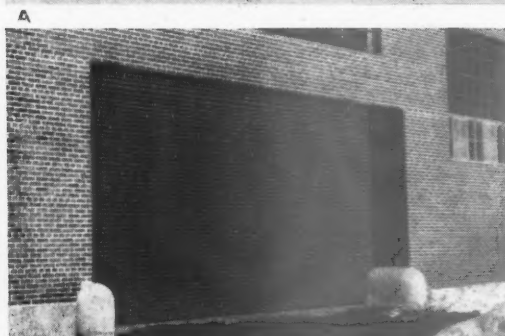
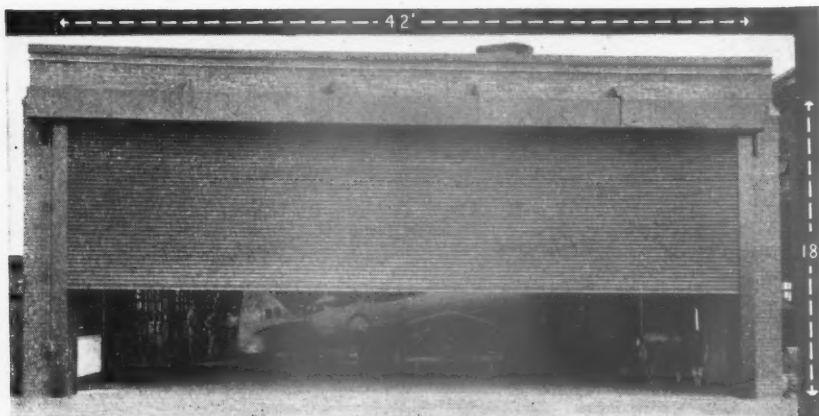
Inventions by Finch:—FINCH-ARCON COWL · FINCH CHIMNEY-THROAT UNIT · "SPRUCE-THROWER" SOIL UNIT · "THROWER" WASTE UNIT · CLOSET RANGE UNIT · "SPRUCE-THROWER" PASSOVER PLUMBING UNIT · "B.T." CONVECTION BOOSTER

B. FINCH & CO. LTD., BELVEDERE WORKS, BARKINGSIDE, ESSEX. Telephone: VAleNTine 8888



LIKE BRITAIN...

# Canada chooses **BRADY**



More and more Canadian firms are specifying "Brady" for their roller shutter requirements, because Brady service is as efficient abroad as it is at home. Whatever the size or type of shutter required, the Brady organisation can handle the job quickly and efficiently in any part of the world.

**A** Giant shutter installed for the Canadian Car & Foundry Company Ltd., Montreal.

**B** Steel gear-operated shutter installed for Firth Brown Tools, (Canada) Ltd., Montreal.

**C** Steel gear-operated shutter installed for Goodyear Tyre & Rubber Company of Canada Ltd., Montreal.

**D** Steel gear-operated shutter installed for Grinnell Co. of Canada Ltd., Montreal.

**E** 3 Steel gear-operated shutters installed for Goodyear Tyre & Rubber Company of Canada Ltd., Montreal.



**G. BRADY & CO. LTD • ANCOATS • MANCHESTER 4 • Phone COLlyhurst 2797/8**

LONDON : New Islington Works, Park Royal, N.W.10

BIRMINGHAM Rectory Park Road, Sheldon 26

CANADA : DAVID C. ORROCK & CO. (G. BRADY & CO. CANADA LTD) 1405 BISHOP ST. MONTREAL 25, QUE.

**MANUFACTURERS OF BRADY HAND & POWER OPERATED LIFTS**

# Architects Cannot Afford to Ignore These Facts

How often do you stop to consider the appalling waste brought about by fires that occur each year in this country which, in a great number of cases, could have been far less disastrous. The average person, perhaps, seldom visualises more than damage to the actual structure. Little consideration is given to the preventable waste of raw materials and finished products, loss of production and consequent unemployment, or to loss of valuable goodwill through interrupted delivery schedules.

The figures given below, far from showing successful defeat of the fire menace, indicate that an inadequate consideration of the properties of materials used in building construction is still common practice, despite the fact that during the recent war 90% of the damage was caused by fire. The Napalm Bomb, now being used in Korea, is a reminder that in time of war, fire is one of the most serious problems confronting all sections of the population.

The Fire Protection Association of 84, Queen Street, E.C.4, commenced operations in January, 1947, with the following objects in view:—

- To advance the science of fire protection.
- To disseminate advice on fire protection and allied subjects.
- To investigate the causes and spread of fire.
- To publish codes of practice relating to fire protection.

To collate and analyse fire statistics.  
To propagate knowledge in connection with fire protection.  
To co-operate with Government Departments and other bodies interested in fire protection.

The tabulated figures given below are taken, with permission, from their quarterly journal published in April of this year and serve to stress the importance of adequate consideration being given by the architectural profession when new buildings are being designed or old buildings altered, to measures for preventing the rapid spread of fire and the avoidance, wherever possible, of the use of those materials which not only do not retard the spread of fire, but actually add considerably to the conflagration.

## The Role of the Architect

It must surely be a primary aim of the architect to consider the best interests of his client and to advise him on the most suitable materials to be used in every stage of his building work, and to use his specialised knowledge so as to avoid loss by fire being greater than it need be.

To do otherwise cannot be in the best interests of the profession. Where can the architect turn for guidance? The answer as far as BUILDING BOARDS are concerned is to be found in British Standards Specification No. 476 which classifies ceiling and wall lining materials according to the rate at which flame spreads over their surface. The general classifications shown are again taken from the Fire Protection Association Journal mentioned above.

## British Standard Classifications

Asbestos Products	.. ..	Class 1
Plaster Board	.. ..	" 1
Plywood	.. ..	" 3-4
Resin-Bonded Boards:		
Resin-Bonded Asbestos Board	.. ..	" 1
Resin-Bonded Wood Waste Board	.. ..	" 2-3
Strawboard	.. ..	" 3
Wood Fibre Board	.. ..	" 3-4
Wood Wool Cement Slab	.. ..	" 1

## Material Selection

Particular requirements (e.g. thermal insulation) may suggest at first the use of a board possessing rapid flame spread characteristics, but the choice should be made with full appreciation of the risk involved so that adequate precautions may be taken to limit the spread of fire should one occur. Plasterboard—so widely used to-day for walls, ceilings and other parts of buildings—is one of the most highly fire-resisting building boards available and it is increasingly used in helping to prevent the rapid spread of fires. It is now available as a Thermal Insulation board. One surface of the board is veneered with bright heat-reflecting aluminium foil.

The effect of the use of Insulating Plasterboard is to obtain considerable thermal insulation and at the same time retain the high fire-resisting qualities of the original Plasterboard—THERMAL INSULATION with FIRE PROTECTION.

Many members of the Profession are already specifying P.P.G. Insulating Gypsum Plaster Board for houses, factories, schools, libraries, churches and other buildings for its resistance to spread of fire and to wood-worm attack, allied to its thermal insulation properties. The G.P.O. is using it in automatic telephone exchanges where the rapid spread of fire would be disastrous to vital communications. Have you considered this problem? Ought you to think about it? Cost? Prices are even below those ruling for less advantageous boards. Please send your professional card or letter head for details, model specification and samples to:—Plaster Products (Greenhithe) Ltd., The Makers of Plasterboard, Greenhithe, Kent, England.

*P.S.—Are the builders working for you using the proper nails for fixing plaster board? There is a special one designed for the job.*

## Fire Wastage, 1951

In 1951, the direct damage caused by fire in the United Kingdom and Eire has been estimated at £23,148,000, the largest recorded annual loss.

	1951	1950	1949	1948	1947
	£	£	£	£	£
January ..	1,555,000	1,839,000	1,720,000	1,073,000	827,000
February ..	1,907,000	1,275,000	1,410,000	1,581,000	1,928,000
March ..	1,737,000	1,508,000	1,494,000	2,091,000	1,274,000
April ..	1,705,000	1,503,000	2,722,000	1,334,000	816,000
May ..	2,536,000	1,176,000	1,606,000	1,831,000	1,000,000
June ..	1,161,000	1,858,000	1,928,000	1,287,000	864,000
July ..	1,912,000	1,214,000	979,000	1,038,000	1,838,000
August ..	1,217,000	1,557,000	1,707,000	1,887,000	2,965,000
September ..	1,761,000	2,097,000	1,338,000	1,277,000	884,000
October ..	3,177,000	1,416,000	1,547,000	1,091,000	3,142,000
November ..	2,467,000	2,812,000	4,286,000	2,062,000	2,363,000
December ..	2,013,000	1,321,000	1,734,000	2,091,000	959,000
	23,148,000	19,576,000	22,471,000	18,643,000	18,860,000

# Cargo Fleet



## service in steel

**CARGO FLEET IRON CO. LTD.,**

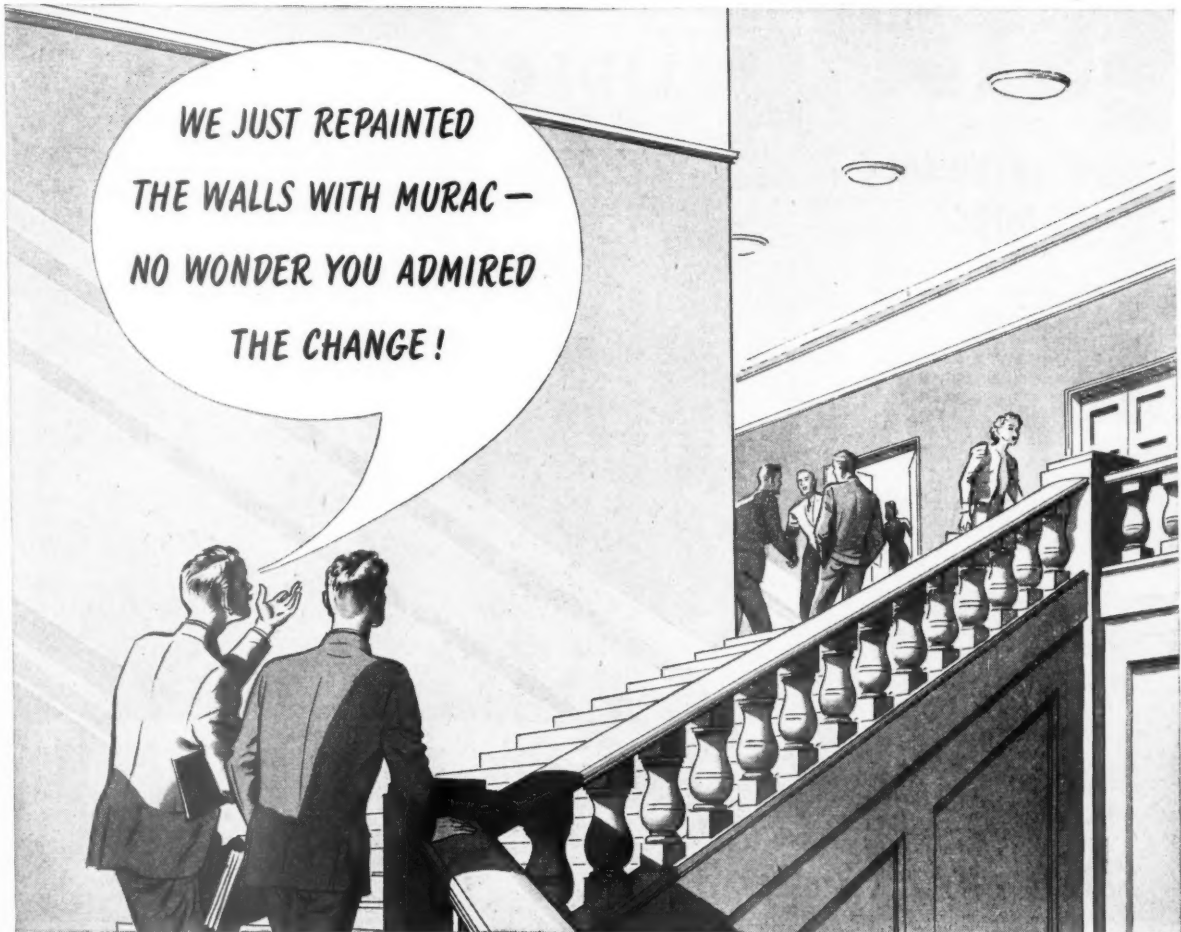
Central Constructional Office: Malleable Works,  
Stockton-on-Tees. Tel: Stockton-on-Tees 66117.



4 fold . . . FOUR SERVICES IN ONE

. . . manufacture, design, fabrication and erection.

At Cargo Fleet every phase of structural steelwork is effected within the resources of our own organisation. Four specialist departments contribute to the contract as a whole, but over all, there is top-level supervision which plans progress and ensures work goes smoothly. In this way handling costs are kept to a minimum, design is economical and steel gets to the site on time. If you consider "4 fold service" offers advantages, then contact Cargo Fleet for your next requirements in structural steel.



**I**N hotels, flats, private homes and offices; in hospitals, schools, public and factory buildings, MURAC gives a finish to walls that is quickly and economically applied, beautiful to see, easy to clean and *long lasting*!

#### MURAC SUPERSEDES DISTEMPER & WATER PAINT

Here's a matt oil paint as easy to put on as distemper, using a 6" flat wall brush. What a saving in labour costs alone! MURAC dries with a beautiful dull sheen, and its surface is so hard that not only can it be rubbed and scrubbed again and again, but it is also hygienic and impenetrable to dirt. MURAC is long-lasting, won't powder or flake, and comes in eighteen basic colours, easily blended to any shade you could want. It is made in the Brolac works by John Hall & Sons Ltd., who will gladly send you a **free colour scheme booklet** if you will write to them at the address below.

**YOU CAN  
WASH IT, RUB IT, SCRUB IT!**



# MURAC

## MATT OIL FINISH FOR WALLS

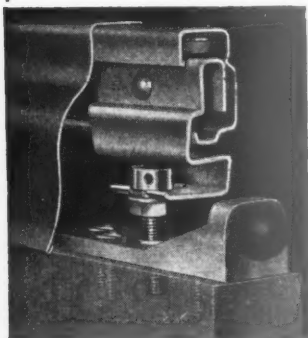
JOHN HALL & SONS (BRISTOL & LONDON) LIMITED, HENGROVE, BRISTOL, 4



# ESTATE SLIDING DOOR GEAR

## FOR INTERNAL DOORS

ESTATE is the finest door gear for domestic and light industrial use. Many housing estates throughout the country, and abroad, are using ESTATE Sliding Door Gear. The illustration on right shows an interior at the Kyles Estate, Garston, Herts. All communicating doors are fitted with ESTATE Sliding Door Gear. Ease of operation, trouble-free life, and pleasing appearance are the qualities which appeal to progressive planners.



An exclusive "snap-on" pelmet conceals all fittings and will harmonize with picture rail or panelled effect. ESTATE gear is approved by the L.C.C. and is stocked by hardware firms throughout the British Isles and in many countries overseas.

## RADIAL

## SLIDING DOOR GEAR

## FOR THE DOMESTIC GARAGE



For easy access and efficient action, garage doors should be fitted with RADIAL Sliding Door Gear. The illustration on left shows a typical domestic garage with sliding doors running on RADIAL Door Gear. Excellence of design, incorporating grease packed ball bearings with no maintenance worries, make this door gear an inevitable choice wherever garage sliding doors are indicated. Doors are allowed to pass around one or both of the side walls. RADIAL Sliding Door Gear is also eminently suitable for use in most light industrial buildings.

ESTATE and RADIAL Sliding Door Gears have recently been supplied to the following: London County Council Flats and Housing Schemes; Peterborough, Sedgefield R.D.C., Rushden U.D.C., Easington R.D.C., Eston U.D.C., Mexborough U.D.C., Corporation Housing Schemes; Canterbury, Sawbridgeworth, Castletown, I.O.M., Housing Estates, Garston-Watford, Kyles Settlement Estate.

WRITE FOR FULL DETAILS:

**CLARKE ELLARD ENGINEERING CO. LTD.**

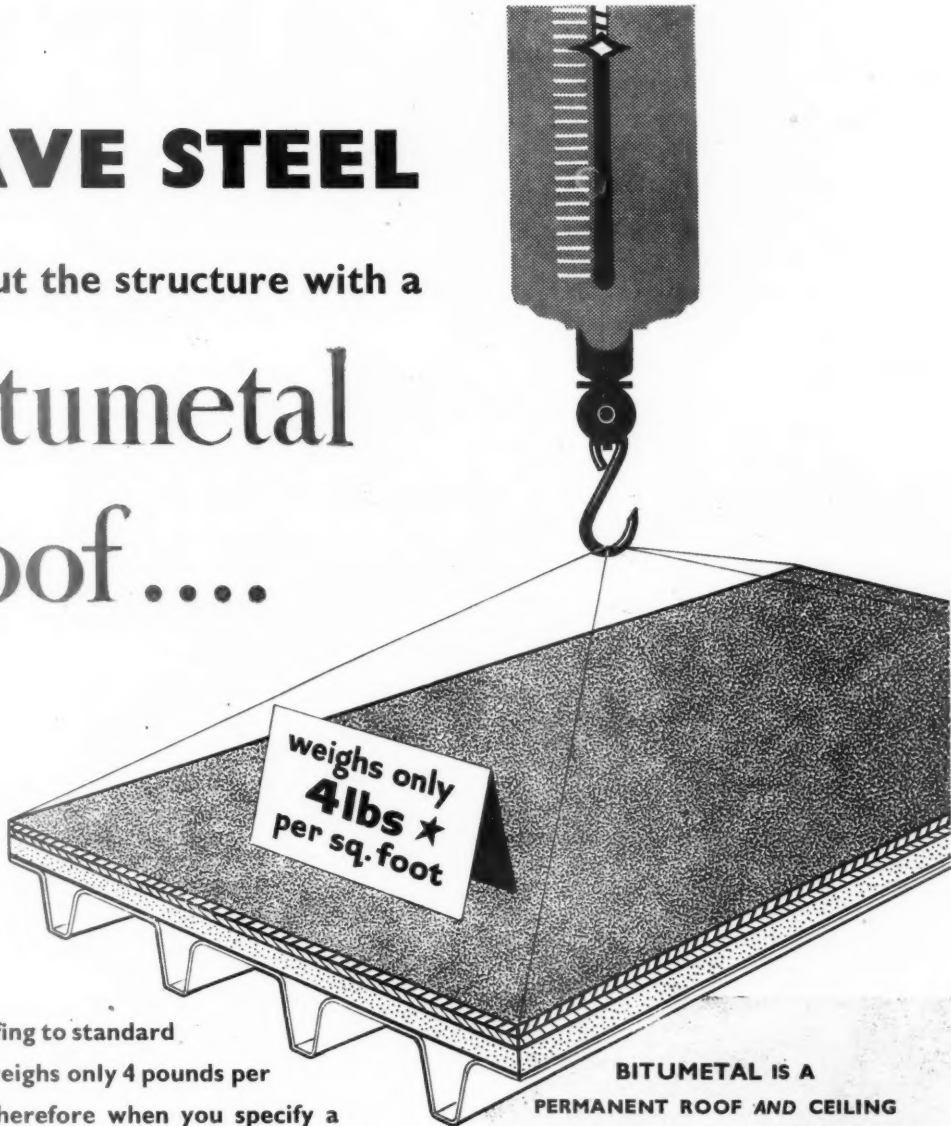
**Works Road,  
Letchworth  
Herts. Tel. 979**

SEE OUR EXHIBITS AT THE BUILDING CENTRE, 26 STORE STREET, LONDON, W.C.1  
and THE SCOTTISH BUILDING CENTRE, 425-427 SAUCHIEHALL STREET, GLASGOW, C.2

# SAVE STEEL

throughout the structure with a

## Bitumetal Roof....



Bitumetal roofing to standard specification weighs only 4 pounds per square foot, therefore when you specify a Bitumetal roof you materially reduce the amount of steel required to support the roof.

The country is desperately short of steel, and as the armament drive gets into full swing, many building structures may be held in abeyance because of their high steel specification. Remember this, and specify Briggs BITUMETAL Roofing wherever you can.

### William Briggs & Sons Ltd

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

#### BITUMETAL IS A

**PERMANENT ROOF AND CEILING** built up from aluminium decking, insulation board, and bitumen roofing. It is adaptable for flat, pitched, curved, or vertical construction. It requires no maintenance. It cannot deteriorate.

★ The heaviest Standard Specification weighs up to 8 lbs. per sq. ft.

Full technical data will gladly be supplied on request to any of the undernoted offices.

ABERDEEN  
Bedford Road

EDINBURGH  
Murrayfield Station

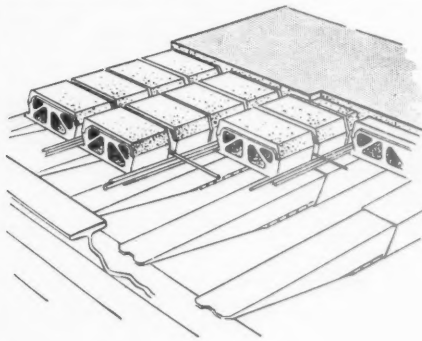
BRISTOL 3  
Stillhouse Lane, Bedminster

LIVERPOOL  
Kirkby Trading Estate

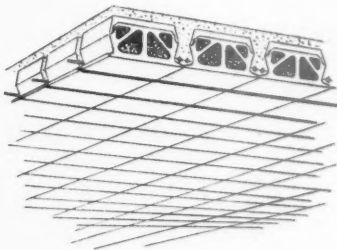
LEICESTER  
Belgrave Road Station

GLASGOW C.3  
200 Old Dumbarton Road

NORWICH  
Trowse Millgate



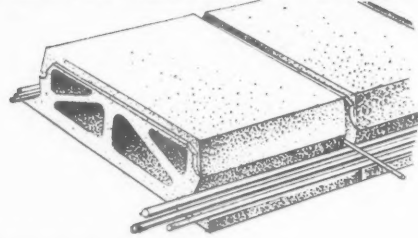
Showing Two-way Reinforcement and Hollow Concrete Blocks laid on Trianco Telescopic Centers.



Showing uniform concrete soffit. Obtained without use of slip tiles.



# SMITH'S

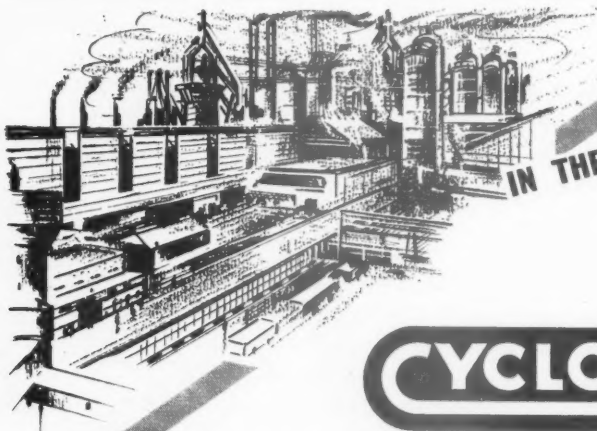


## 2 WAY REINFORCED FIREPROOF FLOORS

The Two-way Reinforced floor for distribution of joint loads with efficiency and economy employing the original system of steel Telescopic Centers.

SMITH'S FIREPROOF FLOORS LTD.  
IMBER COURT, EAST MOLESEY, SURREY

Emberbrook 3300 (4 lines)



IN THE ABBEY STEEL WORKS

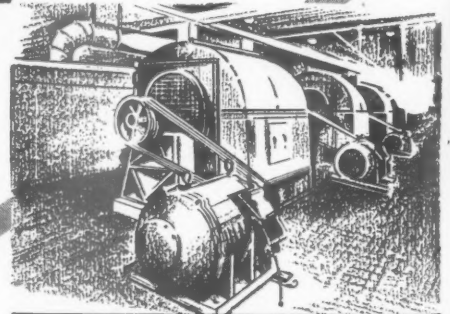
### CYCLONE

FANS AND ALLIED EQUIPMENT

ensures complete  
**MOTOR COOLING  
AIR CONDITIONING  
VENTILATION  
FUME REMOVAL**



Fans and Plants of various sizes are moving one and a half million cubic feet of air every minute.



**MATTHEWS AND YATES LTD**  
SWINTON (MANCHESTER) AND LONDON  
Telephone Swinton 2273 (4 lines) London CHAncery 7823 (3 lines)  
Also at GLASGOW · LEEDS · BIRMINGHAM · CARDIFF

# At Plantation House London



The famous rendezvous in Mincing Lane has been completely refitted by Gaskell & Chambers and contains many features of outstanding interest. The unique decorative effects achieved in the Snack Bar and Licensed Bar are matched by an efficient layout scientifically designed to ensure rapid service and maximum customer-comfort. The Lucullus Cocktail Bar and Mahogany Cigarette Kiosk are further examples of Gaskell & Chambers craftsmanship in every branch of hotel equipment.



- 1 Snack Bar with built-in refrigeration
- 2 Main Bar fully equipped by Gaskell & Chambers
- 3 Cigarette Kiosk in Sapeli Mahogany
- 4 Lucullus Cocktail Bar with upholstered front

## BARS BY



**BRITAIN'S  
BIGGEST  
BAR  
FITTERS**

Member of the Allied Brewery Traders' Association

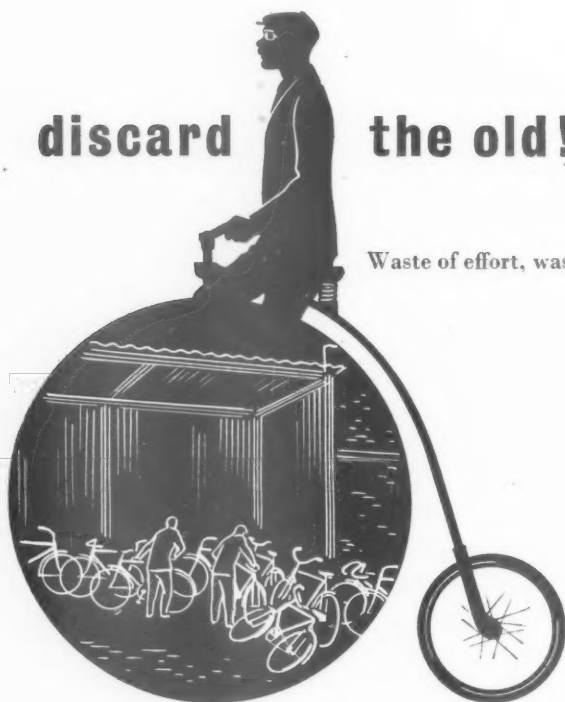


● Head Office: Dalex Works, Coleshill Street, Birmingham, 4.

● London Office: 109-115, Blackfriars Road, S.E.1.

Branches: Bristol, Cardiff, Hanley, Leeds, Liverpool, Manchester, Newcastle-on-Tyne, Nottingham, Portsmouth, Preston, Sheffield, Glasgow, Edinburgh.

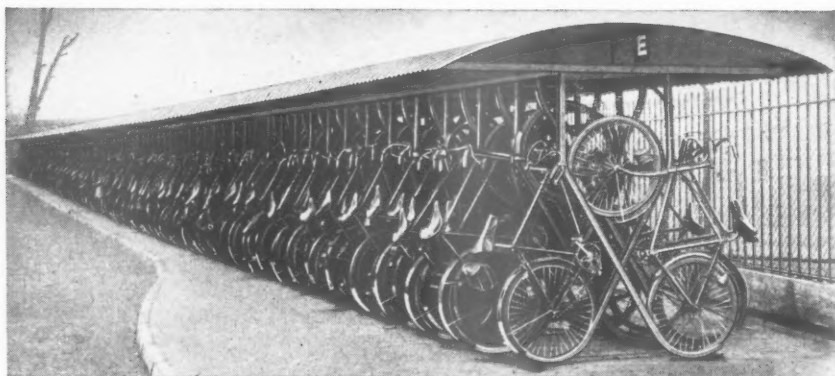
**discard the old!**



Waste of effort, waste of space. Loss of time and temper.

**install the new...**

*In a Constructors Cycle  
Park, the largest number of  
cycles parked in the  
smallest possible space.  
Protected and instantly  
accessible to their owners.*



**CONSTRUCTORS**

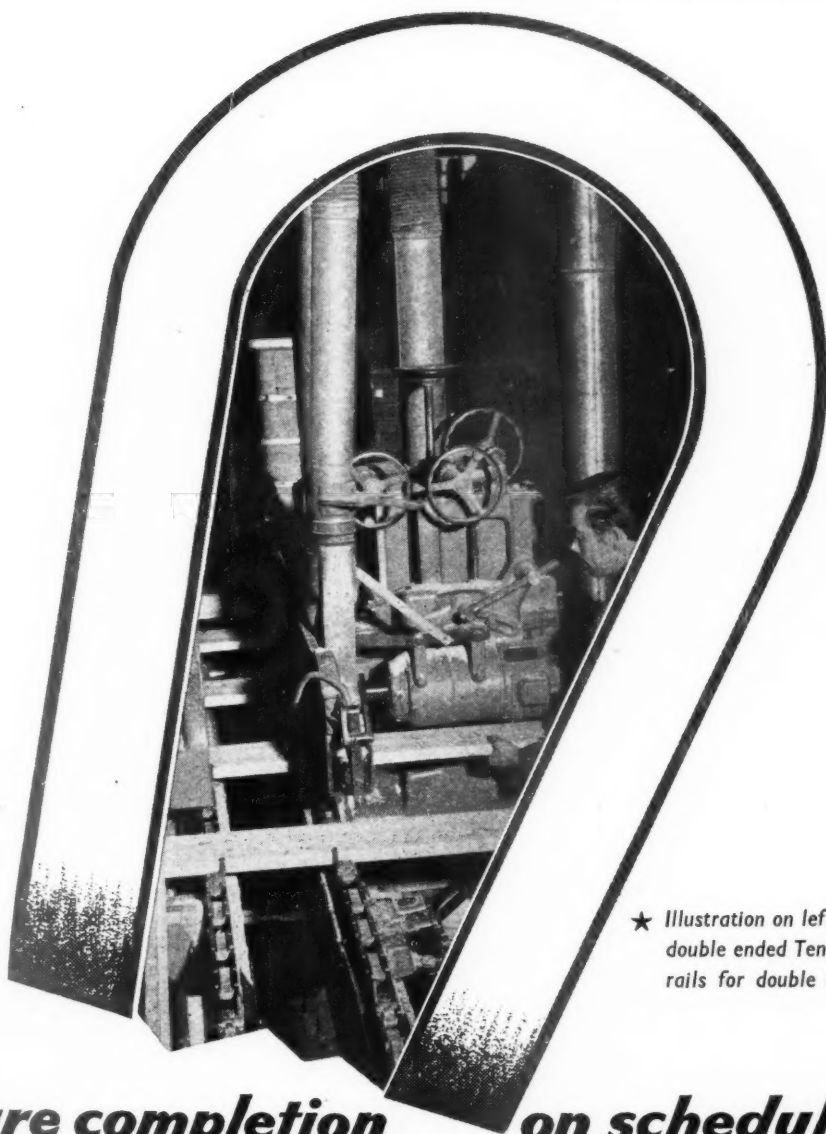
Regd. Trade Mark

**CYCLE PARKS**

We have many designs for outdoor and indoor parking. We can work out the solution to your problem if you do not see what you want in our leaflet AJ/SP/201. Please send for it.

ISSUED BY CONSTRUCTORS GROUP, TYBURN ROAD, BIRMINGHAM 24. Telephone: ERDINGTON 1616

London Office: 98 Park Lane, W.1. Tel. GROsvenor 5656 MAYfair 3074. Also at Manchester and Leeds.



★ Illustration on left shows a double ended Tenoner preparing rails for double doors.

## *To ensure completion on schedule . . .* **USE MAGNET SERVICE**

There are sound reasons why important Housing Schemes all over Britain employ Magnet Service for Standard Joinery, Doors, Windows, Cupboards, etc. Magnet Service saves valuable time, cuts out delays, reduces costs, and helps to ensure completion on schedule.

The Magnet countrywide organisation holds ample supplies of kilned and air conditioned timber. Stocks are sufficient for instant delivery, to cope with any emergency. Our highly skilled staff, working in three up-to-date factories, are waiting to meet *your* demands.

Write for free literature to . . .

WHITLEY STREET, BINGLEY, YORKS Phone: Bingley 3547 (5 lines)

LOVE LANE, ASTON, BIRMINGHAM Phone: Aston Cross 3291

LONDON ROAD, GRAYS, ESSEX Phone: Tilbury 77 (5 lines)

**MAGNET**  
JOINERY LIMITED



## TAILORED FOR THE JOB

Gulf Radiators ensure a 'well-tailored' heating installation. Of pressed steel construction, they warm up or cool rapidly—an important feature with thermostatic control. Column or panel type radiators are supplied in any length, shape or size. Therefore every unit can be planned to suit the conditions *exactly*. Gulf Radiators harmonise with every type of decor, and are suitable for home, office or factory. Please write for full information.

### ANY POSITION

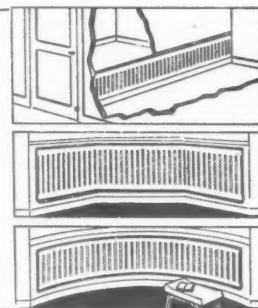
The panel radiator can be fitted to a wall, or can take the place of a partition wall.

### ANY SHAPE

Radiators can be made to fit any curve or angle.

### ANY SIZE

No limit to length. Column or panel types supplied in several heights: column type with two, three or five columns; panel type with single, double, treble or quadruple panels.



FOR ATTRACTIVE RADIATORS...



consult **GULF**

**GULF RADIATORS LTD • PENARTH ROAD • CARDIFF • Tel.: 20591-2**

London Office and Showroom: 229 REGENT STREET, LONDON, W.1  
Telephone: REGENT 1051

An Associate Company supplies: Oil-filled Radiators for Electric (off-peak), Gas and Paraffin operation; Domestic Boilers; Electric Unit Heaters; Electric Bed Sheets; Gas and Electric Towel Rails; Room Thermometers and Temperature Controls; Insulation Materials; and other fuel-saving equipment.



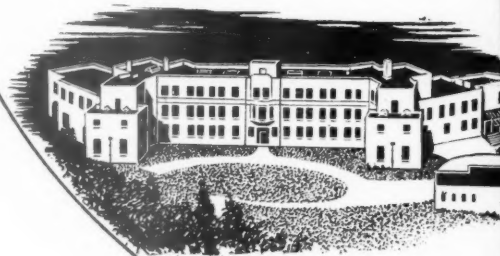
St. Mary's Church, Erdington, Birmingham. Wood and Kendrick and Edwin F. Reynolds, F.R.I.B.A.



Prudential Buildings Birmingham. The Estate Department, Prudential Assurance Co., Ltd.



Odeon Theatre, York. Harry W. Weedon, F.R.I.B.A. and Partners.



Convalescent Home, Kewstoke, Weston-super-Mare. W. H. Martin, L.R.I.B.A.

**A good  
name for  
building  
and Civil  
Engineering**

**Bryants  
Birmingham**

**IT'S A GOOD JOB IT'S BRYANTS**

**C. BRYANT & SON LTD.  
WHITMORE ROAD,  
BIRMINGHAM, 10.**

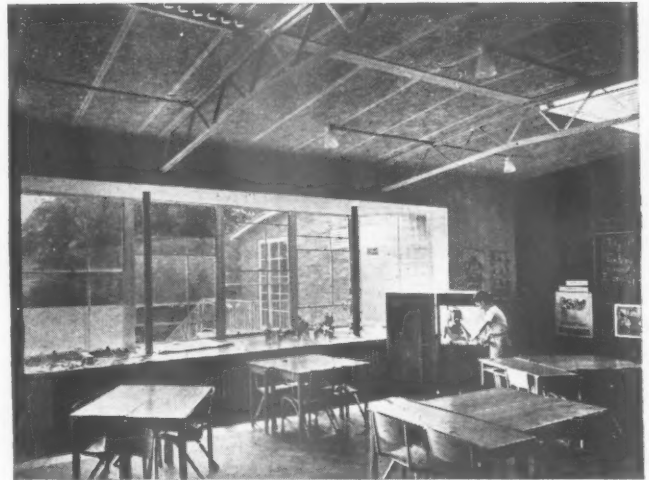
LONDON OFFICE:  
66 VICTORIA STREET, S.W.1

L.G.B.

# Thermacoust CHANNEL REINFORCED WOOD WOOL ROOFING SLABS

Were used in the new Cavendish Primary School, Middlesex, and in 12 schools in the same programme

THERMACOUST Roofing Slabs are being extensively used by leading Local Authorities and Architects, and in many notable school and civic schemes. They have outstanding advantages for roofing schools, factories, housing, shops, etc. THERMACOUST Slabs are large, lightweight, easily handled units, with high heat-insulating properties; are fire-resistant and can be cut with wood-working tools. Standard slabs, 6ft. long; 6ft. 8in. and 7ft. slabs made to order.



Cavendish Primary School, Chiswick.  
County Architect: C. G. Stillman, F.R.I.B.A.

- ★ For FLAT or PITCHED Roofs
- ★ NO purlins needed at less than 7ft. centres
- ★ NO other insulating material has greater structural strength
- ★ NO ceiling essential; high sound absorption is left bare

For information Sheets and prices apply to: THERMACOUST LIMITED, 39 VICTORIA STREET, LONDON, S.W.1. (ABBey 2738) T.14



**Permanite** FLEXIBLE FLAT ROOFING  
(Coloured Mineral Surface Finish)

CAVENDISH PRIMARY SCHOOL, CHISWICK, W.4

ARCHITECT:  
C. G. STILLMAN, F.R.I.B.A.  
LONDON, N.6

BUILDERS:  
PRESTIGE & CO., LTD.  
LONDON, S.W.1

**PERMANITE LTD.**

LONDON, E.3      BIRMINGHAM, 22 C      MANCHESTER, 1  
455, OLD FORD ROAD      220-222 KINGSTANDING ROAD      PICCADILLY HOUSE, 11, PICCADILLY  
Phone: ADVance 4477 (10 lines)      Phone: 31Rchfields 5041-2      Phone: BLAckfriars 9469

# PRESTIGE & CO. LTD.

(*Builders*)

CAMBRIDGE WHARF  
GROSVENOR ROAD  
WESTMINSTER, S.W.1

## SCHOOLS AND COLLEGES

Recently completed—or at present under construction

Junior Mixed and Infants' School	Edensor Road, Chiswick (Illustrated in this Issue)	<p>For Middlesex County Council</p> <p>County Architect: C. G. Stillman, Esq., F.R.I.B.A.</p>
Do. .. ..	Anson Road, Willesden	
Do. .. ..	Broad Lane, Twickenham	
Do. .. ..	Berryscroft Road, Staines	
Lascelles Secondary Modern School	Porlock Avenue, Harrow	
Junior Mixed School ..	Robin Hood Drive, Harrow Weald	
Primary School .. ..	Gifford Site, Northolt	
Ealing Technical College and School of Art	Warwick Road, Ealing	
Extensions to Enfield Technical College	Ponders End, Enfield	
Secondary Modern School ..	Victoria Road, Ruislip	
Do. .. ..	Claremont Avenue, Kenton	<p>Architect: Dr. Charles Holden, D.Litt., F.R.I.B.A., M.T.P.I.</p> <p>Southend-on-Sea County Architect: P. F. Burridge, Esq., F.R.I.B.A.</p>
Primary School .. ..	Bullsmoor Lane, Enfield	
Birkbeck College .. ..	Malet Street, Bloomsbury, University of London	
Westcliff High School for Boys	Eaton Road, Belfairs, Leigh-on-Sea	

# GLASCRETE

*Reinforced Concrete and Glass*

## Canopy in Commercial Road PORTSMOUTH

Ellis E. Somake Esq., F.R.I.B.A.  
Staff Architect of Messrs. Upsons Ltd.  
(The Dolcis Shoe Company).

Architects desiring further information on the  
uses and potentialities of GLASCRETE  
should write for our interesting Brochure P.39.



New Assembly Plant Buckley Motors Ltd. (Rootes Group) Vehicles Dublin

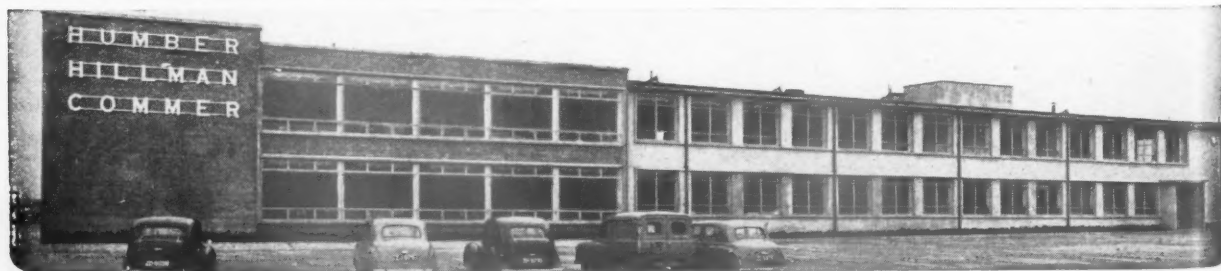
## Building in Ireland

### structural steelwork

### steel windows

## Smith & Pearson

Smith & Pearson Ltd., Newcomen Works, Dublin



# VIGERS WOOD FLOORS

## Reasons three for our flooring guarantee

1

**WE USE—Best quality timbers**

of consistent high standard, obtained by direct selective buying from the saw-mills of the world.

2

**WE HAVE—Modern plant and machinery**

specially designed and built for the exclusive manufacture of Hardwood Flooring, ensuring precision machining with a cutting accuracy within three thou. of an inch. Each unit produces on average one yard of flooring per minute, finished, each working day.

3

**WE EMPLOY—Skilled craftsmen**

numbers of whom have been with us for many years. They combine knowledge and experience with enthusiasm, to make the vital difference between a good and a first-class job.

The timbers, the machines and the craftsmen, backed by efficient supervision and administration, gives the answer to our guarantee and why we have stood by it IMPLICITLY throughout seventy-five years.

*Make use of our guarantee—Specify FLOORING BY V.B.*

**VIGERS BROS. LIMITED**

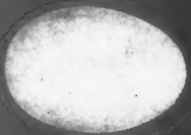
**SPECIALISTS IN WOOD FLOORING**

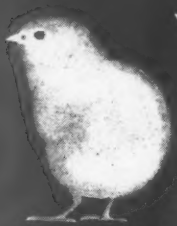
Broadway Chambers, Ludgate Broadway, London, E.C.4. and at 87 King Street, Belfast.


Telephones: City 2111 (6 lines), Belfast 28265.

Contractors for:—Cork tile floors. "ACCOTILE" floors (product of Armstrong Cork Co., Ltd.)

# VIGERS WOOD FLOORS

When a job needs  exactitude

 with lightness

 and **strength**

PUT ALUMINIUM FIRST  
AND T.I. IN FRONT OF IT

T. I. ALUMINIUM LTD. REDFERN ROAD, TYSELEY, BIRMINGHAM. TEL: ACOCKS GREEN 3333



THE

No. 3

*Handwritten signature*

BUT  
M  
ar  
la  
tr  
w  
ar  
P  
s  
h  
a



THE ARCHITECTS' JOURNAL

No. 3003 'September 18, 1952 VOL 116

EDITORIAL BOARD: (1) *Consulting Editor*, F. R. Yerbury, O.B.E., Hon. A.R.I.B.A. (2) *Town Planning Editor*, Dr. Thomas Sharp, L.R.I.B.A., P.P.T.P.I. (3) *House Editor*, J. M. Richards, A.R.I.B.A. (4) *Technical Editor*, R. Fitzmaurice, B.Sc., M.I.C.E., Hon. A.R.I.B.A. (5) *Editor Information Sheets*, Cotterell Butler, A.R.I.B.A. (6) *Editorial Director*, H. de C. Hastings.

GUEST EDITORS: (7) Robert Gardner-Medwin, F.R.I.B.A., M.T.P.I.; Donald Gibson, C.B.E., M.A., A.R.I.B.A., M.T.P.I.; S. A. W. Johnson-Marshall, A.R.I.B.A.; Robert H. Matthew, C.B.E., A.R.I.B.A.

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

ASSISTANT EDITORS: (19) *Chief Assistant Editor*, D. A. C. A. Boyne, (20) *Assistant Editor*, K. J. Robinson, (21) *Assistant Editor* (Buildings), L. F. R. Jones, (22) *Assistant Editor* (Information Sheets), H. N. Hoskings, A.R.I.B.A., (23) *Assistant Technical Editor*, M. Jay, (24) *Photographic Department*, E. R. H. Read, H. de Burgh Galwey, (25) *Editorial Secretary*, Rachael Tower

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

9, 11 & 13, Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies, 2s.; post free, 2s. 3d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for 25s. 0d.; carriage, 1s. extra.



## BUILD OR BUY AGAIN

Now that licences to build for oneself are more generally available quite a large number of eager couples are trying to answer the old question of whether to build or to buy; and any architect who shows signs of being unprejudiced—don't ask me what those signs are, but it's nothing to do with having candid blue eyes—is sure to be asked for advice.

\*

Assuming that one really is unprejudiced, this old-time problem has lost none of its fascination. Both ways you have delay: either in looking for a house which doesn't make you feel ill to look at; or in finding a site, paying development charge and waiting while architect and builder run through

the whole range of possible delays—which is pretty certain to make you feel ill also. On the whole, buying a house is likely to take a year less than building one.

\*

As regards unit cost there does not seem much to choose between new and old. By the time you've moved in and paid off the lawyers both homes, in ASTRAGAL'S experience, cost around £2 per foot super. The big difference is in space. In a new house you can't get much more than 1,600 feet and frequently have to put up with 1,100 or 1,200, whereas it's quite difficult to buy anything much less than 2,000, and, of course, if you can afford a bigger house the price per foot begins to fall rapidly.

\*

The central problem, therefore, is whether the wife knows (or thinks) she will be happier with mod. con. compactness or more space and less mod. con. This is a personal problem. In the case of the average woman, who, of course, wants mod. con. and space, it's much better to be her husband than her architect.

## FLYING VISITORS

"It's like..." he said, dreamily looking out through the barred windows of the T. P. Bennett block of flats where he sat, "... camping in the Canadian forest. Inside, it's warm, sheltered and dark. Outside are the floodlit pines and the glowing eyes of the animals in the woods." The speaker was Philip Johnson—"Glasshouse" Johnson—over here for a few days *en route* to somewhere else, describing his famous vitrified home to a fellow-guest who would clearly, for all her open-mouthed interest, be rather seen dead

than in a Canadian camp. "Sounds fascinating," she said, mechanically, drawing her little fringed "Stolemate" about her shoulders. "... I should simply adore it. ..." Her eyes wandered off imploringly in search of reassurance from the Victorian bric-à-brac and trailing plants of the flat's modish interior. But Johnson—surely the gayest and liveliest ever of all architects and most welcome of visitors—remember his fascinating talk on F. Lloyd Wright at the RIBA—had already been seized upon by others anxious to make sure he did not waste a second of the few hours he had left in England. Sure enough next day he could be seen lunching with architects at the Reform and *en route* for the Festival Hall. ... The party noise continued its familiar roar ... "and for the first time I actually met *Madame le Corbusier* ... over a million pounds worth of work on the board, old boy ... will insist on still wearing a duffle coat. ... Yes, but have you ever seen Corb's little windowless matchbox on Cap Martin? The w.c. cistern is actually cantilevered out over the sidewalk. ... Spoiled the module, I suppose ... not *more* cobblestones, surely ... have you seen G.B.'s Hong Kong scheme? ..."

## STOP!

As they say in "In Town Tonight." Once more we stop the busy roar of parties to bring you news of interesting people who are in Town tonight—in other words, as well as Philip Johnson—Mr. Gordon Brown—over here for six weeks to get shot of the sketch designs for a group of buildings comprising a city hall, a 2,500-seater auditorium, library, museum and art gallery. Already he is on his way

**R**USTY WINDOWS  
cause extensive glass  
breakage from expansion,  
are dangerous, and make  
unsightly stains on sills.  
Constant scraping and  
repainting is expensive  
and no cure.

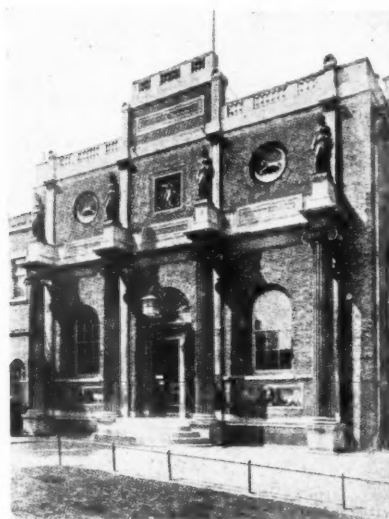
*Specify*  
**HOPE'S**  
**HOT-DIP GALVANIZED**  
**WINDOWS**  
*and*  
*Avoid Corrosion*

back to Hong Kong (via Borneo, where he has more planning work on hand) to resume his duties as Professor of Architecture at the University and to present his sketch plans for the city hall to the city council. And it is an ambitious project, this city hall at Hong Kong, made possible by the land reclamation scheme just starting and for which the indefatigable Gordon Brown is planning consultant. This, when completed, will give Hong Kong a new strip of building land along its waterfront. There's been a bit of a local controversy about who should design it and whether there ought to be a competition (which was, I believe, Gordon Brown's recommendation in the first place). But the Governor wouldn't have it and eventually it was decided that the job should be done jointly by Gordon Brown and the local public works department. This seems an excellent solution. Far too often the local official architects who perform, without complaining, all the tiresome tasks, get left out when the glamorous jobs come along.

Hong Kong PWD have, I know, already done some first-rate work—in fact some of the best in the Colony. It will be interesting to see what comes of this new partnership between private and public architects. Incidentally, all the right experts are in on it too (it was in order to have them handy that Gordon Brown made his sketch plans in London): Hope Bagenal on acoustics; Samuely on structure; Oscar Faber on air-conditioning—to say nothing of the unofficial and no doubt highly conflicting advice given to G.B. by those of his colleagues who caught a glimpse of the scheme on the drawing-board. As one of them I can say that the scheme at its early stage looks very promising: a bold group of three separate buildings of varying heights planned round a garden court of which the fourth side is open to Hong Kong harbour.

One of G.B.'s hardest tasks when he gets back will be to decide which to present of the several coloured perspectives he has had done by vastly different but equally skilled hands. It was most interesting to see what subtle and unsuspected transformations are wrought by these professional perspectivists

*Pitzhanger Manor (1800-2) at Ealing, designed by Sir John Soane for himself. This is one of his lesser known buildings. The illustration appears in a book reviewed by ASTRAGAL on this page.*



who are by no means merely those skilled but neutral interpreters of another man's vision that they are sometimes believed to be. The whole business is of course full of dangers, because a perspective artist who flatters your building—as he is paid to do—and who thus bewitches the client is quite as often bewitching you as well and fooling you into thinking that the building is better than it really is. Sometimes I wonder whether it wouldn't be a good disciplinary stage in the design of all buildings to have a set of drawings specially done by a particularly insensitive draughtsman—just to make sure. Or have you already got one such draughtsman in the office? If so, let it pass. You know what it feels like without being told.

#### PRECIOUS PERRET

A very odd book—of which only 1,100 copies exist—is a little volume from the hand of Auguste Perret himself. It would be difficult to imagine anything—at least on a small scale—more precious. Those who would give the prize for preciousity to one or other of the English private presses, just don't know their France. Here are a couple of dozen aphorisms by the great man, each on a page by itself and each in Trajan lettering. *L'Ossature est a l'édifice ce que le squelette est a l'animal* is, no doubt, an immortal statement, but really!

#### LEAVING A SOANE HALF-TURNED

ASTRAGAL has only just got around to reading John Summerson's little

book on "Sir John Soane" (Art & Technics, 10s. 6d.) and what an admirable model it is for a book of this kind. Summerson has, it is true, something of the dryness of the historian—emotion, at any rate, is something quite foreign to him—but his lucidity is warmed now and then by a human touch that touches the reader's heart as well as his mind.

ASTRAGAL has only one criticism . . . one that he wished to make when Summerson read his paper on Soane to the RIBA two years ago. A great architect is a point in time; he has a future as well as a past; he influences as well as being influenced. But Summerson—and it was the same, I remember, with the erudite professors who joined in the discussion at the RIBA—seems interested only in the past. There is, of course, a fascination in knowing which obscure Italian villa did or did not influence the Bank of England; but infinitely more important, surely, is to know which buildings of the last ten or twenty years were influenced by Soane. And Soane, of course, more than anyone of his time, has been a remarkable influence—just how remarkable we will leave to Summerson to suggest in the more substantial book on Soane which he will surely give us one day.

#### CENTENARY SPECIAL

Railway enthusiasts among my readers may like to know about the plans made by Mr. A. F. Pegler, of Retford, Notts., and Messrs. H. T. S.



## Warsaw : Old and New

In his talk on the reconstruction of Warsaw on the BBC Third Programme yesterday, Graeme Shankland described how "within [the central area] and woven into its new pattern of highways, streets and buildings, is reconstructed mediæval, 17th and 18th century Warsaw." The photograph above, taken by Mr. Shankland during his recent visit to Poland (see JOURNAL for September 4, p. 281), shows how well old and new are blended in rebuilt Warsaw. Taken

from the Marienstadt Square, near the centre of the city, the photograph shows part of the Marienstadt housing district. Between two new unpretentious three-storey blocks of flats can be seen the broad pedestrian way leading up to the reconstructed St. Anne's Church—a mediæval building with baroque additions, one of many restored or rebuilt since 1945. (Mr. Shankland's talk is to be repeated on Sept. 19 on the Third Programme, at 11.20 p.m.)

Bailey  
to ce  
Cross  
ASTR  
as on  
ninet  
cann  
(Th  
an ex  
Cross  
them  
statio

Lew  
Octo  
the o  
ing F  
Wern  
great  
and  
cent  
ber  
train  
from  
and  
by tr  
buil  
cast  
Spal  
way  
oper  
Sund

Th  
disp  
men  
jour  
men  
and  
spe  
coll  
cost  
join  
plac  
org  
bele  
gets

A  
on  
the  
Jan  
way  
be  
of s  
gro  
Bri  
one  
dis

Ref  
Pla  
Roa

## POINTS FROM THIS ISSUE

£250 allocated for sculpture at Kettering School ..	page 337
Architects appointed for re-building of City Temple ..	page 337
No UK delegates at UNO Housing Sub-committee meeting ..	pages 337 and 353
Export of prefabricated buildings: Minister reports progress ..	page 338

## The Editors

## STUDENTS AND THE RIBA

IT would be foolish to pretend that all has been well recently between students and the RIBA. So far as the students are concerned there has been a cumulative mistrust; the culmination, of course, was the imposition of the new regulation demanding a year of post-graduate practical experience prior to the Associateship. This—although highly desirable in the abstract—meant not only the breaking of a promise; it also meant that the schools were forced to repudiate their own formal statements—*vide* any school prospectus—that a five-year course led to Associateship. As Government grants to ex-service students were on a five-year basis any change was, moreover, a very serious financial matter. Above all, retrospective legislation is repugnant to fair-minded people. Some weeks ago, therefore—under some parliamentary and legal pressure—the Council took action. The Board was told to think again. As a result the regulation was duly postponed so as to affect only those—mainly not ex-service—who would have had fair warning of it. At that point we were all prepared to forgive and forget. Unfortunately, there is a sequel.

In March, 1952, a number of students—having finished their course the previous July at various recognized schools—took the RIBA Professional Practice Examination. This examination was announced and conducted in the usual manner, *i.e.* at the schools but with an approved RIBA external examiner. *Some weeks later* the successful students were informed by the RIBA that that examination was not an RIBA examination at all, but was only for purposes of registration with ARCUK; that for Associateship it would have to be taken all over again.

The following points are to be noted: 1. No Professional Practice Examination was then required for Registration; the regulations of ARCUK make it quite clear that the degrees and diplomas of the various schools were the qualification for registration. Whether those degrees and diplomas were awarded before or after Professional Practice was the affair of each individual school. We have, in fact, the names of seven students from four different provincial schools who were registered by ARCUK on March 14 without any Professional Practice Examination. 2. It seems peculiar for the RIBA to decide and inform students as to whether any particular examination is or is not an ARCUK examination . . . as a matter of fact there can be no such thing. 3. *One* of the

Bailey and L. J. W. Smith, of London, to celebrate the centenary of King's Cross station, an occasion which ASTRAGAL, who has always regarded it as one of the noblest monuments of nineteenth-century architecture, thinks cannot be given too much attention. (The centenary will also be marked by an exhibition, October 13-18, at King's Cross, of Great Northern relics; among them the architect's drawings for the station.)

\*

Lewis Cubitt's building was opened in October, 1852, a couple of months after the opening of the "Towns Line" joining Retford, Grantham and Newark to Werrington Junction. Showing, I think, great enterprise, Messrs. Pegler, Bailey and Smith are celebrating both centenaries simultaneously on September 28. They have booked a special train to take them and a party of 450 from King's Cross non-stop to York, and back, returning by the route taken by trains before the "Towns Line" was built—*i.e.*, by Church Fenton, Doncaster, Retford, Lincoln, Boston, Spalding and Peterborough. The Railway Museum at York will be specially opened for the party, the day being a Sunday.

\*

The locomotive and rolling-stock will display special headboards, refreshments will be served on the down journey and dinner on the up, commemorative literature will be provided, and the railway people have printed a special souvenir ticket which the ticket collector will allow you to keep. The cost of all this is 35s. If you want to join in apply (quickly, before all the places are taken) to any one of the organizers already named (addresses below).\* The train leaves at 9.15 a.m.; gets back at 8.15 p.m.

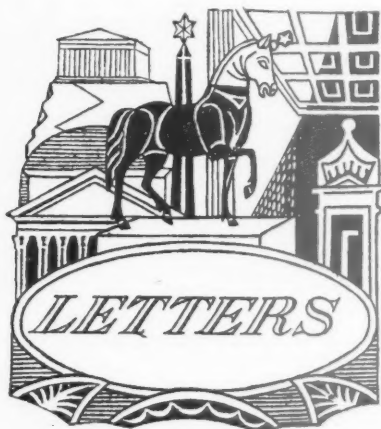
\*

And while you're on the trip impress on everyone you can the advice given in the JOURNAL's frontispiece of January 3—which was that the lasting way of celebrating the centenary would be to clear away all the junk in the way of shops and shacks that litters the foreground of Cubitt's noble building. British Railways should set to work at once. The present condition of it is a disgrace.

ASTRAGAL

\* A. F. Pegler, White Lodge, Rampton, near Retford, Notts.; H. T. S. Bailey, 80, Bessborough Place, London, S.W.1; L. J. W. Smith, 898a, High Road, Finchley, N.12.

London students who was successful in the examination *was* accepted as eligible for his Associateship; for him the examination *was* recognized by the RIBA. Since the secretary to the RIBA Board is also secretary to the ARCUK Board, the affair cannot be attributed to lack of liaison. Victimization is, of course, inconceivable. A great many other people, students especially, will await an explanation.



*George Fairweather, F.R.I.B.A.*

*J. E. Wadsworth, A.R.I.B.A.*

*R. A. Dyer, A.R.I.B.A.*

*T. L. Marsden, B.A., A.R.I.B.A.*

*L. Massey, A.R.I.B.A., A.M.T.P.I.*

*K. R. Herbert*

### Time for Better Bye-Laws

SIR,—As you will probably know, the new revision of the LCC Byelaws goes a little way to reach the kind of regulation that relies on "performance" standards, although I feel sure they could have gone a long way farther in this direction.

You may also know that a new model is being drafted as a basis for revision of byelaws applying in the urban and rural districts not subject, like the LCC, to individual powers. This new model now in an advanced stage of drafting goes quite a long way towards regulation by "performance" standard.

I come to the note by ASTRAGAL in the JOURNAL for July 31. The note surprises me more than a little, because I have always been under the impression that since 1939, the current model byelaws published by the Ministry of Health in 1939 (embodying minor revisions on the previous draft) formed the basis upon which all urban and rural councils were required to frame their byelaws, subject only to such minor variation as may be expedient or necessary on account of exceptional local conditions, and such variations had to receive the Minister of Health's agreement before they could be

made. If that is so, the comment of ASTRAGAL must be judged in relation to the model byelaws, and I suggest that the comment is reckless and misleading. The model byelaws do, in fact, permit the "new-fangled inner skins recommended by the subversive set-up at Garston."

I know that local surveyors are sometimes incapable of understanding the full meaning of the byelaws as written, and architects are similarly inclined, which is not surprising if you understand the English language only as spoken. Alternatively, local surveyors will put a bias on the interpretation of the byelaws that might very easily explain why your correspondent viewed the situation as reported.

I think too the question of "waivers" has been misstated, as I understand that these things are not provided for under the Public Health Act, although I understand that "a special case," or something of the kind, might be made to permit a variation from the strictly literal sense of any byelaw under the provisions of the Public Health Act.

A list of "special cases" is I understand kept at the Offices of the Minister of Health as a guide in dealing with future applications, but these are not published in a way that would in effect help to keep the byelaws up to date as the "waiver" system of the LCC does.

I cannot imagine where the insistence upon a 9 in. eaves all round comes from and it would be most interesting to have the text of the byelaw requiring this. Again I suggest that the local surveyor may ask for this without having the authority of the byelaws behind him, except that "the roof of a building shall be weatherproof."

Sanitary inspectors generally enjoy very full powers of discretion where the design and layout of drainage works are concerned. These powers can easily be exceeded, and I imagine that this may be the explanation for ASTRAGAL's comment on the requirement that pipes should adorn the external walls. The byelaws do not deal with this aspect of drainage, but the authority given to the sanitary inspector through the provisions of the Public Health Act may be in your correspondent's mind.

I suggest, anyway, the Leicester architects might serve themselves and Leicester best by putting the question to test by conforming to the byelaws of the 1939 model published by the Ministry of Health, and then see what the local authority would do about it.

Forgive me if I take exception to ASTRAGAL's comment when in fact I am myself a most insistent critic of the byelaws in their present form. Sound criticism will help to get the improvements we want to see, but reckless criticism will not.

We want regulation by "performance" rather than by ways and means, but if we have these, we must ourselves be able to use them, and we must have more highly skilled administrators. Regulation by performance would probably give local surveyors even greater powers of discretion than they have now and might lead to even greater abuses than we encounter at present. The introduction of "deemed to fulfil" clauses as schedules attached to byelaws can overcome this weakness of performance regulation, and I understand that this principle is being applied in the new draft for the model byelaws of the Ministry of Health.

Amusingly enough, I was recently made to accept that an "L" shaped room in a flat in London should be assumed to be two rooms for the purposes of permanent ventilation because the connecting width of the two strokes of the "L" was only five feet wide. It appears that there is no definition of a "room" in the byelaws, and it falls within the authority of the district surveyor to decide. I complied rather than fight a Certificate of Irregularity in the courts—most disappointing of me.

London.

GEORGE FAIRWEATHER.

### Overcrowded Profession

SIR,—In your issue of August 28, 1952, you suggest that a census be taken, to ensure that a balance be struck between the annual intake and wastage in the profession, of architects and assistants.

We suggest that another more important census be taken, to ascertain the wastage of building work to the architectural profession. Something must be done to remedy the difficulties experienced by so many students in London and the provinces who are unable to find employment. Surely far too much work is allowed to by-pass the architect.

With the increase in licences for private houses and the issue of block licences to builders, a very small proportion of these houses—probably less than 25 per cent.—are designed and supervised by architects. To what extent is this situation due to the neglect of the profession to bring its services to the notice of the public? Far too many of those about to build avoid the architect believing they will save the cost of architect's fees.

Can no national effort be made to enlighten the public and help avoid further disfigurement of the land by more monotonous "semis"?

J. E. WADSWORTH, R. A. DYER,  
T. L. MARSDEN, L. MASSEY.

Manchester.

### Survival of the Fittest

SIR,—Like your correspondent P. G. Hemingway (AJ, July 31) I, too, follow the question of architectural education in your columns with more than ordinary interest, and I am much intrigued by his disarmingly simple solution to the problem. To enforce a compulsory reduction of entrants into the profession by 50 per cent. is, no doubt, both realistic and convenient from Mr. Hemingway's point of view, for has he not the "Open Sesame" of all architectural qualifications after his name—that of ARIBA. What he is saying, in effect, is to parody a much maligned service expression, "Close the door Jack, I'm in!" Moreover, he obviously has not felt the lash of the recent RIBA revisions concerning their external examinations, which hardly come under his classification of "apprehensive propaganda."

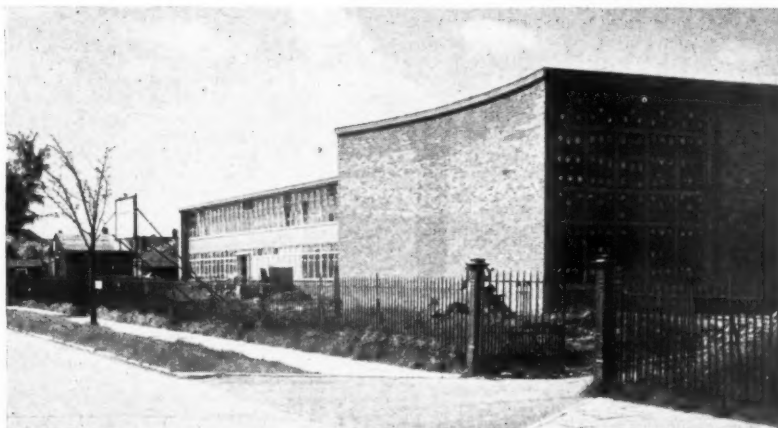
This problem of an approaching surfeit of architects, if and when it arrives, will, I think, resolve itself by the age-old law of supply and demand. Those who are both competent and industrious enough to withstand the competition within their own profession will survive to create a higher standard in architectural design and appreciation, and those who cannot come up to or maintain that standard, will presumably seek other ways of earning a living, and will, incidentally, by virtue of their training, disseminate much needed qualified enlightenment on the subject of architecture amongst other walks of life.

K. R. HERBERT.

Surrey.

## ICA ORGANISING SCULPTURE COMPETITION AT KETTERING

The Avondale Junior and Infants' School, Kettering, which was completed recently, was designed by A. N. Harris, County Architect, and E. A. Goodall, assistant architect. The school, which accommodates 360 children, has been built for a total contract cost of £55,500, giving a net cost per place of £139 15s. The curved end wall of the assembly hall, seen in the photograph, right, and on the right in the photograph below, was specially designed as a background for sculpture. The



Northamptonshire Education Committee have approved that a competition shall be held for the design of the sculpture and this is being organized by the Institute of Contemporary Arts. The ICA will nominate a panel of judges to advise the Committee, and the sum of £250 is available for the commission.



UNO

## No UK Delegates at Housing Sub-Committee

The UK was absent for the first time when the sixth session of the Housing Sub-Committee of UNO's Economic Commission for Europe took place earlier this month. Thirteen countries were represented, two UNO specialized agencies and several non-governmental organisations, including CIAM and the International Union of Architects. The absence of any UK representatives was greatly regretted by delegates, who paid tribute to the fact that the UK, together with Sweden, has "long led the way in Europe, particularly in public housing."

The most important item on the agenda was the report, which was adopted, of the

Housing Sub-Committee Research Organizing Committee which had met three times, in Brussels, in Maidenhead and in Paris. This committee had recommended the setting up of a non-governmental body to continue international co-operation in the field of building research, now that, in the words of Gunnar Myrdal, the executive Secretary of the ECE, "the bulk of [the Housing Sub-Committee's] purely technical work appears to have been taken as far as possible . . . [and] prospects have now been opened up of attacking broader economic and social problems."

It is expected that the new organization envisaged, which will come into being as a result of the transformation of the Council for International Building Documentation already set up with a headquarters in Paris by the Housing Sub-Committee, will hold its first convening assembly about the middle of next year. Although the UK was not represented at the sub-committee, their views on this item were conveyed to the meeting and it is understood that there is a good prospect of UK participation in the organization's activities in the field of building research, through the BRS. It appears, however, that the MOHLG attitude towards the new organization is somewhat reserved compared with the important part played by the MOW, and in particular its chief scientific advisor's department, towards the end of, and in the years immediately after, the war.

During the session the Housing Sub-Committee took a number of decisions regarding its work on general housing policy and on the cost of building. An important document on the cost of building, which has been in preparation for some time, is nearing completion, and is likely to be published on the authority of the sub-committee's officers towards the end of the year. The sub-committee also discussed the study in progress on European rent policies which it is hoped will be completed in the Spring of next year. In general, the session was marked by a clear tendency to orientate the sub-committee's

work more on problems of economic and social policy in the housing sphere and less on purely technical problems, which it is expected will be progressively handled by the new Documentation Research Organization now decided on.

The sub-committee unanimously elected as its new chairman André E. P. Marini, director of the French Scientific and Technical Centre for Building, and as its vice-chairman Alf Johansson, general director of the Swedish Housing Board.

## COVENTRY

### Cathedral Design Amended

Further amendments by Basil Spence to his design for Coventry Cathedral were approved last Monday. Announcing his amendments, Mr. Spence said that he was greatly impressed by the serenity and peace of the churches he saw on his recent visit to Italy. He felt that this feeling must be translated into terms of the Hollington stone which is to be used at Coventry.

The principal amendment consists of reducing the width of the tall windows in the main walls and widening the spaces between so as to make the changes of plane less sudden. (Further details and illustrations next week.)

## CITY TEMPLE

### Architects Appointed for Re-building

Lord Mottistone and Paul Paget, of Messrs. Seely and Paget, have been appointed architects for the rebuilding of the City Temple, Holborn Viaduct. In addition to the church itself, a lecture hall and offices for the psychological clinic conducted by the Minister, the Rev. Leslie D

Weatherhead, are to be provided. The total estimate cost is over £200,000. Before building commences, the plans, which will be approved by the church council, are to be shown to members of the congregation.

The City Temple was destroyed by bombing in 1941; the decision to rebuild it was taken last year and demolition of the shell of the old church started last July.

## ABT

### *Needs of Old People*

At the recent Trades Union Congress, representatives of the ABT moved the following resolution which, with the support of the General Council, was passed unanimously:

"This Congress is gravely concerned at the appalling conditions under which many old people are living. We believe that it should be the responsibility of the community to ensure that all old people are adequately housed, clothed and fed. We therefore call on the government to publish the facts about the conditions in which old people are living and in the meantime:

(a) To ensure that the housing programme includes an adequate proportion of suitable houses and flats for old people;

(b) To restore the programme of hostels, which has been drastically cut, and to increase it as soon as possible;

(c) To give special consideration to the needs of old people in the provision of health centres, hospitals and other facilities within the Health Service."

The ABT representatives also raised the question of the proposed staff cuts to be made at the BRS, and urged the TUC general council to make immediate representations to the government to reconsider its policy.

## COID

### *Coronation Souvenirs*

The COID Coronation Souvenirs Committee is preparing for manufacturers of Coronation souvenirs an 8½-inch diameter circular plaque in aluminium silicon alloy showing a crowned portrait head of Her Majesty the Queen, in profile. The design, a low-relief by T. Humphrey Paget, should prove of great value to manufacturers of souvenirs in metal, pottery, glass, plastics, leather and other materials, who wish to incorporate a suitable likeness of Her Majesty in relief.

Mr. Paget, one of Britain's leading designers of coins, medals, seals and badges, is best known for his portrait head of King George VI on the coinage.

### *Contemporary Furniture at Glasgow Exhibition*

Taking part for the first time in the "Modern Homes" Exhibition in Kelvin Hall, Glasgow, opening October 8, the COID Scottish Committee is presenting a display of contemporary furniture set up in a group of rooms furnished to fit modern living conditions and family budgets.

The committee's stand will occupy 1,000 sq. ft. in the central area of Kelvin Hall. It has been designed by Glasgow architects, Gillespie, Kidd and Coia. Rectangular in shape it will provide seven rooms, divided by a central spine running diagonally across the stand; thus breaking up the symmetry and giving added interest to the general view of the rooms.

The "show house" form of presentation has been avoided, both because of its in-

herent risks of "bottlenecks" and its tendency to focus attention upon individual items instead of the general effect of a carefully-planned room setting.

One of the Committee's main objects in organizing the display is to demonstrate that contemporary furniture and furnishings, understandingly used, can provide cheerful, cosy rooms, and need not seem cold and austere as critics claim.

Six of the rooms will be entirely contemporary in style. The seventh will be arranged to show how period and reproduction pieces can be shown to great advantage in contemporary settings. With one exception—a sitting room with a dining recess—the scale of the rooms will all be restricted to the dimensions of homes in the new housing estates. The furniture has been chosen by architect Mary Tindall and interior designer Margery Benson-Harries.

## MOHLG

### *Applications for Timber Licences*

The MOHLG has sent to all local authorities in the London area a reminder that all applications for timber licences for softwood for housing purposes should be sent to the appropriate regional office of the Ministry, i.e., Caxton House, Tothill St., S.W.1, not to offices of the Timber Control. Considerable inconvenience is caused if licence applications are incorrectly addressed.

## MOW

### *Export House Erected in One Day*

The Minister of Works, David Eccles, opened recently a prefabricated house, the erection of which had been completed in one day. The house was a two-bedroom prototype of timber houses to be exported to Canada, similar in design to the houses being exported to Australia by the same firm (see JOURNAL for January 3, 1952).

Speaking at a luncheon, given by the firm whilst the house was being erected by a team of ten workers, Mr. Eccles gave some encouraging figures of progress in this new export industry. The value of prefabricated buildings exported during 1951 was £5½ million, as compared with £2½ million in 1950 and only £80,000 in 1949. About two-thirds of this trade had been in timber houses; part of the remainder in aluminium, steel and asbestos cement houses, part in schools, post offices, hospitals and industrial buildings. In the first six months of this year we had exported buildings to the value of £3½ million and Mr. Eccles hoped that the total for the year might reach £8 million.

Dollars earned by exporting these houses to Canada could buy us Canadian timber for our houses, other important raw materials and foodstuffs. (The construction of these timber houses for Canada does not affect the supply of timber for the housing programme in Great Britain, as the timber for the export houses is imported under a special licence.)

Canadian observers, who watched the erection of the prototype and inspected it when completed, were very impressed both by the speed at which the work had taken place and with the quality of the finished job, which, they said, compared favourably with timber houses built in Canada. The saving in labour costs (Canadian wage rates are roughly four times British rates) makes it possible to sell the completed house in Canada for \$1,000, or \$1,500 less than a

comparable Canadian-built house. Twenty-four of these houses are to be erected at Gander Airfield, Newfoundland, and four at Ajax, an experimental town of the Canadian Mortgage and Housing Authority. The first crates for these houses started on their journey the same day that Mr. Eccles opened the "built-in-one-day" prototype.

The house which Mr. Eccles opened was designed by Stephen Kent Biggs, who visited Canada recently to study housing requirements there. It is intended to be built over a basement, which in Canada is usually provided to house central heating (warm air) plant and because foundations in Canada must go down below the frost line. (Photographs and a full description of the house and the method of erecting it will appear in a forthcoming issue of the JOURNAL.)

## USA

### *Landscape Architecture Scholarship*

The Department of Landscape Architecture, Graduate School of Design, Harvard University, offers to those eligible for admission as regular students a scholarship for the next academic year with an income of six hundred dollars (£214), equal to the tuition fee.

Candidates must have received their Bachelor's degree, or equivalent, within the past four years; students who are candidates for the degree in June, 1953, are also eligible.

The scholarship will be awarded on the basis of scholastic standing and evidence of interest in the field of landscape architecture. The Department reserves the right to make no award if such a decision is deemed advisable.

The curriculum embraces the design of areas of land for human use and enjoyment—broad scale physical planning, civic design, housing, parks and parkways. There is active collaboration with architects and with city and regional planners.

Further information will be given on request; all inquiries should be received before November 1, 1952.

## DIARY

*Lead in Modern Building.* L. E. Allen. At 98, Gloucester Place, W.1. (Sponsor: Institute of Quantity Surveyors.) 7 p.m.

SEPTEMBER 18

*Syon House*—a film in the "Historic Houses of England" series. BBC Television Service. 10 p.m.

SEPTEMBER 26

*Royal Photographic Society: Annual Exhibition.* At 16, Princes Gate, S.W.7. Monday to Friday, 10 a.m. to 8 p.m., Saturdays, 10 a.m. to 5.30 p.m. Sundays 2.30 to 5.30 p.m. The exhibition will close at 6 p.m. on Tuesdays, so that miniature colour transparencies can be projected, with commentary, at 7 p.m.

UNTIL OCTOBER 12

*The Development Plans: Conference.* At the Council Chamber, County Hall, S.E.1. Sessions at 10.30 a.m. and 2.15 p.m. on both days. For particulars apply to TCPA.

OCTOBER 23, 24

*Railroadiana: Exhibition.* At 7, Albemarle Street, W.1. (Sponsor: National Book League.) Weekdays 11 a.m. to 5 p.m., Tuesday and Thursday until 8 p.m.

UNTIL NOVEMBER 5

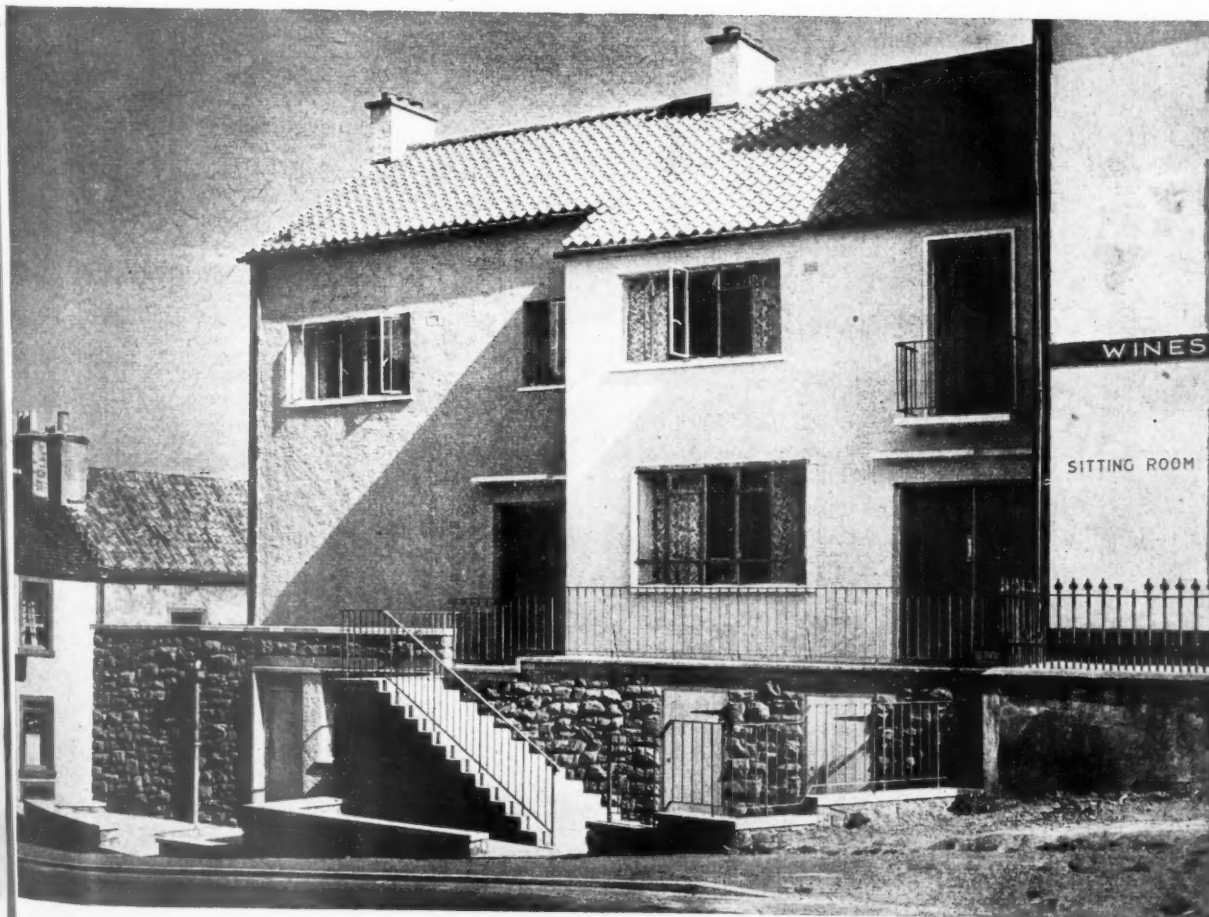
## HOUSING

at DUNBAR, SCOTLAND

designed by BASIL SPENCE and PARTNERS

The housing scheme on four sites near the harbour at Dunbar, which was illustrated briefly in the RIBA conference number of the JOURNAL, has recently been the subject of a housing award by the Saltire Society. The fishermen's houses have been built in an area that had become derelict and mostly on the sites of demolished houses. Their design and the materials used retain the character of the locality, while the irregular layout is designed to suit the hilly surroundings to the harbour.

*Houses on site 1, looking south-west.*



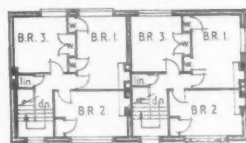


## HOUSING

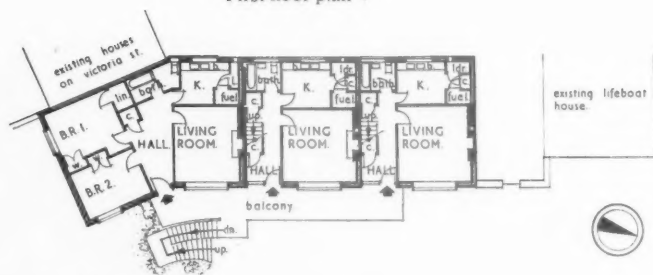
at DUNBAR, SCOTLAND

designed by BASIL SPENCE and PARTNERS

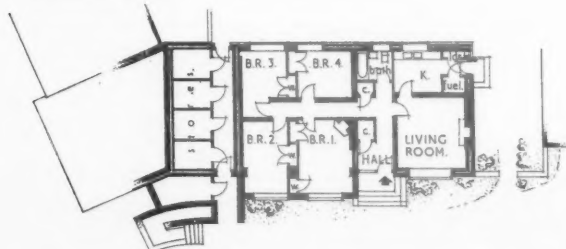
*Above, looking north-west at houses on site 3.*



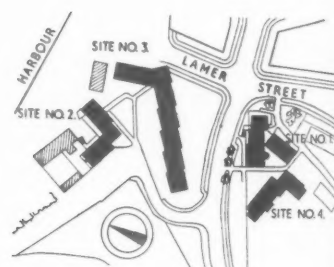
First floor plan \*



Ground floor plan

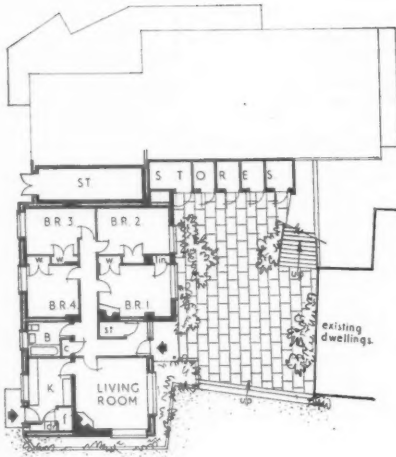


Site 3. Lower ground floor plan [Scale:  $\frac{1}{16}$ " = 1' 0"]



Site plan

PLAN.—There are four separate sites, grouped amongst existing property; site one contains five houses, one of three rooms and four of four rooms, site two contains six houses, one of five rooms and five of four rooms, site three contains one five-room house, two four-room houses and one of three rooms (the five staggered houses adjoining are pre-war work by the same architect), site four has two four-room houses and three three-room houses. Mostly, the accommodation consists of a ground floor flat, and a maisonette with balcony access on

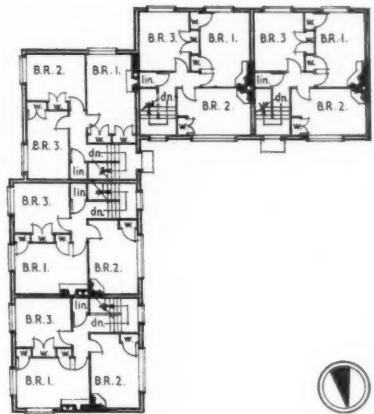


Site 2. Lower ground floor plan

[Scale :  $\frac{1}{16}$ " = 1' 0"]



Ground floor plan



First floor plan

Below, aerial perspective looking south.

the first and second floors. Areas of dwellings vary considerably, but a typical four-room house is of 966 sq. ft.

**CONSTRUCTION and FINISHES.**—The load-bearing cavity walls have a stone outer skin and brick inner skin or two brick skins and partitions are of 4½-in. brick or 3-in. breeze. Roofs have

timber framing, boards, felt, battens and pantiles. Ceilings are of plaster board, with a skim coat of plaster and distemper. The external finish to walls, where they are of brick, is colour wash on roughcast. There are open fires in living rooms and first bedrooms and hot water is provided by a back boiler to the living-room fireplace.



## PRIMARY SCHOOL

in EDENSOR ROAD, CHISWICK, LONDON, W.4

C. G. STILLMAN, County Architect

C. E. HARTLAND, L. T. CHANNING, assistant architects

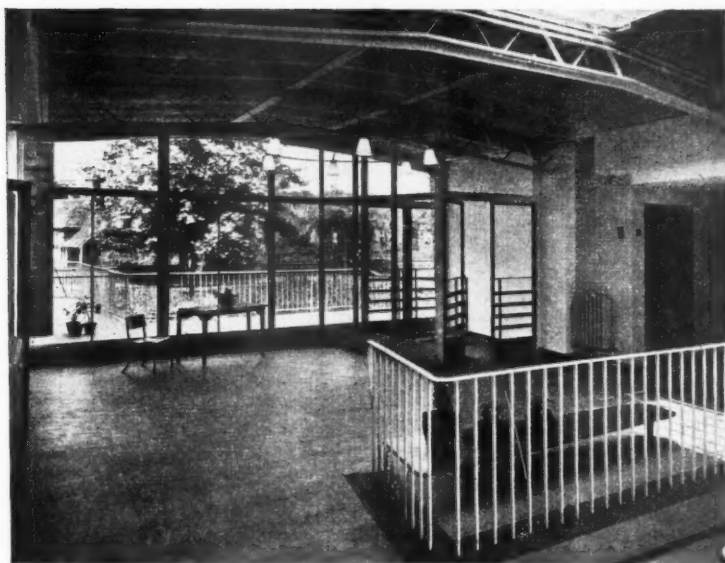
The Cavendish Primary School has been designed as a one-form entry Junior and Infant School for 280 children. It is one of twenty Primary Schools completed by the Middlesex County Council for the 1950 education programme. The designs for all these schools have been largely standardized to save drawing office time.

*The main entrance: teaching staff quarters on the left, assembly hall on the right.*

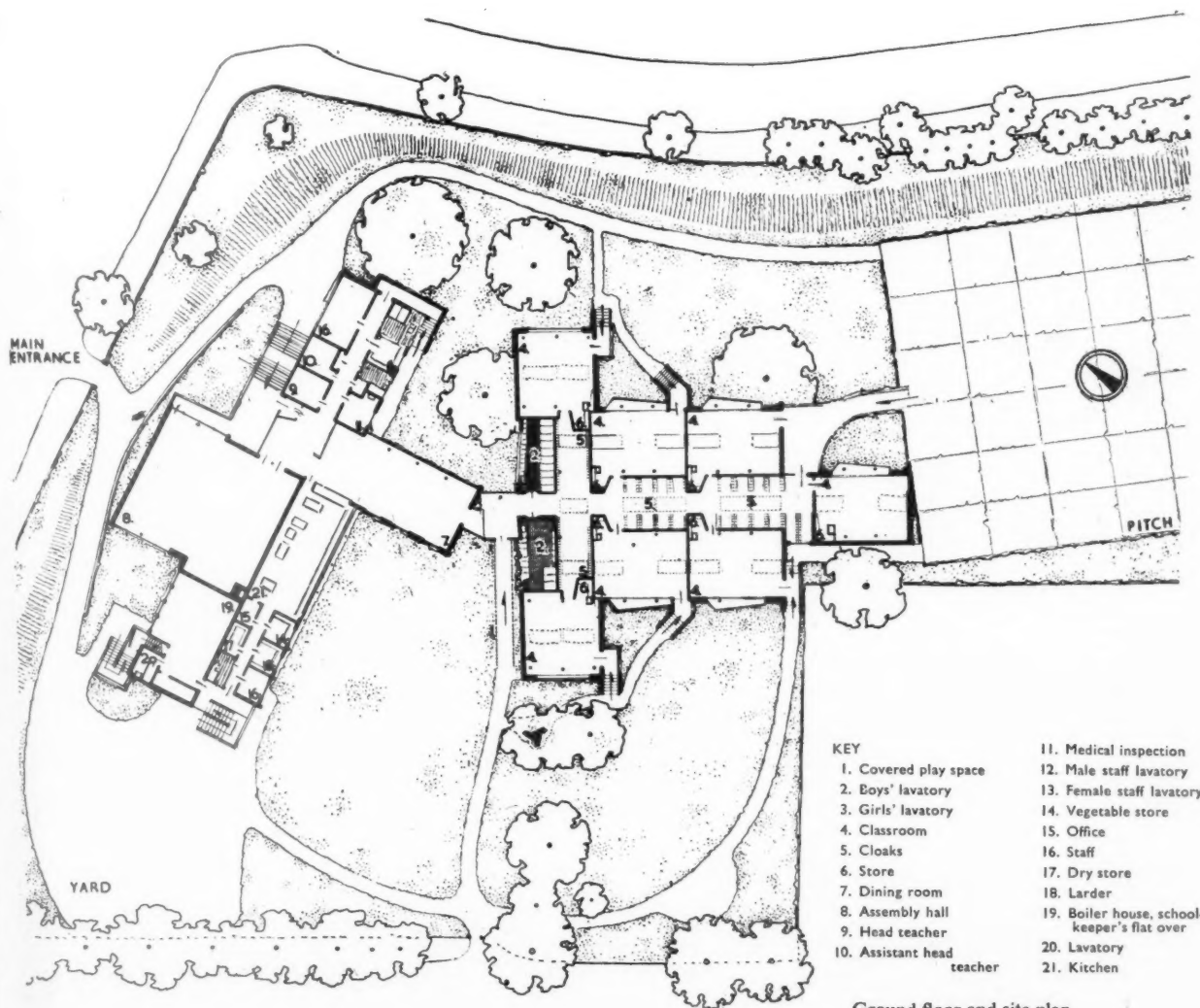


**SITE.**—Two acres, well planted with mature trees. Liable to flooding. The buildings are therefore raised some feet above the ground in some parts on piles.

**PLAN.**—The school is composed of a standard classroom block, comprising seven classrooms, cloak-rooms, lavatories and an administration block, raised on a light reinforced concrete frame, under which a covered play space is provided. A development of this standardized plan has now been pro-



*The main entrance seen from the dining room.*





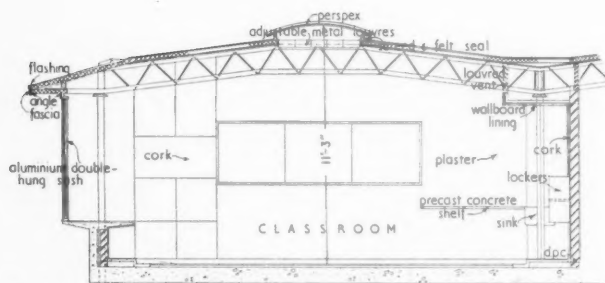
*The administration block from the west.*

# PRIMARY SCHOOL

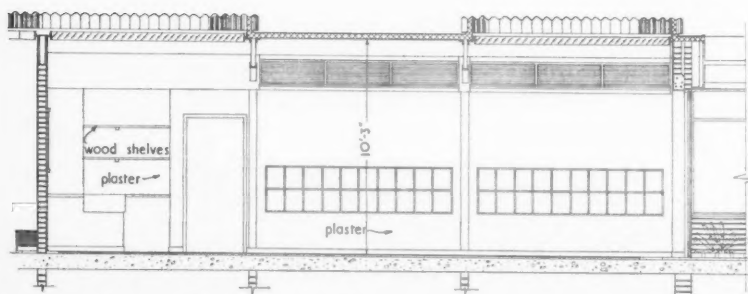
in EDENSOR ROAD, CHISWICK, LONDON, W.4

C. G. STILLMAN, County Architect

C. E. HARTLAND, L. T. CHANNING, assistant architects



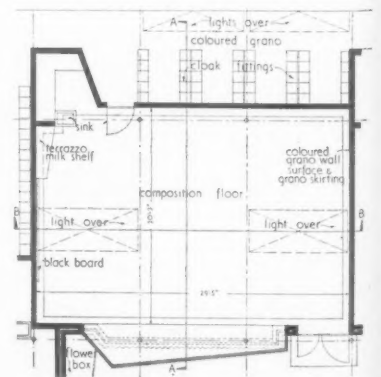
Section A-A



Section B-B [Scale:  $\frac{1}{4}'' = 1' 0''$ ]



Plan of caretaker's flat [Scale:  $\frac{1}{4}'' = 1' 0''$ ]

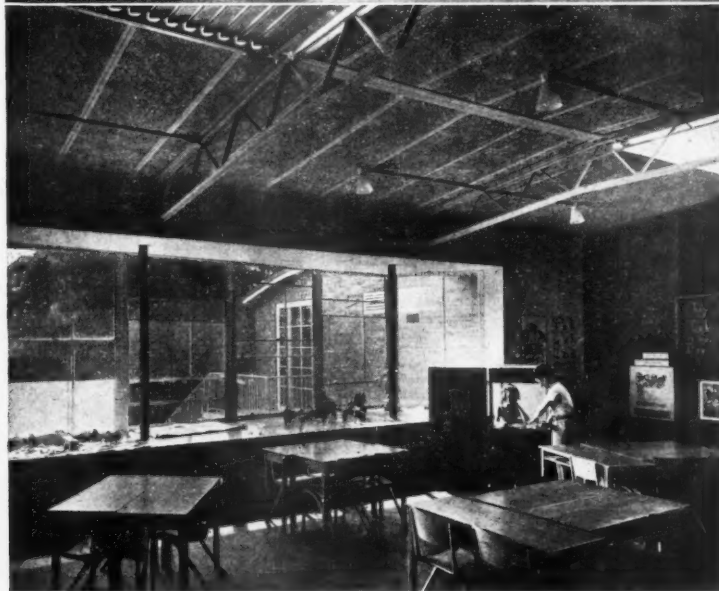
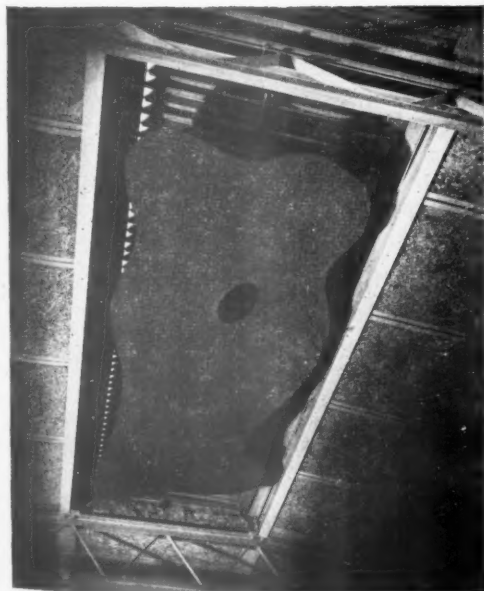


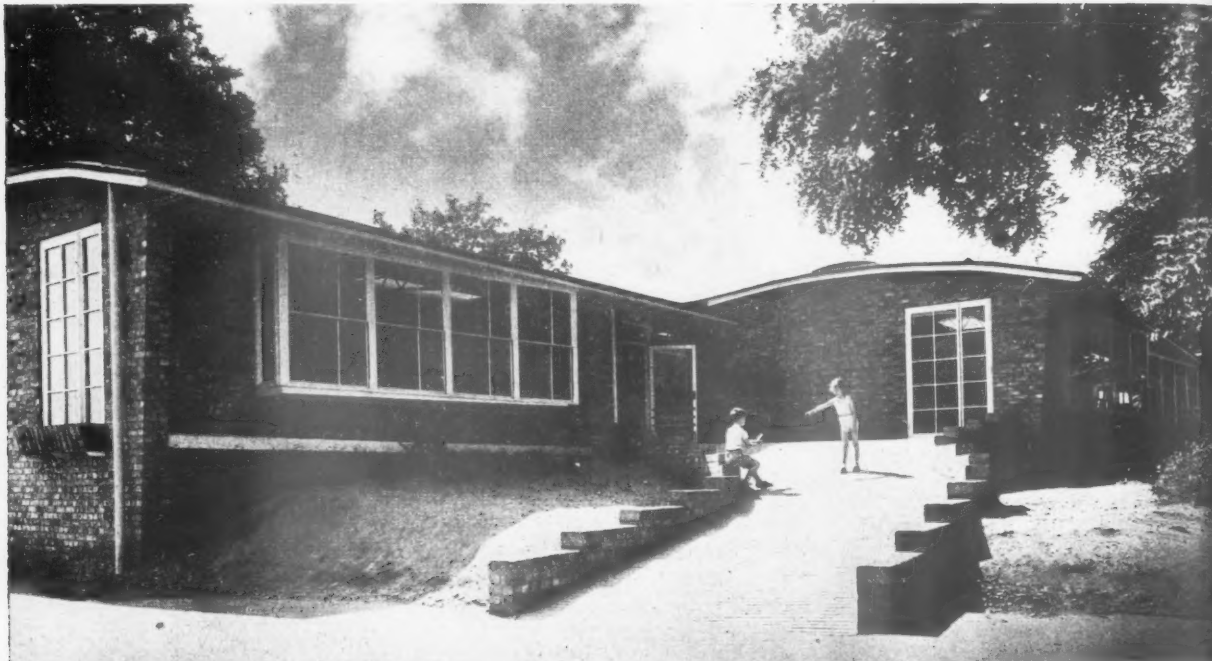
Plan of classroom [Scale:  $\frac{1}{16}'' = 1' 0''$ ]

Right, part of the dining room; the kitchen is on the left, the assembly hall on the right. Below right, looking from the dining room to the classroom block. Bottom right, a classroom. Below, screen to a lounge over cloaks.

duced, wherein the accommodation in the administration block is to be housed under the classroom block giving an even more compact plan for restricted sites (within the Ministry's latest cost figure of £140 per place).

**CONSTRUCTION.**—The construction of the superstructure is based on a frame of light steel tubular columns supporting welded steel trusses built of light angles. The roofs are of reinforced wood wool with a half-inch screed and ply-felt finish. External and internal walls are cavity brick. The utmost economy has been exercised both in the planning and construction to bring these schools within the Ministry's figure of £170 per place.





*Classroom block from the east.*

## PRIMARY SCHOOL

in EDENSOR ROAD, CHISWICK, LONDON, W.4

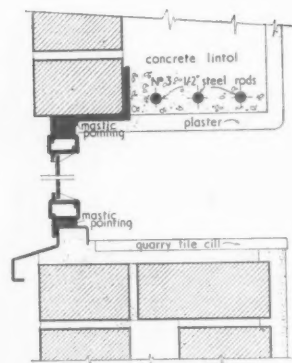
C. G. STILLMAN, County Architect

C. E. HARTLAND, L. T. CHANNING, assistant architects

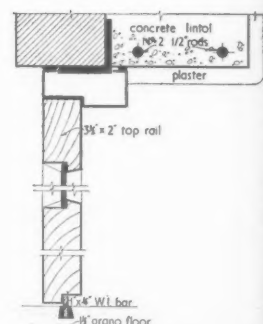
**SERVICES.**—Heating is by means of a low-pressure hot water system and radiators. Oil fuel feeding was adopted for the boilers to minimise the handling of fuel from ground level up to the boiler house, which is above flood level.

The general contractors were Prestige & Co., Ltd.

For sub-contractors, see page 360.



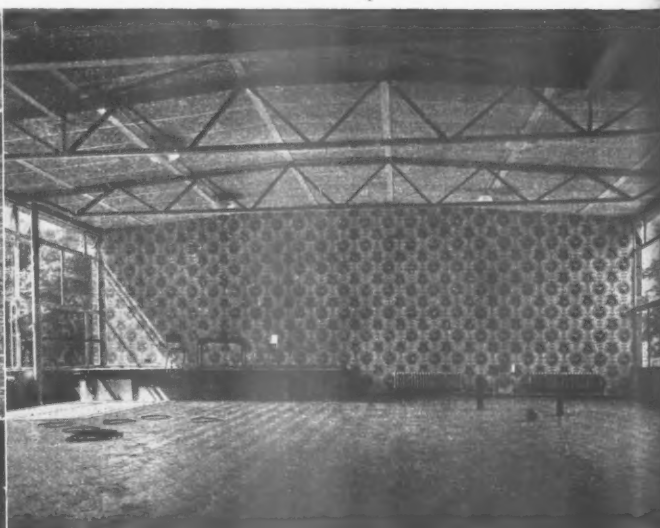
Window to lavatory

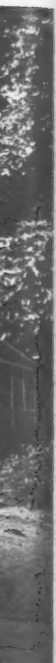


External door to classroom  
[Scale: 1 1/4" = 1' 0"]

*Covered play space under dining room.*

*Assembly hall.*





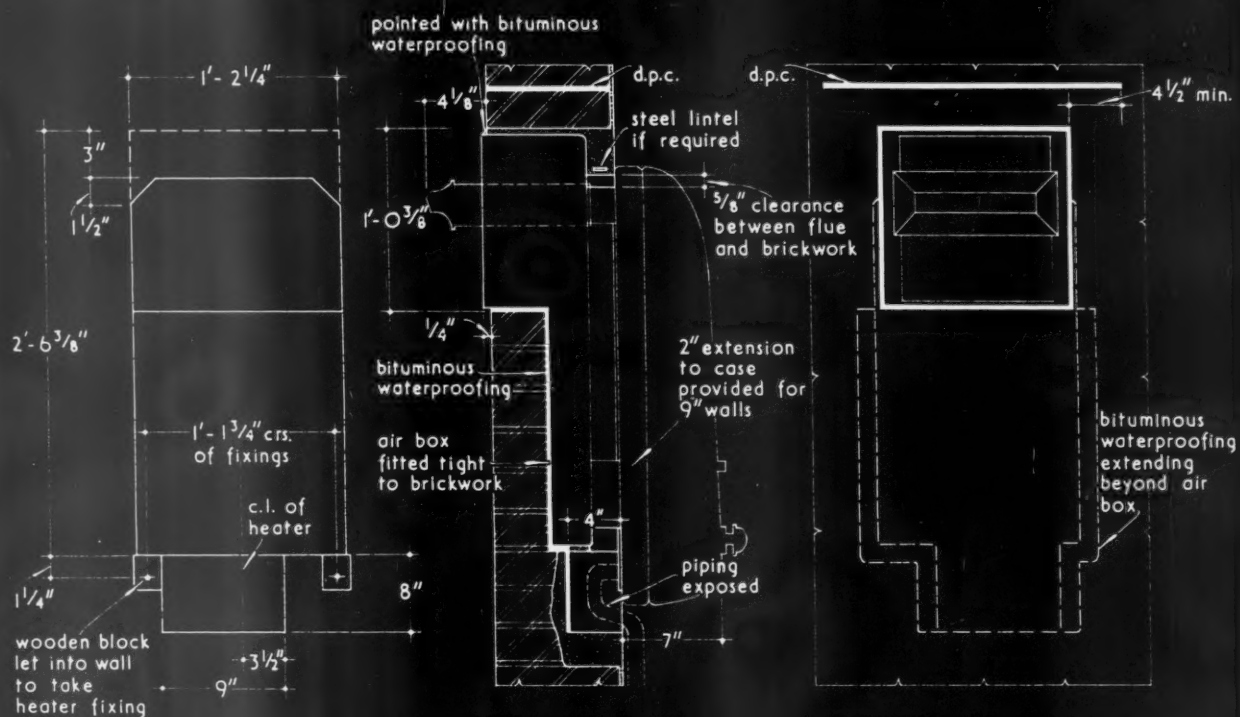
east.



oom  
Lo.  
y hall.





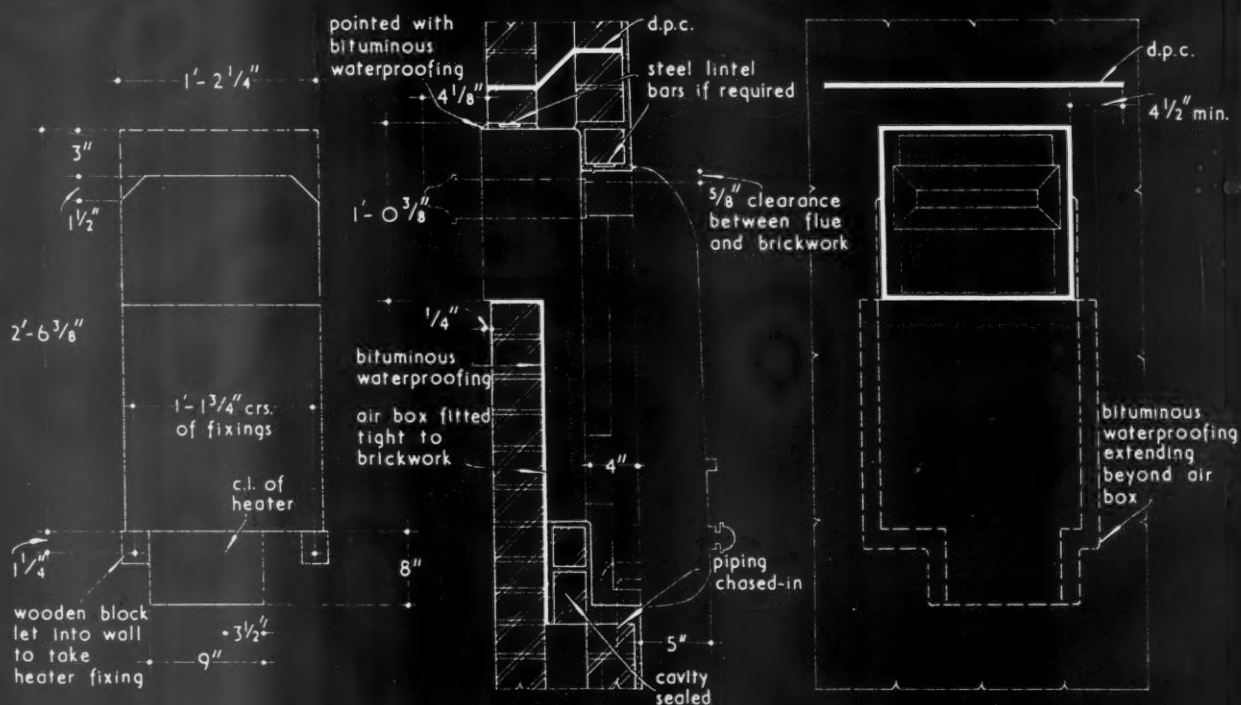


INSIDE ELEVATION OF WALL.

SECTION THRO' WALL.

OUTSIDE ELEVATION OF WALL.

### DETAILS OF TYPICAL INSTALLATION IN 9" WALL



INSIDE ELEVATION OF WALL.

SECTION THRO' WALL.

OUTSIDE ELEVATION OF WALL.

### DETAILS OF TYPICAL INSTALLATION IN 11" CAVITY WALL.

·ASCOT· BALANCED FLUE GAS WATER HEATER, TYPE NO.715: FIXING DETAILS.

Manufacturer: Ascot Gas Water Heaters Ltd.

### 32.C32 ASCOT BALANCED FLUE GAS WATER HEATER, TYPE NO. 715 : FIXING IN 9 IN. AND 11 IN. CAVITY WALLS

This Sheet gives details of fixing the Ascot balanced flue type of gas water heater (Type 715) into a 9 in. solid or 11 in. cavity brick wall. For thicker walls the details for the 11 in. cavity wall apply. A full description of the heater is given on Sheet 32.C31.

#### Openings in Brickwork

The drawings on the face of the Sheet show the provisions that must be made in a wall where the Type 715 heater is to be fixed. The inside elevations and sections of the wall show the sizes of the openings and the minimum dimensions of the cavity for gas and water connections beneath the heater: this cavity may be extended in any direction where pipes are to be chased in. Where the heater is being installed in new brickwork the terminal wall duct should be built in during the erection of the wall. The face of the terminal plate should project  $\frac{1}{4}$  in. beyond the finished wall surface: where the thickness of the external rendering does not permit this, the rendering should be sloped in to meet the air box from a distance of approximately 6 in. all round.

#### Lintels

The Local Authority may require lintels to be fitted above the wall openings as indicated in the sections on the face of the Sheet.

#### Waterproofing

The outside elevations of the wall given on the face of the Sheet show the extent of the dampcourses and of

the bituminous waterproofing which must be provided, to satisfy the Local Authority, on the inner faces of brickwork that has been reduced to less than 9 in. thickness. Asbestumen is recommended as a suitable waterproofing material.

#### Walls Over 11 in. in Thickness

As previously stated the details given for fixing the heater in an 11 in. cavity wall are also applicable to walls of greater thickness but these should not exceed 2 ft. 0 in. The telescoped flue fitting may be extended to give the required depth to the heater.

#### Further Information

The manufacturers maintain a Technical Department and an outside staff who are available to answer questions and advise generally on technical problems dealing with the installation of the 715 balanced flue heater in any part of the country.

*Compiled from information supplied by:*  
Ascot Gas Water Heaters, Ltd.

Head Office : 43, Park Street, London, W.1.

Telephone : Grosvenor 4491.

Works : Ascot Works, Neasden, London, N.W.10.

Telephone : Willesden 5121.

Telegrams : Gascot, Phone, London.

Branch Offices and

Service Depots : Belfast, Birmingham, Bournemouth and Glasgow.

Service Depots : Bristol, Cambridge, Manchester, Oxford, Southampton and Stoke.





## FIRE PROTECTION | STEELWORK

36.A1

The Architects' Journal Library of Information Sheets 382. Editor: Cotterell Butler, A.R.I.B.A.

type of building	fire load in B.Th.U./sq. ft.	time required (under standard test) to withstand complete burn-out without collapse
domestic buildings, hotels, offices	low fire load less than 100,000	1 hr.
trade and factory buildings	moderate fire load 1-200,000	2 hr.
bulk storage buildings	high fire load 2-400,000	4 hr.

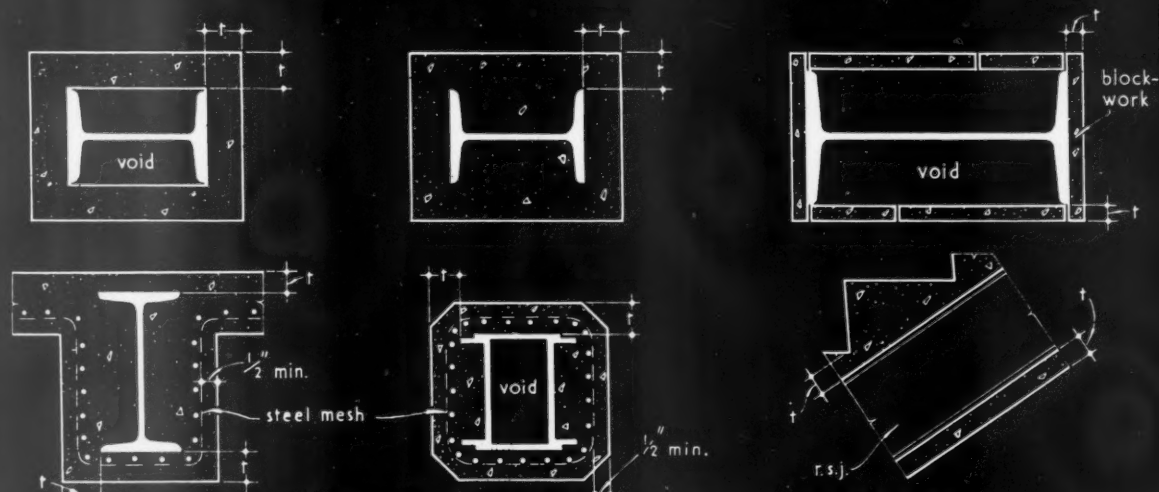
## FIRE RESISTANCE REQUIREMENTS FOR DIFFERENT TYPES OF BUILDING.

solid protection: material and construction	minimum thickness <i>t</i> (in) of protective material to give protection for:			
	4 hr.	2 hr.	1 hr.	½ hr.
r.c. not leaner than 1:2:4	2½	2	1	1
solid brickwork of burnt clay or sand lime	3	2	2	2
solid blockwork	2½	2	2	2
a) foamed slag or pumice concrete	2	2	2	2
b) gypsum blocks	2	2	2	2
sprayed asbestos	2	1	½	¼

hollow protection: material and construction	minimum thickness <i>t</i> (in) of protective material to give protection for:			
	4 hr.	2 hr.	1 hr.	½ hr.
solid brickwork of burnt clay or sand lime suitably reinforced	4½	3	2	2
solid blockwork of foamed slag, pumice conc. or gypsum suitably reinforced	3	2	2	2
moulded asbestos bound in position with wire not less than 13 S.W.G.	2½	1½	1	1
gypsum plaster, cement plaster or cement lime plaster on metal lathing	-	-	-	¾
gypsum plaster, cement plaster or cement lime plaster on metal lathing with steel or iron reinforcement over rendering coat	-	-	1	-

## REQUIRED THICKNESSES OF VARIOUS MATERIALS FOR SOLID AND HOLLOW PROTECTION.



TYPICAL EXAMPLES OF SOLID AND HOLLOW PROTECTION FOR STANCHIONS AND BEAMS.

STAIRCASE STRING.

● may be reduced to 1 in. on upper surface of top flange of internal beam or on any projecting cleat, rivet head etc. on a stanchion or beam

### 36.A1 FIRE PROTECTION OF STEELWORK IN BUILDINGS

This Sheet deals with the fire protection of steelwork in buildings. The tables on the face give the fire resistance requirements for different types of building together with the minimum thicknesses of protective covering required for the steelwork.

#### Fire Resistance

Standards of fire resistance are laid down in B.S. 476 in accordance with the length of time during which a structure on fire will withstand complete burn-out without collapse. B.S. 476 sets out five grades as follows:—

Grade A which gives protection for 6 hours, B 4 hours, C 2 hours, D 1 hour and E  $\frac{1}{2}$  hour. Fire resistance tests allow a comparison to be drawn between the fire-resisting properties of various materials, types of construction and structural elements. The grade of fire resistance required depends on the particular use and size of the building or compartment.

#### Fire Load

The fire risk in a building of given size, construction and occupancy can be expressed in terms of the calorific value of the materials housed in the building, defined in B.Th.U. per sq. ft. of floor area. This is termed the fire load. For a building, or part of it, containing say 4,000 lb. of combustible material of a calorific value of 8,000 B.Th.U. per lb. over a floor area of 1,000 sq. ft., the fire load would be:—

$$\frac{4,000 \text{ lb. by } 8,000 \text{ B.Th.U./lb.}}{1,000 \text{ sq. ft.}}$$

$$= 32,000 \text{ B.Th.U./sq. ft.}$$

The following are calorific values of materials frequently housed in buildings:—

petroleum products ..	18–20,000 B.Th.U. per lb.
asphalt .. ..	17,000 " " "
raw rubber .. ..	15–18,000 " " "
coal .. ..	10–14,000 " " "
butter .. ..	13,000 " " "
bacon .. ..	11,000 " " "
timber .. ..	8,000 " " "
paper .. ..	7,000 " " "
sugar .. ..	7,000 " " "
straw .. ..	6,000 " " "
bread .. ..	4,500 " " "

#### Protection of Steelwork

The second table on the face of the Sheet gives sets of figures for solid and hollow protection. In the first case there must be no voids between the protective material and the steelwork. In the second case the protective material need not be in direct contact with the steelwork.

**Solid protection:** The fire resistance of solid concrete largely depends on the type and size of aggregate used, e.g. flint gravel is poor since it expands considerably when heated, disintegrating the concrete; clean crushed clay brick is one of the best aggregates. Reinforcement should consist of steel mesh of weight not less than 1 lb. per sq. yd. or steel wire of not less than No. 13 S.W.G. (not exceeding 6 in. mesh). Concrete cover for the mesh should be a minimum of  $\frac{1}{2}$  in.

Re-entrant angles in the casing should be avoided as they reduce the fire resistance of the concrete. Rivet heads may be included within the specified thickness of solid protection.

**Hollow protection:** All joints in hollow casings must be made full and solid and the protection for stanchions must be well sealed at each floor level.

#### Relevant Publications

B.S. 476: 1932, with Amendments Nos. 1 and 2, July, 1942 and July, 1945 *Fire-resistance, incomcombustibility and non-inflammability of building materials and structures.*

B.S. Code of Practice CP 113: 1948 *The structural use of steel in buildings.*

B.S. Code of Practice CP 3, Chapter IV: 1948 *Precautions against fire (houses and flats of not more than two storeys).*

Post-War Building Studies No. 20 *Fire grading of buildings.*

Bird and Docking *Fire in buildings.*

C. Roland Woods—*Fire resisting encasement of structural steel, The Structural Engineer*, April, 1942 and January, 1943.

## TECHNICAL COLLEGE EXTENSION

in DENZIL ROAD, WILLESDEN, MIDDLESEX

C. G. STILLMAN, County Architect

D. R. DUNCAN, Area Architect

J. W. PATERSON, Senior Architect

The extension to Willesden Technical College is the first of five to be completed under the post-war programme of the Middlesex County Council Further Education Committee. Other extensions are being built at Ealing, Southall, Chiswick and Enfield. New colleges are to be built at Greenford, Harrow, Heathrow, Southgate and Uxbridge. It is estimated that this work will come to £5,000,000.

*The extension from the south-east.*



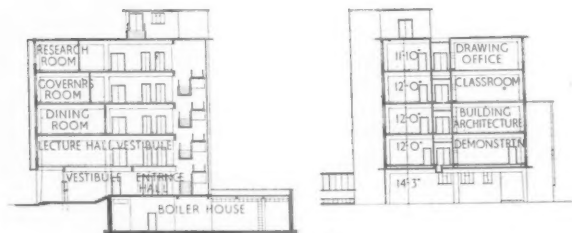


The entrance hall.

## TECHNICAL COLLEGE

in DENZIL ROAD, WILLESDEN, MIDDLESEX

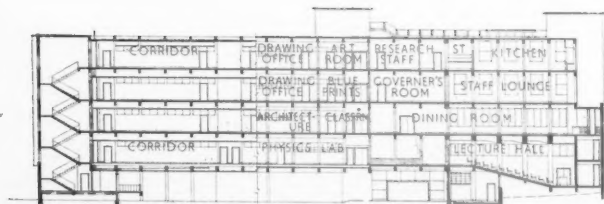
C. G. STILLMAN, County Architect



Section through entrance hall

Section through demonstration room

**SITE.**—At the junction of Dudden Hill Lane and Denzil Road. Dudden Hill Lane is scheduled for widening in the future and the design was developed to retain as much free ground space as possible on the limited site.



Section from south to north [Scale:  $\frac{1}{4}'' = 1' 0''$ ]

**PLAN.**—The accommodation provided comprises: Chemistry, physics, metrology, microscopy and heat engines laboratories; classrooms and drawing offices; lecture hall, students' dining room, staff room, governor's room; central boiler house and ancillary rooms. This accommodation, which is provided on five floors, is served by two passenger lifts and service lifts.

### KEY

1. Heat engine
2. Boiler room
3. Store
4. Oil store
5. Head of department
6. Cloaks
7. Waiting
8. Head of department
9. Entrance
10. Female
11. Vestibule
12. Male lavatory

Site plan

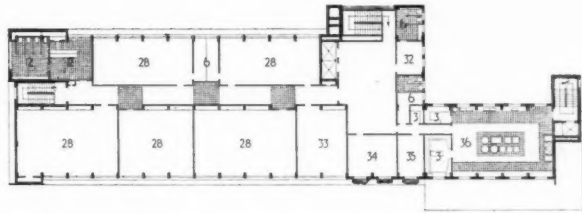
CONSTRUCTION  
concrete  
and concrete  
standard  
to assist



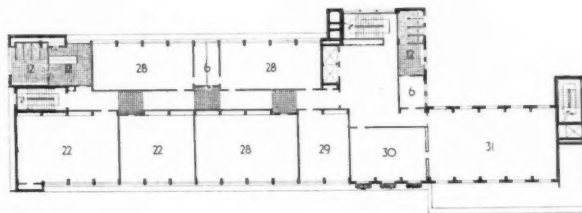
*The extension from the north-east.*

KEY

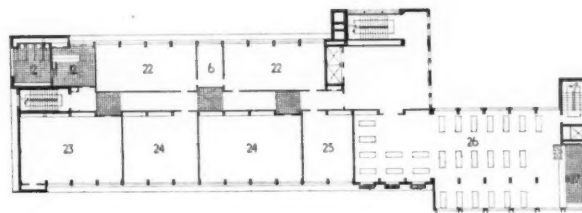
- |                                   |                               |                                |
|-----------------------------------|-------------------------------|--------------------------------|
| 1. Heat engines                   | 13. Lecture hall              | 25. Photography                |
| 2. Boilermen's room               | 14. Lecture prep. room        | 26. Dining hall                |
| 3. Store                          | 15. Service yard              | 27. Servery                    |
| 4. Oil store                      | 16. Metrology                 | 28. Drawing office             |
| 5. Head of building department    | 17. Microscopy                | 29. Blue prints                |
| 6. Cloaks                         | 18. Chemistry lab.            | 30. Governor's room            |
| 7. Waiting space                  | 19. Demonstration room        | 31. Staff lounge               |
| 8. Head of engineering department | 20. Prep. room                | 32. Female students' rest room |
| 9. Entrance hall                  | 21. Physics lab.              | 33. Art room                   |
| 10. Female lavatories             | 22. Classroom                 | 34. Research room              |
| 11. Vestibule                     | 23. Architecture              | 35. Kitchen staff room         |
| 12. Male lavatories               | 24. Building and architecture | 36. Kitchen                    |



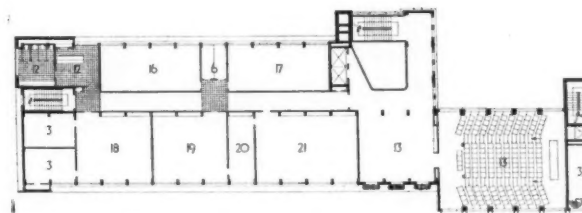
Fourth floor plan



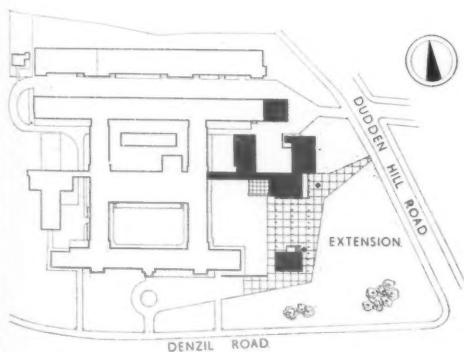
Third floor plan



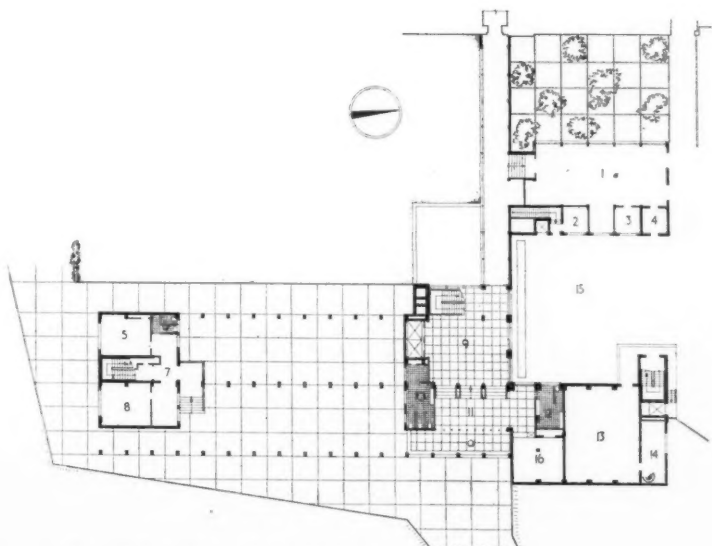
Second floor plan



First floor plan

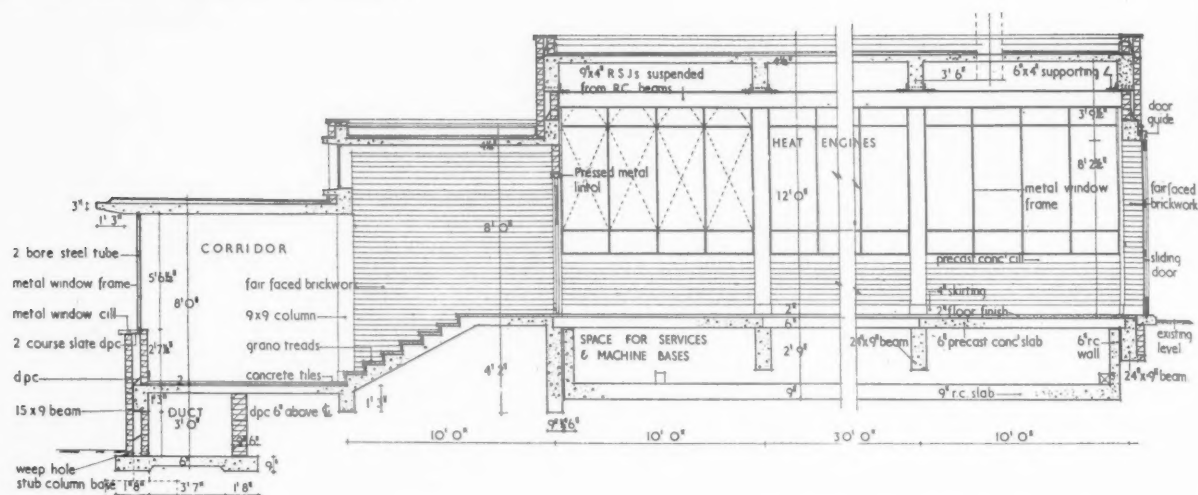


Site plan



Ground floor plan [Scale: 1/4" = 1' 0"]

**CONSTRUCTION.**—The building is a reinforced concrete framed structure with in-fillings of brick and concrete slabs. The frame was designed to standardize the size of members as far as possible to assist speed of erection and to achieve economy.



Section through heat engines chamber [Scale :  $\frac{1}{8}'' = 1' 0''$ ]

## TECHNICAL COLLEGE

in DENZIL ROAD, WILLESDEN, MIDDLESEX

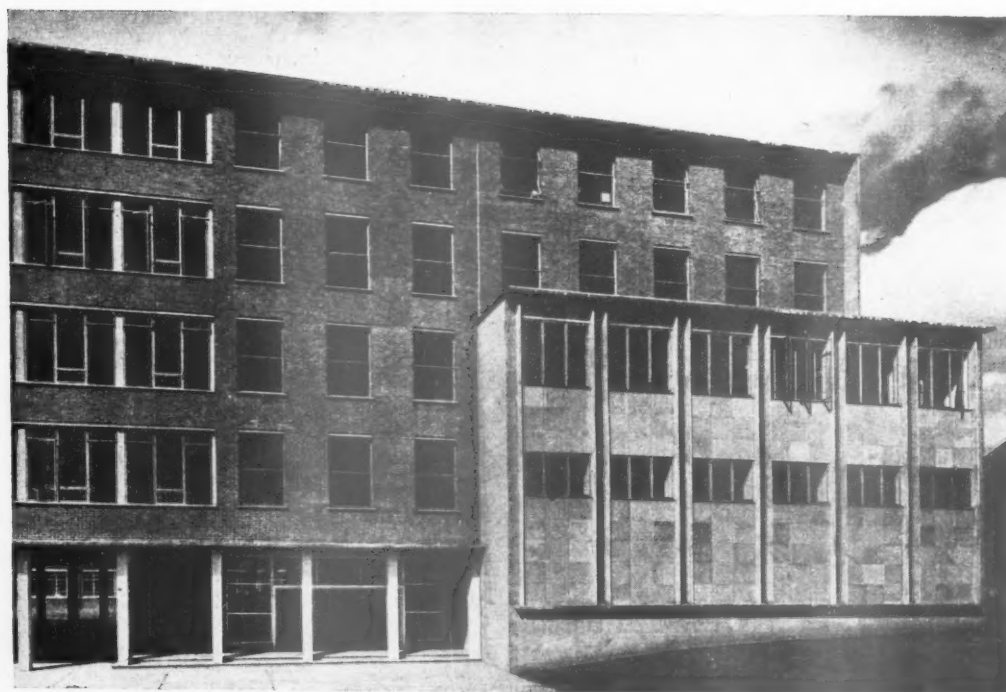
C. G. STILLMAN, County Architect

The first floor slab was designed to take a superimposed load of 200 lb. per sq. ft. to enable heavy machinery to be installed at a later date if this should be required. The heat engines laboratory has a suspended floor insulated from the machine bases which stand upon a main ground slab, the space between acting as a service duct to allow maximum flexibility of layout.

**FINISHES.**—Externally the building is faced with

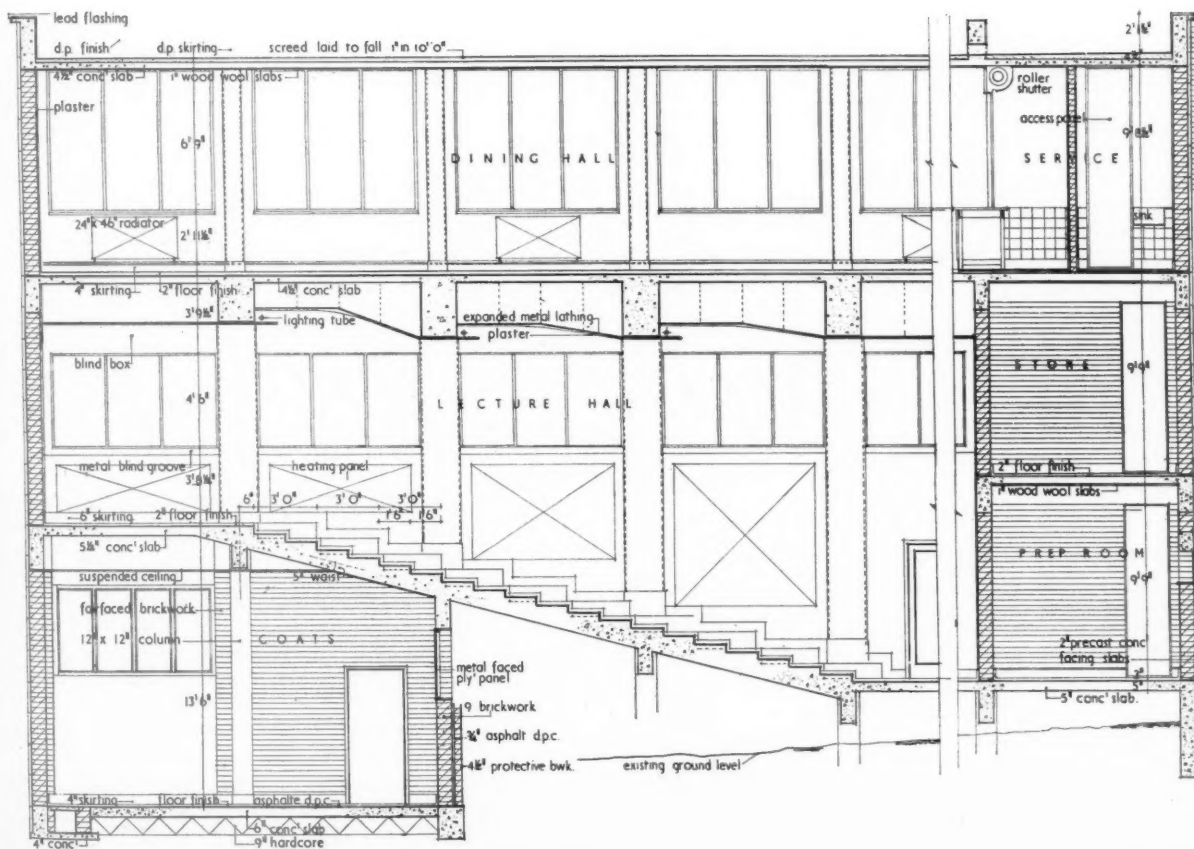
Buckinghamshire multi-coloured bricks. Concrete slabs are faced with Criggion granite and Derbyshire Spar.

**SERVICES.**—The boiler house is designed to supply heat and hot water by means of automatically stoked boilers for both new and existing college buildings and has a heating output of 6,387,000 B.Th.U. per hour. All services are accommodated in two main vertical ducts connected

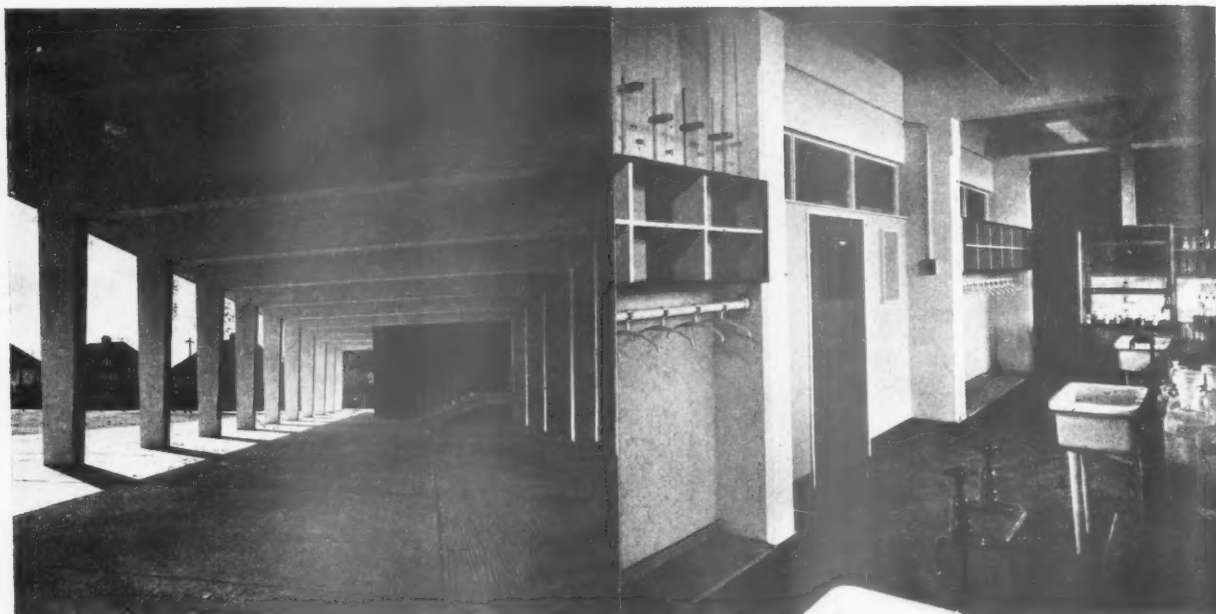


Part of the east elevation. On the right, the lecture hall windows with dining room above.

The lecture hall.



Section through lecture hall [Scale:  $\frac{1}{8}'' = 1'0''$ ]



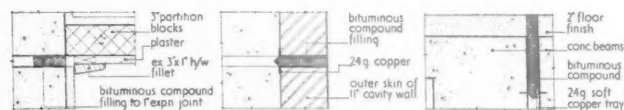
Covered space.

A laboratory.

## TECHNICAL COLLEGE

in DENZIL ROAD, WILLESDEN, MIDDLESEX

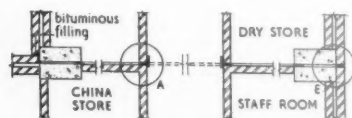
C. G. STILLMAN, County Architect



Section D

Section E

Section at floor or roof



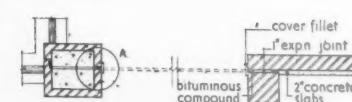
At fourth floor



At third floor

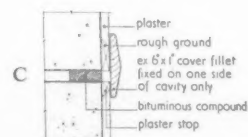
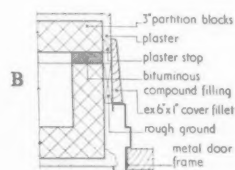
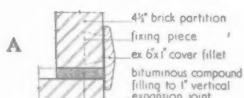


At second floor



At ground floor

Details of expansion joints [Scales: 1/8" and 1 1/2" = 1' 0"]

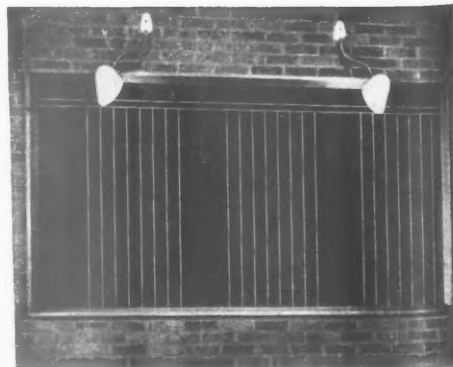


Sections

by a horizontal duct over the corridor at each floor level. This gives flexibility for any future alteration of layout as services may be connected at any point.

**COST.**—The extension cost approximately £200,000. The work started in March, 1950. The school was completed this month.

The general contractors were Lavender McMillan, Ltd. For sub-contractors, see page 360.



Notice board.

## TECHNICAL SECTION

In the JOURNAL the week before last (page 275) the Editors protested strongly against the impending cuts in the staff of the BRS. They stated that "more serious than the direct effects that these cuts will have . . . is the principle that will have been established." Unfortunately, this principle was, to some extent, established over a year ago, when the British government decided not to send representatives to future sessions of the Housing Sub-Committee of UNO's Economic Commission for Europe.

We are reminded of this by the fact that at the 6th session of the sub-committee, held earlier this month (see report on page 337), there were, in fact, no UK delegates. It is true, as a MOHLG spokesman has pointed out, that we are not abstaining from *all* the work of the sub-committee—we are still "providing material and contributing to papers" and we are still "represented at working party meetings." And it is true that the emphasis of the committee's work is now on economic and social, rather than technical, aspects of housing. But, for our official attitude to be that "there is nothing to be gained from personal representation at the sub-committee meetings," is deplorable, particularly as this decision was taken before we knew what the new subjects for discussion would be.

If our failure to send delegates to the sessions of the Housing Sub-Committee is another "economy measure"—and there seems little doubt that it is intended as such—it is, like the BRS cuts, a decidedly false economy. It will be a great blow to the important work of the committee (and to British prestige in Europe) if the government persists in "backing out."

### 23 HEATING AND VENTILATION embedded panel heating and floor finishes

This week's  
special article

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year.

*Very little has been published in this country on the subject of embedded panel heating. The article in the JOURNAL for Jan. 31, 1952 was one of the first surveys of the subject from the architect's viewpoint. We welcome now a useful brochure, published by the Invisible Panel Warming Association, dealing with one of the most important problems connected with under-floor heating—the problem of floor finishes.*

Although panel heating was invented in this country, it has not been developed as rapidly here as in some other countries, particularly America. Recently architects have been taking a greater interest in this form of heating, as its advantages have been receiving more publicity. There is much discussion on the merits of ceiling heating *versus* the merits of floor heating. In

multi-storey buildings, unless special measures are taken, there is a good deal of floor heating whichever system is adopted. In single-storey buildings floor heating is usually accepted as being the more practicable. It follows, therefore, that in the majority of cases there usually arises the problem of placing a floor finish on top of a heated surface. It is this problem of the

finish which has specially concerned many designers. What types of finish are satisfactory and how are they to be applied?

A recent publication of the Invisible Panel Warming Association\* partially answers these questions.

#### SURFACE TEMPERATURES

It is essential to know what conditions the floor will have to contend with. The brochure states that surface temperatures should not normally exceed 80° F. For some rooms temperatures should be lower; around the perimeter of some rooms they may be higher. The difficulty is: can anyone guarantee that the temperature of a system designed to work at 80° F. will, in fact, never exceed 80° F.? If any guarantee concerning the floor finish depends on the surface temperature, there must also be a guarantee concerning the surface temperature. Even if such a guarantee could be obtained, what would happen if the floor finish were damaged? Would it be possible to prove that the floor surface did actually get too hot? These questions are not answered in the brochure.

Surely the answer is that a "factor of safety" must be used. If, for instance, a floor finish could be guaranteed for a 90° F. surface temperature and the heating system guaranteed for a maximum surface temperature of 80° F., it might be felt that there was a reasonable safety margin.

#### EXPANSION AND CONTRACTION

There are four factors to guard against: excessive shrinkage on drying

\* *Floors and Floor Finishes in Relation to Embedded Panels.* (Invisible Panel Warming Association. July, 1952. Free to architects on application.)

out; possible subsequent movement due to thermal changes; possible subsequent movement due to moisture changes; softening due to overheating.

Useful information is given in the brochure about expansion and contraction joints and methods of laying screeds. It is stated that "The potential drying shrinkage of concrete is so great relative to potential thermal expansion at panel system temperatures that there is no need for expansion joints other than those provided in normal building design, such as where a concrete slab abuts a wall, and in unusually large structures." The danger of thin screeds is referred to and suggestions are made as to how they should be laid.

Movement due to thermal changes, after the initial drying out, ought to be small in panel heated floors, because summer to winter differences should be less than with other methods of heating. This advantage might be lost if a panel heated building were left unoccupied and un-heated for any considerable period during winter, and such neglect might have unfortunate results if the surface finish were one which is susceptible to moisture movement.

#### SCREEDS

Contractors sometimes like to leave the final screed until late in the job to prevent it being damaged. With some types of thin floor finish this is essential. It is mentioned in the brochure that the surface of the floor must be carefully cleaned before the screed is laid, and it is stated that "it seems to be fairly generally accepted that a layer

of less than 1 in. laid on a mature concrete base is almost certain to fail unless very great care is taken." This seems to indicate, as many authorities suggest, that the final screed should be more than 1 in. thick. It is here that one of the "hidden costs" of embedded heating may be found. What is the total thickness of the screed in which the heating pipes are embedded, and how much does this, together with the top screed, cost? These are elusive figures; so too is the additional cost of making the structure strong enough to carry the extra screeding.

#### TYPES OF FLOOR FINISH

The brochure lists fourteen types of floor finish. It appears to be suggested that, with certain reservations, all of these can be used over floor heating. Some useful remarks are made about fixing some of the finishes, but it would have been more valuable if a categorical statement could have been made that it is possible to have all these finishes laid over floor heating with a guarantee that they will prove satisfactory. It is known, from general experience, that some of them are suitable; architects would often like to use others, but hesitate to do so for fear of trouble. Whether the tabulated list of flooring materials under their trade names included in the brochure indicates that all these firms would be prepared to lay their products and give a good specific guarantee is not stated. If that is what the list indicates, it is a most valuable advance and, quite apart from the other useful information which is given, would in itself fully justify the publication of the brochure.

## QUESTIONS & ANSWERS

*This feature answers any question connected with building confidentially and free of charge. Questions to the Technical Editor, The Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S.W.1.*

#### 3061 TROUBLE WITH PLASTER

**Q** I have recently come across a number of cases in farmhouses where the wall plaster in the dairies has disintegrated owing to the fact that pigs have been salted in them in the past.

I should be obliged if you could recommend any treatment to counteract this and prevent the plaster from powdering.

**A** We are certain that the disintegration of the plaster is due to the fact that the salt from the salting of bacon attracts

moisture from the air into the plaster.

If the walls are to be recoated we do not think that a lime plaster is at all suitable. We suggest that they should be rendered with a 3:1 cement and sand coating, trowelled to a smooth surface, and that any decoration or finishing should be done on the cement when it is fully matured.

At the same time it would be well, if possible, to introduce air bricks for increased ventilation. This would keep down the amount of sweating on the walls and add to their stability.

If a matt surface is required we would suggest an emulsion paint; if a glossy surface is preferred one of the chlorinated rubber finishes would be suitable.

#### 3062 WAGE RATES AND CONTRACTS

**Q** In the event of a contract overrunning the date for completion, is the builder justified in claiming increased labour rates awarded after the contracted date for completion? The building contract carried a penalty clause for delay.

**A** A contractor cannot make any claim for increase in labour rates after the contract date for completion has expired, and the building is still not completed. But if there is power to extend the time and this has been done, increase in the labour rates could be claimed during the extended time.

#### 3063 DOUBLE GLAZING

**Q** I am endeavouring to insulate a barn I am converting against heat loss, etc., by the use of wall linings and double glazing. For all the main windows I am proposing to use double-glazed, centre-pivoted, Swedish-type windows. There are, however, various other glazed openings, mostly fixed lights, where the frames will be made locally by the contractor. These frames will be detailed for two sheets of glass with air space between. Would you let me know of any particular considerations that have to be borne in mind?

In particular how wide should the air space be and should it be ventilated? If the two sheets of glass are bedded in mastic, with glazing beds to seal the air space, will it still be necessary to have access to the cavity for cleaning?

**A** Provided thermal insulation is the main object of the double glazing, maximum insulation is obtained by using a ½-in. air space, but a reduction of this to ¼ in. still gives 88 per cent. of the maximum insulation value. For this reason, for the double glazing of your secondary windows, by far the best plan would be to use hermetically-sealed double glazing units. These simplify the manufacture of the windows and the setting of the glass itself.



## REEDLYTE

Reedlyte is a fluted rolled glass with a stippled surface. It has the simplicity of our plain Reeded glass and provides the same horizontal or vertical emphasis, but gives much greater obscuration. It is used in partitioning, in windows and for borrowed light where considerable, but not necessarily complete, obscuration is required.

Other Chance decorative glasses include Reeded in three widths, Cross Reeded and a variety of figured glasses. Besides their normal architectural uses they are employed in lighting fittings, diffused lighting panels and decorative lighting schemes. Special lighting glasses such as 'Luminating' (which has a very narrow reeded pattern) are also available.

### TECHNICAL DETAILS FOR REEDLYTE

Width of Reeds    Narrow  $\frac{1}{8}$  in.  
                              Broad  $\frac{3}{8}$  in.

Light Transmission    80 per cent.

$\frac{1}{8}$  in. thick (26/28 oz./sq. ft.)

$\frac{3}{8}$  in.    „    (42/44 oz./sq. ft.)

Maximum size of Sheets  
(100 in. x 42 in.)



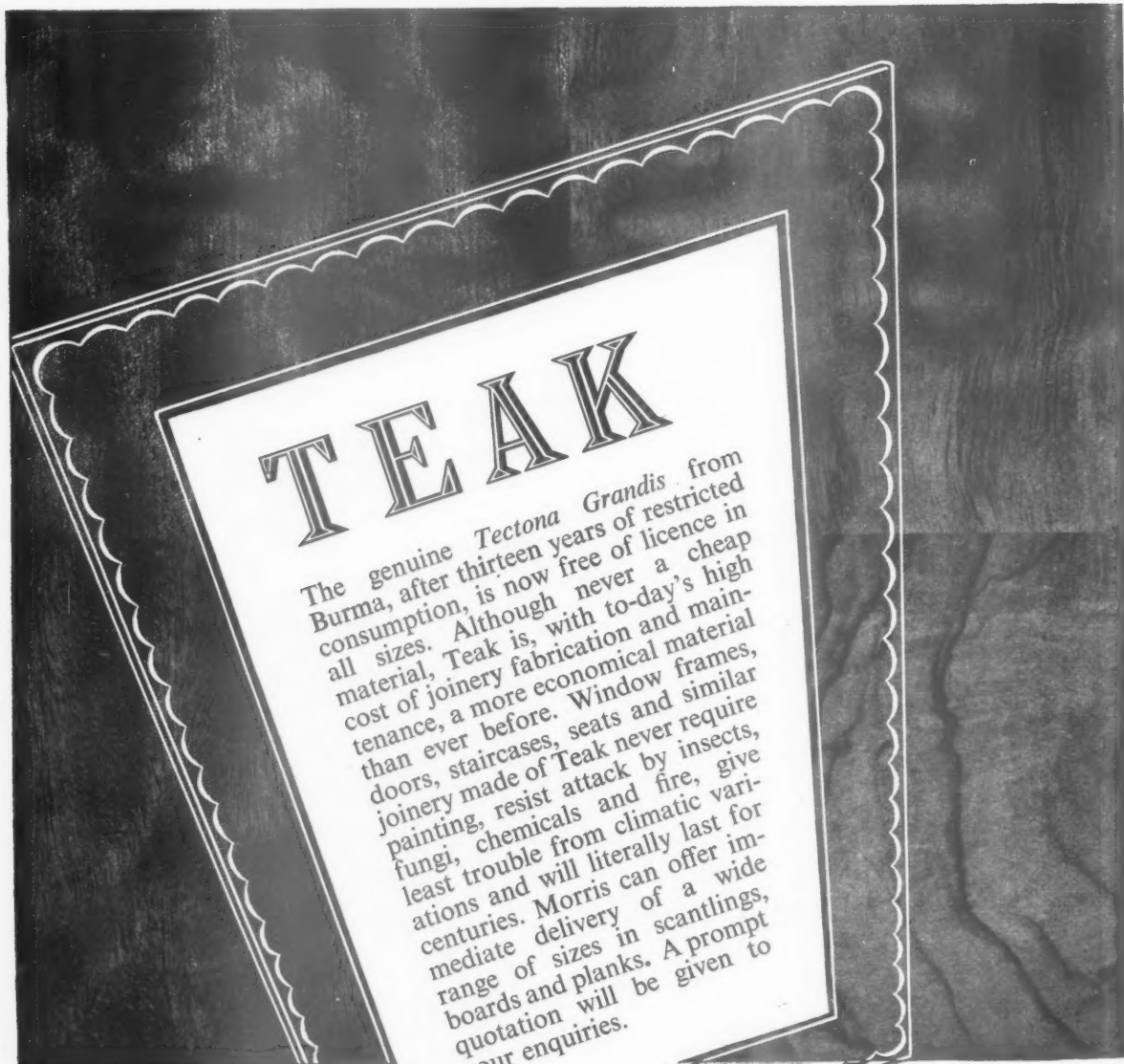
*Chance*  
\*\*\*\*\*  
GLASS

FOR SCIENCE, INDUSTRY AND THE HOME

CHANCE BROTHERS LIMITED,

Glass Works Smethwick 40, Birmingham. Phone: West Bromwich 1824.

London Office: 28 St. James's Square, London, S.W.1. Phone: Whitehall 6002. Branch Works at Glasgow, St. Helens and Malvern



# TEAK

The genuine *Tectona Grandis* from Burma, after thirteen years of restricted consumption, is now free of licence in all sizes. Although never a cheap material, Teak is, with to-day's high cost of joinery fabrication and maintenance, a more economical material than ever before. Window frames, doors, staircases, seats and similar joinery made of Teak never require painting, resist attack by insects, fungi, chemicals and fire, give least trouble from climatic variations and will literally last for centuries. Morris can offer immediate delivery of a wide range of sizes in scantlings, boards and planks. A prompt quotation will be given to your enquiries.

M·A·MORRIS·LTD

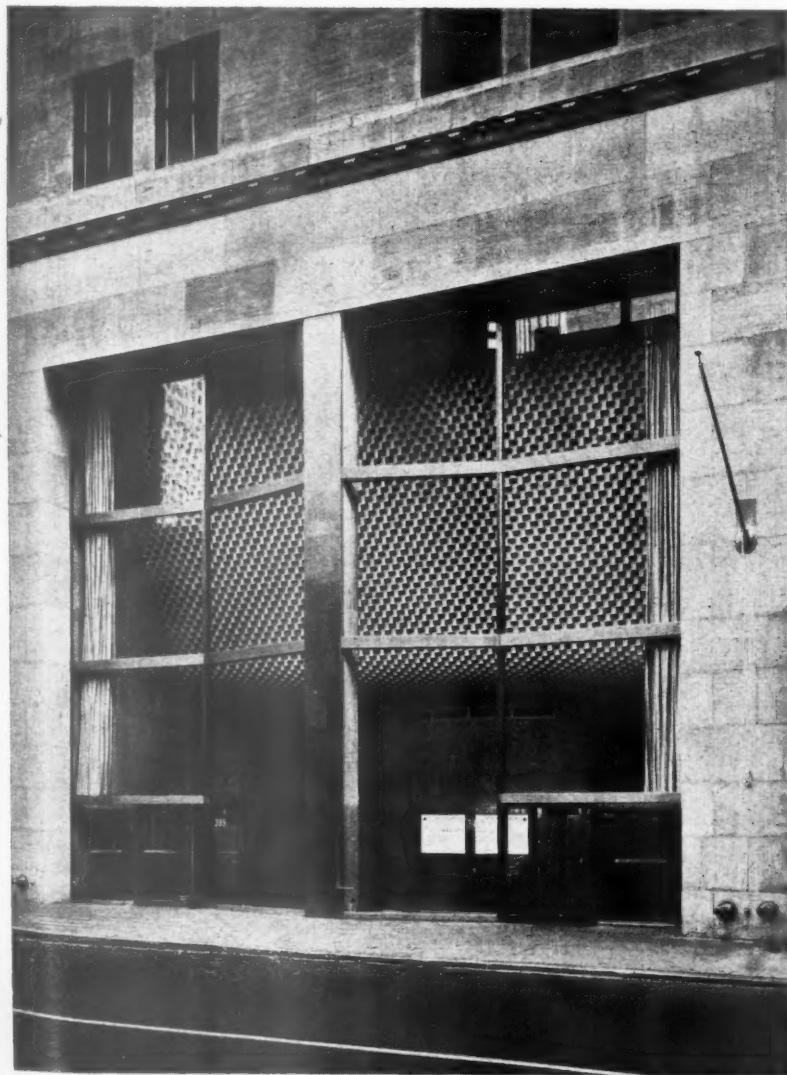


There's  
nothing  
like  
**WOOD**

RAVENSDALE WHARF • STAMFORD HILL • LONDON • N.16 • TEL: STAMFORD HILL 6611 (6 Lines)

## THREE-STOREY "LOBBY OF LIGHT" IN NEW YORK

"Rollocolor," the invention of Rollo Gillespie Williams, is a system of changing coloured lighting in order to provide "cool" light in summer and "warm" light in winter. It has been used in the three-storey lobby shown in the photographs (below and on page 356). This lobby is at 383-385, Madison Avenue, New York, and is part of one of the most extensive conversion and renovation projects to be carried out in that city. The architects (Rudolf C. P. Boehler and Albert W. Lewis, of Webb & Knapp, Inc.) and the designers of the lobby (Paxton, Krueger & Associates Inc. in association with Norman Bel Geddes) decided to use Mr. Williams's lighting system and the special eggcrate ceiling as the principal element dominating the massive lobby. 383 and 385, Madison Avenue originally had separate entrances and the supporting steelwork included two large stanchions (one for each building) only 3 ft. 6 in. apart. It was decided to remove one of these. New grillages and footings were prepared, 9 ft. below the basement level, the stanchion to be retained was strengthened with huge new steel plates, and a new 4-ft. 6-in. deep beam was inserted at ceiling level of the lobby (i.e., three storeys above pavement level) to transfer the full load of the building on to the single stanchion and eliminate the need for the first and second



## INFORMATION CENTRE

*A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.*

5.47 planning: public utilities  
TRAFFIC RESEARCH

*Traffic and Traffic Studies in the USA.* R. J. Smeed. (Roads and Road Construction. May/June, 1952.)

Report on visit to USA, with interesting description and comment on American methods of studying road traffic problems. Tables comparing speeds and accident rates, etc., in USA and Britain.

5.48 planning: public utilities  
TRAFFIC RESEARCH

*Some Theoretical Aspects of Road Traffic Research.* John Glen Wardrop. (Proceedings of Inst. of Civil Engineers, June, 1952.)

Highly specialized report on mathematical analysis of traffic. Value of statistical approach is shown. Includes full report on discussion of paper.

7.36 practice:  
LAW

*The Law Relating to the Architect.* E. J. Rimmer. (Stevens & Sons Ltd. 1952. 35s.)

Deals essentially with legal matters and is not a general book on professional practice or contracts, etc. Useful, especially to students and those commencing practice. 178 pp. 7 appendices.

This is a useful book which deals strictly with legal aspects of architects' work. It is interesting to note that the author repeatedly refers to the report of the "Simon" Committee, published by HMSO in 1944. He appears to regard the findings of this Committee as authoritative and likely to be accepted by the Courts as a basis for judgment on a number of matters.

The first chapter, on the status, appointment and authority of the architect and especially his authority in appointing quantity surveyors and consultants, is interesting and helpful. Many architects, after reading this chapter, might well have doubts about the wisdom of their normal practice in such matters.

There are chapters on the legal responsibility of the architect in relation to design and construction and to surveys, but, in places, the legal phraseology of the author makes a clear understanding of his meaning a little difficult to those not conversant with this particular form of "jargon." The information on remuneration is clear and, though largely an explanation of official scales of charges, it has useful criticisms to make of some of the less definite parts of

What is the importance of



on the long edge of every

## ADAMITE DOOR

*What does it imply?*

### **A quality product at an economical figure**

**A definite guarantee** that such a door if faulty, whether because of bad workmanship, shrinkage or movement of any kind which is directly attributable to defective manufacture or material will be replaced free of charge and without hesitation, providing of course, that it was stacked flat immediately on receipt by the purchaser and stored in a cool dry place.

Write for a copy of Adamite Bulletin No. 6. It contains useful data on **Adamite Doors, Flush, Panel, L & B, etc.** It shows details of the construction and suggestions for various additional features which can be incorporated to suit individual requirements.

For schools or banks, offices or factories, luxury flats or housing schemes, theatres or shops, for painting or polishing, for outside or inside use The Adamite Company Limited can supply the right door for the job at a fair economical price.

**THE ADAMITE COMPANY LIMITED**

MANFIELD HOUSE · STRAND · LONDON W.C.2

## NEW YORK "LOBBY OF LIGHT" (continued)

floor beams. Extensive tests were made before the other stanchion and the beams were removed, to determine the final load distribution, and calculations were so exact that the transfer of loads took place without even cracking any plaster. The resulting open space, roughly 40 ft. square, has been glazed with plate glass, divided up by stainless-steel mullions and transoms. There are two sets of glass revolving doors. The curved eggcrate ceiling consists of 6-in. hexagonal cells lying flat over the lift space and then curving upwards 25 ft. to meet the top of the lobby window. The lighting system can produce over 500 different shades of colour at varying intensity, and the controls, which are simple, can be preset for various time cycles. The batteries of lighting strips are divided into 48 sections, each 25 sq. ft. in area. Each of the 48 sections consists of 4 light strips each containing ten 150-watt reflector lamps—in all, 288,000 watts. The operator cannot see the lobby, but adjacent to the master controls



is a miniature replica of the installation, which indicates to him what effects are being produced in the lobby. There are only two manual controls, one for hue and one for intensity; the mixing of the colours—the control of the intensity of each colour in relation to the others to produce the desired result—takes place automatically. In order to facilitate the replacing of lamps, there are permanent steel catwalks behind the curved part of the ceiling.

these scales, especially regarding payment for copies of drawings.

There is a rather specialist chapter on arbitration, which deals with many points on which most architects must be rather ignorant, and there is a very good description of the procedure to be adopted for arbitrations. A final chapter, written by Pembroke Wicks, gives an authoritative description of registration and some notes on professional conduct.

A useful book for senior students and architects entering practice.

14.51 materials: concrete  
CONCRETE MAKING

*Making Concrete.* BRS Digest No. 44. (HMSO. July, 1952. 3d.)

Excellent summary of essential points in control of quality. Applicable to small jobs.

This is an excellent summary of the things which affect the quality of concrete and the steps which should be taken in selecting materials, and specifying and supervising work in order to ensure good results. The recommendations are applicable to small and medium sized jobs and refer to these rather than to large works where special supervision and plant may be available.

The most important points are: the correct choice of materials; the proper grading of the aggregate; the correct proportioning of the materials and the use of the correct amount of mixing water. The casual method of mixing by counting shovels of sand and large aggregate *cannot* produce a good concrete. Clear and sensible advice is given and the Digest should be used by all as a guide to everyday workmanship—it is definitely not a thing to be passed off as "just another piece of advice from those scientists."

Unfortunately, concrete mixing is regarded on so many sites as an unskilled job that although the advice given in this Digest is

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

## ENQUIRY FORM

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

*Please ask manufacturers to send further particulars to:—*

NAME.....

PROFESSION or TRADE.....

ADDRESS.....



## He who hesitates is lost

*In Agricultural Disputes or Heavy Duty Cooking*

WAT TYLER was dead. The howling mob of revolting peasants were about to avenge their murdered leader by massacring the entire royal party.

Hearing a querulous serf enquire "Who will lead us now?" the 14-year-old Richard II leaped to their front and cried "I will be your leader," promising them the reforms they demanded.

Struck by the young monarch's brave demeanour, the peasants dispersed and went their ways in peace. Just as indecision could have cost the king his life, so it can cost you a great deal of money. For instance, if you order Falkirk Cooking Equipment *now*, then you will get it now—and at the very reasonable *current price*. If you delay the opportunity may not wait.

*Find out NOW about*

## **FALKIRK**

### **HEAVY DUTY COOKING EQUIPMENT**

*for Hotels, Restaurants and Canteens*

### **VITAL FACTS ABOUT FALKIRK**

**Equipment for Gas, Electricity, Oil, Steam and Solid Fuel**

**Really tough cast-iron construction—will last for years**

**Efficient modern equipment means less work for small staffs**

**No weak links, a complete and balanced range of equipment**

**Specially designed installation and plans for each customer**

**Price most competitive**

**If a new kitchen is wanted, now is the time to design it**



*Please write for illustrated leaflet to*

**The Falkirk Iron Co. Ltd.,**  
18 Dering Street, Hanover Square, London, W.1  
or 40 Hanover Street, Leeds, 3  
or 18 Leigh Street, Liverpool, 1  
or Falkirk, Scotland.

(Proprietors: Allied Ironfounders Limited)



extreme  
be diffi  
foremen

16.91  
ROOF

Bitume  
144.11  
tion.

Mater  
general  
roofing  
referen

With  
felt ro  
one w  
choic  
deals  
eaves  
table  
layers  
tions  
is adv  
hazard  
are fo  
weight  
there  
detail  
verges

16.9  
SPRA

Spray  
Roth  
July,

Four  
ideas  
plastic  
intern  
enoug  
have  
tenanc  
tant d

If th  
the qu  
proves  
develo  
in rec  
form  
struct  
easily  
skin i  
proof  
life ex  
tion t

By in  
can b  
24 in

The  
kind  
probl  
troub  
ment.  
three  
Used  
must  
obtain

The  
cusses  
could  
and c  
chara  
is a t  
with  
Alth  
mater  
in ve  
"Op  
on a  
(See

extremely sound and practical there may well be difficulty in persuading builders and their foremen to act on it.

#### 16.91 materials: miscellaneous

##### ROOFING FELT

*Bitumen Felt Roof Coverings.* BS C of P 144.101 (1952). (British Standards Institution. 4s.)

Materials, preparation of surfaces and general recommendations for bitumen felt roofing. A useful Code for regular office reference.

With so much work now being finished with felt roofing, this is an important Code and one which contains useful information on choice of materials and correct detailing. It deals with associated details such as flashings, eaves and verges, gutters and cesspools. A table gives recommendations for numbers of layers and weights of felt for varying conditions of exposure and permanence and there is advice on surface finishes and on fire hazard. The usual "work on site" clauses are followed by a table giving standard weights and sizes of rolls of roofing felt and there are clear diagrams showing how to detail vertical upstands, gutters, drips and verges.

#### 16.92 materials: miscellaneous

##### SPRAYED PLASTIC

*Sprayed-on Vinyl-plastic Sheeting.* Guy G. Rothenstein. (Progressive Architecture [USA]. July, 1952.)

Four page article suggesting revolutionary ideas which could be adopted by using vinyl-plastic sprayed skin finishes externally and internally. Said to be waterproof and elastic enough to take building movement and to have 10-year life before needing any maintenance. This may well prove a most important development.

If the process described in this article has all the qualities which are claimed for it, it may prove to be one of the most important developments in building that has occurred in recent years. Essentially, the process is to form a tough "skin" over the surface of a structure. Apparently this can be done quite easily and over an object of any size. The skin is said to be tough, flexible and weather-proof. It is claimed to have a safe 10-year life externally and to be capable of renovation thereafter by applying a further layer. By incorporating a "webbing solution" it can be made to span a distance of up to 24 inches.

The possible effects of a treatment of this kind are enormous for it could overcome the problems of the construction joint and the troubles which occur from thermal movement. The fact that it is said to be usable three-dimensionally adds to its usefulness. Used externally with exposure to the sun it must be pigmented and, in fact, it can be obtained in any colour.

The article describes the material and discusses its qualities and the ways in which it could change design and finish both internally and externally. There is tabulated data on characteristics. Following this article there is a three-page illustration of a small house with a roof of this material.

Although apparently so revolutionary this material is not without some history. Used in very large quantities during the war for "Operation Mothball," it has since been used on a number of buildings in various ways. (See also JOURNAL for April 10, 1952, p. 465.)

#### 18.106 construction: theory

##### FIRE RESEARCH

*Fire Research 1951.* Report of the Fire Research Board. (HMSO, 1952. 2s.)

General report on year's work. Important information on causes of fires.

In addition to its general interest as a review of the work of the Joint Fire Research Organization, this report is of importance for the figures which it gives on the causes of fires. The large number which are started by heat and sparks from grates and heat from flue pipes indicates that designers should give more attention to this problem. The good record of post-war houses of traditional type has been maintained, while the rate of incidence of fires in post-war houses of non-traditional design was about the same as for pre-war houses. The proportion of fires causing serious damage were again greater in some types of post-war houses than in pre-war houses, but there is evidence that it is possible to build safe dwellings using light non-traditional forms of construction.

#### 24.157 lighting:

##### SCHOOL LIGHTING

*Light and Colour in Elementary Schools.* N. L. Engelhardt. (Architectural Record [USA]. May, 1952.)

A weak, uninformative condensation of a chapter on light and colour from a forthcoming book on the planning of elementary schools in America.

Mr. Engelhardt describes present practice in the lighting of elementary schools and reviews some recent research on the subject. He supports the opinion that 25 foot candles is a suitable degree of illumination, but regards 15-20 foot candles as adequate for general lighting, if there is additional local

lighting for difficult tasks. (British elementary schools are usually lighted so as to give a level of illumination of between 12 and 15 foot candles.) He points out the importance of differentiating between the lighting requirements of elementary, secondary and technical schools, supports the view that the brightness contrast ratio should be in the region of 3:1, but admits that this is difficult to achieve. Recent BRS experiments, however, indicate that a 3:1 ratio is unsatisfactory and the Station recommends a ratio of 10:1.

Mr. Engelhardt believes in the use of dark walls and floors (with a reflection factor as low as 30 per cent.) and light ceilings (reflection value, 85 per cent.). He says that Venetian blinds, although they can control sunlight adequately, require too much maintenance and points out that fixed out-riggers, baffles and louvres, although less effective, are more expensive than blinds. Roller blinds he finds nearly as efficient as Venetian blinds; when made of a new acrylic fibre material they allow an exceptionally high degree of light penetration. Glass blocks, Mr. Engelhardt says, have been found to require blinds when strong sunlight shines on them. Also discussed in this article is colour; "warm" hues are recommended for playrooms, corridors and entrances.

#### 25.85 water supply and sanitation

##### FLUSHING CISTERNS

*Automatic Flushing Cisterns for Urinals.* BS 1876:1952. (British Standards Institution. 2s.)

Materials, workmanship, size and performance requirements and test discharge rates. When water supply is not through a meter the rate of feed and, therefore, the time between flushes must be agreed between the water undertaking and the user.



THE LIBRARY OF  
INFORMATION  
SHEETS COMPLETE  
TO JUNE 1952

#### REPRINTS

All Information Sheets published since the inception of the new series in October, 1947, have been reprinted. Specially-designed binding cases to hold approximately 100 Sheets may be obtained at the price of 5s. 0d. each. (Postage 6d.)

Oct., 1947-Dec., 1951

Oct., 1947-June, 1952

Individual Sheets may be ordered (3d. each). Readers requiring sets or individual Sheets should fill in the form below. Sets in classified order (without binders) are available as follows, and the publishers will quote for sets not detailed below.

... .. £3 6s. 6d.

... .. £3 11s. 6d.

#### ORDER FORM

Please send me .....

Name .....  
(Block letters)

Address .....

## WILLESDEN TECHNICAL COLLEGE



Architect—Middlesex County Architect

Contractors—Lavender McMillan Limited

**ARMOURPLY UNITS**  
were used for the  
**Lavatory Compartments in the extensions**  
for the Willesden Technical College

WILLIAM  
**MALLINSON**  
& SONS LTD.

TIMBER AND VENEER MERCHANTS AND PLYWOOD MANUFACTURERS  
130-150 HACKNEY ROAD, LONDON, E.2.

Telephones: SHoreditch 7654 (10 lines).

Telegrams: "Almoner", London.

## THE INDUSTRY

*From the Industry this week, Brian Grant reports on a one-piece plastic washer and jumper for taps, the use of reinforced brickwork for foundation beams, a water thinned "emulsion" paint and an extensive fluorescent lighting installation.*

## TAP WASHERS

From time to time I have referred to taps which are designed to simplify the replacement of washers, and even to taps for which it is claimed no re-washing whatever is required throughout their life. However, there still remains the problem of fitting a new washer to the jumper of a tap which has been taken apart. If the shank is held with one pair of pliers, another pair is nearly always needed for undoing the nut, and how many households have more than one pair? Not many. Readers who do their own repairs may, therefore, be interested in a new washer and jumper, made all in one piece from polythene—a plastic material which resists water up to boiling point. The nose is hemispherical, so that there should be comparatively little trouble with worn seatings and, at present, two sizes are available—for  $\frac{1}{2}$ -in. and  $\frac{3}{4}$ -in. taps. (Plastomatic Ltd., Winchester Road, London, N.W.3.)

## LIGHT FITTING DESIGNERS

Troughton & Young (Lighting) Ltd., announce that their design department will now be led by their two senior designers—D. S. Shellshear, M.S.I.A., and W. J. C. Butcher, who have had long experience with the company. They have both during recent years collaborated closely with A. B. Read, R.D.I., who recently left the company to become Director of Design of the Carter group of companies.

Troughton & Young remind architects that their design department is always ready and willing to assist them with advice on interior and exterior lighting schemes, and to help them develop new types of lighting fitting

or systems of lighting to satisfy special requirements.

Arthur H. Young, A.M.I.E.E., continues to be the firm's executive director. (Troughton & Young (Lighting) Ltd., The Lighting Centre, 143, Knightsbridge, London, S.W.1.)

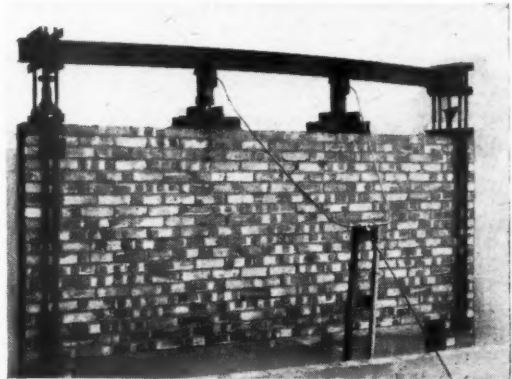
## SHORT BORED PILES

For some time the BRS has been suggesting the use of short-bored piles for the foundations of small houses on clay subsoils liable to cracks and shrinkage. The usual technique is to span between the heads of the piles with reinforced concrete beams on which the walls are carried. As an economical alternative, however, Johnson's Reinforced Concrete Co. suggests that the beams could be made of reinforced brickwork.

This firm recently constructed an 11-in. cavity brick wall, reinforced with "Bricktor" reinforcement, over a 10-ft. clear span. The wall was built to represent a portion of a party wall, which would have to carry its share of the load from a first floor and a roof, together with its own weight. The portion built was 5 ft. high and was loaded by means of two hydraulic rams. A total load of 19.5 ton was applied before any failure was apparent in the wall, this being many times the weight of brickwork to be carried.

Previously a brick lintel had also been constructed and tested. This consisted of three courses of  $4\frac{1}{2}$ -in. brickwork, reinforced with "Bricktor" but otherwise unsupported over a 6-ft. opening. This represented the outer skin of brickwork over a top floor window, which is required to carry only its own weight. The lintel carried a distributed load of over eight times its own weight without collapse. (Johnson's Reinforced Concrete

*Right, reinforced brickwork foundation beam, used in conjunction with short bored piles under test. The 11-in. cavity brickwork spans 10-ft.; the load when the photograph was taken was 10 ton. Below, fluorescent lighting in new BEA hangars at London Airport. A 99,000 sq. ft. installation, providing 25 ft. candles at floor level.*



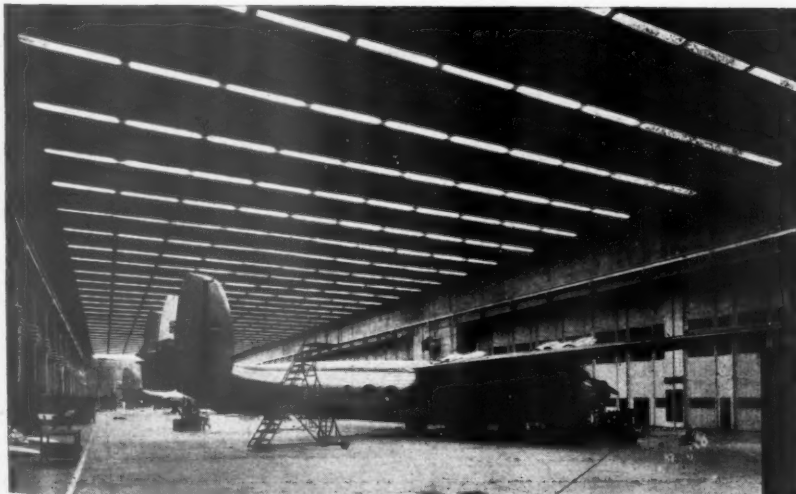
Co. Ltd., Artillery House, Artillery Row, London, S.W.1.)

## EMULSION PAINTS

During the last year or so a number of new "emulsion" paints have come on to the market; among them is "Pastello." This is a vinyl emulsion paint. It is unlike orthodox paints in that it contains no driers or solvents and is thinned with water, so that it is entirely devoid of smell during or after application. This does not mean it is like distemper; it is a paint and has the durability and washable qualities of paint. As it dries and hardens it becomes completely insoluble in water. It has an egg-shell finish which is smooth in appearance and to the touch, and it can be applied over distemper, paint, cement, new plaster, varnish, or even over creosote or bitumen. One coat gives very good obliteration. The smooth texture of the paint and fine "flow-properties" result in freedom from brush marks. It can be applied quickly with a 6-in. brush without detracting from the quality of the finish.

It is, moreover, quick drying, so that two or more coats can be applied in an 8-hr. day, and this property, combined with the absence of any smell, should make it very useful for re-decorating cinemas, restaurants, hospitals, and other jobs where there must be no stoppage of use.

New wood and metal need an oil base primer, but otherwise "Pastello" can be used direct, thinned with water in the proportion of about 1 part water to 2 parts of paint for undercoating, and about 1 to 10 for finishing coats. Covering capacity is between 70 and 80 sq. yd. per gall., and the price per gallon is 40s. It is made in twenty different shades, and stainers are also



produced, so that almost any colour is possible. (Federated Paints Ltd., 2, Newton Place, Glasgow, C.3.)

## HANGAR LIGHTING

The illustration below shows what is, perhaps, one of the largest fluorescent lighting systems so far carried out in this country. It is in a series of hangars now under construction for British European Airways at London Airport. Four of the ten hangars to be built are already completed and the total floor space of the hangars equals roughly 99,000 sq. ft.

Lighting is by "Ionlite" cold cathode fluorescent tubes, in continuous rows under each roof beam and at a height of about 40 ft. above floor level. The installation gives an intensity of about 25 ft. candles at floor level and there appears to be no trouble with reflections from the surfaces of the aircraft. Moreover, the absence of shadows is such that work can be carried out on the underside of aircraft wings without local lighting. (Falk Stadelmann & Co. Ltd., 91, Farringdon Road, London, E.C.1.)

BRIAN GRANT

## Buildings Illustrated

*Cavendish Primary School, Edensor Road, Chiswick, London, W.4.* (Pages 342-346.) For the Middlesex County Council. Architects: C. G. Stillman, F.R.I.B.A., County Architect; C. E. Harland, A.R.I.B.A., and L. T. Channing, A.R.I.B.A., Assistant Architects. Sculpture: Jan Koper. General contractors: Prestige & Co. Ltd. Sub-contractors: roofing, Permanite Ltd.; steel trusses, Boulton & Paul Ltd.; tubular columns, Tubewrights Ltd.; bricks, E. H. Smith (London) Ltd.; heating, gas and h.w. installation, Edward Deane & Beal Ltd.; electrical installation, W. T. Bushell Ltd.; metal windows and doors, Crittall Manufacturing Co. Ltd.; metal door frames, Morris Singer Co.; flush doors, Flexo Plywood Industries Ltd.; ventilators and controllable louvres, Colt Ventilation Ltd.; balustrading, City Display Organisation; ironmongery, Nettlefold & Moser Ltd.; sanitary fittings, O'Brien Thomas; asphalt path and playground, General Asphalt Co.; entrance gates, Clark, Hunt & Co.

*Extensions to Willesden Technical College, Denzil Road, Willesden, Middlesex, for the Middlesex County Council.* (Pages 347-352.) Architects: C. G. Stillman, F.R.I.B.A., County Architect; D. A. Duncan, O.B.E., A.R.I.B.A., Area Architect; J. W. Paterson, A.R.I.B.A., Senior Architect. Consultants: (Structural) W. V. Zinn, (Electrical) G. H. Buckle & Partners. Quantity surveyors: Young & Brown. General contractors: Lavender McMillan Ltd. Sub-contractors: brick facings (external), H. J. Greenham (1929) Ltd.; flue linings, Moler Products Ltd.; brick facings (internal) Uxbridge Flint Brick Co.; cast iron drainage goods, Burns Bros. (London) Ltd.; duct covers, Dover Engineering Works Ltd.; ironmongery, N. F. Ramsay & Co. Ltd.; balustrading, Clark, Hunt & Co. Ltd.; metal windows, J. Gibbons Ltd.;

precast concrete facing slabs, Fabricrete Products; metal door frames, W. James & Co. Ltd.; electric lifts, Waygood-Otis Ltd.; heating, hot water supply and gas, Z. D. Berry & Sons Ltd.; woodwool slabs, Superlith Ltd.; Hornton stone, London & Sussex Merchants Ltd.; "Paropa" roofing, Frazzi Ltd.; ventilators, Greenwood & Airvac Vent Co. Ltd.; glass domes, T. & W. Ide Ltd.; drinking fountains, T. A. Harris Ltd.; rolling shutter, Shutter Contractors Ltd.; w.c. partitions, W. Mallinson & Sons Ltd.; sanitary fittings, Shanks & Co. Ltd.; glazed stonework channels, Broads & Co. Ltd.; flush doors, Leaderflush Ltd.; slate copings, Setchell & Son Ltd.; rubber flooring, Runnymede Rubber Co. Ltd.; precast concrete windows, J. A. King & Co. Ltd.; asphalt tanking, Brights Asphalt Contractors Ltd.; concrete tiles, Caledonian Concrete Products Ltd.; electrical installation, Thorpe & Thorpe Ltd.; water storage tank, Braithwaite & Co., Engineers Ltd.; terrazzo stair treads, Jaconello Ltd.; "Pyroc" finishes, C. & T. Painters Ltd.; cloakroom fittings, A. J. Binns Ltd.; paving, Surrey Bituminous Supplies Ltd.; lightning conductor, J. W. Gray & Sons Ltd.; cast iron spiral stair, Haywards Ltd.; paint supplier, Murray & Jones, Ltd.; laboratory receivers, A. Gallenkamp & Co. Ltd.; joinery, Woodworth Joinery Ltd.; Builders Supply Ltd.; fluorescent light fittings, Varilectric Ltd.; tungsten light fittings, Troughton & Young Ltd.; Tyrolean colour mix finish, Guntex Ltd.; trolley gear, G. W. King Ltd.; tubular gates, Lockerbie & Wilkinson; acoustic tiles, Horace W. Cullum & Co. Ltd.

## Correction

In the JOURNAL for September 4, on page 281, the visit of fifty architects and town planners to Warsaw was described. The British party included David Medd, A.R.I.B.A., A.A.D.P., and Mary Crowley, A.R.I.B.A., not David and Mary Crawley as stated.

## Announcements

A. Robert Jenkins, J.P., A.I.M.E.C.H.E., was installed as president of the Institute of Welding for 1952/53 at its annual general meeting. Mr. Jenkins, who was educated as a mechanical engineer at Sheffield University has visited factories in Sweden, Germany and the USA and was a member of the specialist productivity team on welding which visited the USA in 1950. He serves on the council of the British Welding Research Association, the Rotherham and District Employment Committee and the management committee of the Sheffield Engineering Employers' Association, and has been president of the Rotherham Chamber of Commerce since 1950. He is a founder-member of the Sheffield branch of the Institute of Welding.

J. D. Blacklock, A.R.I.B.A., has taken up the appointment of Borough Architect to the Bridgwater Borough Council, and will be pleased to receive catalogues, etc., at the Town Hall, Bridgwater, Somerset.

W. H. Groves, DIP. ARCH. (Nottm.), A.R.I.B.A., S.P.DIP., A.M.T.P.L., has been awarded a Visiting Research Fellowship under the Fulbright and Smith-Mundt Acts of the United States Government. He will carry out a year's research in housing and re-development, with special reference to mobility and the under-developed territories, at the Graduate School, Massachusetts Institute of Technology, Cambridge, USA, in the Department of City and Regional Planning. He has been engaged on housing and re-planning in London and expects to sail for the United States in early September. Manufacturers of constructional materials and equipment related to this research are asked to direct literature to him at the above address.



## SPECIAL FURNITURE FOR OFFICES & BOARD ROOMS

The upper photograph illustrates the Board Room of the new Building Centre, London, where "Unad" Tables and Chairs were used.

The lower photograph shows Story's "Versatile" hand-made furniture in Australian Walnut, for a Directors room of Fiat (England) Ltd., recently furnished by Story's.

Story's are pleased to quote from Architects' details or quote and submit designs to suit special requirements — large or small — embracing Furniture, Fittings, Carpets and Textiles, etc.

## STORY'S OF KENSINGTON

STORY & CO. LTD., Contemporary Showrooms & Contracts Dept.,  
7 Kensington High Street, London W.8.  
Traditional & Main Showrooms,  
49 Kensington High Street, London W.8.



USING this system of Guttering shows a tremendous saving in cost, material and maintenance charges. Finlock Gutters are made with a fine waterproof concrete—simple in design, easy

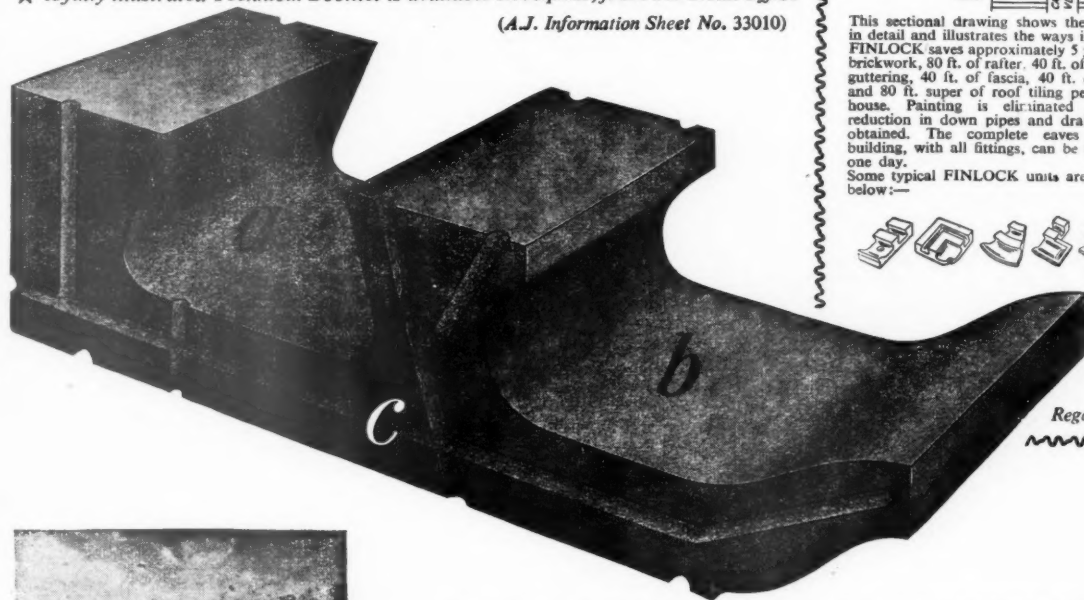
## Finlock forms the eaves and gutters (says Mr. Fin)

... and saves £15 per house! (says Mr. Lock)

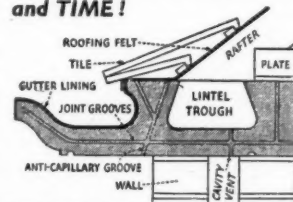


shows the large sectioned gutter channel which permits laying without fall. Strong enough to walk in and to withstand all building stresses. Completed by a bituminous lining after laying. "c" indicates the jointing grooves.

★ A fully illustrated Technical Booklet is available on request, from our Head Office  
(A.J. Information Sheet No. 33010)



### HOW FINLOCK SAVES MONEY and TIME!



This sectional drawing shows the system in detail and illustrates the ways in which FINLOCK saves approximately 5 yards of brickwork, 80 ft. of rafter, 40 ft. of normal guttering, 40 ft. of fascia, 40 ft. of soffit and 80 ft. super of roof tiling per single house. Painting is eliminated and a reduction in down pipes and drainage is obtained. The complete eaves for a building, with all fittings, can be fixed in one day. Some typical FINLOCK units are shown below:—



Regd. Pat.



Finlock Gutters are being used by the following County Councils: CAMBRIDGESHIRE, DERBYSHIRE, EAST SUSSEX, GLAMORGANSHIRE, GLOUCESTERSHIRE, KENT, LONDON, MIDDLESEX, NORFOLK, SURREY, STAFFORDSHIRE, WARWICKSHIRE, WORCESTERSHIRE.

Over 200 local authorities are now using Finlock.

The buildings shown are in accordance with the winning design in the £1,000 low cost housing competition organised by "THE BUILDER". By courtesy of J. L. Womensley, Esq., A.R.I.B.A., A.M.T.P.I., Borough Architect for Northampton.

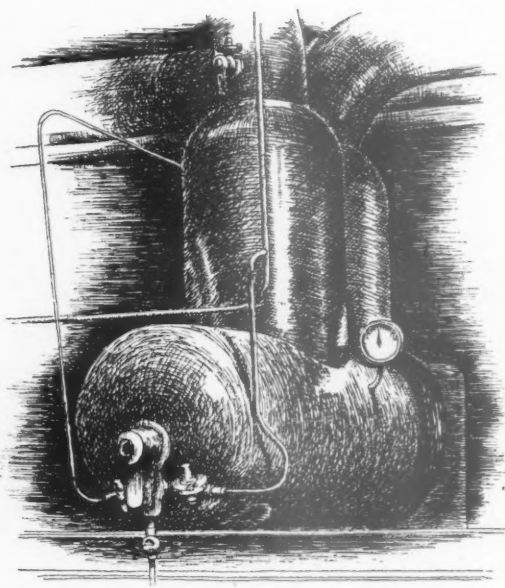
# FINLOCK GUTTERS LIMITED

20 ST. JOHNS RD., TUNBRIDGE WELLS, KENT  
Telephone: Tunbridge Wells 20396/7/8

7 WORKS FOR SPEEDY DELIVERIES TO ANY PART OF GT. BRITAIN · BARNSTAPLE, DEVONSHIRE · LEEDS, YORKSHIRE · EDINBURGH, SCOTLAND · CWMBRAN, SOUTH WALES · SOUTHAI, WARWICKSHIRE · TUNBRIDGE WELLS, KENT · BELFAST, NORTHERN IRELAND

DHB

# there's no escape from this



VERSIL GLASS SILK takes such intricate jobs of thermal insulation as this in its stride. Light and pliant, it fixes easily without heat and can be finished to suit all sorts of conditions, industrial or atmospheric. The long list of its applications grows daily in diversity. From tanks to telephone kiosks: from engines to ice boxes; from boilers to bee-hives; from mammoth installations to humble home uses—if the problem is to keep heat where it's wanted, Versil has all the answers. If we can give you any assistance please write to VERSIL Ltd., Rayner Mills, Liversedge, Yorkshire.

**V E R S I L**

GLASS SILK INSULATION

CFW

## COMPLETE PLASTER *Specifications for* **ARCHITECTS**



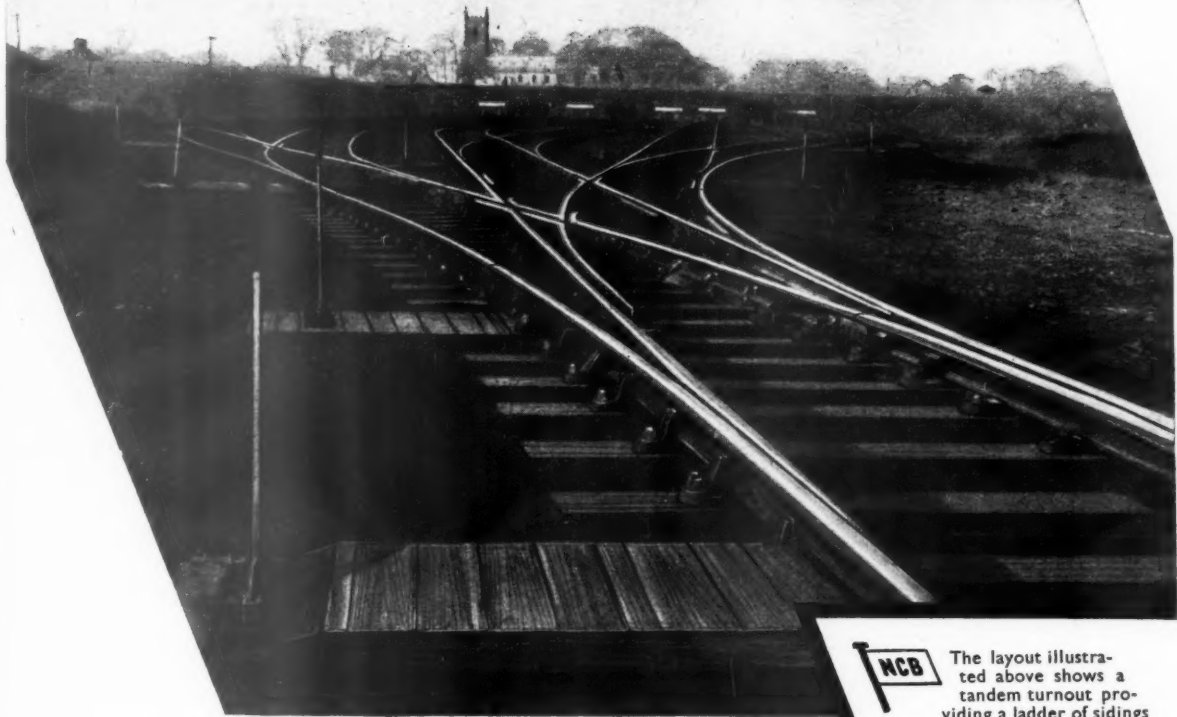
**"Murite"**  
REGD. TRADE MARK  
**GYPSUM PLASTER**



WRITE FOR YOUR COPY TO:

**CAFFERATA & CO. LTD.**  
NEWARK • NOTTS. TELE : NEWARK • 2060

## WARDS *for* RAILS *and* SIDINGS



The layout illustrated above shows a tandem turnout providing a ladder of sidings at the Primrose Hill Unit of the National Coal Board, by whose courtesy the photograph is reproduced.

Because we take a pride in our undertakings relative to their size and importance, there is a tendency for us to feature our bigger contracts whenever we choose a photograph to illustrate our work.

Nobody would gainsay us this very human privilege.

Nevertheless, there are always dozens of smaller jobs in progress all over the country in which we take no less pride—jobs which, relatively small though they be, still carry the unmistakable stamp of planned construction which characterises every Ward-built siding, no matter what its size or complexity.

*The Railway Siding Consultants and Contractors*

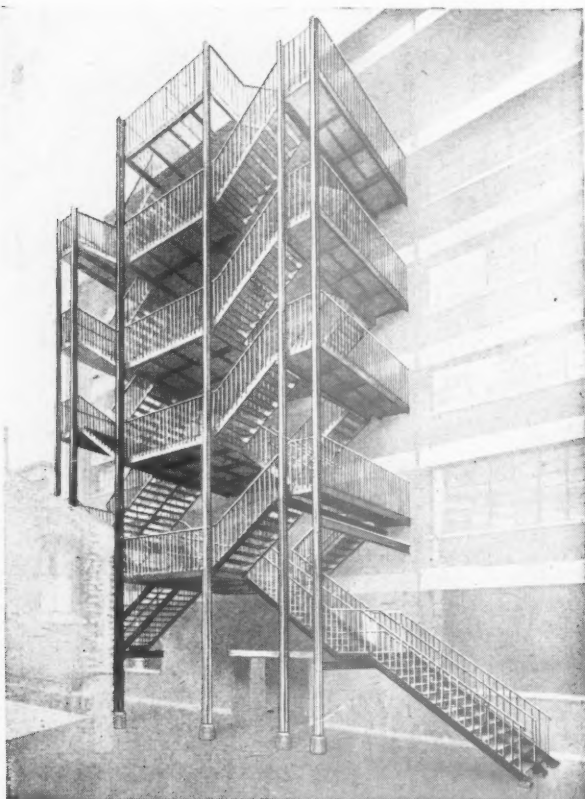
**THOS W. WARD LTD**  
**ALBION WORKS • SHEFFIELD**

TELEPHONE: 26311 (22 Lines) • TELEGRAMS: "FORWARD, SHEFFIELD"

LONDON OFFICE: BRETENHAM HOUSE • LANCASTER PLACE • STRAND • W.C.2



# STRUCTURAL IRONWORK



A fire escape stair erected for Messrs. Peek, Frean & Co., Bermondsey, London. Architects: Wallis, Gilbert & Partners, 15 Elizabeth Street, London, S.W.1.

FIRE ESCAPE AND OTHER STAIRS  
GATES AND RAILINGS  
LAMP STANDARDS, etc.

Drawings and Estimates free of charge. Special consideration will be given to architects' own designs. Carron Company invite your enquiries for structural ironwork.

**CARRON COMPANY**

The Royal Charter Company founded in 1759

Works: CARRON • FALKIRK • STIRLINGSHIRE

SHOWROOMS AND SUB-OFFICES: 15 UPPER THAMES STREET, LONDON, E.C.4.  
22-26 REDCROSS ST. LIVERPOOL 1. 125 BUCHANAN ST. GLASGOW, C.1. SUB-OFFICES:  
14 RIDGEFIELD, MANCHESTER 2. 33 BATH LANE, NEWCASTLE-ON-TYNE.

## Two ways to HEAT CONSERVATION

### 1 DRAUGHT EXCLUSION

will reduce the loss of heat through the average window by at least *half*, and through doors by an even greater amount. The actual rate of cold-air infiltration, the source of all draughts, can in turn be reduced by anything up to 95% according to type of construction.

EXAMPLE: D/H Sash Windows of wood, 5' 2" x 2' 8", average length and width of gap, 18' 0" x  $\frac{1}{8}$ ", average wind speed 10 m.p.h.

The two HERMESEAL strips make a perfect draughtproof seal when window is closed



BEFORE draught-exclusion	=	1903.0 cu. ft. per hr.
AFTER " "	=	264.6 cu. ft. per hr.
PREVENTION achieved	=	1643.4 cu. ft. per hr. or 86.1%

### 2 ROOF INSULATION



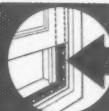
will reduce the loss of heat through a roof-area by at least 70%. This loss, in the average house, is about *one-third* of all the heat lost in various ways from the structure as a whole.

EXAMPLE: Average "U" values of a number of Pitched roofs of NEW but varying construction. "U" = B.Th.U/sq. ft./hr./1 deg. F.

BEFORE insulation (Desirable standard 0.20)	=	0.43
AFTER insulation by 1" bitumenised glass silk	=	0.13
PREVENTION achieved	=	0.30 or 69.7%

Specify DRAUGHT EXCLUSION and ROOF INSULATION by HERMESEAL. No higher degree of efficiency in the conservation of heat and the saving of fuel can be achieved in any already existing building. Surveys and installations are carried out by our own skilled staff throughout the country. Write for full details.

DRAUGHT EXCLUSION & ROOF INSULATION BY



**HERMESEAL**  
*means warmer homes*

BRITISH HERMESEAL LIMITED

Head Office:—4 PARK LANE, LONDON, W.1

Telephone: GROsvenor 4324 (3 lines)

## TEMPERATURE CONTROL ON H.W. HEATING SYSTEMS IN ADVANCE OF EFFECT INDOORS OF OUTSIDE TEMPERATURE CHANGE



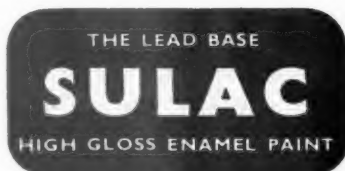
*A Brilliant finish!*

Durable for Decoration is the inside and out description of SULAC—lasting decorative beauty by the combination of LEAD and GLOSS resulting in

### A BRILLIANT HARD FINISH

This lead base, high gloss Enamel Paint has really excellent covering capacity for interiors and exteriors, on all surfaces of Wood, Metal, Plaster and Stone. Most economical in use by its fine obliterating qualities, SULAC dries with a high gloss finish without brush marks.

In white and a rainbow-range of 24 fascinating fast colours.



*Write for Colour Card and full details to*

**STORRY SMITHSON & CO. LTD**

*Creators of Quality Paints and Enamels since 1831*

**BANKSIDE WORKS • HULL**

The Sarco E.T.O. is a self-contained fully automatic control for accelerated hot-water heating systems.

Its three-ported thermostatic Blending Valve is under the master control of a second thermostat located outdoors. Variations in the temperature of flow from the Blending Valve to the heating system are made directly by the outdoor thermostat in anticipation of the effect indoors of any external temperature change. Thus:

- 1 *The E.T.O. provides equable indoor temperatures under conditions of changing outdoor temperatures ;*
- 2 *It controls heat supply at the minimum required to balance heat losses whatever the outside temperature conditions, giving maximum fuel economy ;*
- 3 *It can be designed to suit the heat emission curves appropriate to the type of heating surface installed ;*
- 4 *It can, after installation, be corrected to allow for any variation between design and site conditions ;*
- 5 *A boiler is subjected to less strain, and corrosion troubles avoided, because the boiler can be operated at a constant water temperature ,*
- 6 *The E.T.O. is non-electric, entirely self-operating and direct-acting. It has packless glands which eliminate the trouble so commonly experienced with ordinary glands.*
- 7 *It is reasonable in cost, easy to install, and easy on maintenance.*

For more information, please send the request slip (below) to SARCO THERMOSTATS LTD., CHELTENHAM, GLOS.

### SARCO E.T.O. CONTROLLER

REQUEST SLIP FOR ADDITIONAL INFORMATION

NAME:

ADDRESS:



ARA962

**NEW LIGHT ON OLD SAYINGS:**



**Consult**

**PHILIPS ELECTRICAL LTD.**  
*on all lighting problems*

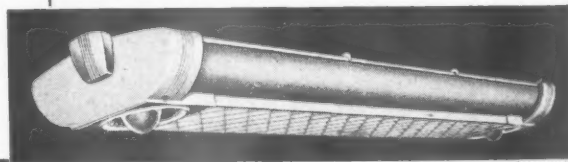


Light Group • Century House • Shaftesbury Avenue • London • W.G.2  
LAMPS & LIGHTING EQUIPMENT • RADIO & TELEVISION RECEIVERS  
"PHILISHAVE" ELECTRIC DRY SHAVERS, ETC.

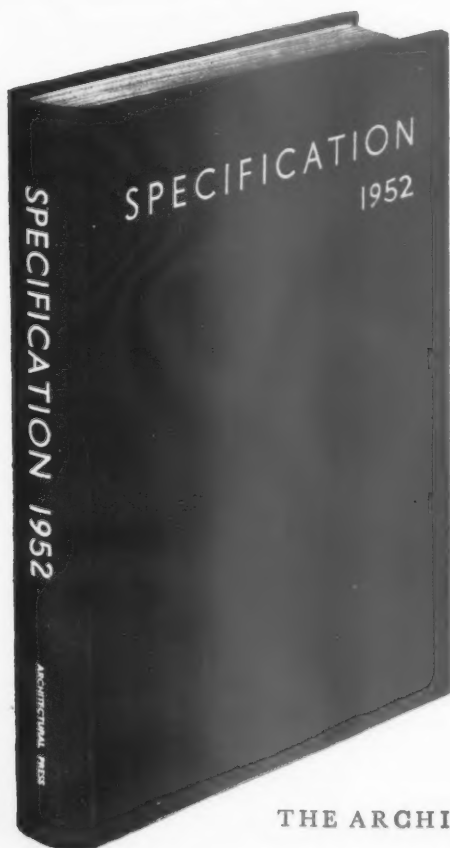
**OUT OF SIGHT-  
OUT OF MIND**

Who's going to be tempted into 'spur-of-the-moment' purchases if the goods are handicapped by being badly lit? Really effective lighting can make a world of difference to a shop's prestige and profits — as Philips have been proving for the last sixty years. For Philips have unsurpassed experience in every type of specialised lighting. That experience is always at your service. You have but to call in a Philips engineer for a consultation about your lighting ideas — there's no charge.

The Philips "Alva" fitting, illustrated, uses two Philips Instant-Self-Start Fluorescent Lamps and two Philips Tungsten Ballast Lamps. Other suitable fittings are "Arundel" or "Abingdon".



(LD211A)



**SPECIFICATION**  
**1952** EDITED BY  
**F.R.S. YORKE FRIBA**

*SPECIFICATION maintains an unrivalled position among architects, engineers, surveyors and others for supplying information to help them in drawing up their Specifications of Works. It is an up-to-date reference book, revised each year, which brings into one volume all the essential facts—comprehensively cross-indexed—concerning both old and new materials and systems of building practice. The current volume has thirty-five sections, covering the various branches in the building trades (with Model Specification Clauses appended to nearly every section) and arranged in sequence as laid down by the British Standards Institution.*

← actual size is 13in. by 9in. Over 1,200 pages. Bound in stout boards. Price £1 5s. net; postage 1s. 10d. inland, 2s. 8d. abroad.

The standard technical reference work for architects, surveyors and engineers, and for all interested in building.

THE ARCHITECTURAL PRESS 9-13 Queen Annes Gate London S W 1

WILLESDEN TECHNICAL COLLEGE EXTENSION

*Specialists in  
Architectural Ironmongery and  
Metalwork were appointed for  
this Contract.*

The Craftsmen were:—

**N. F. RAMSAY & CO. LTD.**  
**5, VICTORIA STREET**  
**WESTMINSTER, S.W.1**

ABBEY 2767

AND AT NEWCASTLE • BIRMINGHAM GLASGOW



**A WELL PLANNED LABORATORY**  
is the basis of  
scientific economy

**Laboratories Furnished and Equipped** by Griffin & Tatlock are individually planned with a view to providing the greatest degree of working efficiency. Scientific control can achieve economies which can substantially reimburse initial laboratory outlay.

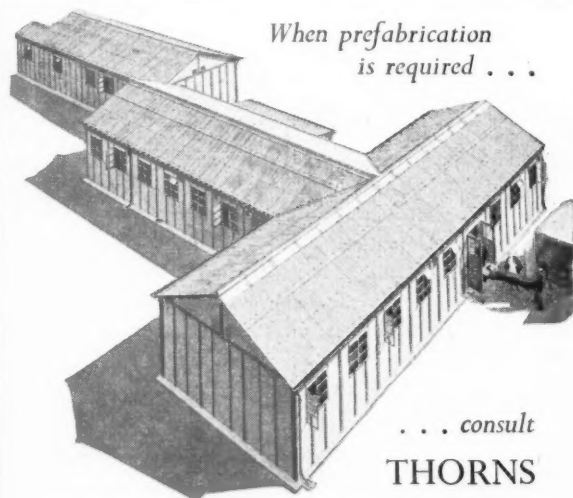
**In Every Instance**, requirements and problems are carefully examined by expert advisers—the furniture, plumbing, fittings, services and equipment being subsequently installed to give the best advantage to future function.

**Specially Designed Furniture**, produced at the Griffin & Tatlock factory, is made to order. Practically any type of equipment can be fitted as required. Please write for further details of this service—or ask for a technical representative to call upon you.

**GRIFFIN & TATLOCK LTD.**  
SCIENTIFIC INSTRUMENT MAKERS SINCE 1826



**LONDON:** Kemble Street, W.C.2  
**MANCHESTER:** 19, Cheetham Hill Road, 4  
**GLASGOW:** 45, Renfrew Street, C.2  
**EDINBURGH:** 8, Johnston Terrace, 1.  
**BIRMINGHAM:** Standley Belcher & Mason Ltd., Church St., 3.



*When prefabrication  
is required . . .*

*. . . consult*  
**THORNS**

This hospital extension, supplied by Thorns, is a good example of planning by an architect whose resourcefulness in adapting Thorns buildings, fully met the needs of his client for immediate extra accommodation at an economical price.

*Similar structures are very suitable for:*

**HALLS • CLUBS • OFFICES • PAVILIONS • LIGHT INDUSTRY**

Timber framed. Timber covered or asbestos covered.  
10' 12' 15' 20' 25' and 30' SPANS 6' 7' 8' and 10' EAVES  
(or any size and design to your specification)

We shall be pleased to send details and prices.

**J. THORN & SONS LIMITED (Dept. 188)**  
BRAMPTON RD., BEXLEYHEATH, KENT.

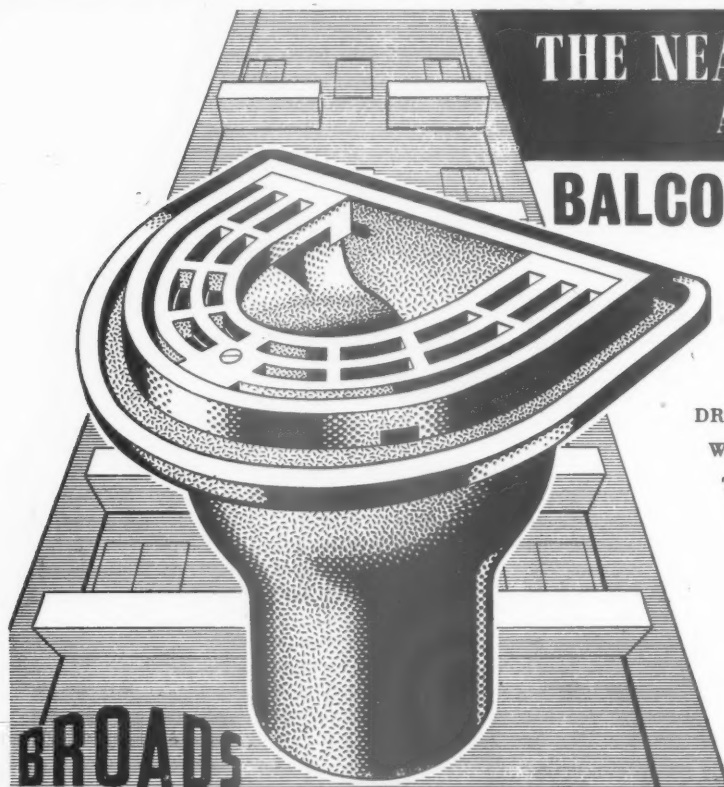
Tel. Bexleyheath 305

Established 1896

BD432

lxv

F



## THE NEAT AND SIMPLE ANSWER TO BALCONY DRAINAGE

BROADS PATENT COMBINATION  
BALCONY DRAINAGE UNIT IS  
DESIGNED TO SIMPLIFY THE  
DRAINAGE OF BALCONIES THROUGH  
WHICH THE DOWN PIPE PASSES,  
THUS PROVIDING A NEAT AND  
UNOBTRUSIVE APPEARANCE.

Manufactured in various sizes to suit  
rain-water pipe.

(PATENT APPLIED FOR)

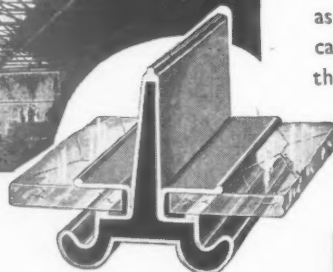
INFORMATION SHEET SENT  
ON REQUEST

**BROADS**

MANUFACTURING CO., LTD. 4 SOUTH WHARF, PADDINGTON, LONDON, W.2. TEL: PAD. 7061 (20 lines)



★ We shall welcome the opportunity  
to tell you more in our Brochure  
"A" about Paragon Glazing.



## Overhead Efficiency without Overhead Expense!

We may justifiably claim that a Paragon Glazed  
Roof or Lantern Light, once installed, "stays put"  
for the lifetime of the building without any  
necessity for that periodical maintenance character-  
istic of less thorough installations. The reason is  
that all products used in our manufactures, as well  
as the process of manufacture itself (which is  
carried out entirely in our Works), are subject to  
the closest scrutiny as to quality and detail. May  
we suggest that the experience of upwards of  
40 years of all the varied aspects of roof glazing  
are not without value?

**PARAGON GLAZING CO. LTD.**  
1 VICTORIA STREET, LONDON, S.W.1  
Telephone: ABBey 2348 (P.B.X.)  
Telegrams: "Eclairage, Sowest," London.

# PARAGON GLAZING

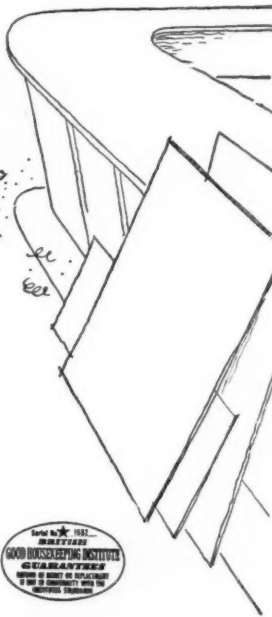
Let's put  
our heads together



You are the experts in building construction. We, the manufacturers, know our WARERITE Plastics.

Together we can make sure that the materials at hand are used to the best possible advantage.

After testing WARERITE Laminated Plastics in every conceivable application, we have many a 'wrinkle' up our sleeve. Any time you are in doubt over technicalities, please write or 'phone—and let us put our heads together.



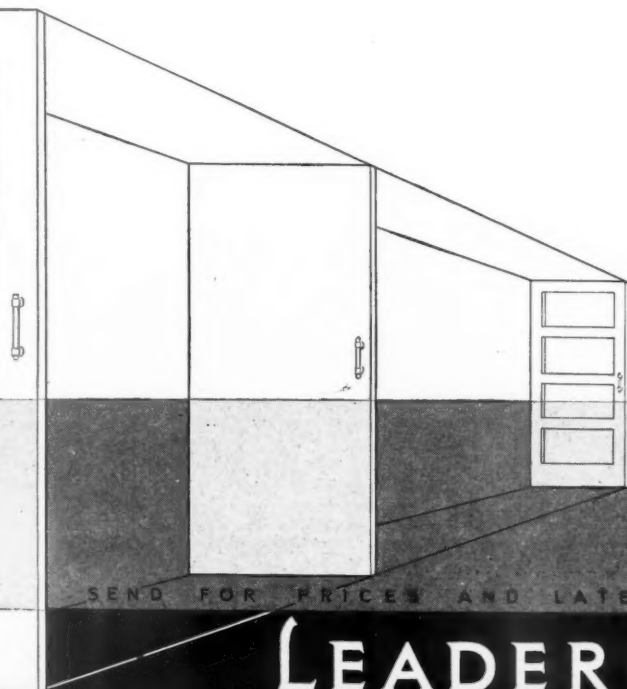
**WARERITE**  
TRADE MARK  
LAMINATED PLASTICS



MADE BY WARERITE LIMITED (UNIT OF BAKELITE LTD) • WARE • HERTS • TELEPHONE: WARE 502 W95  
*Manufacturers of Decorative Laminates for over 20 years*

## BRITAIN'S FINEST GRADE I DOORS

PRODUCED  
AND SUPPLIED  
IN QUANTITY  
AND IN ALL  
TYPES FOR  
IMMEDIATE  
DELIVERY



SEND FOR PRICES AND LATEST CATALOGUE

**LEADERFLUSH**  
LTD.

TROWELL, NOTTINGHAM. Telephone: ILKESTON 623 (4 lines)

HOUSES,  
FLATS,  
SCHOOLS,  
HOSPITALS,  
FACTORIES



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



TRAFALGAR 7833

# THE DEMOLITION & CONSTRUCTION

COMPANY LIMITED

EXTENSION TO THE FACTORY OF THE BUSHING CO. LTD.  
HEBBURN ON TYNE.

*Architects: Messrs. Cackett, Burns Dick & Mackellar*



**Take any number...**

In mass production the batch number of a lamp is an important reference, as from every batch, during manufacture, a certain percentage of lamps is subjected to numerous tests. Statistical analysis of the results of these tests gives early warning of any tendency to drift from the desired standard in light output, mechanical strength, life etc. You can therefore, take any number of these lamps with the assurance of consistently high quality throughout.

*Checking luminous efficiency of G.L.S. lamps in an integrating sphere.*

## METROVICK LAMPS

*Quality controlled throughout manufacture*

METROPOLITAN-VICKERS ELECTRICAL CO. LTD., ST. PAUL'S CORNER, 1-3 ST. PAUL'S CHURCHYARD, LONDON E.C.4

*Member of the A.E.I. group of companies*

SA/103

lxviii

# Tension by Torsion

7th September 1952

Dear Sirs,

We have despatched under separate cover four lengths of Pyrotenax which we think will be of interest to you. This was supplying current to one of our machines by passing through a hollow shaft which was stationary, the cylinder revolving around it, the four cables being separate, following a bearing failure of the shaft which did not fail much to the discomfiture of the cables which did not fail until they had pulled the terminal glands out of the junction box fracturing the top of same.

On test the cable still showed continuity and perfect insulation. We think that this demonstrates the toughness and reliability of Pyrotenax. The damage of the cables was brought about in trying to get them out of the hollow shaft.

Yours faithfully,  
for HEBBURN & CO. LTD.  
Chief Engineer.



*This is an authentic letter. The original signed copy on our customer's letter heading and the twisted cable itself may be seen at our Hebburn Works.*

This letter from one large-scale Pyrotenax user speaks for itself—and speaks well for Pyrotenax, too. Seldom is Pyrotenax put to such a severe test, but nevertheless, the inherent toughness that enabled Pyrotenax to withstand such treatment is a valuable asset where cable must be exposed to danger of maltreatment for any reason. Fire-resistant, and virtually everlasting, Pyrotenax—the only mineral insulated copper covered cable—requires no replacement under normal conditions, and is easily installed in factories and works equipment of all kinds.

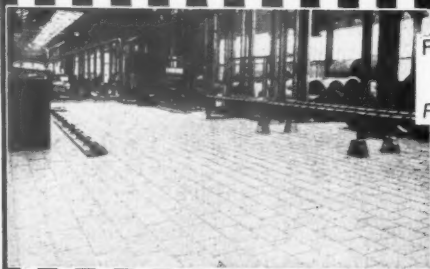
## Pyrotenax

COPPER COVERED MINERAL INSULATED CABLES

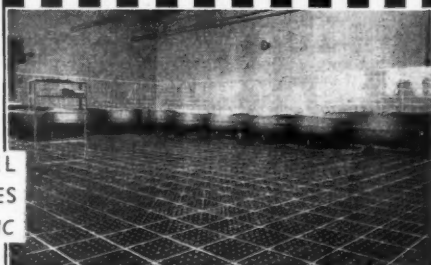
ELECTRIC CABLES FOR INDOOR & OUTDOOR WIRING  
For installations in Factories, Oil Refineries, Steel, Textile and Paper Mills, Chemical Works, etc.

"Pyrotenax" is an exclusive trade mark name, and must only be used to designate cables and other products manufactured by this company and its associates

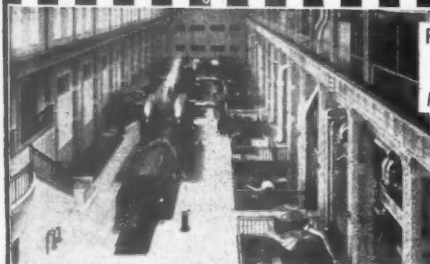
PYROTENAX LTD · HEBBURN-ON-TYNE: HEBBURN 32244-7 London : Abbey 1654-5. Birmingham : Midland 1265. Glasgow : Central 2238. Manchester : Blackfriars 6946.



FERROGRAN STEEL  
FACED FLAGS  
FOR LONG LIFE



CONSOL STEEL  
ANCHOR PLATES  
FOR HEAVY TRAFFIC



PRODORDUR  
FLOOR TILES  
FOR DECORATION



ACID RESISTING  
FLOORS  
FOR CHEMICAL  
CONDITIONS

INDUSTRIAL FLOOR SURFACE TO SUIT EVERY CONDITION

HEAD OFFICE:

EAGLE WORKS  
WEDNESBURY  
STAFFS.

TELE: WED - 0284 - 5 LINES

LONDON OFFICE:

ARTILLERY HOUSE  
ARTILLERY ROW  
LONDON · S.W.1.


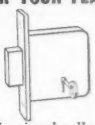

TELE: ABBEY 3816 - 5 LINES



EST. 26 YEARS

# Give your clients 'burglar- proofing'

Householders and housebreakers both know and respect the name Chubb. The burglar knows he can't afford to waste time on a Chubb lock — the mere name is enough to move him on. For Chubb locks will resist attack from all the weapons in the modern housebreaker's armoury. Always specify Chubb anti-burglar locks for houses, flats, garages and other buildings. In this way, you will be giving your clients security.

FOR YOUR HOUSE	FOR YOUR FLAT	FOR YOUR GARAGE
		
Mortice locking latch 3L91 at 62/6	Mortice deadlock 3G71 at 57/6	Battleship Padlock 1K11 at 49/6

Specify **CHUBB** locks  
**UNBEATABLE**

CHUBB & SONS LOCK & SAFE CO. LTD., 40-42 OXFORD ST. LONDON W1

## THE TREND IN FLUE DESIGN

The problems encountered in the design of Central Heating Boiler Flues arise from the necessity to overcome the effects of the following:—

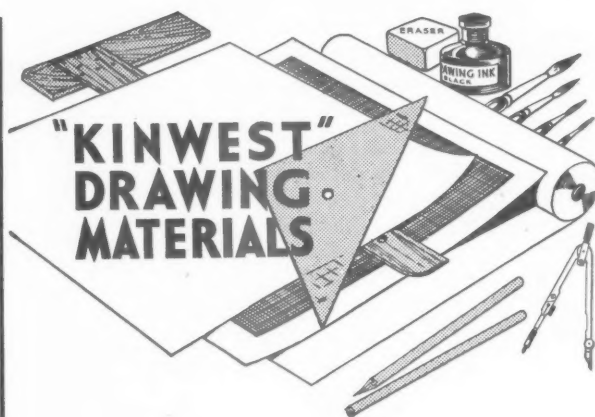
1. Heat transmittance through the flue walls.
2. Expansion of brickwork due to high flue gas temperatures.

At one time the ventilated air cavity between lining and casing brickwork was the only solution to both contingencies. From both the thermal and constructional aspects, however, the cavity method has never been fully reliable.

"Fosalsil" Flue Bricks, by virtue of their high insulating properties and negligible coefficient of expansion provide a simple answer to both problems. Furthermore, their use as a lining dispenses entirely with the need for a cavity and they can be bonded with the brick casing without fear of subsequent flue cracking. Further details and/or recommendations will be gladly supplied on request.

**MOLER PRODUCTS LTD.**  
HYTHE WORKS, COLCHESTER.

PHONE: COLCHESTER 3191 (3 lines) GRAMS: FURMOL, COLCHESTER.



We are the largest manufacturers of high-grade Drawing Instruments and Slide Rules in the British Empire, and our Kinwest Drawing Materials have gained a reputation throughout the world for superb quality and accuracy. Insist on using only Thornton's for complete satisfaction.

Our illustrated Catalogue, which includes particulars of Drawing Boards, Tee and Set Squares, Scales, Slide Rules, Drawing Instruments, Curves, Protractors, Drawing Materials, etc., is sent Post Free on request.

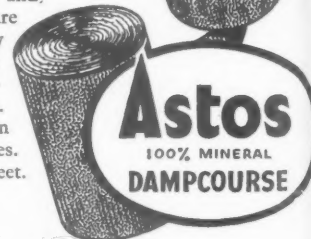
**A. G. THORNTON LTD**  
*Drawing Instrument Specialists*  
WYTHENS H A W E , M A N C H E S T E R  
Tel: WYThenshawe 2277 (4 lines)



DC.99

Charles House, Kensington  
Architect: Major Arthur S. Ash, F.R.I.B.A.  
Dampcourse: Standard Astos

The increasing specification of Astos Dampcourse for Commercial Buildings, Schools, Housing Schemes and Public Buildings is a sure indication of its popularity where quality is the first consideration. Fully described in leaflet No. 555. Standard or Lead-lined in all wall widths up to 36 inches. Rolls contain 24 lineal feet.



THE RUBEROID COMPANY LIMITED,

2 COMMONWEALTH HOUSE, NEW OXFORD STREET, LONDON, W.C.1

## STONE CLEANING, STONE RESTORATION AND DECORATIONS

Stone cleaning by Mason's process (No chemicals used)

Restoration with new stone or plastic stone

High Class Decorations

Some recent contracts:—

Ashley Court Hotel  
Automobile Association (Fanum House)  
Babcock & Wilcox Limited  
Cafe Royal  
Dewars John & Son  
Doulton & Company Limited  
Guildhall School of Music  
Institute of Chartered Accountants  
King's College  
Leadenhall Market  
Park Lane Hotel  
Pimms Limited  
Somerset House  
William Whiteleys Limited



SHELL MEX HOUSE  
one of the many important London buildings  
cleaned by:

**BATEMAN'S STONECLEANING LIMITED**

Established 1897

28, 29 Brooke Street, Holborn, E.C.1.

Telephone: HOLborn 9152/3/4



## ROAD KERB

*Made strictly to British  
Standard No. 340 (1950)*

Vibrated or Hydraulically Pressed  
of Granite or Gravel Aggregate.  
Tool-dressed to order.

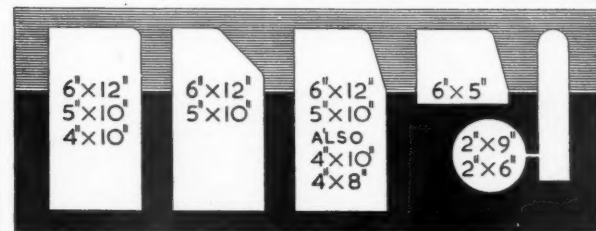
Section	Description	Approx. Weight
6" x 12" B.S. Fig. 1	Rectangular Bullnose	10½ yards per ton
5" x 10" " " 2	" " "	15 " "
4" x 10" " " 3	" " "	18½ " "
6" x 12" " " 4	Splayed Section "	11 " "
5" x 10" " " 5	" " "	16½ " "
6" x 12" " " 6	Half Batter Section	10½ " "
5" x 10" " " 7	" " "	15½ " "

Stocks, including Channel, Standard Radii and Quadrants are held at  
our Works at Willenhall, S. Staffs; Kidsgrove, N. Staffs; Iwer, Bucks;  
Littlehampton, Sussex; Scunthorpe, Lincs; and Whitchurch, S. Wales.  
Full particulars and prices on request.

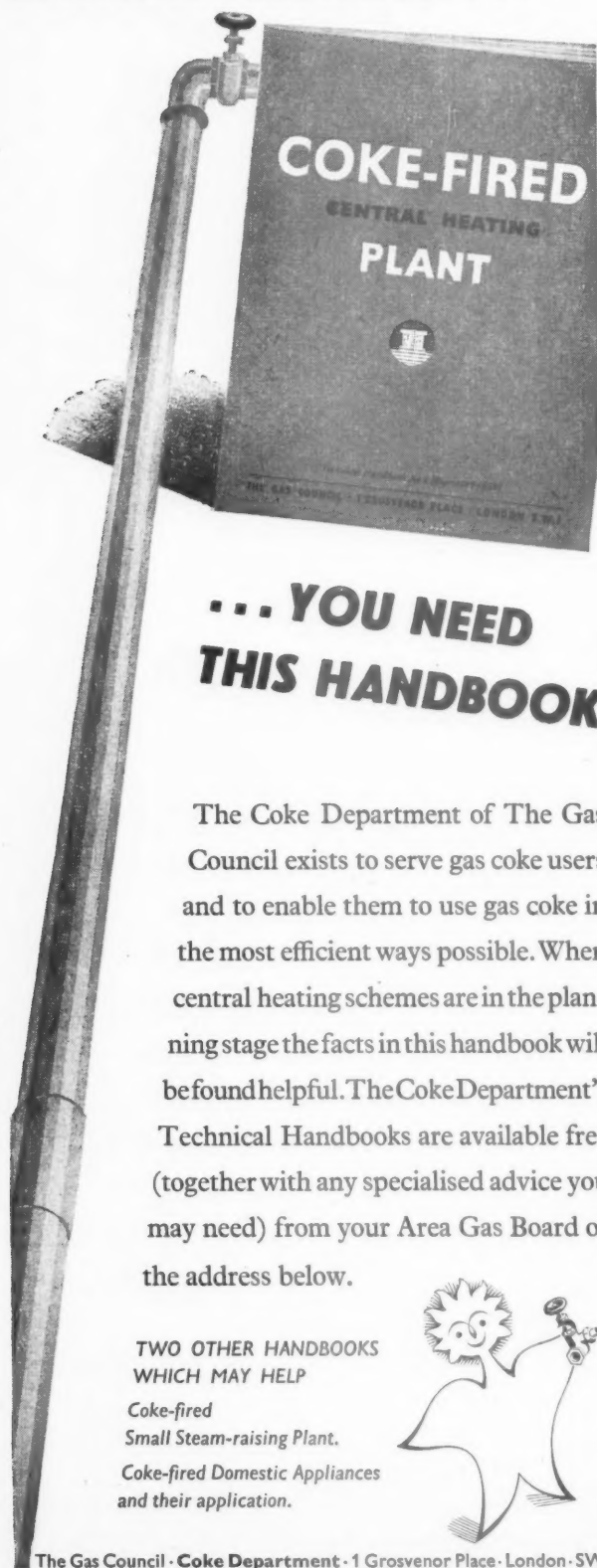
**TARMAC LIMITED**  
**VINCULUM DEPT.**  
ETTINGSHALL, WOLVERHAMPTON

Telephone: BILSTON 41101/8 (8 lines)

London Office: 50 Park St., W.1. Phone: GROsvenor 1422-5 (4 lines)



# IF YOU'RE PLANNING CENTRAL HEATING...



## ... YOU NEED THIS HANDBOOK

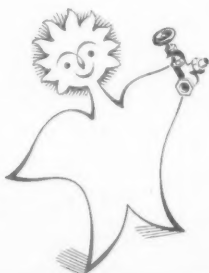
The Coke Department of The Gas Council exists to serve gas coke users and to enable them to use gas coke in the most efficient ways possible. When central heating schemes are in the planning stage the facts in this handbook will be found helpful. The Coke Department's Technical Handbooks are available free (together with any specialised advice you may need) from your Area Gas Board or the address below.

TWO OTHER HANDBOOKS  
WHICH MAY HELP

Coke-fired

Small Steam-raising Plant.

Coke-fired Domestic Appliances  
and their application.



The Gas Council · Coke Department · 1 Grosvenor Place · London · SW1

YOU CAN  
HAND  
IT TO

Duncan  
TUCKER

THEY  
MAKE  
VERY  
GOOD  
JOINERY





DUNCAN TUCKER (Tottenham) LIMITED  
LAWRENCE ROAD, LONDON, N.15

Telephone: STAmford Hill 1212 (8 lines)

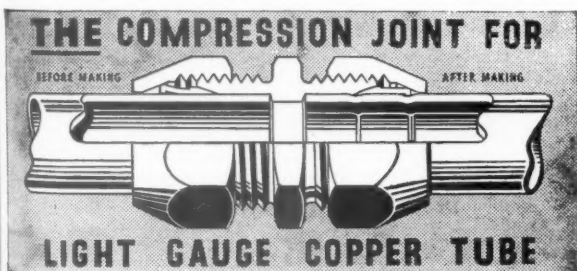
T38



-  Double grip means double strength.
-  Streamlining gives better appearance.
-  Can be 'made' in 10 seconds.
-  Tested to 5,200 lb. per square inch, hydraulic and still sound.
-  All castings gunmetal—water-tested.
-  Can be made and remade any number of times.

The Hanlo Joint has been proved to provide the perfect union for light gauge copper tube. The double grip ferrule ensures an absolutely permanent joint of almost welded strength and yet the joint can be remade any number of times without losing its efficiency. Hanlo is acknowledged by Municipal Authorities and leading Contractors to be the best Compression joint available—the sales figures prove it too!

Ask for details of the Hanlo Pillar Cock adaptor



The new fully illustrated Hanlo Catalogue is now available. Your copy will be sent on request.



— is made by

**Lovell & Hanson Ltd**

32, SPON LANE, WEST BROMWICH  
 Phone: West Bromwich 1681  
 LONDON OFFICE: 2, Countisbury, St. Mark's Hill, Surbiton, Surrey Phone: Elmbridge 6262

W. N. Froy & Sons Ltd.  
 Brunswick Works,  
 Hammersmith, W.6

Stockists:  
 The Builders Copper Tube Co. Ltd.  
 14, Norfolk Street, W.C.2  
 Temple Bar 4696 (4 lines)

L.G.B.

lxxiii

# "The Time is EXACTLY..."



the RIGHT time —  
 at Broadcasting House  
 and throughout all the famous  
 studios and Transmitters  
 for Radio and Television.  
 Accurate reliable time  
 is essential  
 when so many millions  
 are waiting  
 for those familiar words  
 "The time is  
 EXACTLY..."

Precisely the same accurate time is available for all establishments, in Industry and Commerce, from the same precise equipment if you do as the BBC do — install



## GENTS' OF LEICESTER

### Controlled Electric Clock Systems

Our illustrated Booklet, "Gents' Pul-syn-etic Electric Clock Systems", will be forwarded on request.

GENT & CO. LTD. • FARADAY WORKS • LEICESTER

47 Victoria St., London, S.W.1.

Leazes Park Road, Newcastle-on-Tyne, 1  
 Winchester House, Victoria Sq., Birmingham, 2 • 20 Blythswood St., Glasgow, C.2

Makers of Electrical products since 1872

EVERYDAY, MORE WOMEN SAY—  
"IT'S EZEE for ME!"



With 45 different units all styled to match and fit flush together when desired, EZEE offer Britain's largest range of matched kitchen units.

Top quality, outstanding beauty, distinctive features, practical and durable, competitively priced. Leads in value. Consider the saving in labour and years of service.

Visit our showrooms or write for our latest brochure T.I. and full Trade Terms.

**EZEE KITCHENS LIMITED**  
341a SAUCHIEHALL STREET, GLASGOW

Telephone: DOUGLAS 4956

London Showrooms: 8 LANSDOWN ROW (off Berkeley Street), W.1

Telephone: GROSVENOR 5068

See the EZEE—  
BY THE  
GOOD HOUSEKEEPING  
INSTITUTE  
GUARANTEES  
Replacement or refund of money if this  
appliance does not conform to the  
conditions of the Institute

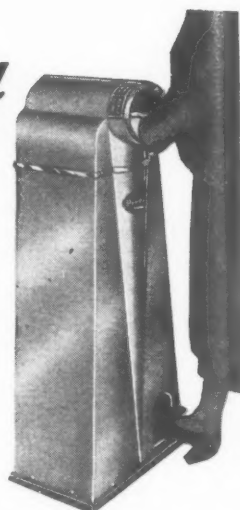
SINK UNITS  
from £46.

COMPLETE KITCHENS  
average £203/£300

**Handy-Andy**  
WARM AIR TOWELS

**DRY HANDS  
AND FACES**

swiftly, hygienically,  
thoroughly at one quarter  
the cost of paper towels at  
less than one third the cost  
of laundering, (The saving  
is even greater if the cost of  
replacements is included).



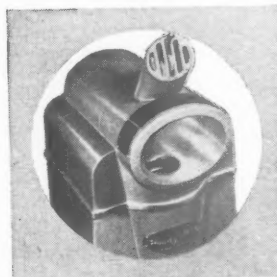
Handy Andy is the most  
hygienic and economical  
means of complying with  
Section 42 of the Factory Act.  
What you save will pay for  
your Handy Andys in less than  
a year.

Write for full details to:

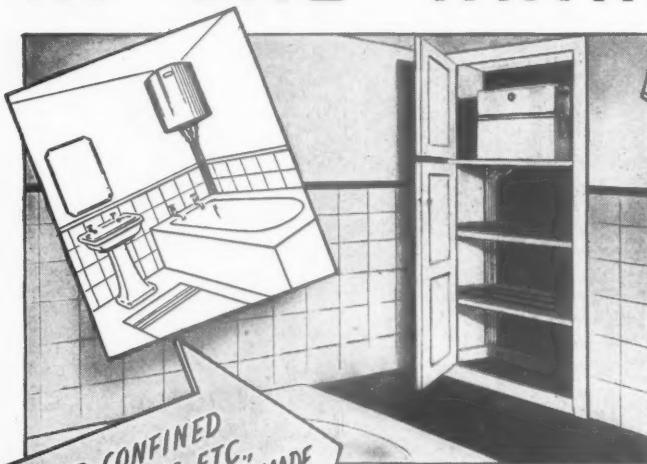
**QUIZ ELECTRICS LTD**

160, High Street, Teddington,  
Middlesex

Representation is required in some areas



**A COMPLETE HOT WATER SYSTEM  
IN ONE TANK**



**SPECIFIED BY  
MORE THAN 300  
LOCAL AUTHORITIES**

**IDEAL FOR CONFINED  
SPACES CORNERS ETC.,  
THE RECESSED TYPE CAN BE MADE  
DOWN TO A BACK TO FRONT  
MEASUREMENT OF ONLY 12 INCHES**

Simplicity for  
Plumbing, Compact-  
ness for limited spaces, Accessibility  
after fixing, and far greater Heating  
Efficiency are the characteristics of the  
Rolyat system which have outmoded  
the tank and cylinder and convinced  
heating engineers and local authorities  
throughout the country of its  
superiority.

Several types and sizes are available  
for both Hard and Soft water areas and  
in various designs and capacities.

The manufacturers will be pleased to  
send complete specifications on  
request.

**ROLYAT PATENT HOT WATER  
TANKS**

THE ROLYAT TANK CO. LTD. • CROMWELL ROAD • YORK

## SITE INVESTIGATION

*The essential preliminary  
to the economical design  
of foundations  
for building construction*

In addition to our Test Boring facilities, we are able to offer the services of our Soil Mechanics Laboratory, which is fully equipped to carry out a complete series of laboratory tests with modern apparatus. On completion of the tests, comprehensive reports are provided showing the properties of the soil samples, the results of the various tests, and their practical application to the foundation problem under consideration. The work, both in the field and in the laboratory, is supervised by qualified engineers who have made a special study of the subject.



Test boring operations in progress.



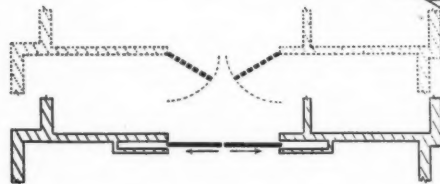
A Section of our Soil Mechanics Laboratory.

### LE GRAND SUTCLIFF & GELL LTD.

SOUTHALL · LONDON · Telephone: Southall 2211 (7 lines) · Telegrams: "Legrand" Southall



ASIDE "PANTHER THREE"  
READ THE SLIDING DOOR. Ed. 23. Price 10s. 6d.



True Plans of a Conversion from two swing doors to a pair of bi-parting sliding doors gliding into cavity walls. Full constructional details will be found in "The Sliding Door" edition 25 Section 4 Pages 98/108.

## "HILLALDAM"

SLIDING DOOR GEAR

E. HILL ALDAM & COMPANY LIMITED  
BRITANNIC WORKS, LONDON, S.W.18

## CLASSIFIED ADVERTISEMENTS

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

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

## Public and Official Announcements

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

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

### BOROUGH OF REDCAR APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment in the Borough Engineer and Surveyor's Department, at a salary in accordance with Grade A.P.T. IV (£555-£590 p.a.). The appointment is superannuable and is subject to the candidate successfully passing a medical examination.

General architectural and housing experience is necessary and candidates should have passed the Intermediate of the R.I.B.A., or equivalent examination.

Applications endorsed "Architectural Assistant," stating age, qualifications and experience, together with the names of three referees, must reach the undersigned not later than Monday the 29th September, 1952.

Canvassing in any form will be a disqualification, and applicants must state whether or not they are related to any member or officer of the Council.

HUGH CALDWELL,  
Town Clerk.

### Municipal Buildings, Redcar. 7359 NORTHAMPTON RURAL DISTRICT COUNCIL SURVEYOR AND ARCHITECT'S DEPARTMENT

Appointment of (a) QUANTITY SURVEYOR and (b) ASSISTANT.

Applications are invited for the above appointments.

For appointment (a) applicants should have passed the Final examination of the R.I.C.S. (Quantity Section) or similar, and have had considerable experience in the preparation of Bills, measurement of site works and preparation of interim statements and final accounts in connection with Housing Schemes.

For appointment (b) applicants should have had similar experience even in a junior capacity and preferably be fitting themselves for qualifying examination.

Both appointments will be terminable by one month's notice, in writing, on either side.

Applications, stating age, whether married or single, qualifications, full particulars of experience and range of salary required, together with copies of two recent testimonials are to reach the undersigned by Monday, 22nd September, 1952.

Applicants must disclose whether they are related to any member or senior officer of the Council. Canvassing, either directly or indirectly, will disqualify.

CLIFFORD E. JONES,  
Clerk of the Council.

### Council Offices, 1, Cheyne Walk, Northampton. 7358 4th September, 1952.

### COUNTY BOROUGH OF ROCHEDALE APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR

Applications are invited for the appointment of Assistant Quantity Surveyor in the Department of the Borough Surveyor, at a salary of £595-£645 per annum (Grade A.P.T. V).

Applicants must have passed the Final Examination of the R.I.C.S. (Quantities Section) and should have had considerable experience in the preparation of Bills of Quantities, measurement of site works and the preparation of Statements for Interim and Final Payments.

Applications will be considered from candidates who may not be so fully qualified, the Grade and salary of the position being in accordance with qualifications and varying as follows:—Grade II (£495-£540) for a candidate with some experience, but not having passed the Intermediate Examination of the R.I.C.S., Grade III or IV (£525-£570 or £555-£600) for candidates who have passed the Intermediate Examination.

The appointment will be subject to the provision of the Local Government Superannuation Acts, and to the selected candidate passing a Medical Examination. Canvassing is prohibited and candidates must disclose whether to their knowledge they are related to any member or Senior Officer of the Council.

Applications, stating age, qualifications and full particulars of experience together with the names and addresses of two persons to whom reference may be made and endorsed "Assistant Quantity Surveyor" must be delivered to the Borough Surveyor, Town Hall, Rochdale, not later than 9 a.m. on Monday, 13th October, 1952.

K. B. MOORE,  
Town Clerk. 7393

### BOROUGH OF STOCKTON-ON-TEES. BOROUGH ARCHITECT'S DEPARTMENT. ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of an Architectural Assistant in the Borough Architect's Department, at a salary in accordance with Grade A.P.T. IV (£555-£600), of the National Scales of Salaries.

Applications, on forms which can be obtained from the Borough Architect, 28, The Square, Stockton-on-Tees, should be forwarded to the undersigned not later than Friday, 26th September, 1952.

JOHN B. HAWORTH,  
Town Clerk.

### Barclay's Bank Chambers, High Street, Stockton-on-Tees. 7407 12th September, 1952.

### LONDON COUNTY COUNCIL ARCHITECT'S DEPARTMENT

Vacancies for (1) PLANNING OFFICERS, Grade III (up to £837 10s.). A.R.I.B.A., A.R.I.C.S. and/or A.M.T.P.I. required. (2) TECHNICAL ASSISTANTS (up to £10 a week) with experience as draughtsmen or studying for planning or architectural qualifications.

Application forms and particulars from Architect, County Hall, S.E.1. quoting AR/EK/P.4 (1005). 7391

### DEVON COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the undermentioned appointments on the permanent staff. Conditions of service and salaries are in accordance with the National Joint Council Scheme for Local Authorities.

ONE ASSISTANT ARCHITECT, Grade A.P.T. IX (£815-£935 per annum).

TWO ASSISTANT ARCHITECTS, Grade A.P.T. VI (£670-£735 per annum).

ONE ASSISTANT ARCHITECT, Grade A.P.T. V (£595-£645 per annum).

ONE JUNIOR SURVEYING ASSISTANT, Grade A.P.T. I (£465-£510 per annum).

Application forms with full particulars of qualifications and experience required for the various posts, are obtainable from the County Architect, 97, Heavitree Road, Exeter, and must be returned to him by Wednesday the 1st October, 1952.

Canvassing, directly or indirectly, will disqualify.

H. A. DAVIS,  
Clerk of the County Council.

### The Castle, Exeter. 7394 10th September, 1952.

### PEMBROKESHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

APPOINTMENT OF ASSISTANT ARCHITECT  
Applications are invited for the appointment of an Assistant Architect at a salary in accordance with Grade VI, A.P. & T. Division (i.e., £670 rising by annual increment to £735 per annum).

Applicants should be members of the R.I.B.A. by examination or hold equivalent academic qualifications with experience of contemporary architectural and/or structural design, particularly with reference to Educational Buildings, Police Housing, Maintenance, etc.

The appointment is superannuable and subject to a satisfactory medical examination.

Canvassing will be a disqualification.

Forms of application can be obtained on application to the County Architect, County Offices, Haverfordwest, and should be completed and returned to the undersigned not later than Monday, the 6th October, 1952.

H. LOUIS UNDERWOOD,  
Clerk of the County Council.

### County Offices, Haverfordwest. 7392 9th September, 1952.

### SOUTH CAMBRIDGESHIRE RURAL DISTRICT COUNCIL

### APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of Architectural Assistant in the department of the Council's Architect. Salary within A.P.T. Grades V-VI (£595-£735). The commencing salary will be fixed having regard to the qualifications and experience of the successful applicant.

Architectural experience in housing is necessary and candidates must be capable of surveying, levelling and preparing detailed drawings and specifications.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, the National Conditions of Service, to a satisfactory medical examination and to one month's notice in writing on either side.

Applications, stating age, present salary, experience and qualifications, together with copies of two recent testimonials, should reach the undersigned not later than the first post on Monday, 29th September, 1952.

Housing accommodation in the Rural District may be provided for the successful candidate if required.

Canvassing directly or indirectly will disqualify.

B. G. CRAFT,  
Clerk to the Council.

### County Hall, Hobson Street, Cambridge. 7398 15th September, 1952.

SOUTHAMPTON C.B.C. require GROUP ARCHITECT, Grade VIII (£760-£835) and PLANNING ASSISTANT, Grade I (£465-£510), under N.J.C. Service Conditions. Forms of application from the Borough Architect, Civic Centre, Southampton, to be returned by 1st October, 1952. 7406

### URBAN DISTRICT OF EAST BARNET ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the following Permanent Appointments:—

(a) SENIOR ASSISTANT ENGINEER—A.P.T. Grade VI (£670 to £735 Plus London Weighting).

(b) ENGINEERING ASSISTANT—A.P.T. Grade II (£495 to £540 Plus London Weighting).

(c) ARCHITECTURAL ASSISTANT—A.P.T. Grade IV (£555 to £600 Plus London Weighting).

Housing Accommodation can be provided for Appointment (c) only.

Applications should be submitted by not later than Monday, 29th September, 1952, on Forms to be obtained from the Undersigned.

C. M. BARNES, O.B.E., M.I.Mun.E., F.R.S.I.,  
Engineer & Surveyor.

### Town Hall, Station Road, New Barnet, Hertfordshire. 7372

BATTERSEA BOROUGH COUNCIL require ASSISTANT ARCHITECT, should be A.R.I.B.A. Salary, according to qualifications, £710-£785 plus London weighting (A.P.T. VII). L.G. Supn. Act. Application forms from Borough Engineer, Town Hall, Battersea, S.W.11. Closing date 1st. October. 7380

### LONDON ELECTRICITY BOARD. ENGINEERING DRAUGHTSMAN.

Applications are invited for the above position. The successful applicant will be based at the Southern Sub-Area Drawing Office at Beckenham, Kent, but may be required to work in any District Office within the Sub-Area.

Candidates should have had a good general and technical education and be experienced in one or more of the following subjects: Building and Civil Engineering Design; Engineering Drawing; Plant Layout in Sub-stations; Lay-outs and Site Plans of Mains Work; Electrical Diagrams.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade VI, £438 to £574 7s. per annum, inclusive of London allowance.

Application forms obtainable from Establishments Officer, 46, New Broad Street, E.C.2. to be returned by 2nd October, 1952. Please enclose addressed foolscap envelope, and quote ref. V/1488/A. on all correspondence. 7408

### BOROUGH OF COLCHESTER. TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Temporary Architectural Assistant in the Borough Engineer's Department, at a salary in accordance with A.P.T. Grades II-III (£495-£570 per annum), according to qualifications and experience.

Applicants should have passed the Intermediate Examination of the R.I.B.A. or its equivalent, and preferably have had experience in connection with Local Authority Housing Schemes. The appointment will be subject to the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

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

Applications, stating age, qualifications and experience, accompanied by copies of not more than two recent testimonials, must reach the Borough Engineer, 64, West Stockwell Street, Colchester, not later than 3rd October, 1952.

Canvassing will disqualify, and candidates must state whether they are related to any member or senior officer of the Council.

N. CATCHPOLE,  
Town Clerk.

### Town Hall, Colchester. 7409 17th September, 1952.

### BOROUGH OF WALTHAMSTOW BOROUGH ARCHITECT, ENGINEER & SURVEYOR'S DEPARTMENT

### ASSISTANT QUANTITY SURVEYOR

Applications are invited for the above appointments on Grades I/V A.P.T. Division (£495-£675, inclusive of London Weighting) commencing salary according to qualifications and experience.

Applications with names of two persons for references should be received by the undersigned not later than Wednesday, 1st October, 1952.

G. A. BLAKELEY,  
Town Clerk.

### Town Hall, Walthamstow, E.17. 7392

### STAFFORDSHIRE COUNTY COUNCIL COUNTY PLANNING DEPARTMENT

Applications are invited for the appointment of a JUNIOR PLANNING ASSISTANT on A.P.T. Grades I to IV (£440 to £575 per annum) in the Central Area Planning Office at Stafford.

Applicants for the appointment should have had training in an Architect's, Engineer's, Surveyor's or Planning Office and preference will be given to those who have passed the Intermediate Examination of the Town Planning Institute or its equivalent.

Canvassing directly or indirectly will be deemed a disqualification and relationship to any Member or Senior Officer of the County Council must be disclosed.

Applications, which should give details of age, education, qualifications, present and previous appointments and experience, and include copies of two recent testimonials, should be sent to D. W. Riley, County Planning Officer, 41a, Eastgate Street, Stafford, not later than the 26th September, 1952.

T. H. EVANS,  
Clerk of the County Council. 7381

### HAMPSHIRE COUNTY COUNCIL

Applications are invited for the appointment of a TECHNICAL ASSISTANT on Grade III of the National Scales (£525-£570) to work in the South-West Area Office of the County Planning Department at Lyndhurst. Candidates should have passed the Intermediate examination of the Town Planning Institute or of a related professional body and have had experience in the Planning Department of a Local Planning Authority. In the event of an applicant being appointed who does not hold the requisite qualification, the appointment will be made at a suitable point in Grade I-II of the National Scales, pending the passing of the requisite examination. The appointment is pensionable and will be subject to a satisfactory medical report.

Officers using their own cars when travelling on County Council duties will receive travelling allowances on the County Scale for the time being in force.

In approved cases the County Council are prepared to assist newly appointed staff to meet removal expenses.

No form of application is issued, but applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names and addresses of two persons to whom reference may be made should be sent to the County Planning Officer, Litton Lodge, Clifton Road, Winchester, not later than the 24th September, 1952. 7377

### METROPOLITAN BOROUGH OF PADDINGTON

ERECTION OF MULTI-STOREY FLATS, HALLFIELD ESTATE, BISHOP'S BRIDGE ROAD

#### SECOND INVITATION TO TENDER

Applications (to be received by the undersigned on or before 29th September, 1952) are again invited from Builders and Contractors who wish to be considered by the Borough Council for inclusion in the list of those to be invited to submit a tender for the above works.

The contract embraces the erection and completion of 4 ten-storey and 3 six-storey blocks of reinforced-concrete box-frame construction. The seven blocks comprise 386 flats of various types, and the contract will include for the whole of the work to the superstructure of these blocks. In the case of four blocks the piling work and the site clearance and levelling immediately surrounding the blocks will have formed part of a previous contract. The remainder of the site clearance (other than demolition) and levelling, the site roads and paths, drains, retaining walls and other external services will be included in the proposed contract. The area of the site is approximately seven acres.

The Council require to be satisfied that Contractors wishing to tender have had previous experience of substantial works of this nature. If it is intended to let to sub-contract the reinforced concrete work, information will be required as to the intended sub-contractor, together with particulars of works of a similar nature which that sub-contractor has carried out.

Applicants are required to submit similar particulars of their own works, and of the local authorities and/or architects under whose supervision they have carried them out, with details of the nature and scope of the contract in each case and the date when it was completed.

Bills of Quantities will be available towards the end of September, and applicants should state what permanent site staff and labour force they anticipate will be available for this work should they be appointed as Contractors.

Contractors included in the list of those invited to submit tenders will be required to make a payment of a deposit of £5 5s. 6d. on receipt of which the Bills of Quantities will be sent to them. This deposit will be refunded on receipt of a bona fide tender. Instructions with regard to tenders, including the date on which they are to be returned to the Council, will be notified when the documents are issued to those Contractors invited to tender.

The Council do not bind themselves to accept the lowest or any tender.

W. H. BENTLEY,  
Town Clerk.

Town Hall, Paddington, W.2.  
5th September, 1952. 7378

### COUNTY BOROUGH OF BARROW-IN-FURNESS BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT

ASSISTANT ARCHITECT—Grade VI.  
BUILDING SURVEYOR—Grade VA.  
Applications are invited for the permanent posts of:—

(a) Assistant Architect—Grade VI. Candidates should be competent architects with experience on either housing or schools.  
(b) Building Surveyor—Grade VA for duties in connection with the maintenance of Corporation properties.

Council houses are available if required by married applicants.

Further particulars, conditions of appointment and forms of application may be obtained from the Borough Engineer & Surveyor, Town Hall, Barrow-in-Furness, to whom completed applications must be returned not later than Monday, 6th October, 1952.

LAWRENCE ALLEN,  
Town Clerk. 7384

### Sale by Auction

6 lines, 12s. 6d.; each additional line, 2s.

DARTFORD HEATH.

C. J. RICE, LTD.'S YARD,

ROCHESTER WAY

(just beyond the Black Prince Hotel).

#### IMPORTANT SALE OF

BUILDING MATERIALS AND FITTINGS, comprising secondhand Timber (deals, joists, quartering, floor boarding, matching, etc.), Oak and Pine Doors, R.S.J.s, Sashes and Frames, Iron Rainwater Piping and Guttering, Galvanized Steam Piping, 4 in. Iron Greenhouse Piping, Steel Scaffolding, Fireplaces, Washbasins and Baths, Bricks, Slates, Yorkstone, etc., which

RELPH & SONS, F.A.L.P.A., F.A.I., will Sell by Auction on the above site on THURSDAY, 2nd OCTOBER, 1952, at 10.30 a.m. Catalogues may be obtained from the Auctioneer's Office, 102, Broadway, Bexleyheath. (Tel. 118). 7389

### Architectural Appointments Vacant

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

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

JUNIOR ASSISTANT required for private Architect's office. Mainly commercial and business premises practice. Good prospects. Box 7319.

AN ASSISTANT ARCHITECT is required in the Estates Department of a Brewery Company in the South-West. Applicants should be of Intermediate standard R.I.B.A. and should be interested in the design, alteration and maintenance of Public Houses and Hotels, and should possess a sound knowledge of construction, and experience in drafting specifications. Ability to drive a car is essential. Assistance could be given in obtaining a house, if necessary. Reply, stating age, qualifications, experience, past and present appointments, and salary required, to Box 7386.

QUALIFIED ARCHITECTURAL ASSISTANT required by firm of Chartered Architects in North East Lancashire. Possibility of partnership. Apply giving details of experience and salary required to Box 7401.



Pat.  
Retail price  
De Luxe  
model £58 10s. 0d.

## NO DRAINS? Then here is good news for you <sup>6</sup>DESTROL<sup>9</sup> Hygienic

solves the sanitation problem in a new way, bringing the comfort and convenience of the Town Dweller to every home or factory where main drainage is unavailable.

- ★ ODOURLESS AND GERM FREE ★ INDEPENDENT OF WATER SUPPLIES ★
- ★ NO MANUAL HANDLING ★ INEXPENSIVE AND SIMPLE TO INSTALL AND RUN ★

An exhibit of the Destrol System can be seen at  
THE BUILDING CENTRE, STORE STREET,  
TOTTENHAM COURT ROAD, LONDON



Agents, Stockists still wanted in some areas.

Write for illustrated leaflet to:

DESTROL SALES LTD., 402 SALISBURY HOUSE, LONDON WALL, LONDON, E.C.2.



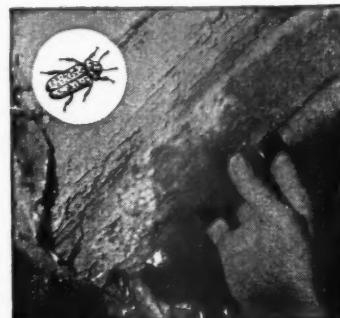
Pat.  
Retail price  
Family model £19 10s. 0d.  
Tel.: MONarch 8422

## FOUNDATIONS

FOR HOUSES AND OTHER SMALL

STRUCTURES by W. H. Elgar, MA, MEng, AMICE,  
FRICS Forewords by Noel Dean, MA  
and James Macgregor, FSA  
How to arrive at an adequate, safe  
foundation design whatever the soil  
and subsoil; how to avoid needless waste  
of money below ground level; how to  
test the behaviour and physical properties  
of subsoils. The book contains 92 pages  
with 52 line illustrations.  
Price 12s. 6d. net, postage 5d.

THE ARCHITECTURAL PRESS 9 Queen Anne's Gate SW1



A roofer in the  
roof of Chichester  
Cathedral  
showing damage  
by the Death  
Watch Beetle.

### Expert treatment of timber decay

The insidious workings of the Death Watch Beetle are often not apparent until serious damage has been done. Only the scientific use of a penetrating and persistent insecticide will eradicate these borers. "WYKAMOL" polychloromaphthalene can be confidently recommended and the experience and technical skill of our staff is at your disposal.

Send for free Technical Brochure  
"The Control of INSECT and FUN-  
GAL DESTROYERS OF TIMBER."

For advice and further details write to:—  
**RICHARDSON & STARLING LTD.**  
Members of the British Wood Preserving Association  
HYDE STREET • WINCHESTER • Tel: 2537

**ARCHITECTURAL ASSISTANT/DRAUGHTSMAN**, preferably experienced non-traditional construction and modern methods, for design, detailing, etc., in connection with Schools, Hospitals and Housing in the Trusteel system for Overseas. Good salary and prospects. Apply Trusteel Corporation (Overseas), Ltd., Heath Road, Oxhey, near Watford, Herts. Tel.: Watford 6256. 7388

**LADY ARCHITECTURAL ASSISTANT**, interested in interior design, required for junior post. Apply Frederick Gibberd, 8, Percy Street, W.1. 7383

**EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT** required in Birmingham office; competent in planning and design, working drawings and supervision of works, particularly schools. Particulars of training, experience and salary desired. Box 7402.

**JUNIOR ARCHITECTURAL ASSISTANT** required having not less than three years' training, preferably to intermediate R.I.B.A. standard. Experience in prefabricated construction an advantage. Contributory staff pension scheme in force. Applications in writing, stating age, qualifications and experience, together with names of two referees, should be sent to the Manager, Riley-Newsom Housing Department, H. Newsom, Sons & Co. Ltd., Lincoln, by September 27th, marked "Architectural Assistant." 7400

### Architectural Appointments Wanted

**STUDENT R.I.B.A.** (28) seeks progressive position involving some responsibility. 5½ years' general experience; preparing for Final at recognised school. Salary by arrangement. Box 551.

**ARCHITECTURAL ASSISTANT**, with 10 years' varied experience, seeks interesting position in London office. Used to taking complete responsibility, administration, office and site supervision. Box 528.

**A. R.I.B.A.**, accustomed to being in charge of a drawing office, has had excellent experience in the office and on the site. Can take charge from sketch to final settlement; specifications, perspectives, layout. Can work in his own West End office if necessary. Box 7301.

**ARCHITECTURAL ASSISTANT, A.R.I.B.A.** (28), with 3 years' experience, requires responsible situation small progressive office in London or Hertfordshire. Box 557.

**ARCHITECTURAL ASSISTANT**, several years' experience, wishes position. London area preferred. Box 7397.

**ARCHITECTURAL ASSISTANT**—passed all exams. and now writing thesis for B.Arch. degree—requires appointment in London Architect's Office. Two years' office experience since leaving university. Box 558.

**B.A. HONOURS IN ARCHITECTURE** requires position as Architectural Assistant in London or Southern Counties. 18 months' practical experience in private office. Box 559.

**ARCHITECTURAL ASSISTANT**, (24), school trained with R.I.B.A. Final except Hygiene and 2 two years' office experience, requires responsible progressive post. Excellent References. K. R. Saillard Hyelm, 47, Carleton Road, Tufnell Park, N.7. 560

**A. R.I.B.A., A.M.T.P.I.**, (36), 15 years' varied experience including 3 years own practice overseas, desires appointment with prospects, home or overseas. Box 561.

### Other Appointments Vacant

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

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

**REPRESENTATIVE** with first class connection among London architects required by well-known firm manufacturing high quality flush doors and partitioning. Salary and expenses. Permanent and progressive position for right man. Box 7399.

### Services Offered

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

**ARCHITECTURAL DESIGNER-DRAUGHTSMAN**. Own office. Seeks commissions from understaffed or single handed principals. Details and references. Box 7395.

**A. R.I.B.A.**, with good all round experience, requires part-time or free lance work to help his growing practice. MUSEUM 9106. 7205

**TYPEWRITING, DUPLICATING**—Bills of Quantity, Specifications, etc., expertly typed/duplicated. Express service. Work collected/delivered. **JOSEPHINE HALL & PARTNERS**, 501/2, GRAND BUILDINGS, TRAFALGAR SQUARE, W.C.2. WHI. 6411/2, and 87, High Street, Tunbridge Wells. Telephone: 1255. 7005

**ENGINEER**, experienced underpinning work, offers services for design of underpinning schemes. Specifications and working drawings, own soil testing laboratory. Would undertake supervision of works, if required. Fees by arrangement. Box 7312.

**ARCHITECT'S SECRETARY**, fully experienced, requires position in London area. Box 7379.

**PERSPECTIVE DRAWINGS** prepared of any projects, and finished with pencil line, ink line, water colour, body colour or oils. 5 guineas for Double elephant size, 3 guineas for Imperial size. Box 7396.

### For Sale or Wanted

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

**RECONDITIONED EX-ARMY HUTS**, and manufactured buildings. Timber, Asbestos, Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6903

**PRACTICE FOR SALE**—Old-established Architect's General Practice. Work in hand and good prospects. Well equipped office, on lease; London West suburb, with very little competition. Reasonable figure would be accepted. Age reason for selling. Box 7313.

**ANGLE FENCING STAKES**—1½ in. by 1½ in. by ½ in. by 6 ft., holed and pointed. 3s. 5d. each. Carriage paid on orders for 25 and over. Reduction for large quantities. Other sizes available. Enquiries to: Church & Bramhall (Engineers), Ltd., Reservoir Place, Pleck, Walsall. 7323

### THE COLLEGE OF ESTATE MANAGEMENT

St. Albans Grove, Kensington, W.8.

**Day and Evening Courses** for the following Examinations:—  
**University of London Degree of B.Sc. (Estate Management)** commence in October. (Day courses only. Completed application forms must be submitted by May 31st.)  
**Royal Institution of Chartered Surveyors (Building, Quantities and Valuations subdivisions)** commence in April. (Completed application forms must be submitted by December 31st.)

#### Postal Courses

**B.Sc. (Estate Management)**, commence in January and July.  
**The Royal Institution of Chartered Surveyors, Institution of Municipal Engineers, Royal Sanitary Institute**, commence in April and October.

**Town Planning Institute**, commence in May and October. Applicants for Postal Courses should submit their forms two complete calendar months before the date on which the course begins.

Applications to: The Secretary. Telephone: Western 1546

### PHENCO PLASTIC FLOOR COVERING

**PHENCO** is recommended by Architects as exceptionally strong and hard wearing, with high resistance to oil, grease and chemicals. NON-inflammable. Non-slip and dustless and easily kept clean by normal methods.

**PHENCO** is tested to British Standards Specification for wear, indentation, pliability, water absorption and non-inflammability. B.S. 476/1932, B.S. 384/1936, B.S. 810/1938.

**PHENCO FLOORING** is a durable and flexible material with pleasing colour tones. It is supplied in 8 or 12 yard rolls, 36 in. wide by 3/32 in. or 1/8 in. thick; also in tiles 12 in. by 12 in. and 9 in. by 9 in. and 1/8 in. thick.

SAMPLES AND FULL QUOTATIONS ON REQUEST TO

### PHOENIX RUBBER CO. LTD.

91, Bishopsgate, London, E.C.2. Tel.: London Wall 1622  
Works at: 2K Buckingham Ave., Trading Estate, Slough, Bucks  
Tel.: Slough 22307/8/9

Agents for Birmingham area  
**A. D. FOULKES LTD.**

Agents for Sheffield area  
**JOHN HADFIELD & SONS LTD.**



The Durtnells have been Builders for 360 years and still proudly adhere to the ancient tradition of quality craftsmanship—leavened, of course, by modern outlook.

**R. DURTNELL & SONS, LTD., BRASTED, Nr. Sevenoaks, KENT**

Tel.: Brasted 105-6.

SEVENOAKS, St. John's Hill. Tel.: Sevenoaks 3186.

OXTED Station Road East. Tel.: Oxted 498.

**COLRON WOOD DYE**  
THE "1-COAT" TRANSPARENT, PENETRATING, PERMANENT, PRESERVATIVE STAIN FOR ALL NEW WOODWORK.  
It cannot raise the grain

12 SHADES  
ALL SIZES

#### ADVISORY SERVICE

Shade cards, full directions and working instructions for contractors' use, estimates and 50 years of specialists' experience are at your service.

**RONUK Ltd., Portslade, Sussex**  
Polishing Contract Depot } 16 South Molton Street, London, W.1

**R**APIDLY expanding North Bucks. Market Town, officially scheduled to double population with development of new light industries. For Sale, in good central position in main road, excellent Detached Residences, highly suitable for professional purposes. Ample scope. Full details and price from W. S. Johnson & Co., Chartered Surveyors, Bletchley, Bucks. (Tel.: 53/54). 7390

**1938 WOLSELEY 12 SALOON**; dark green; one owner; excellent mechanical condition; reconditioned engine; relined brakes; £365 or near offer; inspection and trial run London by appointment. Box 7354.

### Miscellaneous

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

**A. J. BINNS, LTD.**, Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

**FENCING FOR ALL PURPOSES** supplied and erected. Established over 100 years. Cloakroom equipment also a speciality. Write Parker, Winder & Achurch, Ltd., 80, Broad Street, Birmingham, 1. (Midland 5001.) 6526

**L**ARGE genuine old Timber Frame Barn, in good condition, size 54 ft. by 25 ft., lofty; suitable for re-erection for dance or games hall or road-house, etc. Owner: Lamb, Burgess Hill (2020). 7385

**L**ARGE quantity York Wallstones, Paving Flags, Saw Ashlar Sandstone and Gritstone Blocks, Mullions, Lintels and Sills, for disposal from large country house to be demolished early 1953 in Yorkshire. Box 7387.

**L**ARGE FURNISHED ROOM to let in architect's flat in St. John's Wood. Telephone: Maida Vale 0270. 7403

### Partnerships

6 lines or under, 12s. 6d.; each additional line, 2s.

**A.R.I.B.A., A.E.I.C.S.**, 29, with varied and comprehensive experience, seeks partnership or position leading thereto in busy practice. Car owner. Box 7404.

**SENIOR ASSISTANT**, Dip. Arch., Dip. C.D., **S.A.R.I.B.A.**, 7 years' varied experience, municipal and private, desires partnership or position leading thereto in Merseyside area. Capital available. Box 7405.

### Educational Announcements

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

**R.I.C.S., I.A.A.S., and I.Q.S. Exams.**—Postal R. Courses conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7. KEN. 4477/8/9. Descriptive Booklet on request. 7020

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

### RIBA INTER, FINAL & SPECIAL FINAL

Postal Courses in all or any subjects including Design and Professional Practice, Consultation arranged.

#### THE ELLIS SCHOOL

Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A., 103B, OLD BROMPTON RD., LONDON, S.W.7  
Phone: KEN 4477/8/9 and at Worcester

### ★ DUPLICATING and PHOTOPRINTING SERVICE

Specifications—Quantities—Lessons for Correspondence Courses—All processes of Plan Reproduction.

**IF TIME IS MONEY—SAVE BOTH**  
Estimates Free Write or Phone:  
LLOYD & ORR LTD. 313 Hook Rise, Surbiton  
ELMbridge 7517/2664

## MUMFORD BAILEY & PRESTON LTD

**AIR CONDITIONING & HEATING  
HOT & COLD WATER SERVICES  
SANITARY ENGINEERING ETC.**

Offices

at:—

Bournemouth. Tel: 4377. — Plymouth. Tel: 2651

NEWCASTLE HOUSE—CLERKENWELL CLOSE—LONDON—E.C.1

Phone: Clerkenwell 6344

Branches at Bournemouth & Dublin

**ASPHALT  
WORK  
TO ALL B.S.S.**

**COVERITE  
(ASPHALTERS) LTD.**

PALACE GATES STYL. PL22, Bowes Park 7321/2

## "STONITE"

**WALL FINISHING MATERIALS**

Full particulars Including Information Sheet No. 7.C2 from

**CALLOW & KEPPICH LTD**

**C & K** SHIPHAM GORGE, CHEDDAR, SOMERSET

Telephone: Cheddar 214

**METAMICA**  
*Vermiculite Scientifically Applied*

✳ AGGREGATE

✳ IN SITU APPLICATIONS

✳ PREFABRICATED PRODUCTS

TECHNICAL BULLETINS AND DETAILS FROM  
METAMICA LTD., OXGATE LANE, N.W.2. GLA 6554

**WHITE FACING  
BRICKS**

(S. P. W. BRAND)

Telephone:  
BULwell 78237-8

Telegrams:  
"Maclime", Bulwell,  
Nottingham.

**M. MCCARTHY & SONS, LTD**

BULWELL

NOTTINGHAM

**A FIRST CLASS  
TRACING CLOTH**



**MARKSMAN**  
MANUFACTURERS  
**J. N. HOPKINSON LTD.**  
16 JOHN DALTON ST., MANCHESTER 3

**SIGNS  
LETTERS**

PURPOSE MADE TO  
YOUR SPECIAL DESIGN  
IN EITHER METAL  
PLASTIC OR WOOD

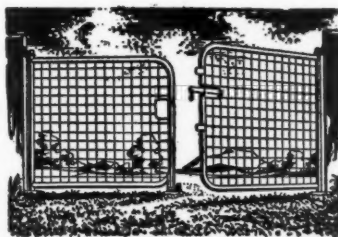
**SIGN SERVICE**  
9 HIGH STREET, BIRMINGHAM 23  
Phone: Erdington 5234/5

**FURSE  
LIGHTNING  
CONDUCTORS**  
AND  
EARTHING EQUIPMENT  
SUPPLIED ONLY OR SUPPLIED  
AND ERECTED

**W. J. FURSE & CO. LTD.**

10 TRAFFIC STREET, NOTTINGHAM  
1 LONDON—PEARCE STREET, WESTMINSTER S.W.1  
MANCHESTER 10 RIDING STREET, BRISTOL  
12 GREENHAM ROAD, CULHAM, 4

**Tubular  
steel  
GATES**



Heavy, all welded construction  
cannot drop or sag. Reasonable  
delivery of standard sizes.

**BOULTON AND  
PAUL LIMITED**  
NORWICH

CIRC 208

JUST ANOTHER

**Sommerfeld's**

PRODUCT

SOMMERFELDS LTD WELLINGTON SHROPS • TELE 1000



REINFORCEMENT  
BEAMS

# Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Adamite Co., Ltd., The	lv	Foyles, Ltd.	lxxxix	Peglers, Ltd.	xxv
Allied Ironfounders, Ltd.	lv	French, Thos., & Sons, Ltd.	lxxxix	Permanite, Ltd.	xlvi
Anderson, D., & Son, Ltd.	lxxxvii	Furse, W. J., & Co., Ltd.	lxxxix	Phillips Electrical, Ltd.	lxxxviii
Architectural Press, Ltd., The	lxxxvii	Gas Council, The	lxxxix	Phoenix Rubber Co., Ltd.	xxv
Armstrong Cork Co., Ltd.	ix	Gaskell & Chambers, Ltd.	lxxxix	Pickering, Ltd.	lxxxix
Ayres, Ltd.	ix	Gent & Co., Ltd.	lxxxix	Pilkington Brothers, Ltd.	lxxxix
Banister, Walton & Co., Ltd.	lxxxix	Grangemouth Iron Co., Ltd.	lxxxix	Plaster Products, Ltd.	lxxxix
Bateman's Stone cleaning, Ltd.	lxxxix	Greenwood's & Airvac Ventilating Co., Ltd.	lxxxix	Porn & Dunwoody (Lifts), Ltd.	lxxxix
Blackburn, Thos., & Sons, Ltd.	lxxxix	Griffin & Tatlock, Ltd.	lxxxix	Prestige & Co., Ltd.	lxxxix
Boulton & Paul, Ltd.	lxxxix	Gulf Radiators, Ltd.	lxxxix	Prodorite, Ltd.	lxxxix
Brady, G., & Co., Ltd.	lxxxix	Gyproc Products, Ltd.	lxxxix	Pyrotenax, Ltd.	lxxxix
Briggs, Wm., & Sons, Ltd.	lxxxix	Hall, John & Sons (Bristol & London), Ltd.	lxxxix	Quiz Electric, Ltd.	lxxxix
British Aluminium Co., Ltd., The	lxxxix	Hall, Robt. H., & Co. (Kent), Ltd.	lxxxix	Radiation Group Sales, Ltd.	lxxxix
British Constructional Steelwork Association	lxxxix	Harper & Tunstall, Ltd.	lxxxix	Ramsay, N. F., & Co., Ltd.	lxxxix
British Hercules, Ltd.	lxxxix	Harvey, G. A., & Co. (London), Ltd.	lxxxix	Richardson & Starling, Ltd.	lxxxix
Broad & Co., Ltd.	lxxxix	Hill, E. Aldam & Co., Ltd.	lxxxix	Rolyat Tank Co., Ltd., The	lxxxix
Bryant, C., & Son, Ltd.	lxxxix	Hope, Henry, & Sons, Ltd.	lxxxix	Ronuk, Ltd.	lxxxix
Cafferata & Co., Ltd.	lxxxix	Hopkinson, J. N., Ltd.	lxxxix	Rutherford Co., Ltd., The	lxxxix
Callow & Keppich, Ltd.	lxxxix	Industrial Engineering, Ltd.	lxxxix	Sarco Thermostats, Ltd.	lxxxix
Cape Asbestos Co., Ltd.	lxxxix	Ingersoll Locks	lxxxix	Semtex, Ltd.	lxxxix
Cargo Fleet Iron Co., Ltd.	lxxxix	Johnsons Reinforced Concrete Co., Ltd.	lxxxix	Shannon, Ltd., The	lxxxix
Carson Company	lxxxix	Kenyon, Wm., & Sons, Ltd.	lxxxix	Sieglwart Floor Co., Ltd., The	lxxxix
Carter & Co., Ltd.	lxxxix	King, J. A., & Co., Ltd.	lxxxix	Sign Service	lxxxix
Cement Marketing Co., Ltd., The	lxxxix	Kwikform, Ltd.	lxxxix	Simplex Electric Co., Ltd.	lxxxix
Chance Bros., Ltd.	lxxxix	Lead Industries Development Council	lxxxix	Small & Parkes, Ltd.	lxxxix
Chubb & Son's Lock & Safe Co., Ltd.	lxxxix	Leaderflush, Ltd.	lxxxix	Smith & Pearson, Ltd.	lxxxix
Clarke Ellard Engineering Co., Ltd.	lxxxix	Leatherfor, Ltd.	lxxxix	Smith's Fireproof Floors, Ltd.	lxxxix
Colt Ventilation, Ltd.	lxxxix	Le Grand Sutcliffe & Gell, Ltd.	lxxxix	Sommerfeld's, Ltd.	lxxxix
Compression Joints, Ltd.	lxxxix	Lloyd & Orr, Ltd.	lxxxix	Speedwell Gear Case Co.	lxxxix
Concrete Case Hardening Co., Ltd.	lxxxix	Lockhart Equipment, Ltd.	lxxxix	Steel Radiators, Ltd.	lxxxix
Concrete, Ltd.	lxxxix	London Brick Co., Ltd.	lxxxix	Stelcon (Industrial Floors), Ltd.	lxxxix
Constructors' Group	lxxxix	Lovell & Hanson, Ltd.	lxxxix	Storry Smithson & Co., Ltd.	lxxxix
Coverite (Asphalters), Ltd.	lxxxix	McCall & Co.	lxxxix	Stott, Jas., & Co. (Engs.), Ltd.	lxxxix
Crane, Ltd.	lxxxix	McCarthy, M., & Sons, Ltd.	lxxxix	Sundela Board Co., Ltd.	lxxxix
Crompton, Parkinson, Ltd.	lxxxix	McKechnie Brothers, Ltd.	lxxxix	Tarmac, Ltd.	lxxxix
Culham, Horace W., & Co., Ltd.	lxxxix	Magnet, Tinner, & Sons, Ltd.	lxxxix	Thermacon, Ltd.	lxxxix
De La Rue, Thos., & Co., Ltd.	lxxxix	Mallinson, Wm., & Sons, Ltd.	lxxxix	Thermalite, Ltd.	lxxxix
Demolition & Construction Co., Ltd., The	lxxxix	Marley Tile Co., Ltd., The	lxxxix	Thorn, J., & Sons, Ltd.	lxxxix
Destrol Sales, Ltd.	lxxxix	Matthews & Yates, Ltd.	lxxxix	Thornton, A. G., Ltd.	lxxxix
Dunbrik, Ltd.	lxxxix	Metal Mica, Ltd.	lxxxix	T.I. Aluminium, Ltd.	lxxxix
Durnall, R., & Sons, Ltd.	lxxxix	Metropolitan-Vickers Electrical Co., Ltd.	lxxxix	Tretol, Ltd.	lxxxix
Ellis School of Architecture	lxxxix	Mills Scaffold Co., Ltd.	lxxxix	Trussed Concrete Steel Co., Ltd.	lxxxix
Edison Swan Electric Co., Ltd., The	lxxxix	Midland Woodworking Co., Ltd.	lxxxix	Tucker, Duncan (Tottenham), Ltd.	lxxxix
Expanded Metal Co., Ltd., The	lxxxix	Moler Products, Ltd.	lxxxix	Versil, Ltd.	lxxxix
Ezee Kitchen Equipment, Ltd.	lxxxix	Monsanto Chemicals, Ltd.	lxxxix	Vigers Brothers, Ltd.	lxxxix
Falkirk Iron Co., Ltd., The	lxxxix	Morris, M. A., Ltd.	lxxxix	Ward, Thos. W., Ltd.	lxxxix
Fibreglass, Ltd.	lxxxix	Mumford, Bailey & Preston, Ltd.	lxxxix	Wardle Engineering Co., Ltd.	lxxxix
Finch, B., & Co., Ltd.	lxxxix	National Federation of Clay Industries, The	lxxxix	Wareite, Ltd.	lxxxix
Finlock Gutters, Ltd.	lxxxix	Orlit, Ltd.	lxxxix	Wheatley & Co., Ltd.	lxxxix
		Paragon Glazing Co., Ltd.	lxxxix	Williams, John, & Sons (Cardiff), Ltd.	lxxxix

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous, Property, Land and Sales, see lxxxvi, lxxxvii, lxxxviii.



Photograph by courtesy of Ideal Home Magazine

## STEEL RADIATORS LTD

STELRAD WORKS • BRIDGE ROAD • SOUTHALL

Telephone: SOUTHALL 2603/4

Telegrams: STELRAD, PHONE, SOUTHALL

PAGE

xlvi  
lxiv  
xxviii  
xv

xxxv  
xx  
xlvii  
lxix  
lxix  
lxix

lxv  
lxvii  
lxix  
xxviii  
lxx  
lxiii

viii  
lxxix  
xix  
vi  
xlviii  
xl  
lxxix

lxxx  
xxxii  
lxiii  
lviii

iv  
lxxi  
xlv

lxv  
lxx  
l

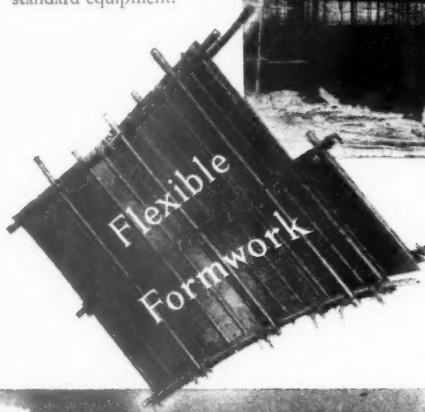
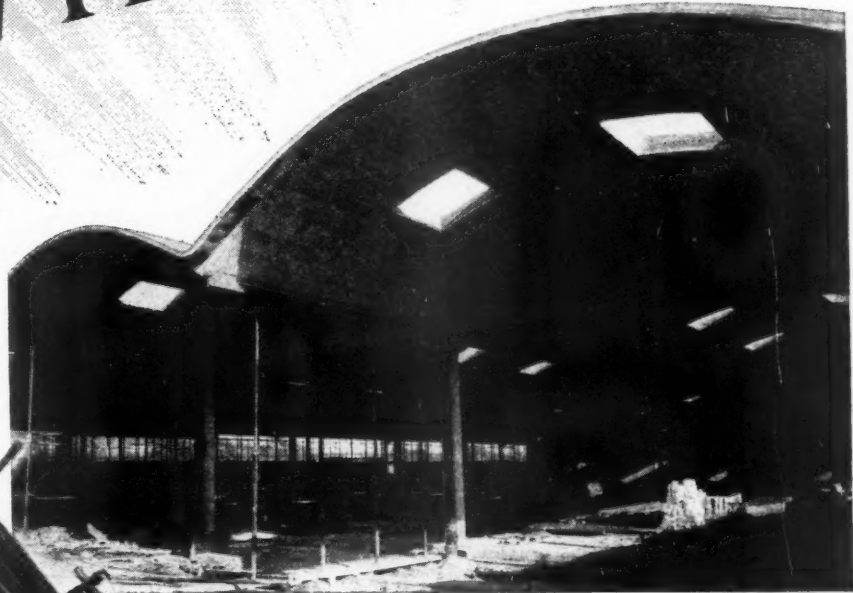
xxi  
lxxii  
lx  
xlix  
lxi  
ii  
lxvii  
xxiv  
xxv





...it's  
**KWIKFORM**  
REGD. TRADE MARK

Illustrations show the true definition of curve and smooth finish obtained by the use of 'Kwikform' standard equipment.



**FLEXIBLE FORMWORK**



*...perfect alignment*

*...really smooth finish*

*...true definition of curve*

The designers of 'Kwikform' equipment have always been aware of the high standard of form, finish and alignment of the concrete necessary in modern structures, and the system of Flexible Formwork produced by them has received widespread commendation from the Architectural and Engineering Professions. 'Kwikform' Flexible Formwork produces a quality finish unequalled by any other standard system of formwork and is adaptable to all circular concrete construction.

Write for descriptive literature A/29/51. Our organization specialises in supplying formwork fixed to Contract requirements.

**KWIKFORM LTD.** WATERLOO ROAD, BIRMINGHAM 25.

London Office:  
56 Victoria Street, S.W.1.

TO ALL WHO HIRE STEEL SHUTTERING  
'H' FRAMES AND PROPS

Make  
**MILLS**  
your *buyword* for  
economy

OWN A STOCK OF MILLFORMS, MILLFRAMES  
AND MILLPROPS AND SAVE YOURSELF MONEY  
AS WELL AS CONTRACT TIME

MILLFORMS (the automatically aligning and self-supporting steel shuttering for concrete walls, floors, columns and beams), MILLFRAMES (the greatest single time- and -labour- saving advance in tubular scaffolding technique) and MILLPROPS (adjustable tubular steel shores) are the finest stock investments you can make. They save you money every time you use them—and *you save more when you own them.* Write for full details now.

**MILLS SCAFFOLD CO. LTD.**

Head Office & Depot: TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6 • PHONE: RIVerside 5026 9

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

