

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 I one week, I 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.	Sloane 3158/1601
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street, W.C.1.	Euston 2430
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 7264/4173
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	MARS Group (English Branch of CIAM). Secretary: Gontran Goulden, Building Centre, 9, Conduit Street, W.1.	Mayfair 8641
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. Whitehall, S.W.1.	Whitehall 4300
MOLGP	Ministry of Local Government and Planning. 23, Saville Row, W.1.	Regent 8411
MOLNS	Ministry of Labour and National Service, 8, St. James's 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.	Molesey 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
RST	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.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TGC	The Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 69, Cannon Street, E.C.4.	City 4444
WDC	War Damage Commission. Devonshire House, Mayfair Place, Piccadilly, W.1.	Mayfair 8866
WEDA	Welfare Equipment Development Association. 74, Victoria Street, S.W.1.	Victoria 5783
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

No. 2941] [VOL. 114
THE ARCHITECTURAL PRESS
9, 11 and 13, Queen Anne's Gate, Westminster,
S.W.1. Phone: Whitehall 0611

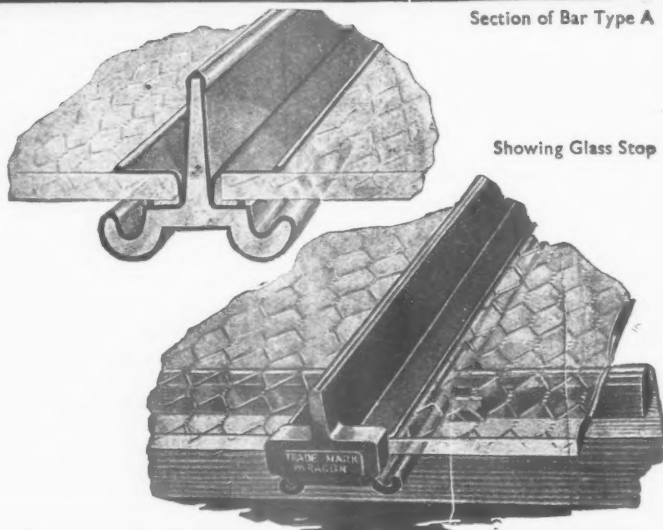
Price 1s. 0d.

Registered as a Newspaper.

PARAGON *Lead Clothed Steel* PATENT GLAZING

The Paragon System provides a complete answer to all your roof-glazing problems. Robustly strong, yet neat, it obscures the bare minimum of light. The specially designed steel bar, being completely clothed with a jointless lead sheath, is incorrodible. There are no outside fastenings nor loose glass stops. The bottom end of the bar is sheathed with lead against damp and rust. The condensation channels are the most efficient that can be devised.

For upwards of 40 years the Paragon System has been specified by architects on account of just these essential qualities. Our illustrated booklet "A" will tell you more about this fine roof-glazing system.

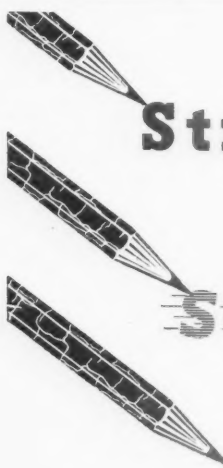


Section of Bar Type A

Showing Glass Stop

Telephone:
ABBeY 2348
(Pte. Br Xch)

PARAGON GLAZING CO. LTD
1 VICTORIA STREET · LONDON · S.W.1



Strong...

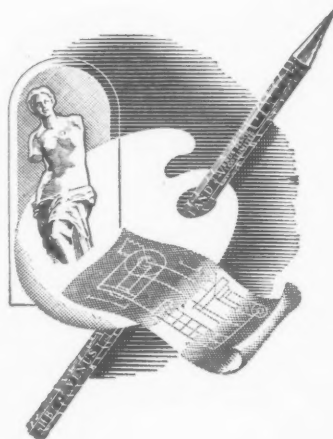
Pressure proofed by patented process and tested at every stage. Only proven leads go into Venus Drawing Pencils

SMOOTH...

A patented colloidal process removes all grit and impurities—they must be smooth

ACCURATE...

Accurate through and through—graded and tested by experts, Venus Drawing Pencils make the right mark every time



THE PENCIL WITH
THE CRACKLE FINISH

VENUS

Perfect PENCILS

THE VENUS PENCIL CO., LIMITED, LOWER CLAPTON ROAD, LONDON, E.5

/

pe A

Stop

N. E.S

Pu

Ac
Ho
M
W

Very
tion p
appro
If you
any ac
we sh
expert
or ad
familia

A FREE
specific
lard Col
on requ

Put COLT in the picture...

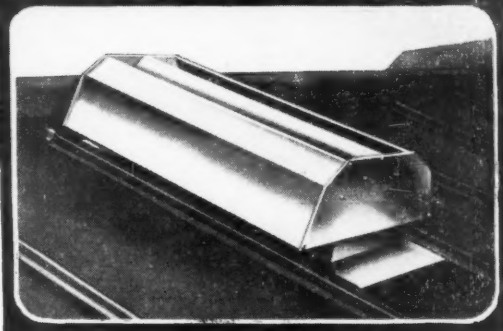


Aerial view of COLT S.R. Ventilators installed at the Cardiff works of Messrs. Hopkinson Electric Co. Ltd. Architect: Sir Percy Thomas, P.P.R.I.B.A., M.T.P.I. This is one of the 83 factories ventilated by COLT for the South Wales Factory Programme.

... from the start

Very 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 have any problems of this sort, or if you want any advice while you are at the drawing board stage, we shall be more than glad to assist you. Our experts are always enthusiastic to tackle new problems or advise on more familiar ones.

A FREE MANUAL with full specifications of the types of standard Colt Ventilators is available on request from Dept. V. 164



THE COLT S.R. VENTILATOR, illustrated above, is designed on aerodynamic principles embodying aero-foil curves to assist the process of convection by harnessing the free power of the wind and roof eddies, no matter from which direction they come, creating a suction which can produce a power of extraction equal to that of mechanical means without the drawbacks of noise, wearing parts or operating and maintenance costs.

These aero-foil curves prevent the elements from interfering with the escape of the hot vitiated air which rises through the ventilator in accordance with the Laws of Convection.

They have been so designed as to give a flat curve of extraction to prevent extraction from becoming excessive with the high winds of winter.

Just one example of the many types of ventilation that COLT has planned or carried out for over 4,000 prominent firms throughout the country.

COLT VENTILATION

INDUSTRIAL AND DOMESTIC

Colt Ventilation Ltd., Surbiton, Surrey, ELMbridge 6511-5

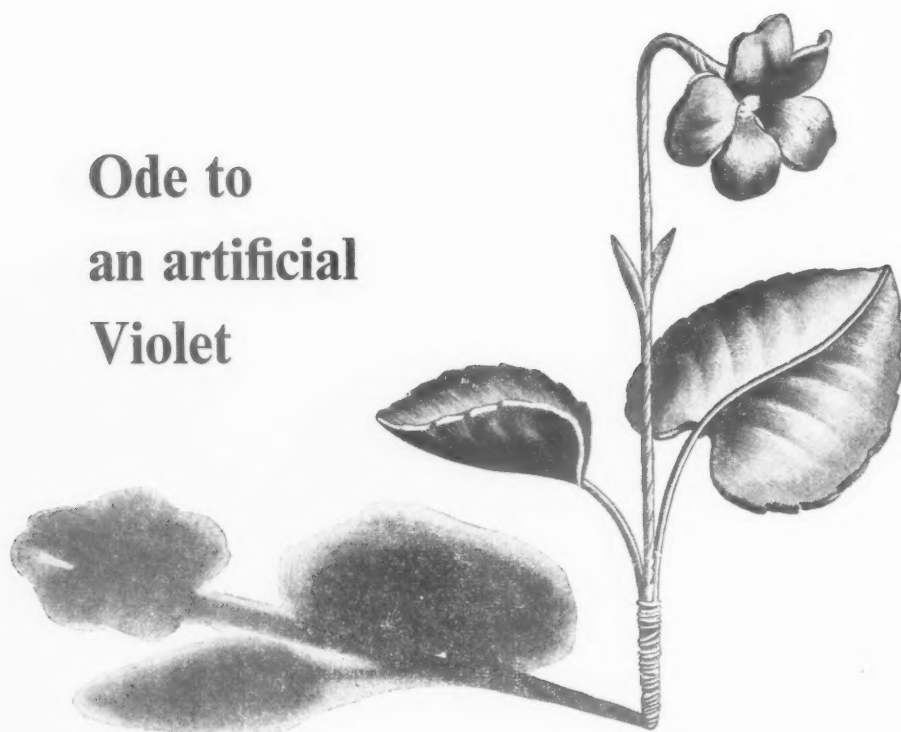
Also at Birmingham, Bradford, Bristol, Kilmarnock, Manchester, Newcastle, Newport (Mon.) and Sheffield



SEE COLT ABOUT VENTILATION—WHATEVER YOU DO

C2.

Ode to an artificial Violet



Shelley, Wordsworth and Keats *might* have written odes to artificial flowers—but it hardly seems likely. Ingenious as they are, flowers of paper and silk have little to inspire the poet.

It's much the same with substitutes for wood. Wood is a natural *living* material with a character all its own. No two pieces of timber are ever exactly alike. Each is a thing of beauty in itself.

All very well, you may think—but what about the timber supply situation? Well, there are certain shortages still—but on the other hand there is a steady expansion in the supply of timber, and many hardwoods are being imported which can be obtained without licence. There may be one exactly fitted to the job you have in mind. Why not drop a line to the Timber Development Association and find out?

There's nothing like **WOOD**

ISSUED BY THE TIMBER DEVELOPMENT ASSOCIATION · 21 COLLEGE HILL · LONDON · EC4

and branches throughout the country

IT'S A GOOD JOB IT'S BRYANTS



St Mary's Church,
Erdington,
Birmingham.

Bryants

BIRMINGHAM

Architects
Wood & Kendrick
and
Edwin F. Reynolds
F.R.I.B.A.

**A GOOD NAME FOR BUILDING
AND CIVIL ENGINEERING**

C. BRYANT & SON LTD. WHITMORE ROAD, B'HAM, 10. Telephone VICTORIA 2333-8. LONDON OFFICE: 66 VICTORIA STREET, S.W.1.

L.G.B.

PLIMBERITE

Available in two thicknesses —

$\frac{3}{4}$ " $\frac{1}{2}$ "

4'

8'

for PARTITIONING
PANELLING
WALL CLADDING
ROOF LINING AND DECKING
FLUSH DOOR CONSTRUCTION
FITTED CUPBOARDS
SHELVES
VENEER CORE
SUSPENDED FLOORING ★

Plimberite is a high density resin bonded chipboard possessing the general characteristics of natural timber and has considerable qualities of structural strength. It has a hard, smooth, unpitted surface on both sides and can be worked or machined using standard woodworking tools and techniques. Plimberite is flameproof, has excellent sound and thermal insulating qualities and provides a suitable base for the application of many surface finishes.

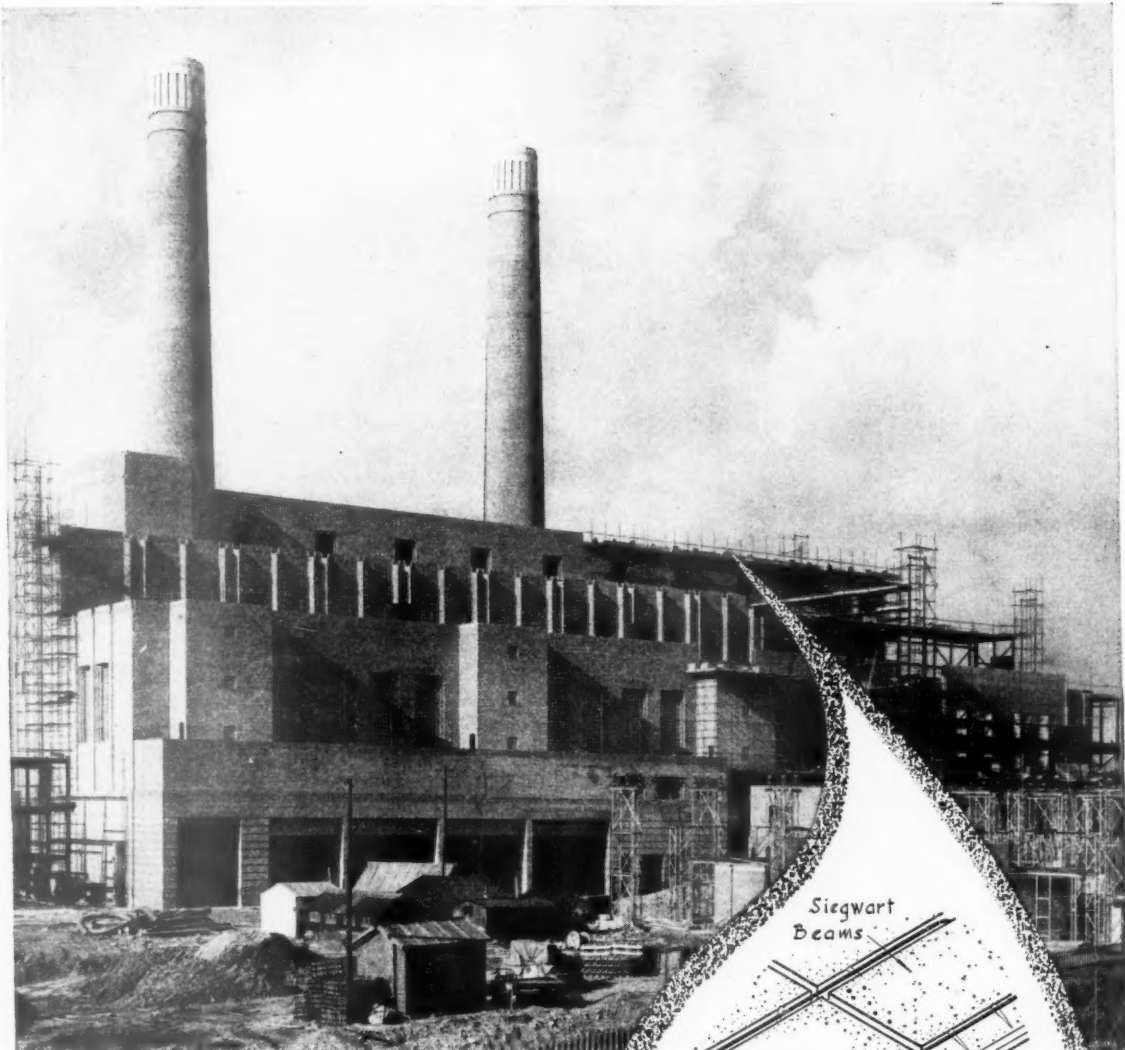
★ Vertical, static and impact load tests carried out by the British Research Station have proved the strength of Plimberite when used as suspended flooring. A copy of the full report on these tests is available to Qualified Architects and Builders on request to British Plimber Limited.

PLIMBERITE

Illustrated literature, technical data and the name of your nearest supplier available from:—

BRITISH PLIMBER LIMITED

20 Albert Embankment, London, S.E. 11. RELiance 4242

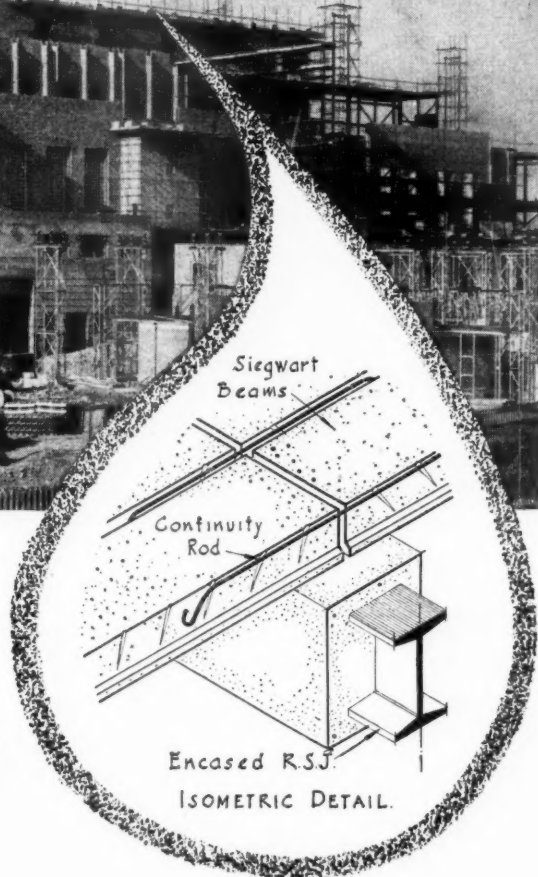


Consulting Engineers: Kennedy & Donkin
Consulting Civil Engineers: C. S. Allott & Son
General Contractors: William Moss & Sons Ltd.

Westwood Generating Station, Wigan, where Siegwart
Precast Roofs are fixed over the Turbine House, Boiler
House, Control Block and other Buildings.

SIEGWART

PRECAST FLOORS



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/4/51



WARDS for SIDINGS



THOS W. WARD LTD
ALBION WORKS • SHEFFIELD

TELEPHONE: 26311 (15 Lines) • TELEGRAMS: "FORWARD, SHEFFIELD"

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



**You'd have to open
lots of doors**

**before you'd find a better door
than an Austin door**

the same high quality is found in kitchen units,
windows, staircases—in fact any Austin joinery

***Austins* of East Ham**
The Biggest Name in Joinery

AUSTINS OF EAST HAM LTD., LONDON, E.6. GRANGEWOOD 3444
the parent Company of
THE AUSTIN-HALL GROUP OF COMPANIES



214.11

Reproduced from: THE BOOK OF ENGLISH TRADES & Library
of the Useful Arts, 1821



THE CARPENTER

As the carpenter works, the sweet smell of wood shavings fills the air. Smoothing the rippled grain of fresh - planed wood, he caresses Beauty herself. The burring saw, the hissing plane, the tapping hammer are music to his ears . . .

AND CRAFTSMANSHIP LIVES ON *With the coming of the Industrial Revolution and the development of machinery, the era of the lone craftsman passed into history. No longer was one man single master of his trade. Instead, the work was divided among specialists, each one a craftsman in his own particular line. To-day, the individual is an expert, whose specialised skill is an essential part of the whole.*

★
AT CELLON we believe in the essence of craftsmanship. For example, after a new decorative finish has been produced by our laboratory specialists, it is tested by experts who examine every Cellon product under the conditions of use for which it is intended. Like the carpenter of old, who by the skill of his craft released the pent-up genius of wood, we always strive for perfection in our finished work.

The existing range of Cerrux Decorative Paints includes Gloss, Satin and Matt Finishes, Flat under-

coatings, Primers for all types of surface and, also, Cerrusco Texture and Water Paints. The skill and forethought embraced in our work together with constant research have established perfect uniformity among our standard finishes. The result is that you can always be sure of consistency of quality when re-ordering a particular finish.

On the development side, we maintain a continuous service for the production of special finishes for special needs outside the standard range. It is, in fact, a service by craftsmen for craftsmen.

CERRUX

DECORATIVE PAINTS

Created
by Craftsmanship



CELLON
Aircraft
Finishes



CERRIC
Wood
Finishes



CERRUX
Marine
Paints



CERRUX
Coach
Paints

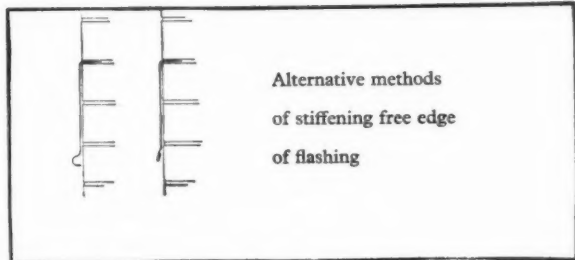
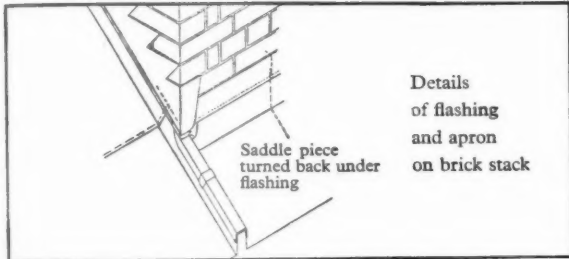


CERRIC
Industrial
Finishes

CELLON LIMITED • KINGSTON-ON-THAMES • PHONE KINGSTON

1234
CWT-679

DATA SHEET FOR ARCHITECTS No. 7 ZINC CHIMNEY FLASHINGS & APRONS



Zinc is one of the most economical materials available for permanent work and has the additional advantage that it is easily formed. For flashings and aprons No. 14 Z.G. (21 I.S.W.G.) is recommended as a thickness which will ensure a long, trouble-free life. Step flashings of the required length are easily made up from zinc strips at least 7" wide by measuring off the steps against the brickwork.

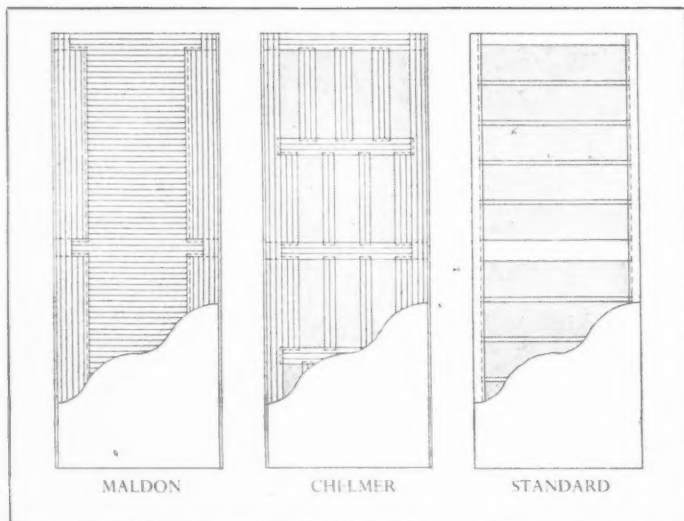
Flashings and aprons are turned into the brickwork and secured by wedges and then pointed. No standard dimensions can be laid down owing to the wide variation in the size of chimneys and the pitch of roofs. Further information on weatherings, gutterings and other uses of zinc in building can be had from the Association, together with a list of publications.

ZINC DEVELOPMENT ASSOCIATION

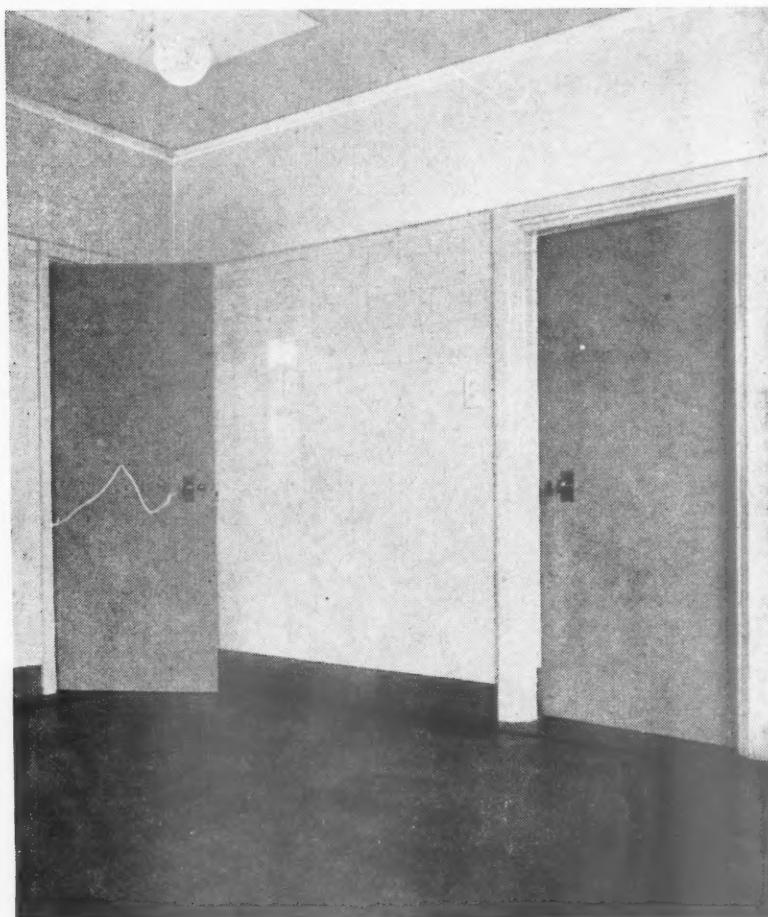
LINCOLN HOUSE TURL STREET OXFORD TELEPHONE OXFORD 47988



"Maldon" (solid) and "Chelmer" (semi-solid) flush doors are specially designed by us for the better-class jobs where price is not the governing factor. At the same time our works are equipped for economical production of long runs of standard doors for housing schemes and institutions.



SADDS OF MALDON FOR DOORS



FLUSH AND PANELLED
DOORS
WINDOWS
MOULDINGS
KITCHEN UNITS AND
DRESSERS
SCHOOL AND LIBRARY
FITTINGS
STANDARD AND SPECIAL
JOINERY OF ALL KINDS

JOHN SADD & SONS LTD., MALDON, ESSEX

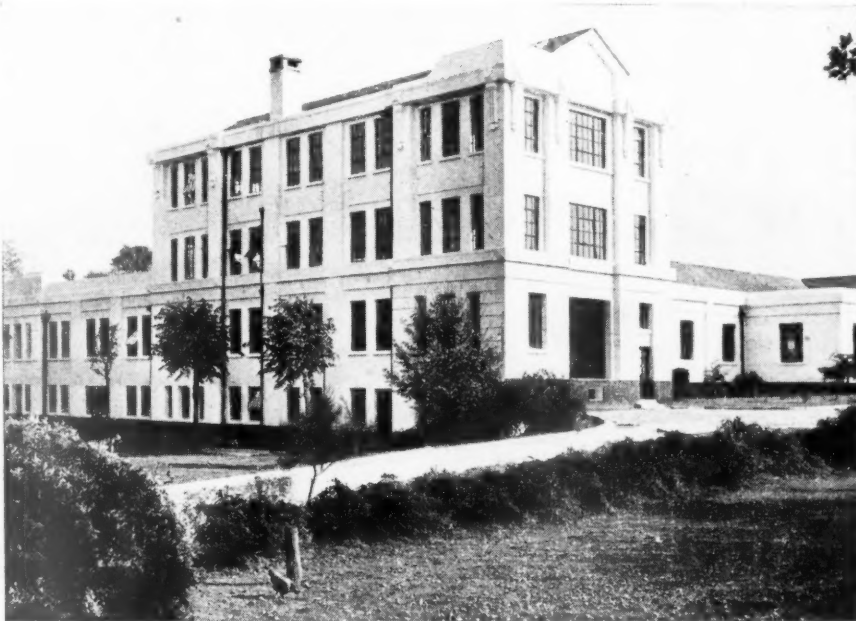
Tel.: Maldon 131 (6 lines)

London Office: Aldwych House, W.C.2

Tel.: CHAncery 7214

THE SNOWCEM CASE BOOK

FARLEY'S RUSK FACTORY · PLYMOUTH



The first job in the redecoration of this building, faced with Snowcrete nearly twenty years ago, was to remove the camouflage paint applied during the war.

The surface was then primed with Cemprover No. 1 and this was followed by two coats of White Snowcem, mixed with Cemprover No. 1, applied by brush. Approximate area 2,700 sq. yards.

Architects for renovation: A. S. Parker & Allen, Plymouth.

Contractors for renovation: Crawley Bros. Ltd., London, S.W.1.

SNOWCEM is easily applied to concrete, stone or suitable brickwork by brush or spray. Available in seven colours: White, Cream, Deep Cream, Buff, Pink, Silver Grey and Duck-Egg Green.

CEMPROVER No. 1 is a liquid for use in conjunction with Snowcem, enabling it to be applied, under certain conditions, to some surfaces not suitable for the direct application of Snowcem. *Our Technical and Advisory Department is 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.



T2751R

THE SHOWROOM BEHIND THE DOOR

In the past, small-paned shop windows and doors, that were really adaptations of house doors, gave little indication of the spaciousness and comfort of the showrooms that lay behind them. They were barriers between the customers and shopkeeper. But now the interior and the scale and character of showrooms are visible from the street through plate glass windows, and doors of sparkling, transparent "ARMOURPLATE" glass swing back at a touch to admit customers.



A view of shops that flanked the entrance to the Albany in Piccadilly, London, in 1804.



*South African Tourist Corporation, 70 Piccadilly, London, W.1. A wall of glass: Polished Plate Windows to floor level and a single "ARMOURPLATE" Glass Door
Architects: Messrs. James Cubitt & Partners, in association with S. Kadleigh, A.R.I.B.A., A.A. Dip. (Hons.)*

Open up and brighten showrooms with
Pilkington's "ARMOURPLATE" Glass Doors

Consult the Technical Sales and Service Department at St. Helens, Lancs., or Selwyn House, Cleveland Row, St. James's, London, S.W.1. Telephones: St. Helens 4001, Whitehall 5672-6. Supplies are available through the usual trade channels.



PILKINGTON BROTHERS LIMITED • ST. HELENS • LANCASHIRE

"ARMOURPLATE" is the registered Trade Mark of Pilkington Brothers Limited.

Comfortably Warm . . .

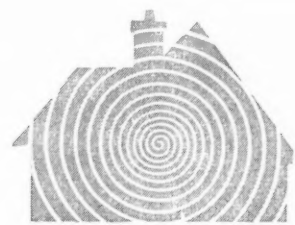
**WITH DOORS
WIDE OPEN**



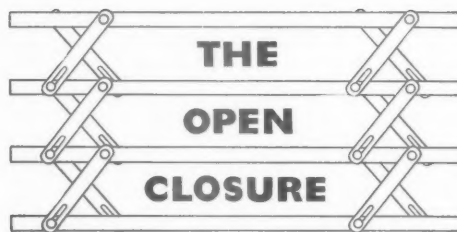
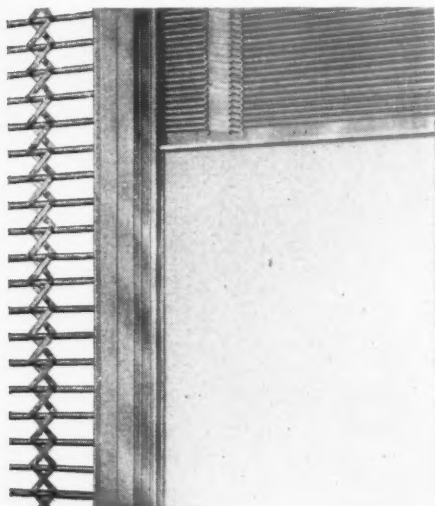
It's no crime to leave doors open in *this* house—just a friendly, sociable gesture. Draughty? Not a bit of it! With Radiation ducted air, you have a virtually constant temperature in every room and every passage. And, no matter what time of day or what type of day, *it will be the temperature you want, because the house-warmth is under personal control.*

The Radiation system may be installed with either a solid fuel appliance which burns, without smoke, any solid fuel including bituminous coal, or as a fully automatic gas unit. Architects, housing authorities and others—especially those interested in smoke abatement—should write for literature explaining the system in full, or visit the experimental houses at Stanmore where both solid fuel and gas installations may be seen in action. But please apply first for an appointment to Radiation Group Sales Limited, Lancelot Works, Wembley, Middlesex. Telephone: Wembley 6221

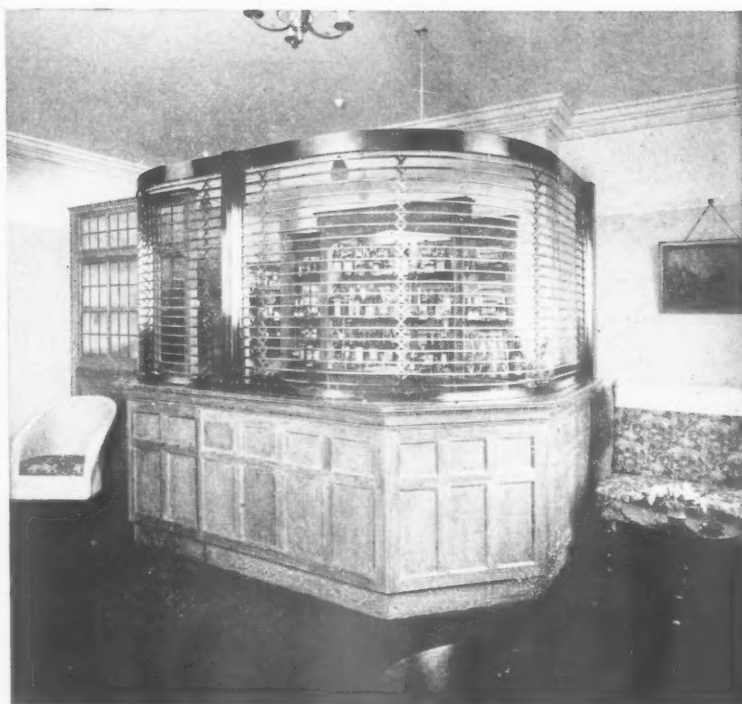
ISSUED BY RADIATION LIMITED, ASTON, BIRMINGHAM, 6
AND 7/8 STRATFORD PLACE, LONDON, W.1.



**Whole-house
Warming by
Radiation
ducted air**



A feature of this bar at the Bell Hotel, Gloucester is the Dalex Grille (here shown closed) constructed in anodised aluminium in antique finish. The bar itself has an oak framed and panel front with a Dalex Inlaid top. The backfitting is also in oak, with curved cornice and recessed mirrors. The heavy oak framed and panelled doors are in keeping with the general decor.



BRITAIN'S BIGGEST BAR FITTERS



● **Head Office :—DALEX WORKS, COLESHILL STREET, BIRMINGHAM, 4**

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

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

FACTORY BUILDINGS



Architects: Jackson & Edmonds, F.R.I.B.A.

Consulting Engineer: S. Willis, A.M.I.C.E., A.M.I.Struct.E.

*Portion of a modern factory built in steel frame construction
for Henry Meadows Limited, Wolverhampton. The machine
shop alone covers an area of about three acres.*

BRAITHWAITE & CO ENGINEERS LTD



London Office:

DORLAND HOUSE

REGENT STREET

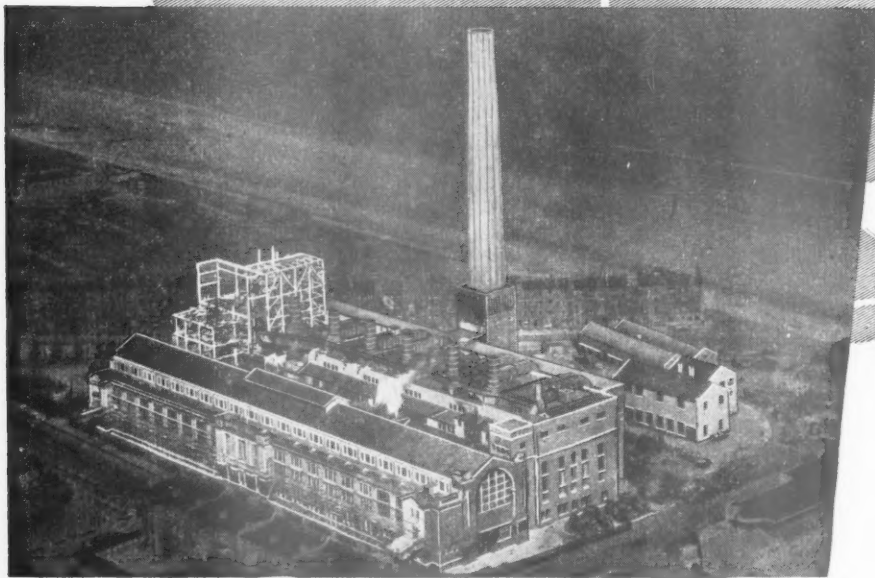
Telephone: **WHItchall 3993**

LONDON S.W.1

Bridges · Wharves · Buildings · Screwcrete Foundations · Pressed Steel Tanks

P & G BATTERIES

in the public service



Behind a number of Britain's large scale enterprises lies the quiet efficiency of P & G Batteries. The generation of electricity is a case in point. The Portobello Power Station at Edinburgh (shown here) employs P & G Stationary Batteries for Switchgear Operation, Emergency Lighting and other duties. Portobello is one of many. P & G service extends into many fields and covers complete specifications for any battery installations you care to name, a second and impartial opinion on an existing scheme, the provision of equipment and its installation, regular inspection and report. We welcome discussion on any project on the sound principle that two heads are invariably better than one.

PRITCHETT & GOLD and EPS Co. Ltd

50 GROSVENOR GARDENS • LONDON • SW1

Batteries and Control Panels for Emergency Lighting

2 heads are
better than **1**



PG218

About Aluminium...

5

MECHANICAL PROPERTIES • continued

The aluminium alloys have reached their present industrial standing relatively quickly, and there is, perhaps, not a proportionately wide knowledge of their nature and behaviour. Although only the barest facts can be included in a series of articles of this length, it is hoped that they may serve the student, in particular, as an introduction to this prominent structural metal.

Compression

The behaviour of aluminium alloys under compressive loading does not receive the attention given to tensile properties, perhaps because the strength of structural members is so often limited by buckling, and the actual compressive strength of the metal is not approached.

For most engineering purposes, it is customary to use the same design stress for compressive work as for tensile. In the testing machine, an aluminium alloy will show an apparently higher strength in compression than in tension, but this can in part be attributed to the changing cross-sectional areas of the specimens, increasing in one case and decreasing in the other, while the stress is based on the original area. Cylindrical specimens of the softer aluminium alloys can be compressed to thin discs before cracking, and even then may sustain the load. The harder alloys show a more definite failure point with pronounced cracking.

A proof stress, at which there is a small measurable departure from the elastic range, is therefore usually quoted, and will be roughly equal to the corresponding tensile proof stress; in cast or forged metal, it is usually slightly higher. Sheet and extruded products, however, are often straightened by stretching, an effect of which is to lower the compressive proof stress and raise the tensile proof stress by small amounts.

Shear

In the wrought alloys, the ratio of ultimate shear stress to ultimate tensile stress varies, with composition and method of fabrication, from about 0.5 to 0.75. When

test results are not available, a ratio of 0.55 is safe for most purposes.

Rivets in low and medium strength alloys, with shear strength up to 13 tons per sq. in., can be driven cold. Small rivets in stronger alloys can be driven in the soft state immediately following solution treatment and, on age-hardening, shear strengths up to 17 tons per sq. in. will be developed.

Most aluminium alloys show a shear or rigidity modulus (G, C, or N) of 3.7 to 3.9 million lb. per sq. in. (compared with 12 million lb. per sq. in. for steels).

Bearing

The ultimate bearing or crushing strength of aluminium is as difficult to define, test, or relate to tensile properties as it is with other metals. Bearing must, however, often be a criterion in the design of riveted or bolted structures, and a bearing yield stress is widely recognized; this is arbitrarily defined as the pressure (per unit effective bearing area) exerted by a pin in a round hole that will permanently deform the hole by 1% of its original diameter. This stress, for most alloys, approximates in value to the ultimate tensile stress.

Hardness

Resistance to surface indentation is an approximate guide to the condition of an alloy, and is used as an inspection measure. Brinell (steel ball), Vickers (diamond), and Shore Scleroscope (diamond hammer) testing machines are applied to aluminium alloys; typical Brinell values range from 20, for annealed commercially pure metal, to 175 for the strongest alloy. Hardness readings should never be regarded as a quantitative index to tensile strength, as is often done with steels, for in aluminium the relation between these two properties is far from constant.

Impact Strength

The low elastic modulus of all aluminium alloys is an asset under shock-loading conditions; an aluminium alloy member will absorb three to four times as much energy before failure as will an equivalent steel member.

Energy absorption figures from tests on notched specimens in Izod or Charpy pendulum machines are, as with other metals, not directly applicable to design work. Again, the results from different alloys of aluminium are so varied, and so unrelated to performance under struc-

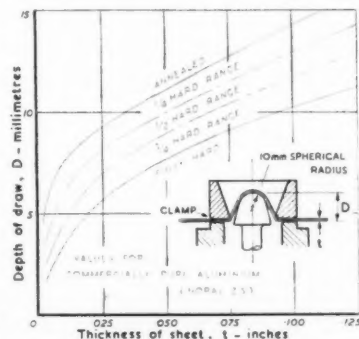
tural conditions, that this type of test is little used.

Ductility

In the last article it was said that the elongation of a tensile test piece at fracture was a useful but not a conclusive key to the ductility of an alloy.

Simple bend tests are widely used as a further indication of workability, and are laid down for sheet conforming to British Standard Specifications. A strip of metal with smooth, rounded edges is bent through 90° or 180° by hand or mallet over a steel former of prescribed radius. By using successively tighter formers, a minimum bend radius, at which there is no cracking, can be found, and is usually quoted as a multiple of sheet thickness t ; for example, $1\frac{1}{2}t$.

Samples of sheet that is intended for deep drawing or pressing are often subjected to the Erichsen cupping test (illustrated), in which a hemispherical punch is forced by a hand-operated screw against one side of the sheet, stretching the metal into a dome or cup. The depth of penetration at fracture gives an indication of the amenability of the metal to deep drawing processes involving stretching, though not necessarily to other processing operations. Much of the value of this test lies in its ability to show up two phenomena that will prevent successful drawing: a coarse grain structure produces roughness of the cup surface and, perhaps, an early failure through local thinning; and directionality, or variation of properties in relation to the direction of rolling, affects the shape of the fracture, which should be circular.



Erichsen Cupping Test

The next article in the series is concerned with creep and fatigue properties.

Figures for the properties discussed in these articles are listed in the Noral Data Sheet. Send for a copy, mentioning the name of this journal.

NORTHERN ALUMINIUM COMPANY LIMITED

TECHNICAL DEVELOPMENT DIVISION - BANBURY, OXON

PASSFIELD COURT LEWISHAM

Designed for the Lewisham Borough Council by Messrs. Fry, Drew & Partners, this progressive housing estate consists of 101 flats in four blocks constructed in the unusual box frame method.

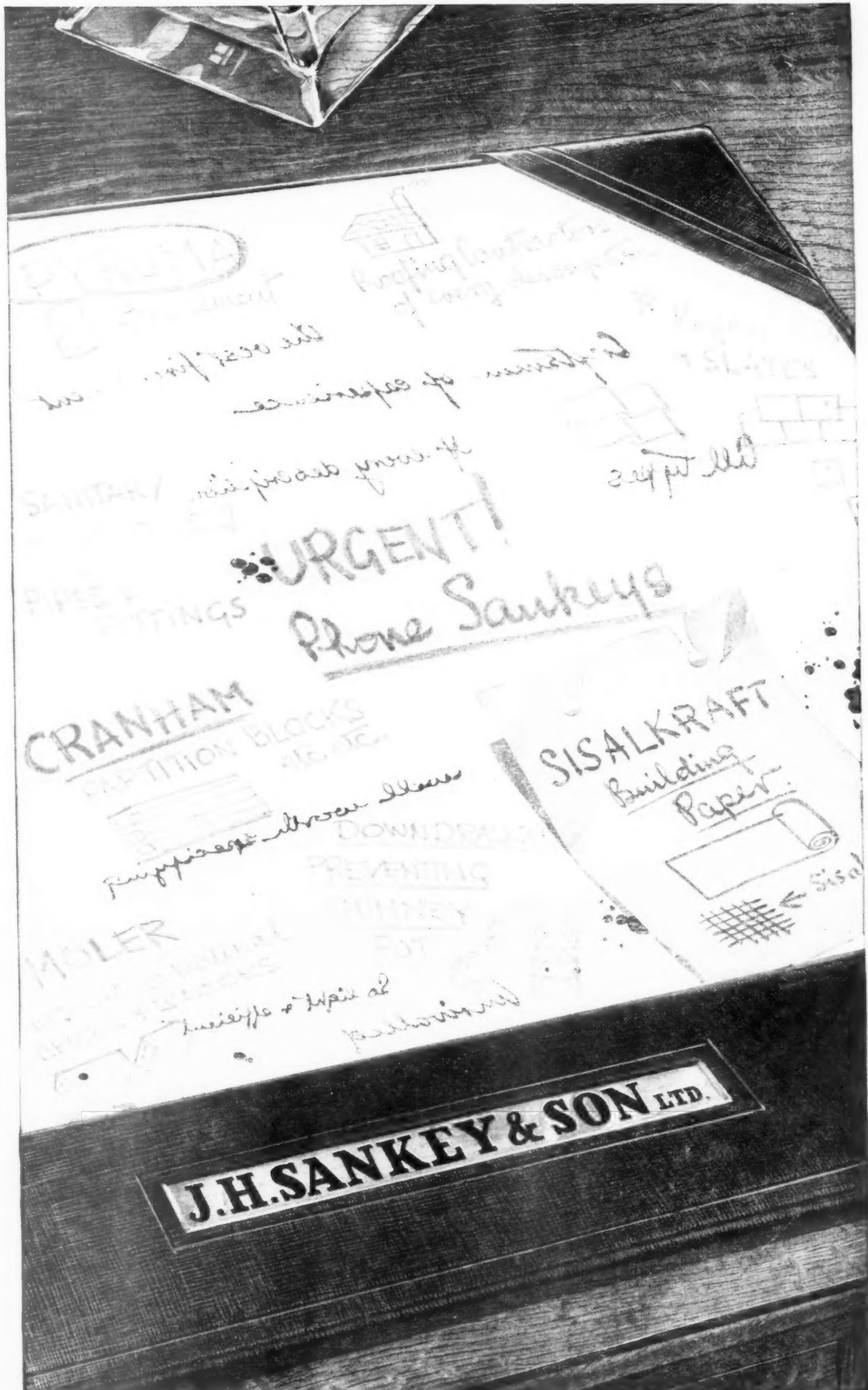
The Electrical Contractors, Messrs. Brakefields Ltd., used approximately 22 miles of BICC cable for the entire electrical installation, which comprised over 1,000 lighting and heating points, together with an electrically equipped laundry and some public lighting.



RUBBER
INSULATED
CABLES



BRITISH INSULATED CALLENDER'S CABLES LIMITED
NORFOLK HOUSE, NORFOLK STREET, LONDON, W.C.2



ALDWYCH HOUSE, ALDWYCH, LONDON, W.C.2. Telephone HOLborn 6949

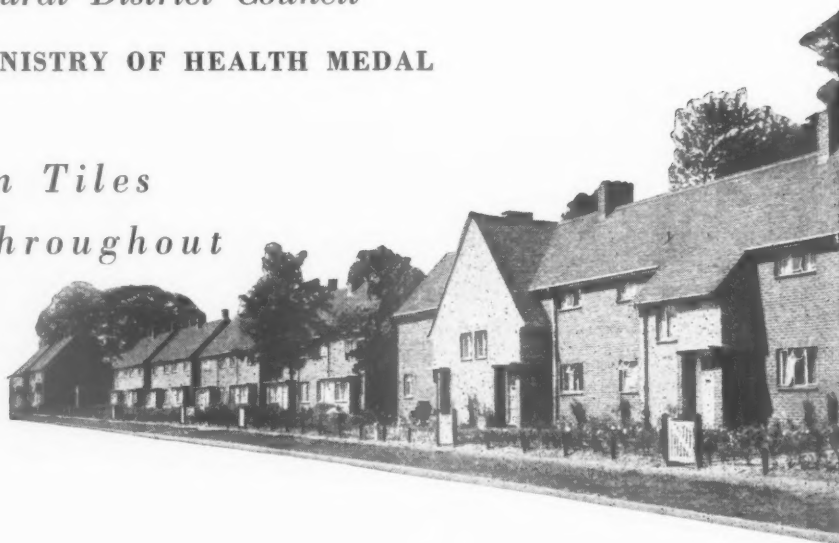


Architect : Peter Dunham, F.R.I.B.A. Contractors : Richardson & Bottoms and Tew Brothers.

HOUSING AT HOUGHTON REGIS, BEDS
for the Luton Rural District Council

AWARDED THE MINISTRY OF HEALTH MEDAL
(Eastern Region)

Marley Plain Tiles
were used throughout



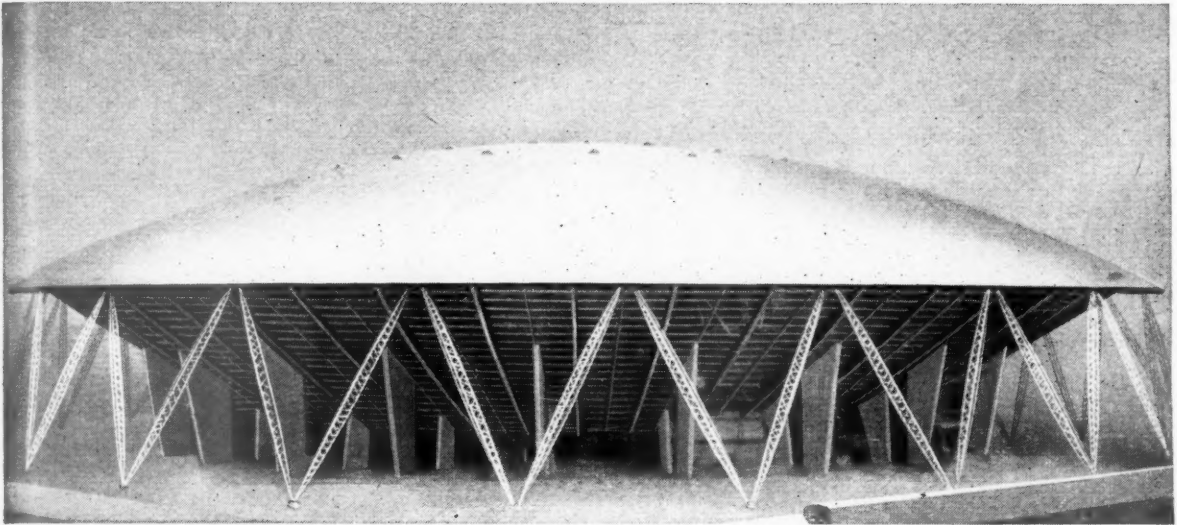
"Not for an age—but for all time"

The Marley Tile Company Limited, Sevenoaks, Kent.

Sevenoaks 2251-8

MARLEY

THE WORLD'S LARGEST DOME

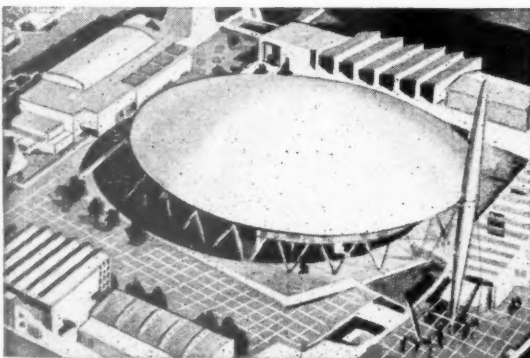


FINISHED—*ahead of Schedule*
by **HORSELEY**

FOR almost two centuries the Horseley Organisation has been engaged in the fabrication and erection of many large scale Constructional Engineering projects in all parts of the World, but none more outstanding than the Festival of Britain Dome of Discovery.

This Dome, the largest of its type in the World,—with an overall diameter of 365 feet, a circumference of over one-fifth of a mile, covering an area of 104,000 square feet, and a height from ground level to Dome centre of 92 feet—symbolises Britain's supremacy in the Engineering field.

Its fabrication and complete erection was entrusted to us in September 1949 and was completed on the 12th October 1950—5 days ahead of schedule!



HORSELEY BRIDGE AND THOMAS PIGGOTT LTD

HORSELEY WORKS • TIPTON • STAFFS • PHONE 1104 P.B.X

CARTER - HORSELEY (ENGINEERS) LTD

NEWCASTLE • PHONE JESMOND 1450 • WADDON • PHONE CROYDON 7226

LONDON OFFICES • 9 VICTORIA STREET • WESTMINSTER • PHONE ABBEY 5905

From power operated giants to light domestic installations

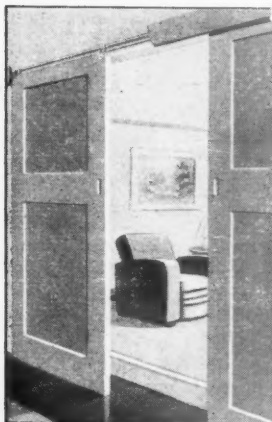
THERE'S A KING DOOR SET FOR EVERY NEED

TO ARCHITECTS AND BUILDERS

We welcome your enquiries, and our technical staff is always at your service. Please write for illustrated booklets.

TO BUILDERS' HARDWARE MERCHANTS

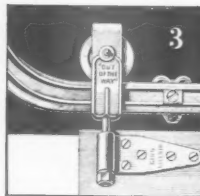
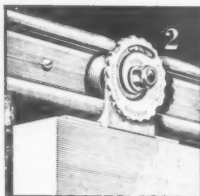
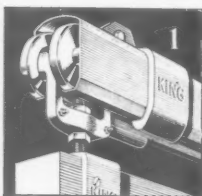
Please write for illustrated booklets and details of the comprehensive range of KING door gear, trade terms, etc.



IT'S A FAR CRY from the giant industrial sliding door installations that run on KING gear to this example of the KING 'Homestic' design for modern flats, hotels, etc. But the same sound engineering is built into every set of KING door gear, large or small. Every set gives the same smooth-running, long-lasting, trouble-free service



DIFFERENT AGAIN from both the light domestic sliding doors and the heavy jobs for flight sheds, bus depots and factories is this farm building installation. Progressive farmers are using sliding doors more and more, and they find in KING sliding door gear the good design and solid service that appeal to them



- (1) KING TUBULAR TRACK—in 6 sizes: for straight-sliding doors up to 2 tons or for folding or around the corner doors up to 5 cwt. per leaf.
- (2) KING 'HOMESTIC' TRACK—light alloy for straight-sliding interior doors.
- (3) KING MAJOR TRACK—for folding or around the corner doors up to 3 cwt. per leaf.

GEO. W. KING, LTD.
201 Works,
Hitchin, Herts.
Phone: Hitchin 960



INFORMATION SHEETS
free on request



A LOFT LADDER

increases house space
by 20%.

PRICES FROM £12-10-0

Government restrictions on the building of new houses, emphasises the need for using all available space in every home. The loft for instance can increase the living space of the average house by at least 20%. With Loft Ladder access is as safe and easy as walking up the stairs. Information sheets issued on request, show in detail how this space may be made available both in new work and conversion.

Write for full particulars and prices of the various types.

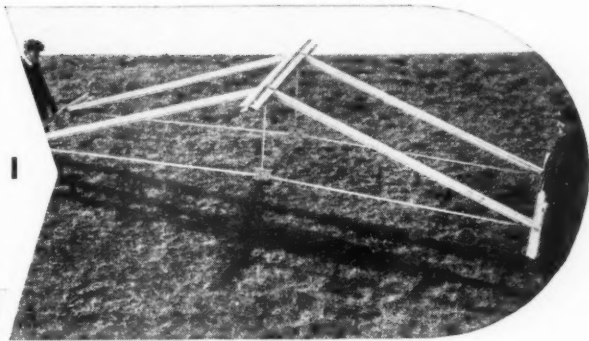
LOFT LADDERS LTD
The first and original inventors of Loft Ladders and Loft Access Stairs.

BROADWAY WORKS, BROMLEY, KENT
Tel.: RAVensbourne 2624

DURALUMIN

REGD. TRADE MARK

is easily handled

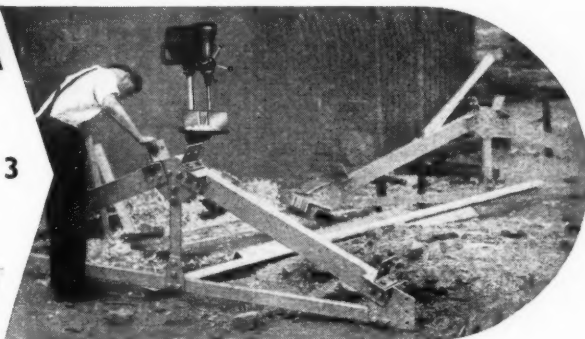


1



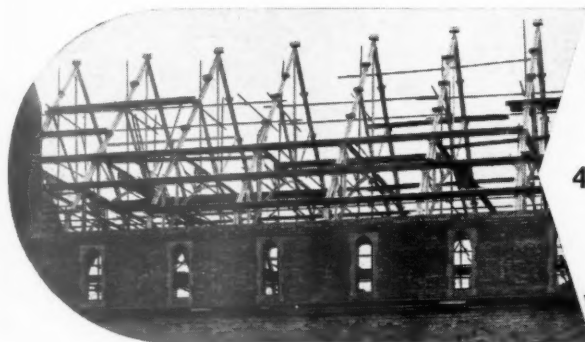
2

... sections can be specially designed for the job



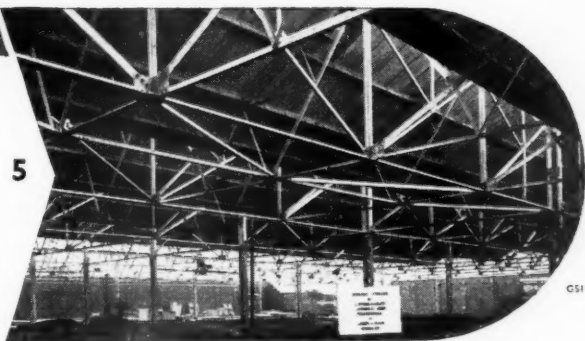
3

... readily fabricated on site



4

... is ideal for problems of reconstruction



5

... cannot rust — reducing maintenance costs

The versatility of aluminium alloys enables structural engineers to improve upon traditional methods. No longer is it necessary for standard sections to dominate the design, for aluminium alloy sections can be made in an almost limitless range of sizes and shapes, enabling the designer to use his art to the full. 'Duralumin' has proved its value in structural work ranging from greenhouses to factories, from giant cranes to scaffold poles. It is the ideal material for those with creative ideas.

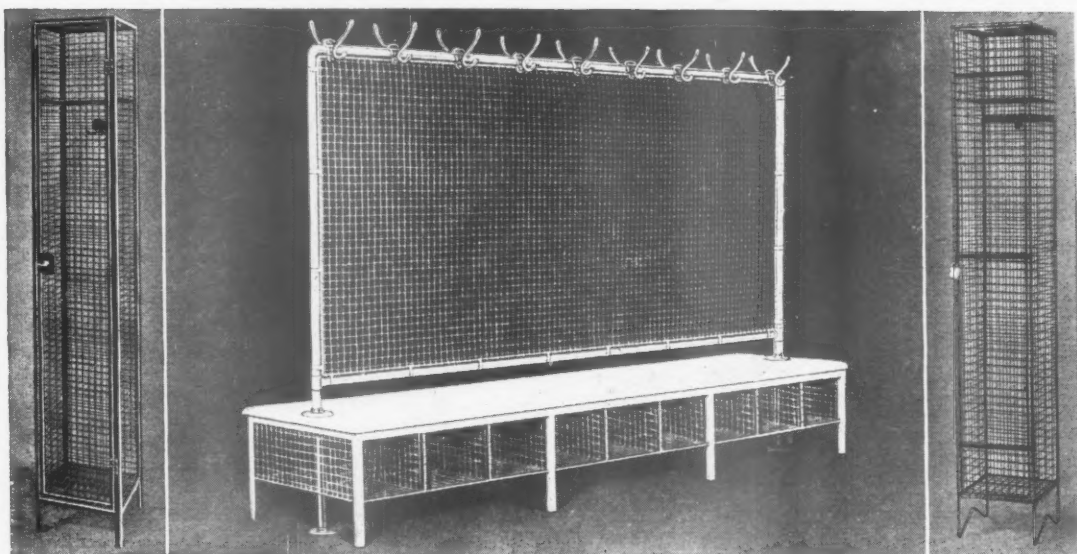
- 1 Roof truss for a Briggs Demountable building.
- 2 New Clunie Bridge, Tummel-Garry Hydro-electric scheme.
- 3 Site fabrication at Gorton Locomotive sheds for British Railways.
- 4 Reconstruction of bombed church at Beckenham, Kent.
- 5 28,800 sq. ft. weaving shed at South Kirby, Yorks.



JAMES BOOTH & COMPANY LIMITED

ARGYLE STREET WORKS • BIRMINGHAM 7.

CLOAKROOM FITTINGS AND WIREWORK LOCKERS



Harvey Wirework Clothes Lockers are strong and durable, and economise space. Available in single units or nests of 2, 3, 4, or 5 Lockers.

Harvey Cloakroom Fittings have been designed to meet the requirements of all modern cloakrooms. The double-sided island stack illustrated above is approx. 5' 6" high and is constructed of tubular framework enclosing a wirework panel. The wooden seat is supported by an angle frame and tee bar legs, incorporating boot and shoe compartments approximately 12" wide x 9" high x 12" from front to back.

Send for List A.J. 830

Sizes: 72" high x 12" wide x 12" deep, 72" high x 10" wide x 18" deep. Other types of Lockers to suit special requirements can be made to order.

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

Thermal Insulation . .

A SPECIALISED SERVICE FOR THE ARCHITECT AND BUILDER

A RECENT INSULATION ORDER

20,000 SQUARE YARDS OF INSULATION . . .

Constructed on Chisarc Shell "D" principles this large roof was treated with an insulating layer of Loose Fill Grade VERMICULITE and cement, with a small percentage of Bitumen in the gauging water. Laid to an overall thickness of 2 inches with Roofing Felt applied directly on top, it provides high degree insulation, and great fuel saving. Laying cost is economical and is as easy as using normal concrete whilst its weight is approximately half that of Foam Slag Concrete.

Consider VERMICULITE for your insulation problems—the above method of application applies equally to flat roofs. Further information on request.



The Hollway organisation specialises in the supply of all types of thermal insulation, and their experience in this direction can be of great value to you in undertakings of such nature.

HOLLWAY'S LATEST INSULATION ORDER

Provision of insulation materials for

SPEKE SECONDARY MODERN SCHOOL LIVERPOOL

Suspended ceilings employing 1" Lloyd Insulation Board, Lloyd Patented Aluminium Alloy Sections. Centulith Wood Wool Slabs and Sheradised Steel Tees.

also

ACOUSTICAL TREATMENT LIVERPOOL POLICE COURT

Enquiries to:
DEPT. 'A'

W. F. HOLLWAY & BROTHER LTD
42, GRAFTON ST., LIVERPOOL, 8.

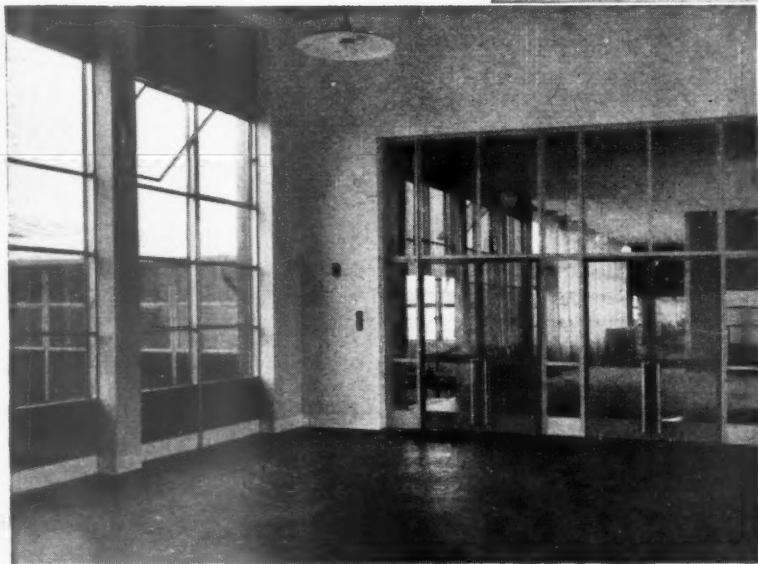
HOLLWAY

W. F. HOLLWAY & BROTHER LTD.

STRUCTURAL INSULATION AND WALLBOARD SPECIALISTS

42 Grafton Street • Liverpool 8 and Widnes • Phone: ROYal 5315

A Lesson on Painting



Whitmore Park Primary School, Sadler Road, Coventry, which was painted throughout with "International" paints.

Architects: Messrs. Richard Sheppard & Partners, F.R.I.B.A., London, W.C.1.

Contractors: Messrs. Gilbert—Ash Ltd. Coventry.

Painting Sub-Contractors: Messrs. Daly & Son, Coventry.

There is a lot to be gained by studying the methods and materials used by masters. Take the Whitmore Park Primary School for instance. It is the largest prefabricated aluminium school in the British Isles for which the selection of the most suitable paints was no small matter. "International" products

were chosen because they are top of the class. "Prep." called for special "International" Primers and Undercoatings and the "final" top coatings included "Lagomatt" Flat Oil Finish, "Sunlight" Washable Water Paint and "International" Heating Resisting Paint.

On all occasions use

International Paints

REGISTERED



TRADE MARK

INTERNATIONAL PAINTS LTD. GROSVENOR GARDENS HOUSE, LONDON, S.W.1.

Telephone: VICTORIA 3161 (10 lines).

Telegrams: Corroful, London.

Also at: GLASGOW • FELLING-ON-TYNE • LIVERPOOL • CARDIFF • SOUTHAMPTON • WEST HARTLEPOOL, etc.



"Durablock"

Flooring
in process of
laying at the
Hostel for
Paraplegics
Osterley Road,
Osterley, Middx.

3,000 YDS. SUPER LAID

Send for fully illustrated
Brochures

Architects:
Ministry of Works, Abell House, London.

FOR ALL FLOORING REQUIREMENTS CONSULT:—

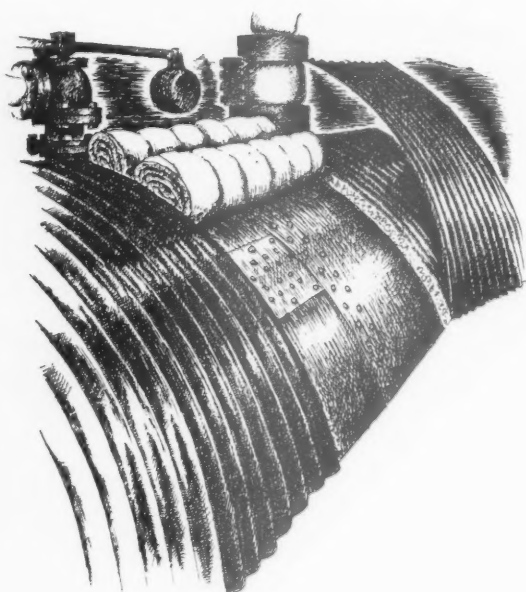
Established
1909

THE TERRADURA FLOORING CO., LTD

PROVIDENCE WORKS, NORTON STREET, MILES PLATTING, MANCHESTER 10

Tel:
Collyhurst 1059

ALSO FIBROLENE DECORATIVE FLOORING: MARBLE TERRAZZO; JOINTLESS COMPOSITION.



giving boilers the once over

Once a boiler is covered by the Versil patented Corrugated Construction method, it is virtually insulated for life, yet any part of it at any time can very simply be "opened up" for inspection. The metal sheeting takes off, the Versil Glass Silk blanket rolls up, and when replaced gives thermal efficiency as high as ever. The insulation is strong and self-supporting, can be trodden on with impunity, and is assembled on site by unskilled hands. Write for descriptive booklet to FERSIL Ltd., Rayner Mills, Liversedge, Yorks.

IN A WORD

V E R S I L

GLASS SILK INSULATION



WEATHERFOIL HEATING

AT WHITMORE PARK SCHOOL

The heating in this, as in many recent schools, is by WEATHERFOIL. Air is blown at low velocity over hot water heat exchangers in concealed cabinets and fed into the classrooms and assembly halls through louvred grilles. Each WEATHERFOIL unit operates under individual automatic control, thus ensuring rapid response of the heating system to local conditions.

The WEATHERFOIL system of warm air heating has many advantages for schools. Installation costs are low because pipe runs and builders' work are greatly reduced. Economies are possible in running costs of the order of 30% over traditional heating systems. Accurate automatic control of the temperature in individual classrooms is ensured.

The need for exposed pipe runs or projecting radiators is eliminated. The neat, unobtrusive grilles in the wall are the only feature which is exposed to view.

Architects: Richard
Sheppard & Partners



Full particulars will be
sent on request, and a
discussion with one of our
technicians can easily be
arranged.

WEATHERFOIL HEATING SYSTEMS LTD., 185 BATH ROAD, SLOUGH, BUCKS. 'Phone: Slough 20269

The PAINT that PROTECTS ASBESTOS CEMENT SURFACES



EVODE PROTECTIVE (Chlorinated Rubber) PAINTS GIVE THAT EXTRA PROTECTION

EVODE PROTECTIVE PAINTS are highly alkali and acid resisting and are the answer in all cases where a high degree of protection, durability and a pleasing semi-gloss finish is required. Practically fireproof when dry. No special primer or petrifying liquid required either on asbestos cement or on concrete. Dust dry in half an hour.

For iron, steel, wood and direct painting of asbestos cement, sheeting, concrete and concrete floors, brickwork and cement renderings.

EVODE LIMITED, GLOVER STREET, STAFFORD • Tel.: 1590/1/2 • Grams: EVODE

MODERN RIGID FRAME BUILDINGS



This is one of the many Steel-framed Buildings in welded rigid frame construction undertaken by The Clyde Structural Iron Company. Fabrication has been carried out for spans of this type up to 100 ft. x 40 ft. high, inclusive of crane gantries of various lifting capacities.

Constructional steelwork is undertaken in warehouse buildings, workshops, factories, stores, mills, haysheds, bridges, pit-head frames, piers, tanks and fencing, also steel structures for countries overseas.

Designs and estimates for any type of steel building (home or abroad) prepared and submitted free of charge.

The Clyde Structural Iron Co., Ltd.

CLYDESIDE IRONWORKS, SCOTSTOUN, GLASGOW, W.4.,
Telephone: Scotstoun 1817 (3 lines) Telegrams: Corrugated. Codes: ABC 5th Edition, Liebers.
London Agents: Messrs. GILLESPIE & CO., LTD., 24 Grosvenor Gardens, London, S.W.1.
Telephone Sloane 9597 "Elm Lodge", Capel, Surrey. Telephone: Capel 3253.

The most **HYGIENIC** *flooring*



One of the most conspicuous advantages of a Clay Quarry floor is that it is so easily kept clean, particularly where skirtings of the same material are used. The smooth, dense surface, free from sharp angles or crevices, may be maintained in a spotless condition by simply sluicing or mopping. Further, floors may be rendered **ABSOLUTELY VERMIN-PROOF** by the application of colourful Clay Floor Quarries.

They are the obvious choice for all premises where regulations demand washable floors, and for all other buildings where hygienic conditions are essential.

Clay Floor Quarries are highly resistant to impact and abrasion. They are available in a wide range of sizes, thicknesses and shapes, and in uniform shades of red, blue, brown and buff, or in multi-colours, and actually **COST LESS THAN ANY OTHER FLOORING MATERIAL**

Correctly laid, a Quarry floor will last as long as the building.

For further information, please write to The Secretary, Floor Quarry Association, Federation House, Stoke-on-Trent.

Clay Floor Quarries

FIRE ESCAPE STAIRS



We have made and erected fire escape stairs for the last 60 years all over Britain for :—

Government Buildings,
Local Authorities,
Hospitals,
Office Blocks,
Theatres, etc.



The fire escape stairs shown here are typical of many made and erected by Lion Foundry.



Nothing equals perforated cast-iron treads and landings for resistance to wear and weather

LION FOUNDRY Co., LTD.

ARCHITECTURAL & SANITARY IRONFOUNDERS

CONTRACTORS TO H.M. GOVERNMENT

KIRKINTILLOCH, near GLASGOW

London Office: 124 Victoria Street, S.W.1

Telephone: Victoria 9148



Solignum wood preserve it!



There are 3 kinds of SOLIGNUM:

SOLIGNUM WOOD PRESERVING STAIN—the standard preservative used throughout the world to give protection against dry rot, decay and the ravages of insects. It preserves and stains and is available in a variety of colours.

V.D.K. SOLIGNUM WOOD PRESERVATIVE—the grade that can be painted over; and which should be used on seed boxes, garden frames and the inside woodwork of greenhouses.

SOLIGNUM WOOD BEETLE DESTROYER—for woodworm in furniture.



WOOD PRESERVATIVE

Solignum Ltd., 30 Norfolk Street, London, W.C.2

The Modern Clock for the Modern School



*The
Delhi*



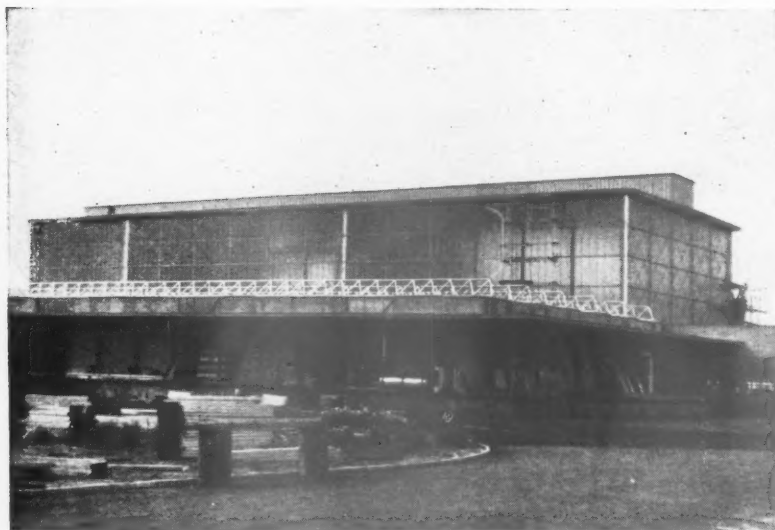
One of the most popular wall clocks in the Smiths 'Sectric' range. Available with 12", 9" and 6" dials.

No clock could be more in line with modern school architecture than the Smiths 'Sectric' Delhi, with its clear, easily read dial and smart but dignified appearance.

It is ideal, too, for offices, shops, factories, and similar buildings. Made by the world's largest manufacturers of Clocks, Watches and Precision Instruments.

Price 6" Dial £3.19.4
9" " £5.12.11
12" " £6.11.2

SMITHS 'SECTRIC' CLOCKS



Factory for AERO RESEARCH LTD DUXFORD

*Designed by Messrs. Ove Arup & Partners,
Consulting Engineers*

*Laboratory roof & floor
insulated with
CELL CONCRETE*

CELL CONCRETE for insulation against heat and cold



Celcon Limited

58, Victoria Street, London, S.W.1.
Telephone: Victoria 3216/7

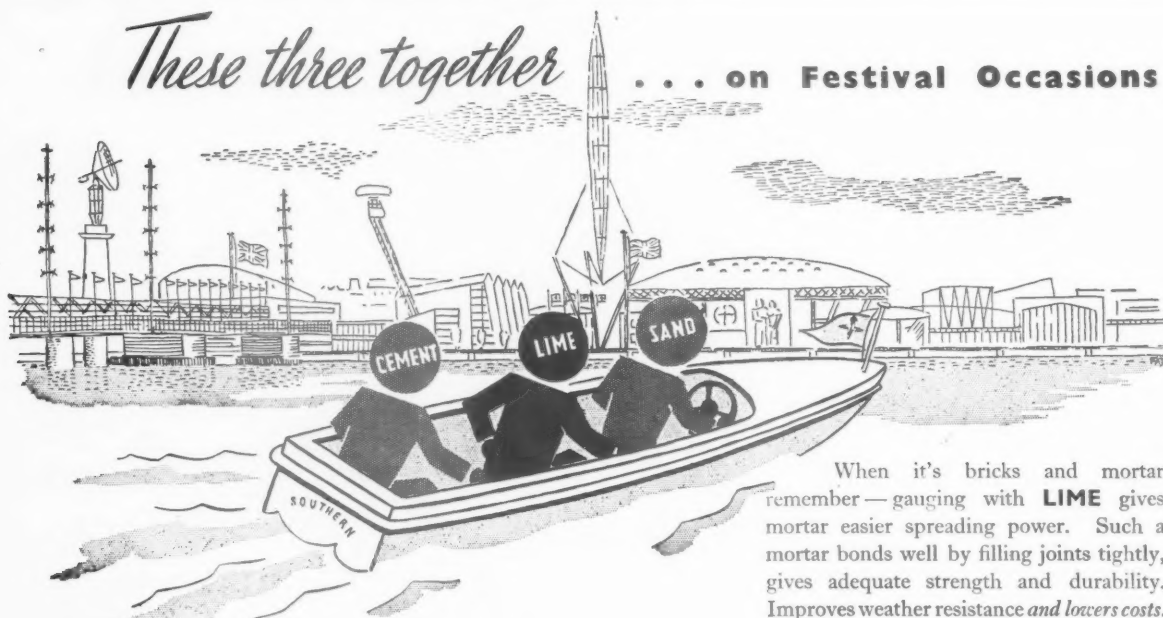
Technical Data

Commercial Density Range 19-85 lbs. per cu. ft.
"K" Value 0.42-2.60 B.T.U./sq. ft./hr./°F./inch
Crushing Strength 100-700 lbs. per sq. in.

Applications

CAST IN SITU — INSULATION OF ROOFS (SCREED TO FALLS), FLOORS AND UNDERGROUND HEATING PIPES; **PRECAST UNITS** — FOR INSULATION OF PITCHED ROOFS, WALLS AND COLD STORES.

These three together . . . on Festival Occasions



When it's bricks and mortar remember — gauging with **LIME** gives mortar easier spreading power. Such a mortar bonds well by filling joints tightly, gives adequate strength and durability. Improves weather resistance and lowers costs.

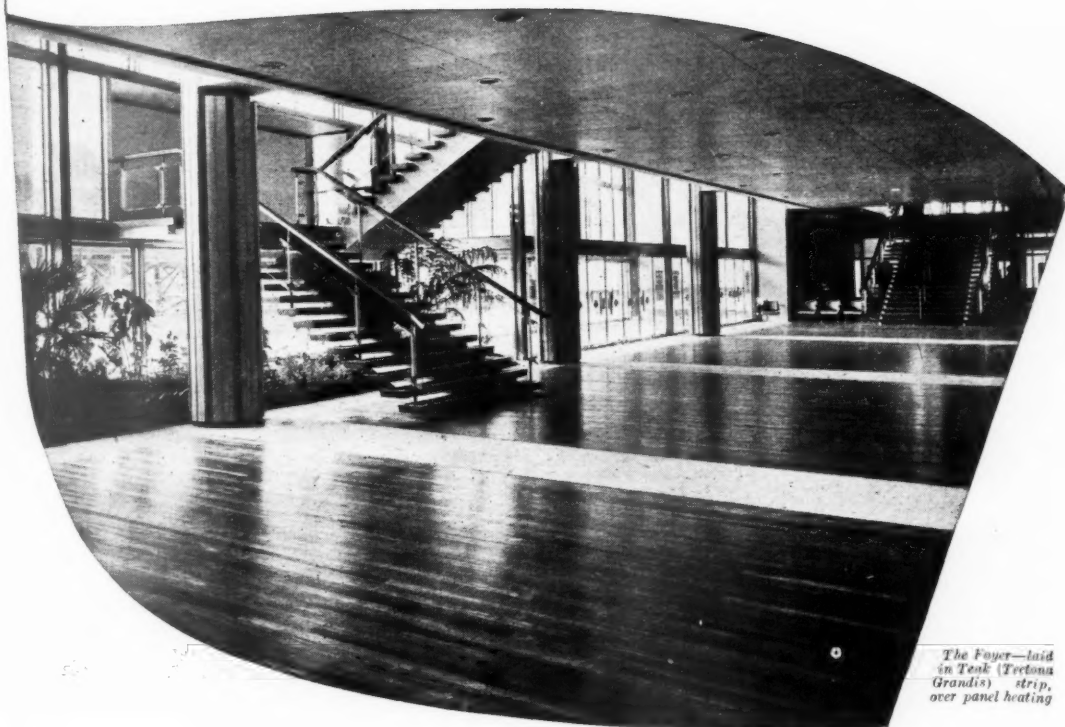
For a better job in less time use —

LIME

- Full details of Cement/Lime/Sand mixes will be sent on application.



THE SOUTHERN LIME ASSOCIATION, HANOVER HOUSE, 73-78 HIGH HOLBORN, LONDON, W.C.1. Tel: HOLborn 5434



*The Foyer—laid
in Teak (Tectona
Grandis) strip,
over panel heating*

above controversy

Many people have taken sides over the Concert Hall, some applauding its modernism others deploring its departure from tradition. But in all this controversy the one feature at which no criticism has been levelled is the flooring—laid by Vigers in hardwood block and strip.

Indeed, about that there can be no argument. For whatever the architectural style, a hardwood floor is always appropriate. It pleases everybody. Not only æsthetically but economically. A hardwood floor will last a lifetime—the life of the building—providing over the years an investment in charm, comfort and wearing quality that shows no depreciation.

VIGERS HARDWOOD FLOORING in the Festival Concert Hall

Vigers Bros. Limited, Broadway Chambers, Ludgate Broadway, London, E.C.4
Telephone: City 2111 (6 lines) Telegrams: Vigentes, Cent, London

T.A.4-101



SPACE APPLICATIONS URGENT

Intending exhibitors should apply for space without delay.

Manufacturers who have not received an application form should write at once—

FOR THE LONDON SECTION TO:

The Commercial Relations and Exports Department,
Board of Trade, Lacon House, Theobalds Road, London, W.C.1.
Telephone: CHANCERY 4411.

FOR THE ENGINEERING AND HARDWARE SECTION TO:

Birmingham Chamber of Commerce,
95, New Street, Birmingham, 2.
Telephone: Birmingham MIDLAND 5021.

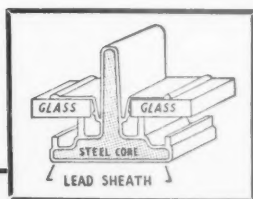
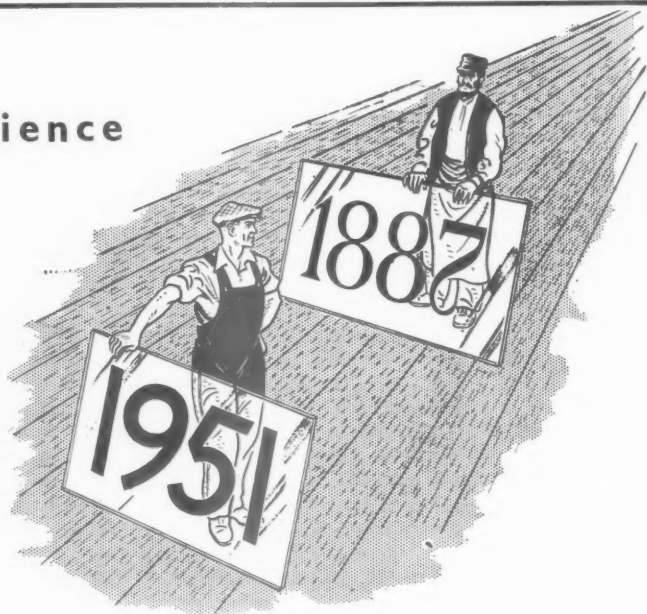
BRITISH INDUSTRIES FAIR • MAY 5-16, 1952

TIME means experience

The Pennycook System of Patent Roof Glazing was first introduced in 1878, since when, it has been specified by Architects and Builders throughout the world. The Pennycook Steel Bar is entirely lead sheathed and suitable for all types of glazing. It is guaranteed Watertight, Dust-proof and Permanent, requiring no further maintenance after the initial installation.

¶ We are in a position to give quick delivery.

¶ Write to-day for further details and illustrated matter describing the Pennycook System of Patent Roof Glazing.



THE PENNYCOOK PATENT GLAZING AND ENGINEERING COMPANY LIMITED

ST. MUNGO WORKS, BISHOPBRIGGS, GLASGOW, N.

'Phone: Bishopbriggs 1117.9

'Grams: "PENNYCOOK" Glasgow

London Office: 3 Victoria Street, Westminster, S.W.1

WILD

Builders Hoist

**FOR HOISTING
BRICKS, MORTAR,
TILES,
SLATES, ETC...**

£140 - 10

Delivered free
nearest siding,
within 200 miles
of our Works.

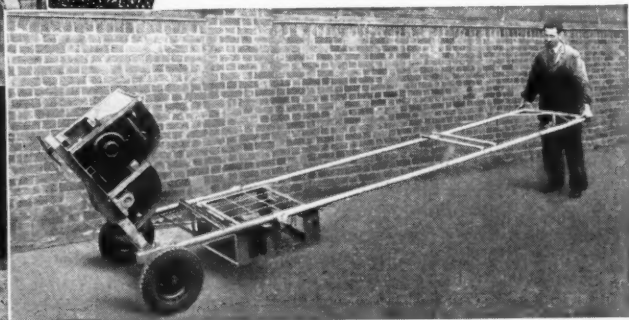
The "small brother" of the famous "Wild" Builders Elevator; works as well inside a building as out.

Another labour-saver, that quickly raises building materials to a maximum height of 16 ft., without double handling.

The skip is unloaded at top from *either* side.

Easily operated by two men, giving constant flow of materials to the required points—no manual fatigue or time lost on empty return journeys, etc.

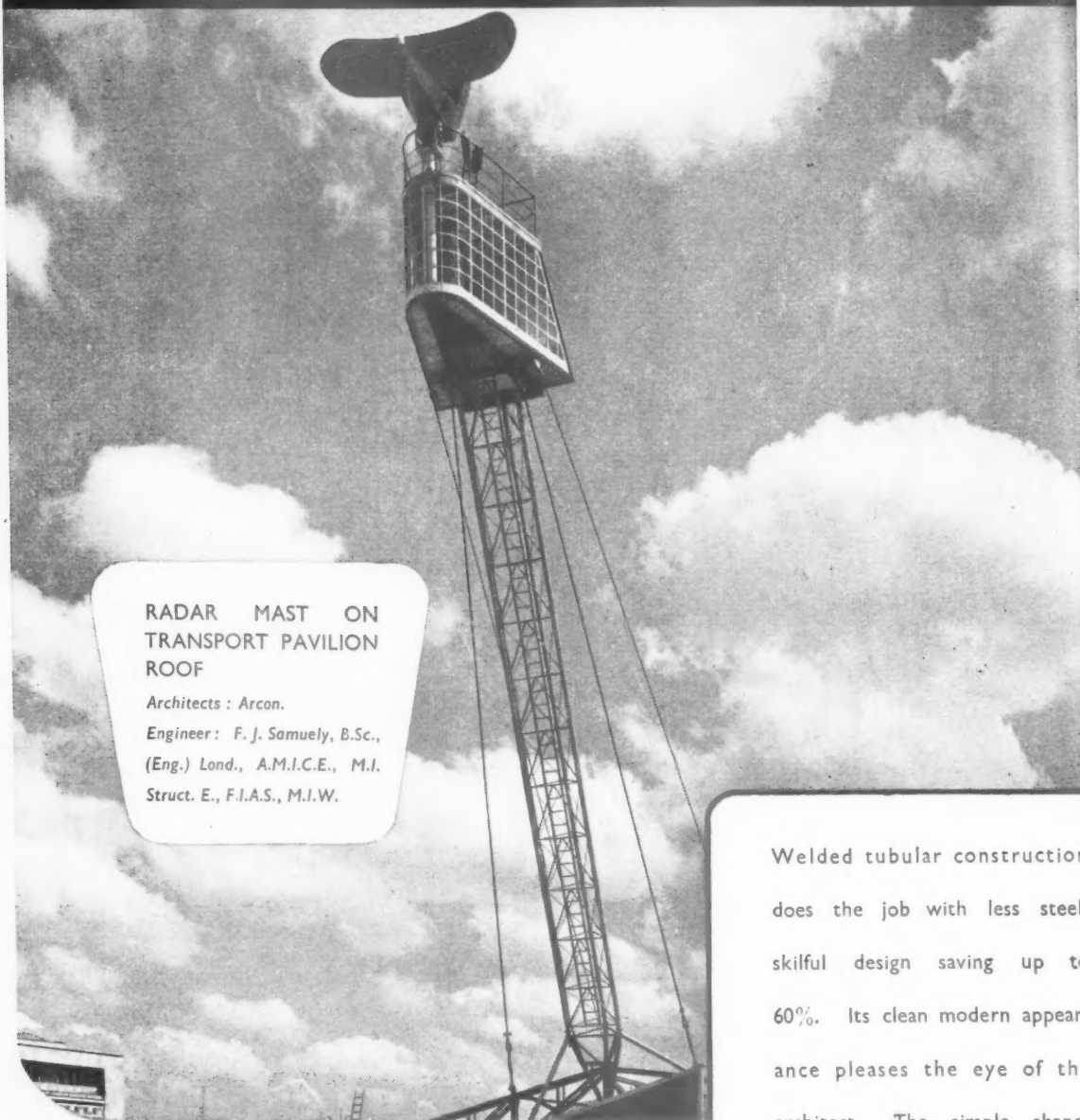
Section frame and balanced design makes handling easy for one man—see photo below.



**OUR LATEST LEAFLET DESCRIBES AND ILLUSTRATES
THE BUILDERS' HOIST—WRITE FOR A COPY TODAY**

MANUFACTURED BY
M. B. WILD & CO. LTD., 50 PALL MALL, LONDON, S.W.1
TELEPHONE TRAFALGAR 4686/7
WORKS AND REGISTERED OFFICES: ARGYLE STREET, NEECHES, BIRMINGHAM, 7

WELDED TUBULAR CONSTRUCTION *-by the originators of tubular scaffolding!*



**RADAR MAST ON
TRANSPORT PAVILION
ROOF**

Architects : Arcon.

Engineer : F. J. Samuely, B.Sc.,
(Eng.) Lond., A.M.I.C.E., M.I.

Struct. E., F.I.A.S., M.I.W.

Welded tubular construction does the job with less steel, skilful design saving up to 60%. Its clean modern appearance pleases the eye of the architect. The simple shapes which arise from the method of construction are easy to protect against corrosion.

SCAFFOLDING (GREAT BRITAIN) LTD.

MITCHAM

SURREY

Telephone: MITCHAM 3400 (18 lines)

Telegrams: SCAFCO, MITCHAM

Branches at: ABERDEEN • BIRMINGHAM • BOURNEMOUTH • BRIGHTON • BRISTOL • CAMBRIDGE • CARDIFF
DOVER • DUBLIN • DUNDEE • EDINBURGH • EXETER • GLASGOW • HULL • LEEDS • LIVERPOOL • MANCHESTER
NEWCASTLE • NOTTINGHAM • OXFORD • PLYMOUTH • PORTSMOUTH • SOUTHAMPTON • STOKE-ON-TRENT • SWANSEA

SGB Welded Structures Division

xxxviii



Announcement!

by the **TENTEST FIBRE BOARD CO. LTD.**

TENTEST ACOUSTIC TREATMENT. We would like to call the attention of Architects, and others who may be interested, to our Acoustic service, which is based on our unrivalled experience in the fixing of Building Boards.

Wall and ceiling treatment in special absorbent materials, either alone or interspersed with plain board, can be provided to give the required degree of sound control in a way which is both pleasing and inexpensive. Units are available in a large range of sizes such as 2 ft. 0 in. by 2 ft. 0 in., 4 ft. 0 in. by 3 ft. 0 in. and up to 8 ft. 0 in. by 4 ft. 0 in., and can be fixed by a variety of our Specialised Construction methods.

May we help in the solution of YOUR acoustic problem? Our technical representative will call at any time, on request.



TENTEST FIBRE BOARD CO. LIMITED

SPECIALISED CONSTRUCTION DEPARTMENT 75, Crescent West, Hadley Wood, Barnet, Herts.

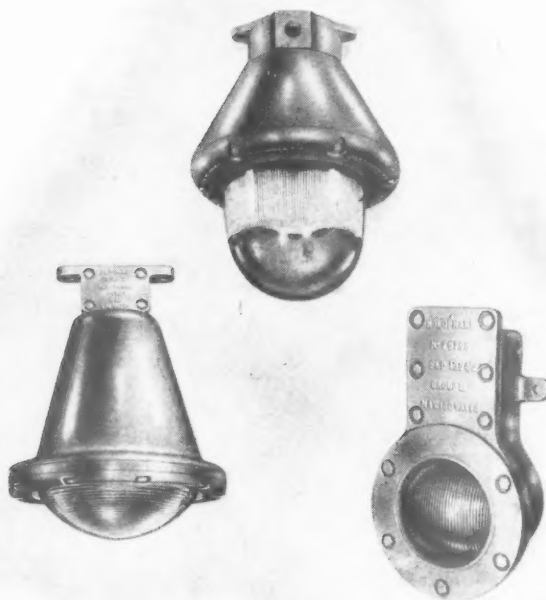
Telephone: BARnet 5501 (5 lines).

Telegrams, Fiboard, Norphone, London.

HOLOPHANE FLAMEPROOF FITTINGS

(BUXTON CERTIFIED)

*Efficient Performance
with Operational Safety*



Holophane (Buxton certified) Flameproof Units for use in Class B Industrial Type Installations are robustly constructed in cast silicon aluminium alloy and embody an efficient prismatic optical system.

HOLOPHANE LTD

SCIENTIFIC LIGHTING ENGINEERS

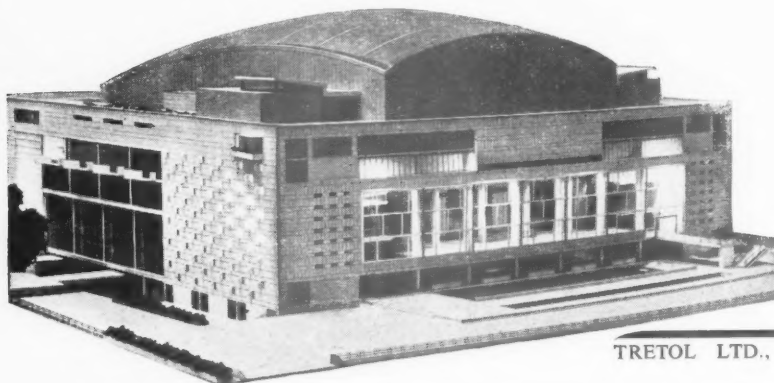
ELVERTON STREET, LONDON, S.W.1. VICTORIA 8062 (4 lines)

A PERMANENT FEATURE

of London's South Bank

The Royal Festival Hall, designed by Robert H. Matthew, Architect to the L.C.C. and staff; Consulting Engineers, Scott and Wilson Ltd., Main Contractors, Holland & Hannen and Cubitts; Tiling Contractors, Carter & Co., London, Ltd.

For the waterproof backing of the external tiling of the Royal Festival Hall, Tretol Liquid Cement Waterproofer was incorporated in the mortar. This is one of the many Festival buildings where Tretol products were specified.



that is why

TRETOL

**LIQUID CEMENT
WATERPROOFER**

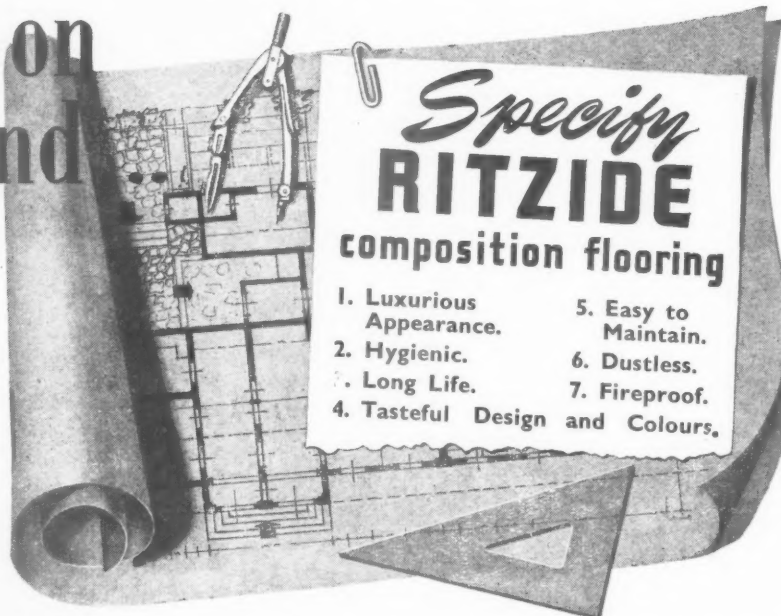
was used

Please write for descriptive leaflet

TRETOL LTD., 12-14 NORTH END RD., LONDON, N.W.1
Tel: SPeedwell 4621 (5 lines)

Treading on safe ground

Years of Laboratory research lie behind the superb elegance and lifelong durability of RITZIDE. Laid in any design anywhere in Great Britain. Highly recommended for use in Housing Schemes, Private Houses, Shops, Schools, Factories, etc.



Specify
RITZIDE
composition flooring

1. Luxurious Appearance.
2. Hygienic.
3. Long Life.
4. Tasteful Design and Colours.
5. Easy to Maintain.
6. Dustless.
7. Fireproof.

RITZIDE

LEATHERFLOR LIMITED

Full particulars and prices gladly sent. Write or phone Leatherflor, Limited, Wellington Works, Wellington Road, Forest Gate, London, E.7. (Tele. MARYland 3786)—Leatherflor, Limited,; Inch Mill, Hume Street, Arbroath, Scotland. (Tele. ARBroath 3271)—Leatherflor, Limited—3, Oldgate, Morpeth, Newcastle, (Tele. MORpeth 463)



KING'S BEAM HOUSE, MINCING LANE, E.C.

UNDER CONSTRUCTION FOR
THE CITY OF LONDON
REAL PROPERTY Co.

ARCHITECTS:
MESSRS. HOWARD, SOUSTER
AND PARTNERS

At home and overseas Wimpeys have built hospitals, schools, municipal buildings, complete townships overseas, banks, blocks of flats, factories, offices, airport buildings, power stations, film studios and grain silos. Well over 30,000 houses have been built in this country alone since the end of the war.

GEORGE WIMPEY & CO. LTD., HEAD OFFICE:
HAMMERSMITH GROVE, LONDON, W.6. Tel: RIVerside 2000

EDINBURGH · NEWCASTLE · MANCHESTER
NOTTINGHAM · CARDIFF · BIRMINGHAM

BAGHDAD · BORNEO · BRUNEI · SUMATRA
HONG KONG · SINGAPORE · CAIRO · SYDNEY

WIMPEY

The longest in the world -



J. & E. Hall designed, manufactured and installed the Escalator in the Dome of Discovery, South Bank Exhibition, which has the largest unsupported span of any escalator in the World.

With a vertical height of 36 feet, a width of 4 feet and a structure over 60 feet long on the incline, this escalator is capable of handling over 8,000 passengers per hour.

J. & E. Hall Ltd. DARTFORD • KENT



Housewives' choice!

Singing about good plumbing? Well, perhaps not, but she'd hardly be happy without it! Seriously, for modern plumbing on any scale—housing estate, factory, office building—we offer you really first-rate service based on quite exceptional experience. So, when it's plumbing, call in Z.D.B. — you simply can't do better!

PLUMBING by
Z.D.BERRY
& SONS LTD. *Founded 1810*

1810-1951—OVER 141 years' experience

HEATING, VENTILATING & PLUMBING CONTRACTORS

Z. D. BERRY & SONS LTD., 16 REGENCY ST., LONDON, S.W.1

'Phone: TATe Gallery 0201

and at WARRINGTON & DONCASTER

It may explain the strictness of our manufacturing standards if we mention that T.I. are both makers *and* users of light alloy extrusions.

T.I. Aluminium (a member-company of the T.I. Group) are equipped with all that modern methods can offer for the large-scale production of faultless extrusions.



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



T.I. ALUMINIUM LTD., REDFERN ROAD, TYSELEY, BIRMINGHAM. TEL.: ACOCKS GREEN 3333
ALUMINIUM AND ALUMINIUM ALLOY INGOT, SLABS, BILLETS, SHEET, STRIP, TUBES
AND EXTRUSIONS TO ALL COMMERCIAL, A.I.D. AND LLOYD'S SPECIFICATIONS



THE ARCHITECTS' JOURNAL

No. 2942 19 JULY 1951 VOL 114

EDITORIAL BOARD : (1) *Consulting Editor*, F. R. Yerbury Hon. A.R.I.B.A. (2) *Guest Editor*, Frank Russon, F.I.O.B. (3) *Town Planning Editor*, Dr. Thomas Sharp, L.R.I.B.A., P.P.T.P.I. (4) *House Editor*, J. M. Richards A.R.I.B.A. (5) *Technical Editor*, R. Fitzmaurice, B.Sc., M.I.C.E., Hon. A.R.I.B.A. (6) *Editor Information Sheets*, Cotterell Butler A.R.I.B.A. (7) *Editorial Director*, H. de C. Hastings.

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 (News)* K. J. Robinson *Assistant Editors (Buildings)*, (21) L. F. R. Jones, (22) A. P. Lambert, (23) *Assistant Editor (Information Sheets)* E. G. Johnson (24) *Assistant Technical Editor*, M. Jay *Photographic Department*, (25) E. R. H. Read, (26) H. de Burgh Galwey *Editorial Secretary*, Betty E. Harris

* 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.



CONGRESS DOINGS

CIAM 8 is over and for the time being the babel of tongues that has been astonishing bucolic Hertfordshire for a week is stilled—but not for long, because Hoddesdon, I understand, is next to accommodate an international housing and town-planning conference.

It is a good locality for architects' meetings, being within easy reach of two of the English achievements that visiting architects most want to see: the Hertfordshire schools and Harlow new town. The CIAM visit to the Hertfordshire schools (they saw one under construction and a finished school at Welwyn) was one of the high spots of the congress. ASTRAGAL, who accompanied the party, heard little but enthusiastic commendation from even the

most critical of the visitors, who included Alfred Roth, the Swiss architect (author of one of the best books on school architecture), Gropius (co-architect of Impington, one of the pioneer English schools) and several Dutch and Scandinavian architects who have specialized in schools.

They were particularly impressed by the organization of the school-building programme, the imaginative use of the site, the intimate, human scale and the use of colour. It is a great pleasure when one can show something to a foreign visitor without having to explain why he must make allowances for this and that.

The visit to the Royal Festival Hall was also a fascinating occasion. Opinions were mixed, on the whole very favourable, especially about the standard of finish and the spaciousness of the foyers, but there was a certain amount of criticism of the river elevation. It was interesting—and somewhat surprising—to hear Le Corbusier more full of enthusiasm for the interior of the auditorium than for the rest of the building.

ICA

The Institute of Contemporary Arts is having a busy time. Last week Le Corbusier opened their exhibition, based on D'Arcy Wentworth's book *Growth and Form*, and later in the same week they organized a lecture by Philip Johnson (at the RIBA), the director of the Department of Architecture and Design at the Museum of Modern Art, New York, and finally, a meeting with the delegates of CIAM. I arrived at the exhibition in time to see Le Corbusier in full retreat before a group of architects and journalists hotly pursuing him with cries of pigeon

French. In the comparative quiet which followed this second Waterloo I was able to see enough of the exhibition to realize how valuable this kind of visual stimulus can be. Some of the photomicrographs of bacteria, sea urchin eggs, and so on, tend, however, to be so formless as to have little point. There is, I fear, a danger that this type of unscientific exhibition of scientific things, arranged merely to encourage the study of the form of the objects shown, and no more, can become just one more source for the artist for cribbing unusual shapes and patterns. For the architect, perhaps, the most interesting feature is the "radiatant structure," or space-frame, based on a study of silica skeletal structures.

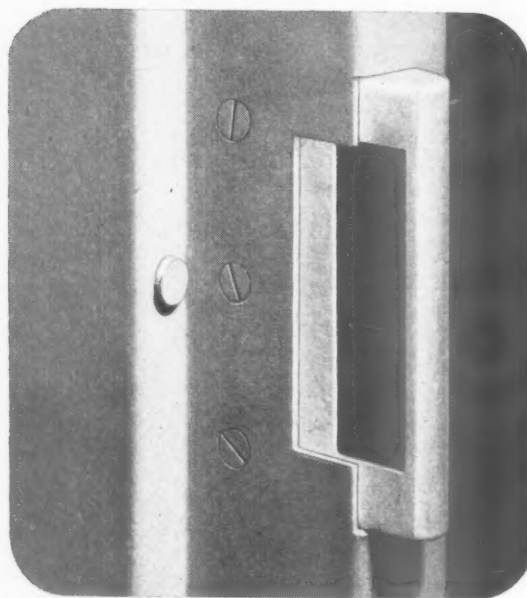
Philip Johnson's talk titled "Modern Architecture" was brilliant. When, on arrival, I heard that there were to be no lantern slides my heart sank to my boots. Lectures are always a strain to me because the talk is all one way, a factor liable to kill with frustration anyone as loquacious as myself. However, on this occasion, so cleverly did Philip Johnson describe his subject, with gestures as well as words, that a pictorial representation of this visual art would have hampered his histrionics.

He described the gradual, long, complex, architectural build-up and climax which every visitor to Frank Lloyd Wright undergoes on entering his desert camp, Taliesin. "Finally, on reaching the platform from which you obtain such a wonderful view over the desert," said Mr. Johnson, in effect, "I have arrived," you'll say, and you're right, for there Mr. Wright will meet you. He will have been watching your approach for some time and you'll never catch him off base. I have

HOPE'S

STEEL DOOR FRAMES

Patent Adjustable Lock Strikes
save time



NO CUTTING OR FITTING

HENRY HOPE & SONS LTD · SMETHWICK, BIRMINGHAM & 17 BERNERS STREET, LONDON, W.1

known visitors reduced to tears and then, softly, aside, "Did he have purple hair when he lectured here?"

*

Gropius, Wright and Mies van der Rohe and Johnson were the architects of whose work he spoke most. ("Neutra? left him out, subconsciously-on-purpose.") No purist, he expects a "mannerist reaction to modern simplicity" and not "more honest, but more tricks for new structures." "Consistency," he said, and I can't recall at the moment whom he is quoting, "is the hobgoblin of the small mind." Altogether a stimulating lecture which had me strongly agreeing and, equally strongly, disagreeing, by turns.

THE ANATOMY OF VICTORIANISM

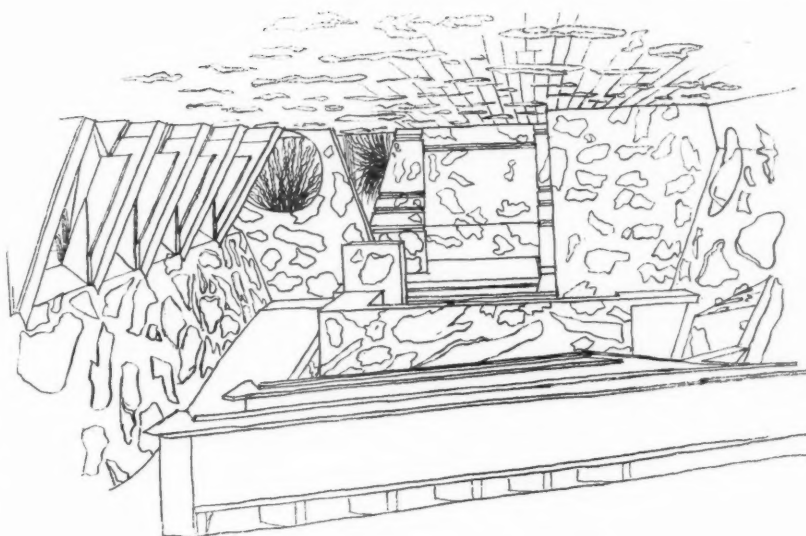
It was high time that someone wrote a book about the exhibits, as distinct from the exhibition, of 1851. That Nikolaus Pevsner should have taken it upon himself to do so is a piece of good fortune on which we should all congratulate ourselves. *High Victorian Design: a Study of the Exhibits of 1851** is just what was wanted—and what no one else could have given us. It disentangles what was Victorian in Victorianism from what was (or purported to be) Saracenic or Gothic, Renaissance or Louis Quatorze, and it sets the wilder excesses of the exhibition pieces against a background in which some notable reformers, such as the *Journal of Design* set, were busy. I recommend it without reservation.



"excruciatingly uncomfortable to hold"—
Fish fork and cream
ladle by F. Higgins.

The anti-Victorian reaction of thirty and forty years ago may have been indiscriminate: the reaction against that reaction which is now upon us promises to be even more so. Professor Pevsner does not pretend that many of the 122 objects that he illustrates from engravings of the time are not, aesthetically considered, pretty atrocious; for this reason his book should have a steadying influence on the pendulum of taste. At the same time, as a historian, he is more concerned to understand than to condemn.

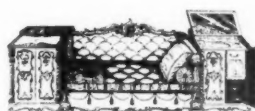
"No education and no leisure, these



These drawings by Bernard Frankland Dark, are of the interior and exterior of the theatre at Taliesin West, Frank Lloyd Wright's winter camp in the Arizona desert. The theatre was built by apprentices who, during the winter months, make drawings and models of the work which Lloyd Wright has in commission, as well as enlarging and improving the camp as part of their training in organic architecture. As in other buildings in the camp the walls and roof have large desert rocks of many colours set into them.



two deficiencies explain nearly all that is aesthetically distressing about 1851." I haven't room to summarize, however briefly, the arguments with which Professor Pevsner backs up that view. And in any case I don't want to give the impression that he is interested only, or mainly, in the negative aspects of 1851. For there was of course a positive side to it all—that uninhibited attitude towards the application of new techniques and new materials which



Steamship furniture convertible into a raft.

produced Paxton's glasshouse at one end of the scale of ultimate significance, and the gutta percha sideboard at the other. "The exhibition in this respect" Professor Pevsner reminds us,

"only continued a line of undaunted progressiveness for which Britain at the time was still famous, but which has since become connected chiefly with the United States and Germany."



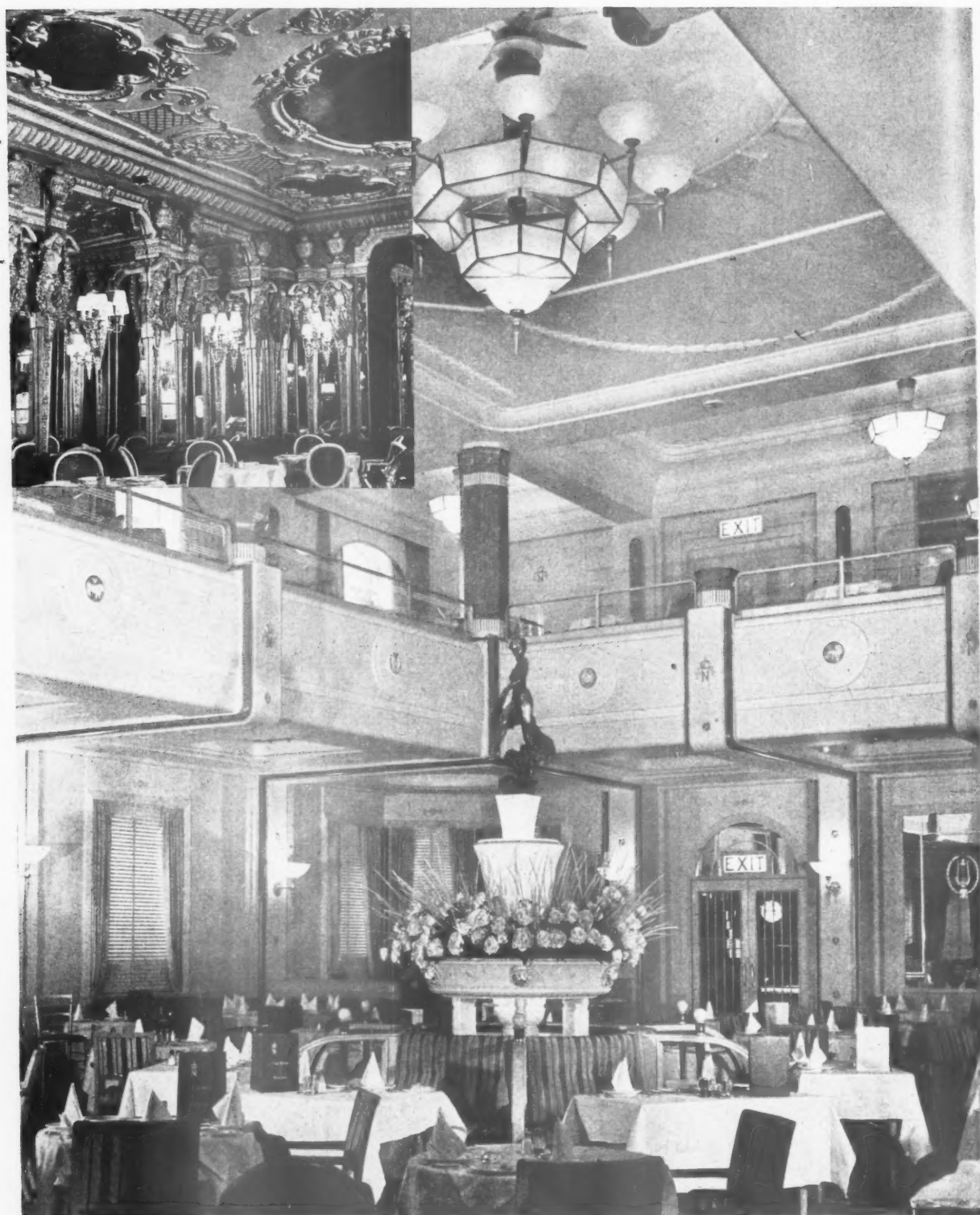
"convincing regardless of date"—Barouche by Hallmarke and Aldebert of Long-Acre.

With that sobering thought I leave you, enviously, to read this fascinating book for yourselves.

FOR PROFESSION OR FOR PUBLIC?

An exhibition which sets out to show the past hundred years of British architecture in the space available at the RIBA is sure to contain a number of omissions, as the Irish would say.

* The Architectural Press, 12s. 6d.



Robuste Royale à Mode Moderne

S. P. Jordan, in his letter on page 66, laments the latest changes at the Café Royal. In the nineties and in Edwardian times, the Cafés caryatids, curlicues and gilded mirrors formed a background to all that was Bohemian. Soon after the First World War the "Royal" was rudely stripped of its decorative splendours, to be re clothed in things *moderne*, angular and jazzy. Now the setting for the brasserie has been changed again. In April of this

year it emerged in a vacant Empire and mannered modernistic style: eloquent of nothing but æsthetic poverty. Does this reflect the taste of gourmets at this famous London restaurant? For those to whom it is splendidly unlovely there is another choice. The grill room, inset above, happily preserves enough to suggest why an Edwardian meal was a memorable occasion. Let us hope that it will be left well alone.

Among the absentees from the present exhibition there are James Brooks, G. F. Bodley and J. D. Sedding, for instance, while that pillar of the profession, C. R. Cockerell, has been able to force an entry—and even then an unannounced one—only as the architect responsible for the completion of Elmes's St. George's Hall.

*

Still, this is avowedly an exhibition of tendencies rather than an anthology of the best buildings of the period, and it says much for interest and quality of what it does include that the omissions are not really conspicuous. The tendencies selected for illustration are very properly for the most part those that seem important to us today, rather than those which were most noticeable at the time; thus the neo-Elizabethan of the 1850's is given a miss, while the "Bristol Byzantine" of the 1860's, with its strong foretaste of H. H. Richardson, is represented by two meaty specimens. When it comes to the last thirty years the selectors have evidently felt it necessary to exercise tact as well as taste; but the emphasis is in the right place all the same.

*

Having thought about this show as an architect, I am beginning to wonder what the general public will make of it. It is easy enough for people like us to see the changes in taste parallel with the development from load bearing walls to steel frame and reinforced concrete, but wouldn't the public be helped by brief explanatory captions?

JORDAN'S RETIREMENT

There will be widespread concern at the news that was given at the AA annual prize-giving that Robert Jordan is having to resign the post of Principal for health reasons. And the concern will not be only on his own account but on the AA's too.

*

Jordan is having to leave what is obviously just the right post for him at a time when he was beginning to prove a triumphant success in it, and the AA is losing a first-rate Principal at a moment when continuity is specially needed. Jordan has put a great deal into the AA—overwork is no doubt one cause of his illness—and will be a most difficult man to succeed. I wish him a speedy recovery and the AA the best of luck in replacing him.

ASTRAGAL

The Editors

PRESERVATION MANIA

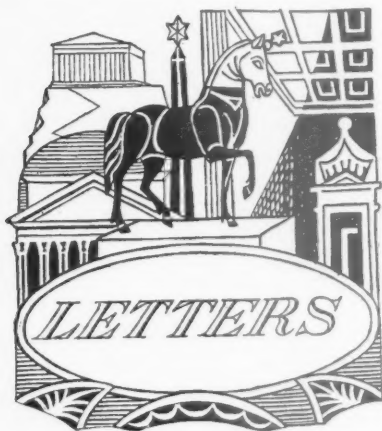
THE idea that old buildings should be preserved is a relatively modern phenomenon. It is surprising, today, when there are so many societies who concern themselves with the preservation of buildings, or ruins, or earthworks or, indeed, any major or minor structural effort made by our ancestors, to realise that less than seventy years ago there was no form of legislation to ensure the preservation of any building anywhere in the whole kingdom. Indeed, the first modest attempt at preservation was the Ancient Monuments Act of 1882, and this was intended only to ensure the survival of a handful of monuments, mainly prehistoric, such as Stonehenge. The preservation of these structures, until this date, was ensured only by the philanthropy and wisdom of the private owners of them, and, of course, to a small extent, by that inconstant lover, public opinion.

The next step towards preservation was a minor one. At about the turn of the century a Royal Commission listed a number of buildings worthy of preservation. They had no positive powers at all, but, with Treasury backing, were able to make inventories of buildings, built prior to 1714, which, in their opinion, were worth keeping. It was not until 1913 that the Ancient Monuments Consolidation Act gave any real scope for preservation. This Act gave powers to schedule those buildings which were not occupied as dwelling houses. This did not apply to churches, which have never been the concern of the State, but did allow, in theory, the inclusion of a building of any date, though, in fact, there was a tendency to keep the limiting date of 1714 or earlier.

The rest of the story of the legalising of preservation comes within the memory of most readers. In 1931 a revised Ancient Monuments Consolidation Act was passed which virtually gave no additional powers but differed in detail. It is interesting to note that the Treasury was empowered to make financial contributions towards the maintenance of buildings. This, however, was just a gesture, for the Treasury does not, in fact, do so. In 1940, under the stress of war, came more action, the compiling of salvage lists, to endeavour to ensure that buildings of historic and architectural interest were not damaged unnecessarily for defence purposes, and were first-aid repaired in the event of war-damage. For the first time in the short history of preservation churches and houses in private occupation were included on the list.

It was, no doubt, the heavy damage caused directly, or indirectly, by the war which first awakened public interest in buildings of the past, an interest reflected in scheduling of buildings under the 1944 Town and Country Planning Act. This Act allowed the inclusion of buildings recommended for preservation of any date and used for any purpose. With the exception, of course, of churches. Such, in a very brief and cursory fashion, is the history of building preservation to date. We have, with the 1944 Act, adopted a negative policy

which prevents demolition of a scheduled building without two months' notice being giving. And, under the Ancient Monuments Act we have a positive, but financially very limited policy which allows for careful preservation of a very few buildings. What we have not got, and so badly need, is an adult plan for preservation which weighs equally against each other such factors as historic interest, architectural quality, popular sentiment and nostalgia for the past, and money, labour, materials and future development.



(S. P. Jordan, A.R.I.B.A.)

D. Bell Scott

Hugh Wares

Lament for Red Plush

SIR,—Among the published expressions of grief over certain recent architectural solecisms, surely I must have overlooked some lament for the passing of the "red plush" at the Café Royal. With it has gone the table arrangement and the gilt-framed mirrors which, together, induced that so pleasant illusion of the Boulevards and that subtle assurance of a French cuisine.

Had it been replaced by a fresh interpretation of the same or by an unequivocal treatment in the true contemporary manner, to either of which one could have adjusted oneself, the loss could have been borne with composure. To have thrown the place to the "Lyons" is inexcusable, and to have compromised the proud Napoleonic monogram in such an act seems tantamount to lese majesté.

London.

S. P. JORDAN.

[See Frontispiece: page 64.—ED.]

Defending the Terrace and Backgarden

SIR,—We really have come to a pretty pass when those who prefer to live in a terrace house with a small back garden are called unenlightened, as your correspondent, J. S. Cousins emphatically states in your issue of June 21.

It is typical of architects and planners today, submerged in technological and sociological theory, that people have become

units of this or that classification rather than human beings with heads and hearts in infinite variety.

Mr. Cousins points to the Corbusier flats at Marseilles as the kind of housing which "enlightened public opinion" would demand.

In fact, there has been no demand whatever for these flats at Marseilles either from the local, overcrowded population or from people outside Marseilles. Are we to assume, therefore, that Frenchmen, in preferring houses with gardens, are unenlightened and backward?

Bletchingley.

D. BELL SCOTT.

Are Material Suppliers Ill-Treated?

SIR,—My firm is interested in the leading article in your issue of June 21, particularly from the viewpoint of the nominated supplier, who, we feel, is inadequately safeguarded under present conditions of contract.

What is becoming an all too frequent sequence of events runs something on these lines: We are asked by the architect of a local authority or other building owner to quote—along with other merchants concerned—for the supply of prime cost items such as sanitary fittings, fireplaces, hardware, etc. We are put to considerable trouble in the setting up of samples for inspection, either in our own showrooms or elsewhere. We are eventually advised that we have been successful in securing the contract, and are then told for the first time the name(s) of the contractor(s) through whom payment will be made. Two points should be especially noted: Firstly, we are often unable to ascertain the name of the contractors beforehand because they are not settled: Secondly, although the original enquiry often indicates a very large housing scheme, it subsequently transpires that the contract is split up into various small sections with as many as twenty separate contractors involved.

Having supplied the material promptly—and rendered our invoices to the contractor as instructed, we then have to rely on the builder passing on promptly to us moneys received in respect of the goods we have supplied. In very many cases, we are put to considerable expense in "harrying" the contractor to settle overdue accounts. In the event of bankruptcy, we have no safeguard, and rank simply as unsecured creditors along with the people who supply material direct to the builder, and who were fully aware that they were taking a normal business risk in so doing.

We can see no reason why the present RIBA form of contract cannot be suitably amended so as to give the nominated supplier at least the same safeguards as now apply to the nominated sub-contractor, and we feel sure that such an arrangement would be in the best interests of the architect, the builder owner, and the bona fide builder.

South Shields.

HUGH WARES.



Jaqueline Tyrwhitt, (above) town planner and landscape architect, modestly termed as congress secretary to CIAM 8. She has done more than she cares to admit in carrying out the decisions of the MARS group, which organized and provided the theme of the congress, which was held last week at Hoddesdon, Herts. We asked H. T. Cadbury-Brown to describe the congress: his report appears below.

CIAM 8

Report by H. T. Cadbury-Brown

There were few people at the eighth CIAM who were at La Sarraz almost twenty-five years ago. But at Hoddesdon there is recaptured the same sense of vitality, excitement and anticipation which must have occurred there. "High Leigh," at Hoddesdon, is a pleasant Victorian mansion with a terrace overlooking a park, and rolling landscape of which even Repton might be proud. It has wings of school-like cubicles, a winter garden, a self service system in the dining room, communal wash-basin rooms, and a clanging bell to wake you up every morning at half past seven.

But there was a tension in the air, for in these surroundings there were, rubbing mind against mind, as shoulder to shoulder, all those whom the student of modern architecture knows by name: Markelius, Lindgren, Paulsson, Thunstrom and Forbat from Sweden; Lauritzen from Denmark, Rolfsen and Korsmo from Norway, van Eesteren, van den Broek, Bakema, Merkelbach, Maaskant, van Tijen and Elling from Holland; Le Corbusier, Alarant, Wogensky, Lods, Bodiansky and Paul Nelson from France, Bottoni, Rogers, Peresutti from Italy, Emery from Algiers, Giedion, Roth, Honegger, Vetter and Von der Mühl from Switzerland, Gropius, Sert, Chermayeff, Philip Johnson, Kidder Smith and Lonberg-Holm from America, Gardner-Medwin, Reay, Justin Blanco-White and Professor Waddington from Scotland; many whose names we may yet know from Japan, India, Columbia, Cuba, Portugal, Israel, Belgium



Some of the delegates, members, and observers of CIAM 8 (above) take advantage of the fine weather to take their mugs on to the lawn of High Leigh, at Hoddesdon, in Hertfordshire, the headquarters of this year's congress, which lasted eight days and ended on July 14. Visitors from 19 other nations joined British delegates in discussing the theme of the congress—village and town centres. Right: Gilles Gagnon, architect-engineer from Montreal, talks to Jan Piet Kloos (wearing a beret), Dutch architect from Haarlem. Extreme right: at the invitation of the London County Council, members visited the Royal Festival Hall on July 9.



and Germany, and finally CIAM's hosts in this country, the MARS group.

The study for the congress was the "core"—the physical heart or nucleus of the human community whether it be village, town or city. In the preliminary proposals of the MARS group the subject of the core was posed in the following terms:—"The Core. At the Seventh Congress the four elements of town planning were considered: dwelling, work, cultivation of mind and body, circulation. There is, however, another element which is quite distinct; it is, in fact, the element which makes the community a community and not merely an aggregate of individuals. An essential feature of any true organism is the physical heart or nucleus, what we have here called the core.

"For a community of people is an organism, and a self-conscious organism. Not only are the members dependent on one another but each of them knows he is so dependent. This awareness, or sense of community, is expressed with varying

degrees of intensity at different scale-levels. It is very strong, for example, at the lowest scale level, that of the family. It emerges again strongly at five different levels above this, in the village or primary housing group; in the small market centre or residential neighbourhood; in the town or city sector; in the city itself, and in the metropolis the multiple city. At each level the creation of a special physical environment is called for, both as a setting for the expression of this sense of community and as an actual expression of it. This is the physical heart of the community, the nucleus, the core.

"That a special study on these lines is called for at the present time can hardly be doubted. Everywhere new communities are being built up and old communities reconstructed. In each of them a new heart is required, but what is in fact being provided in many cases does not seem to satisfy the demands, probably because we do not really know enough about those demands, or if we do, we have not thought deeply enough about the various ways of satisfying them.

(A measure of this failure is the recent description of a design for a new town as Six Suburbs in Search of a City.)"

TRENDS IN PLANNING

Members came prepared with information on a system of grids originally designed by Ascoral. These grids may be adapted for different subjects but are primarily a system for the comparison of plans. For CIAM 8 these showed studies of various cores, some of which were under construction and some of which were projects only. Cores were shown related to their surroundings and to their uses at different times during the day and night, on Sundays and on special occasions. These grids were exhibited together and were described by their authors and discussed as far as time would allow. There were twenty of these grids, the smallest being for a population of 1,400 at Nagele in Holland and the largest that for Medellin in Columbia for 700,000 people, designed by Wiener and Sert. In these plans it was pos-



There is no peace for the great. Even on his way upstairs Le Corbusier (below, left) is asked questions. Left, Serge Chermayeff, professor and director of The Institute of Design at Chicago and founder member of CIAM, takes the opportunity to express a point of view to Professor Gropius of Harvard. Above, B. Merkelbach (right), from Amsterdam, with C. H. Aslin: (members visited schools at Hoddesdon and Welwyn designed by Mr. Aslin, the County Architect of Hertfordshire). Left, William Vetter, Swiss architect, with offices in Paris and Lausanne, in the garage at High Leigh, where there was an exhibition of town and village centres.



sible to see certain trends. Those from Holland, France, North and South America towards a geometric and finely balanced rectangular formation, those from the Scandinavian countries and Britain towards informal grouping. In all, there is a tendency to bring light industries towards the centre of the town and to restrict deliberately the size of neighbourhood centres so that they remain subordinate to the main core. This was shown very clearly in the design for Pendrecht, a suburb of Rotterdam, by van den Broek and Bakema. Here the centres of the four rectangular neighbourhood units were brought together, forming between them the central core and open space. Light industries were also brought down in an area adjoining the central core so that it would be possible for workers to use canteens, cafés and shops during the day as well as for leisure use on week-ends and in the evenings. A section of this scheme is under construction, and it would seem that such a plan could be realised without great expenditure on large public buildings.

URBANITY AND PRECISION

In the designs for work in South America by Wiener and Sert, and in the schemes by Le Corbusier and Ascoral, there is a great sense of urbanity and precision which is epitomized in the plans of St. Dié, details of which many people have already seen. These plans are generally more difficult to realise, although in the Wiener-Sert plan for Medellin the control of the river banks has gained ground space enough to form open park and building areas the site value of which will make the plan economically possible.

REBUILDING HIROSHIMA

Between the characteristic geometry of these plans and the informality of the British and Scandinavian ones there was another for the centre of Hiroshima by Professor K. Tange. It was more in the form of a memorial park containing a building to mark the centre of the atomic bomb explosion and to contain relics. This work won a competition and

is now under construction. The site is crossed by a curving river and the lines of the principal roads and bridges had to be retained. Superimposed on this is a magnificent visual axis of more than a mile. But it is only a visual axis and movement is usually across it. It may be compared to the astonishing effect of crossing the Champs Elysées, the sudden value of distance and size compared with the slowness and insignificance of movement in the same direction. By this means of cross movement we may be able once again to reconcile ourselves to the monumental vista. Other grids showed work from North and South America, and from the majority of European countries.

The congress lasted for a week and the programme consisted of general morning sessions with set papers and discussions on various aspects of the core. There were visiting speakers amongst whom was Dr. Scott Williamson. His experience from the Peckham Health Centre related directly to the subject of the indescribable core, the family unit and its wider manifestations. His



Even on
below, left)
George Cher-
of The
ago and
takes the
of view to
Above,
Amsterdam,
s visited
Welwyn
ty Archi-
William
offices in
garage at
exhibition

Above, right, Mayekawa, from Tokio (describes himself as an architect for the bourgeoisie; last attended the pre-war conference at Frankfurt) and Le Corbusier on a double decker, after visiting the South Bank. Professor Rading and Professor Cornelis van Eesteren (above, left), town planning architect of Amsterdam and honorary president of the congress, have found a quiet spot at High Leigh. Some of the congress commissions met in the garden. Right, the planning commission was located at the end of the terrace. Round the table (left to right), Le Corbusier, van Eesteren, Peresutti (Italy), J. L. Sert (USA, president of the congress, and working with Le Corbusier on the city plan of Bogota, Colombia), P. A. Emery (Algiers) and Alaurant (France). Left, a meeting of the commission (one of six within the congress) on industrialisation. Chermayeff is speaking; on his right is de Vries (Holland), and on his left, Mayekawa (Japan).



site is
lines of
ad to be
magnifi-
tile. But
ement is
pared to
Champs
nce and
insignifi-
direction.
we may
selves to
showed
rica, and
intries.
and the
morning
sions on
ere were
was Dr.
from the
rectly to
core, the
ions. His

talk given as a biologist gave form and clarity to many of the most difficult aspects of the relation of a human being to himself and to others. All these morning sessions were recorded and it is possible that some may be broadcast.

During the afternoons there were meetings of commissions dealing with particular aspects of the core and visits were made to some of the Hertfordshire schools, to Harlow New Town and to Cambridge. The schools particularly caused great interest and commendation.

It was felt that they achieve the quality for which everyone is searching, the reconciliation of the factory and the man, painting and architecture, inside and outside space, the man-made object and nature.

NO LANGUAGE DIFFICULTY

In spite of the many nationalities represented, language was not a great difficulty. Meetings and discussions were carried on in French or English and translations were given. It was in these that there lay both

humour and the necessity for clear thinking. Technical names might imply different ideas in different countries and Alfred Roth, who makes the translations, has suggested that there should be a CIAM glossary.

The desire to reach conclusions made the work of most of those attending very hard, and there was a sense of urgency to complete the formulation of all the ideas before the week had passed. Most of this work was done by the older members of CIAM but their vitality was supported by the many young people attending either as members or observers.

UNANIMITY

Architecturally, as might be expected within CIAM, there was unanimity. The inspirational drive came from the strong desire to discover the environment wanted by man for himself—how far he himself created the environment and how far the environment created the man. The focus has changed from the technical and aesthetic and concentrates on the human and social. It poses a

problem which cannot be solved by the architect alone but only by the concerted efforts of a number of people.





SOUTH BANK ARCHITECTS : NO. 9 : LEONARD MANASSEH

Designed '51 Bar, seen in photograph. Born Singapore 1916. Educated Cheltenham and AA School of Architecture. 1937, won subsidiary competition for schools promoted by "News Chronicle" among third-year students of the AA, Liverpool and Bristol. 1941, associate of RIBA. With Commander Royal Engineers, North London and private firms, working on canteens, kitchens, aircraft factories, aerodrome layouts, etc. 1943-46, Royal Navy (pilot, Fleet Air Arm). 1946-48, under C. H. Aslin, county architect, Herts.—police housing, schools, etc. 1948-50, a senior architect with Stevenage Development Corporation—designs for town centre, housing, shops, etc. Private practice since Won FOB Competition for luxury restaurant on South Bank. Only two weeks before foundations were due to go in, the restaurant was abandoned, together with other projects, when Festival authorities found themselves in financial difficulties in summer of 1950. Festival work includes the sea section of the Land Travelling Exhibition. Recent buildings include two in association with Sadie Speight—the "Rosie Lee" cafeteria, Poplar, and Gay Kaye, New Bond Street. 1950, appointed director of Preliminary School, AA School

NO. 10 : GORDON TAIT

Designed Station Gate, York Road. Trained at AA, Diploma 1939. Associate of RIBA, 1939. Fellow of RIBA, 1948. General work on Empire Exhibition 1937-38. Partner with Sir John Burnet, Tait & Partners since 1939. Served as pilot in RAF during the War. Offices in London and Edinburgh : employs some 40 assistants.



NO. 11 : ERIC BROWN AND PETER CHAMBERLIN

Designed Seaside Section. Eric Brown (left of photograph) :—Head of Department of Architecture, Kingston School of Art. Peter Chamberlin is his deputy and partner. State that only claim to distinction is that they "are strongly in favour of a progressive architecture as opposed to one which is merely fashionable" and that they "do not care for the 'star' system in architecture."

SALTIRE SOCIETY'S AWARD FOR 1949-1950



RIBA

Vice-Presidents Elected

At the meeting of the Council held on July 3, John L. Denham (Brighton), R. E. Enthoven (London), and Professor W. G. Holford (London) were elected vice-presidents of the RIBA. Norval R. Paxton (Leeds), chairman of the Allied Societies' Conference, is also a vice-president. Martin S. Briggs (London) was re-appointed hon. secretary and A. Leonard Roberts (Winchester) was re-appointed hon. treasurer.

Surveyors' Exams

It is probably not yet generally known to those likely to be interested that the RIBA Examination for Building Surveyors under Local Authorities has now been recognized by the Local Government Examinations Board and the National Joint Council for promotion purposes. The examination provides a basic qualification for any surveyor who is engaged in checking the constructional design of buildings or whose duty it is to supervise their erection. A Certificate of Competency to act as Building Surveyor is awarded by the RIBA as the result of success in this examination.

COMPETITIONS

New Housing Scheme

The Corporation of London invites architects to submit designs in competition for a new Housing Scheme in Golden Lane, E.C. The assessor will be Donald H. McMorran. The premiums will be 1,000 guineas, 700 guineas, 500 guineas and 300 guineas.

The last day for submitting designs will be January 31, 1952. Conditions of the competition may be obtained, on payment of a deposit of £2 2s., from the town clerk, 55-61, Moorgate, London, E.C.2.

COVENTRY CATHEDRAL

Closing Day for Competition

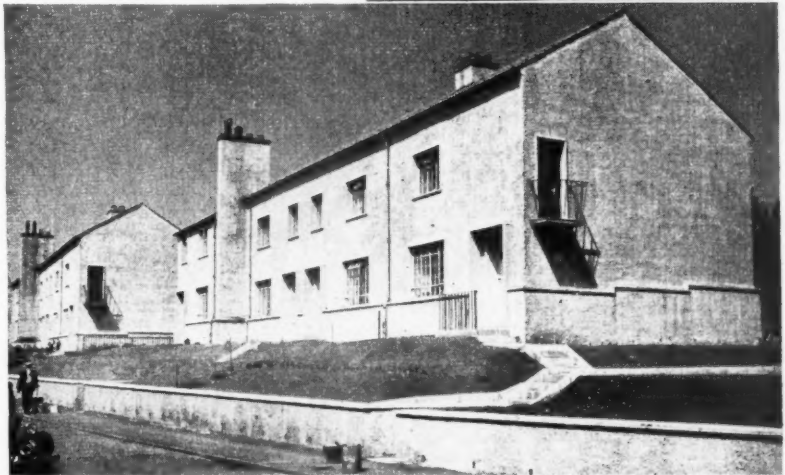
The last date for the receipt of drawings for the new Cathedral at Coventry has been extended to July 20. Conditions for the competition have been sent to 630 applicants. So far the Secretary of the Coventry Cathedral Reconstruction Committee has been notified that 248 applicants are sending drawings. One hundred of them have not yet replied, and the remainder will not be participating in the competition.

The assessors are due to arrive in Coventry on July 30, and to stay for two weeks. It is hoped to announce the winning drawing on August 15. On August 18, the drawings



The Saltire Society's commendation for the best designed local authority housing scheme in Scotland for 1949-50, has been awarded to the burgh of Linlithgow for its Mains Maltings scheme, designed by W. H. Kininmonth of Rowland, Anderson, Kininmonth and Paul. The scheme consists of houses, shown below, and one three storey block of flats, above. Other flats submitted did not merit a separate award. The schemes given an "honourable mention"

were :—Old people's houses, by City Architects' Dept., Glasgow : housing at Kilbarchan, Renfrewshire County Council : old people's houses, Garthdee, Aberdeen Corporation.



may be seen by competitors and during the week beginning August 20, they will be on view to the public.

AA

School's Principal Retires

The President of the AA, Anthony Chitty, announced at the school's annual prizegiving, on July 13, that Robert Furneaux Jordan had been ordered to take a complete rest by his doctor, and in view of this had handed in his resignation as principal of the AA School. Michael Pattrick has been appointed acting principal.

MOLGP

Continued Control of Building Alterations

The Buildings Operations (No. 16) Order, 1951, extends for a further twelve months the present financial limits within which building or civil engineering work may be done without a licence. From July 1, 1951, to June 30, 1952, work may be done without a licence on any single property if its cost, together with the cost of any previous work on the property done without a licence in the period, does not exceed £100. For certain special classes of buildings, known as "designated buildings," the cost must not exceed £500. Such designated buildings may be described generally as industrial buildings and farm buildings, other than dwelling houses.

An appeal against a conviction for contravention of Defence Regulation 56A was recently made to the High Court on the ground that proceedings were taken by the Clerk of the local authority without a resolution authorizing him to do so. The Court allowed the appeal, and in his judgment the Lord Chief Justice said:

"The local Council have power, acting by any officer appointed by them, either generally or specifically for the purpose, to bring proceedings for an offence against Defence Regulation 56A. They passed a resolution that the Appellant should be prosecuted but they omitted to pass any resolution authorizing their Clerk to take proceedings. . . . It is quite clear that when the Order refers to the appointment of an officer either generally or specifically for the purpose of taking proceedings it contemplates that there will be a formal appointment made under Section 277 of the Local Government Act, 1933, by resolution, and if a resolution had been passed by the Council authorizing the Clerk to take proceedings it would have been in order. They omitted to pass that resolution and therefore there was technically no authority in the Clerk to take the proceedings." (Bob Keats Ltd. v. Farrant.)

BIRMINGHAM

New Mental Hospital

In Birmingham there is a demand for more beds for mental patients, and the Birmingham Regional Hospital Board is to erect a new 1,000-bed mental hospital at Winterdyne, near Tamworth. A design group has been formed to ensure that the new hospital has the most up-to-date methods in the care of mental patients. The group, which includes medical, nursing, engineering and architectural members, is to prepare a preliminary design programme. H. L. Hare of S. N. Cooke & Partners and J. W. Keeling of Martin, Martin and W. H. Ward will produce the design under the leadership of D. A. Goldfinch, architect to the Birmingham Regional

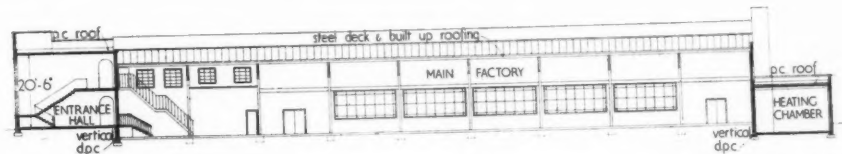
FACTORY ON THE NORTH EASTERN T R



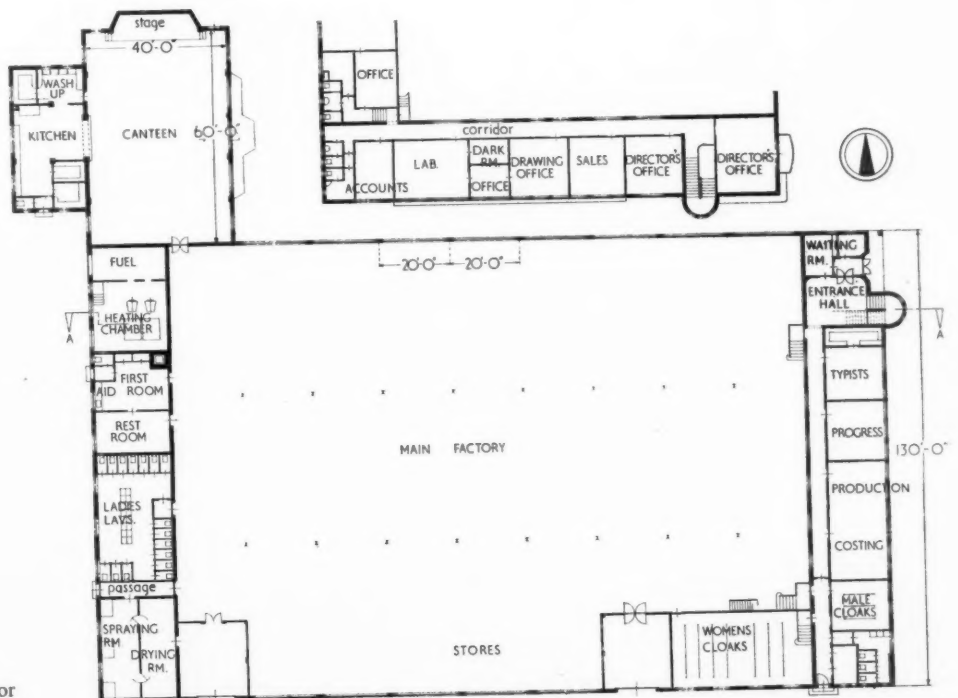
A new factory for the Team Valley Trading Estate, designed by J. Gibson Corrie and Son, is now occupied by the Anglo-Scottish Tool Co., Ltd. The office block, seen on the left in the photograph opposite, is 130 ft. long and faces the main road through the estate. The site slopes down from this west front and consequently the main factory area (seen above) can be supervised from office corridors at ground and first floor levels. The first floor office corridor has direct lighting over the main factory roof, which is of monitor construction with patent glazing in the centre of each of three bays. There are nine 20-ft. bays in the factory area. The building is steel framed and the external walls are of 11-in. cavity brickwork. Floors and flat roof over offices, canteen and lavatories are of patent precast beams. The main entrance to the offices, seen below, has a directors' office above it, with a reinforced concrete balcony. The contract price was £43,110, or 23s. 9d. per sq. ft. The general contractors were Gordon Durham & Co., Ltd. For sub-contractors see page 50.



ERN TRADING ESTATE AT GATESHEAD - ON - TYNE

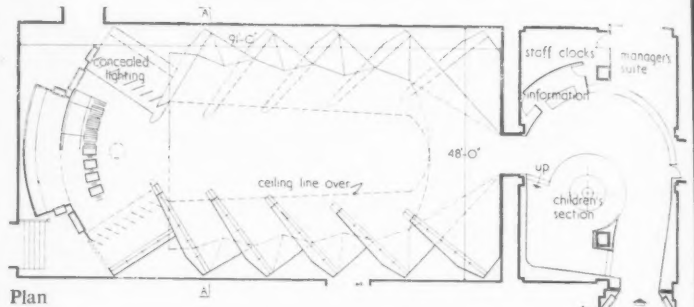
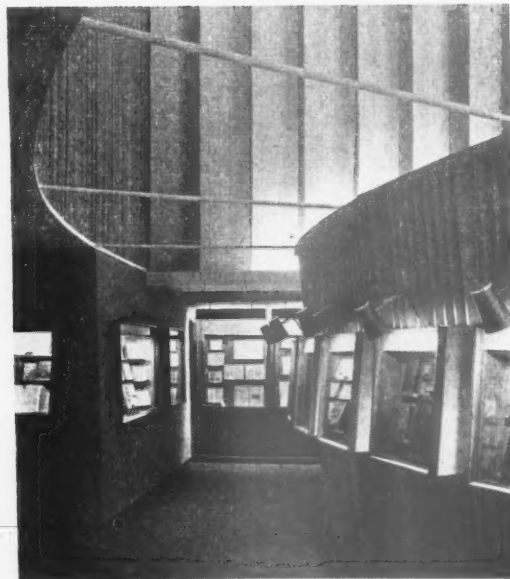


Section A-A

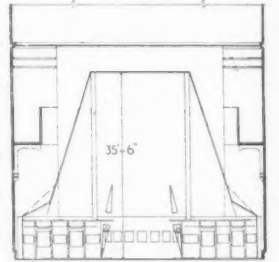


Ground and first floor plans [Scale: $\frac{1}{4}$ " = 1' 0"]

DESIGNS FOR THE FOB EXHIBITION OF BOOKS, V AND A MUSEUM

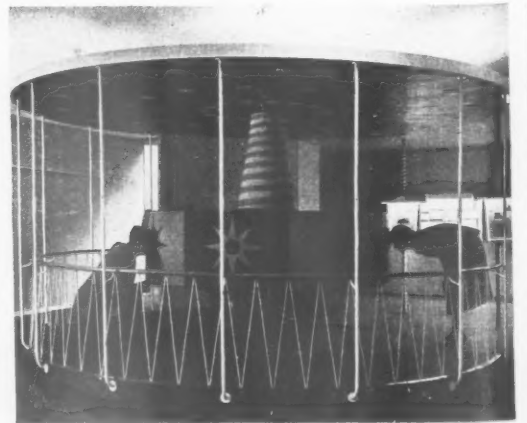


Two galleries at the V and A Museum, Kensington, house the Festival of Britain Exhibition of Books, which was designed by Hulme Chadwick. As these galleries have been newly decorated, the exhibition structure could not be fixed to the walls. Instead, a rigid ceiling framework (height 35 ft.) supports the drapes which form the main exhibition gallery, seen in general views above, left, and below, right. A "backbone" plan was used (with ten bays opening off a central gangway at varying angles) enabling the subject-titles for each section to be picked out from the exhibition entrance. The children's section, below, right, is an offshoot from the main circulation area. It contains a circular "Peppers Ghost" feature. At the far end of the main gallery, in the photograph below, left, can be seen the display cases which contain books whose pages are mechanically and invisibly turned.



Section A-A

Behind these is the display area shown on the left. Structure: rigidly constructed, up to height of 8 ft., of hard-board on wood framing, supported on steel scaffolding. Each bay painted a different colour. Drapes are of pleated casement cloth. Ceiling is muslin stretched on aluminium framework, with large coloured transparencies of type faces fixed to underside. Frames of showcases and hardwood of polished mahogany. Suspended "quill" motifs of polished copper. General contractors: F. W. Clifford, Ltd.



Hospital Board. It is hoped to complete the preliminary design programme during the next twelve months. If the necessary Treasury funds are available, work should begin in 1953.

UN SURVEY

More Imported Timber

The Quarterly Timber Bulletin of the UN Economic Commission for Europe and the Food and Agricultural Organization, states that the quantity of imported sawn softwoods in Europe is expected to be greater this year than in 1950. Increased quantities of imports are expected from Canada, the United States and possibly the Soviet Union. The prices of sawn softwoods are thought to have already reached their peak in the first half of this year.

TIMBER

New Way of Testing Trusses

The Forest Products Research Laboratory has developed a new method of testing timber trusses. It was used for the first time, three days ago, at the Laboratory at Princes Risborough, for the purpose of testing a 47-ft. 6-in. TDA prototype industrial truss. The truss incorporated tooth-plate timber connectors, and the test was intended partially to demonstrate the value of this method of joining timber.

A full report of the results of the test will appear in a forthcoming issue of the JOURNAL. A similar test on a 57-ft. truss will take place later.

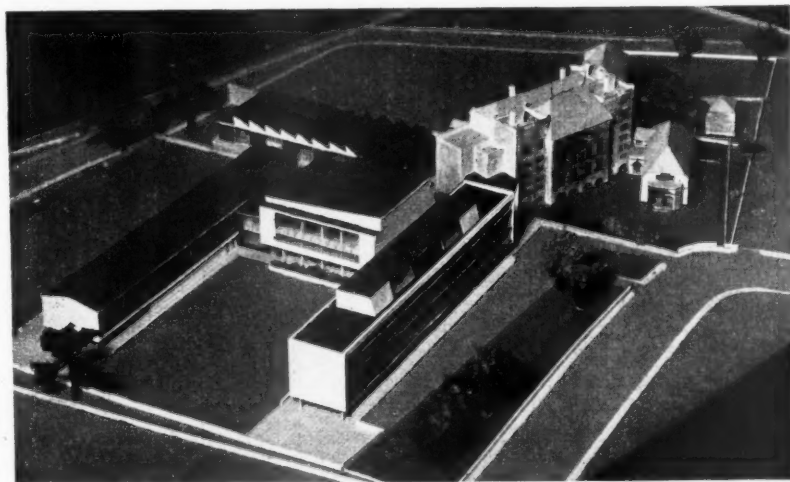
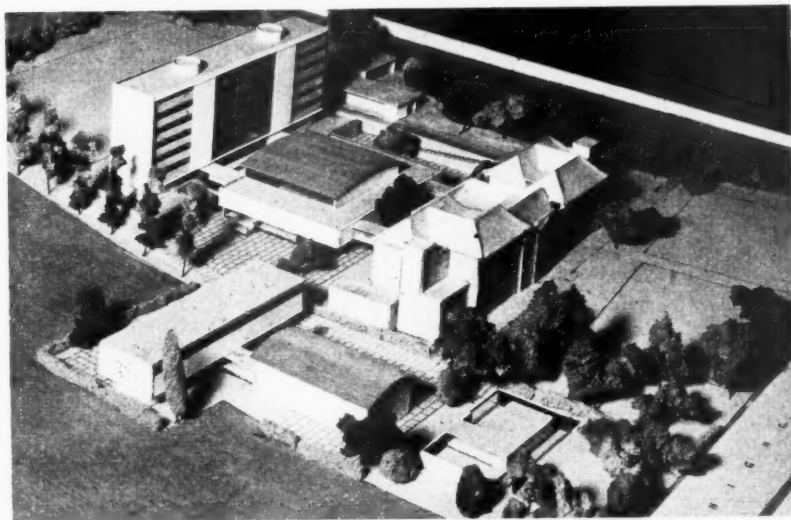
1951 CENSUS

Smaller Cities Indicated

The preliminary reports of the census taken in April show that there are now 48,841,000 people in England, Wales and Scotland. There are 750 persons to the square mile in England and Wales. In rural districts the average is only 17 persons to the square mile, but in urban districts it is 4,290 persons to the square mile. For the first time in more than a century the rural districts of England and Wales have now ceased to supply additional population for the towns and cities. This change has occurred since 1939, and both town and country have expanded entirely by self-growth—town populations by 3.3 per cent. but rural populations by no less than 15.8 per cent. There are now more inhabitants of rural districts than at any time during the past 50 years. But, the truly rural population may not have grown at all, and the trend may merely reflect the larger urbanization of the countryside.

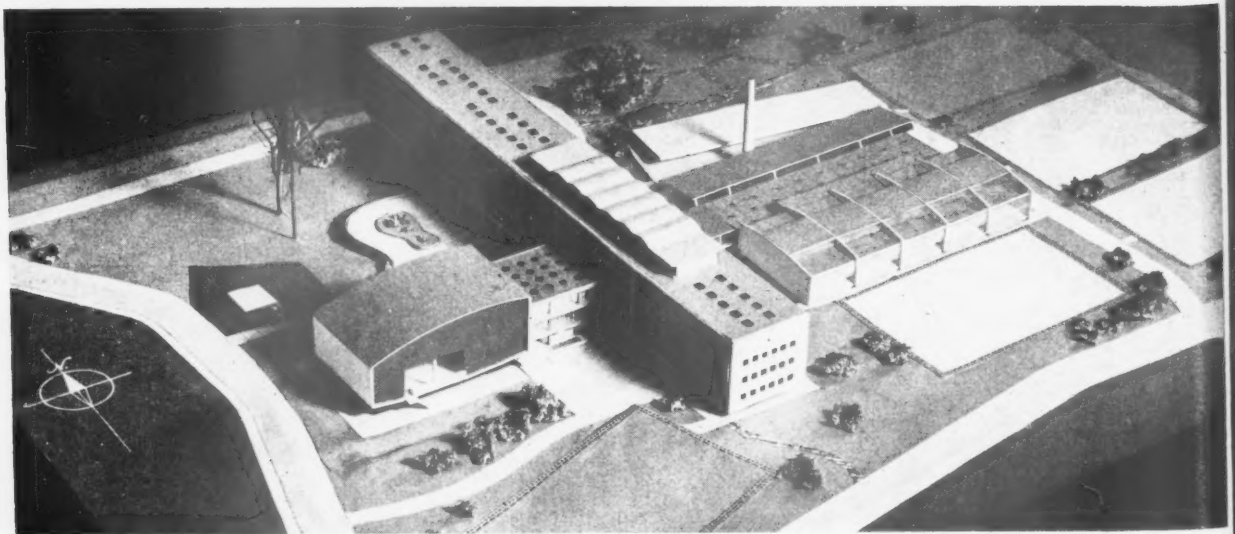
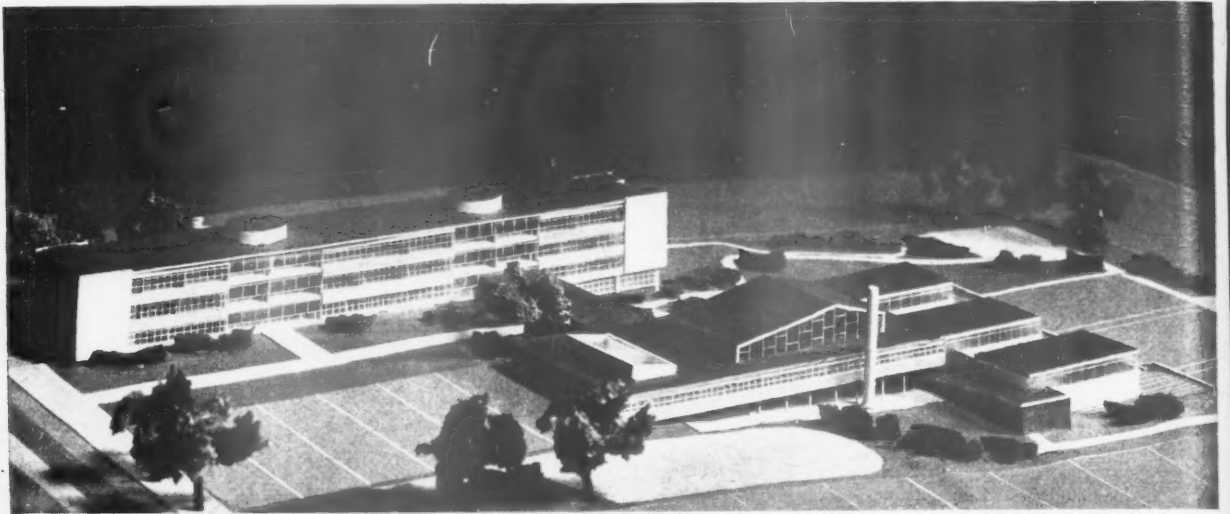
The London region has for the time being ceased to acquire population by immigration from other parts of the country, for the number coming into the region is no longer larger than the number leaving it. Greater London has 382,000 fewer people than in 1939. The populations of Manchester, Liverpool, Sheffield and Bradford have fallen, and there has been a general movement towards the peripheral areas of the cities. The West Midland region, with Birmingham as its centre, is the one conurbation where expansion is not only rapid but officially encouraged, since it has ample room for a larger population—provided it can be better distributed. Its population has grown by almost a sixth since 1931. The organizers of the census are concentrating first on analysis of a sample of one census schedule in every hundred, so that the main features of the whole picture may be presented early next year, instead of three or five years later.

SIX NEW LCC SECONDARY SCHOOLS

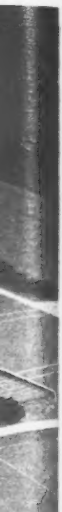


On this and the following two pages are shown models of six new LCC secondary schools designed under the direction of the Architect to the Council, Robert H. Matthew, and the deputy architect, Dr. J. L. Martin. These models illustrate the difference in size and character of the new secondary schools proposed in the London School Plan. The plan provides for 67 comprehensive schools and 36 county complements. Top, Parliament Hill Comprehensive School, St. Pancras (£395,870), for 850 pupils to make total number of places, including those in existing buildings, up to 1,360. Above, Holloway Comprehensive School, Islington (£370,755), for 850 pupils (making total 1,360.) In August, 1944, the LCC decided that in the preparation of the post-primary part of the LCC's Development Plan for education in London, the following principles be observed :—“(i) The plan should aim at establishing a system of Comprehensive High Schools throughout the Administrative County of London, providing for all pupils equal opportunity for physical, intellectual, social and spiritual development, which, whilst taking advantage of the practical interests of the pupils, should make the full development of personality the first objective. (ii) In a reformed system there is no place for the senior or modern school differentiated from other types, for such a

SIX NEW SECONDARY SCHOOLS FOR LONDON : DESIGNED



NED

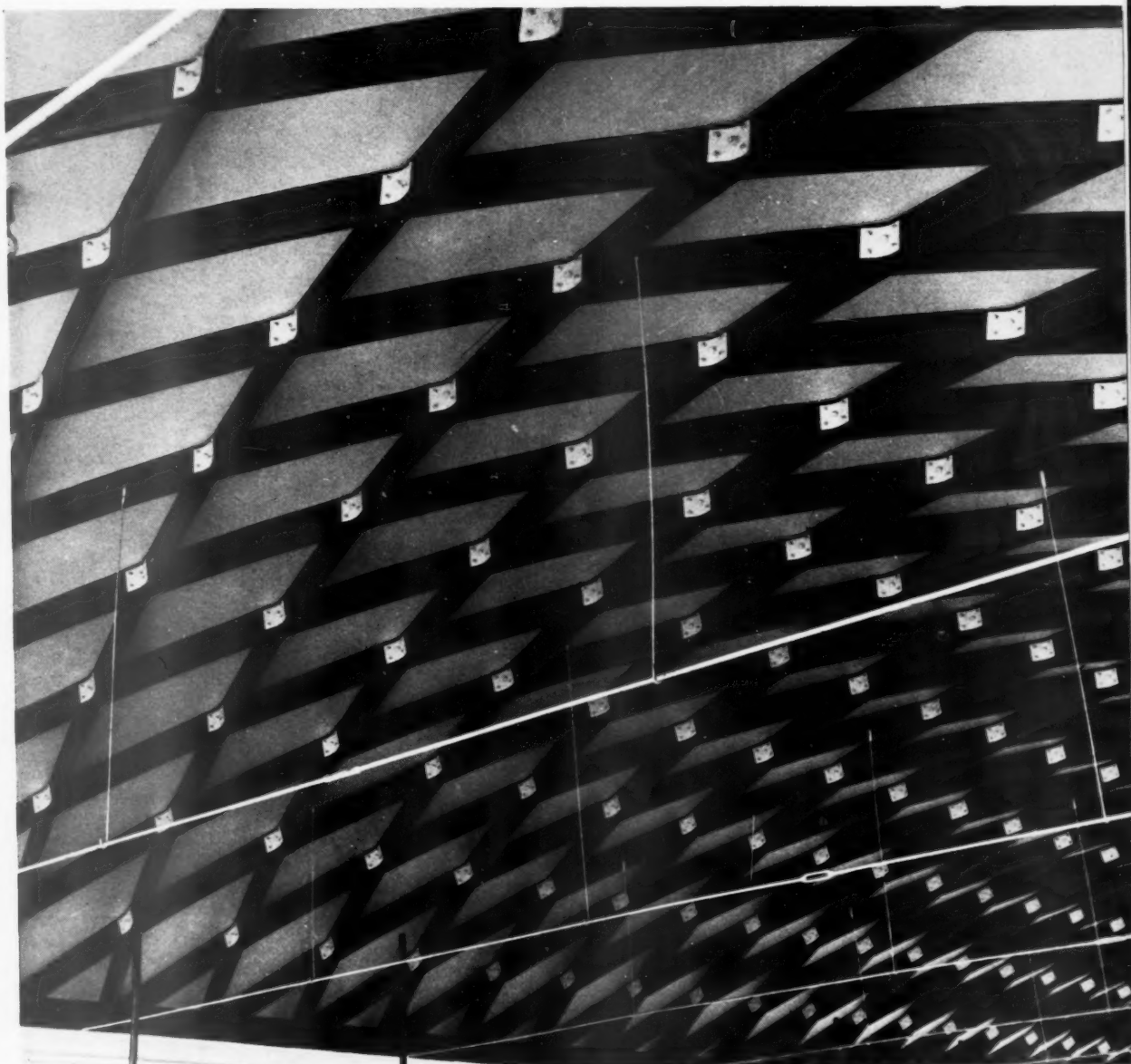


WORKING DETAILS

ROOFS AND CEILINGS : 1

LAMELLA ROOF: LION AND UNICORN PAVILION, SOUTH BANK EXHIBITION

R. Y. Goodden and R. D. Russell, architects: John Morton, assistant architect: R. T. James and Partners; E. Lewis, consulting engineers.



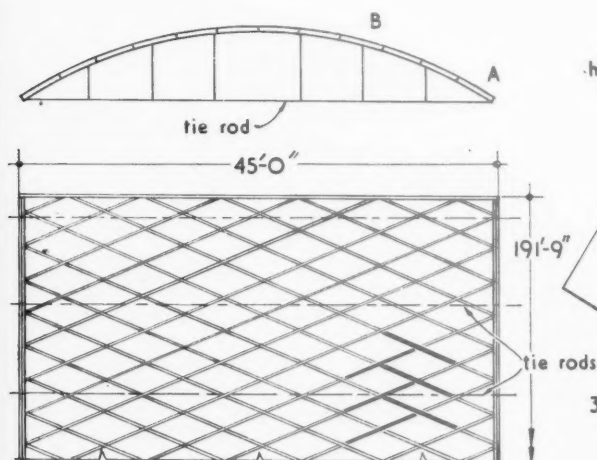
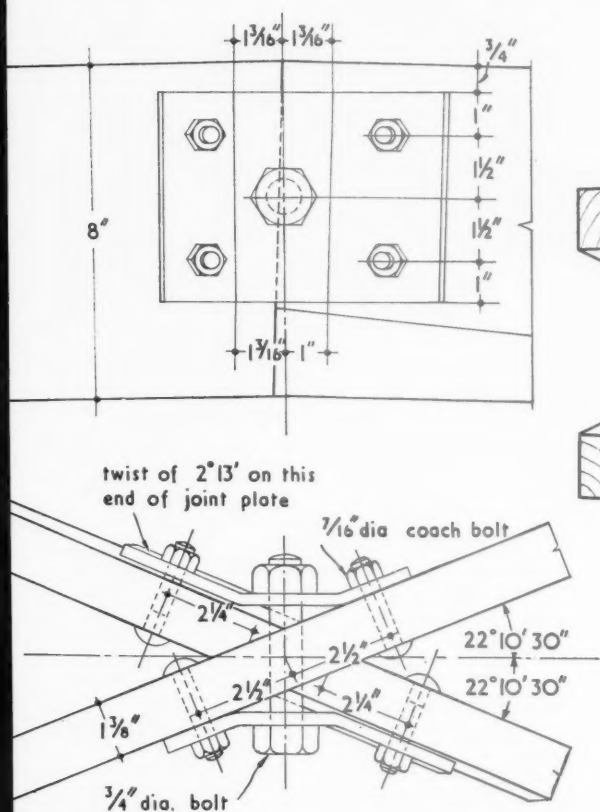
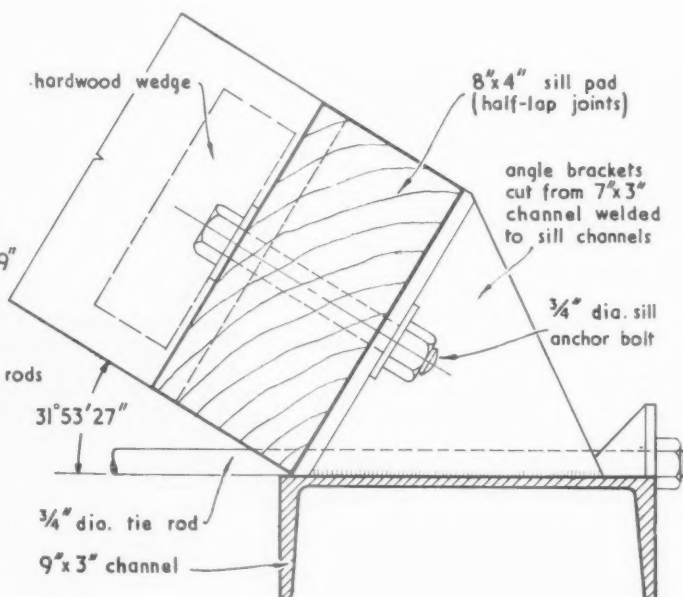
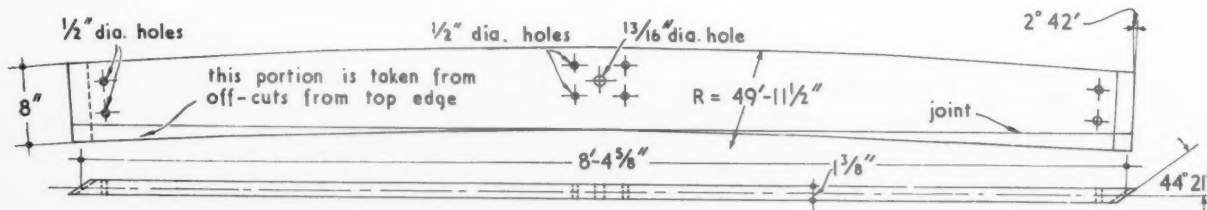
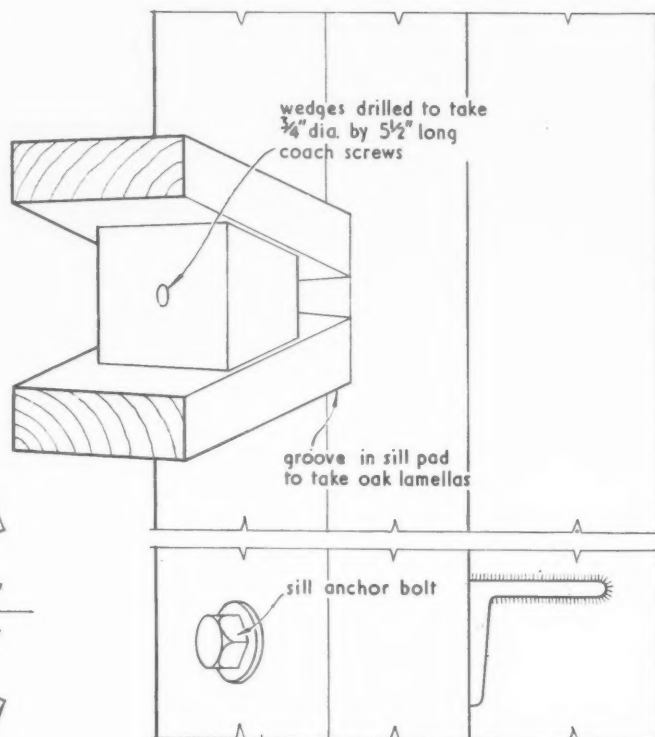
The use of metal jointing plates at the intersections of the lamellas allows each curve to sweep in an unbroken line across the full width of the roof.

WORKING DETAILS

ROOFS AND CEILINGS: 1

LAMELLA ROOF: LION AND UNICORN PAVILION, SOUTH BANK EXHIBITION

R. Y. Goodden and R. D. Russell, architects: John Morton, assistant architect: R. T. James and Partners; E. Lewis, consulting engineers.

SECTION AND PLAN OF OAK LAMELLA ROOF.
scale: $\frac{1}{16}'' = 1'-0''$ ELEVATION AND PLAN OF LAMELLA JOINT. (B)
scale: $3'' = 1'-0''$ SECTION AND PLAN AT SILL ANCHORAGE. (A)
scale: $3'' = 1'-0''$ ELEVATION AND PLAN OF FULL LAMELLA. scale: $\frac{3}{4}'' = 1'-0''$

WORKING DETAILS

FURNITURE AND FITTINGS : 8

TELEPHONE BOOTHS : ROYAL FESTIVAL HALL

Robert H. Matthew and J. L. Martin, Architect and Deputy Architect, L.C.C. : Edwin Williams, senior architect-in-charge : Peter Moro, associated architect.



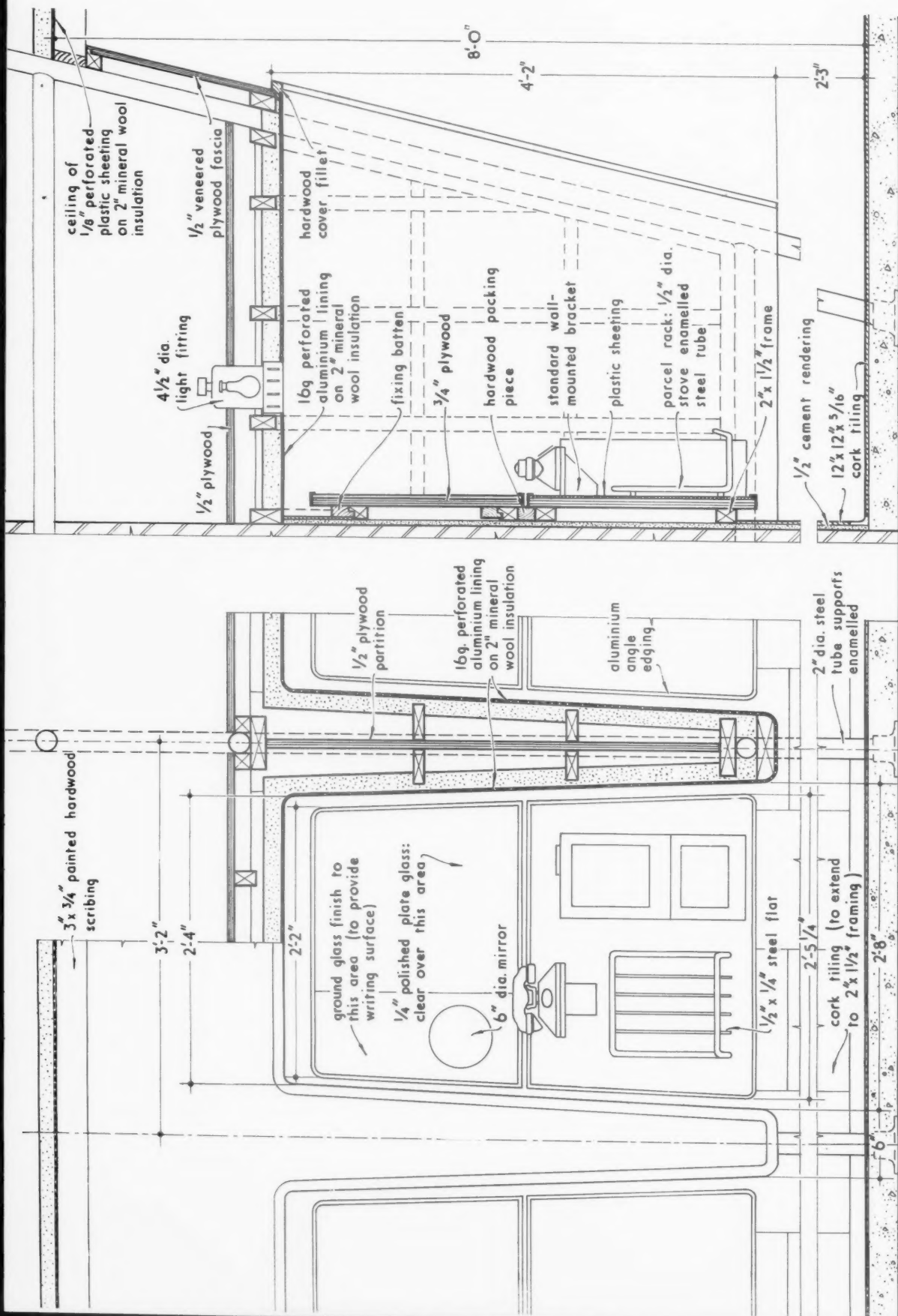
The booths, which are supported on tubular steel columns, are faced on the front with veneered plywood and lined inside with perforated aluminium.

WORKING DETAILS

FURNITURE AND FITTINGS : 8

TELEPHONE BOOTHS : ROYAL FESTIVAL HALL

Robert H. Matthew and J. L. Martin, Architect and Deputy Architect, L.C.C.: Edwin Williams, senior architect-in-charge: Peter Moro, associated architect.



CROSS SECTION.

scale 1"=1'-0"

PART ELEVATION AND SECTION OF TELEPHONE BOOTH.

CROSS SECTION.

scale 1"=1'-0"

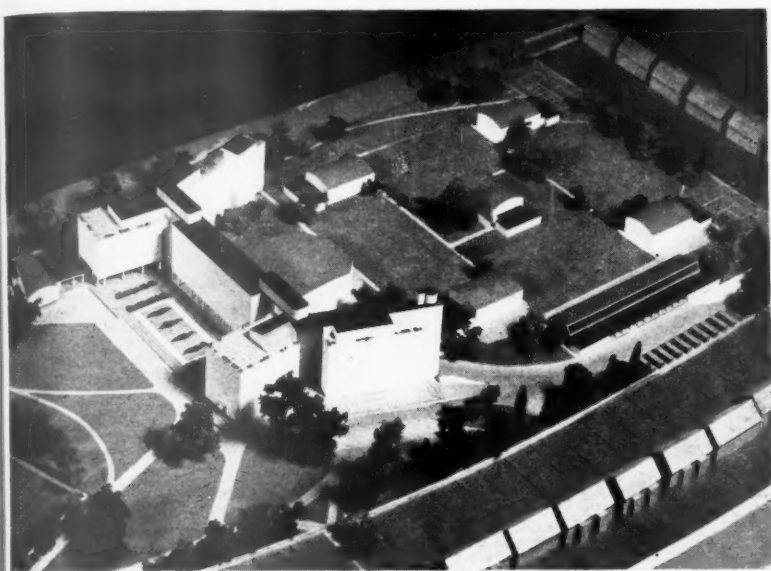
PART ELEVATION AND SECTION OF TELEPHONE BOOTH.

BY



school
provid
and re
a com
hensi
post-
hensi
also
the L
been
on t
Dow
have
will
is m
and
need
Pre
Str
Par
Kin
five
aca
thi
sch
for
rol
an
Jo

BY LCC ARCHITECTS' DEPARTMENT



school would have an inferior status in the eyes of parents because it would in practice provide solely for those who fail to secure admission elsewhere. (iii) In the rebuilding and redevelopment of devastated and other areas, sites sufficiently large to accommodate a complete cross-section of the surrounding post-primary population in one comprehensive unit should be secured. (iv) While new buildings are being erected, existing post-primary school units in an area should be grouped so as to form a single comprehensive high school unit, sharing their premises, equipment and amenities, and sharing also in common as many activities as possible. "These principles were embodied in the London School Plan, 1947. Emphasis on the building programme to date has been on the need for additional primary school places, although work has already begun on the construction of two new comprehensive secondary schools—at Woodberry Down, Stoke Newington, and at Kidbrooke, Woolwich. Proposals and estimates have also been approved this year for Tulse Hill Secondary School, Lambeth, which will be the county complement to St. Martin's High School for Girls. The emphasis is now changing from primary to secondary school construction since, with much new and rebuilt primary school accommodation provided or in course of preparation, the need for post-primary schools is predominant. On the opposite page: top, Lewisham Prendergast (county complement) school, Lewisham (£361,700) for 1,190 pupils; centre, Strand Comprehensive School, Lambeth (£651,562) for 2,210 pupils; bottom, Putney Park Lane Comprehensive School, Wandsworth (£612,000) for 2,210 pupils. Above: King's Park Comprehensive School, Woolwich (£674,280) for 2,210 pupils. The five comprehensive schools will provide facilities for all forms of secondary education—academic, commercial, technical and general. The county complement included in this year's programme will form a comprehensive unit with its associated voluntary school, Lewisham Prendergast School. The county complement will provide for all forms of secondary education other than those that are at present available in the voluntary school." The six schools illustrated on these pages will be described fully, and plans of each of them will be published, in subsequent issues of "THE ARCHITECTS' JOURNAL."

FOB

Season Tickets

Weekly or monthly season tickets can now be bought for the South Bank Exhibition, Exhibition of Science at South Kensington and Exhibition of Architecture at Lansbury, Poplar. The weekly ticket costs £1 5s.; the monthly ticket, £4. They may be obtained from the FOB Advance Ticket Office, Whitehall Place, S.W.1, or from the FOB Information Centre, Swan and Edgar Building, Piccadilly Circus, W.1.

DIARY

Exhibition of Students' Work. At the Brixton School of Building (Annex), Horsford Road, S.W.2. Weekdays, 10 a.m. to 6 p.m. UNTIL JULY 20

International Welding Conference. London and Oxford. (Sponsor, IOW, 2, Buckingham Palace Gardens, S.W.1.) UNTIL JULY 21

Town Planning, Housing, Health and Welfare Exhibition. Aberdeen. At the Music Hall. Weekdays, 10 a.m. to 9.30 p.m. UNTIL JULY 27

Exhibition of Work by Staff and Students of the Royal College of Art. At 21, Cromwell Road, S.W.7. Weekdays, 10 a.m. to 5.30 p.m. UNTIL JULY 28

International Theatre Architecture Exhibition. At the ACGB, 4, St. James' Square, S.W.1. Mondays, Wednesdays, Fridays and Saturdays, 10 a.m. to 6 p.m. Tuesdays and Thursdays, 10 a.m. to 8 p.m. UNTIL JULY 28

Eating Out of Doors Exhibition. At the Tea Centre, 22, Lower Regent Street, S.W.1. (Sponsor, CID.) Weekdays (except Saturdays), 10.30 a.m. to 6 p.m. Saturdays, 10.30 a.m. to 12.30 p.m. UNTIL AUGUST 4

AA Annual Exhibition of School Work. At 34, Bedford Square. Weekdays, 10 a.m. to 6 p.m. Saturdays, 10 a.m. to 2 p.m. UNTIL AUGUST 10

Growth and Form. Exhibition based on book by D'Arcy Wentworth. At ICA, 17-18, Dover Street, W.1. Weekdays, 10 a.m. to 6 p.m. UNTIL AUGUST 31

Exhibition of One Hundred Years of British Architecture, 1851-1951. At RIBA. Weekdays, 10 a.m. to 6 p.m. Saturdays, 10 a.m. to 5.30 p.m. UNTIL SEPT. 4

"Living Traditions" Exhibition. At Royal Scottish Museum, Edinburgh. 10 a.m. to 10 p.m. Sundays, 2 p.m. to 6 p.m. UNTIL SEPT. 15

Exhibition of Old Books, Maps, Prints, Engravings and Rare Documents. At 98, Gloucester Place, W.1. (Sponsor, Institute of Quantity Surveyors.) Daily (excepting Sundays and Bank Holidays), 2 p.m. to 5 p.m. UNTIL SEPT. 29

FOB South Bank Exhibition. Daily 10.30 a.m. to 11.30 p.m. Sundays, 12.30 p.m. to 11 p.m. UNTIL SEPT. 30

Exhibition of Science. At the Science Museum, South Kensington. Weekdays (except Tuesdays and Saturdays), 12 noon to 10 p.m. Tuesdays and Saturdays, 10 a.m. to 6 p.m. Sundays, 2.30 p.m. to 6 p.m. UNTIL SEPT. 30

PRIMARY SCHOOL

in SADLER ROAD, COVENTRY

designed by RICHARD SHEPPARD and PARTNERS

assistant architects BASIL PEAKE and ANTHONY HUNT

The Whitmore Park Primary School in Sadler Road, Coventry, was the first large school intended from the start to be built in aluminium, of the standard components manufactured by the Bristol Aeroplane Co. (Housing), Ltd. The school, which is divided into two parts, for 360 infants and 520 juniors, each with its own entrance hall, assembly hall and dining room, but sharing a kitchen and certain administrative rooms.

The junior entrance looking south-east.



SITE
been
remo
form
trees
front
and

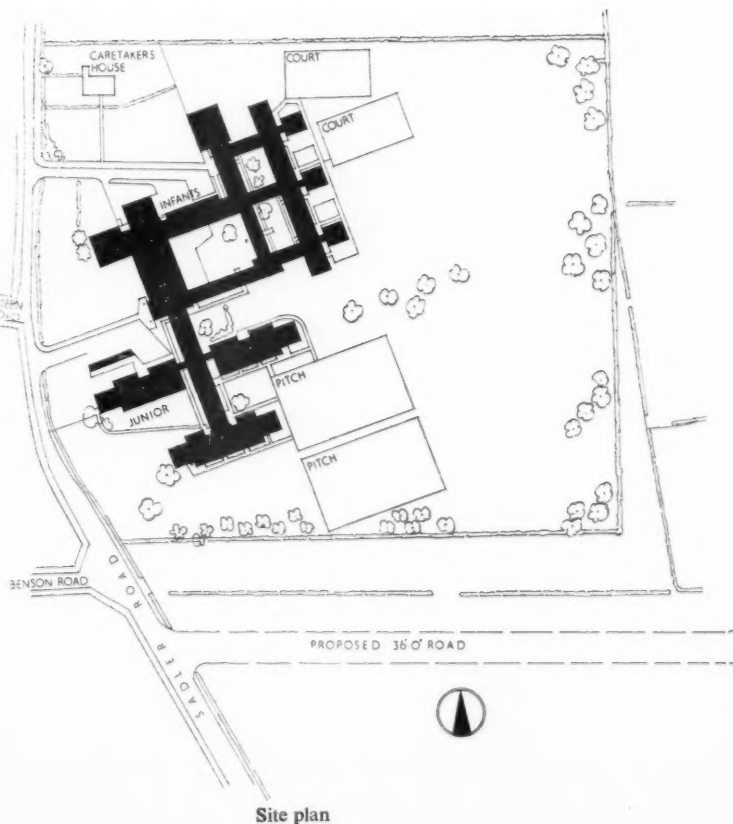
PLA
deve
were
whic
to a
upo
esse
the
fun
kit
ins
she
pa
int
th
in
bo



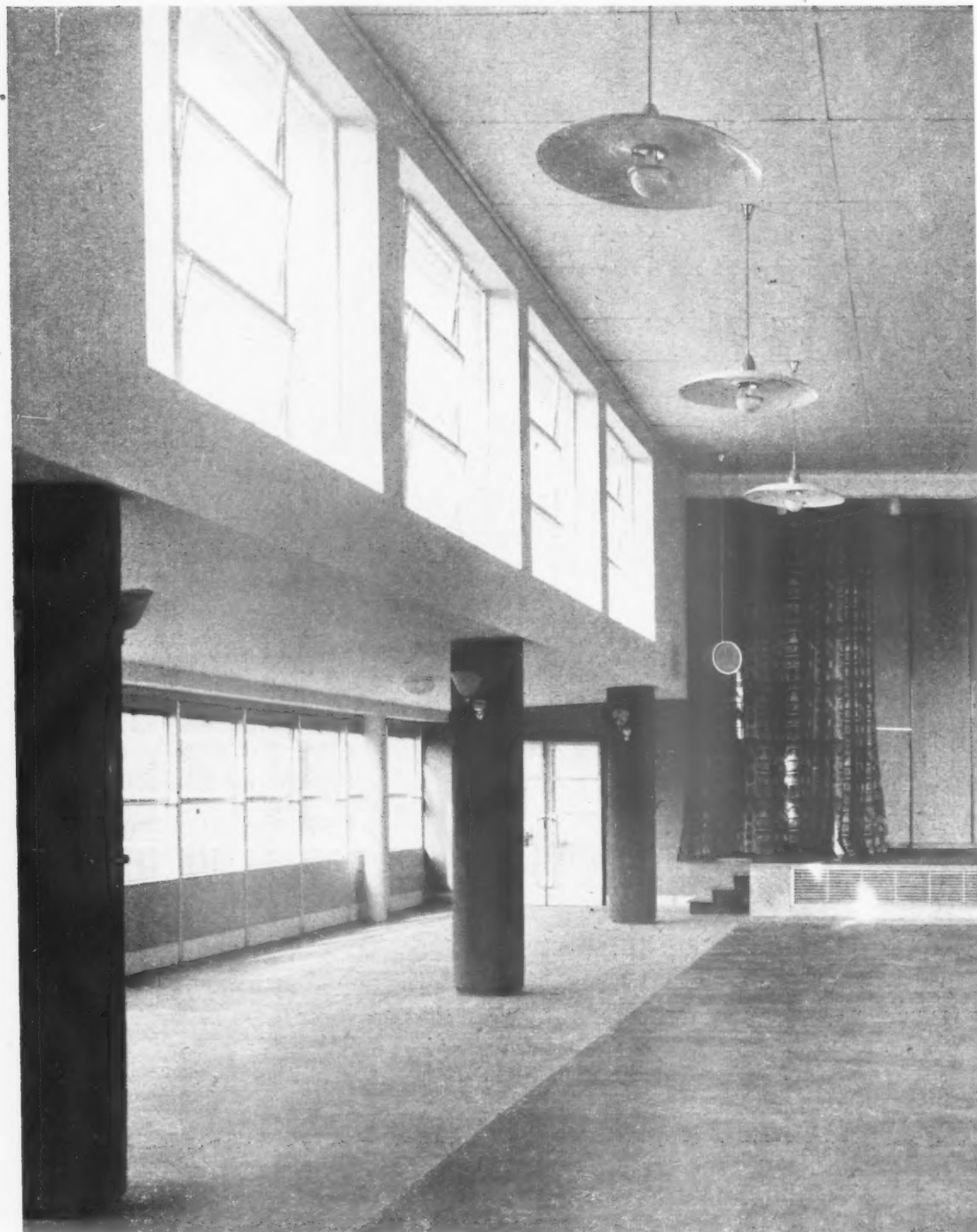
The infants' assembly hall on the left, and doors to the infants' entrance hall on the right.

SITE.—The layout and planting of the grounds has been carefully worked out. Two mounds of earth removed from the foundations have been left to form artificial hills for the children to play on, and trees and flowering shrubs are being planted. The frontage to the road is being grassed and left unfenced and the existing hedge has been retained.

PLAN.—It was inevitable in the early stages of development of this system of construction that there were limitations imposed on planning; most of which have now been overcome, but which suggested, to a certain extent, the plan form that was decided upon. The following points were considered to be essential:— That the junior and infants' sections of the school should have separate entrances and function as individual units, but with a common kitchen, heating system and centrally-placed medical inspection and treatment rooms; that all classrooms should face either south or south-east; that long parallel blocks facing south, with classrooms looking into the backs of other classrooms should be avoided; that lavatories and cloakrooms should be split up into small groups and, in the infants' school, should be attached to each group of three classrooms; that



Site plan



The junior assembly hall, looking towards the stage.

PRIMARY SCHOOL

in SADLER ROAD,
COVENTRY
designed by RICHARD
SHEPPARD AND PARTNERS

the building should be as compact as possible, consistent with the use of a single-storey structure. In order to try and fulfil these requirements, a large central courtyard is made to form the link between the juniors' and infants' sections, and two smaller courtyards to the east may be used by the children for keeping pets or as sheltered gardens.

CONSTRUCTION.—At first it was the intention to use aluminium units for the entire building, except

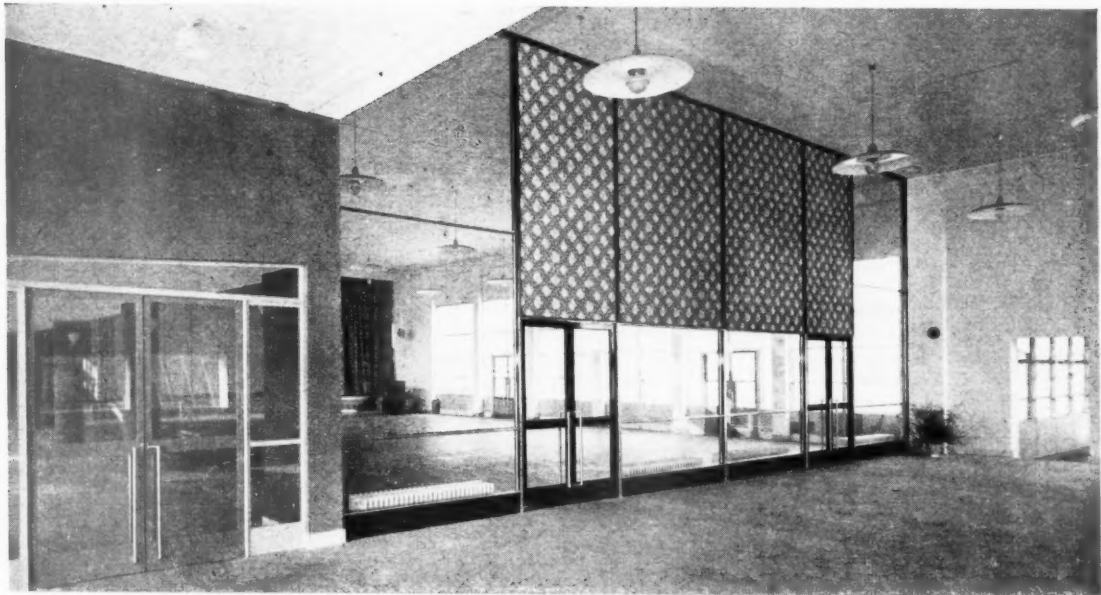
the two assembly halls and boiler room. Later it was decided to use a concrete frame for the halls carrying the standard aluminium roof units and glazed with the standard wall units, in order to provide a higher and more solid looking nucleus for the extended single-storey classroom blocks. The advantages of this type of construction include speed of erection and the elimination of steel and timber.

FINISHES.—Externally, the aluminium panels

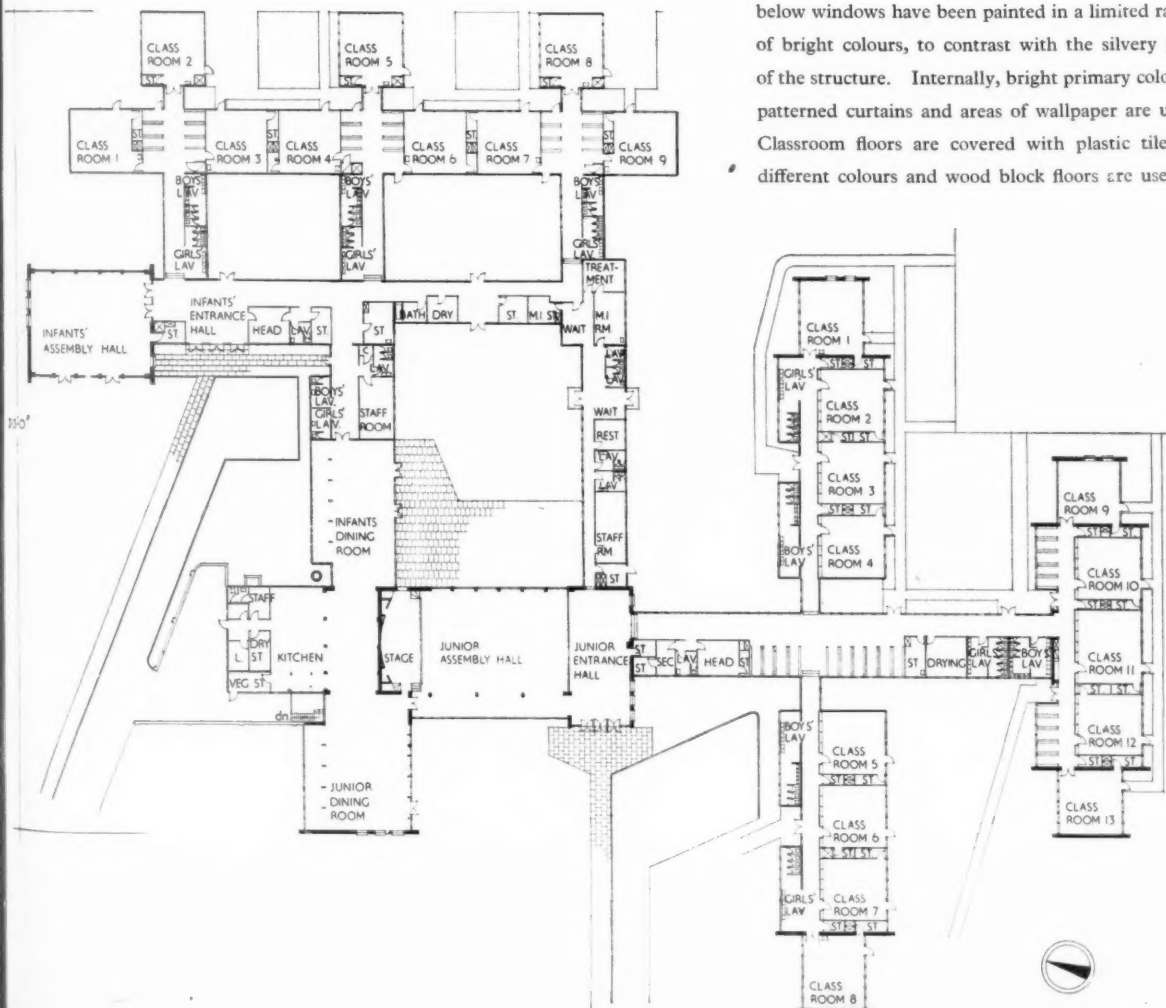
INFA
ASS

100'

Pian



Looking into the junior assembly hall from the junior entrance hall.

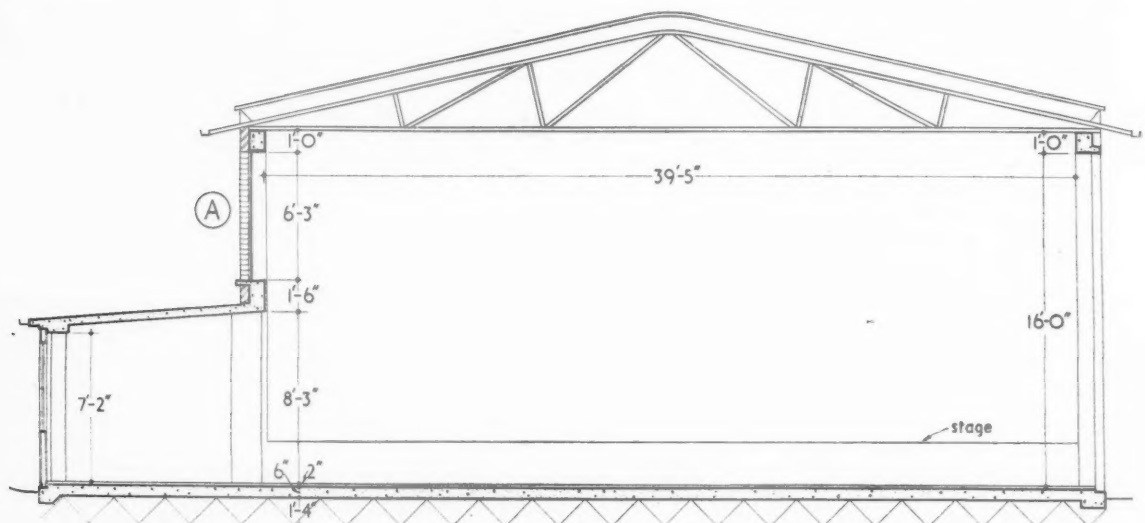


below windows have been painted in a limited range of bright colours, to contrast with the silvery grey of the structure. Internally, bright primary colours, patterned curtains and areas of wallpaper are used. Classroom floors are covered with plastic tiles in different colours and wood block floors are used in

Later in the halls units and order to nucleus for s. The de speed mber.

panels

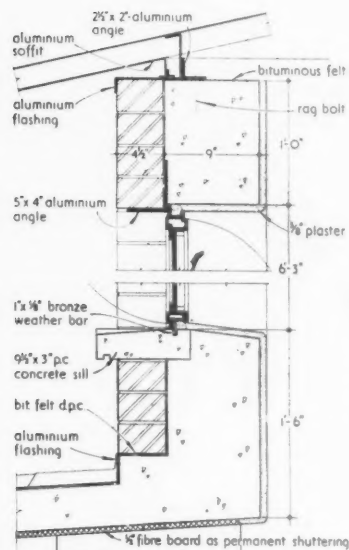
Plan (Scale: 1/4" = 1' 0")



Section through junior assembly hall [Scale: $\frac{1}{2}$ " = 1' 0"]

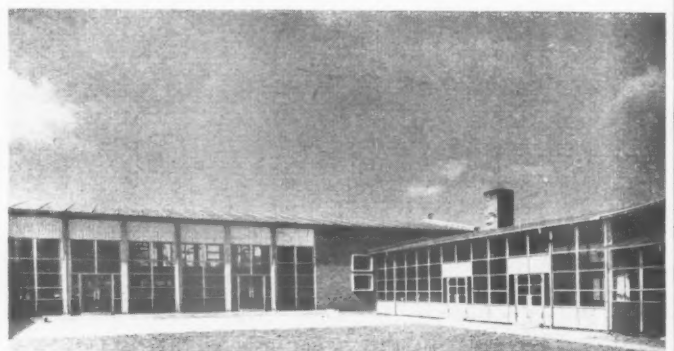
PRIMARY SCHOOL

in SADLER ROAD, COVENTRY
designed by RICHARD SHEPPARD AND PARTNERS



Detail at A [Scale: $\frac{1}{2}$ " = 1' 0"]

Above right, the junior assembly hall on the left and infants' dining hall on the right, looking west. Right, the infants' dining hall servery.



corridors, halls and dining rooms. Stone from the nearby Hornton quarries is used on entrance hall floors. Large areas of pin-up boarding has proved very useful.

The school was planned long before the present rigorous economies came into force and the cost of just over £150,000 represents £170 4s. per place for 880 pupils. The general contractors were Gilbert-Ash, Ltd., and the Bristol Aeroplane Co. (Housing), Ltd. ² For sub-contractors, see page 90.

INFO
QUES
THE

T

The de
around
interes
develop
country
altered
change

LO

The
(and m
what w
suaded
tects to
post-w
access
ally ap
corrido
from t
access
pensive
post-w
stairca
been a
but st
been p
some
Since
drive,
provid
for as
minim
has lo
but w
to sol
associ

INFORMATION CENTRE • INFORMATION SHEETS
QUESTIONS AND ANSWERS • CURRENT TECHNIQUE
THE INDUSTRY • PRICES • TECHNICAL ARTICLES

TECHNICAL SECTION

The design of low-cost flats centres around the problem of access. It is interesting to compare American developments with those in this country and to note how designs are altered as the economic situation changes.

LOW-COST FLATS IN AMERICA

By Raymond Castle

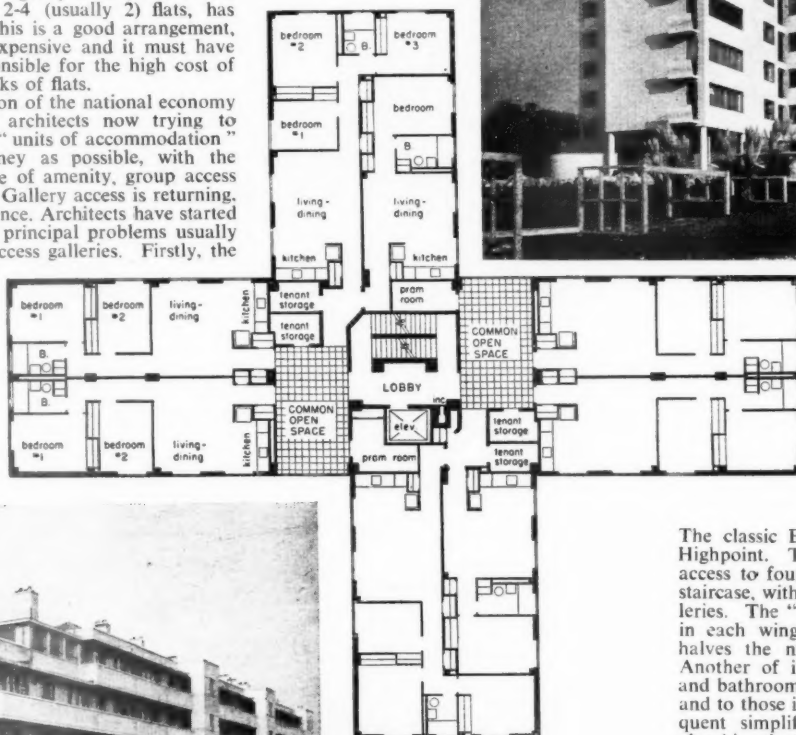
The grim appearance of most pre-war (and many post-war) blocks of flats with what we in England call gallery access persuaded our local authorities and their architects to experiment, during the immediate post-war years, with alternative means of access for working class flats. It is generally agreed that for these flats internal corridors are out of the question (quite apart from the insulation problem) and direct access has always been considered too expensive. However, in a large number of post-war schemes "group access," with each staircase serving 2-4 (usually 2) flats, has been adopted. This is a good arrangement, but still rather expensive and it must have been partly responsible for the high cost of some of our blocks of flats.

Since the initiation of the national economy drive, and with architects now trying to provide as many "units of accommodation" for as little money as possible, with the minimum sacrifice of amenity, group access has lost favour. Gallery access is returning, but with a difference. Architects have started to solve the two principal problems usually associated with access galleries. Firstly, the

aesthetic problem of the monotonous long balconies and, secondly, the planning problem of avoiding habitable rooms being overlooked from the balcony.

The first successful solution, preceding the economy drive, (someone was far-sighted) was seen in Rosebery Avenue. Tecton's chequerboard pattern, made up of different materials, has become a familiar feature of many other schemes (by other architects) and many architects have found it possible to solve the planning problems, particularly with small (one or two room) flats. As an alternative to having no habitable rooms on the balcony side of the flat, at least one architect has used a through living room, with a high-level window overlooking the balcony (for cross ventilation) but its principal window in the opposite wall. Thus are Convenience and Economy both satisfied!

Right, 'Highpoint flats, Highgate (architects: Tecton). Photo shows eight-storey block, with cruciform plan.



Left, Fig. 1, Dearborn Homes, Chicago. Typical floor plan of split-wing cross type.



Left, gallery access in Great Britain. An example typical of many—LCC flats at Bethnal Green.

LOW-COST HOUSING IN THE USA

In the USA local authority flats, or, as they are called there, "multi-storey public housing projects," are themselves quite a recent architectural development. The widespread belief held in Great Britain that Americans like living in flats contains little truth. As in this country, so in America, most families prefer to have their own house and garden, or, at second best, an apartment in a 3- or 4-storey block (a "walk-up apartment").

Nevertheless, in the larger American cities low-density housing has to be supplemented by multi-storey flats (6-14 storeys), with densities of between 100 and 200 persons per acre. (At an average of one person per room, this is equivalent to between 200 and 250 sq. ft. of site per room.)

From a recently-published article on low-cost (subsidized) flats in Chicago* several interesting points emerge. The most curious is that the Chicago Housing Authority, after several years of research, has abandoned "split-wing crosses" and "skip corridors" in favour of gallery access. For the benefit of British readers, these two terms in quotes need explaining.

SPLIT-WING CROSSES

The cross plan, with one flat in each wing of the cross, has been used widely in Europe.

The classic English example is, of course, Highpoint. The cross plan makes possible access to four flats on each floor from one staircase, without the use of corridors or galleries. The "split-wing cross" has two flats in each wing of the cross and, therefore, halves the number of staircases required. Another of its advantages is that kitchens and bathrooms can be adjacent to each other and to those in the adjoining flat, with consequent simplification and economy of the plumbing installation.

Dearborn Homes (architects: Loeb, Schlossman & Bennett), one of Chicago's first low-cost, multi-storey schemes and a Federal-aided project, has this split-wing cross arrangement. A typical floor plan is shown in Fig. 1, but Fig. 2 shows graphically

* "New Dimensions in Housing Design." *Progressive Architecture*, April, 1951.

SUNLESS SPACE
IN WINTER

7.30.-4.30. DEC. & JAN.

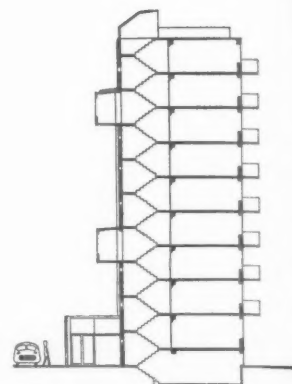
8.0.-4.0. NOV. & FEB.

8.45.-3.15. MAR. & OCT.



Left, Fig. 2, diagram showing three principal disadvantages of the split-wing cross arrangement.

Right, transverse section (Fig. 3) and, below, half-plan (Fig. 4) of typical floor of flats with skip corridor access—an early scheme for Loomis Courts, later abandoned.



three distinct disadvantages of this type of planning: poor insulation for many of the flats, inadequate through ventilation and "walk-through" living rooms (i.e., part of the living room becomes a corridor between the bedrooms and the front door). Some architects find these blocks difficult to site. Certainly when two blocks are joined together to form a double cross the effect is somewhat overwhelming. Moreover, it has even been questioned whether the arrangement is really economical. It is not surprising, then, that split wing crosses lost favour.

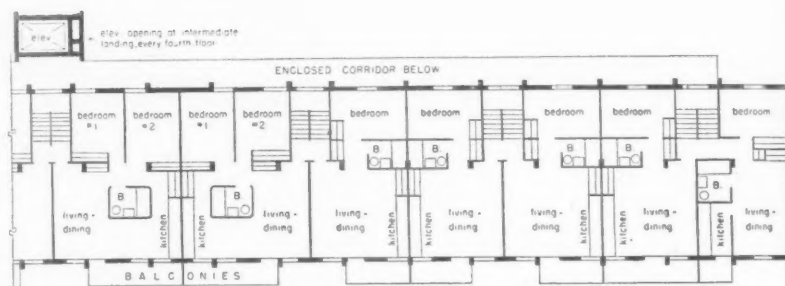
However, at Dearborn, the architects did make several innovations, which increase the social amenities of the flats. To "soften the blow" of living in flats, they have provided, on each floor, "common open space"—a sort of high-level patio—one to each group of four families, 150 sq. ft. in area. This is intended as out-door playing space for children or sitting-out space for adults (it may have some use for adolescence too), but it remains to be seen whether the tenants will make use of it for these purposes. Also some childless tenants may object to noisy children playing virtually on their doorsteps.

The architects have also provided tenant storage rooms (one, area 25 sq. ft., for each two families) and pram stores (one, area 30 sq. ft., for each four families) on each floor.

SKIP CORRIDORS

The skip corridor is, in effect, a high level street (pedestrians only) or promenade. Placed every third storey, as in preliminary schemes for Loomis Courts, Chicago (architects: Loewenberg & Loewenberg), (see Figs. 3 and 4), these corridors give access to staircases (one for each pair of flats) up and down to the intermediate floors. Only the skip corridors need be served by a lift, for, having reached a skip corridor, no tenant need walk up or down more than one and a half flights of stairs to reach his flat. As each of these staircases is shared by only two flats on each floor, the effect, psychologically, is that of the "walk-up apartments" from which most of the tenants would come. And the skip corridor becomes the "sidewalk"—the community centre for so many town dwellers.

An advantage of this system is that all the



flats have through ventilation; its principal disadvantage is the multiplicity of staircases.

GALLERY ACCESS IN THE USA

It was mentioned above that one of the interesting innovations at Dearborn is the provision of common open space shared by the tenants on each floor. It was an obvious development to attenuate this open space so that it could also provide access to more flats. At Ogden Courts, Chicago (architects: Skidmore, Owings & Merrill) three split wings are connected by two 10-ft. wide outside corridors (see Fig. 5). These corridors connect the split wings to the single lift and the staircases and provide direct access to small (two-bedroom) flats, as well as serving as community spaces and play areas.

It was only one step from this to full gallery access as we know it in this country. Loomis Courts, mentioned above, have gallery access (see Fig. 6); the earlier skip corridor schemes were abandoned. Again the gallery is about

10 ft. wide—more than twice the width of most galleries found in Gt. Britain. Loomis Courts contain only one-bedroom and two-bedroom flats, and no bedrooms or living rooms face on to the gallery.

At Prairie Courts (architects: George Fred Keck and William Keck) 7-storey blocks have a similar arrangement, except that a two-bedroom flat at each end of the gallery, extending the full width of the building, shortens the gallery and improves the appearance of the gallery façade. But, for 14-storey blocks a controversial arrangement has been adopted (see Fig. 7). Living rooms face on to the gallery, which has, approximately, a southern aspect. But, instead of one lift serving 9 flats on each floor, as at Loomis Courts, the 10 flats on each floor are served by 2 lifts, so placed that traffic between flats and lifts is minimized. In fact, no tenant need pass the living room windows of more than two other flats in order to reach his own flat, and most tenants can reach their flats by passing only one other flat. This hardly

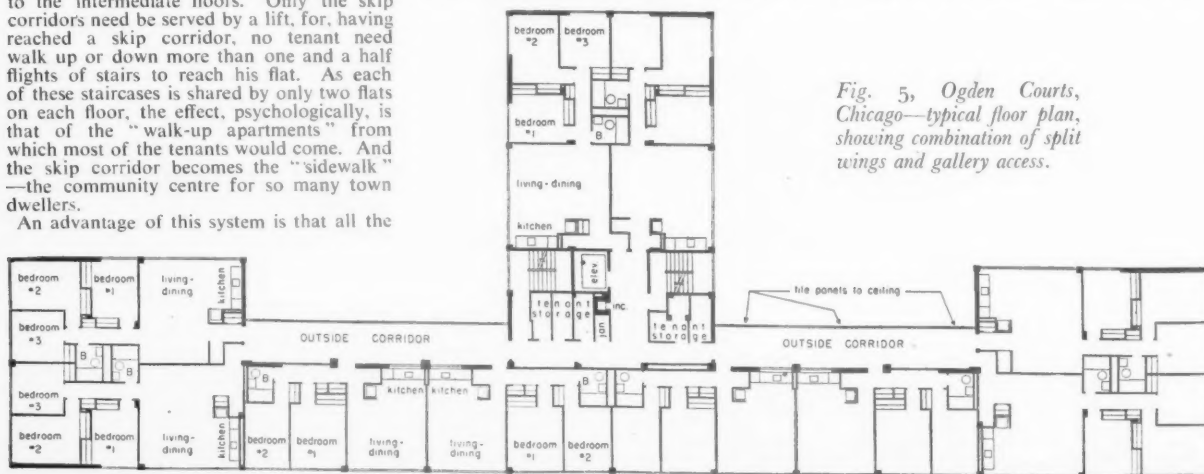


Fig. 5, Ogden Courts, Chicago—typical floor plan, showing combination of split wings and gallery access.

A SINCERE COMPLIMENT FROM WELL-KNOWN CONTRACTORS



CLIFTON HOUSE,
EUSTON ROAD

A large block of Offices
and Shops built in 1936

Contractors and Building Owners:
MESSRS. JOHN LAING & SON LTD.,
Mill Hill, London, N.W.7

Architects:
RICHARDSON & GILL,
F.F.R.I.B.A.

OF all the irritations which tenants suffer, dampness is undoubtedly the most frequent; it is also the most costly to the owners because of the continual need for redecoration. Messrs. John Laing & Son Ltd., who are the owners, as well as the builders, of this large block of offices and shops, made sure that they would have no trouble with dampness, and it was the most sincere evidence of the high regard in which they held 'PUDLO' Brand Cement Waterproofing that they used it for waterproofing the cement and sand under-coats of the interior plastering to all walls exposed to the weather. An added, and immediate benefit gained was that by this means the moisture of construction in the new brickwork was shut out of the building, thus giving a dry interior much sooner, and enabling the permanent decorations to be applied without fear of staining.

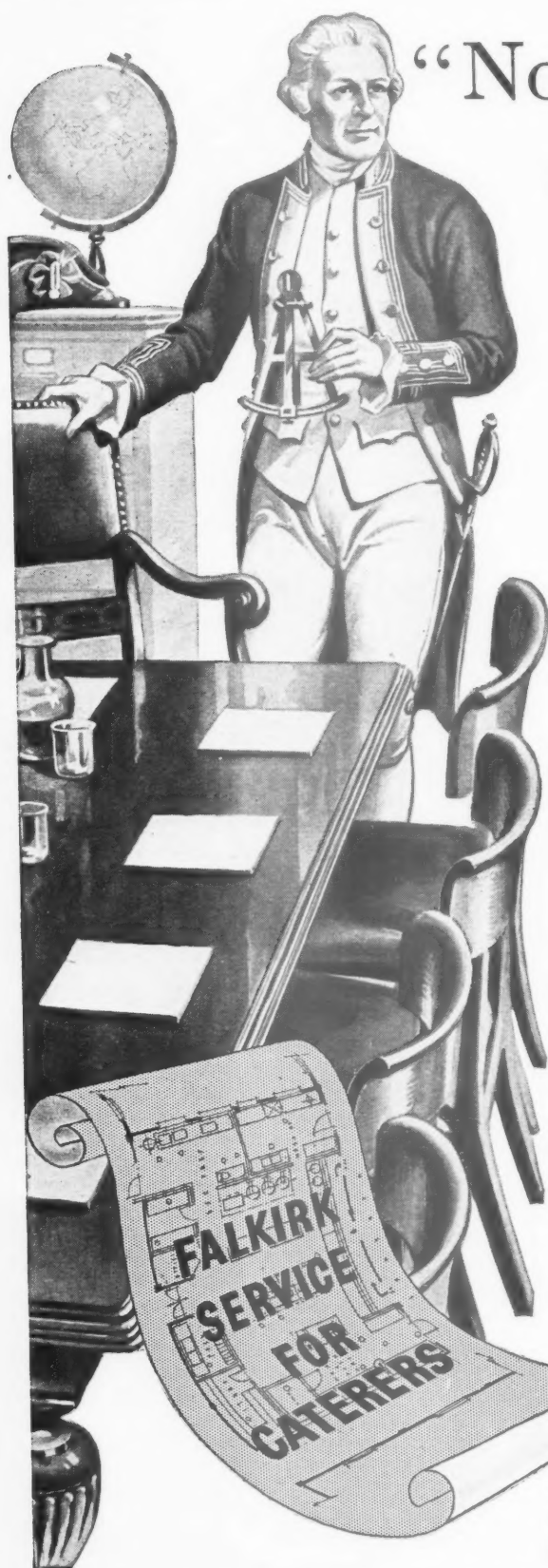
'PUDLO'

BRAND
CEMENT WATERPROOFER

If you wish to do likewise
ask for Specification No. 4
and leaflet "WEATHER-
PROOF WALLS," post
free on request

Sole Proprietors and Manufacturers:
KERNER-GREENWOOD & CO. LTD.
KING'S LYNN, NORFOLK





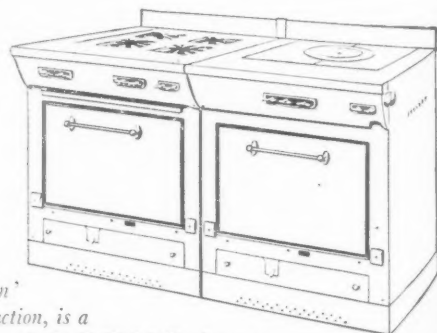
"Now if I were your Senior Partner..."

I'D PUT IN 'FALKIRK' HEAVY DUTY COOKING EQUIPMENT"

CAPTAIN COOK, the Circumnavigator, had never heard of Vitamin C, but his "portable broth", made from scurvy grass, carrot marmalade, sauerkraut, syrup of lemon and other vegetables, enabled him to sail 60,000 miles in three years, losing only one man out of 118 from the previously lethal scurvy. Less taciturn than most mariners, Cook read a paper on the subject before the Royal Society, which awarded him the Copley Medal. Diet is just as important when it applies to 'personnel' as when it applied to 'all hands'. The 'Falkirk' Company makes cooking equipment for the proper feeding of workers, designed to use every known type of fuel — gas, steam, electricity, solid fuel and oil. 'Falkirk' equipment is of outstanding strength and durability — proved over long years of service under exacting conditions.

'FALKIRK' SERVICE FOR CATERERS

Every catering problem is different. Heavy industry and factory canteens, hotels, hospitals, restaurants, clubs and cafés have each their separate problems in the layout and use of their kitchens. An important part of the 'Falkirk' service is to supply, when asked, individual plans prepared by experts of wide and varied experience. 'Falkirk' representatives are stationed throughout Britain to make suggestions, supervise installations, and to inspect, advise and carry out maintenance if necessary, when the kitchens are in actual operation.



This Double Oven 'Falcon' Gas Range, of unit construction, is a good example of sturdy, practical 'Falkirk' Equipment.

THE FALKIRK IRON CO. LTD., FALKIRK, SCOTLAND

Mortimer House, 37/41 Mortimer Street, London, W.1. 40 Hanover Street, Leeds 3 18 Leigh Street, Liverpool

(Proprietors: Allied Ironfounders Limited)

Fig.
access
schem
Cour

repr
priv
The
depe
kitch
low-
gall
allo
Dea

A
pr
pr
ou
th



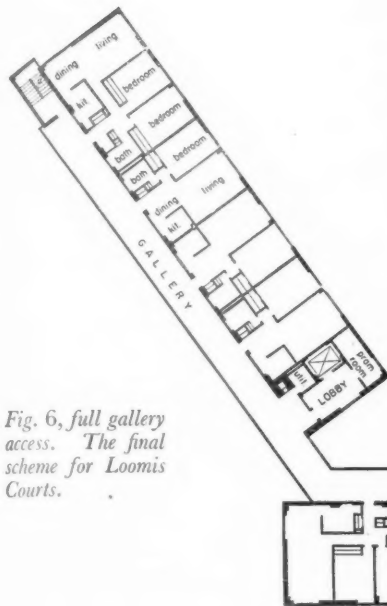
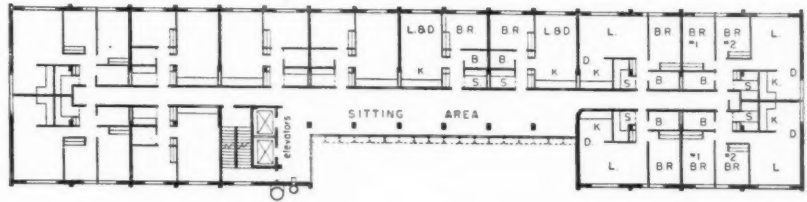


Fig. 6, full gallery access. The final scheme for Loomis Courts.



Above, Fig. 8, the type of plan developing as a result of recent economies—gallery, providing access and community space, with short internal corridors.

combination of split wings and open galleries; the galleries also serving as the common area. The split wings are themselves split by a short internal corridor, the use of which eliminates walk-through living rooms.

Schemes such as this are still at the drawing board stage, but it is suggested that the gallery might be closed to the winter weather by glazing (100 per cent. openable) and that its uses might be extended to include supervised activities, such as nursery classes, knitting circles, and meetings of tenants' associations. Used thus, these small areas of common space, not, in themselves, a costly innovation, could play an important part in fostering social consciousness and community spirit amongst the tenants—qualities far too little developed amongst the urban populations of both the USA and this country.

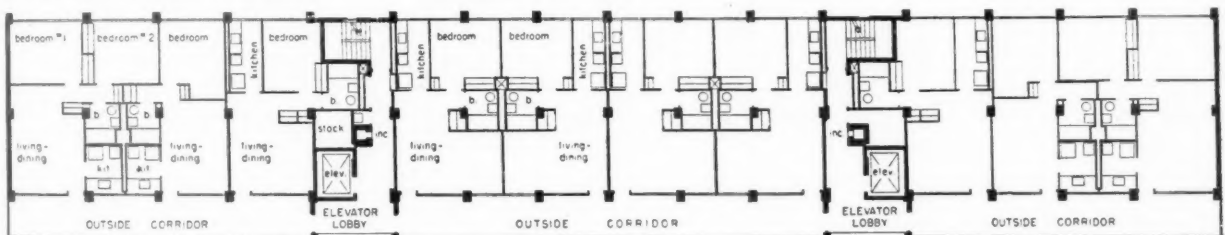
represents a serious intrusion on the tenants' privacy.

These flats, with through ventilation, not dependent on a small hall window, separate kitchens (not a common feature of American low-cost flats), internal bathrooms and wide galleries, represent a peak standard. The allocation of lifts is nearly double that at Dearborn, with its split-wing crosses.

RECENT ECONOMIES

Federal standards have recently been tightened; 1949 minimums are now maximums. Full gallery access is out, but architects have not reverted to split-wing crosses. They have compromised, but they have not abandoned common open spaces and stores. Their compromise (see Fig. 8) consists of a

Below, Fig. 7, an alternative form of gallery access, with living rooms facing on to the gallery —*Prairie Courts* (14-storey blocks).



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.

INFORMATION CENTRE

1.13 sociology SMALL TOWNS

Small Towns—Their Social and Community Problems. L. E. White. (The National Council of Social Service, 1951. 3s. 6d.)

Essay on community and social aspects of life in small towns, examining the claims of the small town as a place in which to live. Good. 63 pages, illustrated.

This essay is based on material compiled from a survey begun during the last war

by the late Dr. Henry Mess. The survey was aimed at assessing the importance of small towns in England, their decline and growth, and the quality of their social life. It was based upon some thirty towns, chosen so as to cover a wide range of population sizes and to be representative of industrial areas, agricultural areas and areas on the fringe of London. For the purposes of this essay the small town is a town with between 4,000 and 40,000 inhabitants.

The main body of the text consists of a discussion of the factors affecting the growth and decay of small towns, their advantages and their disadvantages and limitations. This is the most interesting part to read and consists largely of comments on the results of the survey and quotations from the reports on the individual towns. The great variety of the forms of social activity and the differences between the towns is well brought out.

The author sketches out certain conclusions on the needs of the many small towns which are suitable for expansion (provision of new industries; housing and social services, etc.) and finance is briefly touched on, for the programme for the development of small towns is complementary to the New Towns' programme and it seems logical to suggest that similar grant aid should be made available during the early days of a small town's growth. The most detailed

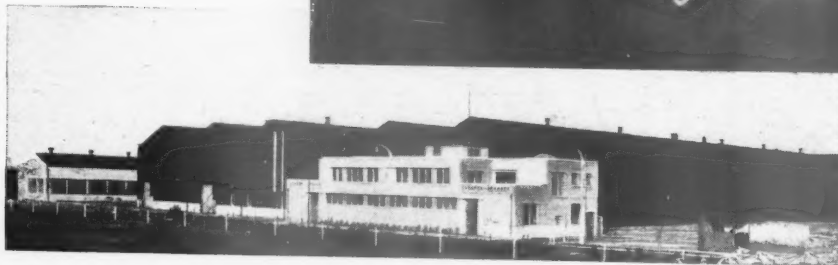
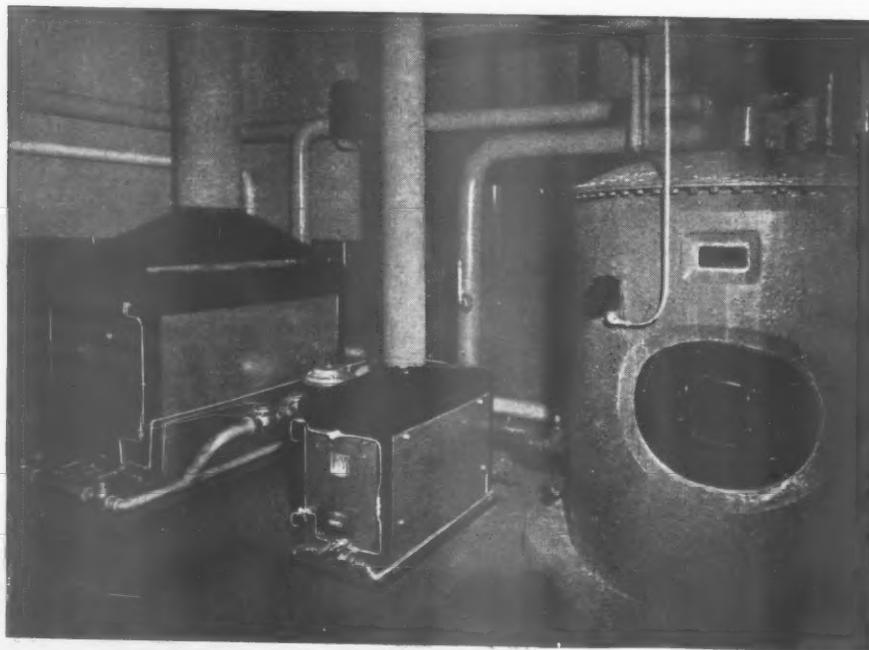
conclusions concern the importance of community centres and community associations.

This pamphlet should fulfil the author's aim of stimulating people to think about the social life of a small town but, most of all, it reveals how few people could answer the four questions the author poses:

- What are the factors which make or mar a satisfying life in a small town?
- How do small towns differ from each other; how does each compare with a town of, say, 200,000, or a million or more inhabitants?
- What is the "best" size for a town? Should small towns be encouraged to reach the optimum and then to stop growing?
- Are we justified in assuming that in towns of, say, 50,000 inhabitants—the suggested size for most of the New Towns and the expanded size of the "Reception Towns"—social life can be made as rich and varied as in the large cities?

This report does not attempt to cover the question concerning small town development which up-to-date has been answered least satisfactorily—are there in our large cities sufficient industrial concerns which are prepared to leave the main industrial areas for the relative isolation of the Small Town?

THE AMENITIES BLOCK serving the Beevor Iron Foundry of Messrs. Ruston & Hornsby Ltd., Lincoln, is equipped with a balanced system of warmed fresh air ventilation, and direct radiator heating giving temperatures of 60° F and 65° F in the various Mess Rooms, Changing Rooms, etc. For this system the boiler used is a "Rex" 3/7 rated at 875,000 B.Th.U.s per hour. There is also a hot water service provided by a "Rex" D/6 boiler rated at 197,000 B.Th.U.s per hour, supplying hot water to all draw-off fittings, wash-fountains, etc.



Heating installation by

RICHARD CRITTALL & CO. LTD.

151 GREAT PORTLAND STREET, LONDON, W.1.

using

POTTERTON
gas-fired boilers

THOMAS DE LA RUE & CO. LTD. (GAS DIVISION)

Imperial House, 84/86 Regent St., London, W.1. Northern Area: 4 Albert Sq., Manchester 2. Midlands Area: Port-bello Works, Warwick.



2.116 planning: general SWEDEN

Building Modern Sweden. Bertil Hultén
(Penguin Books, 1951. 3s. 6d.)

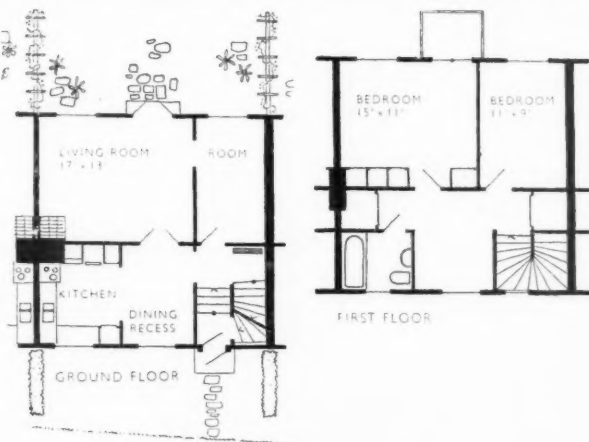
Author: "This book of pictures tries to show what good modern Swedish architecture looks like and its connection with ordinary people in their daily life." Written for the layman. Brief, superficial text, 64 pages, but worth buying by anyone with three-and-six to spare.

As might be expected, housing is the principal theme of this "Penguin." The author describes the traditional small house in Sweden as "wooden, painted red, with white window-frames, and with a pitched roof of red tiles. Today, this type of house has great influence over country and suburban architecture." The illustrations reproduced on this page show a residential street on the outskirts of Stockholm, the houses (each with three rooms and a kitchen) are painted, and a row of houses at Rudsjön, Gävle, (architect: E. Grönwall). Each family has four rooms and a kitchen. Trellis work for creepers has been put up between the outdoor shelters. The tall pine trees around the houses indicate that this is a fairly typical picture of the setting of houses in central and north Sweden.

Note the excellent detail and craftsmanship (particularly the window-frames and the eaves and verge treatment), and the small but effective stack. The entrance door and canopy are neat and well finished, if a little inelegant. Note also the tidiness of the scene, exemplified by the trim but pleasant layout of the carriageway, paving and dwarf boundary walls. Even the poles for the overhead electric distribution appear at home in this housing layout. And the back gardens are in strong contrast to the treatment of housebacks and back gardens on the average local authority housing estate in this country.



Above, residential street on outskirts of Stockholm. Below, back gardens of a row of houses at Rudsjön, Gävle. Right, typical plan of 4-room house. See 2.116.



Designs for Exhibitions

We offer our services as designers and constructors of Exhibition stands which have an individual character of their own. We also work to your plans and interpret your designs and ideas in a sympathetic manner.



HEAL'S CONTRACTS LTD

Exhibition stand, designed and constructed by Heal's Contracts Ltd., for A. Shaw & Son (Diamonds) Ltd., London, for the recent Gauge and Tool Makers Association Exhibition, London.

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



CRAFTSMANSHIP & SERVICE ...



When placing your contracts within the Building Industry, you will wish to receive that precious blend of Craftsmanship, Service and Efficiency which creates lasting value.

We base our ideas on the craftsmanship of the past with the efficiency of the present, and can offer you the benefit of our experience.

We really ENJOY giving advice of such a service as ours and it has often been our pleasure to be entrusted with most important commissions.

WALTER LILLY

AND COMPANY LIMITED

DECORATORS *Building Contractors* ENGINEERS

WESTMINSTER

ST. ANN'S STREET, WESTMINSTER, S.W.1.

Telephone: ABBEY 4661 (10 lines)

and at Streatham



Welder at work on one of the 32 rigid frames supporting the roof of the 200-ft. span harbour shed at Long Beach, California. (See 18.83)

is usually best done when concrete is one to two months old. Earlier, the concrete might be damaged and later, the concrete gets too hard and labour costs increase. Test panels are required, not only for texture but also to determine the colour which will result from exposing a crushed aggregate.

The article concludes with a description of trials, and results are given in terms of man-hours of labour and cost of material for several of the treatments.

An interesting and practical article.

18.83 construction : theory

WELDING

Welding Saves Structural Steel. T. R. Mullen (Architectural Record [USA], March 1951, pp. 144-146, 9 illustrations.)

Summary of well-known advantages of welded steel structures, with some recent examples and savings in weight of steel and total cost.

A 200-ft. span harbour shed in California, where welded portal frames were used, required over 2,600 tons of steel. The saving in steel was 7 per cent. and the saving in cost, 20 per cent. Reinforcing bars for the concrete frame of a 13-storey block of apartments at Los Angeles were butt-welded instead of overlapped, the saving effected was 65 tons of steel, and it was, moreover, possible to use the same size column throughout, with a considerable saving in the cost of shuttering. Architects will be interested to know that the cost of brickwork is reduced if the projections of gussets, cleats and rivet heads are eliminated.

14.44 materials: concrete

CONCRETE BLOCKS

Concrete Block Making Machines. National Building Studies Special Report No. 17. (HMSO, 1951. 1s.)

Survey of types in use and methods of organization. Deals with production efficiency but not with quality of blocks. Suggests need for improvement. Only indirect interest, except to manufacturers.

14.45 materials: concrete

SULPHATE ATTACK ON FOUNDATIONS

Concrete in Sulphate-bearing Clays and Ground Waters. Building Research Station. Digest No. 31. (HMSO, June, 1951. 3d.)

Important paper on possibility of damage to concrete by sulphates in soil or ground water. Precautionary measures to be taken and method of testing soils.

This Digest deals only with sulphates occurring naturally. Those resulting from industrial wastes need special consideration. Naturally-occurring sulphates are found mainly in clay soils, in the London Clay, Lower Lias, Oxford, Kimmeridge and Keuper Marl formations. Sometimes the top few feet of clay is relatively free from sulphates.

The paper explains the type of attack which occurs, the three types of sulphates and the respective dangers, and the effect of variations in water level on the probability of attack. The type of concrete used and its position is also important. Good dense concrete is always more resistant than poor mixes but, for some conditions, special cements, either high alumina or super-sulphate types, should be used.

One of the problems involved is that site conditions may vary considerably, even over

small distances, so a very careful examination of the site is always necessary. The Digest suggests how such examinations should be carried out and gives three classifications of sulphate content, with a useful tabulated list of precautionary measures. These vary according to (1) whether the concrete is precast or *in situ*, (2) whether it is wholly buried or partially exposed, and (3) whether or not it is subject to one-sided water pressure.

A valuable paper of direct interest to all architects who build in areas where sulphate-bearing clays occur.

14.46 materials: concrete

CONCRETE FINISHES

Concrete Surface Dressing. William Henderson. (Architectural Design, June, 1951.)

Brief but good, well-illustrated article on finishes. Sufficiently detailed description of method to be really useful.

This article is similar to a number which have been published in recent years in that it deals with the problems of getting attractive and durable finishes to concrete. It is different from many earlier articles in that it describes processes in sufficient detail to be really useful and that it also gives useful data on the cost of labour and materials.

First, there is a reference to the importance of good quality in the concrete and the shuttering, for without this surface finishes can never be satisfactory. Then there are descriptions of rubbed treatment and bush hammering. Whilst brushing is said to be rather unsatisfactory, rubbing can give good results if the concrete surface can be rubbed within 24 and 48 hours of pouring. Bush hammering can give very good results and two types of tool, which produce patterns, are described. A warning is given about over-hammering. It is said that hammering

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

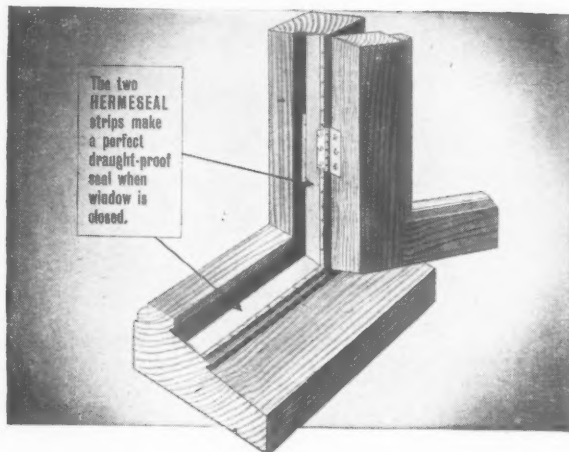
WILLIAM MALLINSON & SONS LTD

*Timber
Veneers
Plywood*

130-150 HACKNEY ROAD
· LONDON · E.2

TELEPHONES · SHOREDITCH 8888-8811

Specify **HERMESEAL**
*for all your draught
exclusion problems!*



Draught exclusion means the prevention of infiltration... Here is a typical example

★ **BEFORE** In recent tests, the average gap around a large number of double hung sash windows (5' 0" x 2' 9") was found to average 1/8", and the infiltration rate through these gaps, under a typical wind speed of 10 m.p.h., was as much as 106.0 cu. ft. per hour per foot of gap, or 1908.0 cu. ft. for the whole window.

★ **AFTER** The rate of infiltration after draught-proofing, was actually reduced to 14.7 cu. ft. per hour per foot of gap, or 264.6 cu. ft. per hour for the whole window. The prevention achieved, therefore, was 1643.4 cu. ft. per hour or 86.1%. Tests on casement windows showed results up to 95%.

Such are the effects of efficient draught-proofing, that the conservation of heat and saving of fuel can be very greatly increased. In general about 50% of all the heat lost through the average window or door can be saved, or at least 20% of that lost throughout the average home, assuming a comprehensive installation.

THE PRODUCT can be fitted to any type of window or door—metal or wood—and consists of a specially designed strip of phosphor-bronze alloy which is guaranteed for ten years.

THE INSTALLATION is permanent and is fitted by our own specially trained staff.

THE COST is calculated on (1) The total footage involved. (2) The number of drop-seals or thresholds required. (3) Any carpentry or sealing work necessary, (4) Fitters' fares and/or subsistence as from nearest branch office.

HERMESEAL
**PATENT DRAUGHTPROOF
WINDOW & DOOR EQUIPMENT**

BRITISH HERMESEAL LIMITED
Head Office : 4 PARK LANE, LONDON, W.1.
Telephone : GROsvenor 4324 (3 lines).

18.84 construction: theory

THEORY OF STRUCTURES

Theory of Structures. H. W. Coultas. (Pitman, 3rd Edition. 1950. 20s.)

Textbook covering B.Sc. (Eng.) syllabus in this subject, also membership examinations of professional institutions. 538 pp., 276 diagrams.

The first edition of this work came out in 1925 and it has since established itself amongst the best-known textbooks for its clearly defined purpose, i.e., to assist students taking a degree course or preparing to sit for the associate membership examinations. Numerous worked examples are given, taken from recent examination papers of the universities and the Institutions of Civil, Mechanical and Structural Engineers. The new edition covers also those types of statically indeterminate structures which have come into prominence during the last few decades, and the elastic behaviour of rigid frames and continuous beams is discussed. The book is well produced, easily read and should prove useful to practising designers for reference. The summary of formulae given with page numbers at the end of the book will certainly be welcome, both to students and to qualified engineers.

19.122 construction: details

SLATING AND TILING

Slating and Tiling. BS C of P. C.P.142 (1951). (British Standards Institution. 5s.)

Definitions. Materials. Design considerations. Heat losses. Sub-Codes deal with slating, tiling and asbestos cement tiling. 63 pp. No illustrations.

In the usual section dealing with definitions some Scottish terms are included. A good idea but it might have been carried further to include alternative names found in other parts of the country as well.

There is a description of nails, including weights and it is recommended that galvanized iron nails should not be used and that special precautions may be necessary where high corrosion conditions exist. Since the life of a slate or tile roof is often that of the nails, more attention might well be given in practice to this aspect of the subject.

There are references to quality of timber, hip irons, roofing felt, wire netting, mortar, flashings and rainwater goods. Under general design conditions are considered heat loss, fire resistance, boarding and battening and condensation. Torching is deprecated.

Each of the sub-codes deals with details of design including treatment of eaves, verges, saddles, valleys, abutments, skylights etc. On the whole this material is similar to that given in many text books.

19.123 construction: details

DAMP COURSES

Materials for Damp-proof Courses. B.S. 743:1951. (British Standards Institution. Price 2s. 6d.)

Revision of 1941 edition. Now includes two types with asbestos fibre base. Notes on selection and laying as well as on the materials and their quality.

20.197 construction: complete structures

FACTORIES

Factories: A Selection of Modern Examples of Design and Construction. (The Builder, Architectural Series. 1950. 6s.)

Description of 15 factory buildings issued as a separate volume, 76 pp., well printed and illustrated.

An introductory article gives notes on the planning and construction of production area. The general layout of factories from small works to acres of engineering shops with heavy equipment, is covered in a couple of paragraphs and there are some comments on welfare requirements and working conditions. The list of official publications concerning factories should prove useful. The advertisements tend to prevent the reader from concentrating on the articles, which would otherwise be a valuable source of reference for those who have to design industrial buildings.

23.149 heating and ventilation

DOMESTIC HEATING APPLIANCES

Open Fires, Heating Stoves and Cookers Burning Solid Fuel. Draft BS C of P 403 (1951). (British Standards Institution. 7s.)

Selection and installation, including builders work. Open fires, openable stoves, solid fuel cookers with and without back boilers for domestic hot water supply and space heating.

The Code contains general guidance on the selection of appliances and on the choice of ancillary materials. Particular recommendations are given in regard to each kind of appliance, and information ranges over the following points:

For open fires: Design and construction of fireplace recess, fireback, fireplace throat, back boilers.

For openable stoves (insert or freestand-

ing): Selection and capacity, fireplace recess, positioning of the flue or the flue adaptor, air inlets, distribution of convected warm air, avoidance of flue gas or air leakage.

For solid fuel cookers: Service provided, capacity, combination grates, bases and hearths, flues and chimneys.

The design section of the Code concludes with information on gravity warm-air heating. Recommendations cover the arrangements for intake of air, and for ensuring the maximum heating effect from the circulation of warm air from the heating appliance. The design and positioning of ducts is described.

The section dealing with work on the site describes the actual installation of appliances and gives recommendations on inspection, testing and maintenance.

The Code concludes with appendices dealing with the sweeping of chimneys and flues, the sizes of fireplace recesses for openable stoves, and the design of flues and chimneys for gravity warm-air systems.

The text makes reference to the many useful diagrams which are included in the document.

28.14 miscellaneous

HANDLING GOODS

Materials Handling in Industry. Summary of Report. (Anglo-American Council 1951. 6d.)

14 page summary of Report of investigations in USA. Good suggestions clearly illustrated by sketches. No very new ideas but useful reminder that old ideas are insufficiently used in this country. Of interest to architects engaged in factory work.



THE LIBRARY OF
INFORMATION
SHEETS COMPLETE
TO JUNE 1951

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., 1950

Oct., 1947-June, 1951

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.

... .. £2 16s. 6d.

... .. £3 2s. 6d.

ORDER FORM

Please send me

Name
(Block letters)

Address

Buildings Illustrated

Factory on the Team Valley Estate, Gateshead-on-Tyne, for the North Eastern Trading Estates Ltd. (Pages 72-73.) Architects: J. Gibson Cowe & Son, L.R.I.B.A. Consultant Heating Engineers: Cairns & Byles. Quantity Surveyors: A. H. Davis & Partners. General Contractor: Gordon Durham & Co. Ltd. Sub-contractor: Dampcourses, N. R. Vaughan & Co. Ltd.; bricks, S. Tyzack & Sons; artificial stone, Ace Concrete Products Ltd.; structural steel, Durham Steelwork Ltd.; special roofings, roofing felt, The Ruberoid Co. Ltd.; patent glazing, The Standard Patent Glazing Co. Ltd.; woodblock flooring, Terradura Flooring Co. Ltd.; pitchmastic flooring, Highways Construction Co. Ltd.; waterproofing materials, The Adamite Co. Ltd.; central heating, ventilation, Brightside Foundry & Engineering Co. Ltd.; gas fixtures, The Falkirk Iron Co. Ltd.; electric wiring, Neale & Partners; plumbing, cloakroom fittings, S. Talbot; sanitary fittings, Shanks & Co. Ltd.; door furniture, J. Steel & Co. Ltd.; casements, window furniture, Rustproof Metal Window Co.; folding gates, Overhead Doors Ltd.; iron staircases, Lion Foundry Co. Ltd.; metalwork, signs, M. Aynsley & Sons Ltd.; joinery, Gordon Durham & Co. Ltd.; tiling, Sweet's Ltd.

Whitmore Park Primary School, Coventry. (Pages 78-82.) Architects: Richard Sheppard & Partners, F/A/A.R.I.B.A., A.M.T.P.I. Assistant Architects: Basil Peake, A.R.I.B.A., Anthony Hunt, A.R.I.B.A. Director of Education: W. L. Chinn, M.A. General Contractors: Gilbert-Ash Ltd., Bristol Aeroplane Co. (Housing) Ltd. Sub-contractors: Heat-

ing and hot water, Weatherfoil Heating Systems, Ltd.; electrical installations, Etna Electrical Co. Ltd.; plumbing, J. S. Wright Ltd.; flooring, Horsley Smith & Co. (Hayes) Ltd.; painting, Daly & Son; paint, International Paints Ltd.; fabrics, Gerald Holtom; glazed screen, A. Edmonds; metal windows and entrance screens, The Crittall Manufacturing Co. Ltd.

Announcements

Lt.-Col. S. C. Marriott has retired after 54 years' service with the Limmer & Trinidad Lake Asphalt Company.

Foscote "R.S."—the rust suppressor and inhibitor manufactured by the Walterisation Co. Ltd.—is now to be sold throughout the British Isles by Messrs. Sissons Brothers & Co. Ltd., who have also acquired the rights to supply bulk quantities to industrial and other users in England, Wales and Ireland. Concessions are also held in certain territories overseas, and export inquiries are invited.

Following increased costs, the Minister of Works has authorised an increase of 6 per cent. in the maximum Home Trade selling prices of sanitary earthenware, as from July 2.

Some changes in the control of timber have been made since July 2 under a new Board of Trade Order which replaces a number of previous orders.

The principal changes introduced by the New Order, which is known as the Timber (Control) Order 1951, are:

(1) Mining timber, herring barrel staves and headings, pulpwood, telegraph, ladder and scaffold poles and round timber prepared

for the manufacture of wood wool are freed from acquisition licence and (when used for the respective purposes for which they are prepared) from consumption licence;

(2) Shingles have been excluded from the definition of "timber" and are thereby freed from control.

(3) American Ash, Balsa, Basswood, and American Poplar are also freed from control.

(4) Traders acquiring or supplying any controlled material will in future be required to include the date of the transaction and the reference number of the licence in their records.

(5) The provisions relating to "Restricted Material—Special Releases" are abolished.

The acquisition, supply, use and consumption of softwood generally, imported box-boards and certain varieties of hardwood (First Schedule) and plywood (Second Schedule) are still controlled.

The Timber (Control) Order 1951 came into operation on July 2, 1951; copies may be obtained from HM Stationery Office or through any bookseller.

Fry, Drew & Partners and Messrs. Drake & Lasdun announce that they amalgamated on May 1, 1951, and have taken two further junior partners, Frank S. Knight, A.R.I.B.A., and Alexander Redhouse, A.R.I.B.A. The firm, to be known in future as Fry, Drew, Drake & Lasdun, will practise from 63, Gloucester Place, London, W.1 (Welbeck 3318 and 6878). The junior partners in the firm are: K. M. Greenwell, A.R.I.B.A., F. S. Knight, A.R.I.B.A., A. Redhouse, A.R.I.B.A., J. B. Shaw, A.R.I.B.A., N. Starrett, A.R.I.B.A., S. E. A. Hounsell (secretary).

The name of A. C. Wickman Ltd., machine tool specialists, Coventry, was changed on June 28, 1951, to Wickman Ltd.

whatever the floor...

LIGNO PERM



Reconstruction of bomb damaged offices at British Engine, Boiler and Electrical Insurance Co., Ltd. Re-sanded Maple Floor treated with Lignoperm.

now presents a **SEPARATE SEAL** to **FEED** and give **EACH TYPE OF WOOD** the **INDIVIDUAL TREATMENT** it needs!

- Simple to apply to all floors, old, new or re-conditioned.
- Single application preserves wood floors for years without renewal of seal.
- Produces attractive non-slip finish—easy to maintain.

Endorsed by Public Authorities, Flooring Associations, Schools and private users.

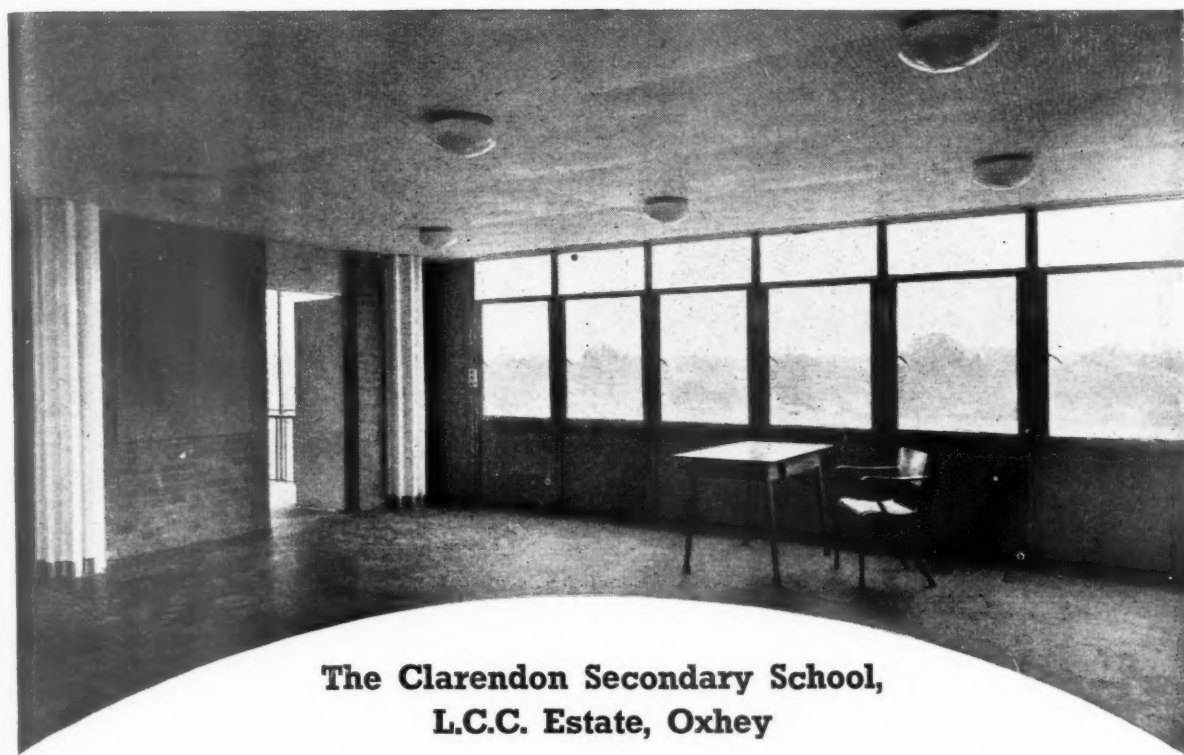
Manufactured by **FLOORLIFE & CHEMICALS LTD.**

Specialists for floor problems of all kinds

The Hives, Mosley Road, Trafford Park, Manchester, 17. Tel.: Trafford Park 1021

Send for full particulars stating type of wood for treatment

HG



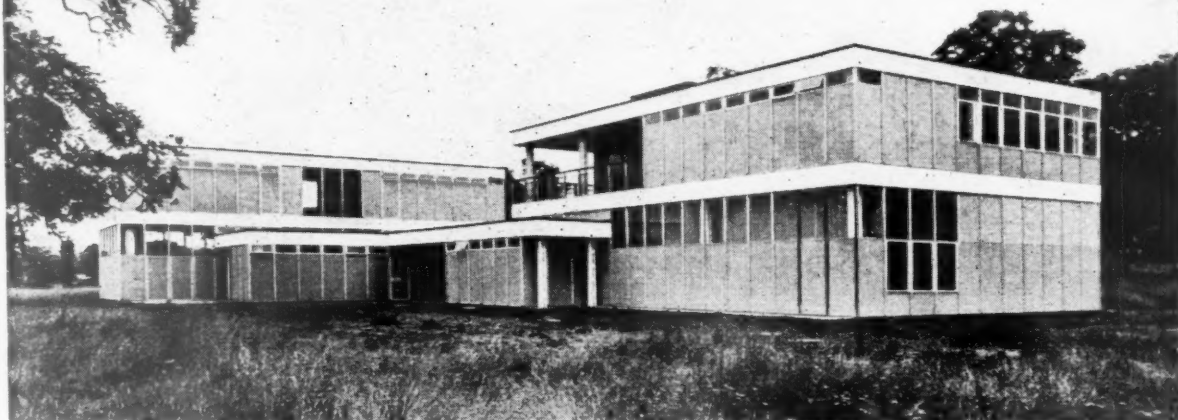
**The Clarendon Secondary School,
L.C.C. Estate, Oxhey**

*The ceilings of these prototype classrooms and the Holoplast panels
forming the outside walls are insulated with*

FIBREGLASS

TRADE MARK

For sound and thermal insulation



County Architect, C. H. Aslin, F.R.I.B.A., M.I.Struct.E.

General Contractors : Gee, Walker & Slater, London

For structural, heat and cold insulation. Sound-deadening. Acoustic correction. Porous membranes for pipe wrapping, flooring, roofing. Battery retainer mats, air filters. In textile form for electrical insulation and flameproof decorative fabrics.

FIBREGLASS LTD., RAVENHEAD, ST. HELENS, LANCS. (ST. HELENS 4224)

LONDON OFFICE :
63/65 Piccadilly, W.1
(Regent 2115/6)

GLASGOW OFFICE :
136 Renfield Street
(Douglas 2687)

NEWCASTLE-ON-TYNE OFFICE :
c/o Pilkington Brothers Limited, Westgate Rd.
(Newcastle 20938)

MANCHESTER OFFICE :
11 Piccadilly
(Blackfriars 8863)

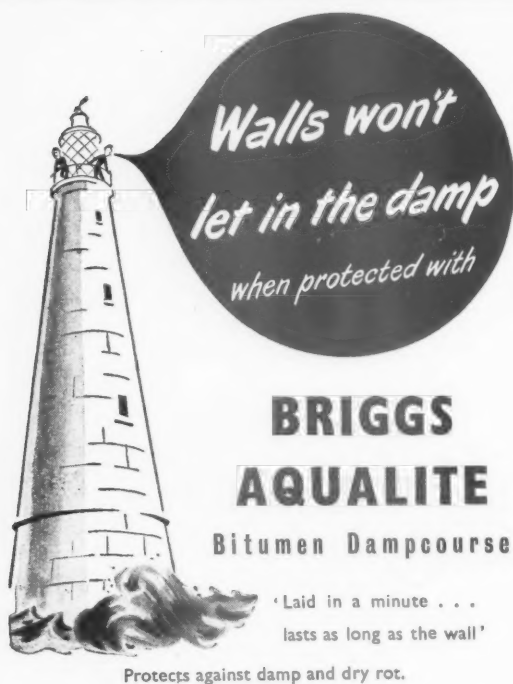
MOULDEX FOR RUBBER PLASTIC OR JOINTLESS FLOORS

IMMEDIATE INSTALLATION
AND DELIVERIES FROM STOCK

MODERATE ESTIMATES
CAN BE SUBMITTED
AT PRE-INCREASE PRICES

OUR EXPERT WILL CALL UPON REQUEST

BRITISH MOULDEX RUBBER CO. LTD.
28/30 HYTHE ROAD, WILLESDEN, N.W.10
Tel.: LADbroke 2454



*Walls won't
let in the damp
when protected with*

**BRIGGS
AQUALITE**
Bitumen Dampcourse

'Laid in a minute . . .
lasts as long as the wall'

Protects against damp and dry rot.

WILLIAM BRIGGS & SONS LIMITED

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

D.C.7



**FOLLOW
SUIT**

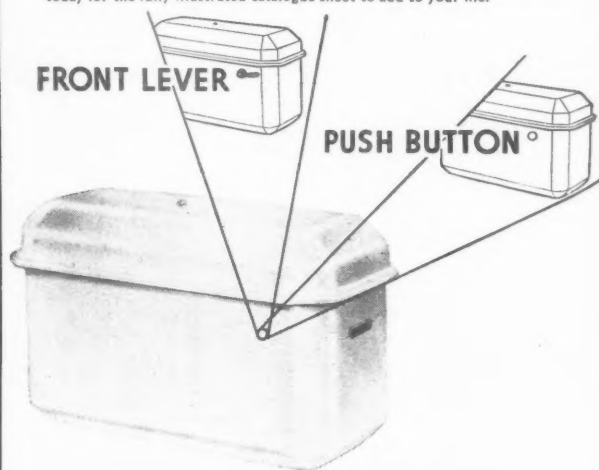
Many of the countries biggest engineering undertakings now seek our advice and service as a matter of routine when they require heating and ventilating plant, constructional steelwork, etc. We will gladly send you a copy of our booklet describing the work we do.

BIRMINGHAM & BLACKBURN
CONSTRUCTION • CO • LTD

ARMOURY CLOSE, BORDESLEY GREEN, B'HAM 9
and at HARLEY STREET, BLACKBURN.

Welcome TO 2 NEW SYPHONIC FORDHAMS

Two new stars in the Fordham range. The LSF, a low-level syphonic cistern with an attractive chromium plated handle on the front, and the LSPB, the only one of its kind operating a syphon, for those who prefer push-button operation. Both models have all the well-tried Fordham features, so send today for the fully illustrated catalogue sheet to add to your file.



Fordham

Creators of the first—makers of the latest seamless steel cistern.
FORDHAM PRESSINGS LTD., DUDLEY RD., WOLVERHAMPTON.
Telephone: Wolverhampton 23861.

PAINTING CONTRACT

AT

WHITMORE PARK PRIMARY SCHOOL COVENTRY

CARRIED OUT BY

DALY & SON

PLUMBING & DECORATING
CONTRACTORS

6 STONEY STANTON ROAD
COVENTRY

TELEPHONE
60601-2

EST'D
1907

ALSO IN BELFAST
NORTHERN IRELAND

TELEPHONE 28241

By using

"Crestestone"

CONCRETE BONDING GYPSUM PLASTER

you save the cost of
hacking concrete to
provide a mechanical bond

*Full information and complete specifications
available on request.*

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.

London Office: Morris House, 1-5 Jermyn Street, London, S.W.1.
Telephone: Whitehall 8073/4

Makers of "PARISTONE" Browning Plaster (Haird,
Unhaird and Metal Lathing Qualities),
"PARISTONE" Wall Finishing Plaster.
"GYPSTONE" Board Finishing Plaster.

G.C.3



WF 4

**Yes, that's
a Peglers!**

AS GOOD AS A TAP CAN BE

Peglers
Limited

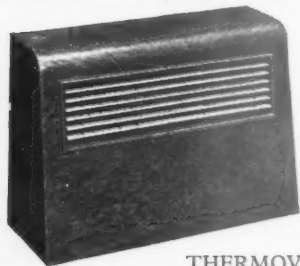
BELMONT WORKS · DONCASTER

London Office:

PRESTEX HOUSE · MARSHALSEA RD · S.E.1

Prestex
Trade Mark

All-round warmth



**FOR HOME,
OFFICE
OR WORKSHOP**

THERMOVENT

Space Heaters distribute uniformly agreeable warmth into every corner. The elements are not exposed, there are no fans, the casing remains quite cool and there is no wall blackening: inset models can safely be built into walls or furniture. Specify Thermovent for domestic, commercial or industrial heating.

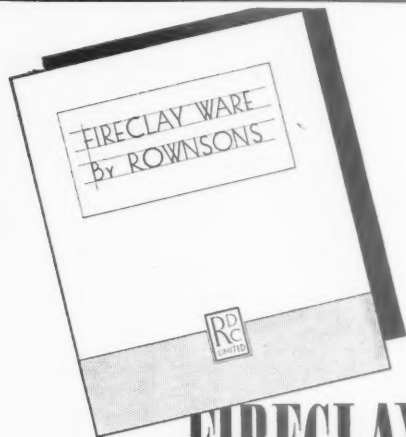


Thermovent

● ELECTRIC SPACE HEATING

The Thermovent Technical Advisory Service offers assistance in the planning and testing of space heating equipment for buildings of all kinds. Write for details.

E. K. COLE LTD., 5 VIGO STREET, LONDON, W.1.



*Write
for
our*

FIRECLAY WARE CATALOGUE

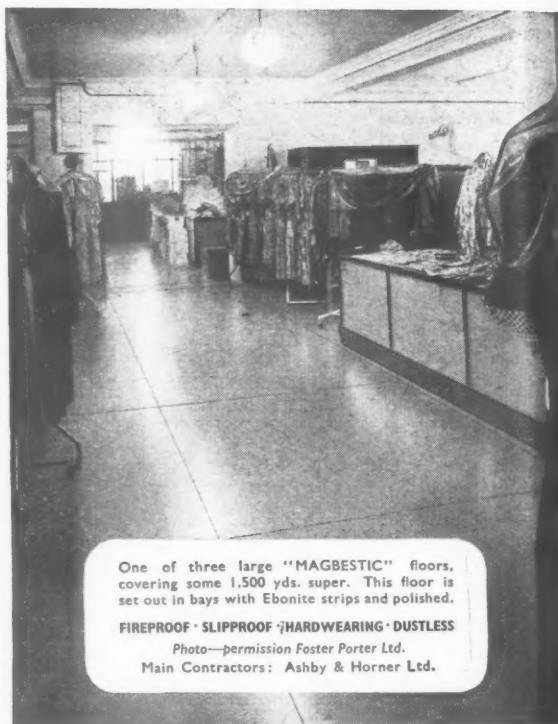
- ▶ **BASINS**
- ▶ **BATHS**
- ▶ **TROUGHS**
- ▶ **FOUNTAINS, WCs. Etc.**

ROWNSON DREW & CLYDESDALE LTD

Established 1819

Telephone: Waterloo 6321-6

225 UPPER THAMES STREET, LONDON, E.C.4



One of three large "MAGBESTIC" floors, covering some 1,500 yds. super. This floor is set out in bays with Ebonite strips and polished.

FIREPROOF · SLIPPROOF · HARDWEARING · DUSTLESS

Photo—permission Foster Porter Ltd.

Main Contractors: Ashby & Horner Ltd.

THE BRITISH MAGNESITE FLOORING CO. LTD.

60, SILWOOD STREET, LONDON S.E. 16

Telephone: BERmondsey 3031

A
RONUK
PRODUCT



★ 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, panels, full directions and working instructions for contractors' use, estimates and 45 years of specialists' experience are at your service.

RONUK Ltd., Portslade, Sussex
Polishing } 16 South Molton Street
Contract Depot } London, W.1

BURN BROS

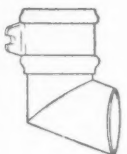
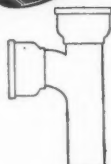

THE LARGEST STOCKISTS OF

Cast Iron Soil & Rainwater Pipes & Gutters



Over 100,000 Castings in Stock

We can supply all types of Cast Iron Sanitary goods. Our technical staff will be pleased to advise on any sanitary, sewage or drainage problem.

 <p>2,000 RAINWATER PIPES AND FITTINGS</p>	 <p>10,000 DRAIN PIPES AND FITTINGS (incl. Watermain)</p>	 <p>85,000 L.C.C. PIPES AND FITTINGS</p>
--	---	--

ALSO COPPER & MALLEABLE FITTINGS, TUBES, Etc.

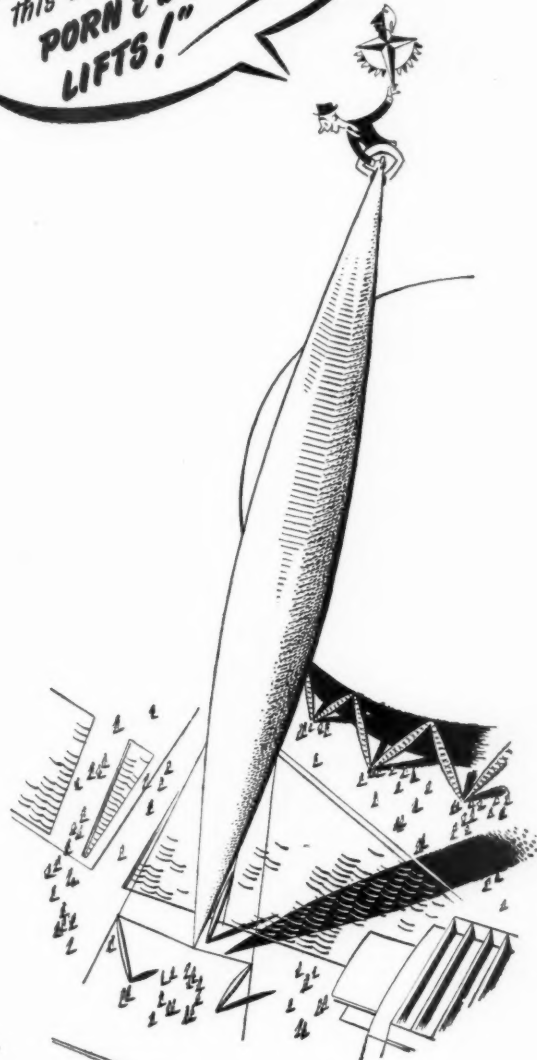
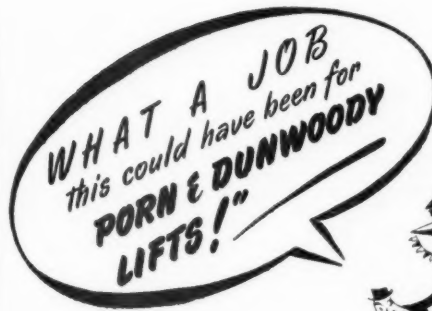
Catalogue available on request

BURN BROS. (LONDON) LTD.

DRAINAGE AND SANITARY ENGINEERS
MANUFACTURERS OF DRAIN TESTING
APPLIANCES

6-8 STAMFORD STREET, LONDON, S.E.1

Telephone: WATERloo 5261 • Telegrams: Abrasion 'Sedist' London



We make Lifts suitable for EVERY purpose. Consult us before completing your Plans. Meanwhile we shall be pleased to send you a copy of our illustrated booklet on request.

PORN & DUNWOODY LTD

Union Works :: Bear Gardens
LONDON, S.E.1

Telephone: WATERloo 7107 (4 lines). Telegraph: Ingporna, Sedist, London



PDL 51/8

The A.B.M. + panelled white fireclay... SINK

with a Stainless Steel SOAP TRAY

Patent No. 448273



★ NON-PROTRUDING OVERFLOW

The A.B.M. Sink has a non-protruding overflow giving more room in the Sink and only four corners to clean.



★ EXTRA SPACE BELOW

The centre back outlet improves sink drainage and gives greater under-sink space. When combined with the A.B.M. General Purpose Trap this amounts to 8,640 cubic inches compared with 5,184 cubic inches when ordinary sinks and traps are used.



★ EASY CLEAN CORNERS

The A.B.M. Sink has well-rounded easy-clean hospital type inside corners.



24" x 18" x 10" PANEL DESIGN AT ORDINARY PRICE

A.B.M. PRODUCTS ARE OBTAINABLE THROUGH YOUR NORMAL TRADE CHANNELS—SHOULD YOU EXPERIENCE ANY DIFFICULTY, PLEASE WRITE TO:—

Associated Builders Merchants Limited, Peters Hill, Upper Thames Street, London, E.C.4.



'BROADS TRUCAST' DUCT COVERS

Specially designed for use in

POWER STATIONS, HOSPITALS
SCHOOLS, KITCHENS
LABORATORIES, BOILER HOUSES, ETC.

'Broads Trucast' Duct Covers are available in widths from 6" to 36", with Cast Iron Sectional Frames for bolting together to form continuous runs, with necessary angles and branches of various sizes. The Cast Iron Covers and Frames have machined seatings and the covers are recessed for filling on site to match the surroundings.



BROADS

★ Technical Staff are available to visit site to check final details and offer expert advice on layouts. Liaison is also maintained with contractors during installation. Full details submitted on application.

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

STEEL in modern building

for POWER STATIONS,

Steel framed buildings, Railway Sheds, Station Roofs, Dock Gates and Sluice Gates, and other constructional work of alloy and ordinary steel. These are but a few examples of Findlay's ability to produce a wide range of engineering projects to exact specifications. We invite you to consult us on technical problems of construction.

FABRICATORS DESIGNERS ERECTORS

HEAD OFFICE: PARKNEUK WORKS,
MOTHERWELL, SCOTLAND

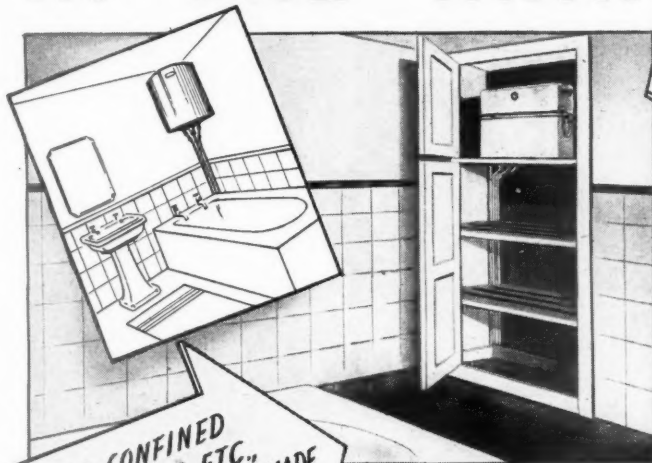
Phone: MOTHERWELL 496

LONDON OFFICE:
HIGH HOLBORN HOUSE,
52/4 HIGH HOLBORN, W.C.1.
Phone: HOLBORN 7330



ALEX. FINDLAY & CO. LTD
Structural Engineers
MOTHERWELL SCOTLAND

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

NOEL WOOD MOSAIC

OFFICES
SCHOOLS
HOSPITALS
FACTORIES

WOODBLOCK
FLOORING
AT ITS BEST

DURABLE
DECORATIVE
ECONOMICAL
GUARANTEED

E. J. ELGOOD LTD. INDUSTRIAL FLOORING SPECIALISTS
INSULCRETE WORKS, YEOMAN ST. S. E. 8 TELEPHONE: BERmondsey 1144 (6 lines)

Knowledge impresses — we take trouble to know

Durtnell
Builders since 1591

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.

HALL WIDE SPAN BUILDINGS

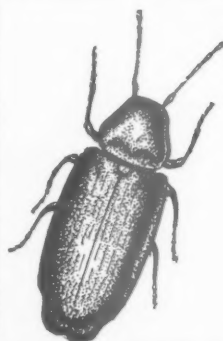
For CANTEENS • STAFF RECREATION
ROOMS • WORKSHOPS for LIGHT WORK



Hall's are renowned for their timber buildings not only as manufacturers but as prime designers and pioneers. Your needs receive the personal attention of those responsible for the high Hall standard and any building purchased is backed by the reputation, skill, and integrity of Halls of Paddock Wood. Building for Industry, Education, Sport, Municipal or Constructional needs. Site offices and Contractors' Huts also supplied. NO MATERIAL LICENCES NEEDED.

Let us quote you for your requirements, write.

HALL'S PADDOCK WOOD
Dep. AJ. TONBRIDGE KENT



If You Have

Woodworm and Dry Rot Problems

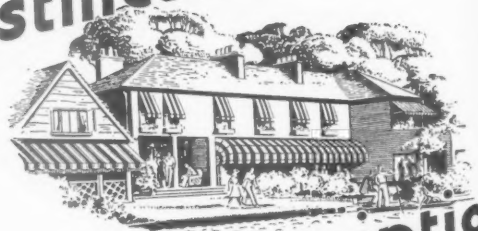
VISIT OR WRITE TO

RENTOKIL
WOODWORM and
DRY ROT CENTRE
23, BEDFORD SQUARE,
LONDON, W.C.1

Tel: LAngham 5455/6

Rentokil Ltd. Fetcham, Leatherhead, Surrey
Tel: Leatherhead 4021/2.

dean's distinctive blinds



of every description

Sunblinds & Weather Blinds • Awnings
Inside Blinds & Curtains • Revolving
& Roller Shutters • Venetian Blinds
Hospital & Sick Room Shutters.

for buildings of all types

Established 1894. Three generations of Deans offer you co-operation and friendly advice.

DEAN'S BLINDS (PUTNEY) LTD

329, PUTNEY BRIDGE RD., PUTNEY S.W.15.

Tel: PUTney 3771



OPEN WEB NAILABLE TRUSSES WERE USED FOR THE ROOFING OF THE WYTHER PRIMARY SCHOOL (LEEDS)

Contractors: Wm. AIREY & SON (LEEDS) LTD.

Supplied ready for placing, without cutting or fitting, these composite trusses—which rely on steel for their strength, light weight and rigidity—permit the unobstructed passage of pipes, etc. They are ideal for housing, school buildings and other similar structures in spans up to 50ft.



Write TO-DAY for fully descriptive literature.

METAL SECTIONS LTD., OLDBURY, BIRMINGHAM. TELEPHONE: BROADWELL 1461

Member of the Cold Rolled Sections Assoc.

FIREPROOF FLOORS

★ THE Smith Two-way reinforced fireproof floor can be employed for any flooring or roofing requirement.

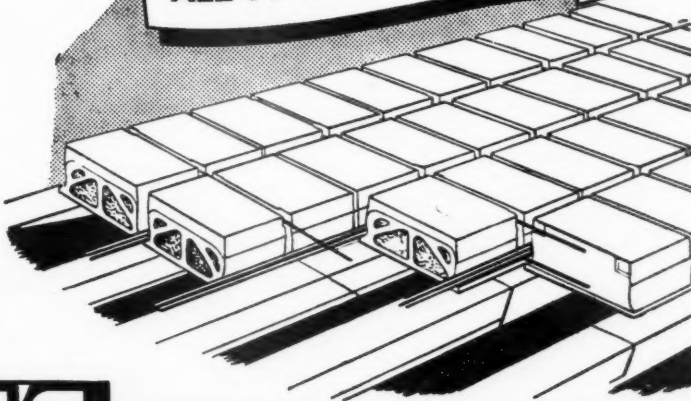
ALL Materials are available from stock

THE employment of patent telescopic centers permits the immediate use of the floor with the additional advantage of their removal in the minimum of time.

WORKING space for other trades not obstructed by props and timber shuttering.

Midland Licensees: Messrs. Parkfield Concrete Products Co. Ltd., St. Peter's Road, Netherton. 'Phone: Dudley 4315

**WITH THE UNIQUE
TELESCOPIC CENTERING IN
ALL TYPES OF BUILDINGS**



SMITH'S

FIREPROOF FLOORS LTD

(DEPT A) IMBER COURT, EAST MOLESEY, SURREY

Telephone: EMBERBROOK 3300

2 WAY REINFORCED FIREPROOF FLOORS

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

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

LONDON COUNTY COUNCIL.
Applications are invited for positions of **ARCHITECTURAL ASSISTANT** (salaries up to £580 basic a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Act, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

All rates of pay up to £500 a year (basic) are at present subject to an addition of 10 per cent. Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes, cottages and multi-storey flats, and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (516) 2615

SURREY COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the appointment of **ASSISTANT QUANTITY SURVEYOR, GRADE VI**, at a commencing salary of £245 per annum, rising by annual increments of £20/225 to a maximum of £710 per annum, plus London Allowance of up to £30 per annum, according to age.

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

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

Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 28th July, 1951.

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

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

T. W. W. GOODBRIDGE,
Clerk of the Council.
County Hall, Kingston-upon-Thames. 3011

PONTYPRIDD URBAN DISTRICT COUNCIL.
Applications are invited for the appointment of **SENIOR ASSISTANT ARCHITECT** at a salary of £750 per annum—the maximum of A.P.T. Grade VII of the National Scale of Salaries. The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, a satisfactory medical examination, and one month's notice on either side for termination.

Candidates must be Registered Architects and Associates of the Royal Institute of British Architects, with considerable practical experience of Local Authority Housing and Municipal Architectural work.

Form of application is obtainable from the Council's Architect, Mr. W. Cecil Evans, Municipal Buildings, Pontypridd, Glam., and should be obtained by intending applicants.

Applications in form required, together with copies of three recent testimonials, must be delivered, appropriately endorsed, to the undersigned, not later than Saturday, the 11th day of August, 1951.

Canvassing will be a disqualification, and candidates must disclose any relationship to members of the Council.

JOHN HILTON,
Clerk of the Council.
Municipal Buildings, Pontypridd, Glam. 3008
July, 1951.

LONDON ELECTRICITY BOARD.
ARCHITECTURAL ASSISTANT.
Applications are invited for the above position in the Chief Engineer's Department in Central London.

Applicants should be studying for or have passed the Intermediate examination of the R.I.B.A., be capable draughtsmen and have had several years' experience in an architect's office.

Pending grading of the post under the national agreement of the appropriate negotiating body, the commencing salary will be from £525 per annum, inclusive, according to qualifications and experience.

Application forms obtainable from Establishments Officer, 46, New Broad Street, E.C.2, to be returned duly completed by 1st August, 1951. Please enclose addressed envelope and quote ref.: V/1266/A. 3020

CUMBERLAND COUNTY COUNCIL.
PLANNING ASSISTANTS A.P.T. GRADE VI (£645-£710) AND **A.P.T. GRADE VII** (£685-£760).

Applications are invited from qualified and suitably experienced candidates for the above permanent appointments in the Department of the County Planning Officer. Further particulars as to duties, car and subsistence allowances, etc., and forms of application may be obtained on request from the County Planning Officer, Citadel Chambers, Carlisle, to whom completed forms are required to be returned by Wednesday, 25th July, 1951.

G. N. C. SWIFT,
Clerk of the County Council.
The Courts, Carlisle. 3023

COUNTY BOROUGH OF BARNSELY
BOROUGH ENGINEER AND SURVEYOR AND
PLANNING OFFICER'S DEPARTMENT.
APPOINTMENT OF GENERAL PLANNING
ASSISTANT.

Applications are invited for the permanent appointment of General Planning Assistant at a salary in accordance with A.P.T. Grade II (£2470 by £15 to £515 per annum).

Applicants should have passed or should be studying for the Intermediate Examination of the Town Planning Institute or its equivalent, and preference will be given to candidates who have had previous experience in a Planning Office, and who have been engaged in the preparation of Development Plans.

The appointment is subject to the National Scheme of Conditions of Service and to the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

The appointment will also be subject to one month's notice on either side.

Applications, stating age, present and previous appointments, experience, and qualifications, etc., accompanied by copies of three recent testimonials, should be addressed to the Borough Engineer and Surveyor and Planning Officer, Town Hall, Barnsley, to reach him not later than Monday, 23rd July, 1951.

Canvassing will disqualify.
A. E. GILFILLAN,
Town Clerk.
Town Hall, Barnsley. 2994
July, 1951.

UXBRIDGE URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S
DEPARTMENT.
ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of Architectural Assistant on Grades IV and V of the A.P.T. Division of the National Scales (£530 to £620 per annum plus London Weighting, at present £30 for age 26 and over).

Applicants should have had a good architectural training and preference will be given to candidates with experience of Local Authority Housing Schemes and holding a recognised professional qualification. The appointment will be subject to the National Scheme of Conditions of Service, to the provisions of the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Applications, stating age, marital state, present and previous appointments, qualifications, and giving details of experience, together with the names and addresses of three persons to whom reference may be made should be forwarded to Harold E. G. Stripp, Esq., A.M.I.C.E., F.R.I.C.S., Engineer, Surveyor and architect, 263, High Street, Uxbridge, not later than Tuesday, 24th July, 1951. Candidates are required to disclose in writing whether, to their knowledge, they are related to any member or senior officer of the Council.

JOHN POOLE,
Clerk of the Council.
Council Offices, 265, High Street, Uxbridge, Middlesex. 3035

PARKS DEPARTMENT.
Applications invited from **LANDSCAPE ARCHITECTS** in private practice for inclusion on a panel to act in a professional capacity on the preparation of schemes and the laying out and construction of parks and open spaces and other groundwork. Apply Chief Officer of the Parks Department, Old County Hall, Spring Gardens, S.W.1, not later than August 10, 1951, giving brief particulars of qualifications and experience in this work. (880.) 3040

EAST ELLOE RURAL DISTRICT COUNCIL.
APPOINTMENT OF QUANTITY SURVEYOR.
Applications are invited for the above appointment in the Architect's Department at a salary in accordance with Grade A.P.T. V. (commencing at £570 per annum and rising to £620 per annum).

Applicants must be thoroughly experienced in the preparation of Bills of Quantities, measurement, interim and final accounts.

The Council will be prepared to offer assistance in the provision of housing accommodation if required and the appointment will be subject to the Local Government Superannuation Act, 1937, and to the passing of medical examination, and will be terminable by a month's notice on either side.

Applications, stating age, qualifications and previous experience, together with copies of two recent testimonials, should reach the undersigned, endorsed "Quantity Surveyor," not later than Saturday, the 28th July, 1951.

J. C. PYWELL,
Clerk of the Council.
Mattimore House, Holbeach, Spalding, Lincs. 3039

CITY OF LEEDS.
CITY ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—

(a) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VIII.** Salary, £750-£810. Candidates should be members of the Royal Institution of Chartered Surveyors and must be competent and experienced in all branches of quantity surveying.

(b) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VII.** Salary, £685-£760.

(c) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VI-VII.** Salary, £645-£760.

(d) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. V-VI.** Salary, £570-£710.

Candidates should preferably have passed the Final Examination of the Royal Institution of Chartered Surveyors.

(e) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. III.** Salary, £500-£545.

(f) **ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. I-II.** Salary, £440-£515.

In each case the payment of salary increments will be subject to satisfactory service and will be granted normally with effect from the 1st April following the completion of 6 months' service.

The appointments are subject to the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned, together with copies of three recent testimonials, by 10 a.m. on Tuesday, 24th July, 1951.

Canvassing in any form either directly or indirectly will be a disqualification.

R. A. H. LIVETT, A.R.I.B.A.,
City Architect.
Priestley House, Quarry Hill, Leeds, 9. 3046
3rd July, 1951.

CAMBRIDGESHIRE COUNTY COUNCIL.
Applications are invited for the following appointments:—

(a) **ONE ASSISTANT ARCHITECT, Grade VII, A.P.T. Division.** (£685/25/£760).

(b) **ONE ARCHITECTURAL ASSISTANT, Grade IV, A.P.T. Division.** (£530/15/£575).

Applicants for (a) should be qualified Members of the Royal Institute of British Architects, and have a sound knowledge and experience in design and construction of all types of public buildings, and be able to take charge with the minimum amount of supervision.

Applicants for (b) should have passed the Intermediate of the Royal Institute of British Architects or its equivalent at one of the recognised Schools of Architecture, and have a good general knowledge of construction and details, and be able to prepare drawings from preliminary sketches.

Applications, stating which appointment is being applied for, giving age, qualifications and experience, accompanied by one recent testimonial, and the names and addresses of two referees, should be sent to the Clerk of the County Council, Shire Hall, Cambridge, not later than Saturday, 28th July, 1951.

The appointments to be subject to one month's notice on either side, and to the provisions of the Local Government Superannuation Act, 1937.

The selected Candidates will be required to pass a medical examination.

CHARLES RHYTHIAN,
Clerk of the County Council.
Shire Hall, Cambridge. 3051
10th July, 1951.

STAFFORDSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL STAFF.

Applications are invited for the above from experienced and capable **ARCHITECTURAL ASSISTANTS** at salaries within Grades V to IX of the National Scales (commencing salary between £370 to £790 per annum according to grading), plus a temporary lodging allowance in appropriate circumstances.

Applications giving full details of experience, qualifications, age, present salary and position, etc., together with copies of three recent testimonials, should be forwarded, as soon as possible, to C. M. COOMBS, F.R.I.B.A., County Architect, Martin Street, Stafford.

T. H. EVANS,
Clerk of the County Council.
County Buildings, Stafford. 3053
5th July, 1951.

COUNTY BOROUGH OF BARROW-IN-FURNESS.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the following permanent posts:—

(a) **QUANTITY SURVEYOR, Grade VII-£685-£760 p.a.** Candidates should preferably be A.R.I.C.S.

(b) **ASSISTANT ARCHITECT, Grade VI-£565-£710 p.a.** Candidates should preferably be A.R.I.B.A.

In each case the commencing salary will be fixed within the grade, having regard to the qualifications and experience of the candidate.

Council Houses are available for allocation if required by married applicants.

Further particulars, conditions of appointment and forms of application may be obtained from the Borough Engineer and Surveyor, Town Hall, Barrow-in-Furness, to whom completed applications must be returned not later than Monday, 30th July, 1951.

LAWRENCE ALLEN,
Town Clerk.
Town Hall, Barrow-in-Furness. 3058
21st June, 1951.

MUNICIPALITY OF SINGAPORE.

Applications are invited for appointment of an ASSISTANT ARCHITECT and BUILDING SURVEYOR on the permanent staff of the Municipal Architect and Building Surveyor's Department, Singapore.

Qualifications: A.R.I.B.A., preferably with previous experience of Municipal, Government or other Official Service and a knowledge of L.C.C. Building Bye-laws. Age 24 to 30.

Basic Salary Scale, \$500-\$1,000 per month. Starting point between \$500 and \$600, according to age and experience. Graduated scale of allowances, e.g., on basic salary of \$590 p.m. present allowances are: Expatriation \$110 p.m. plus Cost of Living \$228 p.m. for single man, or \$315.50 for married man, or \$393.50 for married man with dependent family. One Malayan dollar equals 2s. 4d. Thus a married man with family on basic salary of \$590 p.m. would draw equivalent of £1,530 per annum.

Quarters with heavy furniture provided at 8% of salary or allowance in lieu. Initial engagement on three years' agreement. Home leave and passages in accordance with regulations. Free medical attention. Compulsory Provident Fund contribution, 7½% of salary and Municipal Commissioners donate 7½% for 10 years rising to 20% after 20 years' service.

Applications in duplicate with full personal and technical information and copies of three testimonials to Messrs. Peirce & Williams (agents to the Municipal Commissioners), 1, Victoria Street, London, S.W.1, before Tuesday, 14th August, 1951.

3069

CITY OF NOTTINGHAM EDUCATION COMMITTEE.

COLLEGE OF ART AND CRAFTS. PRINCIPAL: ALFRED H. RODWAY, A.R.C.A. HEAD OF SCHOOL OF ARCHITECTURE: D. W. NOTLEY, B.A.R.C.H. (Hons.) Liverpool, A.R.I.B.A.

Applications are invited for posts of STUDIO MASTERS on the full-time teaching staff of the School of Architecture, which is recognised for exemption from the R.I.B.A. Intermediate and Final Examinations, and in the Department of Town and Country Planning from the Final Examination of the Town Planning Institute. Duties to commence on 1st September, 1951, or nearest date possible thereafter. Candidates should be fully qualified architects, and should, preferably, hold the degree or diploma of a Recognised School. Subject to the conditions governing full-time teaching service, the persons appointed will be given such opportunities as may be practicable to maintain their professional practice.

Salary: Burnham (Further Education) Report, 1951, Scale for Assistants, Grade B, i.e., £450 x £25-£725, together with allowances, if appropriate, in respect of graduation, training, full-time teaching, and for approved professional experience and war service. Application forms can be obtained from the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom they should be returned within ten days of the publication of this advertisement.

F. STEPHENSON.

Director of Education. Education Office, South Parade, Nottingham. 3067

ARCHITECTS, MAINTENANCE SURVEYORS, QUANTITY SURVEYORS, AND LANDS OFFICERS.

THE CIVIL SERVICE COMMISSIONERS invite applications for permanent appointments to the basic (Assistant) grades given above, in a number of Departments in England and Scotland. Applications will be accepted at any time up to and including 31st December, 1951. Selected candidates will be interviewed as soon as possible after the receipt of their application forms. Successful candidates may expect early appointments. Candidates are advised to apply as early as possible.

All candidates must be at least 25 and under 35 years of age on 1st January, 1951, with extension for regular service in H.M. Forces, and up to two years for permanent Civil Servants. All candidates must have the appropriate professional qualifications and experience.

The London salary scale for men aged 30 and over is £600 x £95-£750. Lower starting salary for younger entrants (from £475 at age 25).

(The next higher grades are:—Main Grade, £750 x £25-£1,000; Senior Grade, £1,050 x £35-£1,270.)

Salaries for women and for officers appointed to the provinces will be somewhat lower. Forms of application and copies of the regulations with full details of qualifications required from the Civil Service Commission, Scientific Branch, Trinidad House, Old Burlington Street, London, W.1, quoting No. 3405TA. Completed application forms should be returned as soon as possible.

3072

BUCKS COUNTY COUNCIL.

Applications are invited for the appointment of ASSISTANT ARCHITECT at a salary within Grade VI of the National Scales (£645-£710 n.a.), from persons with long experience in the professional architectural work of a local authority. The appointment is supernumerary and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Further particulars and form of application may be obtained from the County Architect, County Offices, Aylesbury, to whom applications must be delivered by 31st July, 1951.

3055

CITY OF WAKEFIELD.

CITY ENGINEER'S DEPARTMENT.

Applications are invited for the following established posts in the City Engineer's Department.

(a) SENIOR TOWN PLANNING ASSISTANT, A.P.T.V. (£570-£620).

Applicants must have had good experience in Town Planning, particularly in the preparation of Development Plans, and should be suitably qualified by examination.

(b) ENGINEERING ASSISTANT, A.P.T.V. (£570-£620).

Applicants must have experience in the design and supervision of road and sewer works and should be Chartered Engineers.

(c) ENGINEERING ASSISTANT, A.P.T.III. (£500-£545).

Applicants must be capable surveyors and draughtsmen with a good knowledge of general Municipal work.

(d) ARCHITECTURAL ASSISTANTS, A.P.T.II. (£470-£515).

Applicants must be good draughtsmen with experience in preparation of detail drawings and general architectural work.

The appointments will be subject to the Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Applications endorsed according to the appointment applied for stating age, qualifications, present and previous appointments and details of experience, and also as to whether applicant is to his knowledge a relative to a member or senior officer of the Council, together with the names of two referees, should be sent to me not later than the 8th August, 1951.

W. S. DES FORGES.

Town Clerk. 3048

4th July, 1951.

UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE

BUILDINGS OFFICER (ARCHITECT).

Applications are invited from registered architects for the permanent post of College Buildings Officer who will act as Architect for new building and modifications of old, and also be responsible for the maintenance and repair of all College Buildings. Salary scale £300 x £50-£1,100, with superannuation (F.S.S.U.) and a child allowance of £50 per child. Initial salary according to qualifications and experience. The Officer will be required to reside in a house on the College estate as soon as such is available. Applications, giving age and details of qualifications and experience and the names of three referees, should be sent by 31st August, 1951, to the Registrar, University College of North Staffordshire, Keele, Staffs., from whom further particulars may be obtained.

3071

COUNTY BOROUGH OF DERBY.

BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the following appointment on the permanent staff in accordance with the National Scale of Salaries:—

ONE ASSISTANT ARCHITECT, GRADE VI.

Salary, £645-£710.

Applicants must be Associate R.I.B.A. with a good knowledge of work undertaken by a Local Authority.

The appointment will be subject to one month's notice in writing on either side, and to the terms of the National Joint Council's Scheme of Conditions of Service and the provisions of the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

Form of application may be obtained from the Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 30th July, 1951.

Canvassing directly or indirectly will be a disqualification.

E. H. NICHOLS.

Town Clerk. 3053

CITY AND COUNTY OF NEWCASTLE-UPON-TYNE

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment of one SENIOR ASSISTANT ARCHITECT in the Education Section of the Department. Salary £570 per annum, rising to £620 (A.P.T. Grade VI). Applicants should be Associates of the Royal Institute of British Architects, and previous experience of Educational Buildings is desirable but not essential.

The work of the Section includes, in addition to the normal School Programme, the design and erection of a large Grammar School and a new Central College of Technology.

The appointment will be subject to the National Conditions of Service as adopted by the City Council, to the provisions of the Local Government Superannuation Act, 1937, and to one month's notice on either side. The successful candidate will be required to pass a medical examination.

Applications, stating age, particulars of training, qualifications, experience, present and past appointments, together with copies of two recent testimonials and the names and addresses of two persons to whom reference may be made, should be addressed to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle-upon-Tyne, 1, not later than the 31st July, 1951.

JOHN ATKINSON.

Town Clerk. 3070

Town Hall, Newcastle-upon-Tyne, 1. 11th July, 1951.

HEREFORDSHIRE COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of a PLANNING ASSISTANT, Grade A.P.T. V (£570-£620 per annum), for Development Plan Work.

Candidates should be Corporate Members of the Town Planning Institute or possess a recognised qualification in Architecture, Surveying or Engineering.

The successful candidate will be required to maintain a motor-car in accordance with the Council's scheme for payment of travelling allowances.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the passing of a medical examination and to one month's notice on either side.

Applications stating age, past and present appointments, qualifications, together with the names and addresses of two referees, should be sent to the undersigned not later than the 31st July, 1951.

A. R. DUNCAN.

County Planning Officer.

Chandos House, St. Owen Street, Hereford. 3058

CITY OF NOTTINGHAM EDUCATION COMMITTEE.

COLLEGE OF ART AND CRAFTS.

PRINCIPAL: ALFRED H. RODWAY, A.R.C.A.

DEPARTMENT OF TOWN AND COUNTRY PLANNING.

SENIOR LECTURER-IN-CHARGE:

D. S. KILNER, D.P.T.P. (Leeds), A.R.I.B.A., A.M.T.P.I.

Applications are invited for the full-time post of STUDIO MASTER in the Department of Town and Country Planning, which is recognised for exemption from the Final Examination of the Town Planning Institute. Duties to commence on 1st September, 1951, or nearest date possible thereafter. Candidates should be corporate members of the Town Planning Institute and should, preferably, hold the degree or diploma of a Recognised School. Subject to the conditions governing full-time teaching service, the person appointed will be given such opportunities as may be practicable to maintain his/her professional practice.

Salary: Burnham (Further Education) Report, 1951, Scale for Assistants, Grade B, i.e., £450 x £25-£725, together with allowances, if appropriate, in respect of graduation, training, full-time teaching, and for approved professional experience, and war service.

Application forms can be obtained from the Principal, College of Art and Crafts, Waverley Street, Nottingham, to whom they should be returned within ten days of the publication of this advertisement.

F. STEPHENSON.

Director of Education. Education Office, South Parade, Nottingham. 3066

CITY OF LEEDS.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for ARCHITECTURAL ASSISTANTS and ASSISTANT ARCHITECTS at salaries ranging from £440 to £760 per annum.

In each case the payment of salary increments will be subject to satisfactory service and will be granted normally with effect from the 1st April following the completion of 6 months' service.

The appointments are subject to the Local Government Superannuation Act 1937, and the successful applicants will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned, together with copies of two recent testimonials, by 10 a.m. on Friday, 27th July, 1951.

Canvassing in any form either directly or indirectly will be a disqualification.

R. A. H. LIVETT, A.R.I.B.A.

City Architect.

Priestley House, Quarry Hill, Leeds, 9. 6th July, 1951. 3047

FAST EFFORT COUNTY COUNCIL.

COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following post in the County Architect's Department:—

Grade "A" ASSISTANT ARCHITECT—A.P.T. Grade VII. Consolidated Salary £635-£710 per annum.

The commencing salary in this grade will be fixed according to the qualification and experience. Applicants must be members of the R.I.B.A., quick and accurate draughtsmen capable of carrying a job through in all its stages, including sketch plans, working drawings, supervision of work in progress, as well as the administration of work in connection therewith. They should have a sound knowledge of design and building construction, and should be capable of writing specifications. Office experience after school training or articles is essential. The work so be dealt with is that normally carried out by a Local Authority.

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

Applications, stating age, qualifications and full details of previous experience accompanied by copies of three recent testimonials, should be sent to E. J. SYMON, F.R.I.B.A., County Architect, County Hall, Ipswich, not later than 31st July, 1951.

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

G. C. TIGHTFOOT.

Clerk of the Council. 3054

Tenders for Contracts

6 lines or under, 12s. 6d.; each additional line, 2s.

BOROUGH OF BEXLEY.

TENDERS FOR THE ERECTION OF DWELLINGS.

Tenders are invited for the erection of 143 traditional dwellings at Hurst Place Estate, subdivided into two groups as follows:—

Group A—

- *Twelve pairs of Type N.F. Houses.
- Three pairs of Type W.F. Houses.
- Six pairs of Type W.F./B. Houses.
- Two blocks of six Type T.B. Terrace Houses.
- Three single Type A.P.1 Bungalows.
- One pair of Type A.P.2 Bungalows.

Group B—

- Fifteen pairs of Type N.F. Houses.
- Six pairs of Type W.F. Houses.
- Four pairs of Type W.F./B. Houses.
- One block of six Type T.B./S. Terrace Houses.
- Four single Type A.P.1 Bungalows.
- Two pairs of Type A.P.2 Bungalows.
- One block of three Type A.P.3 Bungalows.
- Two blocks of Type A.P.4 Bungalows.
- Three detached Type W.F./B. Houses.
- Two pairs of Type W.F./B. Houses.
- One pair of Type W.F. Houses.

All these dwellings are on adjoining sites, and tenders may be submitted for one or both Groups. The Council reserve the right to divide the work as they may desire.

Bills of Quantities, Specification and Form of Tender may be obtained from the Borough Engineer and Surveyor, West Lodge, Broadway, Bexleyheath, Kent, on payment of a deposit of £5 5s. (by crossed cheque payable to "Bexley Corporation"), which will be refunded on receipt of a bona fide tender not subsequently withdrawn. Drawings and the general Conditions of Contract (R.I.B.A. Form) may be inspected at the office of the Borough Engineer and Surveyor.

Tenders on the form provided must be delivered to the Town Clerk, Council Offices, Bexleyheath, in the special envelope provided and without any name or other distinguishing mark not later than Friday the 10th August, 1951.

The Council do not bind themselves to accept the lowest or any tender.

W. WOODWARD,
Town Clerk.

Partnership

6 lines or under, 12s. 6d.; each additional line, 2s.

PARTNERSHIP available in long-established General Practice. Both Architectural and Surveying experience desirable.—Apply, in writing, to GRAYVILLE F. SROGERS, 1, Electric Parade, Seven Kings Road, Ilford, Essex. 3065

Competition and Exhibition

6 lines or under, 12s. 6d.; each additional line, 2s.

CORPORATION OF LONDON.

THE Corporation of London invites Architects to submit designs in competition for a new Housing Scheme in Golden Lane, E.C.

Assessor: Donald H. McMorran, F.R.I.B.A.
Premiums: 1,000 guineas.
700 guineas.
500 guineas.
300 guineas.

Last day for submitting designs, 31st January, 1952. Conditions of the Competition may be obtained, on payment of a deposit of £2 2s. 6d., from the Town Clerk, 55/51, Moorgate, London, E.C.2.

ANTHONY PICKFORD,
3073

Architectural Appointments Vacant

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

CAPABLE ASSISTANT required for general practice in London. Some years' office experience essential. Details of previous experience and salary required to Box 3061.

ARCHITECTURAL ASSISTANT required, of Intermediate R.I.B.A. standard or over, and with some previous experience in an architect's office. Salary according to ability. Write, stating age and experience, to Staff Officer, Handley Page, Ltd., Cricklewood, London, N.W.2. 2957

NAVY, ARMY & AIR FORCE INSTITUTES invite applications from qualified architects, under the age of 45, for the appointment of **ARCHITECTURAL ASSISTANT** to the Director of Works and Buildings. Applicants should have had experience in economical design and of commercial works projects (works projects for H.M. Forces also an advantage) and should be capable of taking responsibility to completion. Apply in writing to the Secretary, NAAFI, Esher, Surrey, stating qualifications, age, experience and salary required. 3015

ARCHITECTURAL ASSISTANTS required for work in connection with local authority and private housing, factories, churches, farm buildings, etc. Applicants need not be qualified but must be competent to handle projects throughout with the minimum supervision. Salaries up to £500, dependent upon ability. Write to D. C. Denton-Smith, L.R.I.B.A., Chartered Architect, 40, Regent Street, Cambridge. 3016

SENIOR ASSISTANT required for Norfolk office. Single. Car driver. Not necessarily qualified, but must be office trained and a good Draughtsman. Salary £500, rising to £600 per annum. Reply, with full details of experience, to Box 3018.

ARCHITECTURAL ASSISTANTS required immediately, good salary and prospects; 5-day week. Write to Messrs. J. M. Sheppard & Partners, 38, Bedford Place, W.C.1, giving particulars of age, qualifications, experience, and salary required. 2997

ARCHITECTURAL ASSISTANTS required, experienced in preparation of working drawings. Five-day week. Pension and sickness funds. Staff canteen. Permanent and well-paid positions will be offered to first class men. Write fully to: Chief Staff Architect, Ilford Limited, Romford, Essex. 3006

ARCHITECTS have vacancy for Senior Assistant with good office experience. Commencing £550-£600 with excellent prospects.—Stephenson & Gillis, 2, Saville Chambers, North Street, Newcastle-upon-Tyne. 3043

THE Milk Marketing Board invite applications for a **SENIOR ASSISTANT** in their Architect's Department capable of taking charge of a job from sketch plan to final account stage. Preference will be given to R.I.B.A. Students, about to take their final examination. The salary offered is £600 per annum and applicants should send particulars of their age, architectural education and previous experience, to the Chief Administrative Officer, Milk Marketing Board, Thames Ditton, Surrey. 3051

ARCHITECTURAL ASSISTANT required. Varied practice. Salary £364-£442 per annum, according to experience.—HOUGHN, HARRISON & STEVENS, 9, Great James Street, Bedford Row, London, W.C.1. Telephone: Holborn 9991/2. 3062

ARCHITECTURAL ASSISTANT Required in Brighton Office of London firm. Up to Final R.I.B.A. Standard, with good practical experience.—LAURENCE GOTCH & PARTNERS, 21, Richmond Place, Brighton. 3075

SELFRIDGES LTD. invite applications for the following appointments in the office of the House Architect

1. **ARCHITECTURAL ASSISTANT** with ability up to Intermediate Standard, R.I.B.A., with a good general knowledge of construction and interior design.

2. **ASSISTANT** of about 25 years of age with experience in Store Fitting and Design.

Applications for the above, stating age, experience and salary required, to House Architect, Selfridges Ltd., Oxford Street, London, W.1. 3049

RAGLAN SQUIRE requires **ARCHITECTURAL ASSISTANTS** to work on Eaton Square Conversion Scheme. Intermediate standard or higher, with good office experience. Salary, approx. £400 p.a., according to ability.—Reply in writing, stating usual particulars, to RAGLAN SQUIRE, F.R.I.B.A., 39, Eaton Square, S.W.1 3062

LARGE industrial organisation in East Anglia invites applications for position of **ASSISTANT to Architect and Building Departmental Manager** with view ultimately to assuming full responsibility. Applicants should be experienced members of the R.I.B.A., or A.A., have wide practical knowledge, and be prepared to co-operate with other Departmental Managers. Pension Scheme. Full details of qualifications, previous appointments, responsibilities, age and remuneration, in confidence, to Box 565, SMITHS', 100, Fleet Street, E.C.4. 3066

Architectural Appointments Wanted

CHARTERED London ARCHITECT (38) seeks Position of Responsibility in South Coast or West Country Practice offering possibility of Partnership. Comprehensive experience; accustomed to taking charge; keen to find increased scope for initiative.—Box 196.

SENIOR ASSISTANT (30), single; School and Office trained; 10 years' varied experience. Seeks Position in small town or country practice with prospects of **JUNIOR PARTNERSHIP** at later date.—Box 198.

SENIOR ASSISTANT (31) requires Post in Private Practice. Final Standard; accommodation necessary; coastal town preferred.—Box 197.

ASSISTANT, Inter. standard, 5 years' office experience, 4 years Regent Street Polytechnic evening course, desires position in London office. Box 191.

STUDENT RIBA, with some office experience, completing finals course at Recognised School, requires post in Southern Counties.—Box 195.

EXPERIENCED ARCHITECTURAL ASSISTANT. Able to manage contracts, requires appointment. Box 199.

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT (30), clean draughtsman and able to manage contracts; requires responsible post in the London or Staines areas. Salary in the region of £750 per annum. Box 189.

Other Appointments Vacant

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

ESTIMATOR/DRAUGHTSMAN required with building experience. Write, giving age, details of experience and salary required, to BAZROCK GYPSUM INDUSTRIES LTD., 200, Westminster Bridge Road, S.E.1. 3060

CLERK OF WORKS immediately for contract in Birmingham. Probably five years' duration. W.D. Repairs and new building.—Full details of experience and salary required to Box 3064.

QUANTITY SURVEYOR for busy provincial office at Newark-on-Trent. Qualified man with experience. Good salary for good man. Modern House available. SAUNDERS & PARTNERS, Architects and Surveyors, 24, Castle Gate, Newark-on-Trent. 3069

Services Offered

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

ARCHITECTURAL MODELS and Dioramas. Edward J. Ansdon, A.R.C.A., 15, Chesham Studios, 153, Kings Road, S.W.3. Tel.: FIax 6105. 2996

FREE-LANCE Surveyor offers Services to Architects requiring accurate surveys of land and buildings, levelling, contouring, etc.; own car and complete equipment. 279



A rotter 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" polychlorophthalene 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 FUNGAL 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

books

an illustrated catalogue of books on architecture, planning building practice and kindred subjects will be sent on application to

THE ARCHITECTURAL PRESS
9-13 Queen Anne's Gate Westminster SW1

For Sale or Wanted

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

"ARCLIGHT" glass-topped tracing desk with adjustable lights below, antiquarian. Offers to Messrs. Cow & Gate, Ltd., Architect's Department, Central Buildings, Guildford. Box 3030.

WANTED—Double Elephant or Antiquarian Plan Chest.—Write to David E. Morrison, 11, Parkway, Regent's Park, or telephone Gulliver 6774.

FOR SALE—Sir Banister Fletcher's "History of Architecture," latest edition; 52s. 6d. post free.—London Book Co., 391, St. John Street, E.C.1. 3076

LONDON Architects require office accommodation. Victoria district preferred but not essential. Floor area approx. 900 sq. ft.—Box 3060

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, 10-107, St. Paul's Road, N.1. Canonbury 3061.

WINKFIELD MANOR NURSERIES, ASCOT, lay out Rock and Formal Gardens and Labourless "Allweather" Tennis Courts. Eight Chelsea Gold Medals since 1947. Contractors to the Festival of Britain. Winkfield Row 3913, 1716

FRENCH POLISHERS—Wm. Burton's, for every style of polishing. 26, Foulser Road, Upper Tooting, S.W.17. BAL. 3968. 2517.

Educational Announcements

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

R.I.B.A. EXAMS—Mr. L. Stuart Stanley, M.A., F.R.I.B.A., M.T.P.I., Dist. in T.P. (Tutor in the School of Arch. Lon. Univ.), and Mr. G. A. Crockett, B.A., A.R.I.B.A. (Medallist), A.M.T.P.I., F.R.S.A., prepare Students by correspondence tuition. Stuart Stanley & Crockett, 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

I.A.A.S. FORTHCOMING EXAMINATIONS
The Incorporated Association of Architects and Surveyors will hold examinations at Intermediate and Final grades in the following Sections during the week beginning 19th November, 1951.

ARCHITECTURAL:
QUANTITY SURVEYORS:
BUILDING SURVEYORS (Local Authorities);
BUILDING SURVEYORS (Private Practice).
The examination centres will be: London, Belfast, Birmingham, Blackpool, Bristol, Edinburgh, Hull, Manchester, Newcastle-on-Tyne, Newport (Mon.), Nottingham, Plymouth, Southampton. Applications from candidates for permission to sit, made on the prescribed form, must be received not later than Monday, 24th September, 1951.

Full information on application to the Examinations Secretary, I.A.A.S., 75, Eaton Place, London, S.W.1.

N.B.—The Incorporated Association of Architects and Surveyors hereby give notice that the General Regulations governing examinations have been revised, and that the revised regulations will apply to the examinations to be held in May, 1952, and thereafter until further notice. Syllabuses containing the revised regulations are obtainable (price 1s.) on application to the Examinations Secretary, I.A.A.S.

Notice is also given that the Association will hold a Preliminary Examination in March of each year, beginning 1952, and that examinations in the Land Survey Section will be held in May, 1952, and thereafter at half-yearly intervals. 3045

R.I.B.A. INTER, FINAL & SPECIAL FINAL

Postal Courses in all subjects of the 1951 exam syllabus (including Professional Practice) are conducted by **THE ELLIS SCHOOL OF ARCHITECTURE**
Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.
103B, OLD BROMPTON RD., LONDON, S.W.7
Phone: KEN 8641 and at Worcester

QUALIFYING EXAMINATIONS R.I.B.A. AND T.P.I. INTER & FINAL FINAL

Courses of instruction by Correspondence and Personal in Studio, including TESTIMONIES OF STUDY AND PROFESSIONAL PRACTICE

C. W. BOX

F.R.I.B.A., A.I.STRUCT.E., M.R.SAN.I.
115 GOWER STREET, W.C. Euston 3906

QUANTITY SURVEYING

Postal Courses for R.I.C.S., I.A.A.S., and I.Q.S. Exams in all subjects of each syllabus. Tuition by well qualified tutors under the direction of the Principal, A.B. Waters M.B.E., G.M., F.R.I.B.A. Descriptive booklet on request.

THE ELLIS SCHOOL
103B, OLD BROMPTON RD., LONDON, S.W.7
Phone: KEN 8641 and at Worcester

Assistants required in Architect's Department of large East Midland industrial concern for varied and interesting work in connection with extensive works development programme. Applicants should have initiative in designing and be capable of preparing full working drawings from Architect's sketch plans. Junior and Senior Assistants are required, and applicants should reply, giving details of age, experience, and salary required, to Box 2976.

FIBROUS PLASTERWORK OF EVERY DESCRIPTION

ALLIED GUILDS

King Edward Square,
SUTTON COLDFIELD. Tel: Sut 3809

LINOLEUM

Information Sheets

19/GI, 2, 3 & 4

Reprints available on application to:—
Linoleum Manufacturers' Association,
273/287, Regent Street, London, W.1.

MODELS

ESTAB.
1883.

John B. THORP BY
FOR 98 GRAY'S INN ROAD, W.C.1
TOWN PLANNING
PUBLIC BUILDINGS
ESTATES and
INTERIORS
TELEPHONE:
HOLBORN 1101

PROFESSIONAL ADVANCEMENT

through **ICS** STUDY COURSES

I.C.S. Home Study Courses help the professional man to further his career. They include many courses for Membership Examinations of the various technical bodies. Brilliant successes have been recorded in the spheres of architecture, building, and surveying.

Here are some of the subjects in which we offer fully qualified instruction:—

Architecture
Architectural Drawing
and Designing
Building Contracting
Building Construction
and Interior Work
Building Construction
and Quantities
Building Specifications
Quantity Surveying
Civil Engineering

Surveying and Mapping
Plan and Map
Draughtsmanship
Structural Engineering
Concrete Engineering
Structural Drawing
Construction Draughtsmanship
Sanitary Engineering
Air Conditioning
Heating and Ventilation

Special Courses for the examinations of the R.I.B.A. I.O.B., R.I.C.S., Inst. C.E., I.M.E. (Building Inspector), Inst. Struct. E., I.Q.S., Inst. Clerk of Works, etc. Examination students are coached till successful.

Write to-day for free booklet describing our Course in any of the subjects mentioned above.

Generous Discount granted to members of H.M. Forces

International
CORRESPONDENCE SCHOOLS

Dept. A.J. International Buildings, Kingsway
London, W.C.2.

lxvii

REDALON

Liquid N

CEMENT RETARDER

For the Perfect Key

THE ADAMITE
COMPANY LTD

MANFIELD HOUSE, STRAND, W.C.2



LIFTS

by **MORRIS**

Herbert Morris Ltd

Loughborough

Engineering branches in London, Glasgow, Manchester, Birmingham, Leeds, Sheffield, Newcastle, Cardiff, Bristol, Dundee, Liverpool, Nottingham, Bury St. Edmunds, Belfast



Phone:
MA Caulay
1800

re { PLUMBING
HEATING
VENTILATING

HYDRO ENGINEERING
21 Queenstown Road
S.W.8.

For Electric motor Starters
of proved reliability-specify-

ELLISON

MADE BY GEORGE ELLISON LIMITED - PERRY BARR - BIRMINGHAM - 229

KINNEAR PATENT STEEL ROLLING SHUTTERS

Sole Manufacturers:
ARTHUR L. GIBSON & CO LTD
Branch Offices: Birmingham, Manchester, London, Glasgow, Leeds, Sheffield, Newcastle, Liverpool, Nottingham, Bury St. Edmunds, Belfast

Alphabetical Index to Advertisers

	PAGE		PAGE		PAGE
Adamite Co., Ltd., The	lxvii	Falkirk Iron Co., Ltd., The	i	Pilkington Bros., Ltd.	xiv
Adams, Robert (Victor), Ltd.	lxvii	Fibre-glass, Ltd.	lv	Porn & Dunwoody, Ltd.	lxv
Allied Builders	lxvii	Findlay, Alex. & Co., Ltd.	lxi	Pritchett & Gold E.P.S. Co., Ltd.	lxvii
Anderson Construction Co., Ltd.	lxvi	Floorlife & Chemicals, Ltd.	lxv	Prodorite, Ltd.	lxv
Anglo-Scottish Construction Co., Ltd.	lxvi	Floor Quarry Association	xxxii	Pyrene Co., Ltd., The	lxv
Architectural Press, The	lxvi	Fordham Pressings, Ltd.	lxvi	Radiation Group Sales, Ltd.	xv
Associated Builders Merchants, Ltd.	lx	Gas Council, The	xvi	Redpath, Brown & Co., Ltd.	lxvi
Austins of East Ham, Ltd.	lx	Gaskell & Chambers, Ltd.	lxvii	Rentokil, Ltd.	lxvi
Automatic Pressings, Ltd.	lxvii	Gibson, Arthur L. & Co., Ltd.	lxvii	Richmond & Starling, Ltd.	lxvii
Bath Cabinet Makers & Artcraft, Ltd.	lxv	Gypco Products, Ltd.	lxvii	Rolyat Tank Co., Ltd., The	lxvii
Berry, Z. D., & Sons, Ltd.	lxv	Hall, J. & E., Ltd.	lxv	Rounek, Ltd.	lxvii
Birmingham & Blackburn Construction Co., Ltd.	lxvi	Hall, John, & Sons (Bristol & London), Ltd.	lxvii	Rownsdon, Drew & Clydesdale, Ltd.	lxvii
Booth, James, & Co., Ltd.	xxv	Hall, Robert H., & Co. (Kent), Ltd.	lxvii	Sadd, John, & Sons, Ltd.	lxvii
Booth, John, & Sons (Bolton), Ltd.	lxvii	Harvey, G. A., & Co. (London), Ltd.	lxvii	Sankey, J. H., & Son, Ltd.	lxvii
Boulton & Paul, Ltd.	lxvii	Heal's Contracts, Ltd.	lxvii	Scaffolding (Gt. Britain), Ltd.	xxxviii
Box, C. W.	lxvii	Hollis Bros., Ltd.	lxvii	Seall, Arthur, & Son, Ltd.	lxvii
Braby, F., & Co., Ltd.	lxvii	Hollway, W. F., & Brother, Ltd.	lxvii	Secomastic, Ltd.	lxvii
Braithwaite & Co., Engineers, Ltd.	lxvii	Holophone, Ltd.	lxvii	Setright Registers, Ltd.	lxvii
Briggs, Wm., & Sons, Ltd.	lxvii	Hope, Henry, & Sons, Ltd.	lxvii	Sieglwart Floor Co., Ltd.	lxvii
British Aluminium Co., Ltd., The	lxvii	Horseley Bridge & Thomas Piggott, Ltd.	lxvii	Small & Parkes, Ltd.	lxvii
British Hermetical, Ltd.	lxvii	Hydro Engineering	lxvii	Smith & Rodger, Ltd.	lxvii
British Industries Fair	xxxvi	Insulate Products Corporation, Ltd.	lxvii	Smith's English Clocks, Ltd.	xxxviii
British Insulated Cables, Ltd.	lxvii	International Correspondence Schools	lxvii	Smith's Fireproof Floors, Ltd.	lxvii
British Magnesite Flooring Co., Ltd.	lxvii	International Paints, Ltd.	lxvii	Solignum, Ltd.	xxxviii
British Mouldex Rubber Co., Ltd., The	lxvii	Kenyon, Wm., & Sons, Ltd.	lxvii	Southern Linne Association, The	xxxviii
British Plumber, Ltd.	lxvii	Kerner-Greenwood & Co., Ltd.	lxvii	Sterne, L., & Co., Ltd.	lxvii
Britnace Electrical Co., Ltd.	lxvii	King, Geo. W., Ltd.	lxvii	Stott, James, & Co. (Engineers), Ltd.	lxvii
Broads Mfg. Co., Ltd.	lxvii	Kinnear Shutters	lxvii	Sulzer Bros. (London), Ltd.	lxvii
Brown, Donald (Brownall), Ltd.	lxvii	Laing, John, & Son, Ltd.	lxvii	Tarmac, Ltd.	lxvii
Bryant, C., & Son, Ltd.	lxvii	Leatherford, Ltd.	lxvii	Taylor, R., & Co. (Ironfounders), Ltd.	lxvii
Burn Bros. (London), Ltd.	lxvii	Lever, James, & Sons, Ltd.	lxvii	Tentest Fibre Board Co., Ltd.	lxvii
Cannon, W. G., & Sons, Ltd.	lxvii	Lilly, Walter, & Co., Ltd.	lxvii	Terrud, Flooring Co., Ltd., The	lxvii
Celcon, Ltd.	xxxvii	Linoleum Manufacturers' Association	lxvii	Thermalite, Ltd.	lxvii
Celcon, Ltd.	x	Lion Foundry Co., Ltd.	lxvii	Thomas, Richard, & Baldwins, Ltd.	lxvii
Cement Marketing Co., Ltd., The	lxvii	Loft Ladders, Ltd.	lxvii	Thorp, John B.	lxvii
Clyde Structural Iron Co., Ltd., The	xxx	Mullinson, Wm., & Sons, Ltd.	lxvii	T.I. Aluminium, Ltd.	lxvii
Cole, E. K., Ltd.	lxvii	Mander Bros., Ltd.	lxvii	Timber Development Association, Ltd.	lxvii
Colt Ventilation, Ltd.	lxvii	Marley Tile Co., Ltd., The	lxvii	Tretol, Ltd.	lxvii
Daly & Son	lxvii	Metal Sections, Ltd.	lxvii	Troughton & Young (Lighting), Ltd.	lxvii
Denn's Blinds (Putney), Ltd.	lxvii	Midland Woodworking Co., Ltd.	lxvii	Tucker, J. H., & Co., Ltd.	lxvii
De La Rue, Thomas, & Co., Ltd.	lxvii	Mills Scaffold Co., Ltd.	lxvii	United Steel Companies, Ltd.	lxvii
Durable Asphalt Co., Ltd.	lxvii	Morris, Herbert, Ltd.	lxvii	Venus Pencil Co., Ltd., The	lxvii
Durtnell, R., & Sons, Ltd.	lxvii	Northcote Organisation	lxvii	Versil, Ltd.	xxxviii
Econa Modern Products, Ltd.	lxvii	Northern Aluminium Co., Ltd.	lxvii	Vigers Bros., Ltd.	xxxviii
Elgood, E. J., Ltd.	lxvii	Paragon Glazing Co., Ltd.	lxvii	Walker, Crosswell & Co., Ltd.	lxvii
Ellis School of Architecture, The	lxvii	Parkinson Stove Co., Ltd., The	lxvii	Ward, Thomas W., Ltd.	lxvii
Ellison, George, Ltd.	xxx	Peglers, Ltd.	lxvii	Weatherford Heating System, Ltd.	xxxviii
Evode, Ltd.	lxvii	Pennycook Patent Glazing & Engineer- ing Co., Ltd.	xxxvi	Wild, M. B., & Co., Ltd.	xxxviii
Excel Asphalt Co., Ltd.	lxvii			Wimpey, George, & Co., Ltd.	lxvii
				Zinc Development Association	lxvii

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Educational, Legal Notices, Miscellaneous Property, Land and Sales, see lxiv, lxv, lxvi, lxvii.

Specify

FOR "BUILT UP" FELT ROOFING
AND ASPHALTIC

FLOORING

To B.S.S. 1451/1948

ROOFING

To B.S.S. 1162/1944 & 988/1941

TANKING

To B.S.S. 1418/1947 & 1097/1943

DAMP COURSE WORK

To B.S.S. 1418/1947 & 1097/1943



"DURABLE REFLECTIVE ROOFING"
is a scientific mastic roofing carrying
a twenty year guarantee and very
moderate in price. May we send you
details?

"KIMBERLEY HOUSE"

14/17 HOLBORN VIADUCT, E.C.1

TELEPHONE CITY 1456/7, 4553, 6271

Southern Depot: Great Testwood, Totton.
Near SouthamptonNorthern Depot: Gladstone Street,
Huntingdon Road, York

PAGE
xiv
lix
xviii

xv

lxii
lxvi
lxi
lviii
xii
xxi
xxxviii

xli

vii

xxxlii
lxiii
xxxii
xxxiv

lxix
xxxix
xxviii

lxvii
xlv
iv
xliii

li
xxviii
xxxv

viii
xxix
xxxvii
xliii
xi

G

RK

The A

LAMINATED
FINISHES • F
ROOFING,
ASTIC AS

CEL AS

ograms: "C

*The ASPHALTE with a Service
that Excels in every way*

EXCEL ASPHALTE

ON APPROVED
LIST OF ALL
GOVERNMENT
DEPTS

AMINATED FELT ROOFINGS WITH VARIOUS
FINISHES • PITCHMASTIC • TAR PAVING • ASPHALTE
ROOFING, TANKING ETC., IN NATURAL ROCK OR
PLASTIC ASPHALTE COLOURED ASPHALTE ROOFING

EXCEL ASPHALTE CO LTD Broadway Chambers, Hammersmith,
Telegrams: "CESLYM", LONDON. Telephone: RIVerside 6052 (4 lines)

Important

Once again
PARQUET FLOORING
of traditional quality
and craftsmanship is
freely at your disposal

HOLLIS BROS LTD.
FLOORING CONTRACTORS
HULL — LONDON
LEICESTER — BIRMINGHAM

If you intend to specify
Sash Windows, avoid future
Cord troubles by ordering . . .



Sash Cords do not
break — they rot.
Stop the Rot—fit
"EVERLASTO"

"EVERLASTO"

BRITAIN'S SUPER SASH CORD

- ★ Weatherproofed by special process **AT NO EXTRA COST**
- ★ Non Stretch
- ★ Rot Proof
- ★ Long Life
- ★ Durable
- ★ Low Cost



Registered
Trade Mark
No. 519412

Specified by
Housing Directors,
Architects, and
Builders

Weatherproof and Rot Proof

SASH CORD



ENDLESS CORD
STRONG • DURABLE
Ask for details and prices

Also Ideal for Colour
Poles, Aerial Poles, Inside
Clothes Airer Rails, etc.

Made in all lengths
Write for details

JAMES LEVER & SONS LTD
Everlasto Cordage Works • Delph St. Bolton



THE
REMEDY FOR
INADEQUATE
HOT WATER SYSTEMS
AND CHILLY KITCHENS



Designed in
accordance with
B.S.S. No. 758.

Available in 7 capacities
from 21,000 to 80,000 B.T.U's.

Approved by Fuel Efficiency
Dept. of Ministry of
Fuel and Power.

Robert Taylor & Co.

(Ironfounders) Ltd.,
Wuirhall Foundry, Larkhall, Strathguthrie
London Office & Showrooms—
46 Victoria Street, S.W.1
Also at Building Centre—9 Conduit Street, W.1

TAYCO

DOMESTIC BOILERS

MILLFRAME

SCAFFOLDING

FOR

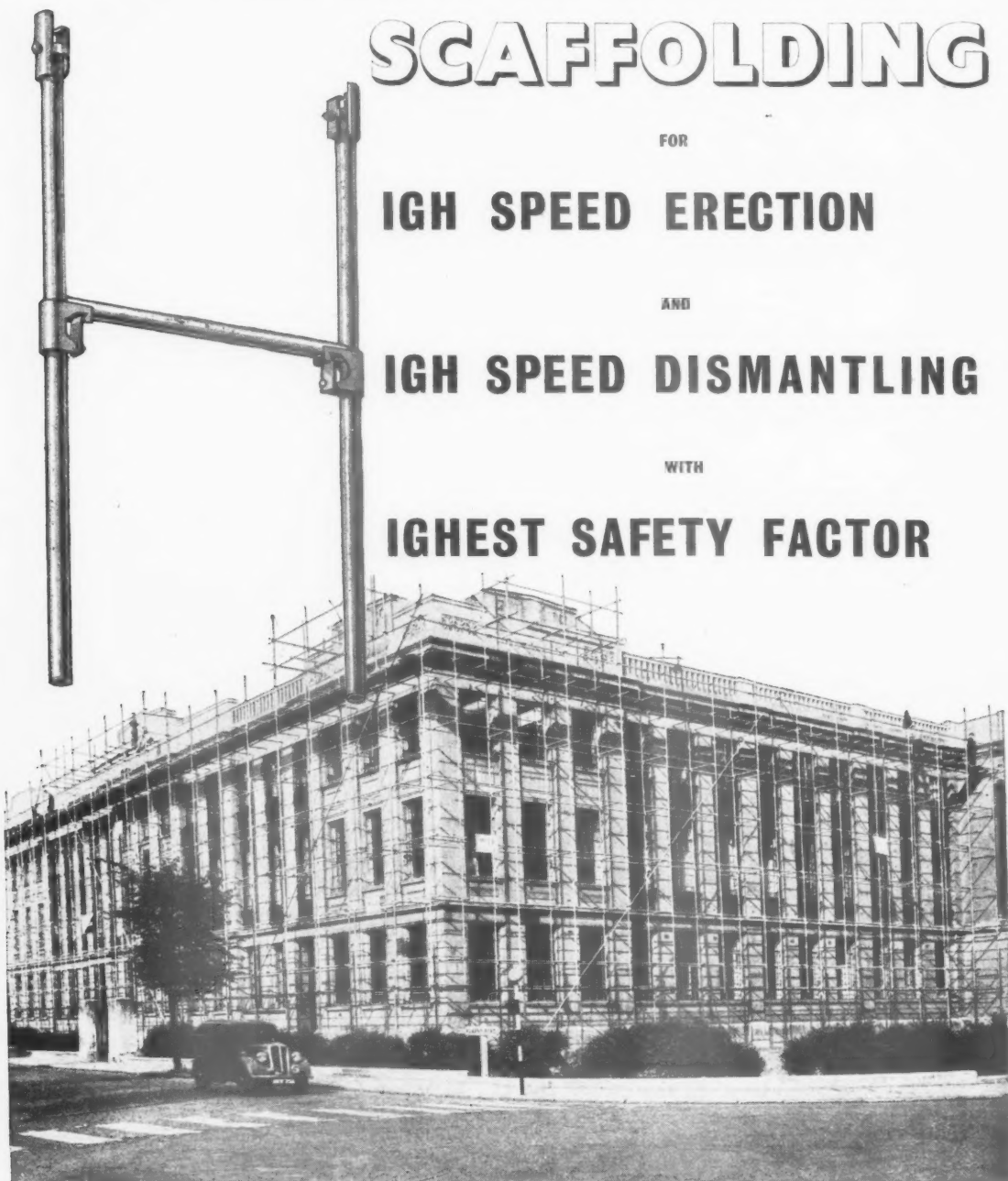
HIGH SPEED ERECTION

AND

HIGH SPEED DISMANTLING

WITH

HIGHEST SAFETY FACTOR



MILLS SCAFFOLD CO., LTD.

BELFAST • BIRMINGHAM • BOURNEMOUTH • BRADFORD • BRISTOL • CANTERBURY • CARDIFF • COVENTRY
CROYDON • DUBLIN • EXETER • GLASGOW • HULL • ILFORD • LIVERPOOL • LOWESTOFT • MANCHESTER
NEWCASTLE • NORWICH • PLYMOUTH • PORTSMOUTH • READING • SOUTHAMPTON • SWANSEA • YARMOUTH

MILLS SCAFFOLD CO. LTD., Head Office and Depot : TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6. Tel.: RIVerside 5026/9

