

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

No. 3082]

[Vol. 119

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.

★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig 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. 49, Cadogan Square,	Sloane 1601/3158
IIBD	Incorporated Institute of British Decorators. Drayton House, Gordon Street,	W.C.1. Euston 2450
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. 14, Great James' Street, W.C.2.	Chancery 7718
LIDC	Lead Industries Development Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MARS	Modern Architectural Research Group (English Branch of CIAM). Secretary:	Gontran Goulden, Building Centre, 26, Store Street, W.C.1. Museum 5400
MOA	Ministry of Agriculture and Fisheries. 55, Whitehall, S.W.1.	Whitehall 3400
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent '11
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, Victoria Embankment, W.C.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalt Mine-Owners and Manufacturers Council.	94-98, Petty France, S.W.1. Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 37, Onslow Gardens, S.W.7.	Kensington 8161
NCBMP	National Council of Building Material Producers, 10, Princes St., 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
NHBR	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.	Abbey 4504
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 Street, S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 22A, Queen Anne's Gate, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSI	Royal Sanitary Institute. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House,	Grosvenor Gardens, S.W.1. Victoria 2186
SCR	Society for Cultural Relations with the USSR. 14, Kensington Square, London,	W.8. Western 1571
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
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
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5051
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. Lincoln House, Turl Street, Oxford.	Oxford 47988

MORE AND MORE PEOPLE



ARE USING



BITULACUM

BITULAC LTD.

Collingwood Buildings, Newcastle upon Tyne, 1.

London Office: 219/220 Dashwood House,
Old Broad Street, London, E.C.2.

... the ideal paint for floors and walls of concrete, brick, plaster and stone. Keeps down dust and is attractive and hardwearing. 18 colours, with pleasing gloss finish. Particularly useful for garages, showrooms, kitchens, canteens, etc.

Write for further details and colour card.

CEMENT?

You need
not go
short ... use

How does the scarcity of cement affect you? If you normally use a 3:1 sand-cement mix for BRICKLAYING and RENDERING mortars, you are using cement far more extravagantly than is necessary, thus aggravating a difficult supply situation and contributing to your own frustration.

The secret of the thrifty and efficient use of cement is simply the addition of "PHOMENE" Mortar Plasticizer. By this means a 6:1 mix actually gives better working properties and reduces cracking and crazing.

Lose no time in taking advantage of this new building aid, which makes great savings for you in cement, in time and money—and produces better mortars into the bargain. Try it now!

Packed in sealed quart cans—no waste on site. Each can saves at least four bags of cement or lime. Ask your local Builder's Merchant for sample can, or in case of difficulty send 8s. P.O. to the address below, from where a fully informative folder is also available.



For Bricklaying and Rendering

THE PYRENE COMPANY LTD.,

Cellular Products Division, Great West Road, Brentford, Middx.

Telephone: EALING 3444 (14 lines)

use
g

e
a

h

ring

4 (14 lines)

Stoc

28

Lein

Cha

F.

Noe

L.

A.

C.

Cac

M.

God

F.

T. I.

Har

F.

J. W.

R. I.

M.

L.

Pete

A.

J. E.

F.

Jan

A.

Sir

F.

Art

L.

Chi

F.

Coo

w

P. J.

Rob

A.

P. J.

F.

John

Her

F.

Reg

F.

Sya

A.

Rob

F. J.

L.

A.

E. J.

W.

F.

Wo

A.

**SOME OF THE
ARCHITECTS
WHO HAVE
SPECIFIED
COLT
VENTILATION**

**THERE ARE OVER 5,000
MAJOR INDUSTRIAL ORGANISATIONS
WITH NATURAL VENTILATION
PLANNED BY**

COLT

*Stockford Careless & Ash-
well, F./A.R.I.B.A.*

Louis Erdi, A.I.A.A., A.I.A.S.

*Charles B. Pearson & Son,
F.R.I.B.A.*

Noel Tweddell, A.R.I.B.A.

*L. Hugh Wilson, A.B.E.
A.R.I.B.A., A.M.T.P.I.
Canterbury City Architect*

*Cackett, Burns, Dick &
MacKellar, F./F.R.I.B.A.*

*Godwin, Clist & Greenway,
F./F.R.I.B.A.*

T. E. Llewellyn, L.R.I.B.A.

*Harold W. Moore,
F.R.I.B.A.*

J. W. Spink, F.R.I.B.A.

*R. R. Alexander, A.R.I.B.A.,
M.P.T.I.
Lincoln City Architect*

*Peter F. Burgoine,
A.R.I.B.A.*

*J. Ernest Franck,
F.R.I.B.A.*

*James M. Monro & Son,
A.R.I.B.A.*

*Sir Percy Thomas & Son,
F./A.R.I.B.A.*

*Arthur & Kirkup,
L./L.R.I.B.A.*

*Chippindale & Edmondson,
F.R.I.B.A.*

*Cook, Culling & Illing-
worth, A./L.R.I.B.A.*

P. S. B. Nicolle, L.R.I.B.A.

*Robert Sharp & Son,
A./L.R.I.B.A.*

*P. L. Browne, Son &
Harding, F./F.R.I.B.A.*

John W. Blackhurst, F.I.A.A.

*Henry A. Ellis & Son,
F./L.R.I.B.A.*

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

*Sydney G. Scales,
A.R.I.B.A.*

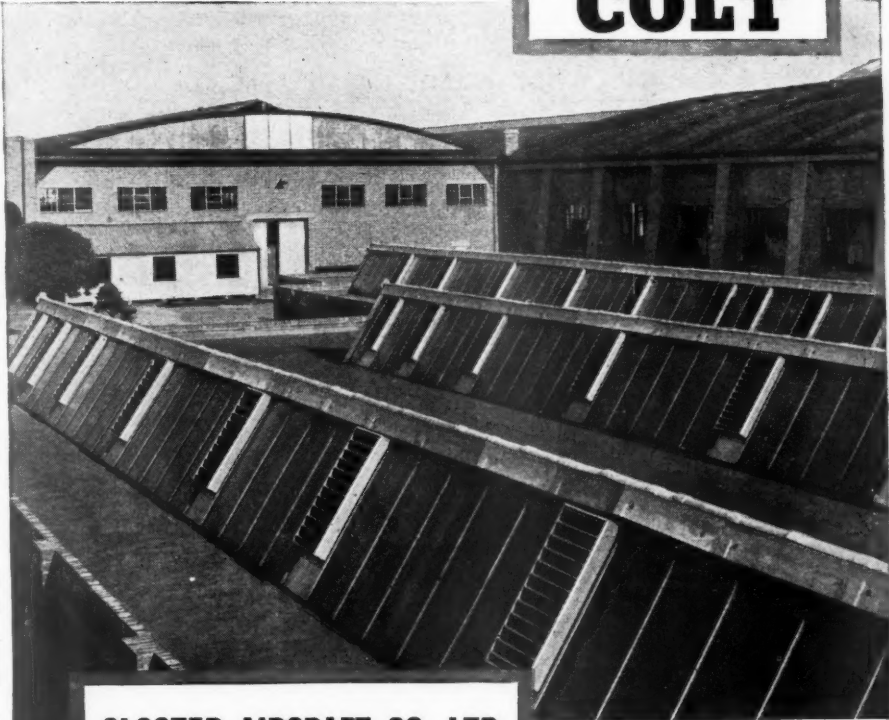
Robert Burke, L.R.I.B.A.

*F. H. Crossley, F.R.I.B.A.
Derbyshire County
Architect*

E. H. Firmin, F.R.I.B.A.

*W. H. Saunders & Son,
F./L.R.I.B.A.*

*Wood, Coldstraw & Yorath,
A./L.R.I.B.A.*



GLOSTER AIRCRAFT CO. LTD.

COLTS first large scale service to the Aircraft Industry was during the war when, with the formation of the Ministry of Aircraft Production and the mobilisation of countless factories for the Aircraft Industry, which had not been designed for this purpose, an immediate need for the prompt supply of ventilation equipment was fulfilled by us. This work developed on such a scale that a considerable proportion of our total wartime production went to the Aircraft Industry.

Since the war COLT Ventilation equipment has been used extensively by Gloster Aircraft Co. Ltd., De Havilland Aircraft Co. Ltd., De Havilland Propellers Ltd., De Havilland Engine Co. Ltd., Vickers-Armstrongs Ltd., Hawker Aircraft Ltd., Brockworth Engineering Co. Ltd., Rolls Royce Ltd., English Electric Co. Ltd., and The Bristol Aeroplane Co. Ltd.

A record of which we are rightly proud.

FREE MANUAL with full specifications of Colt Ventilators is available on request from Dept. A.30 315.

*
Take
advantage
of
experience
gained in
every type
of Industry
— call in
COLT
to help
solve your
ventilation
problems

COLT

THE SPECIALISTS IN PLANNED NATURAL

VENTILATION



COLT VENTILATION LTD • SURBITON • SURREY • ELMbridge 6511-5

Also at: Birmingham, Bradford, Bridgend (Glam.), Bristol, Dublin, Edinburgh, Liverpool, London, Manchester, Newcastle-on-Tyne, Sheffield and Warwick. A.30

NEW WORLD WATER HEATERS

FOR NEW BUILDINGS AND CONVERSIONS

**A complete hot-water
supply system suitable
for fitting under the
draining board**

The universal demand for a complete hot water service which is reasonably priced, easily fitted and economical to use, has turned the attention of Architects and Municipal Authorities to the **NEW WORLD** Gas Storage Systems—

As an example, the **NEW WORLD C.12S**. Circulator, fitted to a lagged 20 gallon cylinder, can be accommodated under the draining board in the kitchen. With the Economy Valve the user has the choice of heating 4 gallons for the sink and wash basin or 20 gallons when a bath is required. The temperature of the water is automatically controlled by the Regulo. If ventilation in the kitchen is adequate no flue is needed. This installation is being extensively used in new houses and flats, and for the modernising and conversion of old property.

A similar type of installation is available for use in an airing cupboard; and when the house contains no ball valve cistern, a combination unit complete with cistern mounted on the cylinder can be supplied. The **NEW WORLD** Circulator can also be used as an auxiliary to an existing solid fuel system and is available in three sizes, the largest of which is suitable for schools and institutions.

NEW WORLD Storage Water Heaters provide hot water at the same temperature, Summer and Winter—they can normally be operated on the existing Gas and Water Services and require a minimum of maintenance.

→ **recommend**



gas storage water heaters

For further information from: RADIATION GROUP SALES LTD,
7 STRATFORD PLACE, LONDON, W.1 Telephone: MAYFAIR 6462



BALLOON HOTEL (The Nottingham Brewery Ltd.)

Architects : W. B. Starr, Hall & Clifford
General Contractors : Hutchinson & Rostance (Builders) Ltd
Plastering Contractor : A. E. Lord

"PARISTONE" PLASTERS

were extensively used in this Nottingham Hotel

The suspended ceilings are built on the "PLAXSTEEL" system, which combines the use of "PLAXSTEEL" Lath with patented suspension and jointing members. The Lath, which is $\frac{3}{8}$ " thick, is plastered with $\frac{3}{8}$ " of "PARISTONE" Plaster, thus providing a substantial ceiling with a smooth finish, good thermal insulation value and high fire resistance (B.S. 476, Grade D, one hour). All "PARISTONE" Plasters are retarded hemi-hydrate gypsum plasters conforming to the requirements of B.S. 1191.



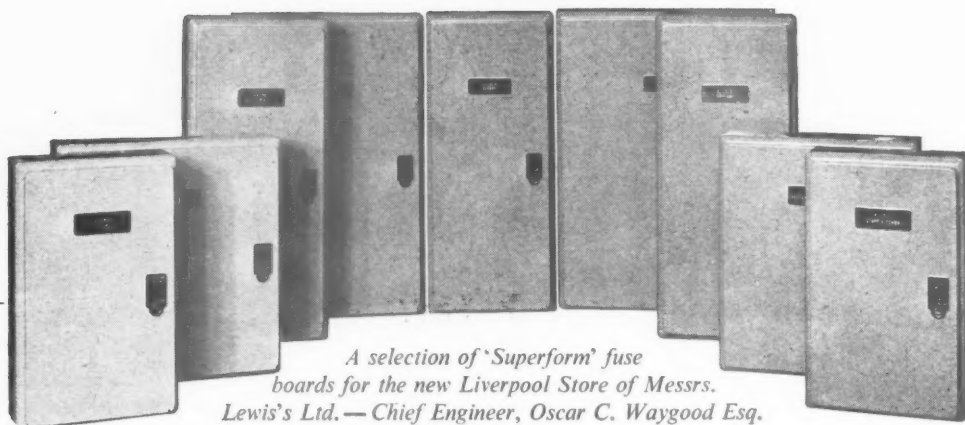
Makers of PARISTONE Browning Plaster (Haird, Unhaird and Metal Lathing Grades), PARISTONE Wall Finishing Plaster, CRETSTONE Concrete Bonding Plaster, GYPTONE Board Finishing Plaster, GYPLITE Vermiculite Insulating Plaster Undercoat and Finishing Grades).

GYPROC PRODUCTS LIMITED

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

'SUPERFORM'

Distribution Fuse Boards



A selection of 'Superform' fuse boards for the new Liverpool Store of Messrs. Lewis's Ltd. — Chief Engineer, Oscar C. Waygood Esq. O.B.E., M.I.E.E.

'ENGLISH ELECTRIC' takes the lead in distribution fuse board design with the introduction of the new 'Superform' range.

Smooth in contour and with no external projections, the 'Superform' fuse board has spring-loaded door fitted with resilient grummet and the door catch (cylinder lock optional) is push-button operated.

This new range is specially suitable for hospitals, stores, hotels, laboratories, schools and similar buildings.

Write today for descriptive publication FG/125 direct to Fusegear Works.

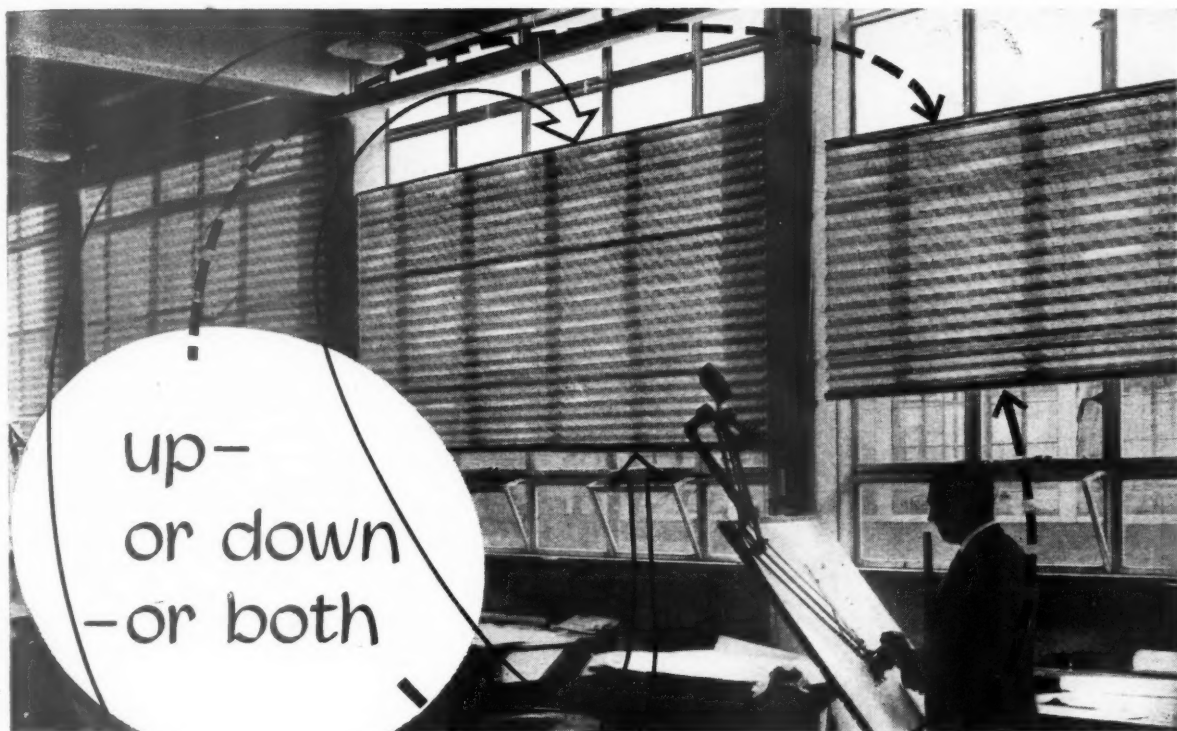
'ENGLISH ELECTRIC'

fusegear

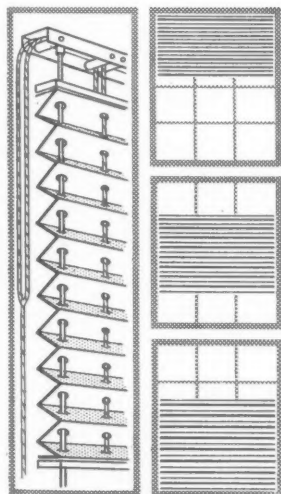
THE ENGLISH ELECTRIC COMPANY LIMITED, QUEENS HOUSE, KINGSWAY, LONDON, W.C.2

Fusegear Works, East Lancashire Road, Liverpool, 10

WORKS: STAFFORD • PRESTON • RUGBY • BRADFORD • LIVERPOOL • ACCRINGTON



up-
or down
-or both



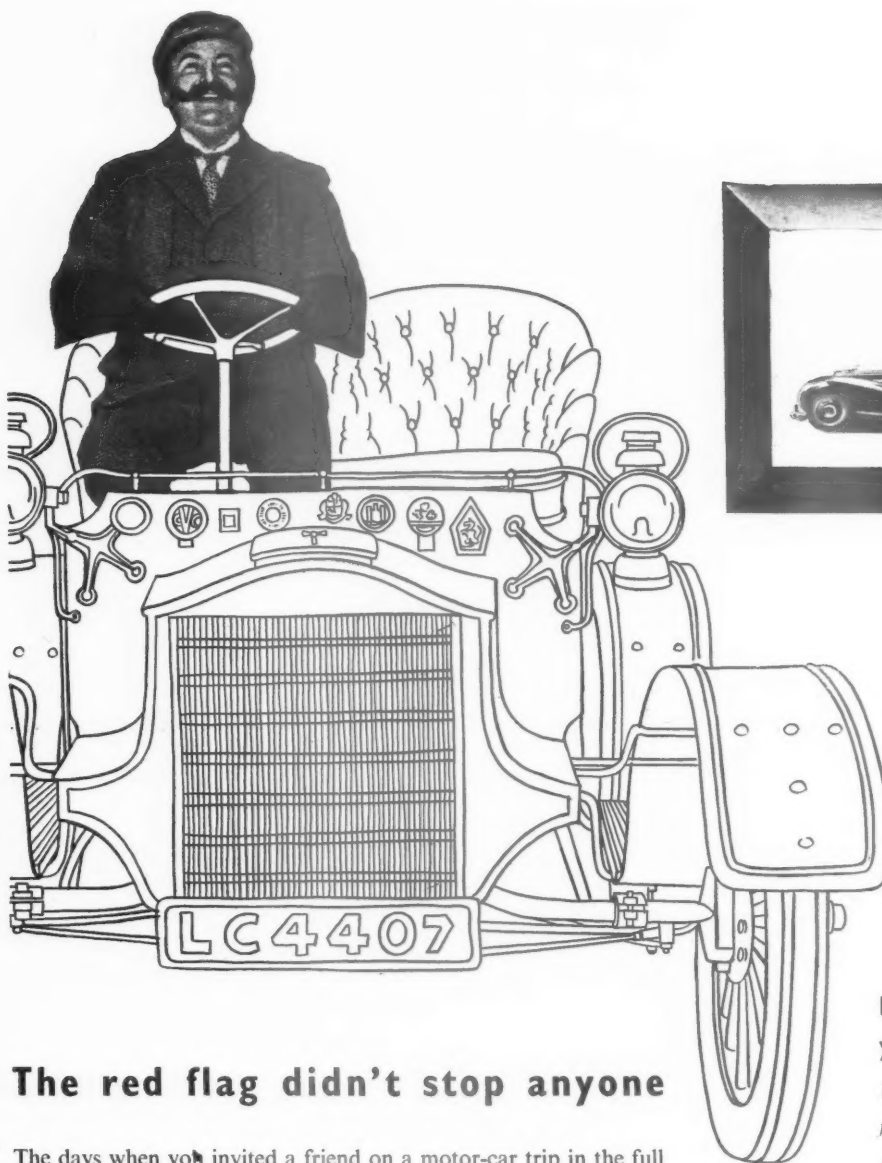
AN "ACCORDO" BLIND can be raised from the bottom and/or lowered from the top, as required. Of continuous, pleated fabric—not slats—it is held rigidly in position by guide rods, which prevent flapping when window is open. When not in use it stows compactly at top of window. Now installed in many of the most important hospitals, schools, public buildings in this country and abroad. Widths up to 15 ft.; in a range of attractive shades. Write for details of "Accordo" Sun Blinds; also of "Accordo" Dark Blinds, specially designed to provide light obscuration for laboratories, operating theatres, etc.

*Simple, positive action, with no springs, catches or moving parts to go wrong, and all metal parts rustless, mean that **no maintenance** is needed. Rot-proof, vermin-proof fabric is **self-dusting**, owing to bellows-action of pleats. Suitable for face-fixing or reveal-fixing (needing depth of only 1½ in.); can be fitted to horizontal lay-lights or sloping roof-lights.*

ACCORDO Blinds

NO SLATS NO SPRINGS NO DUSTING

ACCORDO BLINDS LTD. 845, LONDON ROAD, THORNTON HEATH, SURREY, THO 6242-3-4
(A subsidiary of Hills (West Bromwich) Ltd.)



The red flag didn't stop anyone

The days when you invited a friend on a motor-car trip in the full knowledge that his function would be to run in front and wave the red flag, are over. Nowadays passengers have other worries—"Your eye-sight isn't as good as it was" and "hey, mind that pram" and "Let's hope the lights don't change because the brakes aren't too good"! *That's Progress!*

At Finch we measure progress with a different yardstick; more people to employ; more queries from more customers; more stocks to keep turning over; more people who make it a rule always to see Finch first.

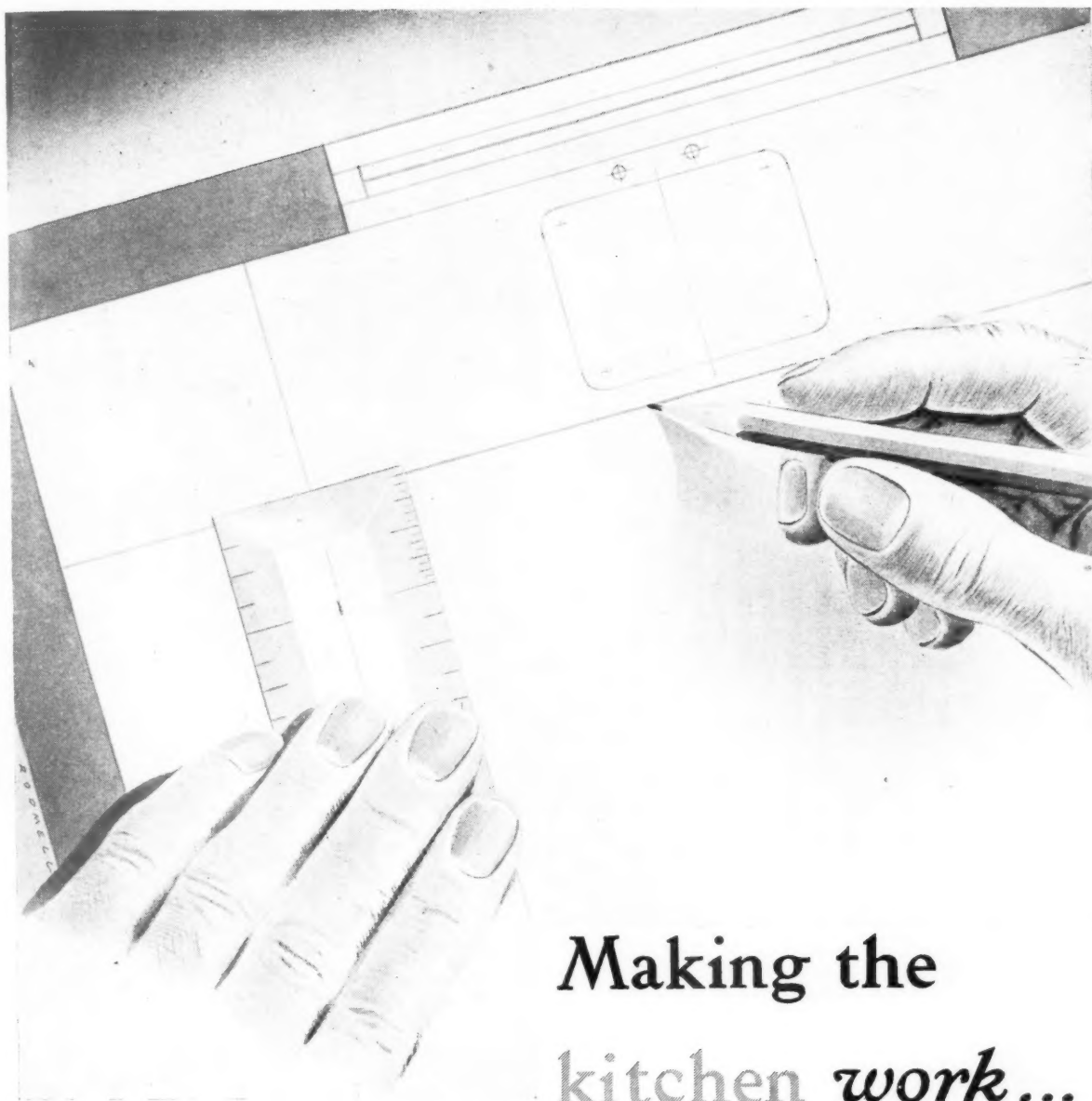


Fifteen specialists at your call

Whatever your problem, see Finch first. There is a specialist Division to cover every need.

*Sanitary appliances and Plumbers
Brasswork · Fireplaces · Stoves
and Ranges · Ironmongery · Tubes
and Fittings · Kitchen Equipment
Soil and Drainage Goods · Oils,
Paints and Wallpapers · Tools and
Hardware · Heavy Building Mater-
ials · Roof Tiling and Slating
Wall and Floor Tiling · Glazing
and Leaded lights · Constructional
Engineering · Architectural Build-
ing and Equipment.*

B. FINCH & CO. LTD. HEAD OFFICE AND WORKS: BELVEDERE WORKS, BARKINGSIDE, ESSEX. VALENTINE 8888 (30 lines)
SHOWROOMS: FINCH CORNER, 679/687 EASTERN AVE., ILFORD, ESSEX



Making the kitchen work...

NO matter how good your plan is, a kitchen will only work as well as the equipment you specify.

A client may curse his kitchen (and perhaps unjustly its planner) when the drawers of the metal cabinet refuse to run, when the steel dents, when the sink doesn't drain away, when the enamel peels off.

You can spare your client and his wife these exasperations by specifying Paul equipment. Its stainless steel is the finest produced in Britain. Paul sinks are sound deadened, and they are calculated to give the correct slope to the drainers and perfect draining of the bowl to the outlet.

Paul cabinets are in rustless aluminium which is specially treated before being stoved with an enamel so hard that

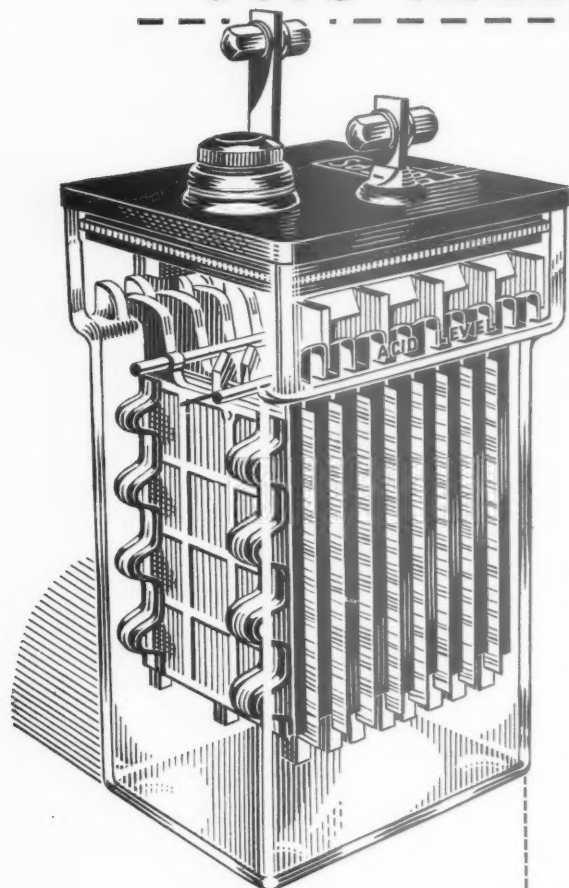
it never flakes off. The drawers glide on stainless steel slides—there are no wheels or rollers.

Architects will find it useful to have all the Paul features and dimensions at their finger tips, and we shall be most happy to send you working data for your files.

PAUL *Kitchens*

W. H. PAUL LTD., BREASTON, DERBY
London Showrooms : 7 Royal Arcade, Old Bond Street, W.1

The Ideal Cell for



The P. & G. Closed Top Cell has a lid of moulded Dagenite composition with a rubber joint ring, and rubber gaskets between the terminal pillars and lid, to render the lid acid-tight

P. & G. also supply self-contained battery and charger cubicles for fire alarms, telephones and electric clocks.

Emergency Lighting

—exclusive to the P&G system

Every link in the chain of an emergency lighting system must be completely reliable—not least the source of electricity supply: THE BATTERY.

In the P. & G. Closed Top Cell this reliability rests upon the longest experience in battery manufacture. A design has been evolved which gives all the advantages of a sealed cell—yet there is a lid which can be removed with the minimum of trouble. This is the ideal battery cell for emergency lighting.

3-POINT SERVICE

The P. & G. emergency lighting system is instantaneous and automatic in operation and is covered by the P. & G. 3-Point Service comprising:

- Technical advice and specification
- Complete equipment
- Regular inspection and report

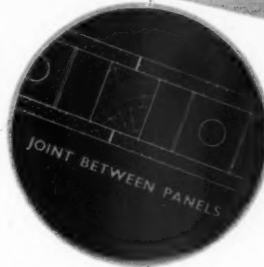
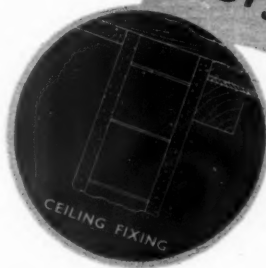
ENQUIRIES TO:

Pritchett & Gold and E.P.S. Co. Ltd

BATTERY MAKERS SINCE 1882

137 VICTORIA STREET • LONDON • SW1

The Latest Development in Dry Construction Technique



PERMANENT - FIRE RESISTING - ECONOMICAL
MINIMUM OF SITE LABOUR

'Paramount' dry Partition

'Paramount' Dry Partition meets the need for strong and permanent interior partitioning. It is light in weight and very quickly erected. It is low in cost and economical in use—offcuts are usable.

It has good sound and thermal insulation properties and, being made of Gypsum, it is highly fire resisting.

Standard Panel dimensions are:

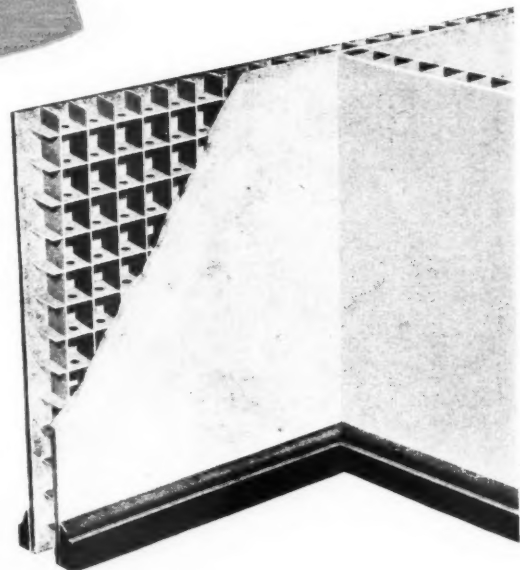
Height	Width	Thickness
8' 0" x 3' 0"	2 1/4"	or 2 1/2"
7' 6" x 3' 0"	2 1/4"	or 2 1/2"

Other lengths from 6' to 12' can be made to order and also a 4' width.

Other BPB products include:—

'Thistle' Plaster Base Board; 'Thistle' Plaster Lath; 'Thistle' Prepared Finish Plaster; 'Thistle' Acoustic Plaster; 'Paramount' Wood Grain Finish Plaster Wall Board; 'Paramount' 1/2" Partition Standard; 'Paramount' 2" Solid Partition; 'Paramount' Coved Moulding; 'Parastrip' Plaster Board Furring; 'Paraclip' System of Suspended Ceilings and Wall Linings; 'Pharaoh' Gypsum Browning and Finish Plasters.

Full details covering any of these proved Building products can be obtained from the Sales Offices (addresses below).



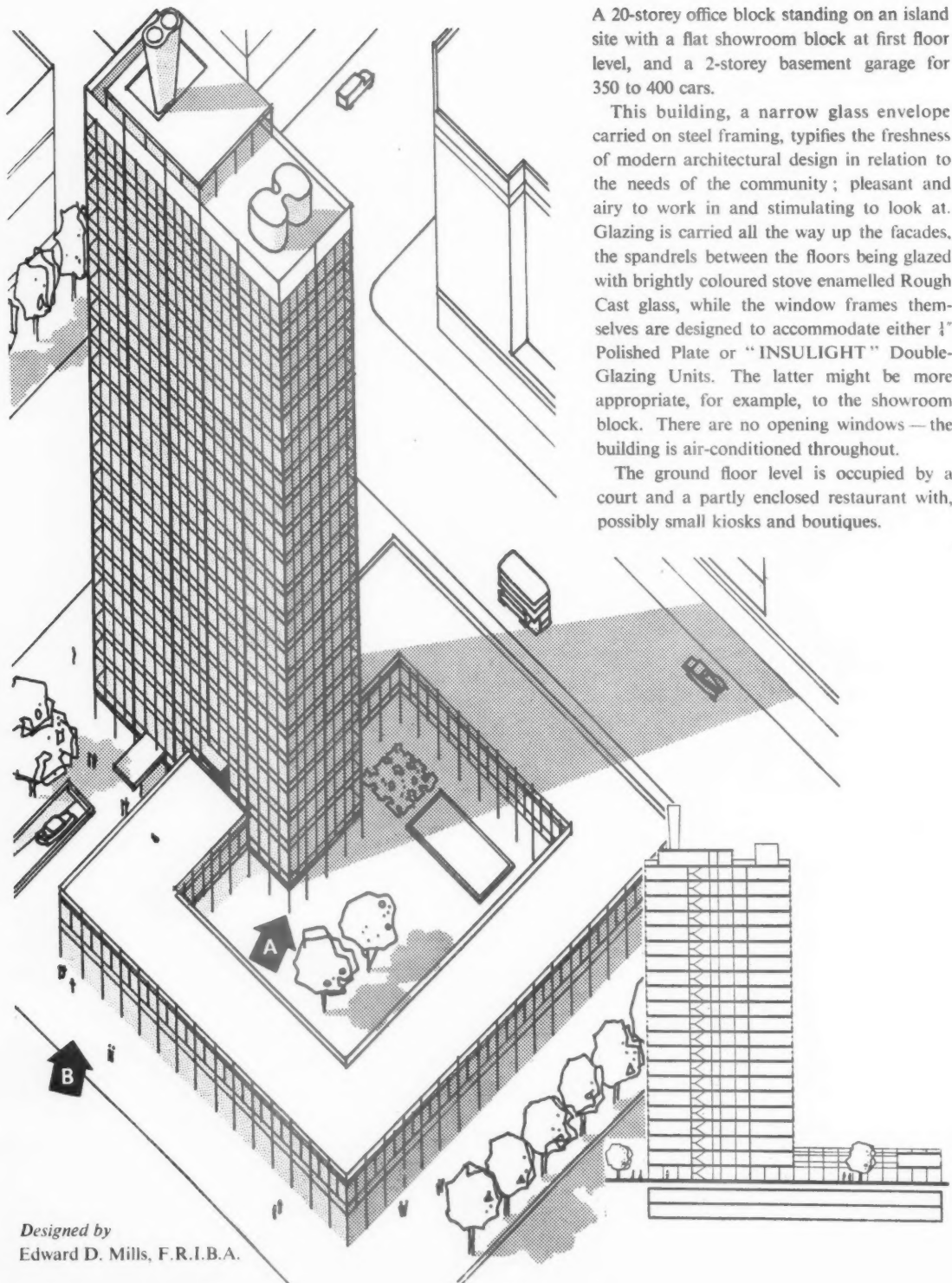
THE BRITISH PLASTER BOARD LIMITED

SOUTHERN SALES OFFICE
MORRIS HOUSE,
1-5 JERMYN STREET, LONDON, S.W.1.
Telephone: Whitehall 9821



NORTHERN SALES OFFICE
BIRKENHEAD ROAD
WALLASEY, CHESHIRE
Telephone: Birkenhead 4411

NEW DESIGNS FOR WORKING No. 2 . . .



A 20-storey office block standing on an island site with a flat showroom block at first floor level, and a 2-storey basement garage for 350 to 400 cars.

This building, a narrow glass envelope carried on steel framing, typifies the freshness of modern architectural design in relation to the needs of the community; pleasant and airy to work in and stimulating to look at. Glazing is carried all the way up the facades, the spandrels between the floors being glazed with brightly coloured stove enamelled Rough Cast glass, while the window frames themselves are designed to accommodate either $\frac{1}{2}$ " Polished Plate or "INSULIGHT" Double-Glazing Units. The latter might be more appropriate, for example, to the showroom block. There are no opening windows — the building is air-conditioned throughout.

The ground floor level is occupied by a court and a partly enclosed restaurant with, possibly small kiosks and boutiques.

Designed by
Edward D. Mills, F.R.I.B.A.

..... OFFICE PREMISES



1
Windows glazed with $\frac{1}{4}$ "
Polished Plate Glass or
"INSULIGHT" Double-
Glazing Units, according to
requirements.

2
Spandrels glazed with stove
enamelled coloured Rough
Cast glass.

3
 $\frac{1}{4}$ " Georgian Wired Cast
glass to balustrade.

B



1
 $\frac{1}{4}$ " Georgian Wired Cast glass
to balustrade.

2
"INSULIGHT" Double-
Glazing Units to showroom
windows and transoms.

3
Stove enamelled coloured
Rough Cast glass or
"VITROLITE".

4
 $\frac{1}{4}$ " Georgian Polished Wired
or "ARMOURPLATE" glass
panels screening the restaurant
area.

PILKINGTON BROTHERS LIMITED

St. Helens, Lancs. Tel: St. Helens 4001 Selwyn House, Cleveland Row, St. James's, London, S.W.1 Tel: Whitehall 5672-6

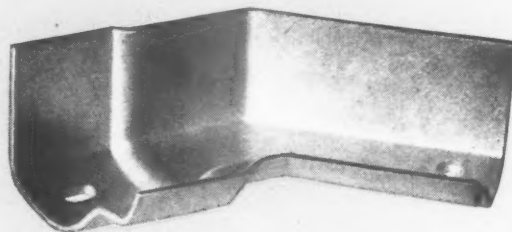
Supplies are available through the usual trade channels.
"ARMOURPLATE" and "VITROLITE" are the registered trade marks and "INSULIGHT" the British registered trade mark of
PILKINGTON BROTHERS LIMITED





The
brutal
force
of an
icicle

The forming of ice and the contraction
of metal in cold weather, can cause
rainwater pipes and fittings to burst. The strength
and ductility of 'Hiduminium' Rainwater
goods will resist this force of nature
to the utmost degree, and they are light
to handle and easy to fix.



Hiduminium

Regd. Trade Mark

Rainwater

Goods

**HIGH
MANUFACTURED BY DUTY LTD.
ALLOYS**

SLOUGH · BUCKS · TEL : SLOUGH 23901.

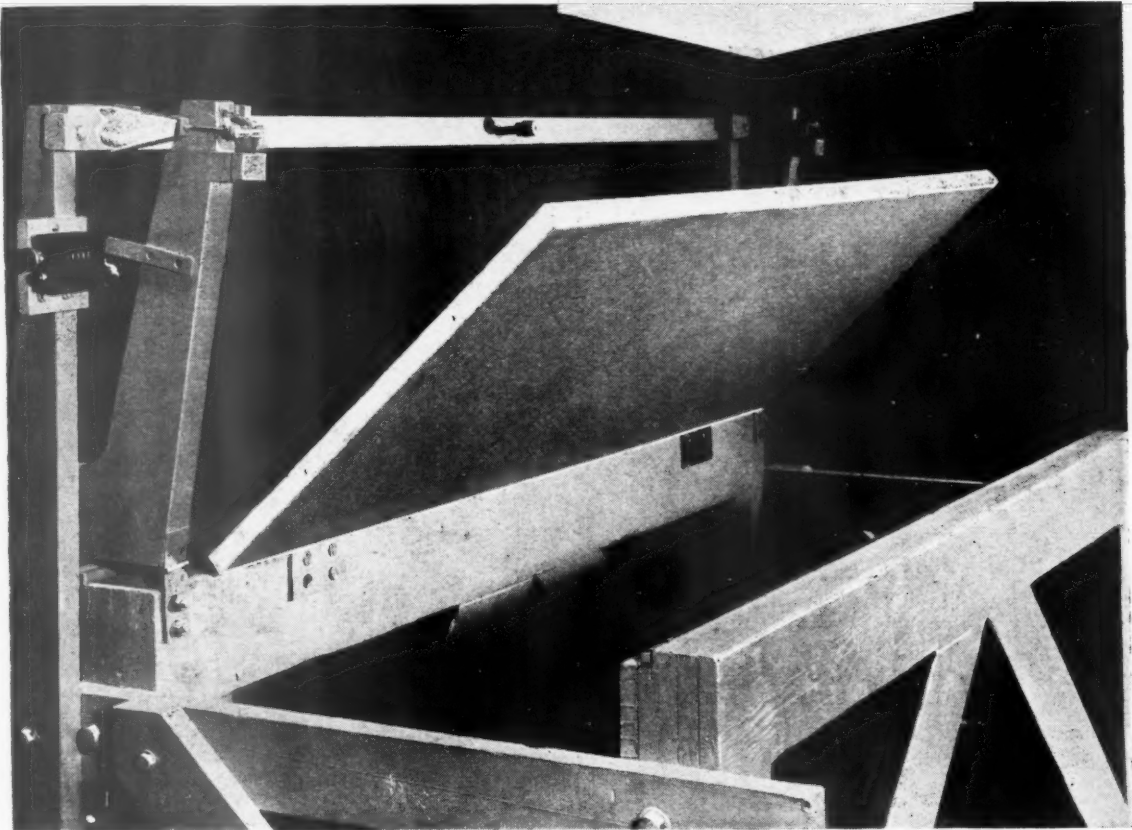
**OBTAINABLE FROM BUILDERS'
MERCHANTS, WHOLESALE IRONMONGERS, ETC.**



.....
THIS DOOR WAS SLAMMED

41,455

TIMES
.....



There is nothing special about the Gliksten flush door shown here on the testing machine at our factory—except that it has been heartily slammed 41,455 times and still shows no sign of breakage, or deterioration. The door was selected at random for this routine test. This is conclusive proof of the toughness, strength and durability of the stressed skin principle on which Gliksten flush doors are constructed.

Rigid, capable of withstanding immense stress and strain yet relatively light in weight, Gliksten flush doors are the finest obtainable. They can be delivered in site already fitted with lock or latch. Rigorous inspection throughout all stages of production guarantees a flush door for exterior or interior use that builders can safely fit and forget. Write or telephone us for further details.



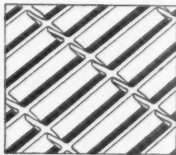
CHEAPEST IN THE LONG RUN—THE BEST

GLIKSTEN DOORS LIMITED, Carpenters Road, London, E.15. Telephone: AMHerst 4444.
Liverpool Office: 87, Lord Street, Telephone: Central 3441

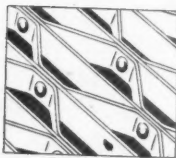


FLOORING SYSTEMS

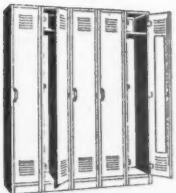
Put the factory on a sound footing



FLOWFORGE



* FLOWMESH



Open steel flooring that provides maximum load-carrying capacity, with minimum weight.

The ideal solution to the problem of providing light-passing, ventilating, non-slip floors.

Four standard types provide a choice to meet any requirement . . . in strength, in lightness and in price.

All types are obtainable as stair and ladder treads, fitted with standard end plates.

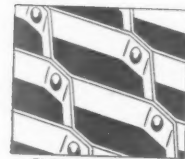
Can be cut to the most intricate outlines, to fit round machines, form operating platforms, etc.

** These two types are also available in Aluminium Alloy—non-corrodible and non-sparking*

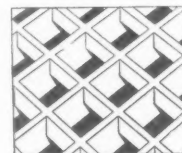
Please Send For Fuller Details

FISHLOW LEADS IN STEEL FACTORY EQUIPMENT

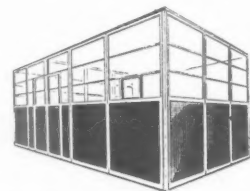
FLOWSCREEN Partitioning; FLOWDOOR Clothes Lockers; FLOWSTOR Mobile Storage Systems; FISHLOW Cycle Racks; FISHLOW Shelving; FLOWSTOCK Storage Units; FLOWLINE and FLOWLINK Conveyors; FLOWCLAMP Portable Conveyors; FLOWSTACK Pallets; FLOWCLAMP Storage Rack System; FLOWPAN Rack Storage; FLOW-RACK Box Storage, etc.



* FLOWMESH LIGHT



FLOWGRID



FISHER & LUDLOW LTD.
MATERIAL HANDLING DIVISION
 Bordesley Works, Birmingham, 12. Tel: VIC 2371

London Office: 46, Baker Street, W.1. Tel.: WELbeck 5402.

Manchester Office: Clifton Lodge, Park Crescent, Victoria Park, Manchester, 14. Tel.: Rusholme 6307.

Liverpool Office: 604, Tower Building, Water Street, Liverpool 2. Tel.: CENTral 1170.

Cardiff Office: 10 Dumfries Place. Tel.: Cardiff 29045.

Glasgow Office: 1, Clifton Street, Glasgow C.2. Tel.: Douglas 4297. Also at Newcastle-on-Tyne, Belfast and Dublin.

CONDITIONED COMFORT FOR INDUSTRY



BRIGHTRAD
Radiant Panels



The BRIGHTRAD Panel consists of a sinuous steam coil, with steel web plates continuously welded between the coils, the whole forming a ribbed panel.

Write for our Booklet :—Heating and Air Treatment in Industry.

Controlled comfortable conditions are assured in industrial buildings by BRIGHTRAD Radiant Panels. Designed for surface temperatures of 200°—250°F. these panels give a pleasant working environment. They make for economy in maintenance and running costs.



THE BRIGHTSIDE FOUNDRY & ENGINEERING CO. LTD. SHEFFIELD

BELFAST • BIRMINGHAM • BRADFORD • BRISTOL • EDINBURGH • GLASGOW • LIVERPOOL • LONDON • MANCHESTER • NEWCASTLE • PORTSMOUTH

BP.36

Technical Service . . .

Every architect and builder endeavours to provide buildings that will give permanent satisfaction to his clients and add to his professional reputation.

To do this, however, it is essential that the specified building materials are correctly and economically installed.

Celotex, the world's most widely used insulating building board, is backed by its *Technical Advisory Service* which is freely available from the planning stage until the contract is finished.

Senior technical executives advise architects on the use of Celotex insulation products, arrange for them to be delivered to the site at the required time, and make periodic visits while building is in progress to ensure that they are being applied in the correct and most efficient way.

Through this Service, the users of Celotex cane fibre insulation boards are assured of trouble-free construction and the permanent, dependable performance that is the hall-mark of these British-made products.

Further details of the Celotex Site Service will be gladly sent on request.

CELOTEX

CANE FIBRE INSULATING BUILDING BOARDS

Made in Great Britain from all-British materials

CELOTEX LIMITED, NORTH CIRCULAR ROAD, STONEBRIDGE PARK, LONDON, N.W.10

Telephone: ELGar 5717



Presweld

REGD TRADE MARK

CONSTRUCTION FOR SCHOOLS

*Lewisham Prendergast County Complement Girl's School.
Architect to the London County Council :
Dr. J. L. Martin, M.A., PH.D., F.R.I.B.A.
School Architect : Sidney Howard, L.R.I.B.A.
Architect in Charge :
G. F. Horsfall, M.B.E., B.ARCH., A.R.I.B.A.*

SEE OUR
PERMANENT
DISPLAY



The Lewisham Prendergast School, as featured in "The Architects' Journal" of February 4th, was constructed of Hills Presweld Structural Components—as used extensively throughout the country for Schools, Factories and Light Industrial Buildings.

HILLS (WEST BROMWICH) LIMITED

Albion Road, West Bromwich, Staffs. Tel: WEST Bromwich 1025 (7 lines). London: 125 High Holborn, W.C.1. Tel: Holborn 8005/6
Branches at Birmingham, Bristol, Leeds, Manchester, Newcastle-on-Tyne, Glasgow and Belfast.



A Functional Ceiling

*Copland S.M. School, Wembley, Middx.
County Architect : C. G. Stillman, F.R.I.B.A.*



A SUSPENDED ceiling can do much to make a building more suitable for its purpose. It may be designed to raise the efficiency and reduce the cost of heating, exclude dust and draughts, improve acoustics, aid distribution of artificial light, alter proportions or provide an effective feature in a decorative scheme. When you are seeking one or a combination of these advantages, we shall be pleased to place our specialist services at your disposal.

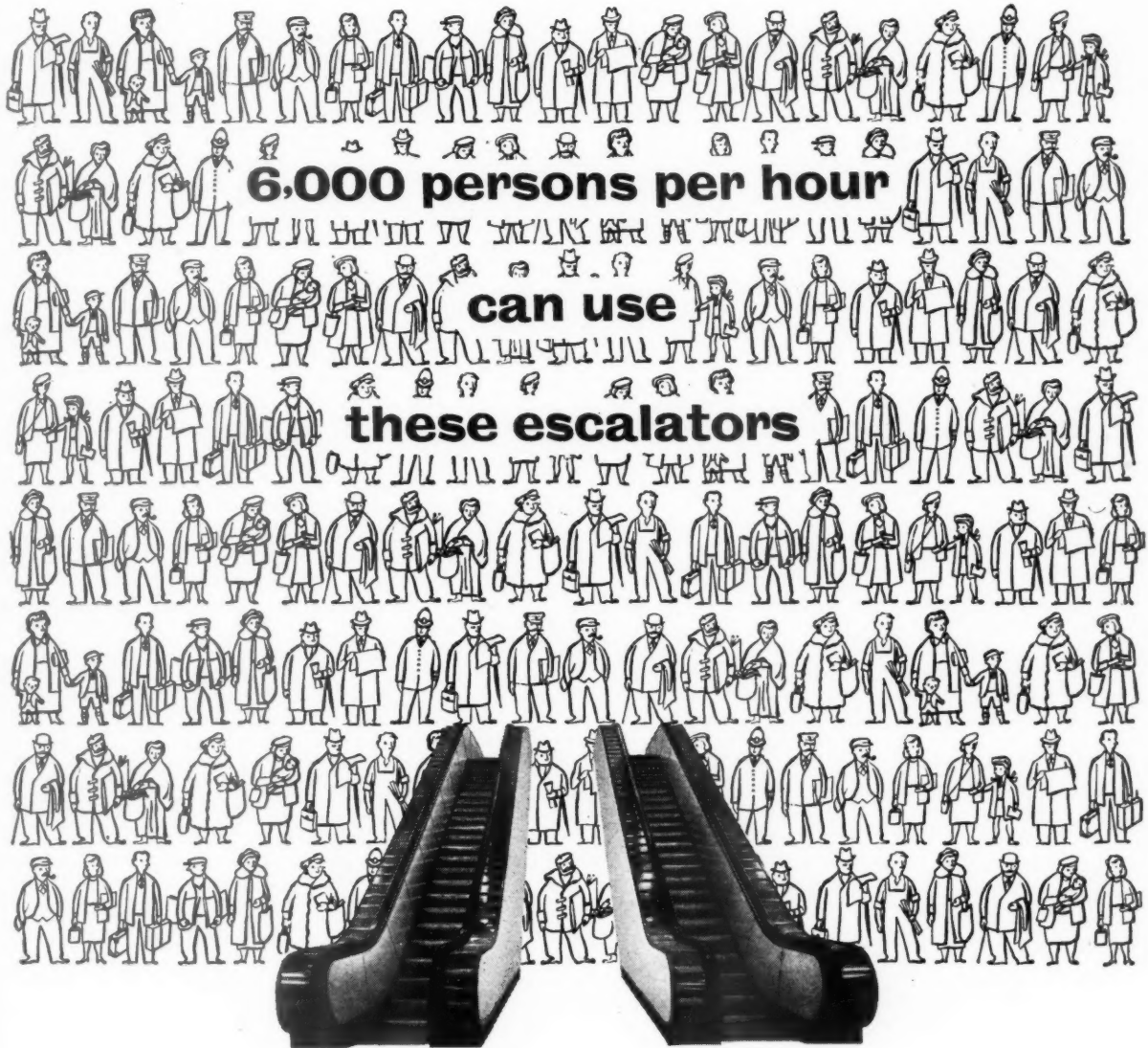
ANDERSON CONSTRUCTION Co. LTD

● PARTITIONING ● THERMAL INSULATION ● SOUND DEADENING

CLIFTON HOUSE, EUSTON ROAD, LONDON, N.W.1

EUSTon 7465

Contracting Agents in BIRMINGHAM, BRIGHTON, BRISTOL, CARDIFF, CROYDON, FOLKESTONE,
GLASGOW, LEEDS, MAIDSTONE, MANCHESTER, ROMFORD, SOUTHAMPTON.



J. & E. Hall have recently completed and installed six of the latest type escalators for operation in the new stores of Messrs. John Walsh Ltd. of Sheffield. These escalators give continuous, silent, rapid transportation of shoppers from one department to another, thereby alleviating congestion especially on the ground floor.

Many modern improvements and innovations are incorporated in the design of these escalators, for instance, the treads are of the very latest closed

slat design which completely eliminates the possibility of passengers' heels or umbrellas getting caught up, a common occurrence on the old wide slat type of escalator.

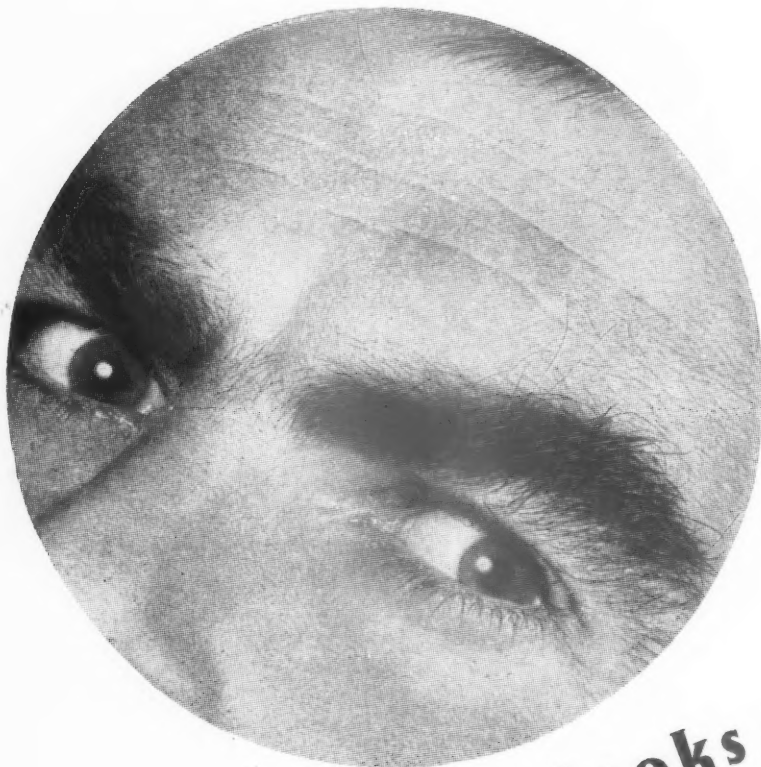
The escalators are attractively finished in pink "Wareite" panelling with polished mahogany mouldings and decking panels. The panelling between the escalators is of sycamore with mahogany cross banding.

Architects: Messrs. J. W. Beaumont & Son, F.R.I.B.A.

J. & E. HALL

LIMITED

DARTFORD • KENT



looks can kill!

The best laid decorating schemes will go awry, if the materials you use fail to substantiate your plans and promises. And the disapproving looks of one's customers bode ill for future business. This unhappy possibility is always guarded against by the alert decorator. He specifies CERRUX paints to be sure!



Reliability is invariably a characteristic of CELLON products and the CERRUX Decorative Finishes range is no exception. Whether for housing, factories, schools, hospitals or public buildings, by specifying CERRUX you can rest assured that your work will not only stand looking at — but will remain that way for a long, long time.

CERRUX DECORATIVE PAINTS



CELLON LIMITED · KINGSTON-ON-THAMES · PHONE: KINGSTON 1234
CVS-792



*We've been keeping him
pretty busy lately...*

We've sent out through the post a few thousand copies of a modest book on "Asbestolux" board. If yours hasn't reached you yet, get your secretary to write to-day for your copy.

This book isn't in any way a piece of pretentious print. It is pure fact from beginning to end, without frills or trimmings—test data on the incombustibility and insulation values of "Asbestolux"—facts about its resistance to acids, steam, humidity, rot, fungi, insects—and proof that "Asbestolux" won't swell or twist and is easy to work.

The address your secretary wants is : The Cape Asbestos Company Limited, 114 Park Street, London, W.1. Ask for Booklet No. 521.

and the name of the board is, of course,

ASBESTOLUX





*You're looking
at today's
(AND TOMORROW'S)*

BEST DOOR VALUE!

- ★ It's faced with balanced three-ply of a quality equal to that used on many higher priced doors.
- ★ It's got a sturdy well designed core of ample proportions. Framing is constructed from kiln-dried timber.
- ★ It's precision made, with a good smooth finish.
- ★ Its efficiency and reliability have been proved under the severest tests.
- ★ It's guaranteed for three years.
- ★ It's available for prompt delivery.

SUPPLIED IN TWO TYPES

'A' for painting ★ 'B' for staining and varnishing

Why not send for further details and prices Now?

HILLS DURADOR

THE DEPENDABLE LOW-PRICED
Plywood Faced INTERIOR FLUSH DOOR
WITH THE UNIQUE KREIBORD CORE.

F. HILLS & SONS LIMITED, NORTON ROAD, STOCKTON-ON-TEES

Telephone : 67141

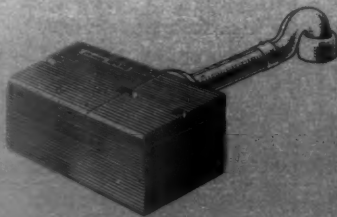
Oil is the modern heating fuel

Nu-way AUTOMATIC OIL BURNERS

With oil comparing favourably with gas and electricity and, when the cost of labour is included, often with solid fuel, Nu-way proudly present their range of oil-burners

Banish boiler stoking with the

**FOR
THE
HOME**



Nu-way **HOME-FIRE**

for small independent boilers burning gas oil. Conversions (including tank holding up to three months' supply) approximately £95.

The Nu-way XL for the larger private house. Conversions from £200.



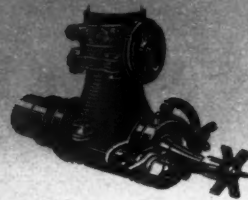
**FOR SCHOOLS
OFFICES
WORKS, etc.**



The Nu-way XH Automatic Burner designed to burn the cheaper grades of oil of a viscosity not exceeding 225 seconds Redwood No. 1 at 100° F. Outstandingly high combustion efficiencies.

**FOR STEAM
RAISING &
LARGE
BOILERS**

Rotavac Burners use the cheapest grade of heavy oil. These operate on the efficient high/low principle, only cutting out when the pressure limit is reached on low flame. This avoids thermal shock as maximum firing rate is unobtainable until boiler is thoroughly warmed. Renowned for ease in maintenance—no troublesome fine jets or filters; no high oil pressure troubles.



150 dealers appointed in the United Kingdom to give prompt and efficient service in all areas.

Technical literature available on request

Nu-way

THE LEADING NAME IN OIL-FIRING

NU-WAY HEATING PLANTS LTD., DROITWICH, Worcestershire

*Don't "make do"
— You can NOW have the BEST*

TOUGHNESS

SISALKRAFT is very tough and durable, being of 6-ply construction, doubly reinforced by two crossed layers of Sisal fibres. The fibres are totally enclosed by two layers of bitumen, which in turn are faced with tough Kraft paper. The product of this combination is a building paper of exceptional merit.

VERSATILITY

SISALKRAFT Reinforced Waterproof Building Paper (in appropriate grades) is especially suitable for marking under tiles and slates, as moisture barrier and air-stop in walls, for making floors damp-proof and airtight, for protecting floors and floor coverings, for temporary partitioning, for bond-breaking, and a host of other practical building uses.

MANAGEABILITY

SISALKRAFT is light in weight, pliable, clean and easy to handle and is free from bitumen on both sides. It can be decorated if desired though for temporary work its pleasing natural appearance (light buff colour) seldom calls for treatment. Furthermore, its resistance to bursting, tearing and cracking during application represents the greatest economy in applied cost.

Use the BEST—it is essential

SISALKRAFT
TRADE MARK

Sole Distributors for British Sisalkraft Ltd.

J.H. SANKEY & SON, LTD.

ALDWYCH HOUSE, ALDWYCH, LONDON, W.C.2.

NOW AVAILABLE FROM STOCK

Tel: HOLborn 6949.
Grams: Brickwork, Estrand, London.



STANDARD METAL WINDOWS

This illustration shows HENRY DICKENS COURT, West Kensington
(Architects: *Armstrong & MacManus F.R.I.B.A.*), which has been fitted with CRITTALL
STANDARD METAL WINDOWS POSITIVELY RUST-PROOFED by the hot-dip galvanizing process.

Although in the past sixty years the Crittall business has grown so greatly, the making of metal windows is still very much a family concern—in both senses of the word. For the growth of the organisation can be traced to a simple determination and a constant concern that, in every detail, the name Crittall shall continue to represent the best in design, manufacturing technique, finish and service.

CRITTALL

THE CRITTALL MANUFACTURING CO. LTD • BRAINTREE • ESSEX

Factories and Depots throughout the country

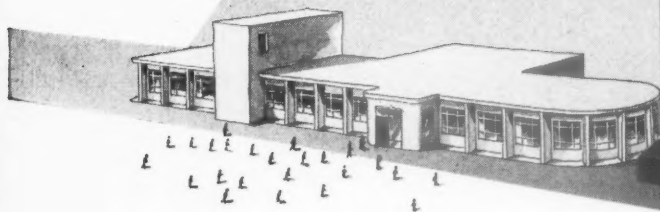
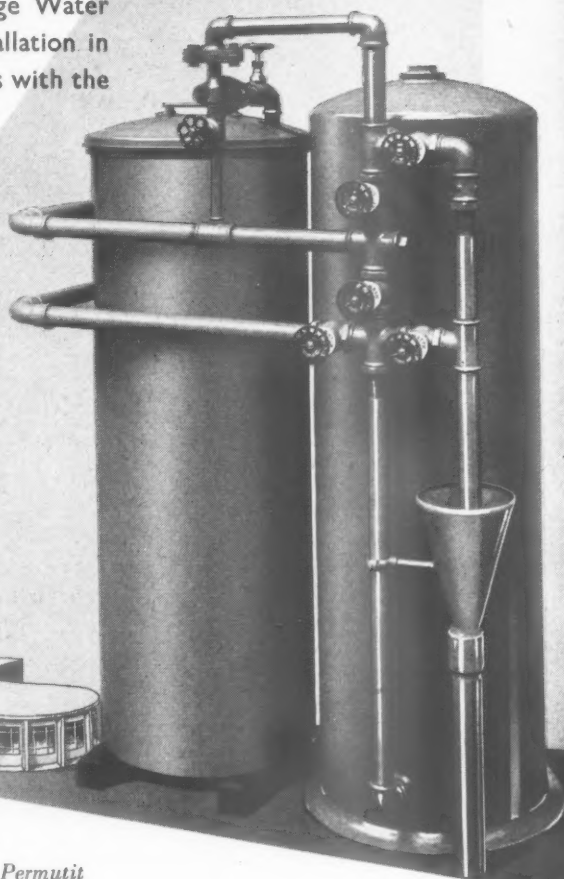
INCLUDE THIS

PERMUTIT *in your Plans..*

**for Schools, Canteens, Self-service Laundries,
Old Persons' Homes and buildings of similar size.**

The Permutit type I.D.G. Base Exchange Water Softener is particularly suitable for installation in many smaller buildings. Its output varies with the hardness of the raw water, but is usually sufficient for a daily demand of up to 5,000 gallons. Maintenance is simple and can be undertaken by unskilled staff.

This Permutit Plant will effect substantial running economies in any building where water is used for heating, washing or domestic services. It prevents the formation of scale in pipes and valves; economises soap, soda and detergents; and simplifies cleaning operations and dishwashing.



If you would like more information regarding the Permutit type I.D.G. Water Softener, please write for a copy of Technical Publication No. 64. We shall also be pleased to send details of softeners suitable for large buildings.

The PERMUTIT Co. Ltd., Dept. Z.X., 187, Permutit House, Gunnersbury Avenue, London, W.4.
Telephone: CHLswick 6431



Store for John Walsh Ltd.
Architect:
J. W. Beaumont & Sons, F/R.I.B.A.

General Contractor: George Longden & Son, Ltd. Plastering Contractor: Hodkin & Jones, Ltd.

... ANOTHER COLTERRO CONTRACT

Colterro has also been specified as the plaster base by many other Architects of whom the following are representative:—

Armstrong and MacManus, F/R.I.B.A.

Tom Bertram, A.R.I.B.A.

(Midlothian County Architect)

Braddock & Martin-Smith, A/R.I.B.A.

Cecil Burns, F.R.I.B.A.

Cackett, Burns, Dick & MacKellar, F/R.I.B.A.

W. J. Carpenter Turner, A.R.I.B.A.

Cowie & Millar, A.R.I.B.A.

Eberlin & Darbyshire, F/R.I.B.A.

J. Innes Elliott, B.Arch.(HONS.), A.R.I.B.A.

Joseph Emberton, F.R.I.B.A.

L. Stroud Foster, A.R.I.B.A.

Gauldie, Hardy, Wright & Needham, F/A.A.R.I.B.A.

Walter L. Gillespie, L.R.I.B.A.

R. Y. Goodden, A.R.I.B.A.

Conran I. Goulden, A.R.I.B.A.

Hening & Chitty, M.B.E., A.A.D.P., A.M.T.P.I., F.R.I.B.A.

Gordon Jackson & Partners, F/L.R.I.B.A.

George Kenyon, DIP. ARCH., A.R.I.B.A.

(Newcastle-on-Tyne City Architect)

S. H. Loweth, F.S.A., F.R.I.B.A., M.I.STRUCT.E.

(Kent County Architect)

F. A. C. Maunder, DIP. ARCH., F.R.I.B.A., A.M.T.P.I.

(Buckinghamshire County Architect)

Forbes Murison, A.R.I.B.A.

J. R. Piggott, F.R.I.B.A.

Read & McDermott, F.R.I.B.A.

E. W. Roberts, F.R.I.B.A.

(Nottinghamshire County Architect)

Robert Sharp & Son, A/L.R.I.B.A.

C. G. Stillman, F.R.I.B.A.

(Middlesex County Architect)

H. J. W. Stirling, A.R.I.B.A.

(Plymouth City Architect)

Bernard Taylor & Associates, A.R.I.B.A.

Sir Percy Thomas & Son, F/R.I.B.A., O.B.E.,

HON. LL.D. (WALES), D.L., J.P., M.T.P.I.

W. W. Wells-Coates, O.B.E., R.D.I., PH.D.(LOND.),

B.A., B.Sc., F.R.I.B.A.

Walters & Kerr-Bate, L.R.I.B.A.

Peter Woore, A.R.I.B.A.

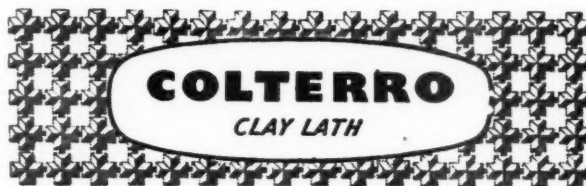
Clyde Young & Bernard Engle, F/R.I.B.A.

Prof. R. D. Russell, R.D.I., F.S.I.A.

Raymond Hawkins, L.R.I.B.A.

Sir Giles Scott, O.M., R.A., F.R.I.B.A.

COLT DESIGN, FIX AND SERVICE CEILINGS, WALLS AND FABRICATED STRUCTURES WITH . . .

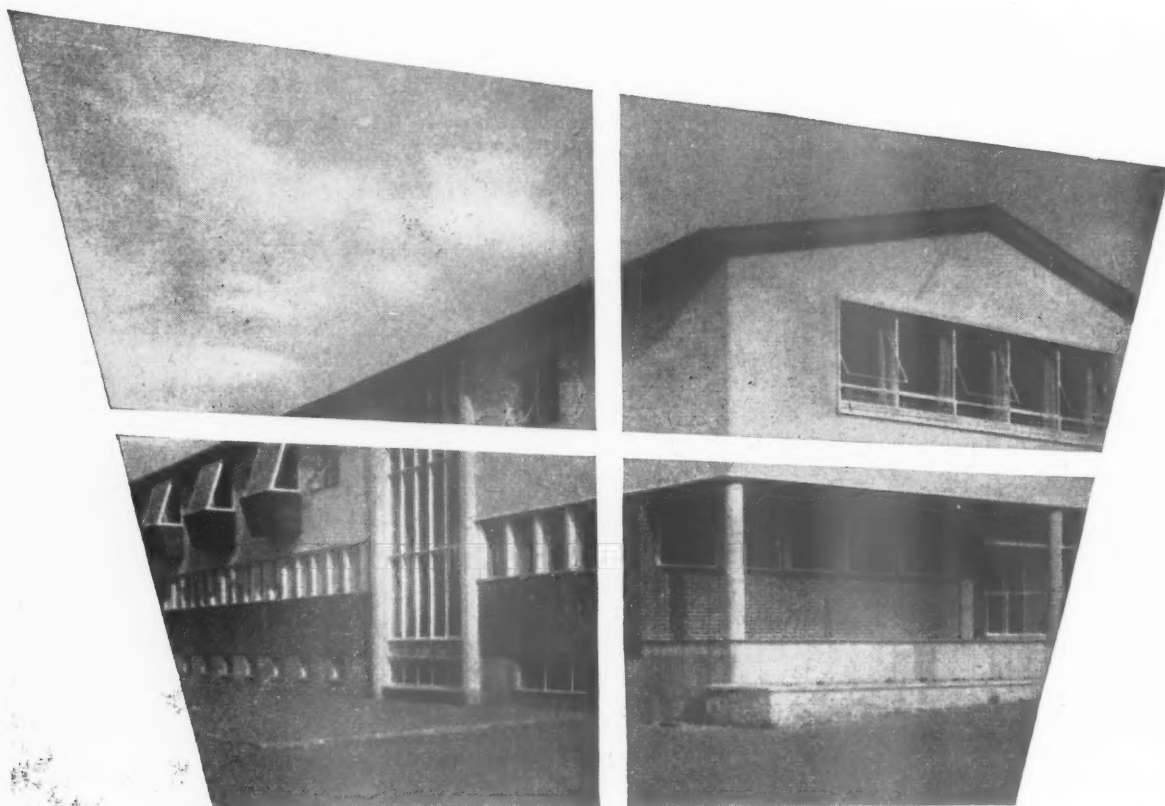


Backed by the resources of the Colt Organisation. Write now for full details.

W. H. COLT (LONDON) LTD., SURBITON, SURREY

Telephone: ELMbridge 6511-5

CLA.15



Williams & Williams did the windows

... in the remarkable Sighthill Health Centre, Edinburgh (Designers: Architects of the Dept. of Health for Scotland. Lately Chief Architect R. Gardner-Medwin, B. Arch., F.R.I.B.A., M.T.P.I., F.R.I.A.S.) Among the interesting window designs are the double glazed bay windows. (Left centre in the illustration.) There is a dentist's chair in each bay and the windows give almost all-round daylight while keeping out the cold. In another recent contract, Montrose House, in Glasgow (Senior Architect: Stewart Sim, D.A. Edin., F.R.I.A.S., F.S.A. Scotland.) 19,000 sq. ft. of external metal windows were supplied and fixed by Williams & Williams.

METAL WINDOWS

WILLIAMS & WILLIAMS



DO YOU KNOW YOUR NEAREST AREA OFFICE? You'll find Williams and Williams in London, South London, Belfast, Birmingham, Bristol, Cardiff, Glasgow, Leeds, Liverpool, Manchester, Newcastle-upon-Tyne, Newmarket, Nottingham, Reading, Sheffield, Southampton and Tunbridge Wells. Each office arranges quick delivery of metal windows, gives estimates, details, and fixing teams on site. Head Office: Reliance Works, Chester.

Members of the Metal Window Manufacturers' Association

F

or all industrial structures

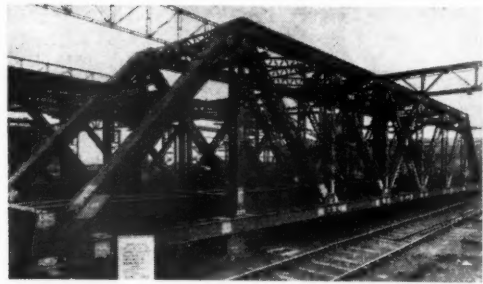
Here are just a few of the many types of structural steelwork contracts carried out by the South Durham Constructional Department.

South Durham Service embraces every phase of construction: the manufacture of the basic steel; the design (in collaboration with Architects and Consulting Engineers, or independently if required) of industrial buildings of every type and size; the fabrication of individual components and their subsequent erection.

At all times top-level supervision plans progress and ensures that steel arrives on site to meet the agreed schedule.

Consider the advantages—then contact South Durham for your next requirements in structural steel,

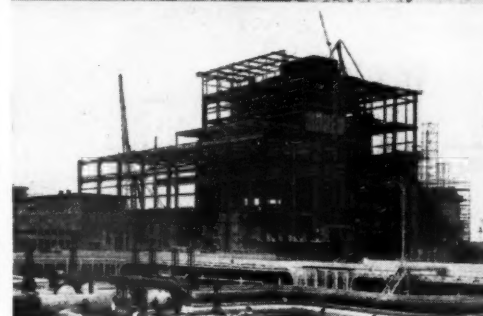
BRIDGES



STORES AND WAREHOUSES



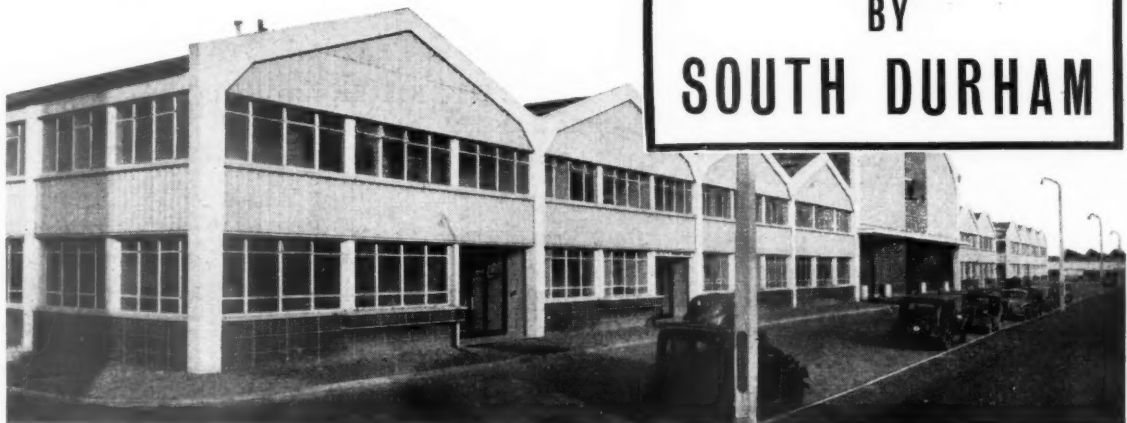
POWER STATIONS



the answer is

**STEELWORK
BY
SOUTH DURHAM**

WORKS & FACTORY BUILDINGS



SOUTH DURHAM STEEL & IRON CO. LTD. (incorporating CARGO FLEET IRON CO. LTD.)
Central Constructional Department, Malleable Works, STOCKTON-ON-TEES. Telephone: Stockton-on-Tees 66117.

The

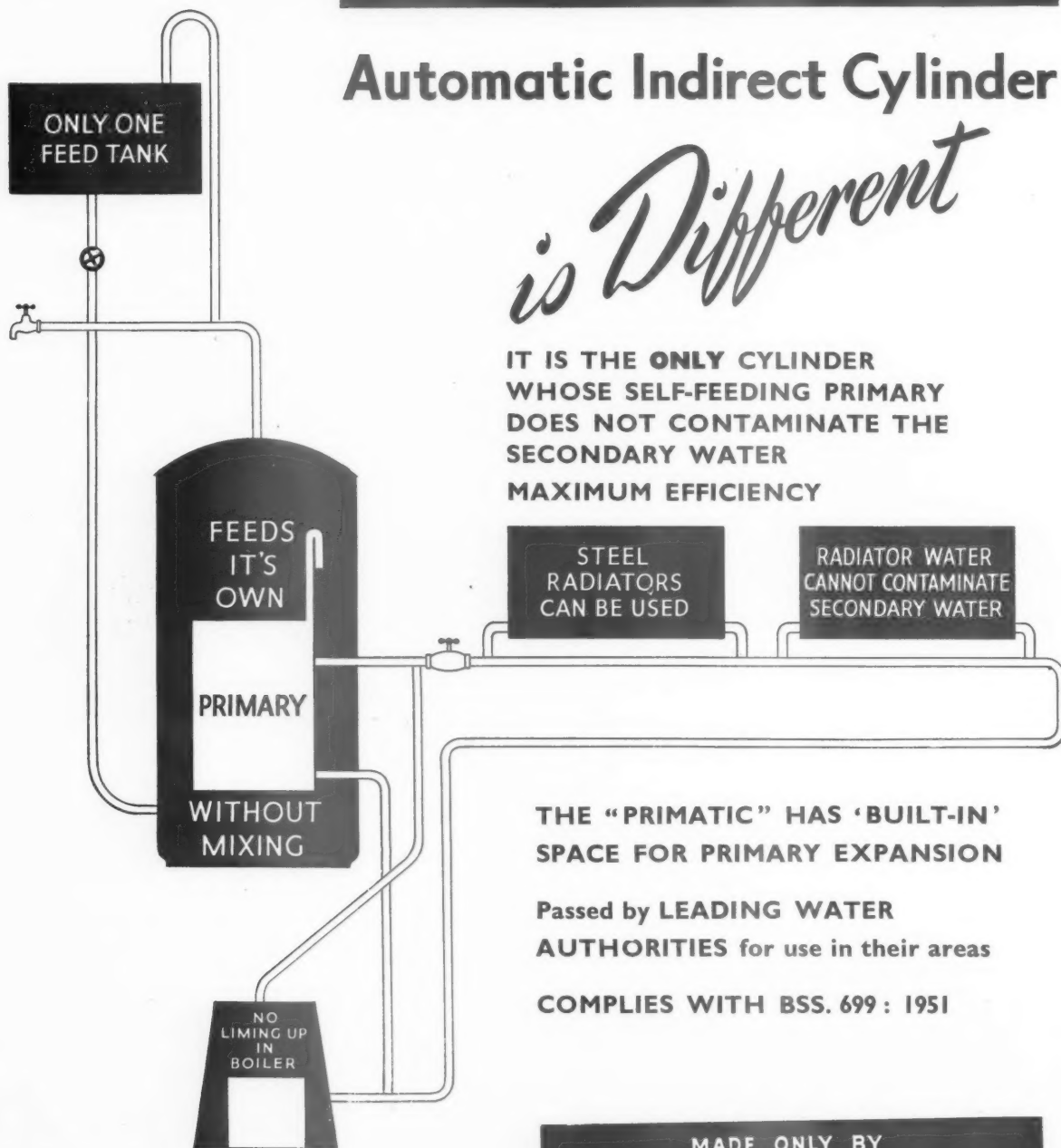
"PRIMATIC" REGD.

PATENT APPLIED FOR

Automatic Indirect Cylinder

is Different

IT IS THE **ONLY** CYLINDER
WHOSE SELF-FEEDING PRIMARY
DOES NOT CONTAMINATE THE
SECONDARY WATER
MAXIMUM EFFICIENCY



THE "PRIMATIC" HAS 'BUILT-IN'
SPACE FOR PRIMARY EXPANSION

Passed by **LEADING WATER
AUTHORITIES** for use in their areas

COMPLIES WITH BSS. 699 : 1951

MADE ONLY BY
RANGE BOILERS LTD.

(AND SUBSIDIARY COMPANIES)

STALYBRIDGE · CHESHIRE

Telephone : Stalybridge 2231 Telegrams : Cylinders, Stalybridge

RB15

Jos. F. EBNER (1953) LTD. FLOORING SPECIALISTS

ESTABLISHED 1874

An announcement

Wood Block and Specialist Floorings

For nearly 80 years, the name of EBNER has been associated with fine flooring in all its branches. Established in 1874 by the late Mr. Jos. F. Ebner, this firm has undertaken and carried out some of the largest flooring contracts, amongst others, all the huge hospitals for the then existing Metropolitan Asylums Board, the fine teak floors and Roman mosaic paving at the Science Museum in South Kensington, large blocks of Government offices, commercial offices such as Lloyd's Buildings in Leadenhall Street, E.C., London, and nearly one million feet of oak and softwood floors at the Vauxhall Motor Co., Ltd. New Office and Works at Luton, etc., etc.

Unfortunately in 1940, the Offices, Mills and Stores were practically destroyed by enemy action, and since then, owing to the scarcity of suitable accommodation, the firm has had to restrict its operations. Now reconstituted, re-equipped and in suitable premises, we are able to resume our normal activities, and, having accumulated large stocks of oak, beech, and many of the Colonial hardwoods, as well as $\frac{3}{4}$ in. and 1 in. (nominal) Maritime pitch pine blocks—a softwood harder than deal or Columbian pine and suitable for Housing—we can quote competitive prices for and undertake flooring contracts to any extent.

A word or two about the management and workmen. Our Managing Director was a senior member of Ebner's for nearly forty years, and intends to carry on the business, assisted by his co-directors, by giving personal attention to every detail. As to workmen, we now have the sons and grandsons of the original staff of workmen; each generation has left its skill to the next, and the craftsmen we now employ are second to none. They work hard and well, and if it is necessary to work overtime or weekends to finish a rush job, there are always volunteers.

Please send us your enquiries for:

PARQUETRY, WOOD BLOCKS, HARDWOOD STRIP FLOORING, DANCE FLOORS, RESURFACING & POLISHING OF EXISTING FLOORS, "EBNERITE" JOINTLESS COMPOSITION (CONFORMING TO B.S. CODE OF PRACTICE)

OFFICE & WORKS:

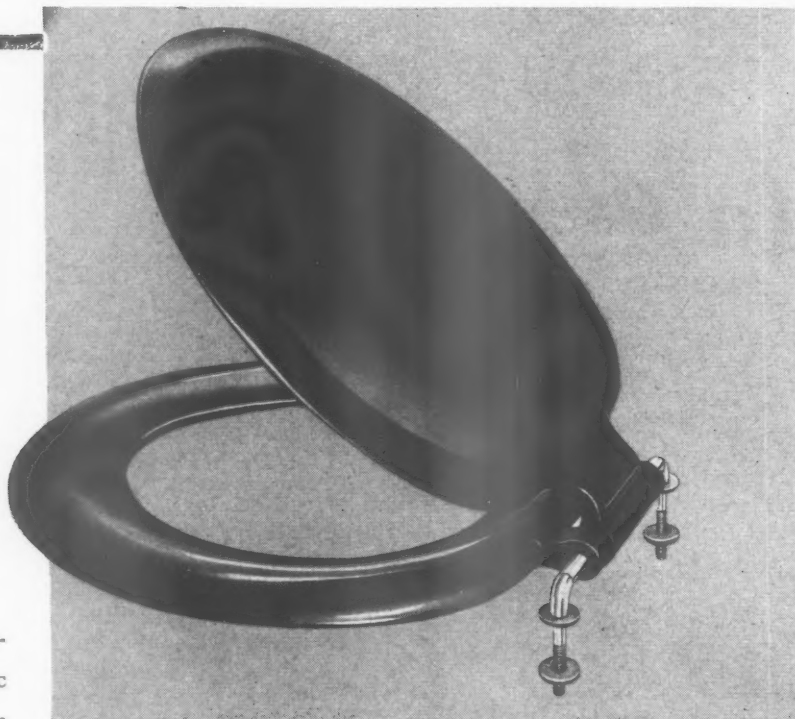
HERTFORD WORKS, ENFIELD ROAD, LONDON, N.1

TELEPHONE: CLIssold 5941

There's nothing like



The quality's there - the price is right



With their smart modern appearance and pleasing finish Celmac toilet seats are a splendid addition to any home. Moulded in durable plastic material and available in several pastel shades, Celmac toilet seats have been designed to look attractive and keep attractive for years to come.



Made by
ROBERT M'ARD
& COMPANY LIMITED
CROWN WORKS · DENTON
MANCHESTER · ENGLAND
Telephone: DENTON 3837/8/9

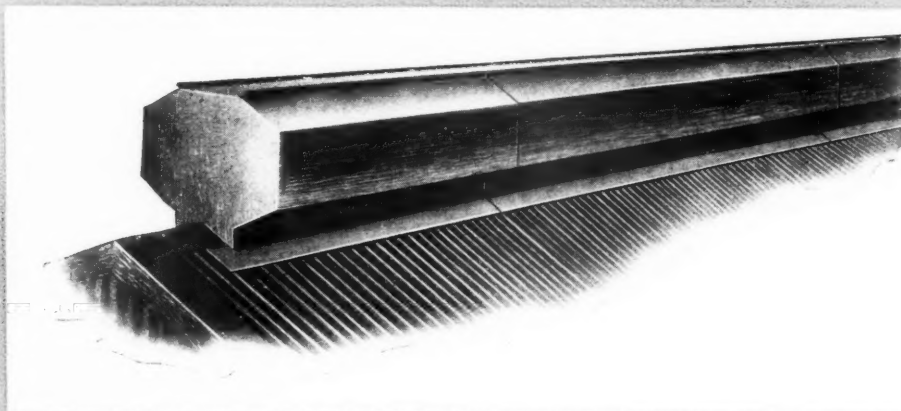
**MOULDED PLASTIC
TOILET SEATS**
always give best value!

Write for illustrated brochure describing our complete range.
Available free on request.



ideal

FOR CONSTANT HEAT & FUME CONDITIONS



Robertsonridge, recently developed to extend the range of Robertson ventilation equipment combines engineering efficiency with attractive appearance. Highly resistant to corrosive elements, Robertsonridge is constructed from protected metal in standard units from which continuous runs may be built up. Throat sizes range from 4" to 36". Manufactured by the pioneers of natural ventilation Robertsonridge is fully described in leaflet RR6, available on request.

ROBERTSONRIDGE *ventilators*



ROBERTSON THAIN LTD.

ELLESMERE PORT, WIRRAL, CHESHIRE

Sales LONDON • GLASGOW • BELFAST • BIRMINGHAM • NEWCASTLE
Offices: LIVERPOOL • SHEFFIELD • CARDIFF • MANCHESTER • EXMOUTH
Agents in most countries throughout the World



Miss Jones...

.....write to Berry's!

When it's Steam Services, Heating, Hot Water Supplies, Air Conditioning, or other engineering services, you can't go wrong with Berry — the firm with 143 years' specialised experience.

Let Berry quote you!



1810- '954—Over 144 Years' Experience

HEATING & VENTILATING CONTRACTORS

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

'Phone: TATe Gallery 0201

and at WARRINGTON & DONCASTER

TAS/ZB.24.

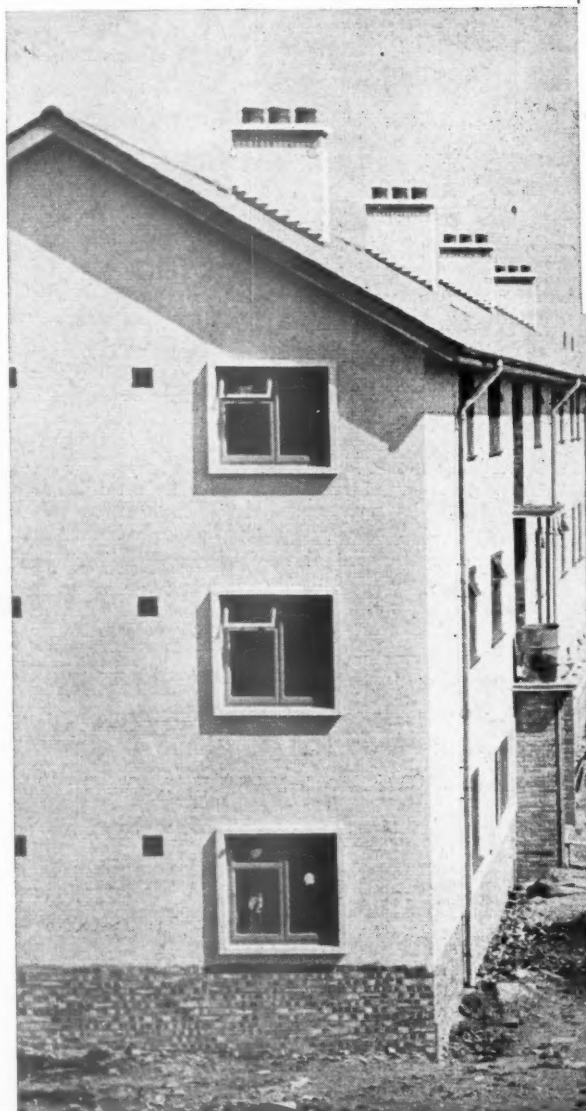
EXTERIOR WALLS ON THE

GUERNSEY

HOUSING ESTATE

ARE

PAINTED WITH STONE



Stone, finely ground, is the basis of Silexine Stone Paint. With Silexine you literally *paint with stone*—hence its outstanding protective quality. On the bricks used on this job, one coat of Silexine Stone Paint was sufficient to give an excellent finish with a covering capacity of 62 sq. yds. per cwt. Silexine Stone Paint is supplied in twelve decorative colours, or in special shades to order. It can be applied to concrete, stucco, brick, plaster, asbestos cement, etc.

SEE OUR EXHIBIT AT THE LONDON BUILDING CENTRE

SILEXINE STONE PAINT



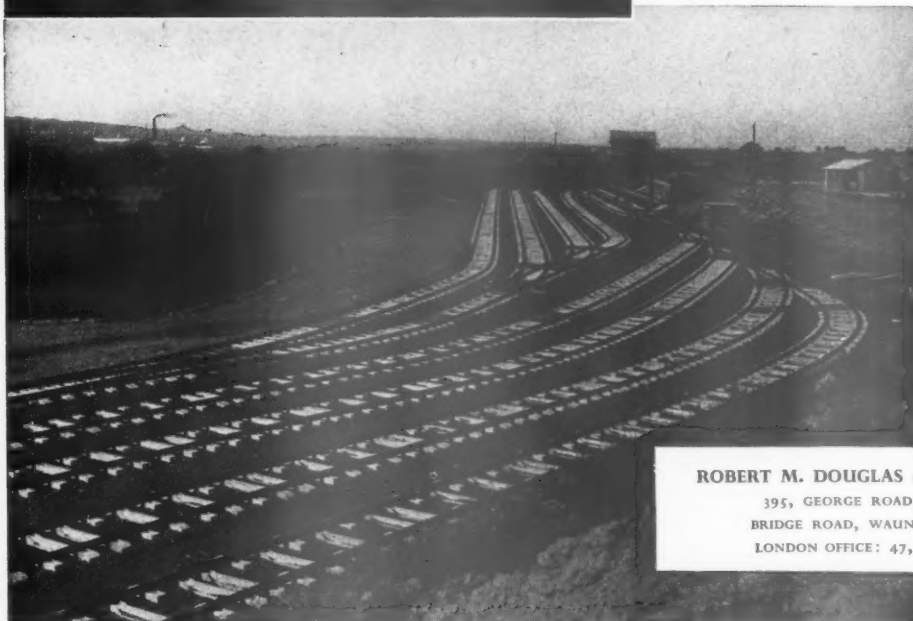
Specifications and notes on surface preparation, together with a report on tests carried out by the Building Research Station, are given in a booklet sent free on application. Information regarding other Silexine products, particularly S.P.E.C. (Silexine Plastic Emulsion Coating) a durable satin-like finish for interior walls, is also freely available.

SILEXINE PAINTS LIMITED
RICHFORD STREET • LONDON W-6
Telephone: Shepherds Bush 4461


**PAINT
WITH STONE**

ST.15

DOUGLAS builds *from first to last*



Photograph of the impressive Pollington sidings and screening plant constructed for the Directorate of Open Cast Coal Production of the Ministry of Works.

ROBERT M. DOUGLAS (CONTRACTORS) LTD.,
395, GEORGE ROAD, BIRMINGHAM, 23
BRIDGE ROAD, WAUNARLWYDD, SWANSEA
LONDON OFFICE: 47, VICTORIA ST., S.W.1

● CIVIL ENGINEERING • BUILDING • SITE INVESTIGATION • EXCAVATIONS • FOUNDATIONS • REINFORCED AND PRESTRESSED CONCRETE • FACTORIES • ROADS • BRIDGES • PILING • SEWERAGE • RAILWAYS • WATERWAYS • TUNNELS

It's *Fine and Dry*★ for ROLLS-ROYCE

★ Dry prints, flat and clean with the weakest lines always sharply defined. These features are essential to efficient plan copying in the world's largest drawing offices. That is why Rolls-Royce and other famous engineering firms use the Ozalid Dry Developed plan printing process for their copying work.

There is a wide range of Ozalid equipment to suit every requirement in plan copying, ranging from the new Ozaminor machine which is ideal for all small sheet work to the famous Ozamaster which combines Printing and Developing in one quick, automatic operation at the rate of 30ft. per minute. The Nation-wide Ozalid service covers the regular maintenance of all print room equipment and the supply of every type of drawing office equipment.

Ozalid

Send for illustrated brochure on the Ozalid Range of Plan Copying equipment.



OZALID COMPANY LIMITED
62 LONDON WALL, LONDON, E.C.2
Telephone: MONARCH 9321 (10 lines).

It's a good plan to have an Ornamental Gate



Illustrated are two typical designs—above, the Verona Archway—left, the Hampton pair. There are 12 other designs available.

Beautifully designed wrought iron entrance gates are the deserved complement to a well-planned house, whatever its style may be. With the Ornamental Gate Company's catalogue of fine designs at hand, it is simple to choose a pattern which will harmonise perfectly with the rest of the plan. These gates can be recommended with complete confidence and will give long, satisfactory service.

The  ORNAMENTAL GATE COMPANY



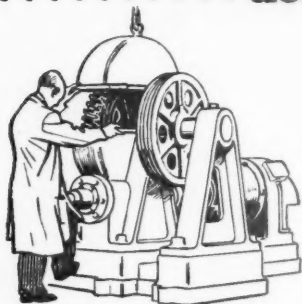
You are invited to write for fully illustrated brochure "J" giving full details and prices of 14 different designs, together with particulars of trade terms.

of 30 BASINGHALL ST., LONDON, E.C.2
Telephone: MONarch 7837 (3 lines)

RAISING THE LEVEL OF....



..... design



.....workmanship



..... service

E.C.M. lifts

Excellent design and first class workmanship allied with the finest materials combine to raise E.C.M. Lifts above the level of others.



ETCHELLS, CONGDON & MUIR
Limited

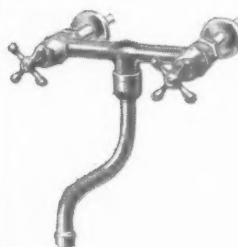
ANCOATS · MANCHESTER · ENGLAND

ECM.40

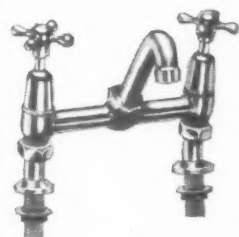
PRESTEX *Sink Fittings*

Peglers sink fittings are of sound design, sound make and finish — and at a sound price. The wide range caters for most tastes and for most plumbing lay-outs. Taps are to BS1010.

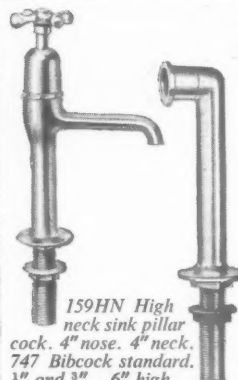
'Prestex' swivel nozzle sink fittings have the exclusive non-leak gland.



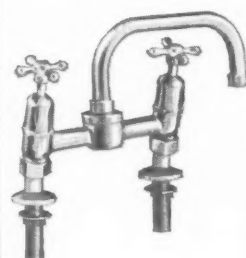
518C Bucket filling fitting for under sink. Swivel nozzle.



519B All the advantages of a mixer; fixed nozzle.



159HN High neck sink pillar cock. 4" nose. 4" neck. 747 Bibcock standard. 1/2" and 3/4", 6" high.



520 Dual-flow, swivel nozzle but 'H' and 'C' separate. Approved by M.W.B., etc., for use on mains.

The Quality Fittings with a watertight reputation
Specify 'Prestex' sink fittings and be sure.

Peglers Limited

The name is the guarantee

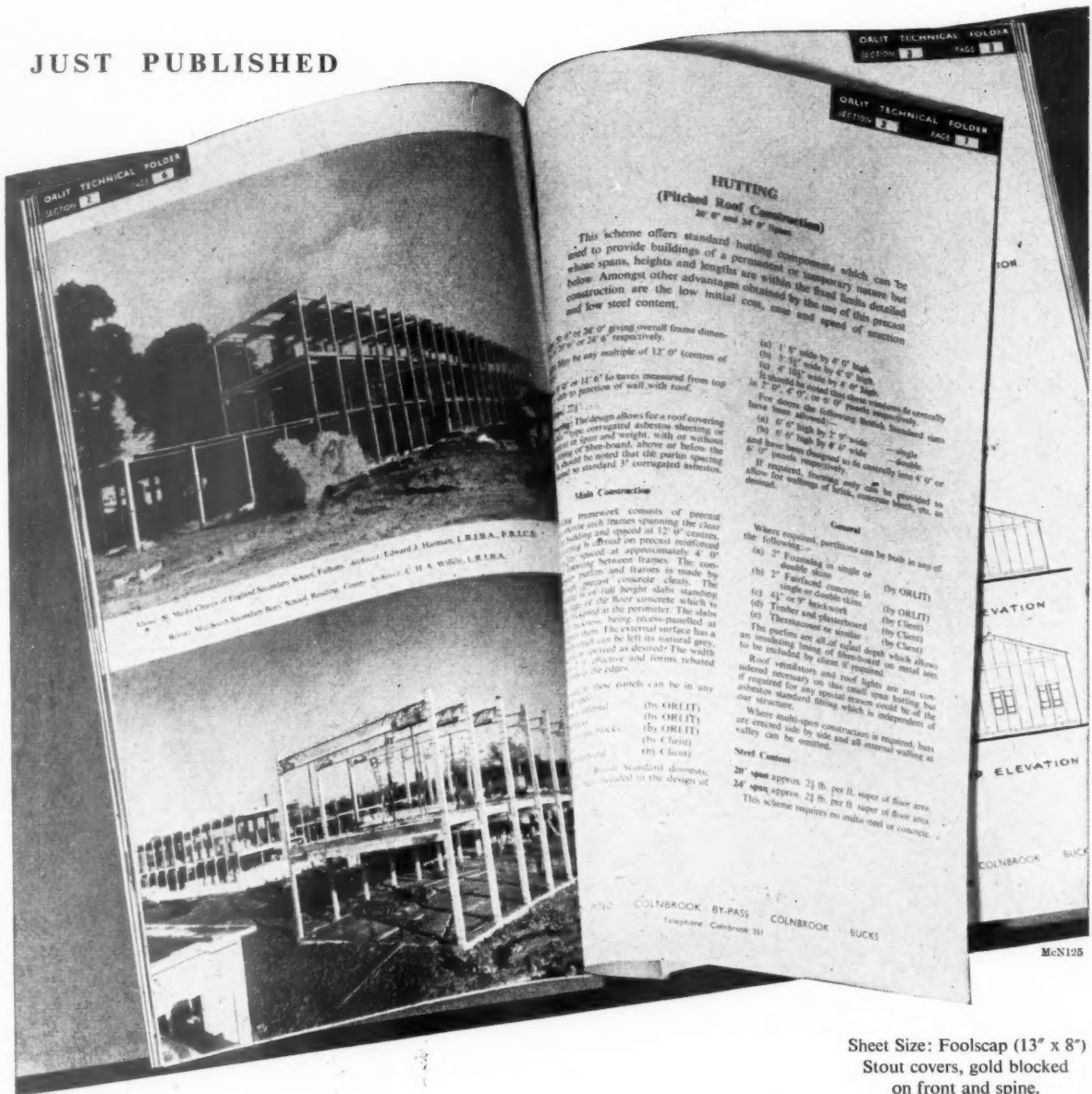
BELMONT WORKS · DONCASTER

London Office and Warehouse :

PRESTEX HOUSE · MARSHALSEA ROAD · S.E.1

W.P.15A

JUST PUBLISHED



THE NEW ORLIT TECHNICAL FOLDER

A comprehensive guide to the Orlit System of Reinforced Concrete

This volume will be a useful, convenient and handsome addition to the reference-book shelf of every architect. Full information of the wide range of Orlit structures is given by means of text and detailed drawings. Photographs of many buildings, both in progress and completed, are included.

As fresh information sheets will be issued from time to time, the loose-leaf form has been adopted; the Folder can therefore be kept always up-to-date.

The Orlit Technical Folder will be sent to architects, engineers, surveyors, industrialists, on request

ORLIT LTD • COLNBROOK BY-PASS • COLNBROOK • BUCKS • Telephone: Colnbrook 351

AREA LICENSEES:

ORLIT (Lancashire) LTD.

3 Brown Street, Manchester. Tel: Blackfriars 0718

TARSLAG LTD.

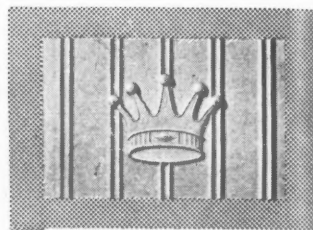
Tees Bridge, Stockton-on-Tees. Tel: 6355

ORLIT SYSTEM
OF REINFORCED CONCRETE

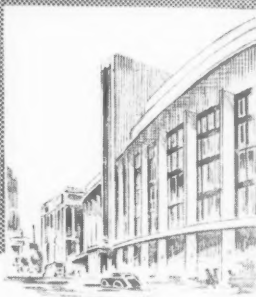
Sheet Size: Foolscap (13" x 8")
Stout covers, gold blocked
on front and spine.



BUILDING FRONT PANELS IN CAST IRON



THE EXAMPLES ILLUSTRATED were cast from teak patterns made by the Public Works Department, Hong Kong, and were supplied to the Crittall Manufacturing Co., Ltd., for erection on the facade of the New Government Offices in that city.



LION FOUNDRY CO. LTD

KIRKINTILLOCH, near GLASGOW • Telephone: Kirkintilloch 2231

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

Telephone: Victoria 9148

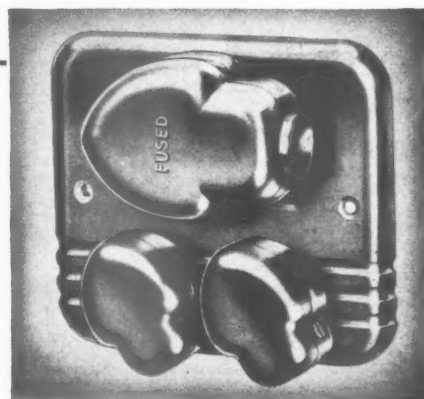


MODERN ELECTRICAL ACCESSORIES

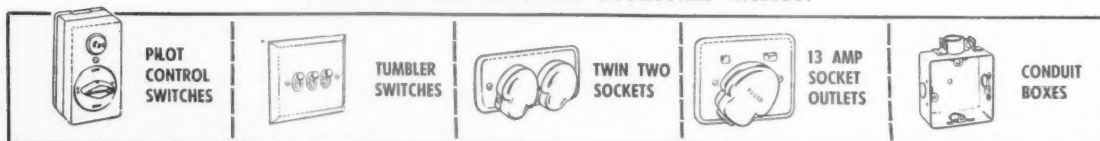
The Fireside Triple Socket

- The only accessory of its kind available • Installation costs cut to $\frac{1}{3}$ • Three points from only one box—one 13-amp BSS 1363 Shuttered outlet and two 2-amp BSS 546 Outlets. Plus a fused spur terminal for additional socket outlets.
- Eliminates unsightly adaptations.

ALL FROM THE ONE BOX !



OTHER NEW DAY ELECTRICAL ACCESSORIES INCLUDE:



Attractive reliable accessories at competitive prices. Send for catalogue

NEW DAY ELECTRICAL ACCESSORIES LTD., 136-8 MARY ST., BIRMINGHAM 12. Phone: Calthorpe 2621

CHANGE OF ADDRESS

ROM RIVER

reinforcement service

DESIGN · SUPPLY · BENDING · FIXING

Owing to the continued expansion of their business, the Rom River Reinforcement Service has found it necessary to move their offices from Woburn Place to larger premises.

As from the 26th March, their address will be:—

**THE ROM RIVER
COMPANY LTD**

**ST. RICHARD'S HOUSE
90 EVERSOLT STREET,
LONDON N.W.1**

Telephone: EUSton 7814-9

**Telegraphic Address
ROMRIVCO, NORWEST, LONDON**

You... and your client



A working knowledge of insurance is of great advantage to Architects. It saves time and trouble to know without having to ask. And as you may possibly be aware already there is a distinct advantage in placing your life

assurance problems in the hands of a mutual office.

The United Kingdom Provident, one of the oldest and best known mutual offices, has no shareholders; all its profits belong to the policy-holders. This encourages a high bonus rate. For instance the current bonuses are 38/- or 40/- per cent. Competitive premiums are quoted for all kinds of life assurance (including house purchase) and for fire and accident risks.

We have booklets which will assist you. Send for them today. They will prove interesting, helpful and may be profitable.

UNITED KINGDOM PROVIDENT

ASSETS OVER THIRTY-SIX MILLION POUNDS

Your 'Mutual' Friend



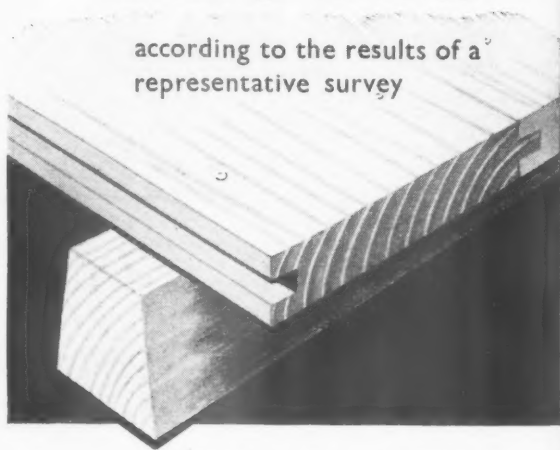
33, GRACECHURCH STREET, LONDON, E.C.3

Mansion House 6543 (6 lines)

75% prefer timber floors

of the people living
in houses having
timber-substitute
floors

according to the results of a
representative survey



We recommend the P.T.G. boarded fillet-on-concrete floor, pressure treated with 'TANALITH' preservative as having the following advantages.



LOW COST
DECAY & INSECT PROOF
HIGH THERMAL EFFICIENCY
HOMELY APPEARANCE
GOOD SURFACE WARMTH
NO UNDERFLOOR DRAUGHTS
LONG WEARING WITHOUT ATTENTION
MAY BE STAINED OR POLISHED

Its cost compares well with that of timber-substitute floors.

'Tanalised' Timber

Hickson's Timber Impregnation Co. (G.B.), Ltd
Castleford & 36, Victoria St., London, S.W.1

ving
ving
tute

r



llet-
with
the

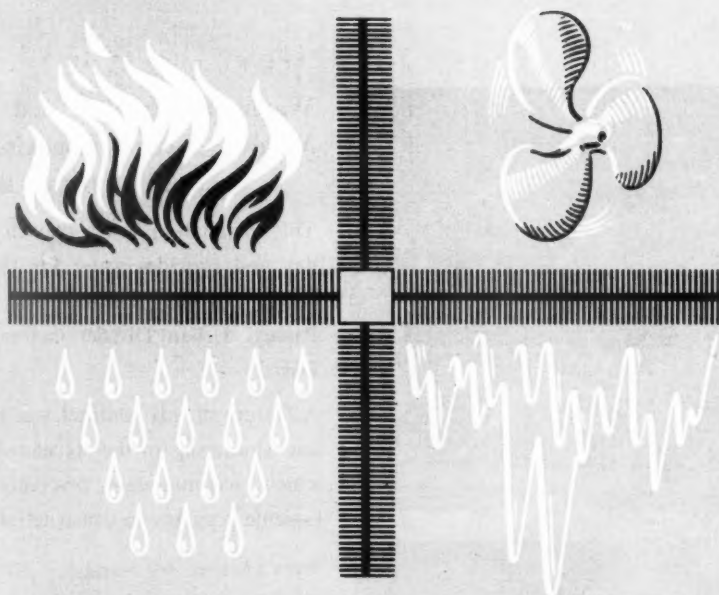
TION

floors.

er

, Ltd

W.1



To give you the right air

Air treatment equipment is our business. Our range of products which embraces heating, cooling, dehumidifying and air conditioning is so wide that you can scarcely fail to find the exact unit to suit any particular job. Their quality does credit to the high reputation which Biddle products have always enjoyed.

BIDDLE
CONVECTION

...creates the right atmosphere...

MANUFACTURERS OF HEATING • COOLING • VENTILATING • AIR CONDITIONING EQUIPMENT

F. H. BIDDLE LTD • VECTAIR HOUSE • CLERKENWELL CLOSE • LONDON • E.C.1. (Sales Division of British Trans Company Ltd.)

MYTON

Services for Development



Water Purification and Pumping Station at Maids Moreton, Buckingham for the Bucks Water Board

This installation has a capacity of 2,500,000 gallons per day and provides water for the Towcester and Brackley Rural District Councils, the Wolverton and Newport Pagnell Urban District Councils and the Bucks Water Board.

A feature of this contract was the setting out, steel fixing and shuttering in the Accelerators (shown pictured below) which accommodate revolving blades, and necessitate extreme accuracy in construction.



Board's Engineer and Manager *Mr. R. Pownall, M.A., A.M.I.C.E., M.I.W.E*

Consulting Engineers

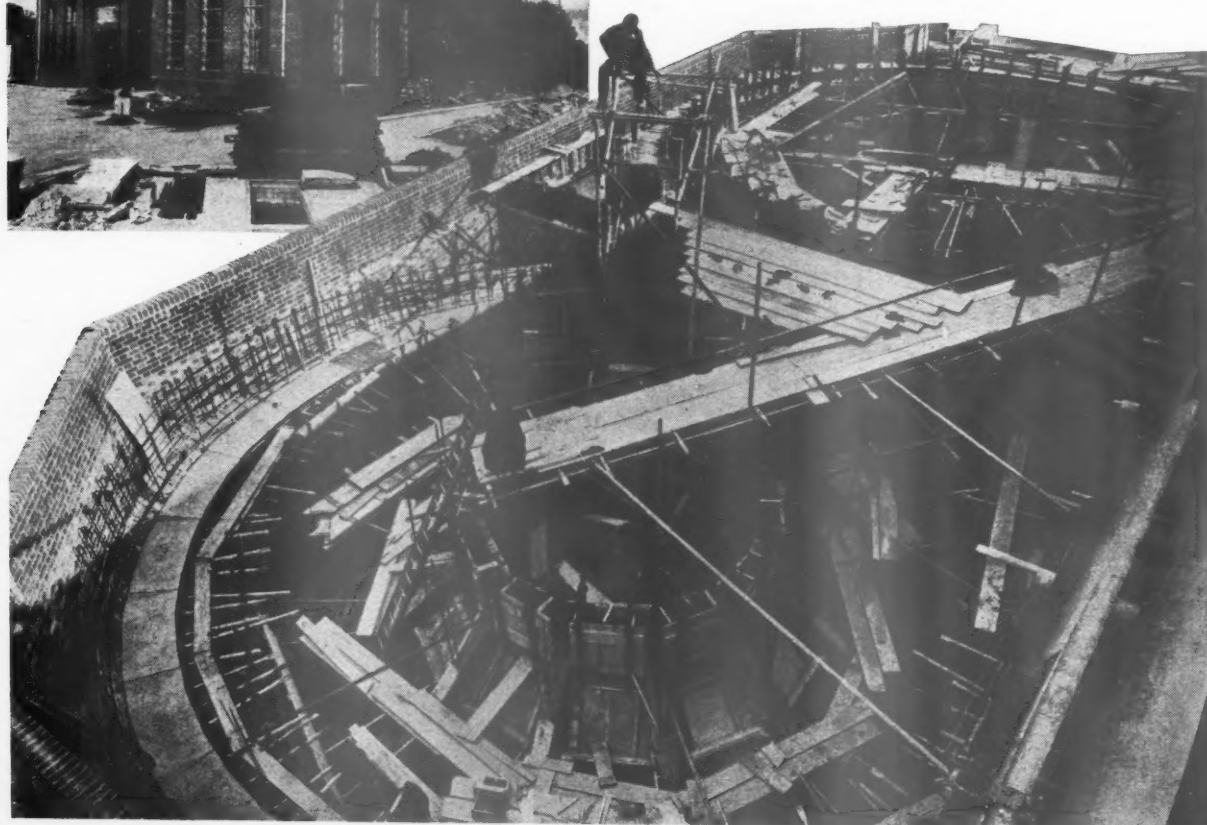
Binnie Deacon & Gourley

Purification Plant

The Paterson Engineering Co. Ltd.

Pumping Plant

Sulzer Bros. (London) Ltd.



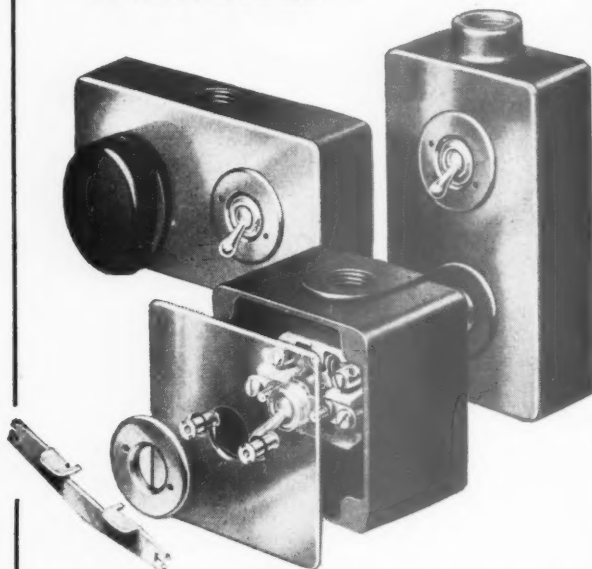
MYTON LIMITED Building & Civil Engineering Contractors NEWLAND, HULL. BRANCHES London, Birmingham, Sunderland.

coming in...

**ROYAL
BOARD**

This is number two of a series of announcements by Spencer, Lock & Co. Ltd., featuring the Outstanding All Wood Fibre Hardboard.

As safe as a switch ?



We were going to say "As safe as houses"—We might well have said "As safe as Tuckers". These large flanged locking ring assemblies, for instance, are intended to prevent unauthorised people from removing the switch plate, and the photograph above shows clearly the component parts, including the special tool necessary for assembling and locking the ring.

Specified more and more by architects for use in schools, hospitals, institutions and other public buildings, these Tucker switches are the last word in safety.

An outstanding feature from the contractors point of view is the ease with which these plates can be erected. Lock nuts with a secret type head are an integral part of the plate and are in a position for fixing immediately the plate is placed on the switch. There are no LOOSE screws to become lost or mislaid. When fixed the large flanged locking ring covers up the two lock nuts, thus giving a very clean and dignified finish to the switch plate.

These switches are available for surface or flush mounting in shallow cast iron boxes or adjustable grid boxes, with a range from one to six sections. The plates have rounded corners and radius edges. Available in brass finished B.M.A. or in aluminium anodised self colour. Other colours to order.

J. H. TUCKER & CO. LTD.
KINGS RD., TYSELEY, BIRMINGHAM 11

Tucker
TELAC

Phone: ACOcks Green 0616-7
Grams: Switches, Phone, Birmingham

LONDON OFFICE:
2 Newman Street, W.1.
Phone: MUSeum 8257



Who gets frozen stiff at breakfast?

Let's be sensible about water heating. A boiler that heats the water but doesn't warm the kitchen is only half a boiler—as every architect knows—particularly if he is responsible for housing schemes. Specify Tayco and everyone will be pleased. Tayco heats the water efficiently with utmost economy of fuel. There is a complete range of nine boilers, including TWO WITH THERMOSTAT CONTROL, with seven capacities from 21,000 to 65,000 B.Th.U.'s per hour. Easy to clean, simple to use. ON APPROVED LISTS.

TAYCO
DOMESTIC BOILERS

Hot water in comfort

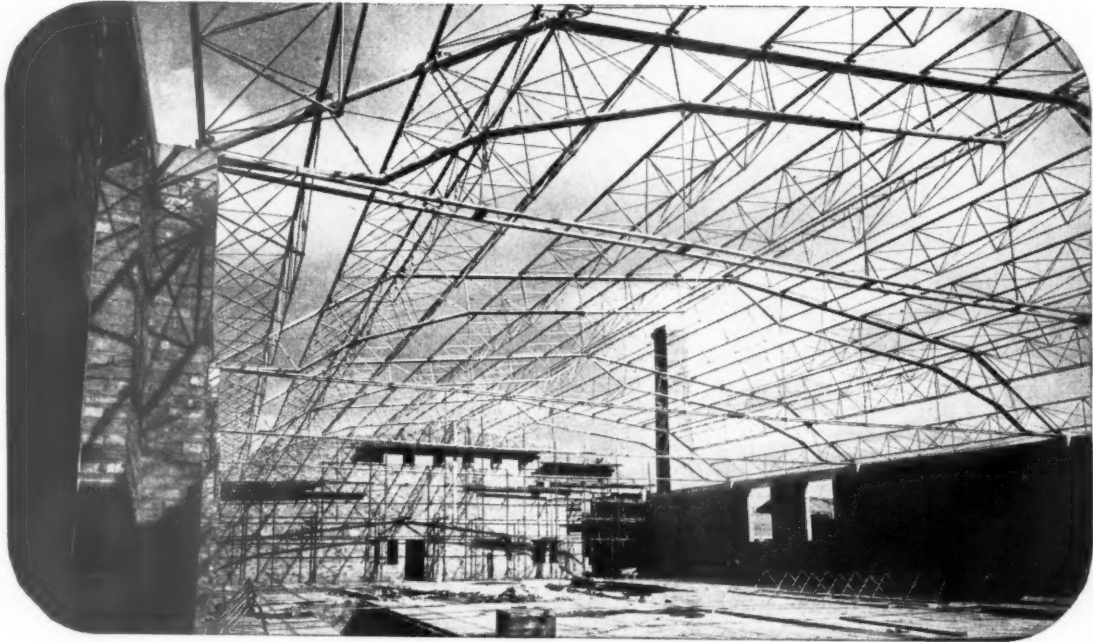
Full technical information from:
ROBERT TAYLOR & CO.
(IRONFOUNDERS) LTD
66, Victoria Street, London, S.W.1
Telephone: Victoria 3972
and at Larbert, Scotland

See our exhibit
THE BUILDING CENTRE
USE THE

26 STORE STREET W.C.1

WELDED TUBULAR CONSTRUCTION

-by the originators of tubular scaffolding!



WESTFIELD AUTO CAR COMPANY NEW WORKSHOPS

Architects : Messrs. Cairns & Ford, F.R.I.B.A.

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**

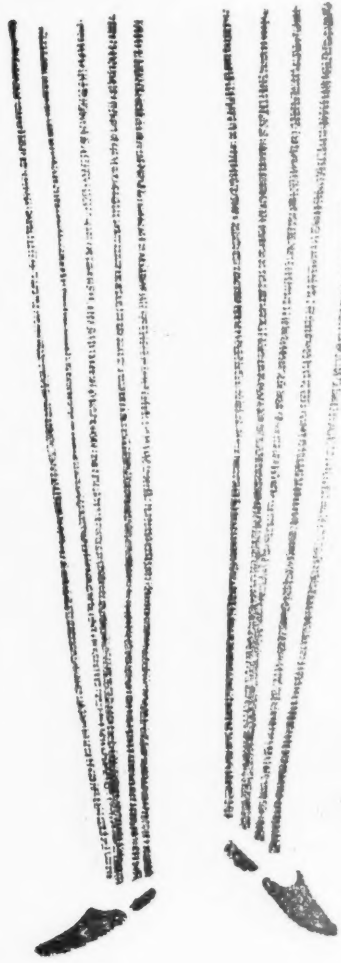
Telephone : MITCHAM 3400 (18 LINES)

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



**Whom can
you rely on?**

Who will do the best job

of turning your designs for a showroom,
foyer or boardroom into reality? You have your own
list, of course, the ones you can really count on. But there
is another name that is appearing on more and more
lists—Catesbys Contracts. Utterly reliable; highly imaginative,
yet with the grace to keep their imagination within
bounds; craftsmen and proud of it. Have a
word with them soon.



Catesbys

CONTRACTS & EXPORT LIMITED

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

ONE OF THE BEST NAMES IN JOINERY



Craftsmanship

in
**WINDOWS,
DOORS,
STAIRS and
KITCHEN
UNITS**

Discerning architects and
builders quickly recognise
the superior qualities of
framed and fabricated
timbers by the Midland
Joinery Works Ltd.

Your enquiries here will
receive our prompt atten-
tion and lead to your
lasting satisfaction.



Established in 1921

Telephone: 5085 (4 lines)

The PERFECT JOINT at every point!



**CONEX
COMPRESSION
JOINTS**

Made in the most modern factory of its type and approved by the leading Architects, Surveyors, Contractors, Government Departments, Municipal Authorities and Water Works throughout the world.

MORE AND MORE Architects are specifying CONEX, because experience has proved it to be the simplest, speediest, strongest—and, at the same time, the most economical—Joint for copper tube. Based on sound scientific principles, the CONEX Joint incorporates a special spherical ring which makes a perfect two-point seal. It gives an amazingly strong grip capable of withstanding pressures far greater than experienced in normal use. The joint is unaffected by variations of temperature, pressure or vibration, and it can be “made” in ten seconds with a spanner, and broken from time to time without impairing its efficiency. The rings are very easy to replace, and no preparation of the tube is required.

COMPRESSION
CONEX
JOINTS

PROVE FOR YOURSELF CONEX IS BEST
Write NOW for actual testing samples of the CONEX Compression Joint, together with fully illustrated literature.

★ VISIT OUR STAND B.623 B.I.F. CASTLE BROMWICH

CONEX-TERNA LTD., WHITEHALL RD., GREAT BRIDGE, STAFFS. 'Phone: Tipton 1162-3 'Grams: Conex-Terna, Tipton

'Transformation Scene' by Hangers **FABRIGUARD** The Proved Emulsion Paint

Here's an impressive example of the remarkable improvement which application of Hangers **FABRIGUARD** can make to difficult surfaces. The photograph shows Yorkshire's Ideal Flour Mill, Selby Grain Silo, before and after treatment with **FABRIGUARD**. The surface treated was very rough, and during the war a Bituminous Based Camouflage Paint had been applied: oil Paint would not have been suitable, as bleeding would almost certainly have occurred. **FABRIGUARD** was used, and

has now transformed this Silo into a landmark.

The 'transformation treatment' was: one coat **FABRIGUARD** Primer Sealer; one coat **FABRIGUARD** Flat, followed by Porcelain Gloss Finish in Broken White.

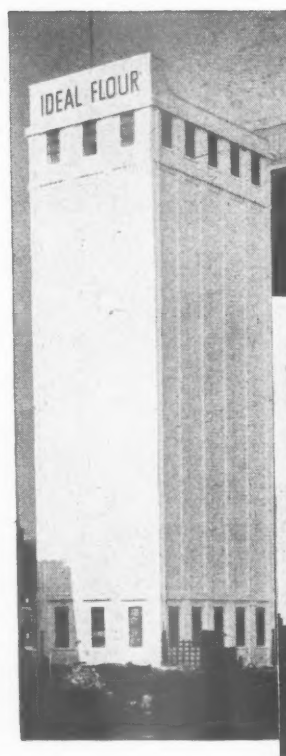
Apart from the attraction of a sparkling clean appearance, **FABRIGUARD** has special advantages for use on Food Manufacturing or Storage structures. It is 100% hygienic, scrubbable 24 hours after application, and cannot contaminate by smell.

FABRIGUARD can be used on:

- New Plaster
- Old Plaster
- Hardboard
- Softboard
- Wood
- New Cement
- Old Cement
- Asbestos Cement
- Brickwork
- Roofing Felt
- Creosoted Wood
- Non-ferrous metals
- Previously Painted Surfaces
- Previously Distempered Surfaces
- Bitumen-coated Corrugated Iron
- Limewash

For Technical Bulletin and details of **FABRIGUARD** Contracts, write to:—
The Technical Director **HANGERS PAINTS LTD., HULL.**

ALSO at LONDON, LIVERPOOL
BIRMINGHAM and GLASGOW



Yorkshire's Ideal Flour Mill, Selby Grain Silo, before and after application of **Fabriguard**. Contractor: Messrs. Wetheralds Ltd., Leeds.



FIBRED RUBBER

MATTING & FLOORING OVERLAYS

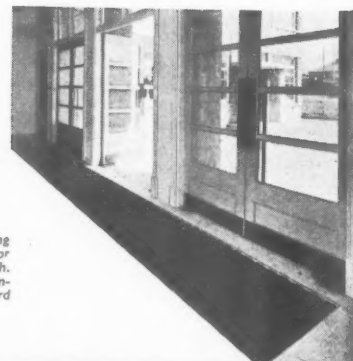
INTERNALLY, Nuway fibre-rubber link overlays are being increasingly adopted to provide hard-wearing non-slip silent and resilient "second floors" having fifteen years guaranteed life, which can be laid at a moment's notice to provide ventilated protection for polished floors during periods of heavy use.

EXTERNALLY, Nuway matting is being widely used for new schools and Public Buildings as it has been elsewhere for over a quarter of a century, to prevent dust and grit from being brought on to the attractive polished floors that are so much a feature of the buildings of today.

NUWAY

Right: **NUWAY** matting in a well at Colmers Farm School, Rugeley. City of Birmingham Education Department. Architects: Harrison & Cox, F.R.I.B.A., Birmingham.

Left: **NUWAY** matting protecting the highly polished parquet floor at Bridlemore School, Redditch. Worcestershire Education Committee. Architects: Richard Sheppard & Partners, London.



NUWAY MANUFACTURING CO LTD., COALPORT, SHROPSHIRE



“...and there'll be no cold corners thanks to **Radiation** smokeless Whole-house Warming”

More and more architects are specifying this method of space-heating by ducted warm air, not only for private houses but also for flats, shops and public buildings. For comfort, convenience and economy Radiation Whole-house Warming gas or solid fuel installations are unequalled. By incorporating this system at the drawing-board stage, architects also enjoy greater freedom in planning.

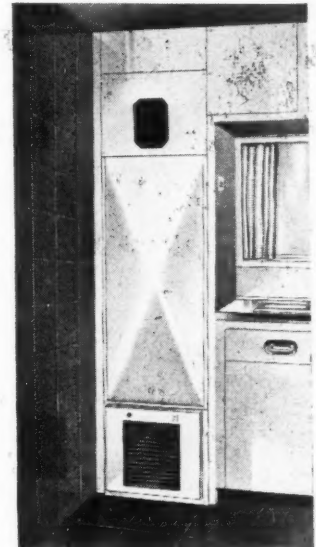
MAXIMUM EFFICIENCY The system operates at 3 to 4 times the efficiency of a normal open fire. Average fuel consumption of the solid fuel model throughout the year is about 1½ cwt. per week.

MAXIMUM CLEANLINESS in operation is assured by a compact, fully automatic unit, normally installed in the kitchen. The solid fuel model incorporates a down-draught furnace which is virtually smokeless in operation on any type of household fuel.

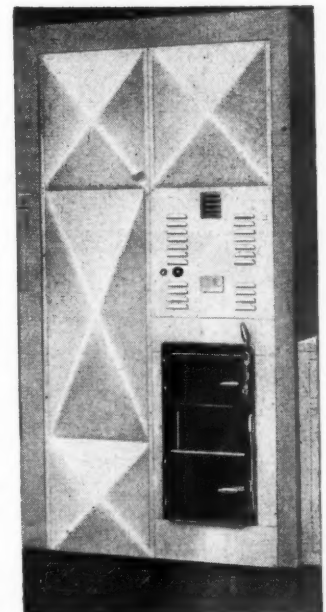
MAXIMUM COMFORT is provided by the circulation of warm air to every corner of every room and landing in the house. Thermostatic control enables room temperatures to be regulated according to the needs of the day and hour.

MAXIMUM HOT WATER supply for all domestic needs, and this regardless of whether the space heating system is in operation or not. The solid fuel heating unit incorporates a 40 gallon hot water cylinder.

Recommend Radiation Whole-house Warming and show your clients what 20th Century comfort with economy can mean.



The Gas Unit



The Solid Fuel Unit

WHOLE-HOUSE WARMING by **Radiation**

Pioneers in developing smoke-free installations in the interests of a healthier Britain.



WRITE FOR FULL PARTICULARS TO: RADIATION GROUP SALES LTD., LANCELOT WORKS, WEMBLEY, MIDDLESEX. TEL: WEMBLEY 6221



Photograph by permission of Basil Spence and Partners.

*and Clocks by Gents
of course!*

38 Clocks specially designed by Basil Spence & Partners and all controlled by one Master Clock are installed throughout the new Research Building, Department of Natural Philosophy, Glasgow University.

To ensure unfailing and accurate time the choice was, of course, a . . .

GENTS
OF LEICESTER

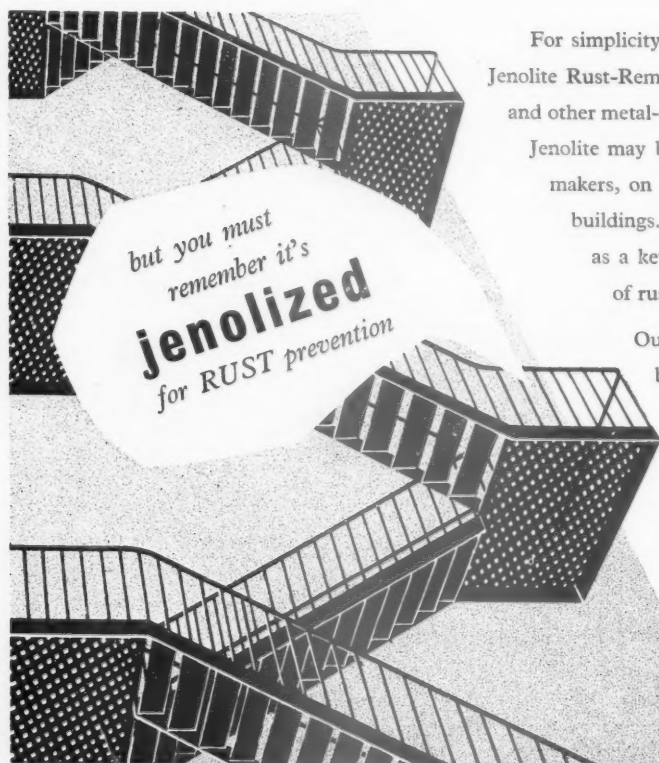
CONTROLLED ELECTRIC CLOCK SYSTEM

Full details are available free in our latest publication Book 5 Section 17.

GENT & CO LTD · FARADAY WORKS · LEICESTER

London Office and Showrooms: 47 Victoria Street, S.W.1.
Also at: NEWCASTLE · BIRMINGHAM · BRISTOL · GLASGOW

Other products include: FIRE ALARMS · STAFF LOCATORS
LUMINOUS CALL SYSTEMS · INDICATORS
TOWER CLOCKS, ETC.



For simplicity of application and economy, there is nothing to touch Jenolite Rust-Remover and Neutralizer. Steel windows, guttering, pipes and other metal-work can be jenolized during manufacture; alternatively, Jenolite may be applied by brushing on products not treated by the makers, on large structural members or on metalwork of existing buildings. Jenolite removes rust, prevents further rusting and acts as a key for paintwork of all types. For maximum inhibition of rust, use Jenolite Chemical Sealer before painting.

Our Technical Department will gladly advise on all problems relating to the prevention and cure of rust.

Jenolite
Ltd.

LONDON:
43 PIAZZA CHAMBERS, COVENT GARDEN, W.C.2
TEMPLE BAR 1745, 3055 and 5059

SCOTLAND:
JENOLITE HOUSE, 304 HIGH ST., GLASGOW, C.4
BELL 2438/9.

nts

sil
by
ut
at
w

he

TEM

STER
S.W.I.
SGOW
TORS

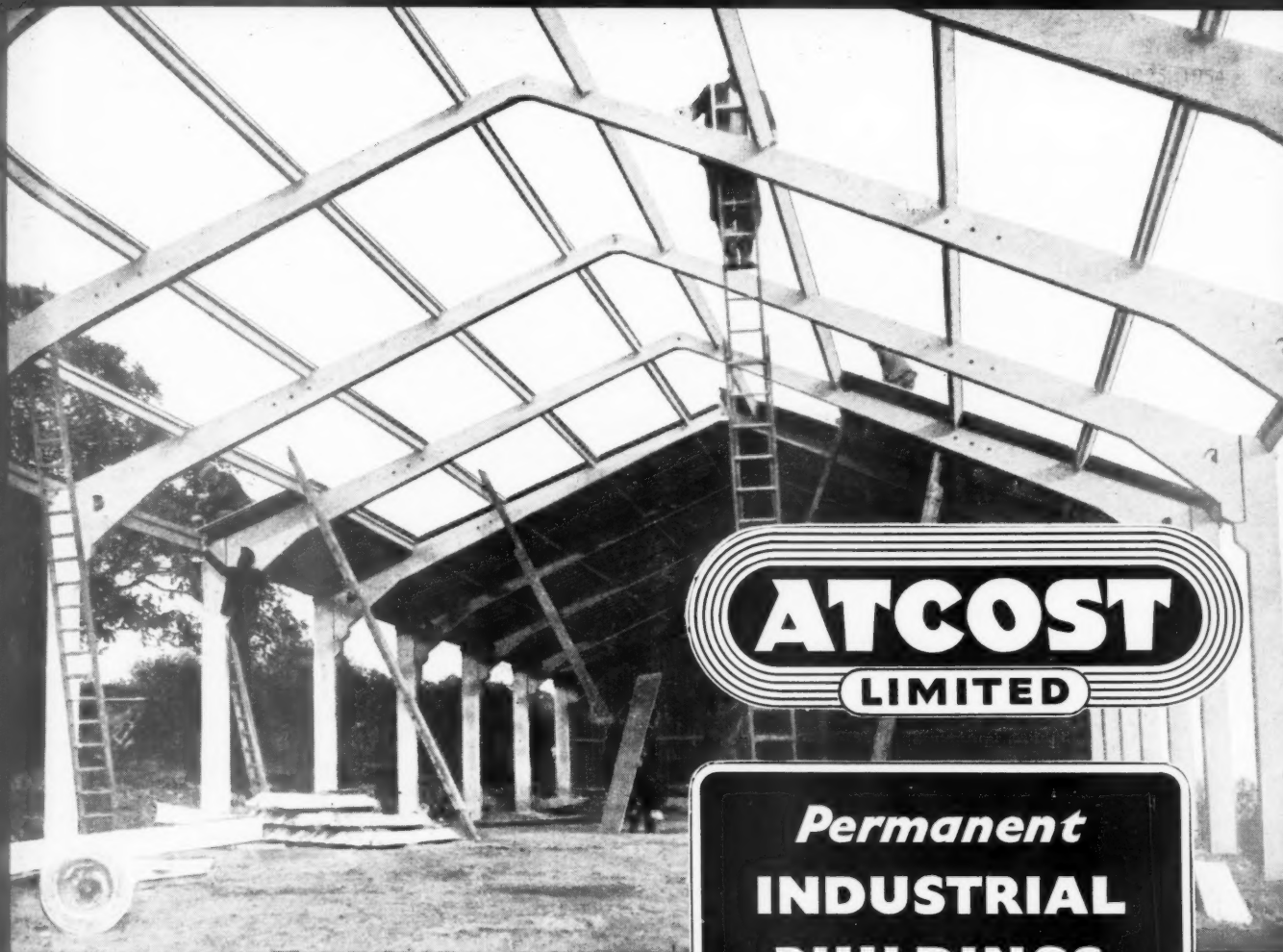
ouch
pipes
vely,
the
ting
acts
tion
pro-



BR
MA
REIN



P A



ATCOST
LIMITED

Permanent
**INDUSTRIAL
BUILDINGS**

—superior quality
at lowest possible cost

ATCOST
LIMITED

**BRITAIN'S FOREMOST DESIGNERS,
MAKERS & ERECTORS OF PRECAST
REINFORCED CONCRETE BUILDINGS**

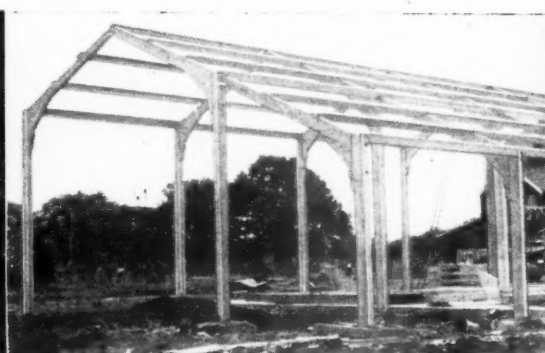
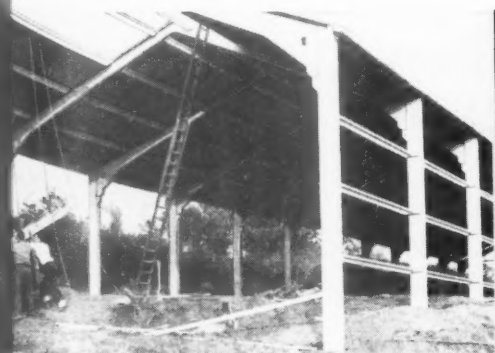
SPANS: from 15ft. to 45ft. * EAVES: from 8ft. to 16ft.

UNINTERRUPTED ROOF SPACE

HYGIENIC * FIRE-RESISTANT * NO PAINTING

IT'S A FACT that Factories, Warehouses, Stores, Machine-Shops, Assembly Sheds, Transport Garages, Riding Stables, and Agricultural Buildings, cost less if they're '**ATCOST**'-built.

Compare our quotation with those of other makers and then remember that it includes delivery, erection and foundations.



SENT ON REQUEST



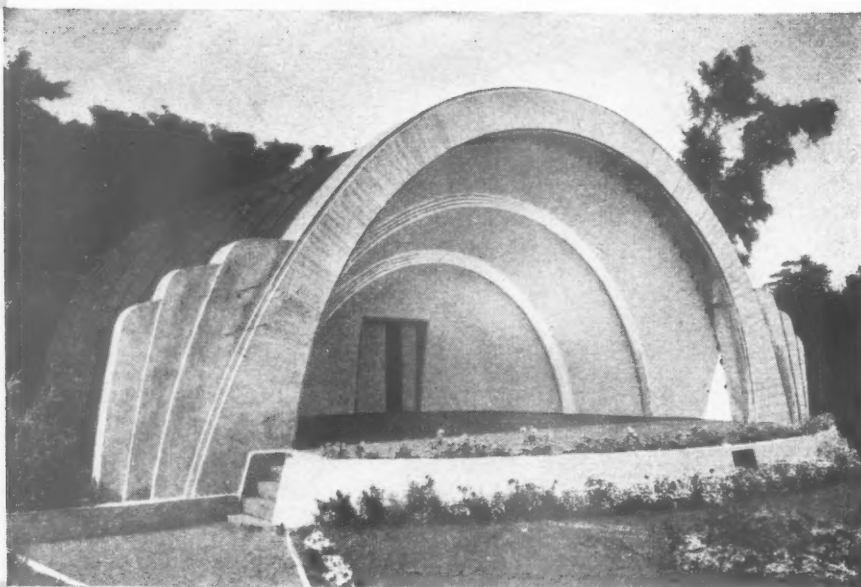
PLEASE STATE YOUR NEEDS
AND WE WILL SUBMIT
FREE QUOTATION

PADDOCK WOOD · KENT :: Paddock Wood 230-1

ATCOST
LIMITED

The widening scope of **ASBESTOS - CEMENT**

Borough Engineer and Surveyor:
A. Middleton Esq., B.Sc.,
A.M.I.C.E., M.I.MUN.E.



THIS MODERN BANDSTAND at
Queens Park, Heywood, Lancs., is another
striking example of the versatility of
Asbestos-Cement

using: "TURNALL" ASBESTOS-CEMENT
TRAFFORD TILES
"POILITE" MOULDED SHEETS
and
SPECIALLY MOULDED ASBESTOS-CEMENT
LIGHTING TROUGHS

TURNERS ASBESTOS CEMENT CO LTD

A MEMBER OF THE TURNER & NEWALL ORGANISATION

TRAFFORD PARK

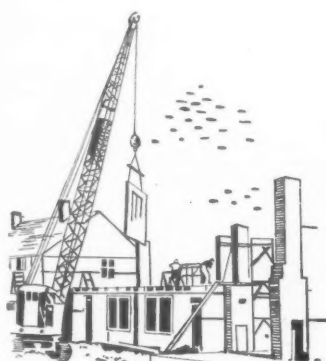
MANCHESTER 17

G.21.

A NEW APPROACH TO THE HOUSING PROBLEM



There is no doubt that Hawksley S.G.S. Houses are rapidly gaining favour with both architect and local authority. Presenting a conventional appearance internally and externally, they are manufactured almost completely in the factory and save over 50 per cent. of site man hours. The inner shell consists of pre-fabricated cast plaster panels with formwork for the concrete structure attached. The external single brick cladding "tied" to the structure is separated by a 6-inch cavity from the interior panels and roofs are tiled in the normal manner. All other components are of traditional construction. Hawksley S.G.S. Houses are available with 2, 3 or 4 bedrooms (or any combination of these). They may be built in pairs or terraced and stepped if required. Over 1,000 have already been built. If you are not already in possession of full details, kindly let us know.

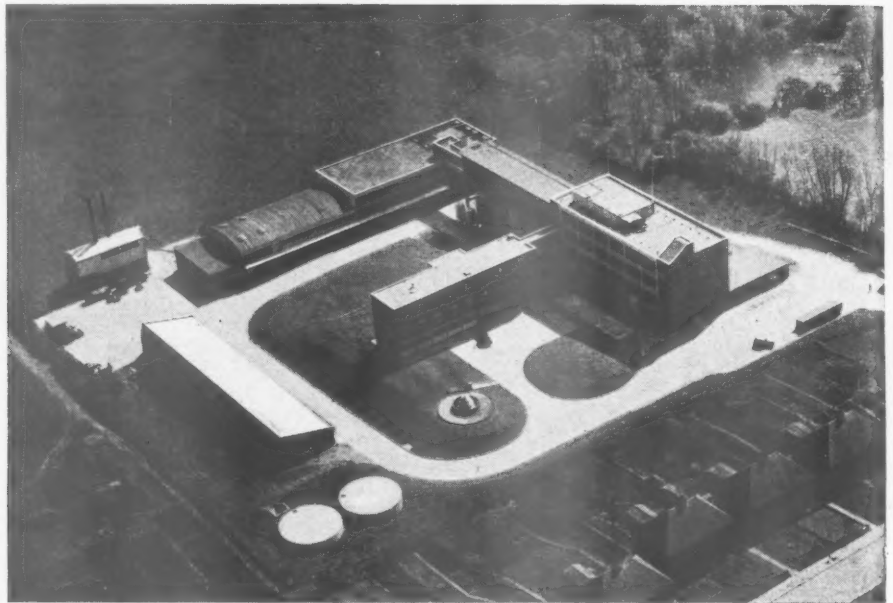


HAWKSLEY General Purpose buildings are ideally suited for schools, hospitals, offices, workshops, canteens, halls and light industry factories. Built of light alloy materials on the panel system, they may be erected by unskilled labour without special equipment. Roof spans are 24ft., 32ft. and 40ft. Plans are based on a modular length and width of 8ft. Ceiling heights are 8ft., 9ft., 11ft. and 12ft. 6in. Maximum overall length 152ft. without internal supports. Illustrated leaflets giving full details are available.

HAWKSLEY
Single Storey
FACTORY MADE BUILDINGS

HAWKSLEY CONSTRUCTIONS (MEMBER OF THE HAWKER SIDDELEY GROUP LTD.) BENTHAM, GLOUCESTER. PHONE: WITCOMBE 3251.

What is **DIFFERENT** about this building?



Factory for the Standard Yeast Company.

Engineers: Messrs Ove Arup & Partners.
Consulting Architect: David du R. Aberdeen, F.R.I.B.A., A.M.T.P.I.

There is no visible difference. But the method by which speed, cost and quality of building are controlled under the Bovis System of Contract is different. This difference of control is of great importance to Building Owners and their professional advisers.

For twenty-five years this form of contract has been successfully applied to all types of building operations throughout the United Kingdom by Bovis Ltd., a building firm of 70 years experience.

BOVIS.

STANHOPE GATE • LONDON • W.I.

THE FAMOUS **Alborough** GARAGE AND OTHER PREFABRICATED CONCRETE PRODUCTS

'ALBOROUGH' BUILDINGS EMBODY THESE CHARACTERISTICS:—

1. PERMANENCE because they are concrete. 2. SKILLED MANUFACTURE AND ERECTION AT MINIMUM COST because they are prefabricated.
3. THE CHARM OF THE TRADITIONAL TIMBER BUILDING WITH TEN TIMES THE LIFE—because they are 'ALBOROUGH'.

The 'Alborough' method of prefabrication is based upon the tried and proved principle of post and panel units which time has shown to be the best. As posts and panels are assembled dry and all joints are sealed with a pressure gun application of mastic, any slight movement of the building over a period of years will not damage or interfere in any way with the structure.

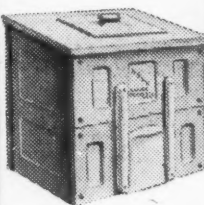
A GROUP OF ALBOROUGH GARAGES



'Alborough' prefabricated concrete units, when treated with Alkali Resistant Chlorinated Rubber Paint, are equal in appearance to traditional timber construction.

The Step-Site Method of erection which can be adapted to any site saves 10% in erection costs.

A.B.C.D. CONCRETE COAL BUNKERS



The permanent answer to fuel storage problems. Available in single units and multiple units from 5 cwt. upwards. There is a type to suit every site.

ALBOROUGH GARAGES (erected by our Step-Site Method)



THE ALBOROUGH COMPLETE ERECTION SERVICE

'Alborough' prefabricated concrete buildings and garages are erected by the manufacturers themselves. Free plans and site survey and the use of skilled labour in the laying of foundations and

erection ensure a comprehensive service which also includes the completion of all statutory obligations under the Town and Country Planning Act and local By-laws.

Note : Orders executed within 50 miles London only

ASSOCIATED BUILDING CONSTRUCTION DEVELOPMENTS (RAYNES PARK) LTD.,
34/35 ALPHA ROAD, SURBITON, SURREY.

Te ephone : ELMBRIDGE 6591/6593

"When it comes to
PROFILES...



(says
Daylight)

corrugated 'Perspex'
has *all* the answers!"

Corrugated 'Perspex' is made in profiles to match almost every available corrugated roofing material in metal or asbestos. And in some profiles there is *curved* corrugated 'PERSPEX' too—for curved or flat roofs. So if you are thinking of letting in a ray of sunshine, there is almost certainly a corrugated 'PERSPEX' profile to meet your needs.

fit corrugated

'PERSPEX'

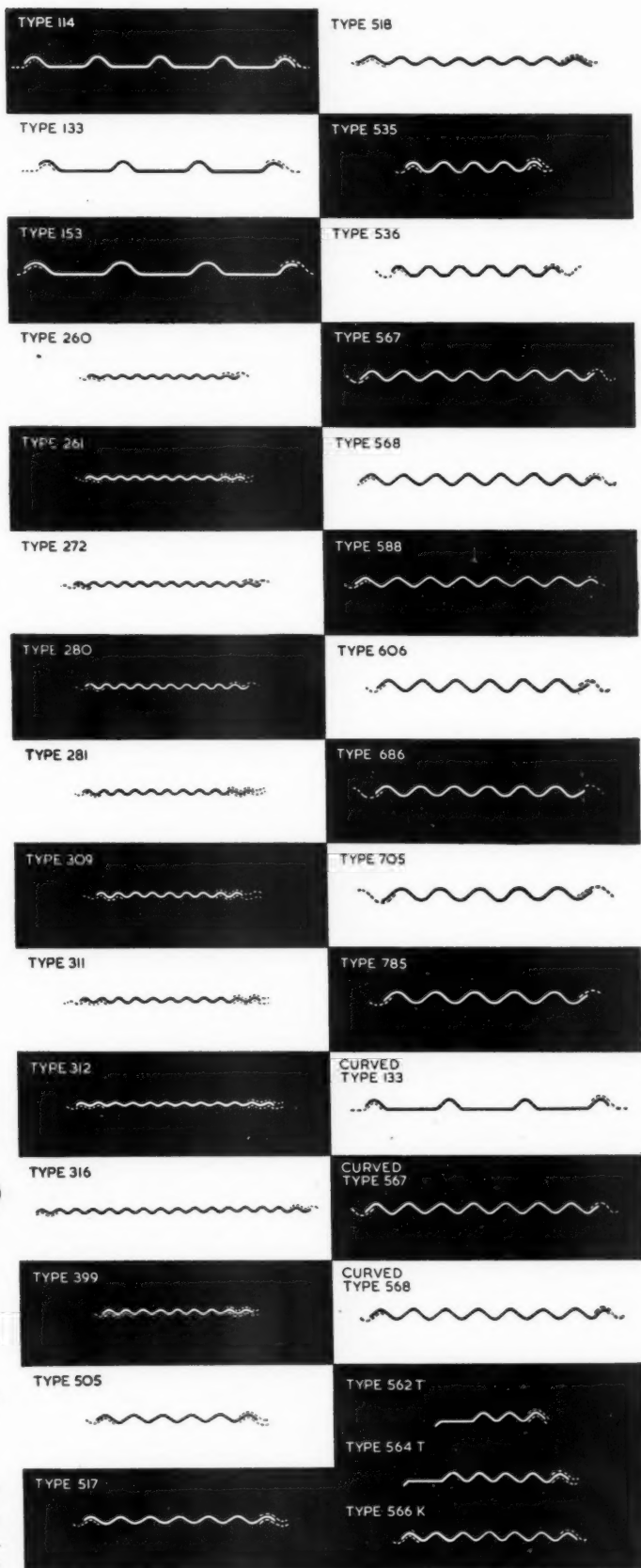
and give Daylight
a chance

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



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

CP 85



SOMETHING OLD...

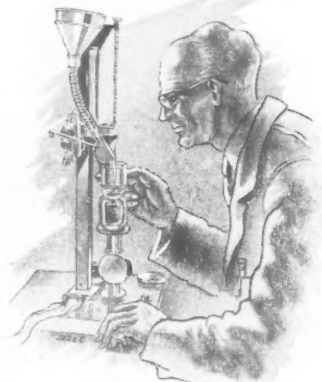
EXPERIENCE has tested the craftsman's product of the past; research ensures that industries will be well served in the future.

By combining past knowledge with modern manufacturing techniques, the makers of animal gelatines and glues have developed a range of products suited for every purpose—for adhesion, for emulsifying, for binding, for sizing. Scientific control has been added to inherent natural qualities. For building and structural work, animal glues have proved consistently reliable and economic.

Flexible, adaptable, durable, safe and easy to apply, and tolerant in use, animal gelatines and glues represent a union of research and experience.



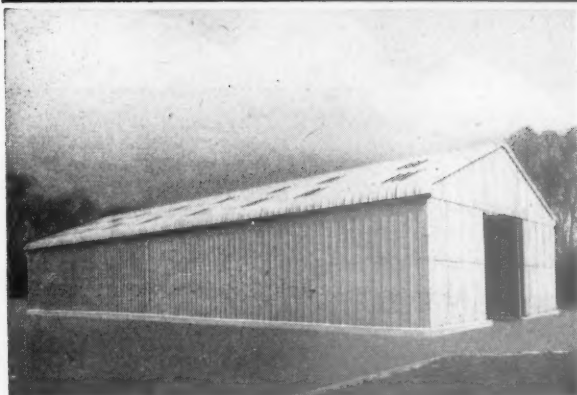
SOMETHING NEW...



NOTHING STICKS LIKE GLUE

ISSUED BY THE FEDERATION OF GELATINE AND GLUE MANUFACTURERS

COSELEY *Standard Steel Framed* BUILDINGS



Large sliding Doors Perspex Roof Lights or Patent Glazing. Steel Framed Windows. Completely or partly clad in Asbestos Cement.



Standard Steel Framed Building

Span.	Height to Eaves.
30ft. ..	8ft., 10ft., 12ft., 15ft.
40ft. ..	8ft., 10ft., 12ft., 15ft.
50ft. ..	8ft., 10ft., 12ft., 15ft.
60ft. ..	8ft., 10ft., 12ft., 15ft.

Lean-to and Canopy extensions are also supplied at standard roof slope of 1 in 2½.

Please send for Brochure A

The COSELEY

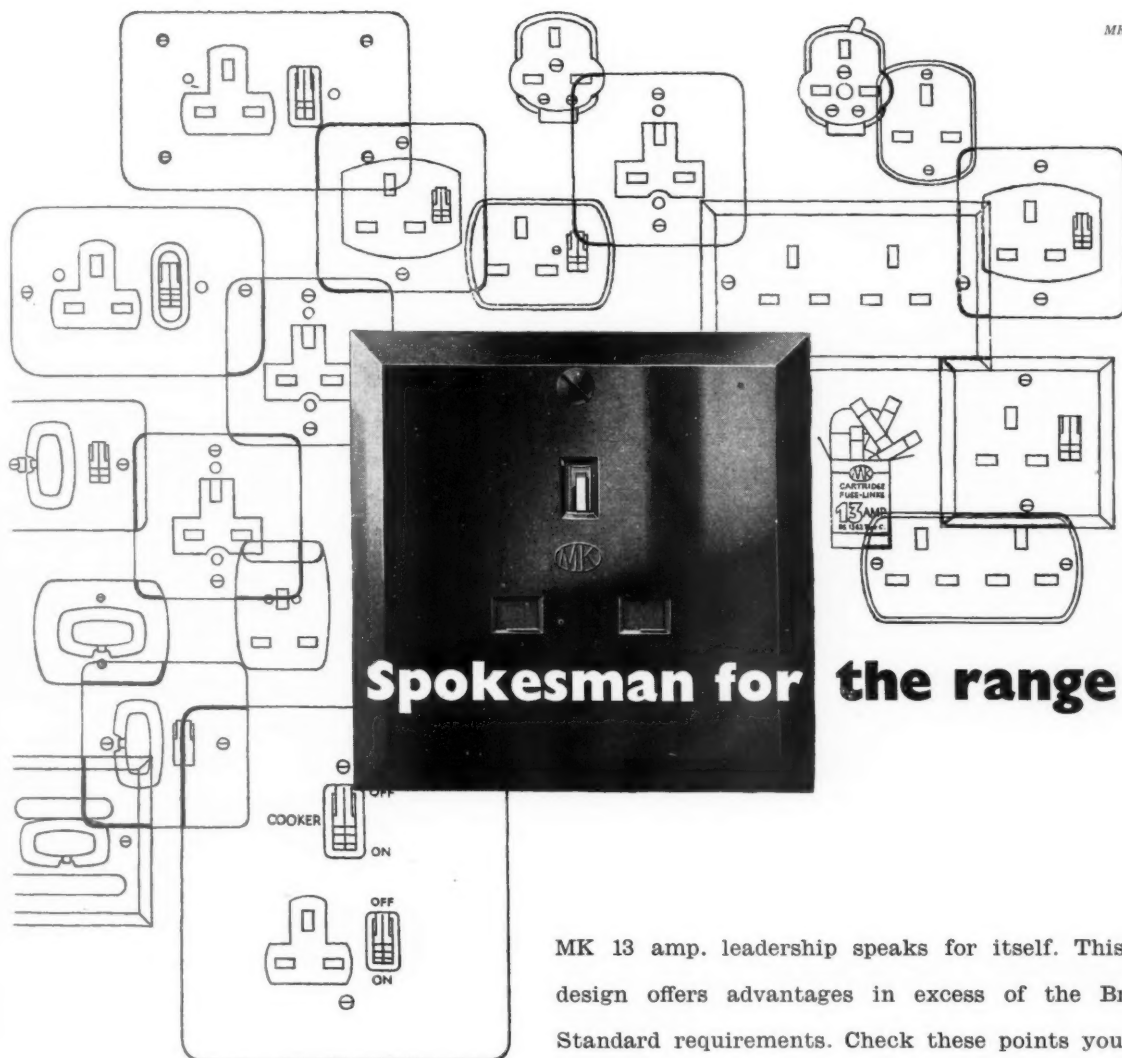
ENGINEERING CO. LTD.

LANESFIELD WOLVERHAMPTON
LONDON OFFICE: 27, OLD BOND STREET, W.1.

Telephone: BILSTON 41927-8-9

Telephone: GRO. 3626-7-8

MK94DHB



Spokesman for the range..

MK 13 amp. leadership speaks for itself. This MK design offers advantages in excess of the British Standard requirements. Check these points yourself.

- ★ Anti-Track mouldings throughout.
- ★ Snap-Action Shutters to compel the plug safely home in one movement.
- ★ Easier installation for time and money saving.
- ★ Patented socket design, providing permanent high pressure contact along the plug-pin.

Furthermore, like all MK 13 ampere accessories it is outstanding in its reliability—far lower priced than its quality would suggest.



...the mark of leadership

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

PAINTS FOR EVERY PURPOSE AND SURFACE PAINTS FOR EVERY PURPOSE



When the "question of paint" arises, much thought must be given in deciding the paint treatment and the paint material to be specified, from among the numerous types of paint coatings available. Many special types have been formulated for the various surfaces and conditions which are to be met with in present day building and manufacturing. Allow us, therefore, the opportunity to suggest and advise you regarding what would be the most appropriate specification when your "paint question" arises. Our Laboratory, together with our Technical and Service Departments, are for your convenience, i.e. to be utilised in the solving and easing of your paint problems appertaining to the protection and decoration of the structures created by you.

● Panels, folders and samples of our various materials will be sent on request.

MONTGOMERIE, STOBO & CO. LTD.

MANUFACTURERS OF FINE PAINTS, ENAMELS & VARNISHES

52/72 ROGART ST.,
GLASGOW, S.E.

ALSO AT
BELFAST & SLOUGH

DEESIDE, SALTNEY WHARF,
SALTNEY, NR. CHESTER

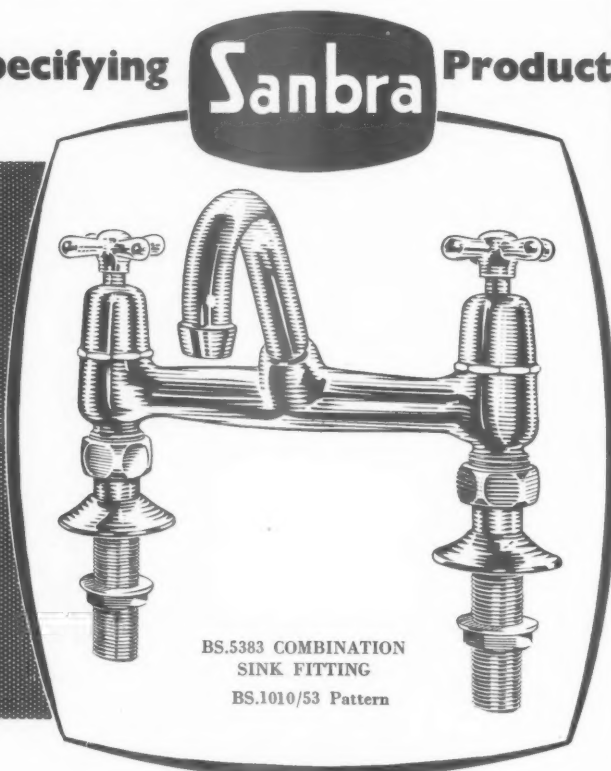
Seven Sound Reasons for Specifying Sanbra Products

1

BECAUSE . . .

we maintain the services of a large, experienced and highly-skilled DESIGN STAFF—men who apply to the design of Standard fittings, the same touches of craftsmanship that distinguish all Sanbra Products—Luxury, as well as Utilitarian.

● We are always pleased to co-operate with our Customers in the DESIGN of fittings to suit their special requirements.

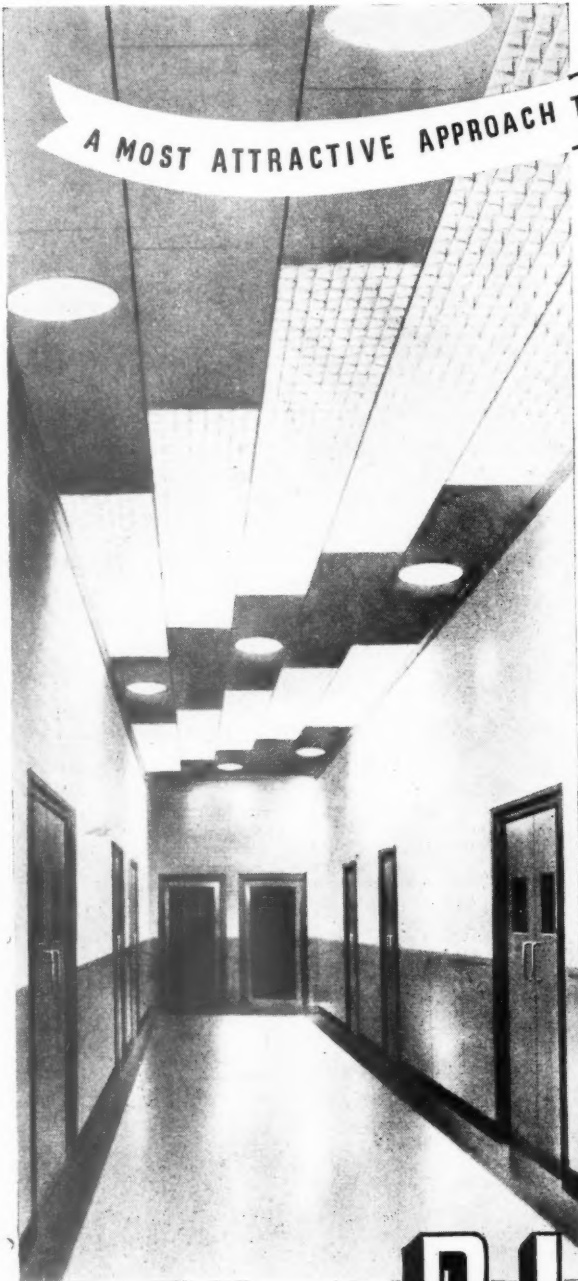


BS.5383 COMBINATION
SINK FITTING
BS.1010/53 Pattern

SANBRA Ltd. ASTON HALL ROAD • BIRMINGHAM • 6

DESIGNERS & MANUFACTURERS OF A COMPLETE RANGE OF FINE QUALITY PLUMBERS BRASSFOUNDRY

A MOST ATTRACTIVE APPROACH TO MODERN CEILING DECOR & LIGHTING



"DIFULITE" Cellular Sub-Ceiling combines modern, decorative treatment with overhead lighting (over the complete ceiling if required) soft, diffused and comparable with daylight, and is ideal for concealing unsightly structures, without costly alterations.

These ALL-METAL panels are

- EASY & ECONOMICAL TO INSTALL
- RIGID & OF LIGHT WEIGHT
- EASILY REMOVABLE

for replacement of light fittings, etc.

SPRINKLER SYSTEMS ARE CONCEALED
WITHOUT REDUCING THEIR EFFICIENCY

DIFULITE

CELLULAR SUB-CEILING

means **LIGHT** with a difference!



If you would like full details

WRITE TO US FOR ILLUSTRATED LITERATURE

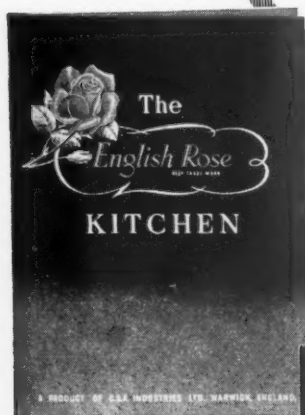
METAL SECTIONS LTD., OLDBURY, BIRMINGHAM. 'Phone: BROadwell 1541



COMPANY

Member of the Cold Rolled Sections Association

here
is the
information



and
the facts
regarding
**KITCHEN
EQUIPMENT**



**SERVICE TO
ARCHITECTS**

This literature, together with "Architects Journal" Information Sheets Nos. 43, E15 and 16, has been prepared for the use of Architects, and provides all the dimensions and data concerning "English Rose" and "Warwick" Kitchen Equipment. Please ask for literature ref. ERW.1

PRODUCTS OF C.S.A. INDUSTRIES LTD. WARWICK

London Showrooms: 229-231 Regent Street, W.1

Telephone: RK Gent 2435

L.G.B.

EVODE

**SOLVES PROBLEMS OF
COOLING TOWER
INTERNAL SURFACE
PROTECTION**

**EVEN DIRECT TO
GREEN
CONCRETE**

The combination of EVODE Insulating Paste and EVODE Black 505 has proved ideal for the internal surface protection of cooling towers, and leading consultants are now adopting this specification . . . "A brush coat with EVODE Insulating Paste I at the rate of $\frac{1}{2}$ - $\frac{3}{4}$ lb. per yard super, followed by a coat by brush or spray, of EVODE Black 505 at the rate of 1 gallon to every 40 yards super." This treatment has these supreme advantages — it can be applied to green concrete, i.e. without having to wait at least 28 days before it matures, and to moist surfaces.

**EVODE blacks are all true
Asphaltic Bituminous Paints**

that give better protection . . . the complete range includes:—

505 General purpose coating for iron, concrete, brickwork, glass, etc. Well suited for brushing, dipping and spraying.

505S Heavily bodied bituminous paint for use under extreme conditions of corrosion, particularly suitable for structural steelwork, etc., corrugated iron sheeting, A.I.D. and M.O.S. approved.

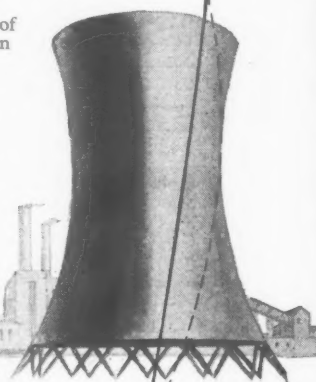
505D For the inside protection of drinking water containers of iron and concrete. Quick drying, tasteless and odourless when dry. M.O.W. approved.

505H Thoroughly heatproof (dry heat up to 450°F.) for chimney stacks, etc. Hot water resisting. For the inside and outside protection of hot water tanks.

505W As 505 but suitable for dew-moist surfaces.

505SW As 505S but suitable for dew-moist surfaces.

505Ch Chassis Black. Rapid drying solution for application by spray or brush to all motor chassis.



AN
EVODE
PRODUCT

EVODE LTD · GLOVER ST · STAFFORD

Telephone: 1590/1/2
Telegrams: Evode,
Stafford · LONDON
OFFICE: 1 Victoria St., S.W.1.
Telephone: ABBey 4622/3

OF

ACE

TO

E



RD

7.1.



It is revealing, after years of enforced experiment with alternatives, when Linoleum was in short supply, that the trend is back to this versatile floor covering. Where glamour of appearance must combine with low initial cost, and really hard service, Linoleum is the logical specification. Its beautiful colours and diversity of patterns provide architects with unlimited scope for expression in modern design. Easy to clean, quiet to the tread, it is incredibly wear-resistant. For every reason, everywhere —

Nothing takes the place of LINOLEUM



For good looks and long life plan for

LINOLEUM



"THELMA" stands for The Linoleum Manufacturers' Association, 127 Victoria Street, London, S.W.1.

For further information write to the Association or to any of the following members:—

BARRY OSTLER & SHEPHERD LTD., KIRKCALDY · DUNDEE LINOLEUM CO. LTD., DUNDEE · LINOLEUM MANUFACTURING CO. LTD.,
6 OLD BAILEY, E.C.4 · MICHAEL NAIRN & CO. LTD., KIRKCALDY · NORTH BRITISH LINOLEUM CO. LTD., DUNDEE
SCOTTISH CO-OPERATIVE WHOLESALE SOCIETY LTD., FALKLAND, FIFE · JAS. WILLIAMSON & SON LTD., LANCASTER



✱ REGENCY
CREAM MARBLE

VINYL and SEMASTIC

DECORATIVE TILES

products of a Dunlop Company

are installed by—

J. A. Hewetson & Co. Ltd
Hollis Bros. Ltd
Horsley Smith & Co. (Hayes) Ltd
Pilkington's Asphalte Co. Ltd
Semtex Ltd
The Penmaenmawr & Trinidad Lake Asphalt Co. Ltd
The Limmer & Trinidad Lake Asphalt Co. Ltd
The Western Trinidad Lake Asphalt Co. Ltd

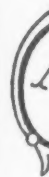
The opening years of the nineteenth century saw the beginning of mechanical invention, philosophic teaching, romantic novels, poetry and political forces that were to change the pace and face of the world. All this ferment of thought and action was reflected in the new furnishings of the time, now popularly known as English Regency, after the Prince who became Regent for George III. The colour of the Semastic Decorative Tile illustrated is a cream used in much of the Regency furnishings, now standardised by the British Colour Council who collaborated in the selection of colours for both Semtex Vinyl and Semastic Decorative Tiles. Architects will find that this dual range offers them the widest possible scope for colourful decorative schemes to satisfy both æsthetic and practical considerations.

✱ *One of the eighteen plain and marbled colours in the Semastic Decorative Tile range.*

ma/s.7

THE

No. 30



HULL

Some
attent
course
of HN
form?
crew?
we co
archit
Hull—
man—
the tv
struct
be de
style,
will b
pieces
land.”
her m



THE ARCHITECTS' JOURNAL

EDITORIAL BOARD: (1) *Consulting Editor*, F. R. Yerbury, O.B.E., Hon. A.R.I.B.A. (2) *Town Planning Editor*, Dr. Thomas Sharp, L.R.I.B.A., P.P.T.P.I. (3) *House Editor*, J. M. Richards, A.R.I.B.A. (4) *Executive Editor*, D. A. C. A. Boyne. (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.

GUEST EDITOR (CONVERSIONS): (8) Felix Walter, F.R.I.B.A.

SPECIALIST EDITORS*: (9) Planning (10) Practice (11) Surveying and Specification (12) Materials (13) General Construction (14) Structural Engineering (15) Sound Insulation and Acoustics (16) Heating and Ventilation (17) Lighting (18) Sanitation (19) Legal.

ASSISTANT EDITORS: (20) *Chief Assistant Editor*, Kenneth J. Robinson, (21) *Assistant Editor* (Buildings), L. F. R. Jones, (22) *Assistant Editor* (Information Sheets), Lance Wright, A.R.I.B.A., (23) *Photographic Department*, H. de Burgh Galwey, W. J. Toomey (24) *Editorial Secretary*, Monica Craig.

* 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

No. 3082 March 25, 1954 VOL. 119

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.



HULL DOWN ON THE HORIZON

Some of you may like to have your attention diverted—only temporarily, of course—from the alleged extravagances of HM Yacht Britannia (a concert platform? . . . a helicopter deck? . . . a crew? . . . Well, honestly, what are we coming to?) to the latest naval-architectural news from Liverpool. Mr. Hull—right-hand man of Sir John Ellerman—has decided that the interiors of the twelve new liners now under construction for the Ellerman fleet are to be decorated in “the Georgian period style,” and that built into each of them will be “genuine and priceless antique pieces from the Stately Homes of England.” The “City of Durban,” off on her maiden voyage shortly, for instance,

contains pine panelling from Calverly Hall, Nantwich, a real Chippendale fireplace from Guildford, a silver basket grate from Dublin and twenty-five Georgian chairs from Hove.

*

“This development in ship construction,” says the naval architect, “serves a double purpose. It is a means of storing antiques while providing luxurious settings for passengers” . . . or could he have meant it the other way round? This sort of news item is, of course, money for old rope for the architectural columnist. The ironical quip about glowing electrolog fires . . . the weary sophisticated titter at the thought of the priceless Ming China (procured at Peterborough) tinkling in the cabinet as the Captain rings down “Full Ahead” . . . the final and well-deserved rap over Mr. Hull’s knuckles . . . why the thing practically writes itself.

*

There is even the temptation—private joke or public fancy?—to defend the whole preposterous scheme (see last week’s letters on the Berg House)—as less of a sin than the whole apparatus of contemporary clichés. ASTRAGAL perhaps because he is still brooding at having missed a preview of O’Rorke’s “Orsova” before she sailed last week, can bring himself to do neither. Anger and despair battle wearily inside his skull. Imagination, to coin a phrase, boggles. Hysteria is not far off. Is it possible that anything quite so fatuous could in fact have been said by that naval architect? What sort of house does Sir John Ellerman’s right-hand man live in? (Does it perhaps serve a double purpose—as a store-

house for deck fittings?) Has Sir John got a left-hand man and, if so, what does *he* think about it all? The questions come as thick and fast—almost—as the bookings and subsequent compliments will certainly reach the Ellerman line.

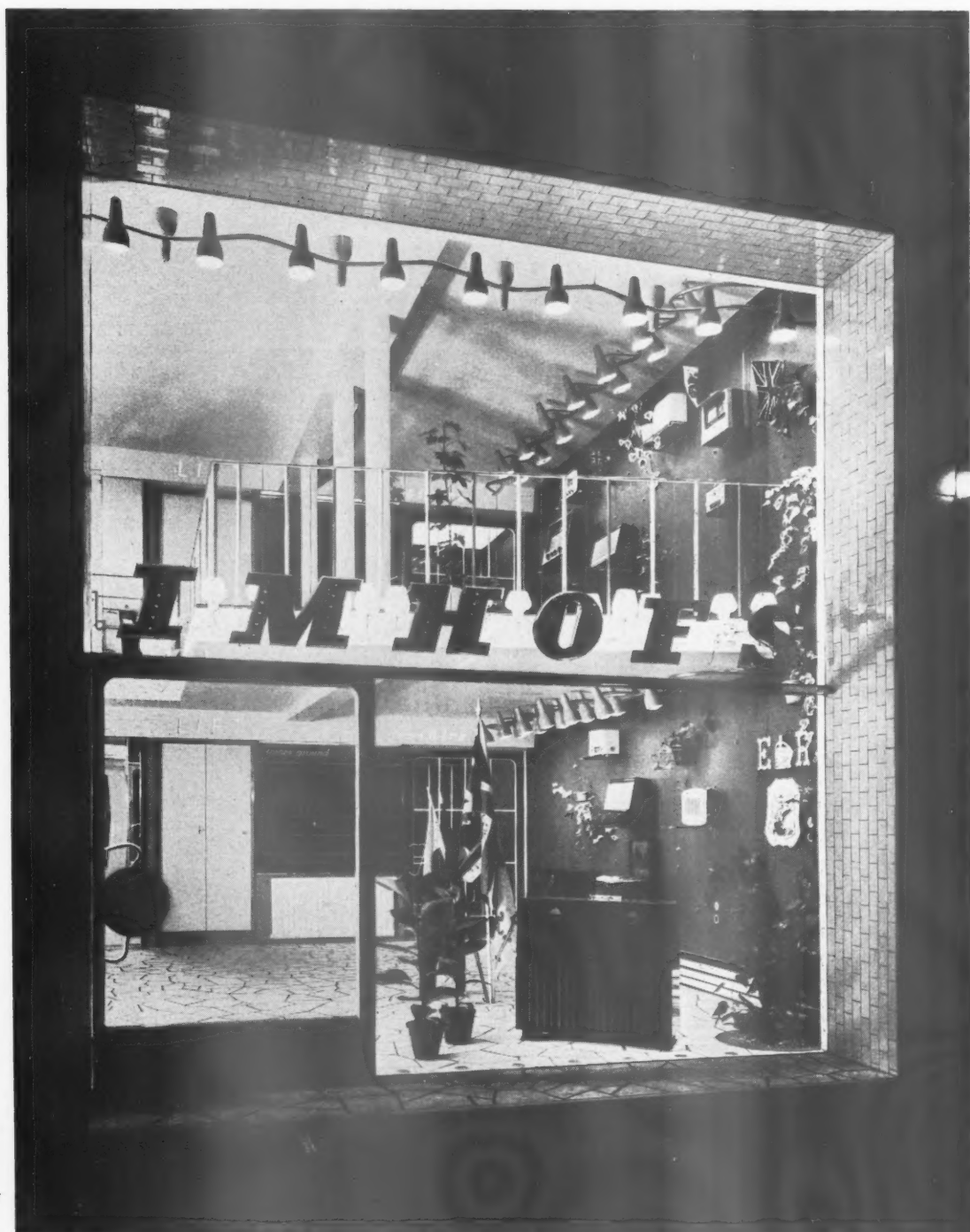
*

You can see the argument, of course. If we can’t do ships with such good food as the French, such splendid interiors as the Italian, such speed as the Americans—well at least we can use them as storehouses for antiques. Sir David Eccles wants ideas for a home for Temple Bar. You need look no further than E Deck aft. Reluctant to see your 13th century barn sold to Texas? Why not sell it to Mr. Hull and see it return on alternate fortnights (except in the cruising season) to Gladstone Dock. . . . But why go on? Reality is more than the wildest fancy and ASTRAGAL, for once, has lost heart.

FALMOUTH SCHOOL COMPETITION

ASTRAGAL learns that assessor Howard Lobb was particularly pleased with the imaginative way Messrs. Lyons, Israel and Ellis, the winners of the Falmouth school competition (see page 362) used the different levels of the site to add to the interest of the design. These competitors alone turned their building to run across the contours, presenting, as they did so, only an end wall, or two, to the strong prevailing winds. Comparison of the principal elevation of the winning design with those of the unsuccessful five (see page 358) suggests that it is, perhaps, the most contemporary in character and also potentially the most exciting (if that is still a desirable quality) of the entries.

CREATION WITH CRAFTSMANSHIP



Messrs. Alfred Imhof Ltd., New Oxford Street, W.C.1. Architects & Taylor & Green, F.F.R.I.B.A.

THE ASSOCIATED COMPANIES OF

COURTNEY, POPE

COURTNEY, POPE LTD., Shopfitting, Architectural Joinery and Metalwork

COURTNEY, POPE (ELECTRICAL) LTD., Lighting Specialists

AMHURST PARK WORKS, TOTTENHAM, LONDON, N.15 • STAMFORD HILL 4266 (TEN LINES)

lxviii

But, my word, it takes a competition to jolt this apathetic mind into realizing how easily and readily standards in school design come (or is it, slip?) back to those of donkey's years ago. For instance, classrooms each side of a central corridor; the placing of workshops next to, or opposite the windows of, classrooms; the separate entrances for staff and children; and the children's entry through massive banks of cloakroom fittings and lavatories. It is possible that 5 per cent. daylight factors were nonsense anyway, but has anyone scientific proof of what is the minimum daylight factor necessary to avoid eye-strain? And has anyone checked on the nuisance value, in decibels, of workshops? Was their once popular isolation just due to another spate of unreasoned fussiness from mamma MOE?

Of the unsuccessful entries, that of Louis de Soissons was true to form. Any visitor to Plymouth or the Royal Academy should recognize the type. More unusual, today, was Wornum & Playne's design with heavily emphasized pitched roof and walls of grey and grey-green Cornish granite and cement blocks, laid horizontally and on end. The planning was fairly orthodox, with a three-storey classroom block with staircase access to pairs of classrooms. Of similar plan and construction was the Bazeley and Barbary design. Less orthodox planning was attempted by Cowell, Drewitt & Wheatly and by Slater, Uren & Pike. The former had a more attractive, part-courtyard layout than the bald elevation suggests, with two floors, of seven classrooms each, over the library and staff rooms, and reached by only two staircases. The latter used a curved layout, with staggered classrooms.

Rendering, Tyrolean or otherwise, and granite-finished blocks seemed most architects' interpretation of the promoters' request for natural materials. The winner, however, tries slate panels and a plinth of stone pinched from the site walls, which he proposes to replace by the neat, efficient, economic dreariness of chain-link fencing. How much longer such concessions to local materials will remain valid under present economic

conditions and design trends remains to be seen.

Can one say from the results that this limited competition has been a success? In six months the promoters have acquired a carefully considered set of plans and elevations. Site-work could well begin before the end of the year. By ordinary competition standards the saving in time is considerable—but there is also vague regret to be felt for the possibly lost opportunity for discovering a brilliant "unknown" by an open competition.

Finally, ASTRAGAL was once again disappointed to learn that, even with only six entries, no criticism of the designs was made by the assessor. In fact, no written report was made at all. This cannot be because assessor Howard Lobb is afraid of making criticisms, or is lazy, or indifferent. One knows that he is just the opposite. He is, presumably, following the RIBA's considered policy of dumbness.

CHARLEY PARLEY

Now, at last, we have *The Modulator** in English and perhaps we shall begin to see what it is all about, and what Corb really means. In the hope of getting a sneak preview of the inner mysteries, ASTRAGAL slipped unobtrusively into an eve-of-publication discussion on the book at the ICA (and a little later he observed the titular head of the ModulAr Society slipping out, though rather less unobtrusively).

The meeting was packed and lively. While arguments were proceeding, a full size figure of Charley, the modulator man, surveyed the house from the back of the platform. It was a bit of a shock to hear him described, by a speaker sitting directly below his up-raised hand, as "a muscle-bound pin-head in a soft trilby" but very diverting to hear another platform speaker, Lawrence Alloway, compare him, not only with the familiar Isotype figure, but also with Superman and Space-pilot. This was not well received by some sections of the house, who were not there to have the mickey taken out of their demi-god, and there were some barbed exchanges between platform

and floor. This indeed seemed to be the form throughout the evening, except when William Howell was speaking on the use of the modulator and other related systems of dimensions. Although, by the time he had finished, he hardly left Charley a leg to stand on, he was heard in silence and with respect—the English will never argue with a practical man.

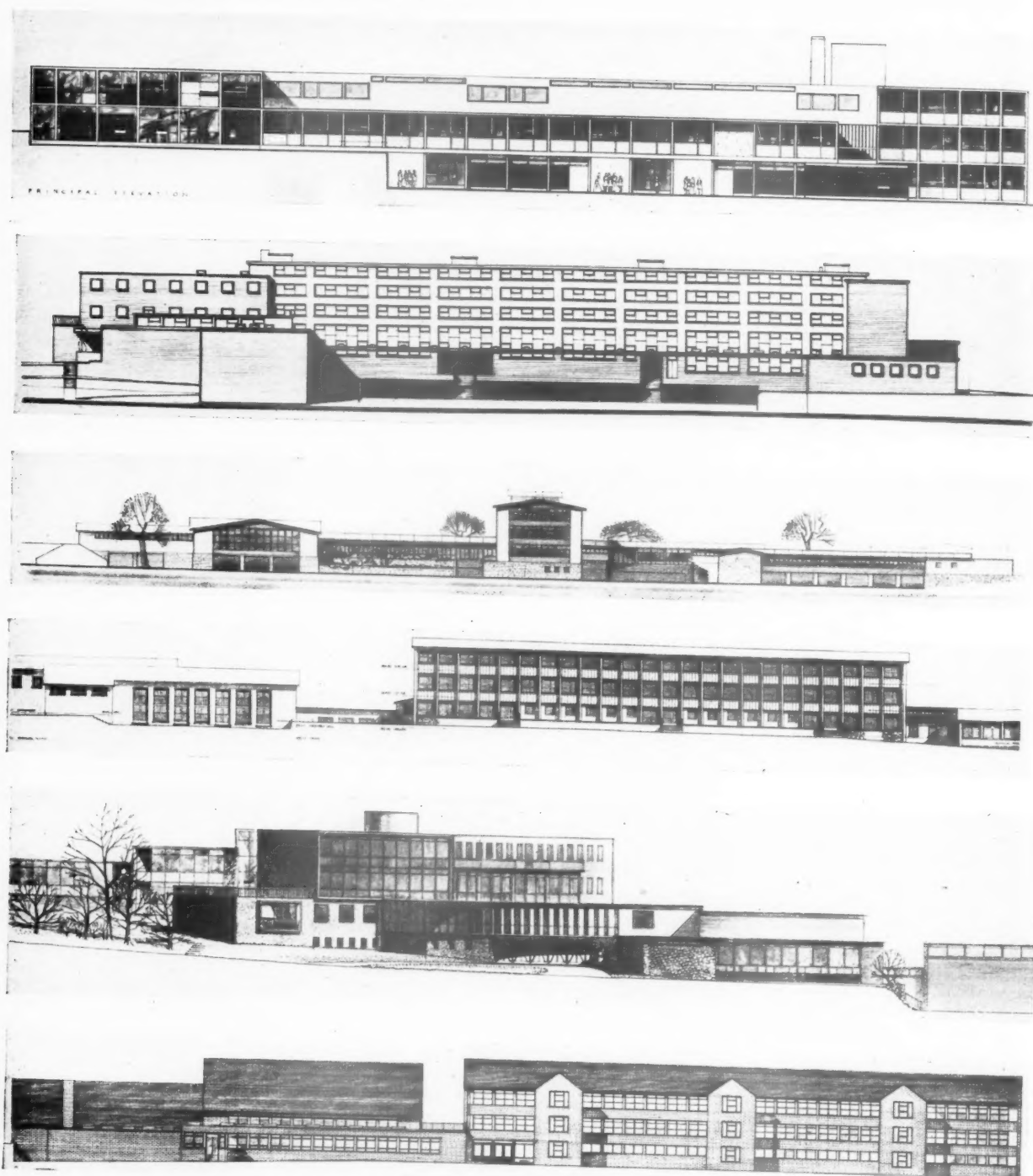
The last word from the platform, and it shall be my last on the subject, for the moment, was a complaint from the chairman about the format of the English edition. The French edition, he said, would slip easily into a duffle-coat pocket; the English, being two inches larger each way, would not. This, he felt, was a serious blow to on-site life-manship.

OXFORD RE-VISITED

The price of art books has always been, to ASTRAGAL, one of those incurable injustices which help to make life intolerable. What is the use of being allowed to read Sunday-paper reviews of books which have "made unique contributions" to this or that, or are essential to students of the other, if their prices are in the five-figure-plus category. And don't tell me about the local library, because better-informed persons always put their names down for these books about twelve months before publication date, leaving me sixty-seventh or so in the queue.

There has always been a soft spot on ASTRAGAL's hob-nailed heart for the King Penguin books, which enable him to put a well-produced art-book on an un-hackneyed subject into his pocket without taking more than two half-crowns out. King Penguins are such an institution that they tend to be taken for granted—until along comes a little tome which is so well thought out and scholarly that one's complacency is shattered. The most recent book of this kind to reach ASTRAGAL is *Ackermann's Oxford**, which has fifteen colour plates, and eight plates in black-and-white, after Ackermann and Ingram.

In a scholarly introduction Howard Colvin makes the point that these plates are a kind of last sight of Georgian



Cornish Vernacular?

The drawing at the top of this page is the principal elevation of the winning design by E. D. Lyons, L. Israel and T. B. H. Ellis in the Falmouth school competition. The other designs shown were by the following, reading from the second-from-top to bottom: Geoffrey Bazeley and Peter Barbary, of Penzance; Messrs. Cowell, Drewitt and Wheatly, of Penzance; Louis de Soissons, R.A., and Partners, of Plymouth; Messrs. Slater, Uren and Pike, of London; and Messrs. Wornum and Playne, of London. When people talk loosely about the monotonous sameness of modern design it is not unsatisfactory to be able to show how widely different a mere six attempts at solving

the same design problem can be. To a lay eye they could be six different kinds of building, rather than six schools of virtually identical accommodation placed at differing orientation on the same patch of ground. This surely shows how far in time we are from that state of perfection when a knowledge of the clients' requirements, the builder's resources, the structural techniques and materials available, and climatic conditions will reduce the possible number of variations of design for one building to nought. It shows, too, how far we are from achieving regionalism in design. Do any of these elevations belong to the Cornish coast? Other drawings appear on pages 362-367.

Oxford before the Gothic revivalists set about their face-lifting operations. The plates do, in fact, give a picturesque view of an Oxford which had not yet become a consciously picturesque city, and a plate like the one of reconstructed Balliol looking across at an assortment of Georgian and Queen Anne houses, rather than the ponderous Gothic revival of the Blank Hotel, suggests a world which, though still unmistakably Oxford, was subtly different (and perhaps rather better).

SMALLER DEPOSITS

Would-be householders should be helped considerably if Mr. Macmillan succeeds in arranging for the minimum deposit to be only 5 per cent. The speculative housebuilders have been asking for something like this, presumably because their prices are high, and the usual 20 per cent. on £3,000 or more, plus the legal charges, adds up to a tidy sum, beyond the capabilities of the clerk and foreman types for whom the houses are mainly intended.

Bear in mind also that the spec builder's price includes the land, for which the architect's private client generally has to pay in full before work starts at all. Lower deposits may help architects even more than builders, for the mortgage repayments are, as a rule, comparatively easy: it's the large deposit lump that's the stumbling block.

THE ABT REJUVENATED

Speaking at the annual general meeting of the ABT, the Association's president, H. Moncrieff, said "there is a need for vigorous bodies like the ABT who are prepared to state what they believe to be right." ASTRAGAL, who has been saddened by the lack of vigorous comment from the ABT in the last year or so, congratulates that rejuvenated body on its prompt comment on the Town Planning Bill. This comment is printed, in part, on page 361.

LARGEST MODEL

My congratulations to model-aircraft maker Phil Edwards, of Troy, Ohio, who had the laudable ambition to make the largest model airplane ever, and suddenly found it had turned into a smaller sized Auster. We shall now wait for the first architect to make a model full size and save that tiresome business of paying the contractor.

ASTRAGAL

POINTS FROM THIS ISSUE

Results of the Falmouth School Competition	pages 355, 358 and 362
The Growth of Four Towns: aerial photographs	page 368
Replanning of Castries, St. Lucia, in the British West Indies	page 371
Fire Risks of Fibre Boards: two points of view	page 379

The Editors

A WOULD-BE RIVAL TO THE ABT

TWO weeks ago the RIBA issued a questionnaire asking members whether or not they wanted a Trade Union.

Working independently the IAAS had decided that a union was necessary and formed one last week. They did not, however, announce the formation of this independent union until the closing date for the receipt of answers to the RIBA'S questions as they "did not wish to embarrass the RIBA." We are respecting their wish to avoid causing embarrassment to the Royal Institute by withholding comment on the aims and objects of the union until the RIBA has had time to give its considered opinion. Naturally this new independent body, to be known as the British Architects' Guild (or BAG) is not asking for membership until it has been approved by the RIBA.

It is a pity that the well-intentioned IAAS should confront the RIBA with a *fait accompli*, and thus give the impression that it is outsmarting the RIBA and forcing that senior body's hand.

TOWN PLANNING BILL

The Government's second Town and Country Planning Bill was given its second reading last week—the Opposition motion against was lost by a majority of 34—and now this vast complexity of words, with 72 clauses, and ten schedules, disappears into committee for detailed examination. Since both parties, as well as the country as a whole, accept the principle that future development within the United Kingdom should be planned, and should not happen haphazardly, there is one simple test to apply to the Bill: does it add to the ease of both control and development? The question may be simple: the answer is not. In fact, any answer must take the form of a balance sheet. What is on the credit side? There is no weakening of the legal power which each planning authority now has, nor is there any interference with the work of completing and co-ordinating the development plans for each area which was started by the 1947 Act. That is all to the good. It matters a great deal to the future of the country that both parties are now at one in a belief in the need for the maintenance of this control. But the legal apparatus of control is inseparable from finance. By the Act of last year, and the present Bill, the Conservative government will have put an end to the Silkin experiment

of acquiring outright, and for ever, the increment added to the value of land by its development. Has that decision made it financially impossible for planning authorities to afford proper control of development? While Mr. Macmillan remains Minister, the answer will be "no." He declared in the second reading debate that planning control would not be sacrificed to budgetary considerations. He has secured enough freedom from immediate Treasury control to be able to give authorities a reasonably free hand to refuse development proposals without fear of the resulting bill for compensation. But there remains a fundamental schism; the landowner will get a market price for his land from the private developer and only a restricted price, based on 1947 values, from the public authority developer, and changes in the value of money may widen the resulting gulf to a point at which there will be cries of injustice and discrimination. In short, the Bill is destroying one final solution and is failing to replace it with another.

Yet, it is perhaps fair to say, by way of postscript, that one thing above all else weakened the popular belief in the justice of the 1947 solution; the decision to insist on a 100 per cent. development charge. If the Labour government had left a little for the landowner as an incentive to private development, the 1947 Act might have weathered the storm with its principles intact.



A. E. Ward, Secretary, Institute of Registered Architects

"London Architect"

A. Douglas Jones, F.R.I.B.A.
Principal of Birmingham School of Architecture

The "RIBA" Trade Union

SIR.—The RIBA and the AJ are to be congratulated on bringing this question so decisively before the profession. Mr. Spragg's letter, which you quote, wisely stresses that the present inquiry is of a preliminary character and that the RIBA Council must be free to consider the form of organization best fitted to serve the interests of salaried architects.

At the present time there are only two bodies devoting themselves exclusively to architects and having none but architects in membership. They are the RIBA and the IRA.

The functions of the RIBA are well understood and their limits have been stated with admirable clarity. When the IRA was founded twenty-one years ago, those limits were appreciated and the Institute was intended to be complementary to the RIBA. That is the position today.

That there is an urgent need for a strongly supported organization, wholly composed of architects, must now be obvious. Whether that organization should take the form of a trade union or a professional society is a question to be carefully considered. If it is thought that a trade union provides the answer, then a further question arises: is it to be an industrial union or a craft union?

The merits of the two forms of union organization have always been hotly argued in the trade union movement and it still remains a bone of contention, for example, between the NUR and the ASLE&F, but the argument is of more than academic interest to the architectural profession. As you say in your leader, there is no precedent to go by. You doubt whether the ABT or NALGO meet the case and your doubts will be shared by many salaried architects. I suggest that, for a profession, a professional society is a more realistic solution to the problem. Certainly the support which the BMA receives from the medical profession indicates that the doctors have no doubts on the subject.

Any new organization starting from scratch would be faced with many difficulties, not necessarily insuperable, but certainly taking a long time to solve. For example, in central government there are well-established staff associations with a right, at the moment, to represent staff, including architects, many of whom belong to the IPCS. In local government, NALGO is strongly placed. A

new organization would be faced with the decision: Shall it attempt to displace these existing organizations or to collaborate with them. Trade union history indicates that newcomers to the field meet with a frigid reception and sometimes with violent opposition. Think of recent events in the Post Office and the relationship between the NUR and the "interloping" Union of Railway Signalmen—the latter being an example of a new craft union seeking to enter the field already covered by an industrial union.

A professional society with no trade union prerogatives to guard might very usefully collaborate with the existing organizations in a most effective way to ensure that the point of view of the profession is fully understood and strongly represented in any negotiations. There is ample evidence that the BMA and the Law Society are effective instruments for the protection and defence of their members.

The position of the qualified architect serving as an assistant in private practice calls for special consideration and possibly a separate category of membership. The difficulties of applying salary scales and conditions of employment accepted by government departments and local authorities to private practice, particularly in these days when the private architect is literally fighting for his existence, are obvious. Moreover, the qualified assistant in private practice still cherishes, despite all discouragements, the hope of one day himself becoming a principal.

Clearly, the architectural profession requires a form of organization suited to its particular needs. In few other fields, if any, do we have the position of the chief of a department and most of his subordinate staff holding the same qualification. The BMA and the Law Society do not have that particular problem. The borough MOH does not have 20 qualified doctors on his staff, they receiving one-third of his salary. The town clerk does not have a staff composed of qualified solicitors receiving an even smaller proportion of his salary. But that is the position in architecture. The borough or county architect cannot, academically, be more qualified than the last of his staff to obtain registration by passing an examination approved by ARCUK.

We agree with you, Sir, that membership of an organization which also caters for engineers, surveyors and clerks of works or one which caters for everyone from the office boy to the town clerk is no solution to this complex problem. The diverse and particular needs of the profession will be best served by a body which caters for architects and architects only. The IRA is such a body.

A. E. WARD.

London.

SIR.—I see that the spirited comments on ABT and politics have fallen into shadow behind that of Trade Unionism, and no one appears anxious to connect the two despite postal canvassing by the ABT.

You report Mr. Richardson as suggesting that the ABT might be reconstituted to include architects, surveyors and engineers, but no suggestion is offered as to how the clerks of works be disposed of, nor what kind of engineer or surveyor be admitted. And what happens to those in the ABT who are not on the ARCUK register? The suggestion that strike methods would not be resorted to is quite naive.

Mr. Moncrieff is reported as saying that the ABT is prepared for internal changes—a simple vote at an AGM! Most of us have heard of that method of voting and its consequences, but it does sound smoothly inviting. And if, as you state, Mr. Moncrieff says that the political beliefs of members are unknown, why does Mr. Shrodsree admit that there are communists in the association? And if, as Mr. Shrodsree states, the ABT is non-political, why is it that in at least two well-known London Schools of Architecture, an ABT member-

ship is also the hall-mark of a communist fellow-traveller, of whom there are more than a sprinkling?

So, Ruth Glass, are you still sure that the suggestion of communism is a "red hering"? Do not forget that the electricians have freedom of thought, but not freedom of action always. And as for "Quite Surprised"—well I suggest that he might be surprised again if, as he says, he does not mind who he is fighting with, so long as he has more money.

Come good people, even if your heads are stuck in the sand, at least your ears should be close enough to the ground to hear: so if you want a trade union have one that is non-political even if it has less experience.

"LONDON ARCHITECT."

Full-Time and Part-Time Training

SIR—In your issue of February 25 my friend A. G. Millar takes me to task for a comment I made in the JOURNAL for February 11. As you took this comment out of its context, would you be good enough to publish the preceding paragraphs?

These were as follows:—

The length of training necessary to obtain associateship of the RIBA is (according to Professor Bowen's report) 11 years more for 50 per cent. of the non-full-time school-trained men and 21 per cent. take up to 10 years. Only 30 per cent. of these men pass the RIBA Final Examination in under seven years.

If these figures are accurate, what an indictment it is of the "external" system of training.

Your figures also give evidence that architects have the best chances of becoming principals when they are under 40 years of age rather than over 40.

This figure is arrived at quite simply by finding out the ages at which architects became principals.

Again, if your figures are accurate, it means that the "full-time" trained man has a far better chance of getting a top job than has his counterpart who is not a full-time school-trained man. Sixty-seven per cent. of recognized school-trained men are qualified associates at the age of 24, but only 25 per cent. of non-recognized school men are, and as I have already pointed out, over 70 per cent. of these chaps take ten years or more to qualify.

In case anyone argues that the non-school trained man starts in an office at 16 and that, even if it takes him ten years to qualify, he will still only be 26 years old on attaining his associateship, your table X shows that over 27 per cent. of non-full-time trained men do not qualify till they are between the ages of 31 and 35.

I have no intention of going into the benefits to be gained for full-time architectural education, but perhaps the figures given in this report may help to convince people how undesirable it is to encourage the mushroom growth of small "so-called" architectural schools all over the country which give part-time training. Surely we would be better employed trying to ensure that students of architecture who are worthy of it should be given adequate grants to train properly. Perhaps, too, the figures you give in your report may help to enlighten the many detractors of full-time Architectural Education, but I doubt this because they think in terms of training good assistants while the schools believe that each of its students is a potential principal. And long may we do so. But while everyone will agree that all architects should be given an equal chance, our energies should not be devoted to reducing all systems of training to a low common denominator in the name of "fairness to all."

A. DOUGLAS JONES.

Braintree.



ABT

Criticism of Planning Bill

The Association of Building Technicians, in a statement issued last week criticising provisions of the new Town and Country Planning Bill, describe the Bill as "ill-advised and hurried."

"We still feel that the present proposals are unrealistic and unworkable," the statement says. "And we particularly regret that no mention is made of (a) the use of sterile land, and (b) rating of site values. . . . We are appalled at the implications of Clause 29 of the Bill, which gives the Minister power to vary planning decisions after he has had a claim for compensation."

"Under the new proposals, it is probable that the Treasury will exert undue influence upon the Minister in order to save compensation and some peculiar planning decisions on appeal may well result."

The statement concludes: "We recommend, therefore, that the Minister considers the advisability of withdrawing the Bill, and setting up a Royal Commission to consider not only the findings of the Uthwatt Committee but the practical working of the Town and Country Planning Act, 1947."

President's Address

The ABT's president, H. Moncrieff, speaking to members at the Association's annual meeting, said: "We are glad that more building is being done but I don't think we are quite so confident that all the right kind of buildings are going up in all the right places."

One of the essential points about replanning the London region, he said, was that industry and population should be taken out of London. But when a firm moved out to a new town, its old factory in London was immediately snapped up by another firm, perhaps from the Midlands. So the plan was defeated.

Mr. Moncrieff went on to ask several questions:—Were we building enough factories in Wales and Scotland? Were we jeopardising the success of the new town programme by lack of amenity building? Dare we go on spending so little on the roads? What about the reconstruction of central London: could we feel complacent about the slabs of mediocrity that were being planned and approved for the City?

All these and many more questions needed an answer.

There were three objects of town planning the speaker maintained, to ensure that the selfishness and stupidity of individuals and sectional interests would not defeat the interests of the community. And then to see that the great positive schemes essential to the welfare of the community were planned, financed and carried through. And, thirdly, to preserve all that was worth preserving in our national heritage. Nobody could feel happy today that these great ideas were being implemented.

When London had its other chance to rebuild on sound lines three centuries ago it was fortunate in having a genius, Sir Christopher Wren. His plan was ignored—selfish sectional interests, and in particular the financial interests in land, defeated it. In our day we had had another chance and surely another genius in Sir Patrick Abercrombie—but his plan was being quietly buried bit by bit—only enough of it would remain to show posterity what might have been. His plan too had been defeated by selfish and sectional interests and particularly those same financial interests in land.

The new Housing Act had attracted a lot of attention. It needed considerable courage for any Government in the present position of political stalemate to introduce legislation to deal with this problem of millions of rented houses falling into decay. The present Act had not met with any great enthusiasm from landlords and still less from the tenants. It might well prove a damp squib.

Mr. Moncrieff went on to say that wonderful things had been done in some fields, notably the school programme, in providing very good buildings for very little money. We were becoming experts in producing the bare minimum. We had been right to concentrate on houses, schools, power stations, factories and so on, but had not we rather overdone it? It seemed odd to us that European countries, more devastated by war than we had been, should have put up fine public buildings in the midst of ruins. Would any borough council dare to build a fine new town hall today—however desperately it was needed? Architects and town planners and engineers and clerks of works were feeling a bit frustrated—they would like to cut loose once in a while and do some fine building. That is why we should give the go-ahead to the blitzed cities, let us at least in a few places see what we can do. And could not we have just £200 or £300 more for each school or block of flats for a mural or two or a bit of sculpture? Wouldn't it be better perhaps to train a few less artists and use a few more?

EXHIBITION

Wallpaper Display

In view of the interest shown in the exhibition "Wallpaper for Interior Decoration and Display" at 13 Portman Square, W.1 (the headquarters of the British Colour Council), The Wall Paper Manufacturers Ltd. have extended it until Friday, April 9. It was originally meant to close on March 26. It will now be open from 10 a.m. until 6.30 p.m. on Monday to Friday.

SCHOLARSHIP

Closing Date

RIBA associates who wish to apply for the travelling scholarship offered by the Trussed Concrete Steel Co. Ltd., Lower Marsh, S.E.1, are reminded that the last date for application is April 5. Details appeared in our issue for February 11.

WINNING DESIGN IN COMPETITION FOR

FALMOUTH SECONDARY SCHOOL

E. D. Lyons, L. Israel and T. B. H. Ellis, of London, have won the limited competition for the design of a county secondary modern school at Falmouth, initiated by the Cornwall County Council, in September, 1953, who, in consultation with the RIBA, appointed Howard V. Lobb to act as assessor. Requests to enter were received from 292 architects. From these names the following firms, in addition to the winners, were invited to compete:—Messrs. Geoffrey Bazeley & Barbary, of Penzance. Messrs. Cowell, Drewitt &

Wheatly, of Penzance. Louis de Soissons, RA, & Partners, of Plymouth. Messrs. Slater, Uren & Pike, of London. Messrs. Wornum & Playne, of London. Each competitor receives £350. The winners will be paid in accordance with the RIBA scale of Professional Charges, less the honorarium. Designs are on view at County Hall, Truro, during usual office hours, until March 27 (noon). All designs will also be shown at the RIBA, 66, Portland Place, W.1, from April 21 to May 1 inclusive.

COMPETITION CONDITIONS

The competition conditions asked for a design for a 4-form entry modern school which will provide a five-year course. There were to be at least 20 classes totalling 600 boys and girls. The cost of the school was given at £184,000. It was stated that a high proportion of the teaching accommodation should be given to practical rooms. These were desired because of the following factors: the major employer of labour, in the area of Falmouth in which the children who will attend the school live, is the Falmouth Dock. Falmouth is also a retail distribution and commercial centre. Agriculture is important, but does not play so predominant a part in the community as in other parts of Cornwall. The competition conditions also expound the hope that competitors would show a preference for natural material for external use.

Roughly triangular, the site slopes from a 245 ft. contour on the west to a 155 ft. contour on the east. It is surrounded by a typical Cornish wall of stone and earth. The subsoil consists of fine to medium clay shale at an average depth of about 5 feet. Main water and gas is available from the road on the south side of the site. The best views are to the north-east and the south-west. Falmouth has a warm but humid atmosphere, with strong sea winds, the prevailing wind being south-west. The promoters, the Cornwall County Council, stated that three storeys were to be the maximum height at any part, and requested that the assembly hall be designed for use for public purposes, and also as a supplement to the gymnasium.

THE WINNERS' REPORT

Following is an extract from the first prize-winners' report:

Site.—A study of the siting of the school in relation to aspect, orientation, climate and access, resulted in the following conclusions: (1) The buildings should be sited to take advantage, both from an aesthetic and planning aspect, of the magnificent view extending from the north to east boundaries, and the limited view from the south. (2) The buildings should form the minimum obstruction to the prevailing winds, and windows to class and practical rooms should be parallel with their paths, to avoid disturbance and damage from gales. (3) Teaching rooms should not be affected by the periods of strong sunshine from the south and west. (4) Cross ventilation to all rooms should be

provided to overcome the humid atmospheric conditions prevailing. (5) Pedestrian entrances for pupils should avoid the traffic danger presented by heavy vehicles approaching the refuse tip at the junction of the private road and Trescobas Road, and the vehicle entrance to the school should avoid congestion with the lay-by and pupils' entrance.

These circumstances have been given full consideration in the scheme presented: (1) The various wings of the school are sited to give all rooms a view of the surrounding countryside, and the form of the building and terracing of the site gives interesting modelling. (2) The teaching rooms of the school are sited parallel with the prevailing winds. Additional shelter is provided by placing the hall and gymnasium building at the head of the site. (3) The orientation of the school avoids the intense sun from the south and west. By the provision of windows on two walls of all rooms, the benefit of the early morning south-east sun is gained. (4) Cross ventilation is provided by windows and clerestories on opposition or adjacent side of rooms. (5) The pupils and traffic entrances are appropriately sited to avoid congestion.

Plan.—The plan presented adequately fulfils the accommodation required and is simple in form and structure. The various entrances are well placed for external and internal traffic, and are easily controlled. All practical rooms are planned in close association, circulation minimized, and corridors well lighted and ventilated. The assembly hall, small hall and dining area form a simple block capable of being used as one unit. The changing rooms to the gymnasium are sited to provide accommodation to the assembly hall, when this is used as a supplement to the gymnasium and, in addition, direct access to the changing rooms is available from the playing fields. The cloakroom and lavatory accommodation is also accessible externally.

The staff wing, sited adjacent to the entrance hall, is self-contained, quiet and enjoys the full benefit of the view of the surrounding countryside.

The entrance hall forms the focal point of the school, linking the assembly hall and gymnasium block with the teaching wings. The library and division rooms are approached and controlled from the entrance hall, and are in a position undisturbed by traffic lines.

Elevations.—The elevations are contemporary in design and express the form of the structure. Natural and local materials are

proposed as facing and cladding to the frame. Carda hardwood windows, with slate lower panels, will form the infill to the frame. Wall surfaces will be finished in pebble dash with white spar aggregate. The Cornish stone forming the hedges to the site will be used as facings to the lower floor walls and retaining walls to the terraces.

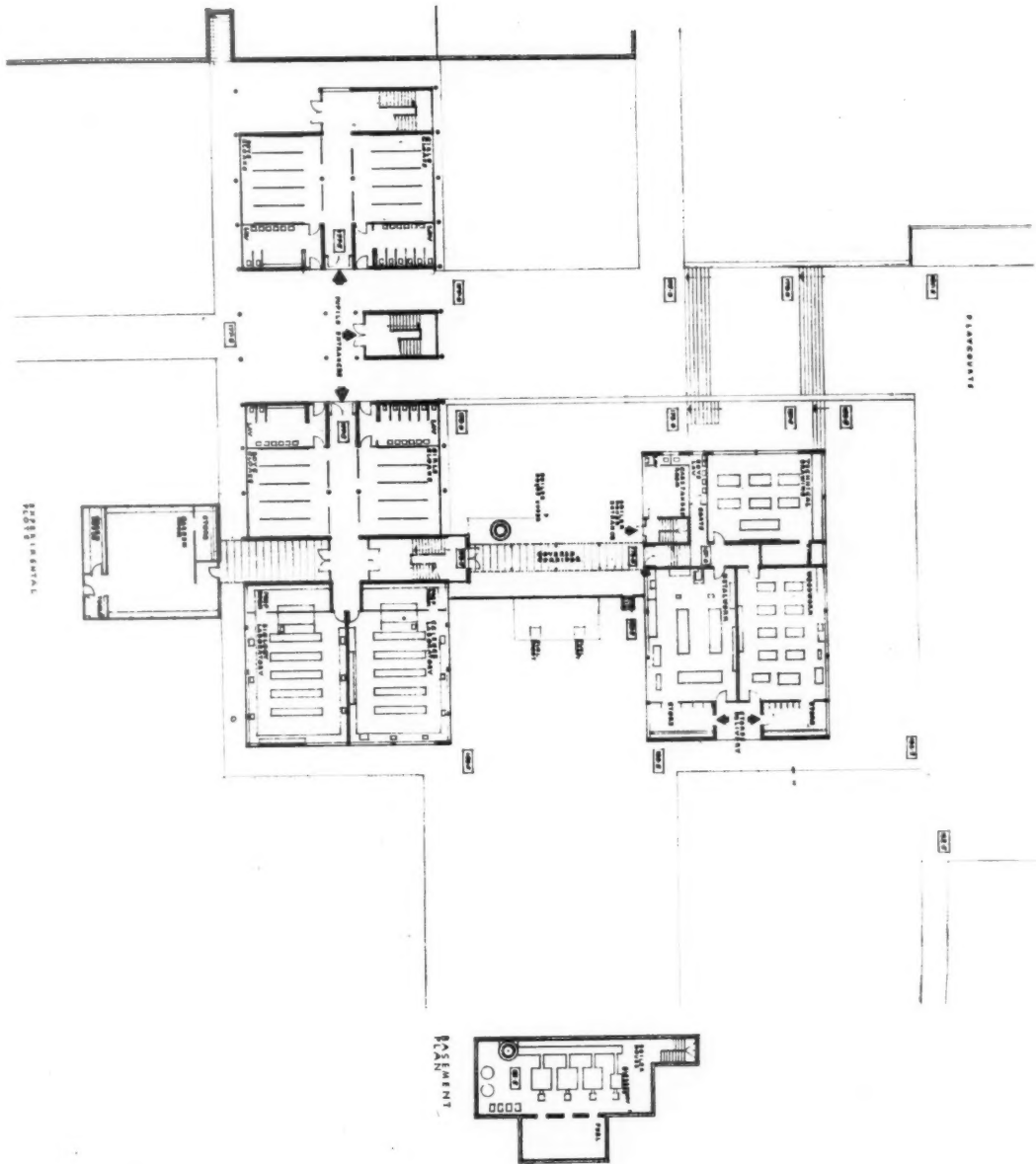
CONSTRUCTION, FINISH AND MATERIALS

Foundations.—Reinforced and mass concrete. **Structural frame.**—Reinforced concrete. Steel frame (hall and gymnasium roof trusses). Brick bearing walls. **Walls and facings (external).**—Cavity brick walls (11 in. and 15½ in. thick), finished in pebble dash with white chippings. Cavity walls and retaining walls faced with Cornish stone. Infill panels of slate, d.p.c.'s of bituminous felt; (internal)—Common bricks plastered and painted. Sandline facings finished fairface. **Floors and floor finishings.**—(a) Ground floors: 5 in. hardcore, 2 in. blinding, waterproof membrane, 5 in. concrete. (b) Suspended floors: precast beams with foam slag infill. (c) Finishings to hall, laboratories and workshops in woodblock. (d) Finishings to teaching rooms in Semtex tiles. (e) Finishing to corridors and staff rooms in linoleum. (f) Finishing to cloaks and lavatories in quarry tiles.

Steps and staircases.—Reinforced concrete construction finished *in situ* and precast t-razzo. **Roofs.**—Troddek construction covered with asbestos and finished with 3-ply bituminous felt, and white spar chippings. **Ceilings.**—Plaster and plasterboard. **Doors and windows.**—Timber doors. Timber Carda type windows, to teaching rooms. Metal windows to lavatories, cloaks, hall and gymnasium. **Woodwork finishings.**—African mahogany, oiled internally and painted externally. **Water supply.**—Water Board supply. **Heating and hot water supply.**—Low pressure system with automatically fired boilers. Radiators. **Lighting.**—Tungsten. **Ventilation.**—Natural. Extract fans to hall, servery and scullery. **Sanitary fittings.**—Glazed earthenware. **Drains and drainage disposal.**—Glazed stoneware drains discharging into sewers to Trescobas Road. Falls 4 in. (1 in 60), 6 in. (1 in 90). **Fencing.**—Cornish stone walling and chain link fencing. **Playground and other pavings.**—Playgrounds, forecourts and paths finished in Tarmac on hardcore. Pavings to steps and entrances in artificial stone flags.

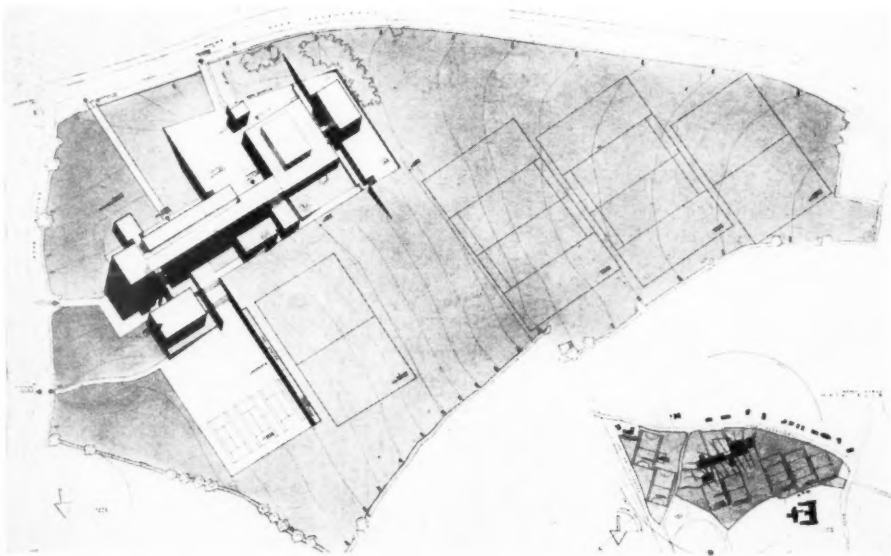
Total Cost.—This is estimated at £183,583 14s.

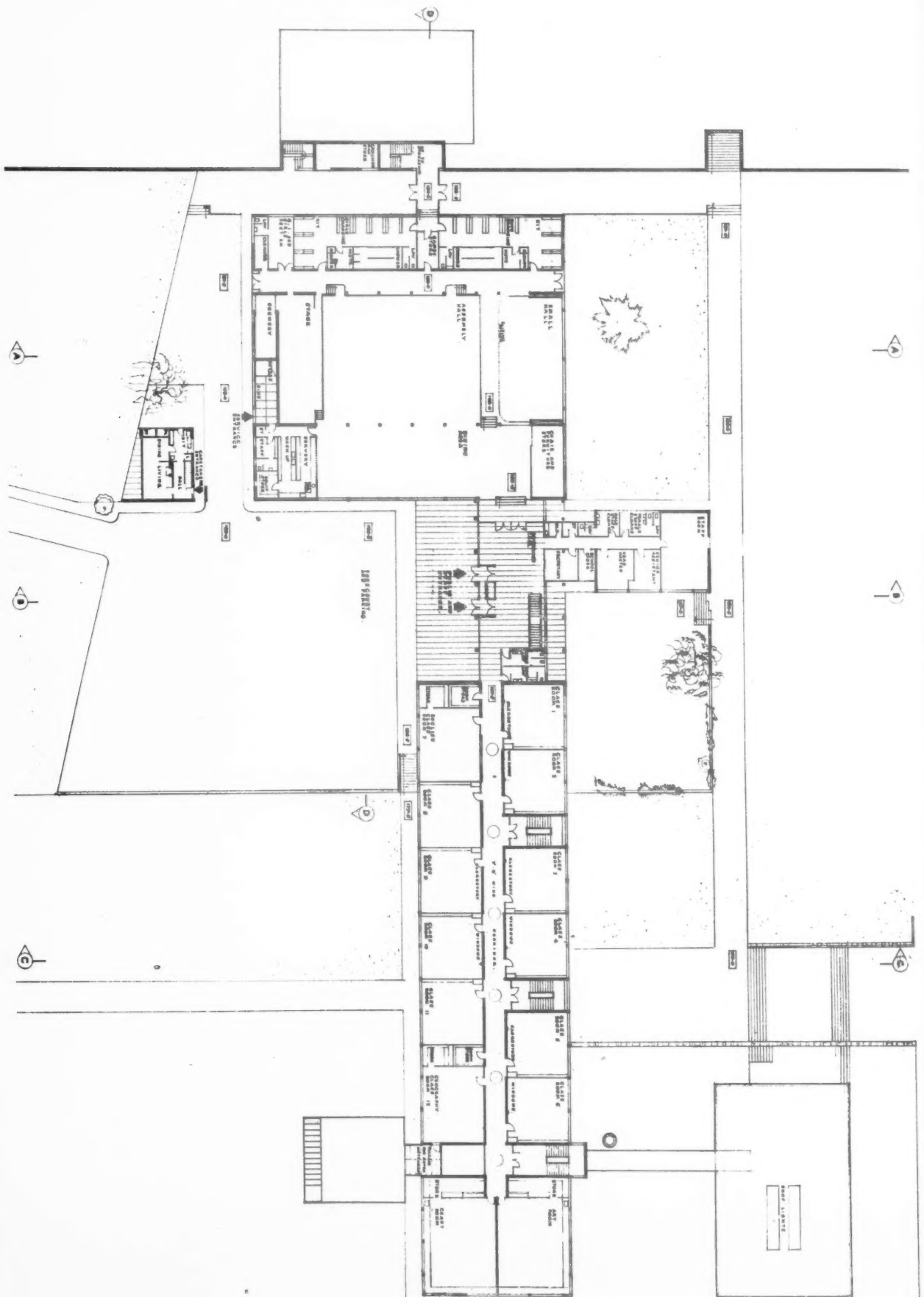
WINNING DESIGN BY LYONS, ISRAEL & ELLIS



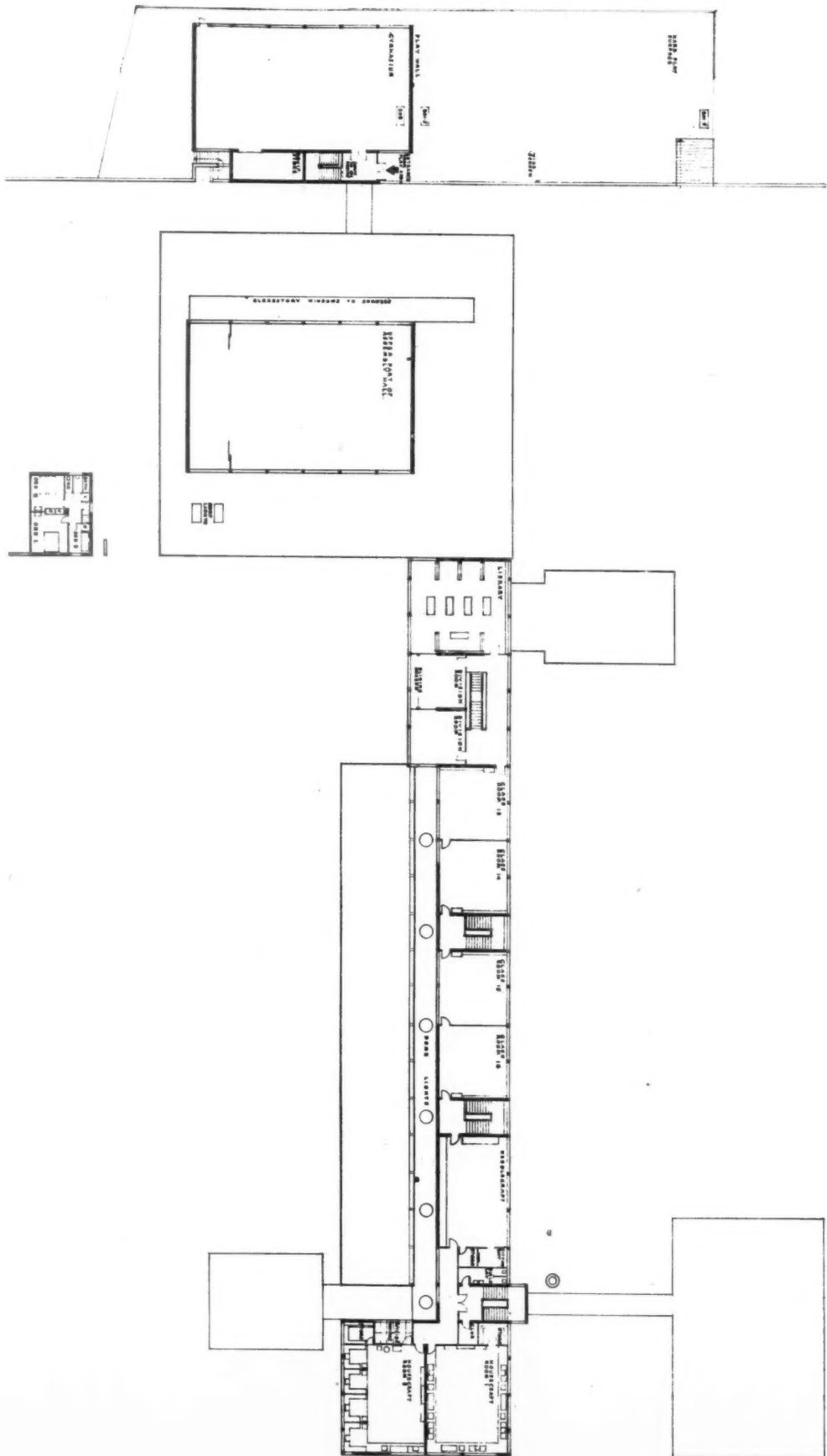
Lower ground floor and basement plan

Site plan

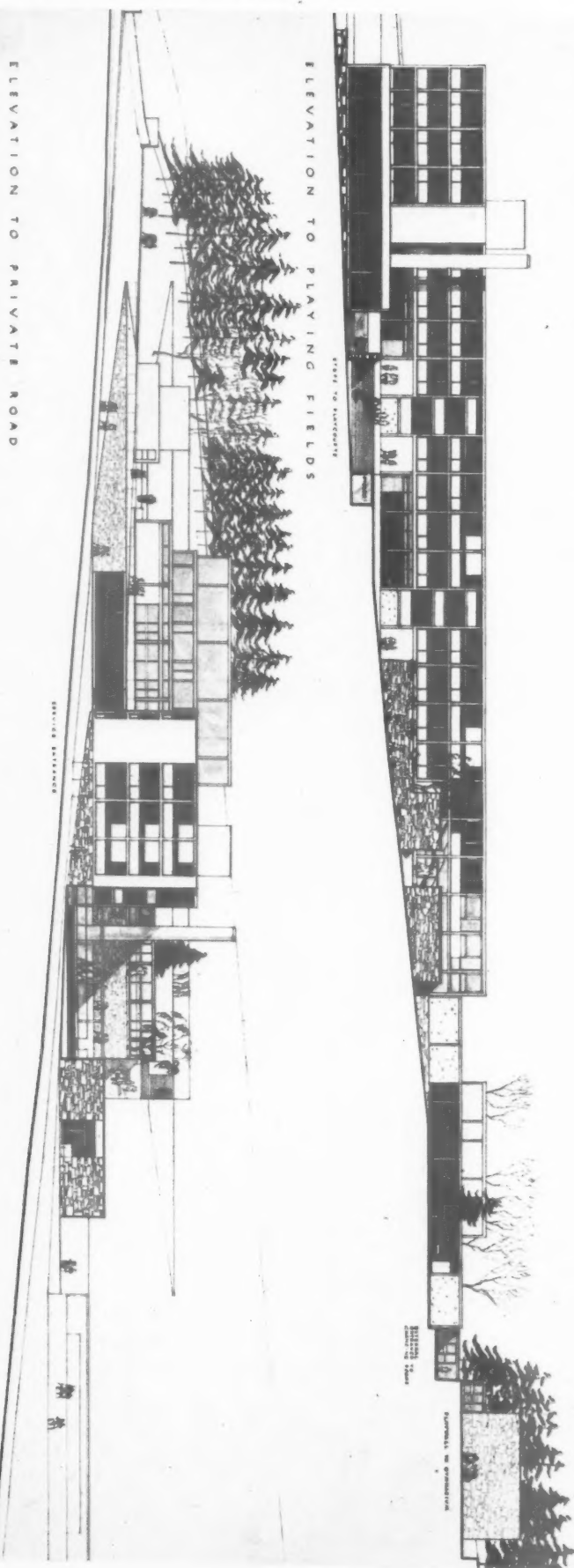
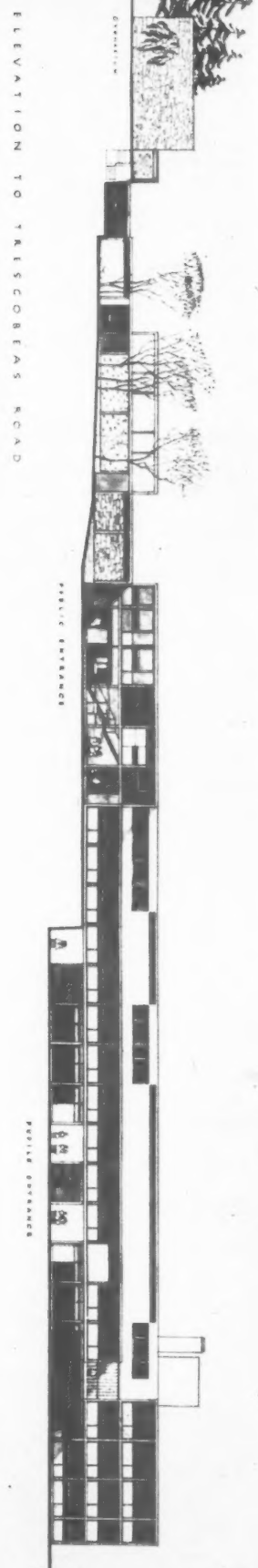




WINNING DESIGN BY LYONS, ISRAEL & ELLIS OF THE FALMOUTH SCHOOL COMPETITION



Opposite page: ground floor plan. Above: first floor plan



Three elevations: top, south elevation; centre, north elevation; bottom, east elevation.

WINNING DESIGN BY LYONS, ISRAEL & ELLIS OF THE FALMOUTH SCHOOL COMPETITION

News—continued from page 361

NATIONAL TRUST

Gift of Uppark

The National Trust has been given Uppark, with about 50 acres of its surrounding park, by Admiral the Hon. Sir Herbert Meade-Fetherstonhaugh and his son, Mr. Richard Meade-Fetherstonhaugh. Funds necessary for its repair and maintenance have been made available by the donor. Grants have also been given by the Pilgrim and Dulverton Trusts. And part of an anonymous donation of £70,000 which the National Trust received in 1952 for the preservation of historic houses, will be used for its maintenance. Sir Herbert Meade-Fetherstonhaugh and his family have also given the Trust protective covenants over their land within view of the house.

NFBTE

Australian Productivity Team

An Australian Building Industry Productivity team has arrived in this country from Paris. The team, which is sponsored by the Building Industry Congress, of Melbourne, left Sydney at the end of February and since then has visited Singapore, Calcutta, Karachi, Beirut, Athens, Rome, Milan, Berne, and Zurich.

FRR

Course on Care of Churches

By permission of the Director of Forest Products Research, a short course arranged in consultation with the Central Council for the Care of Churches will be given at the laboratory for architects concerned in the inspection, repair or maintenance of churches, with particular reference to the detection and eradication of fungal decay and infestation by the death-watch beetle. The course, for which there will be no fee, will be under the direction of the specialist officers-in-charge of the mycology and entomology sections of the laboratory and will be restricted to a maximum of twelve applications.

The programme of the course is as follows: *Wednesday, May 5*—10.30 a.m., introductory talk, Dr. F. Y. Henderson; 10.45 a.m., Mycology Section, Dr. W. P. K. Findlay and staff. *Thursday, May 6*—9.30 a.m. to 5 p.m., Entomology Section, Dr. R. C. Fisher and staff. *Friday, May 7*—Visit to a church.

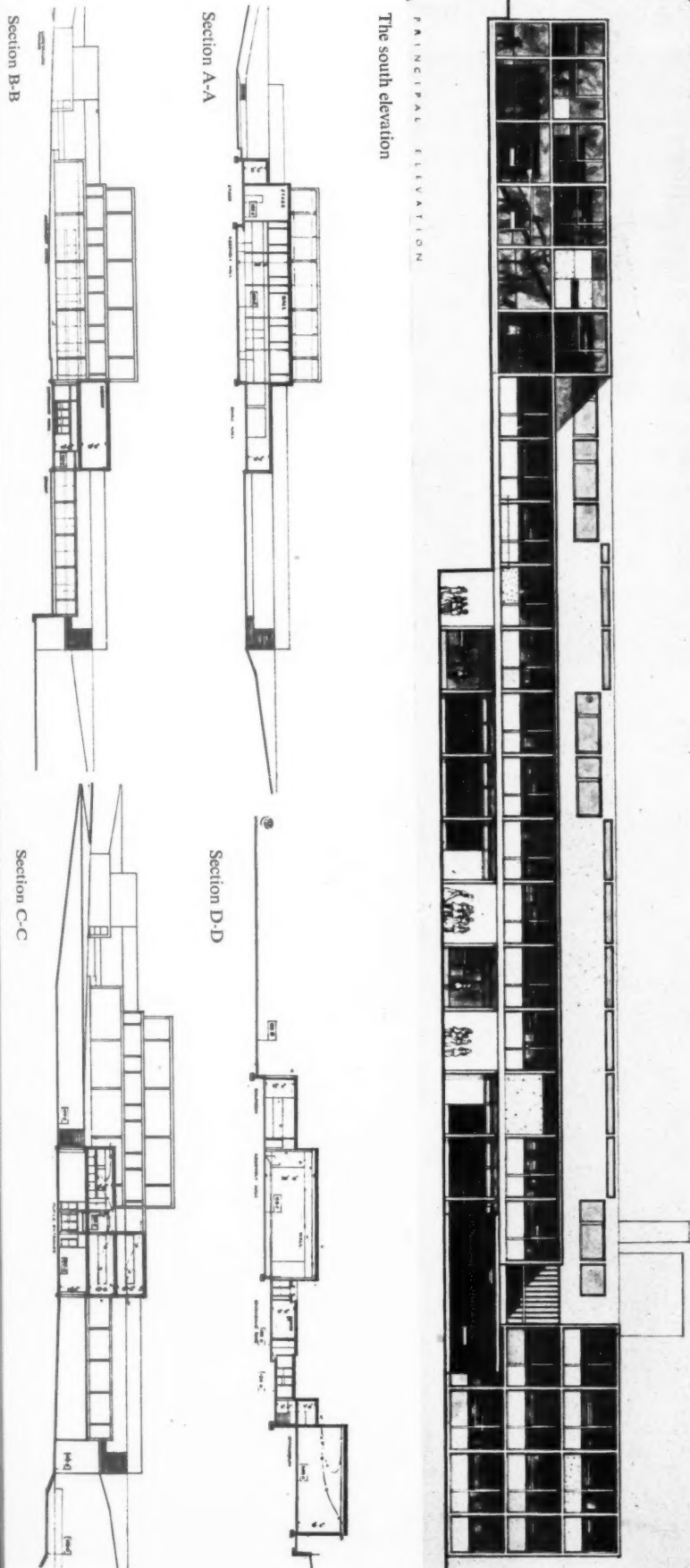
Applications to attend the course should be made to the Central Council for the Care of Churches and not to the Forest Products Research Laboratory.

VENICE

CIAM Summer School

Because of the success of the CIAM Summer School in Venice in 1952 and 1953, it is to be held annually.

This year's School will be held at the University Institute of Architecture from September 3 to October 3. It is open to architectural students (not less than 20 years of age) in their last year and to graduate architects who took their degree not more than two years ago. Applications should be made by May 15 to CIAM groups or to the Scuola Estiva CIAM, c/o Istituto Universitario di Architettura Fondamenta Nani, 1012, Dorsò Duro, Venezia. (References about the candidate's scholastic achievements must be submitted.) The entry fee is L.15,000. The choice of candidates—only sixty can attend—will be made by June 10.



Arrangements can be made to accommodate students in dormitories at a cost of not more than 1.500 lire a day (including meals).

LIVERPOOL

What a Civic Society can do for Merseyside

"If enough of us are determined and enthusiastic, Liverpool can be transformed in a generation," said Professor Gardner Medwin, head of the Liverpool School of Architecture, when he spoke recently to the Merseyside Civic Society. "It is heartening to know," he continued, "that in the centres of most cities over a quarter of the buildings are replaced every twenty years or so. As for the economics of it, everybody in a Civic Society should know that good design costs no more than bad design, and often costs very much less; and we should have learned by now that good city planning pays very handsome dividends."

"What can a Civic Society do to help improve the face of Merseyside? Certainly it can do nothing by merely carping and criticizing the maligned officials and harassing them with nagging letters about minor nuisances. From my own experience as an architect in the public service, there is nothing more discouraging than the feeling that the public you are trying to serve is automatically, as a matter of principle, against you. Most of the major building projects today are a public service of the first order: they affect the lives of hundreds of thousands of families. Nothing, then, is more important than that architects, engineers and planners of the highest calibre should be persuaded to work in public offices. But they badly need public support: they flourish on intelligent interest in their work, and on constructive criticism. Almost everything they do is for a social end—that means on behalf of ourselves as individuals, as members of families and as members of social groups."

"The experimental work now going on needs to be thoroughly tested in practice; public criticism and family reactions to the newly planned neighbourhoods and ingeniously designed minimum homes should be much more in demand. We need more systematic enquiries to find out how some of the new experiments are working; and some assistance in surveys of this kind might well be one instance of co-operation between the Civic Society and the local authority."

"Briefly, I believe that there are two ways in which the Civic Society can help to improve conditions on Merseyside: first, on the *district* scale, by active self help in getting minor improvements carried out with the co-operation of local representatives and district committees; secondly, on the *Merseyside* scale, by giving support and encouragement to officials of the Corporation in their major tasks of redevelopment and the creation of new communities."

DIARY

Gap-graded Aggregates in Vibrated Concrete. T. E. H. Williams. At the ISE, 11, Upper Belgrave Street, S.W.1. 5.55 p.m.
MARCH 25

Structural Honesty. Ove Arup. At 34, Bedford Square, W.C.1. (Sponsor: AA.) 8 p.m.
MARCH 25

Presentation of the Royal Gold Medal. At the RIBA, 66, Portland Place, W.1. 6 p.m.
APRIL 6

Architectural Criticism. Lansbury Housing Scheme. At the ICA, 17-18, Dover Street, W.1. 8.15 p.m.
APRIL 13

EXPANSION OR EXPLOSION? THOMAS

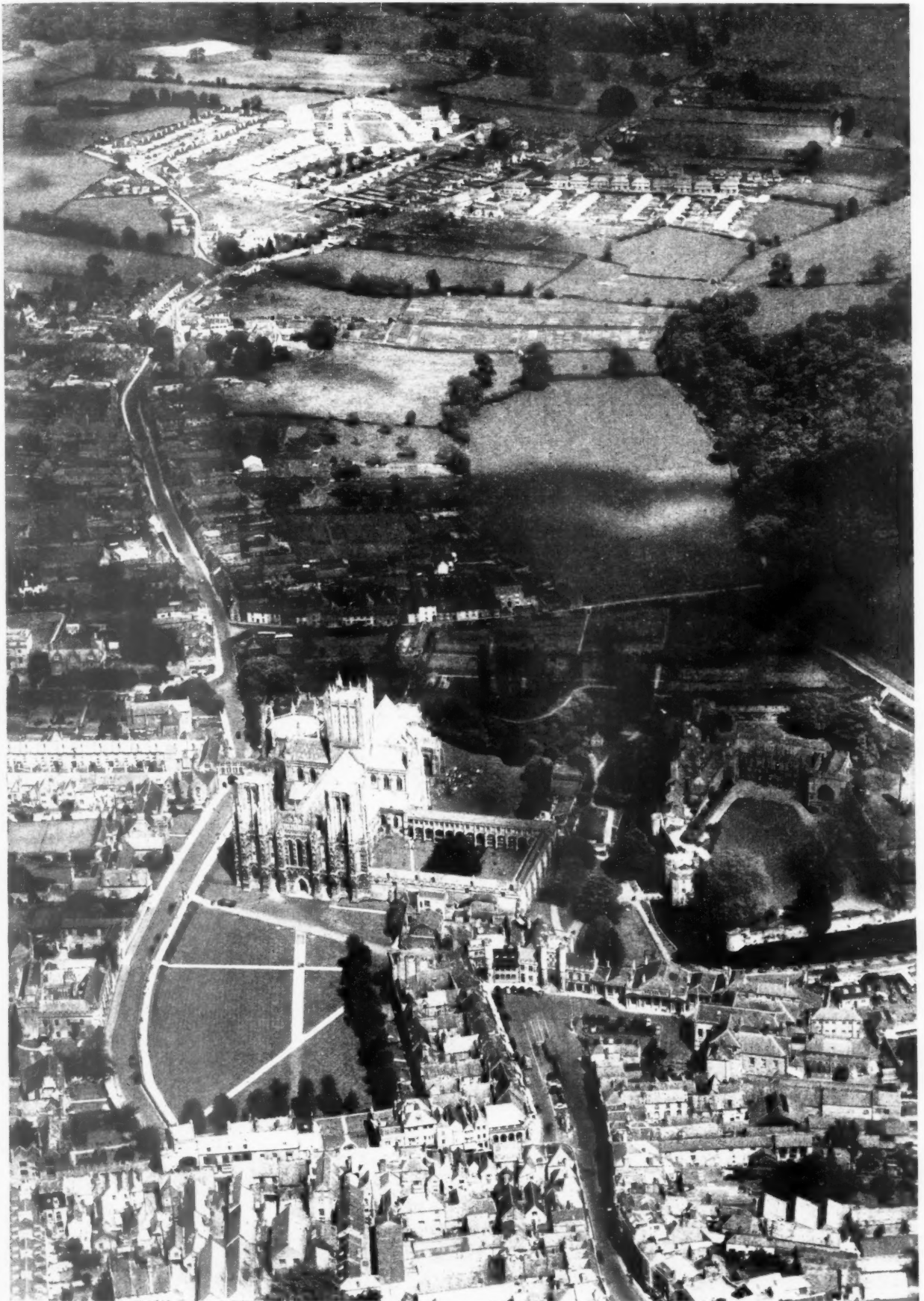
Dr. Thomas Sharp writes: I have thought of towns in the past growing solidly outwards from an old core. There has, of course, always been a bit of ribbon development. Always some new buildings have tended to straggle along the roads running out from the towns. But in the past the great majority of houses were built in the spaces between slightly older ribbons, firmly and closely attached to the town—fully integrated with it, as we would now say. One thing which tended in very early days to keep the town compact was the limitation imposed by city walls. But though the walling of cities ceased comparatively early in England, our towns continued to be compact. Extending, sometimes with a slowness that made growth almost imperceptible, sometimes at a wild-fire rate, they nevertheless continued compact, for the most part, right down to this century. Why? The disciplines of time-distance-energy, no doubt. But also, surely, a feeling of being of the town, belonging to it and so needing to be integrated with it. That was before town planning. What happens now? Four air-views, which recently came casually into our hands at the same time, show how things have changed. No. 1, below, shows, in the middle distance, the right little, tight little town of TEWKESBURY. In the left foreground is the ribbon development of the 1920s: in the right-centre, today's town expansion, connected with the old town only by one little road wriggling over several fields. No. 2, opposite page, shows WELLS: compact market town and cathedral in the foreground, old ribbon in the middle, and new town, each side of a ribbon, a day's march from home.



M A S

dly out-
develop-
running
It in the
n—fully
riy days
ough the
ed to be
ceptible,
ost part,
ergy, no
needing
s now?
ne, show
he right
e ribbon
onnecte
opposiu
old rib-
n home.

SHARP LOOKS AT THE DEVELOPMENT OF FOUR TOWNS



EXPANSION OR EXPLOSION?

(continued). Photo No. 3, right, CAERNARVON: a little better, for the extension, tenuous as it is, is at least attached to the town. But No. 4, below, shows how even a village, nowadays, grows with the new quite separated from the old, as though it was intended that it should not be on speaking terms with it (this is a view of LYMPSTONE). Because these photographs came into our hands casually we do not know the reason why these places have grown like this. But we can make a pretty good guess. It cannot be because of difficulties of acquiring land: CPOs can be had for the asking. It probably has something to do with "agricultural clearance" (in the modern, not the old, sense). But whatever one-sided reasoning may have determined that expansion shall take this unintegrated fragmented form (and the examples are typical of hundreds all over the country) it seems crazy that this should happen in the age of Town Planning.



WORKING DETAIL

FURNITURE AND FITTINGS: 41

TELEPHONE BOOTH: HOSPITAL IN LONDON, S.W.12

Devereux and Davies, architects



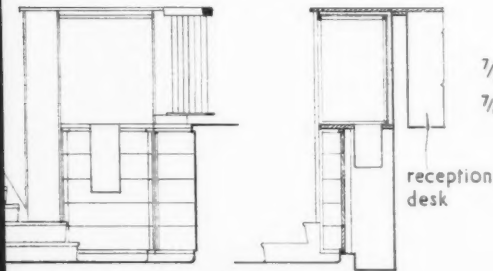
The ceiling to the booth forms the desk to the receptionist's cubicle, which is sited immediately behind at the higher floor level. The abura facings are screwed to plugs in the brickwork, the bricks being cut to conform to the irregular plan.

WORKING DETAIL

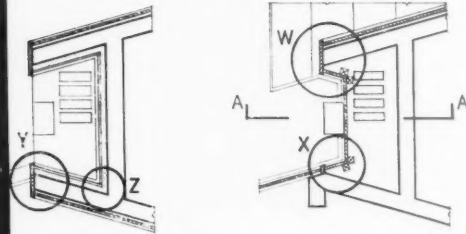
TELEPHONE BOOTH: HOSPITAL IN LONDON, S.W.12

Devereux and Davies, architects

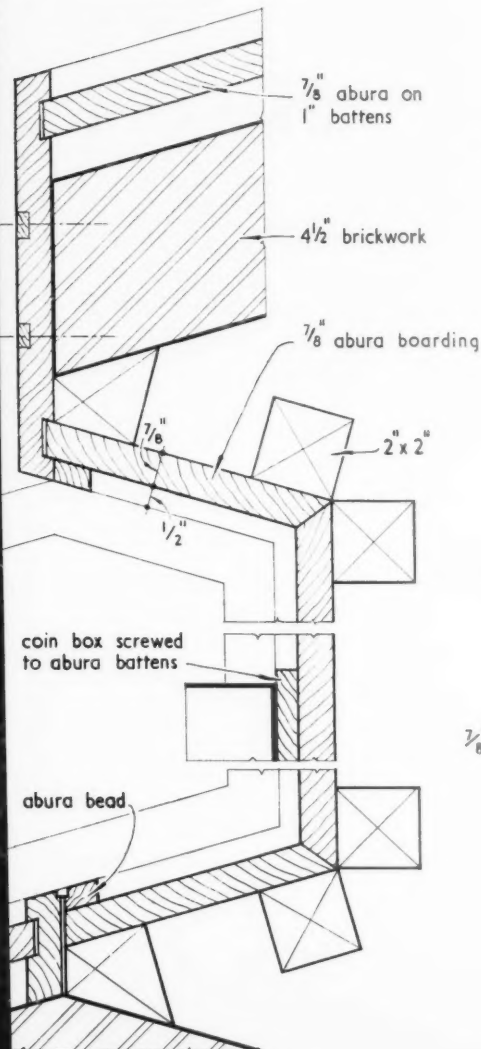
FURNITURE AND FITTINGS: 41



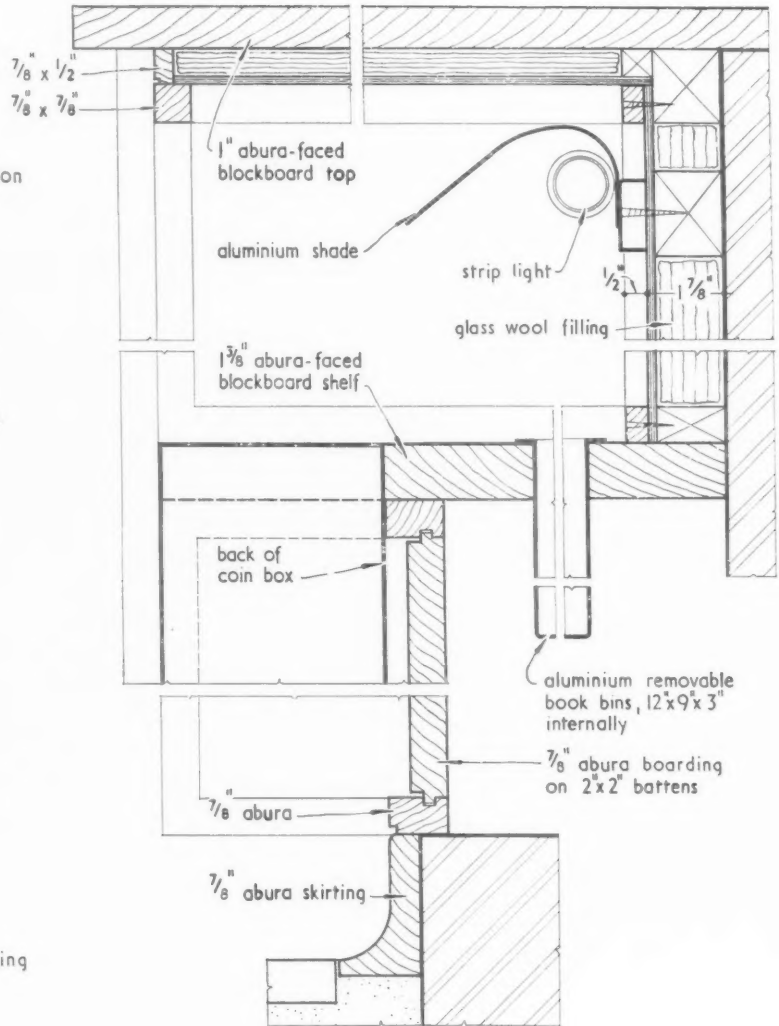
KEY ELEVATION AND SECTION.



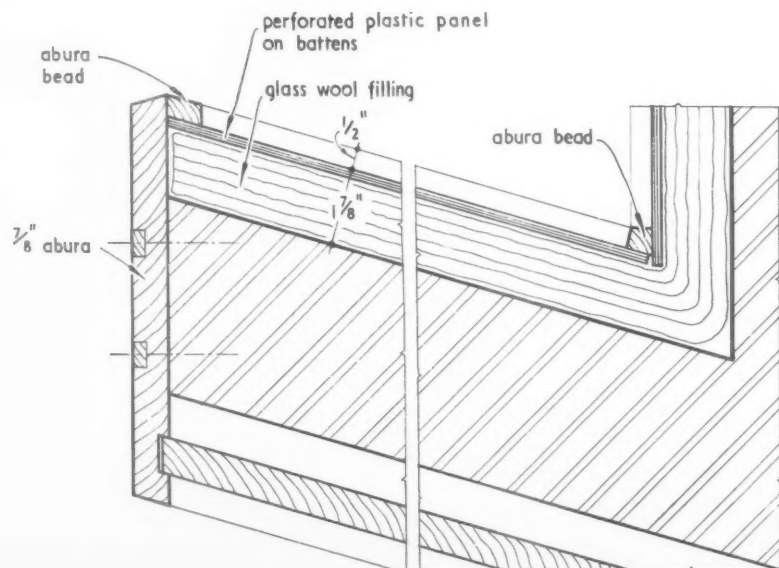
KEY PLANS. scale $\frac{1}{4}$ " = 1'-0"



DETAILS AT W AND X. scale $\frac{1}{4}$ " full size



SECTION A-A. scale $\frac{1}{4}$ " full size



DETAILS AT Y AND Z. scale $\frac{1}{4}$ " full size

WORKING DETAIL

WINDOWS 22

WINDOW: SCHOOL AT FORD, SALOP

C. H. Simmons, architect to the Salop County Council



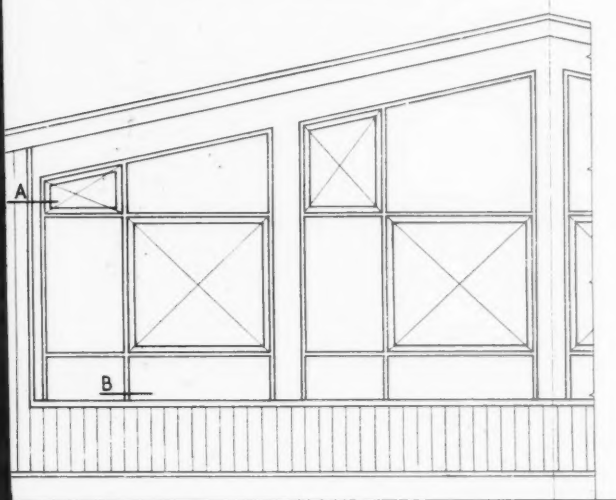
The plywood facings to the lintel and jambs are set in mastic and painted. The opening lights are centrally hung on adjustable friction pivots and are of varnished mahogany. The upper lights are glazed with laminated glass to reduce glare and heat loss.

WORKING DETAIL

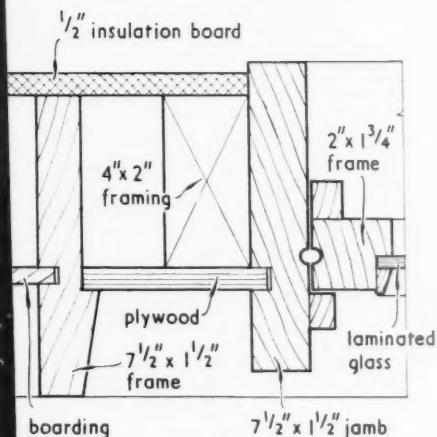
WINDOW: SCHOOL AT FORD, SALOP

C. H. Simmons, architect to the Salop County Council

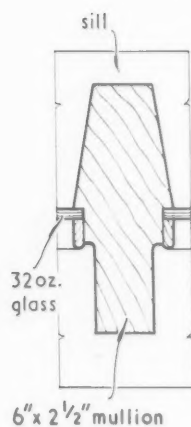
WINDOWS 22



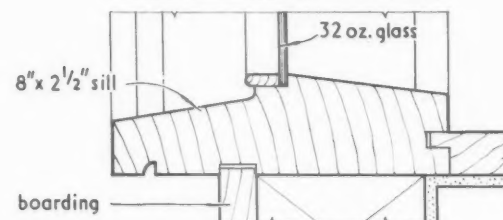
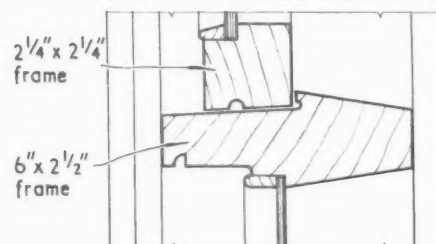
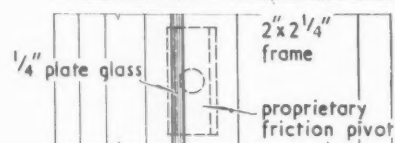
KEY ELEVATION. scale $\frac{3}{16}" = 1'-0"$



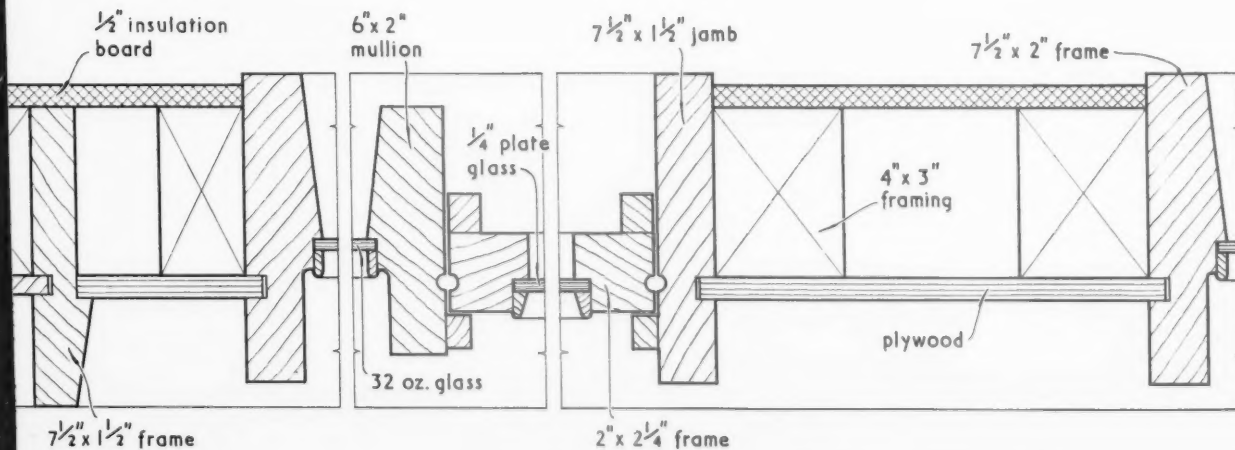
PLAN AT A.
scale $\frac{1}{4}$ full size



PLAN AT B.



SECTION THRO' MAIN OPENING LIGHT.
scale $\frac{1}{4}$ full size



PLAN AT LEVEL OF MAIN OPENING LIGHT. scale $\frac{1}{4}$ full size



R

Cast
the
This
Win
and
island
of
from
T
rare
bou
in
T
bui
onl
non
I
T
arc
qu
arc
•
Co
Me
go



An aerial view of Castries, seen from over the Caribbean Sea.

RE-PLANNING OF CASTRIES, ST. LUCIA

A description of the rebuilding of the town of Castries, on the island of St. Lucia in the British West Indies, which was completed last year by the Colonial Development Corporation under their architect, E. W. J. Mitchell.

Castries, a town of approximately 25,000 inhabitants, is the capital of the island of St. Lucia, British West Indies. This island, 27 miles long by 14 miles wide, is situated in the Windward Island group, some 250 miles north of Trinidad, and 100 miles west of Barbados, and is part of the chain of islands stretching in a vast crescent from the northern coast of Venezuela to Florida, and dividing the Atlantic Ocean from the Caribbean Sea.

Temperatures vary between 70 deg. F. and 90 deg. F. and rarely go beyond these limits. Rainfall is high (in the neighbourhood of 70 in. a year in Castries, and over double that in the interior).

The town of Castries was largely of wooden construction, built on the alluvial flat of the Castries River mouth, the only level area of any size, with harbour facilities, in the north of the island.

In 1948, the town centre was destroyed by a fire.

The Government at once commissioned the executive architect of the Windward Islands, J. C. Rose, whose headquarters were in Castries, and A. C. Lewis, associated architect, to make recommendations for re-planning.

Colonial Development Corporation

Meanwhile, discussions had taken place between the local government and the directors of Colonial Development

Corporation West Indies Ltd., and between the Colonial Office, who were to provide financial assistance, and the Colonial Development Corporation, London, who were requested to act, through their Engineering and Works Division, as engineers, architects and agents for the Government of St. Lucia.

The manager of the Engineering and Works Division sent a technical mission to St. Lucia; led by their architect, E. W. J. Mitchell, it was to assess the requirements of design and construction in men, materials and equipment, to discuss the requirements of the St. Lucia Government, and recommend solutions.

After many preliminary discussions between the Corporation and the Governments concerned it was finally decided that:

(a) A large British Contractor with the necessary experience, plant and United Kingdom buying organization, would be required.

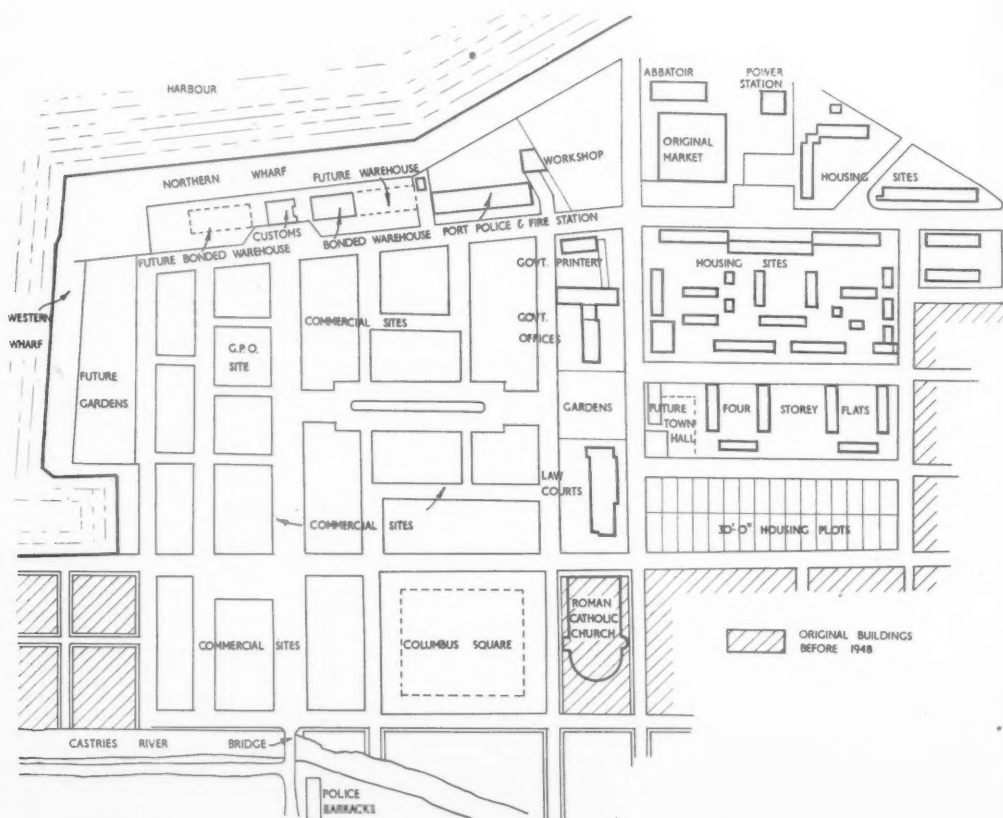
(b) All materials not obtainable in the Island would be purchased in the United Kingdom and shipped to St. Lucia. (The dollar-sterling situation did not permit of purchases being made in the USA or Canada.)

(c) Island labour was to be trained to the task and the importation of other island labour kept to an absolute minimum.

(d) The local manufacture and fabrication of all possible



Top: part of the new shopping area. Above: the Law Courts, completed in 1952, seen from the south-east. Below: plan of the site, showing the area to be rebuilt and the existing buildings.



building components should be started and developed to the utmost.

The report of the exploratory mission was adopted by the Corporation in February, 1949. Because discussions had already been proceeding to the point at which agreement could quickly be reached on the points of policy and on the selection of a contractor, Holland & Hannen and Cubitts Ltd. were enabled to start work on the site less than two months later.

Contract

To meet the conditions referred to above, a value-cost form of contract was used with a twelve-month experimental period, during which the Corporation established the actual costs to the contractors of the various types of work required, and came to agreement with them on methods. On the basis of the first year's work, a schedule of prices was agreed between the Corporation and the Contractors for subsequent work.

After the first year, the buildings were designed as and when the local Government decided on its requirements, and were valued on a bill of quantities and the schedule of prices referred to. The total value arrived at was adopted as a target variable only by increase or decrease of the quantities of the work, the specification of the work, and the rise and/or fall in the cost of labour and materials: incentive to the Contractor was provided by provisions for penalty and bonus on the target value in respect of time and costs.

Structural Difficulties

The island is in an earthquake belt and is also liable to the destructive effect of hurricanes; further, the site of the

town is on a river, and above the river.

The form of the moderate Public Buildings to be erected permanently below the level of the river.

This concrete and cast actual structure.

Right: and low level of the windows.

Far right: House of the wharf, 1952.

the type (the average).

Earthquake in Jamaica panel is 9 in. v. concrete galvan.

Hurricane of hurricane member concrete sheeting.

Becoming holes, at each 14 ft. concrete of a re-

ogee joint pipe of All pipes was e-

opera-

The wood which made centre through have cost p-

town is a man-retained swamp at the mouth of a mountain river, and the average level of the town is only about 2 ft. above high-water mark.

The foundation problem was therefore acute, as to accommodate the necessary population and provide the required Public Buildings, three- and four-storey structures had to be erected on an average depth of 30 ft. of river silt, with a permanent water table varying with the tide of 2 ft. to 3 ft. 6 in. below the surface.

This problem was solved by the use of hollow reinforced concrete floating rafts, varying from 3 ft. to 5 ft. in depth and cast up to 12 ft. above their finally expected level. The actual settlement varied between 2 in. and 11 in. according to

and doors and windows were made in the project workshops of hardwood from British Guiana, and pine from British Honduras and Canada. All floors were in precast concrete beam and slab construction, or *in situ* beam and slab except the floors between living spaces and bedrooms in the house and maisonette construction, where the fire risk was considered small, and timber joists and boarding were used.

Other structural details of interest were, plumbing in welded copper on the one-pipe system, electrical wiring in lead-covered cable, aluminium movable louvres instead of glass to windows in the western facade of Legislative Council Chamber, to prevent the afternoon sun entering and overheating the Chamber, or otherwise incommoding the occu-

Right: eaves over-hang and louvered sun protection to ground-floor windows.

Far right: the Customs House on the northern wharf, completed in 1952.



the type of building, its loading per sq. ft. of foundation area (the average loading was 800 lb. per sq. ft.) and its location.

Earthquake resistance was provided to the standard used in Jamaica by the use of reinforced concrete framing. The panel infilling was in twin-leaf concrete blocks 18 in. \times 9 in. \times 9 in. with two 3-in. leaves and a 3-in. continuous cavity, the concrete leaves being tied together with specially made galvanized iron ties.

Hurricane resistance was provided based on the experience of hurricane effects in Jamaica and elsewhere, and all roof members were of precast concrete tied into the reinforced concrete framing of the building; corrugated asbestos roof sheeting being bolted to them with wrought-iron hook bolts.

Because of the constant small vertical movement of man-holes, etc., in the fluid sub-soil, all sewers had to be flexible at each joint, and resist an external water pressure of up to 14 ft. head. Two types of joint were used with unreinforced concrete pipes. The first, with ogee jointed pipes, consisted of a reinforced concrete collar in two pieces, bolted round the ogee joint and filled with bitumen, and the second a concrete pipe of Stanton Corneleus design with a rubber ring joint. All pipes were made in the precast yard of the project, which was equipped with vibrating tables and vibrating hammers operated by compressed air.

The fact that the new construction was surrounded by wooden buildings of traditional West Indian construction, which provided a fire hazard of exceptional proportions, made it essential to provide safeguards for the new town centre, and therefore all structures and roofs were constructed throughout of incombustible materials. The ideal would have been to use steel windows and doors as well but the initial cost plus the corrosive effect of the atmosphere ruled this out,

and the use of corrugated asbestos louvres on concrete cantilevers as sun shields over windows facing south.

It was essential that the utmost economy in construction and finish should be observed because the island could not afford the cost of rebuilding, and therefore the great proportion of the money made available was grant money from the United Kingdom Treasury. The physical and geographic considerations mentioned above militated against economical structures as understood in this country, but by strict economy in finishing the economic design of the r.c. framing, r.c. floors and floor finishes, the manufacture of the bulk of the components on the island and the standardization of components and methods, it was possible to produce multi-storey housing and public buildings at costs only a little above those in this country. This in spite of the fact that all materials except stone, had to bear the cost of freight and insurance from the United Kingdom; or in the case of timber, from British Guiana, British Honduras or Canada; expert technicians had to be taken out from the United Kingdom to train local negro labour, and all machinery for the manufacture of building components taken out, set up, dismantled and returned. The local labour was found to be approx. 33½ per cent. efficient, when compared with British building trade labour, but wages were correspondingly low.

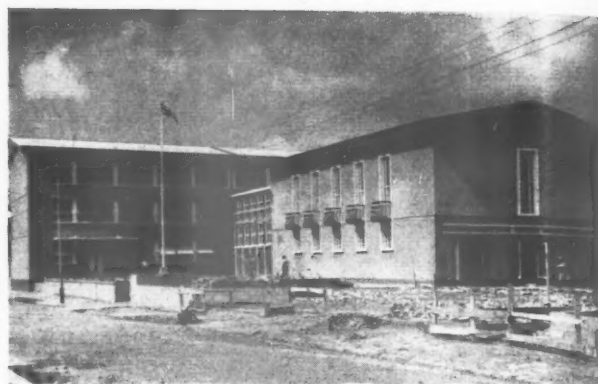
Progress

The first task on the arrival by air of the advance construction party at the site, was to construct accommodation for the European families and single men whose passages had been booked from the United Kingdom.

This work was closely scheduled to arrival dates, and 19 bungalows of timber, salvaged from the de-activated

Right: four-storey blocks of flats, completed in 1952, seen from the east.

Far right: Government Offices, completed and occupied in 1953.



portions of the American bases, were erected in the first few months on the Vigie Peninsula (see photograph) complete with their own sanitation (septic tanks) and chlorinated water supply, and the families were housed on schedule.

The only source of water was rainfall from the roofs of the bungalows, and this was collected in a series of abandoned gun pits of the old Vigie defence works, then pumped to the head tanks at the highest point, chlorinated and delivered by gravity to the bungalows. Approximately 100,000 gallons of stored water was available against a period of drought.

Most of the single men were accommodated in existing buildings on the outskirts of the town, which were rented and adapted for their use.

While staff accommodation was going up, the main offices, workshops and stores were put in hand, the quarry and pre-cast development started, and the demolition and clearing of the town had commenced.

Because of the extreme shortage of accommodation for commercial stores, some owners were permitted to roof in the few suitable damaged walls, etc., and set up temporary stores. Some of these were on the lines of new streets and/or buildings, and the work of demolition had many times to be held up until new stores had been erected on the new sites conforming to the new town plan. Thus road construction was frequently pushed on to the walls of an old condemned building and then had to stop for many months so that the commercial life of the town could continue. The effect on the circulation of wheeled traffic can be imagined.

1950: By the end of the first year all accommodation for European staff had been provided. Offices, workshops and

stores, 36 rural houses for West Indians, and the development of the quarry and precast yard were complete.

The government housing scheme had been commenced in the town, together with the new government bonded warehouse, which was to be used for the storage of bulk reconstruction materials.

1951: By the end of the second year the government bonded warehouse, 26 housing units in the town, 12 shops, 1 private warehouse and nearly all the roads and the sewerage system except for the permanent pumping stations, were completed. The remainder of the housing (300 units in all), the fire station, police barracks, police station, customs house and the government printing works were in hand.

The sewerage system was put into temporary use, for the new construction as it was completed, by the construction of a temporary collection tank and filter, the sewage being pumped from the tank at sewer level to the filters above ground by the portable sludge pumps which had been used to keep sewer excavations clear of water.

1952: At the end of the third year the position was:—All housing and shopping units, new police barracks, sewerage scheme, customs house, port police and fire stations and government printing house completed.

The new water supply system was practically complete and functioning by means of temporarily adapted fittings, etc., awaiting delivery of the proper parts.

1953: The end of the fourth year saw the completion and occupation of the law courts, government offices, etc., and the final finishing of roads, water supply, footpaths, etc.

The maintenance period was completed in July, 1953.

A general view of Castries from the south, showing the rebuilt area, with the original buildings in the foreground.



SECONDARY SCHOOL

in BRIDLEY MOOR ROAD, REDDITCH, WORCESTERSHIRE

designed by RICHARD SHEPPARD and PARTNERS

assistant architect, ANN B. LESLIE; assistant-in-charge, DEIDRE DOWNER

consulting engineers, T. F. BURNS and PARTNERS

quantity surveyors, E. C. HARRIS and PARTNERS

The Bridley Moor County Secondary School was originally intended to accommodate 450 children, but this was subsequently extended to approximately 600. In 1948, when the architects were commissioned by the County Council Education Committee to design the school, very few such schools had been planned, no bulletins had been published by the MOE and no ceiling price per place had been fixed. Staircase access had not been applied to secondary school design at that time and it was found that by its use circulation space could be drastically reduced. Since the construction of additional staircases is high, the saving in cub. ft. must be considerable if costs are to be lowered in this way.

Part of the south facade of the three-storey block.





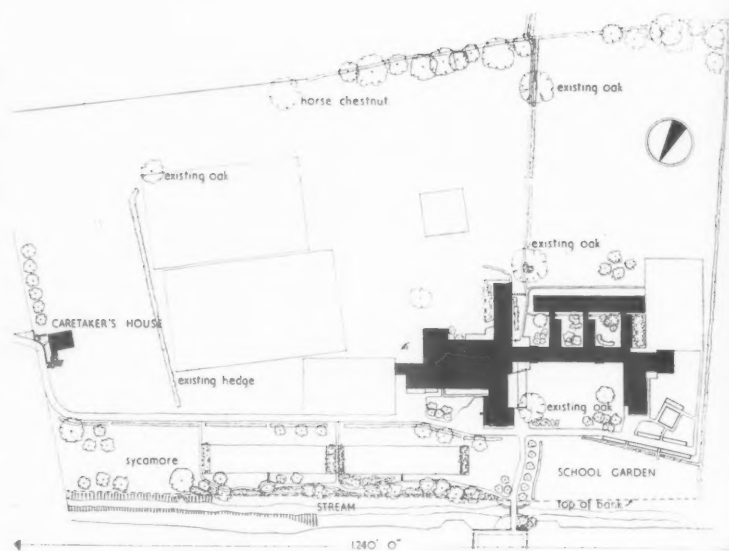
The entrance hall.

GENERAL.—The type of plan adopted, a width of 20 ft. or 25 ft. with light coming both sides, gives a very high level of daylighting, but does not, the architects consider, allow much flexibility in the use of space. As most of the local building labour was engaged on housing, the design of the school was based on the necessity to use a minimum of site labour and in situ methods of construction. A single storey layout would have meant too much dispersal and as no prefabricated systems, such as those used in Hertfordshire and in aluminium construction, were available for multi-storey buildings at that time, a number of standardized units were designed for the two- and three-storey blocks, allowing a large amount of fabrication off the site. Floors and roofs are of one standard width, while stanchion heights and wall panels are uniform throughout.

SECONDARY SCHOOL

at REDDITCH, WORCS.

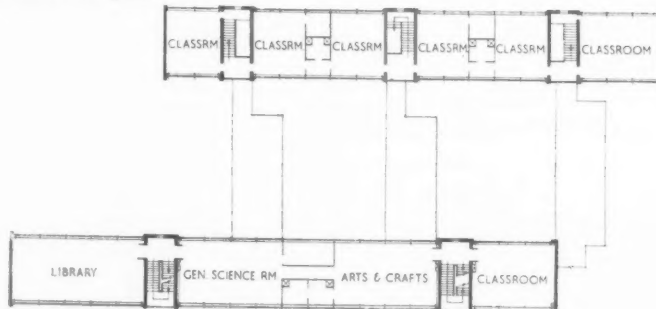
designed by RICHARD SHEPPARD
and PARTNERS



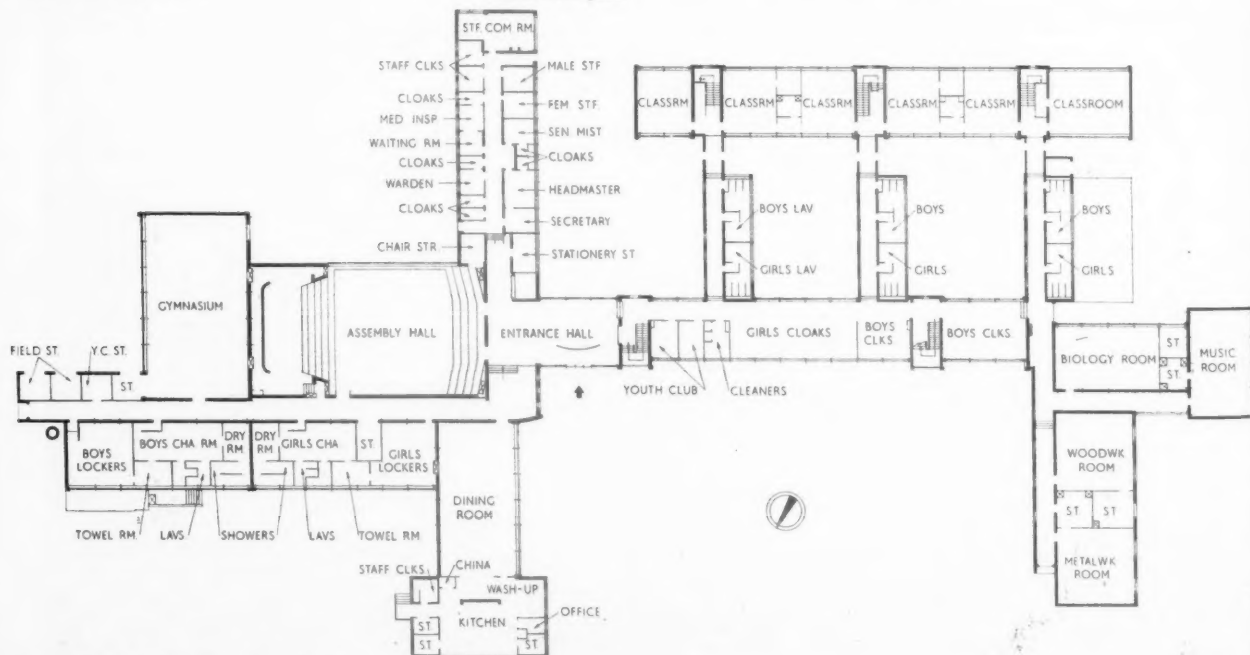
Site plan



Second floor plan



First floor plan



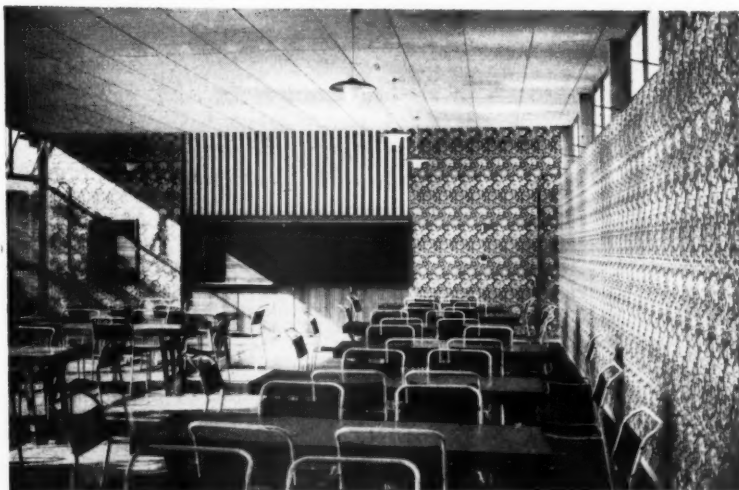
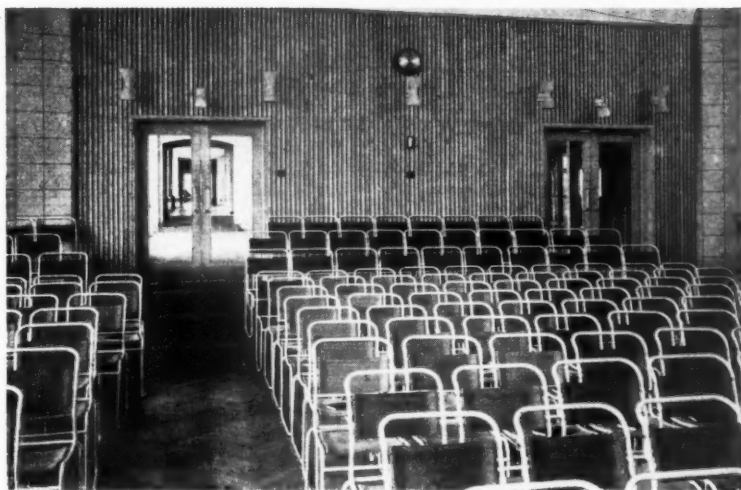
Ground floor plan [Scale: $\frac{1}{4}$ " = 1' 0"]



Above, the assembly hall stage. Right, rear wall of the assembly hall and main entrance doors. Below right, dining room and kitchen servery.

PLAN.—All teaching spaces have a south aspect, as well as north light, and storage space is arranged between them to reduce noise transmission. A rural science area to the west of the main buildings consists of greenhouse, tool, potting and livestock sheds. The assembly hall and dining room have been arranged so that they can be used by the general public without interfering with school activities. The assembly hall and gymnasium have been grouped together so that changing rooms can be used for theatrical purposes when required.

CONSTRUCTION.—The construction throughout is of 8-in. by 5-in. steel stanchions with uniform floor to ceiling heights, except in the assembly hall and gymnasium. The stanchions are connected transversely at 10-ft. centres by lattice girders 5 in. apart. This width allows vertical services to rise between them. This wind-bracing does not form part of the floor construction. At floor and roof levels a 5-in. by 3-in. steel beam encased in concrete is bolted laterally between stanchions, and these carry the precast floor and roof decks. All floors and flat roofs are formed of precast concrete slabs 25 ft. long 3 in. deep and 12 in. wide, braced by steel reinforcement, the lower tension bar being 15 in. below the slab (see detail on page 378). These units were site-welded and were designed with a deflection of $\frac{1}{8}$ in. at the span. It was thought desirable to



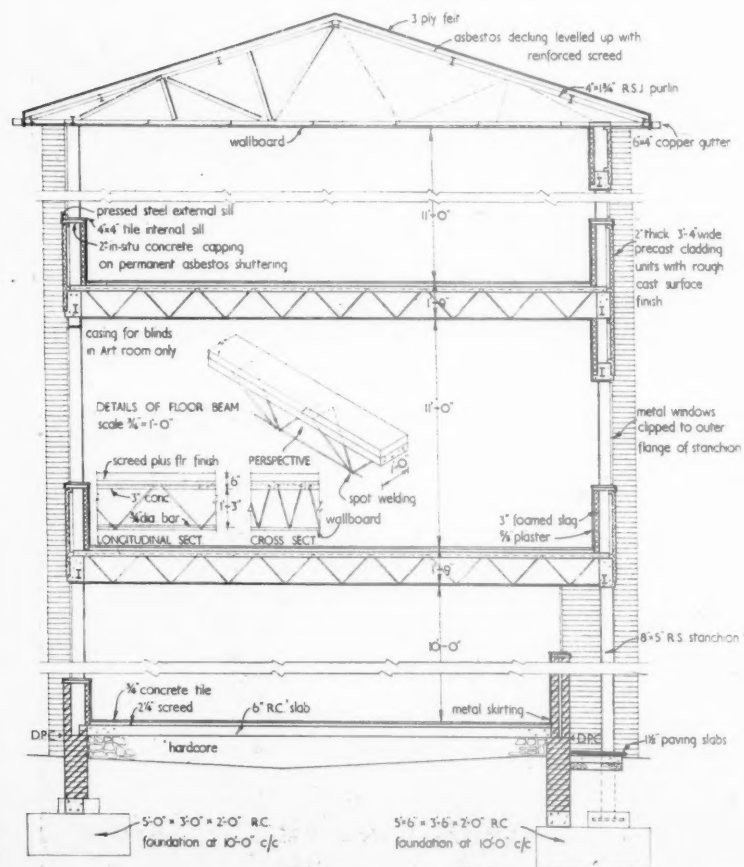


Left, main entrance from the north with the dining room extreme left. The external cladding on this block was illustrated as a Working Detail in the JOURNAL for January 14, 1954. Below, part of the domestic science room and staircase on the third floor. Bottom, part of the three-storey block, which contains specialist teaching rooms, from the east.

SECONDARY SCHOOL

in REDDITCH, WORCS.

designed by RICHARD SHEPPARD and PARTNERS



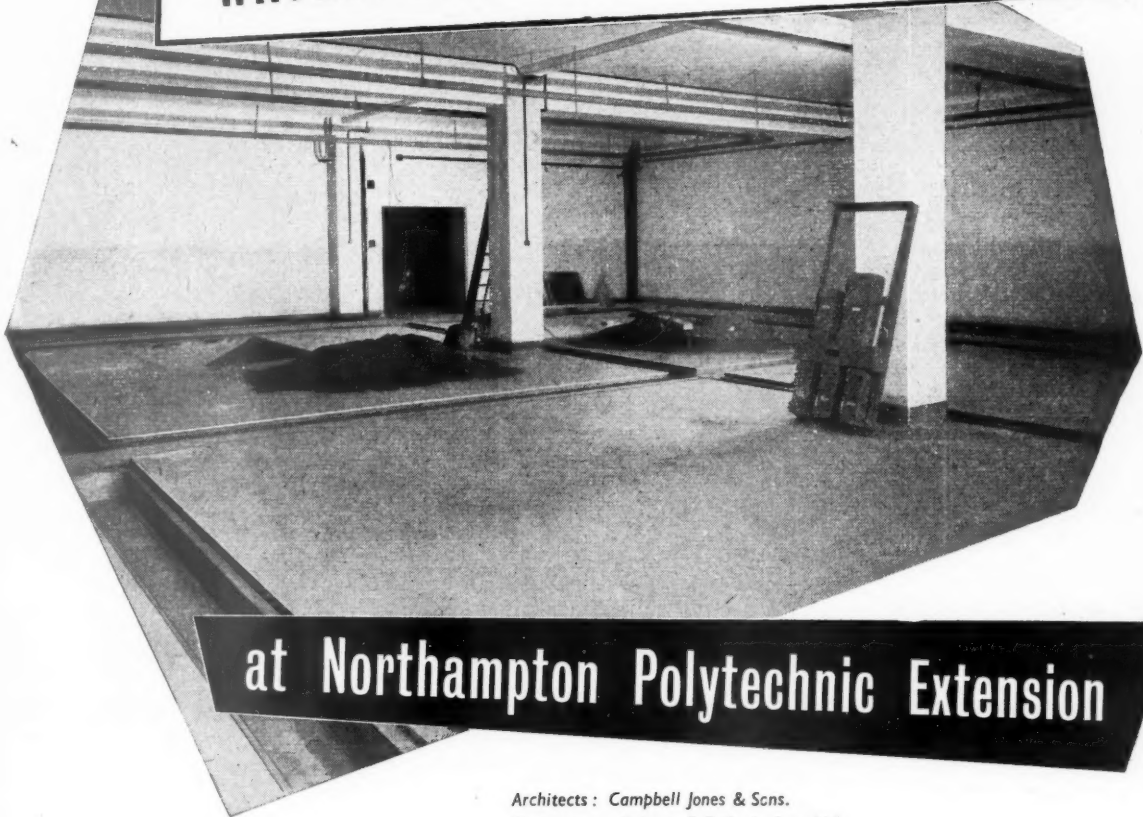
Typical cross-section through three-storey block on south-north axis [Scale: 1/4" = 1'-0"]

use non-continuous ceiling panels and in situ plaster was avoided owing to the risk of cracking through vibration. External walls are mostly clad with precast concrete blocks which have a Derbyshire spar finish. There are 92 sq. ft. per place; costs are about £167,000 for school buildings, £9,750 site works, and £12,400 for playing fields, caretaker's cottage, headmaster's house and playgrounds.

The general contractors were Aspley & Co. For sub-contractors see page 384.



WATERPROOF BASEMENT FLOORS



at Northampton Polytechnic Extension

Architects : Campbell Jones & Sons.
Contractors : Patman & Fotheringham Ltd.

In constructing the new extension to the Northampton Polytechnic, St. John Street, London, E.C.1, the whole of the basement floor was made waterproof by the inclusion of 'PUDLO' Brand Cement Waterproofing Powder throughout the thickness of the concrete. The illustration above shows the Hydraulics Laboratory which occupies a small section of the new basement.



Descriptive booklet sent on request

CEMENT WATERPROOFING POWDER

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

The word 'PUDLO' is the registered Trade Brand of Kerner-Greenwood & Co. Ltd. by whom all articles bearing that Brand are manufactured. Sole Proprietors and Manufacturers:
KERNER-GREENWOOD & CO. LTD., KING'S LYNN, NORFOLK



BROADGATE HOUSE, COVENTRY *D. E. E. Gibson, C.B.E., M.A., A.R.I.B.A., M.T.P.I.
City Architect & Planning Officer*

HOPE'S

HOT-DIP GALVANIZED WINDOWS

HENRY HOPE & SONS LTD

SMETHWICK, BIRMINGHAM, & 17 BERNERS STREET, LONDON, W.1
LOCAL OFFICE: 319 BROAD STREET, BIRMINGHAM, 1

TECHNICAL SECTION

The traditional inattention of architects to the details of house drainage is almost certainly a prime cause of the present intractability of the cast-iron pipe range. For cast-iron pipes present an exact analogy to the bye-law street: they perform their single office unexceptionably, but to the disregard of other contexts. Because it has not been the architect's custom to think closely about dimensions, it is now difficult for him to come by a catalogue which gives them; and because it has not been his custom to design the drainage of his fittings to anything more exacting than a rule of thumb, the pipes he must use—if he is to do the job cheaply—lead him into exasperating difficulties. The classic case is where a w.c. and a bath discharge into the same waste on an internal stack on the same floor. When there is no separate vent pipe the bath must discharge above the w.c., but the standard sizes require that this height should be greater than necessary and greater than can usually be spared. As a result the architect is blackmailed, by the threat of a loop of pipe appearing below the ceiling, into using a more costly piping material. Now is the time to give to the services the same critical attention that we are beginning to give to the structure.

This week's
special feature

11 MATERIALS fire resistance

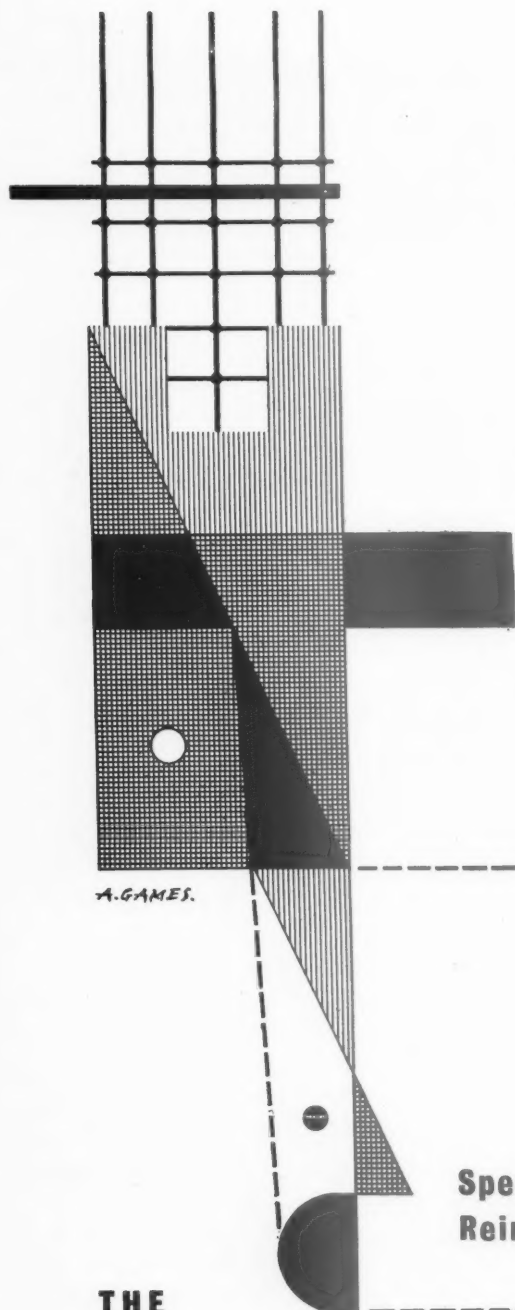
The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant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

This week we give space to an article by a Fire Prevention Officer, on the use of combustible linings to rooms. His view is that fibre insulation board is used "indiscriminately" and he goes on to question whether its use should ever be permitted by the conscientious Fire Prevention Officer and to put forward a suggestion for providing inexpensive insulation by other means. The title of his article is therefore "Are fire resistance and insulation incompatible?" Considering that it was only fair to give space also to "the other side," we follow with a reply by Mr. Basil Marriott who writes as the spokesman of FIDOR; and finally, to add the voice of yet one more authority, we conclude with a summary of the new National Building Study on "Fire Hazard of Internal Linings" (N.B.S. Special Report No. 22).

From the fire protection point of view the irresponsible use of insulating fibreboard for partition, wall and ceiling linings is one of the major current evils, and the indiscriminate use of even the less readily combustible hardboards cannot easily be condoned by the conscientious Fire Prevention Officer. It is not intended that the deliberate selection of particular building boards for their peculiar and perhaps unique properties in special circumstances should be classified

as either irresponsible or indiscriminate. Their use may still, however, indicate either a lack of appreciation of fire hazards or an undue desire to keep the cost down.

Even when combustible building boards are treated to give a degree of resistance against surface spread of flame they are still inherently combustible, and the fire resistant treatment given may well deteriorate with age. Even plaster coatings and asbestos cement sheeting are apt to get damaged



BUILD IN STRUCTURAL CONCRETE

The Trussed Concrete method of unified control ensures an economical structure efficiently adapted to the purpose of the building.

Consultation with the Architect at the earliest stage—free and without commitment—makes certain that the project starts on the right lines.

The ensuing structural design aims for economy in materials and labour in the construction stage. All processes are under the same control.

TRUSSED CONCRETE
provide integral service
from plan to completion

Specialists in Concrete since 1905
Reinforced - Precast - Prestressed

THE

TRUSSED CONCRETE

STEEL CO. LTD. Truscon House, Lower Marsh, London, S.E.1

and are not always made good. Other surface treatments may also deteriorate; impregnation and fire resisting paint may well achieve grade I or II resistance to flame spread (BS 476) at the start, but it is difficult to get a reliable opinion on their effective life. Though the architect may see that in the new building, or during alterations, precautions are taken where combustible building boards are used, it is in most cases impossible to ensure the continuance or renewal of such precautions throughout the building's life.

The many valuable qualities of building boards are fully recognised. They are readily obtained, easy to work, quickly fixed even by unskilled labour, involve no delay whilst drying out, are inexpensive in themselves and cheap to apply, and, in the case of fibreboards, they provide valuable insulation against both heat and sound. These qualities must be conceded, and in the eyes of many they justify the fire hazard incidentally created.

However, as a Local Government Fire Prevention Officer, I consider that it is a duty to continue to point out the increased fire hazard created by the use of these combustible materials as against the incombustible type of construction which in most cases they supersede.

Perhaps one of the most hazardous features of the use of these boards is the cavities created in partitions, walls and ceilings. Often these cavities are not draught-stopped as they should be. Even if the outside face of the material has been given a degree of resistance to flame spread, it is seldom that either the interior surface or the timber studding to which it is usually fixed has been similarly treated. A rapid spread of fire can occur within these cavities.

When attempting to dissuade architects from using combustible building boards, it is an advantage to be able to suggest alternative types of construction which would meet their needs and not be disproportionately more expensive. Plasterboard is, in many instances, a suitable material. It is readily obtained, easy to work and fix, and does not require to dry out. But, the architect may argue that it lacks any sound- or heat-insulating properties and, worse still, that it aggravates sound transmittance.

It appears to be generally accepted that vermiculite plaster has an appreciable value for both sound and heat insulation. It is also understood that a $\frac{1}{2}$ in. of vermiculite/gypsum plaster (1:1½ mix) on expanded metal will give one hour's fire protection, and that an extra $\frac{1}{4}$ in. of the plaster will double the fire resistance. (Table XIV, Ministry of Education Building Bulletin No. 7).

I would like to suggest that a vermiculite/gypsum plasterboard would combine fire resistance with a substantial degree of sound and heat insulation. I am told that the main difficulty to be overcome would be the cost of production. But this increased cost might well be justified by the wider range of qualities such a board would possess. These qualities may even obviate the need for extra measures to be taken in the interests of either heat- or sound-insulation, such as a layer of an insulating medium above a plasterboard ceiling, or a surface of acoustic tiles.

The comparatively hard outer face of the proposed vermiculite plasterboard would still not provide the sound absorption required in some circumstances. Could a softer, yet still fire-resisting, surface which would not deteriorate in transit, be fabricated? If not, could it be added *in situ* at a reasonable cost?

It seems that an easily worked board with degrees of both fire resistance and insulation would meet a real need, but this would still be subject to the abuse of bad work-

manship in fixing; the inner edges would have to be carefully butted, and both these and the outer edges would have to be sealed if the full grade of fire resistance of the board was to be achieved.

Fire resisting coatings which can be sprayed into position offer a better alternative to the prefabricated building boards. It seems that provided a suitable key is obtained and the mix and thickness are correct, a satisfactory result must follow. According to the thickness required it may of course be necessary to allow time for drying out between successive coats. The provision of a satisfactory key may be a problem where cost is important, but expanded metal would provide the best key.

Asbestos is a material which comes readily to mind as being suitable for this method of application and it is understood to give both good fire resistance and insulation. Unfortunately, it leaves a soft surface which is easily damaged, and for this reason is not usually recommended for use at less than seven to eight feet above floor level, unless special precautions are taken to protect the surface.

In view of the apparent advantages of sprayed asbestos it seems that the expense of a final, harder setting, surface, either sprayed or floated, may well be justified, so long as the slightly decreased sound absorption is acceptable.

Apart from its possible use for a finished surface, the thicknesses given in Table 3 in the *Appendices of Post War Building Study No. 20, Fire Grading of Buildings*, as achieving stated degrees of fire resistance,

Mr. Basil Marriott, writing on behalf of the Fibre board industry, here takes up "Fire Prevention Officer" on a number of points. He suggests that the writer may be setting up an unrealistic standard for new materials, that much depends on how fibreboard is used and that such tests as so far have been made give grounds for more confidence than "Fire Prevention Officer" will allow.

The Fire Prevention Officer (whom I shall refer to as the writer) states in effect in his opening paragraphs that no sensible person uses fibre building boards where unusual fire hazard is anticipated *without taking proper precautions*. Readily conceded: indeed, endorsed by the industry itself, as will be found expanded and emphasised in the revised handbook to be issued by FIDOR. It is when he goes on to refer to those precautions that the writer may communicate his apparent misgivings, and even some appearance of prejudice, to his readers. The opportunity to balance things is welcome but in leaning over backwards to achieve detachment I may be less partisan than some members of the industry for whom I speak could wish.

In its natural state, fibre building board is a combustible material: the fact is frankly faced, and the implications constructively tackled, by that industry. But so, of course, are other and more "traditional" materials, particularly those also deriving from wood. Perfection is often demanded of new materials if they are to live down being mere substitutes for others accepted (with their shortcomings) by longer usage. Few, however, as the writer himself points out, combine so many recognised advantages as fibre building boards, particularly where thermal- or acoustic-insulation or control are factors, and all building technique is a matter of reconciling such pros and cons, in effective compromise rather than the achievement of perfection. Moreover, there is probably no such thing as a completely incombustible building structure, apart from what it must contain in "operation."

make sprayed asbestos appear an economical medium for the protection of steel columns and beams, while for the protection of beams which may ultimately be protected by a ceiling, the easily damaged surface can hardly be considered a disadvantage.

I have not been able to obtain a reliable opinion on whether or not vermiculite/gypsum mix is a suitable subject for spraying, but spraying is the method of application and exfoliated vermiculite the main ingredient of one well known and satisfactory fire-resisting surfacing material, which shows impressive figures for thermal- and sound-insulation and does not encourage condensation.

The introduction of processes such as spraying, which require specialist equipment and labour, is, of course, expensive and cannot easily be justified on small buildings. Thus with spraying it seems that at least two possible money-saving factors enter into the calculation:— firstly, the possibility of providing comparatively inexpensive protection to structural steel work, and secondly, since colours can be combined with the material to be sprayed, a considerable saving on decoration costs.

A sprayed ceiling, wall or partition lining, which has good thermal, acoustic, anti-condensation and fire-resisting properties, and does not require long to dry out, should satisfy most requirements. On a building of sufficient size the cost need not be prohibitive. It need be little more than the finished cost of many of the fire-hazardous ceiling and wall linings which have given rise to the problem.

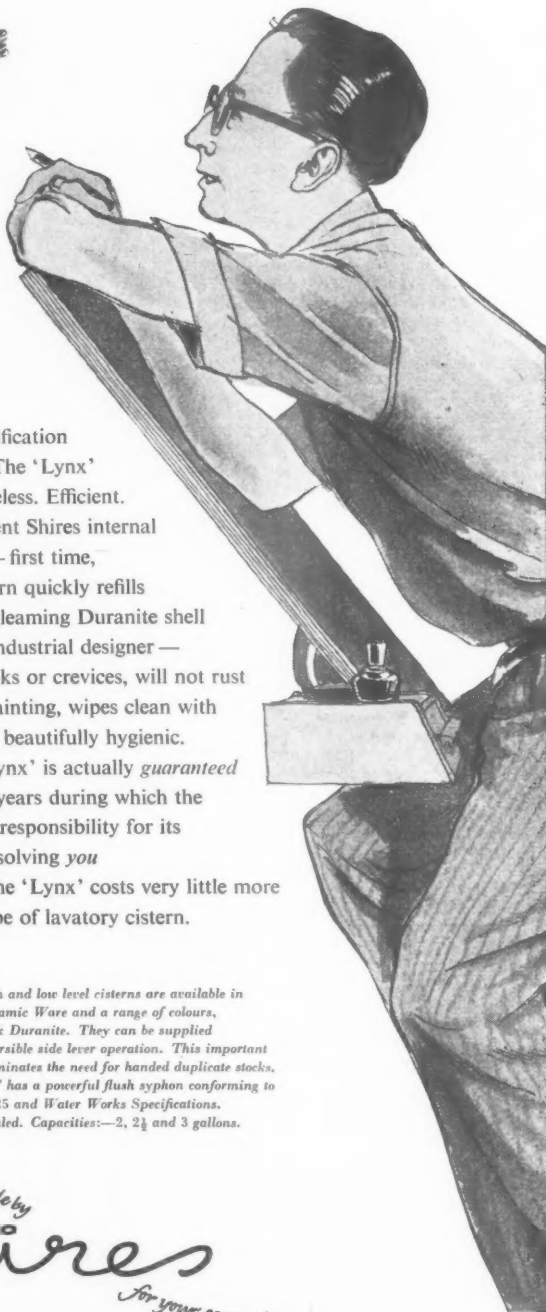
A basis for comparison in fires of those partly composed of fibre building board is hard to establish, but "official" tests suggest a behaviour no worse if no better, than comparable interior linings, and even some "traditional" forms of construction, by no means all of which are as incombustible as the writer seems to imply. This is, of course, given the precautions which he touches upon; but they are largely matters of design and the architect's responsibility. It is hardly possible to do more than generalise about these, but the writer would surely not seek to visit the sins of faulty design on the material, when they are not observed.

The related problem of surface flame-spread is, if anything, the more important, since the time available to evacuate a burning room is vital. The rate of flame-spread is measurable scientifically; BS 476 classifies surfaces under four headings according to their observed behaviour under controlled test. Again, in its natural state, fibre building board falls in Class 3 or 4—as permitting "medium" or "rapid" rate of spread, though it is not generally left unfinished.

Means are available, however, to improve this performance, some fortuitous and some specially developed. They apply to the material itself, leaving less to admittedly vague design recommendations. The first are the conventional decorations (paint and distemper) which raise the performance by one Class, while a plaster finish (often applied as a skim-coat) automatically falls in Class 1. As the writer suggests, much depends on maintenance, but periodical renewal of such finishes is usual, and



(...but is there a Lynx in the house?)



Your plans deserve a specification that includes the 'Lynx'. The 'Lynx' is a lavatory cistern. Noiseless. Efficient. Pleasing to the eye. Its silent Shires internal fitting flushes at a touch — first time, every time — and the cistern quickly refills ready for use again. The gleaming Duranite shell — designed by a leading industrial designer — has no dust-collecting nooks or crevices, will not rust or corrode, never needs painting, wipes clean with the flick of a cloth, and is beautifully hygienic. But that's not all. The 'Lynx' is actually *guaranteed for ten whole years* — ten years during which the manufacturers accept full responsibility for its trouble-free operation, absolving *you* from worry or fuss. Yet the 'Lynx' costs very little more than the old-fashioned type of lavatory cistern.



'Lynx' high and low level cisterns are available in White Ceramic Ware and a range of colours, or in Black Duranite. They can be supplied with a reversible side lever operation. This important feature eliminates the need for handed duplicate stocks. The 'Lynx' has a powerful flush syphon conforming to B.S.S. 1125 and Water Works Specifications.

Fixing brackets are completely concealed. Capacities:—2, 2½ and 3 gallons.

made by
Shires
for your convenience

59

Shires are the largest manufacturers of moulded cisterns in the country. They also make W.C. pans and seats, flush-pipes and complete W.C. Suites. Leaflets from:—
Division A, Shires & Co. (London) Ltd., Greenbottom Works, Guiseley, Yorks. (Factories also at London, and Stoke)
Shires (Ireland) Ltd., Stannaway Drive, Crumlin, Dublin

owners as well as architects can be made aware of their double function.

Of the more specific remedies, it is necessary to distinguish between two main types. First, flame-retardant types or "qualities" of fibre building board, impregnated, faced, or otherwise treated *at source*, and, secondly, various chemical treatments for application *in situ* by spraying or painting, some of which combine the function of "decorations." These, as tested by the Fire Research Station of the DSIR, enable, for example the insulating and hardboard members of the fibre building board "family tree" to achieve Class 1, or, in some cases, Class 2, performance—"very low" and "low" rate of spread respectively. Full details are to be published in the handbook referred to earlier, with the authority of the FRs; in the meantime they are available from FIDOR.

Two points are willingly conceded to the writer: one, that both faces really need treating in hollow constructions where flame may penetrate, and this adds to the cost—and even then the problem of untreated or broken edges remains. This may seem to be "splitting fibres," and the compartmenting he mentions further reduces the risk. The other point is that little information has yet been published about the effective life of these treatments: the comparative youth of both FIDOR and some of the processes recently perfected is perhaps extenuation of the latter, but the real answer is the need for official endorsement of manufacturers' claims, however well-founded. They sometimes need to be reminded of this; meantime, surely an objective and impartial approach would give them the benefit of the doubt, and there are encouraging reports of "accelerated" tests, and of, for example, American insistence on the use of some processes available here, in their Service and other establishments, as a result of them.

I am not competent to express an opinion on the hypothetical alternatives which the writer considers it "an advantage to be able to suggest." But there is a more serious aspect of his article, indicated by the words with which he prefaces his speculations. This is that, considering the incomplete evidence on which he admittedly bases what might be damaging criticism, such words as "When attempting to dissuade architects from using combustible building boards . . ." raise the question whether this sort of advice—I had almost said campaigning—comes quite properly from even such conscientious and well-informed Officers, in a matter which is to some extent *sub judice*.

So that readers may judge for themselves to what precise extent this matter is still sub judice we add here a summary of National Building Studies Special Report No. 22 "Fire Hazard of Internal Linings," which was published by HMSO on March 11, 1954 (Price 1s.3d.).

It is not contested that fibre building boards in the untreated state can allow flame spread at menacing rapidity. So much was clear from "natural" fires and from tests made at the end of the war, which were the basis of recommendations made in Post War Building Studies Nos. 20 and 29 (Fire Grading of Buildings Parts 1 and 11). But less was known about the

TABLE I
Particulars and Results of Boards Tested in Fully-lined Rooms.

Particulars of Wall and Ceiling Linings	Classification on Spread of Flame Test of B.S. 476	Mean Time for all Room to Become Involved in Fire min. sec.
Incombustible	—	17 10
Fibre insulating board with $\frac{3}{16}$ -in. skim plaster coat	Class 1	17 45
Wood wool	Class 1	16 45
Plasterboard	Class 1	16 35
Hardboard impregnated with monammonium phosphate (retention of salt stated to be 17 to 18 per cent. by weight)	Class 1	15 45
Hardboard with surface treatment of paint A* (30 g./sq. ft.)	Class 1	13 30
Fibre insulating board with surface treatment of paint A (30 g./sq. ft.)	Class 1	10 35
Asbestos paper faced fibre insulating board	Class 1	10 30
Fibre insulating board with surface treatment of paint A (15 g./sq. ft.)	Class 1	9 25
Fibre insulating board impregnated with monammonium phosphate. (Retention of salt:—9 per cent. by weight)	Class 1	9 00
Fibre insulating board with surface treatment of silicate paint	Borderline Class 2-3	7 45
Fibre insulating board with two coats of distemper	Class 3	6 00
Untreated hardboard	Class 3	6 15
Compressed straw slabs	Class 3	5 45
Untreated fibre insulating board	Class 4	5 00

* An intumescent flame-retardant paint.

TABLE II
Particulars and Results of Boards Tested in Partially-lined Rooms

Treatment of fibre Insulating Board	Classification on Spread of Flame Test of B.S. 476	Time for all Room to Become Involved	
		Boards Used as Walls only, Ceilings Incombustible min. sec.	Boards Used as Ceilings only, Walls Incombustible min. sec.
Surface treatment of paint A (30 g./sq. ft.)	Class 1	13 45	12 00*
Surface treatment of silicate paint	Borderline Class 2-3	13 00	12 00
Surface treatment of distemper	Class 3	11 00	10 15
Untreated	Class 4	8 20	9 00

* The times given in columns three and four of Table II are the average times of three tests, the maximum deviation from the mean being about 15 per cent.

The above tables (which figure as Table 2 and Table 3 respectively in the original), together with the Figure appearing on page 383 are reproduced, by kind permission of the Controller of HMSO, from National Building Studies No. 22.

effect of fire-resistant treatments of fibre board on the behaviour of fires in actual furnished rooms.

This omission has now been largely repaired by D. Hird and C. F. Fischl through experiments they carried out for the Joint Fire Research Organisation, and which are reported in this booklet.

What they did was to simulate natural

conditions by starting fires in "furnished" rooms with different kinds of wall and ceiling linings. Both full-size and scale models were used and it was established, with some qualifications, that the latter did not give misleading results. The room was equipped with a free-standing cupboard, a wooden armchair and table, and it had a deal floor in all cases. The fire was started



What's different about designing in Warerite?

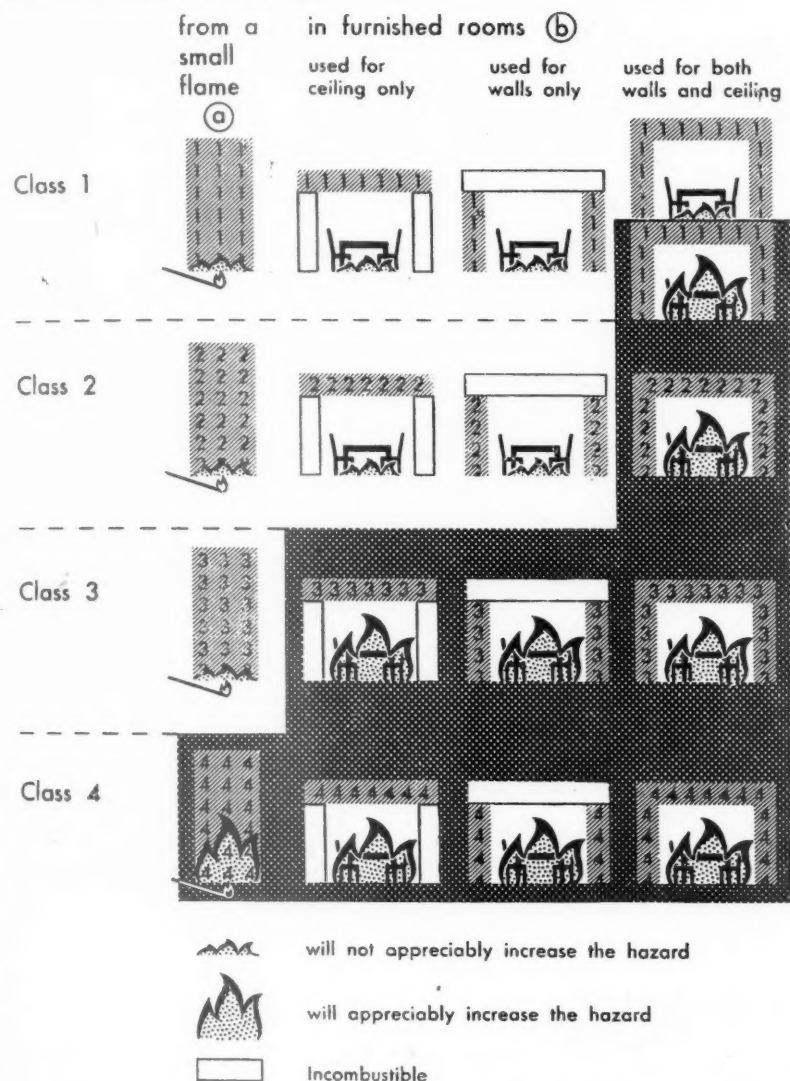
The answer can be found in "Installing Warerite Laminated Plastics", a new free booklet for architects and builders. It contains all kinds of recommendations to assist on the practical side, with a special section dealing with fabricating. As a guide to anyone designing in this colourful and hard-wearing material it is invaluable. Send for your copy now.

WARERITE
REGD. TRADE MARK
LAMINATED PLASTICS

MADE BY WARERITE LIMITED
(Unit of Bakelite) Ware · Herts · Telephone: Ware 502

WA7A

How Building Boards Spread Fire



(a) In Class 3 hardboard is an exception.

(b) From Tables 1 and 2 those boards which assist the fire to involve the whole room in less than 11 min. are considered as appreciably increasing the hazard. This time has been fixed arbitrarily. Decisions concerning the acceptability of building boards will depend on a variety of factors beyond the scope of this paper.

Diagram showing spread of flame classification and fire hazard of building boards.

among the furniture, and the time taken for the whole room to become enveloped (the 'flash-over' as it is called) was measured. In addition, temperature readings at a point away from where the fire was started were taken at five minute intervals, and plotted graphically. A degree of ventilation equivalent to that of an open window was allowed.

Findings are shown in Tables I and II. It is clear that the spread of flame classification under BSS 476 gives only a general indication of the fire hazard, particularly in Class I, for, apart from treatment of the lining material itself, its disposition, and the nature and amount of other combustible material (furniture and so on) appreciably determine the time taken in reaching flash-over point, and the manner in which the flames spread from the source.

With combustible room surfaces, radiation from the source of the fire assisted spread across the floor to other furniture, but with distempred fibre board or compressed straw linings, progress was rather different. Flames rose from the source igniting the ceiling which then spread across and set fire to the walls, these burning downwards from the top and getting to the other furniture before it was reached from across the floor. Flash-over being attained in about one-third to one quarter the time taken by the incombustible surfaces. Treatment with silicate paint appears to increase this time to about one half to one third, but the report says that the paint "cracked very quickly, and protection ... was small." Treatment described as "intumescent flame retardant paints" of 30 grammes/sq. ft.

delayed the spread until it was well established in the furniture in which it had started, flash-over being reached about five to seven minutes sooner than with incombustible linings. The amount of paint used is very important, and the same appears to be true of impregnation with monammonium phosphate which can give comparable results.

Tests were also made with a $\frac{1}{8}$ in. skim coat on fibre board giving the same result as incombustible linings, the interesting point here being that the plaster did not flake off until after flash-over.

Rooms which had ceiling only or walls only clad in hazardous linings were subjected to the same experiment, each giving a reduced risk compared with the wholly lined room. Whether it is the ceiling or the walls that are incombustible seems to be of significance only when the amount and disposition of other combustible material—the furniture—is taken into account. The danger of the cavity behind fibre board linings is mentioned—as being particularly acute with boards easily ignited from a small source. Even with boards treated on both faces, possible broken edges constitute a danger.

The broad conclusions appear to be that the surface spread of flame classification under BSS 476 is not a sufficient guide in the choice of board, the actual conditions of use must be taken into account as well, particularly with the higher classifications. Impregnation seems to be more reliable than surface treatment, but the degree of impregnation is significant. In this connection "Fire Prevention Officer's" query about possible age deterioration of treatment remains unanswered, for it is not stated whether the board used in the tests was new or old. The conclusions of the report are shown in the booklet pictorially. (See the figure reproduced on this page).

Turning now to the gentle contest on previous pages, it would seem that there is a case for persuading the fibre board makers to impregnate their boards with the kind of treatment (to the degree mentioned) in this report, or at least to state always which of their products are so treated, for fibre board is not always used in hazardous circumstances. There is also a case for persuading architects and builders to be more critical and specific when choosing a board. In this connection it would have been useful to hear from Mr. Marriott a little more about impregnation—whether it affected other qualities of the board, or created problems in the manufacturing process, how much it added to the cost and so forth. To discourage the use of fibre board generally is rather a counsel of despair since, as the writer of the article on page 380, "Fire Prevention Officer" agrees, it has many other characteristics to recommend it, not least the fact that it is a dry process for making internal surfaces.

"Fire Prevention Officer's" title—"Are Fire Resistance and Insulation Incompatible?" seems a little confusing when he talks of sound insulation, for whether or not a board is sound insulating depends on the way it is used in a particular construction, it is not inherently insulating in all cases. Some of his suggestions might not be an improvement on the transmission values of the fibre board they replace.

The question of who is ultimately responsible for the existence of fire-hazardous materials in buildings is not an easy one to answer. Blame cannot be laid wholly with the owner or architect, for they may not be adequately informed; nor can maker or supplier carry the can entirely. The truth seems to be that all share responsibility.

If "Fire Prevention Officer's" experience of building fires is at all typical, there might be a case for altering or extending building bye laws. But this may be a pessimistic view of the situation.

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

AJ 25-3-54

Buildings Illustrated

Development at St. Lucia. (Pages 371-374.) Corporation's Site Representative and Architect: E. W. J. Mitchell; Chief Assistant Architect, W. N. Brown; Architectural Assistants, O. J. Ludlam, M. V. Smith, H. I. K. Mair, L. Clarkson. Deputy Site Representative and Chief Quantity Surveyor: A. S. Zoller. Quantity Surveyor: W. M. Fraser; Assistant Quantity Surveyor: M. L. Johnson. Technical Assistant, L. S. Brace. Engineers: E. S. H. Sykes (civil engineer), I. W. Grey (structural engineer), D. W. Fairbairn (junior civil engineer). Consulting Engineers, Howard Humphrey & Sons (sewage and water), The R.C. Steel Co. (reinforced concrete structures); building and civil engineering work, Holland & Hannen and Cubitts Ltd.

Secondary School, Bridley Moor Road, Red-ditch, Worcestershire, for the County Council Education Committee. (Pages 375-378.) Architects: Richard Sheppard & Partners, F./A./A.R.I.B.A.; Assistant Architect, Ann B. Leslie, A.R.I.B.A.; assistant-in-charge, Deidre Downer. Consulting engineers: T. F. Burns & Partners; Quantity Surveyors: E. C. Harris & Partners. General contractors: Espley & Co. Ltd.; Sub-contractors: dampcourses, (Astos) Ruberoid Co. Ltd.; asphalt, J. Hadfield & Sons Ltd.; facing bricks, Ibstock Brick & Tile Co. Ltd. (suppliers, A. H. Herbert & Co. Ltd.); artificial stone, Standard Pavements Co. Ltd.; structural steel, Matthew T. Shaw & Co. Ltd.; special roofings, Universal Asbestos Manufacturing Co. Ltd.; roofing felt, William Briggs & Sons Ltd.; partitions, Flexo Plywood Industries Ltd.; glass domes, T. & W. Ide Ltd.; patent glazing, Williams & Williams Ltd.; woodblock flooring and cork tiles, J. Gerrard & Sons Ltd.; patent flooring (linoleum), Resilient Tile & Flooring Co. Ltd., and Granwood Flooring Co. Ltd.; central heating, Weatherfoil Heating Systems Ltd.; stoves (Racburn solid fuel cookers),

Allied Ironfounders Ltd.; electric wiring, Booth & Bomford; electric light fixtures, Best & Lloyd Ltd., Troughton & Young Ltd., and Merchant Adventurers of London, Ltd.; street lighting, A. C. Adamson & Co.; plumbing, David F. Wiseman & Sons Ltd.; sanitary fittings, William E. Farrer Ltd.; door furniture, metalwork, James Wood; case-ments, window furniture, Williams & Williams Ltd.; rolling shutters, Shutter Contractors Ltd.; sunblinds, Artistic Blind Co. Ltd.; plaster, Messrs. Brooks; joinery, Braziers Ltd.; tiling, Bryon & Co. Ltd.; tex-tiles, Gerald Holtom; wallpapers, Cole & Son (Wallpapers), Ltd.; John Line & Son Ltd., and Arthur Sanderson & Sons Ltd.; cloakroom fittings, James Gibbons Ltd.; signs, Messrs. J. Fowler.

Announcements

Davis, Belfield and Everest, Chartered Quantity Surveyors, have moved to new offices in Norwich. The address is 38, Prince of Wales Road, Norwich. (Tel.: Norwich 28194/5.)

Deane Skurray, architect, of 22, Minster Street, Reading, has opened a branch office at Bank Chambers, 12, Hart Street, Henley-on-Thames, in association with Hatchard-Smith & Bertram, F./F.R.I.B.A., of 11, Haymarket, S.W.1. They would be pleased to receive trade catalogues at this address.

Barry J. Kimmins, A.R.I.B.A., has taken up an appointment as Architect to the Ministry of Education and Fine Arts of the Imperial Ethiopian Government. From March 1 his address will be Ministry of Education and Fine Arts, Addis Ababa, where he will be pleased to receive trade literature, etc.

Banks, Wood & Partners, Quantity Surveyors, have changed the style of their Exeter practice to Banks, Wood & Thomson. The style of their Bristol, London and Chelmsford practices remains the same.

LOWER TENDERING for THE RENDERING

if it's



FEBMIX ADMIX MASONRY MORTAR

(Patent applied for)

MASONRY MORTAR IS MADE BY MIXING "FEBMIX ADMIX" WITH SAND AND CEMENT. BECAUSE IT ALLOWS THE CEMENT CONTENT TO BE HALVED OR LIME OMITTED MATERIAL COSTS ARE REDUCED BY UP TO 4/- PER GAUGING.

THE "FATTY" CONSISTENCY OF THE MORTAR ALSO REDUCES THE LABOUR EFFORT IN APPLICATION AND THEREBY INCREASES RATE OF OUTPUT.

THE MORTAR IS RAIN AND FROST PROOF AND NOT PRONE TO CRACKING AND CRAZING.

● It costs you money not to use it ●

Write for technical brochure

Southern Office: TUDOR PARADE, LONDON ROAD, HOUNSLOW, MIDDLESEX. Phone: HOU 0082

FEB

(GREAT BRITAIN) LTD.

Northern Office: ALBANY ROAD, MANCHESTER 21. CHORLTON-CUM-HARDY, Phone: Chorlton 1063

When fitting venetian blinds . . .

SUNWAY venetian blinds give ideal light conditioning. Yet the slats can be arranged to ensure complete privacy. They are tailor-made to fit any window. Additional features include:—

control of sunlight

At the flick of a finger SUNWAY can soften the glare of the sun, protecting furniture and carpets from harmful fading effects.

increase of artificial light

On dark evenings the aluminium slats, scientifically curved and stove-enamelled, reflect and increase artificial light. Special enamel finish will not crack, chip or fade.

draught-free ventilation

SUNWAY can be adjusted to give draught-free ventilation, whatever the season, whatever the weather. Adjustment is simple and trouble-free.

In winter, fuel is saved by closing the slats to eliminate draughts and conserve room heat.

You can safely specify SUNWAY for windows in home, shop, factory, office, school or hospital. Available in 14 different colours and also in the new two-tone slats.

We also manufacture SUNWAY "Two-way" blinds which can be raised from the sill as well as lowered from the top and the SUNWAY SKYLIGHT Blind (Pat. No. 699431) for horizontal or sloping roof lights.

specify

SUNWAY

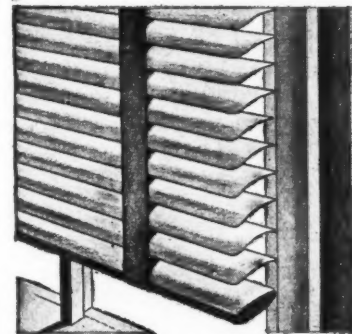
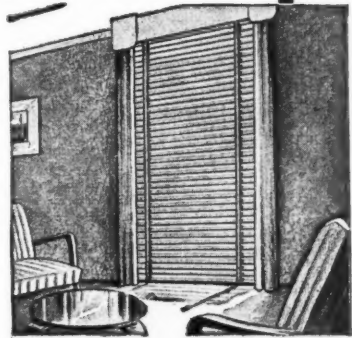
REGD

The versatile venetian blind

Please write for full particulars to Dept. 10:

VENETIAN VOGUE LTD., 408, MONTROSE AVENUE, SLOUGH, BUCKS.

Telephone: Slough 24595



A COMPANY OF THE BELLIS ASBESTOS AND ENGINEERING GROUP

*A New Year brings new problems,
when it's floor surfaces*

*Remember
the name*



THE
SPECIALISTS IN

INDUSTRIAL FLOOR SURFACES OF ALL
TYPES FOR OVER A QUARTER OF A CENTURY

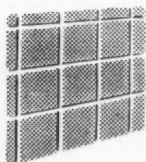
HEAVY DUTY • ACID RESISTING • WATERPROOF • DECORATIVE

HEAD OFFICE • EAGLE WORKS • WEDNESBURY • STAFFS
TELEPHONE WED 0284 5 LINES
LONDON OFFICE • ARTILLERY HOUSE • ARTILLERY ROW • LONDON S.W.1
TELEPHONE ABBEY 3816 5 LINES

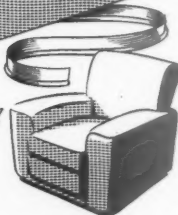
2 beautiful materials

*Plastahide
and Varilon*

**Fine UPHOLSTERY
COVERING**



*For
delicately coloured
WALL PANELLING*

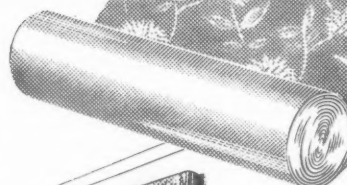


Tastefully coloured, hard wearing, washable "Plastahide" is finding new and varied uses in many situations that call for a serviceable, attractive yet economical covering material. In a variety of elegant colours PLASTAHIDE is in wide use as a "quality" upholstery covering, as well as for highly distinctive wall panelling and partitioning.

"VARILON" — a lightweight yet extremely durable material is available in a selection of delicate pastel shades from stock, and cut to any desired length. It is waterproof, will not fade and drapes beautifully for curtain use.

Architects may depend upon our complete co-operation in the preparation of furnishing schemes involving covering materials.

We shall be pleased to submit colour patterns and price quotations immediately on request.



*Tasteful,
durable,
CURTAINING*

PLASTAHIDE (Coverings) LTD. 184-192 DRUMMOND ST., LONDON, NW1 • Telephone: EUSon 1733



Auditorium of the Free Trade Hall, Manchester

THIS SEATING IS A SYMPHONY. . . inasmuch as it is the combined creation of architect, engineer and acoustics expert working in harmony.

Wherever you sit in the auditorium of the Free Trade Hall, whether you pay five or fifteen shillings, you enjoy the same complete comfort, the same virtually perfect acoustics.

This seating provides maximum depth consistent with stability, and the covering material can be easily adjusted, if need be, or removed for cleaning. The seats when in the raised position do not reflect sound unduly, the right degree of resonance being achieved by a slag wool pad retained by a perforated panel.

Profiles of various types of Cox tip-up seating are shown on the right, but architects are invited to apply to the address below for the illustrated booklet which gives fuller information.



Portable with arm rests



Permanent with arm rests



Portable without arm rests



Permanent with arm rests



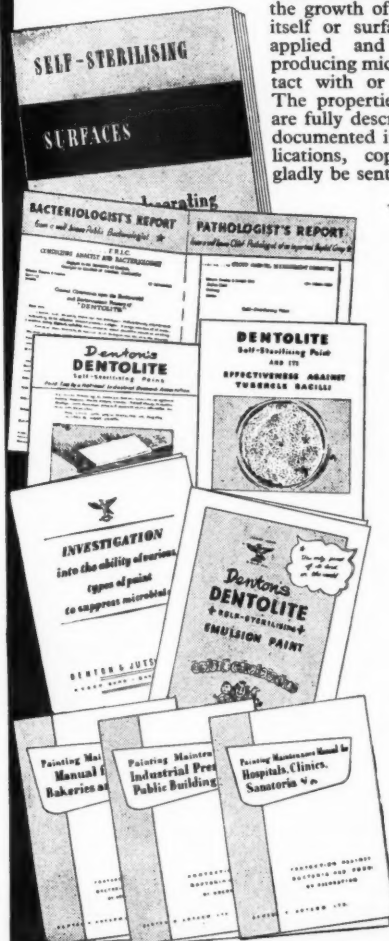
Cox & Co. (Watford) Ltd. Watford, Herts.
Phone: Watford 5631

Denton's DENTOLITE Self-Sterilising PAINT

The only paint of its kind in the world

PERMANENT PROTECTION AGAINST MOULD AND BACTERIA

DENTOLITE is the latest of all modern wall finishes. It is a finest quality NON-POISONOUS Emulsion Paint manufactured by a special process which makes it permanent by fungicidal and bacteriacidal. Throughout its entire life DENTOLITE prevents the growth of mould and fungi on itself or surfaces to which it is applied and destroys disease-producing micro-organisms in contact with or deposited upon it. The properties of DENTOLITE are fully described, illustrated and documented in the following publications, copies of which will gladly be sent on request.



DB 1 "Self-Sterilising Surfaces Created by Decorating."

DL 12 "Bacteriologist's, Pathologist's and Research Association's Reports on DENTOLITE."

DR 7 "Field Test on DENTOLITE Self-Sterilising Paint by a National Research Association."

DR 6 "DENTOLITE Self-Sterilising Emulsion Paint—Its effectiveness against Tubercle Bacilli."

DR 5 "Investigation Into the Ability of Various Types of Paint to Suppress Microbial Growth."

DL 3 "DENTOLITE—The perfect Satin Finish Wall Enamel."

"Painting Maintenance Manuals."

DENTON & JUTSUM LTD.
Division of The Denton Edwards Paint Co. Ltd.
Paint and Varnish Makers for over 160 years
ABBAY ROAD, BARKING, ESSEX

HOSTESS



HOSTESS TUBULAR EQUIPMENT LTD MOXLEY ROAD · BILSTON · STAFFS
Phone: BILSTON 42218

Distinctive TUBULAR FURNITURE

- Suitable for Public Halls, Restaurants, Canteens, Hospitals, Offices, Showrooms, Schools, Churches, Etc.
- Wide choice of pleasing designs, and in many attractive colours.
- Contemporary furniture at competitive price.

Ask for Catalogue Aj.54.



SM/HTE2143



A rafter in the roof of Chichester Cathedral showing damage by the Death Watch Beetle.

Expert treatment of timber decay

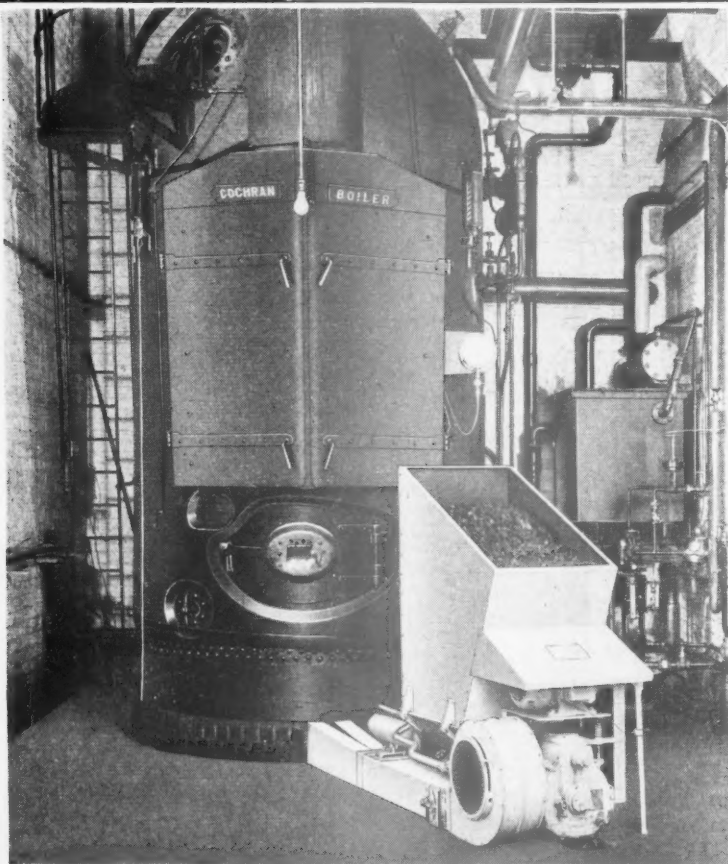
The insidious workings of the Death Watch Beetle are often not apparent until serious damage has been done. Only the scientific use of a penetrating and persistent insecticide will eradicate these borers. "WYKAMOL" polychloronaphthalene can be confidently recommended and the experience and technical 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.
Member of the British Wood Preserving Association
HYDE STREET · WINCHESTER · Tel.: 2537



BARKING BRASSWARE CO LTD · RIVER ROAD · BARKING · ESSEX



BIG FUEL SAVINGS GREATER EFFICIENCY CLEAN BOILERHOUSE

—these are the dividends

An 'Iron Fireman' stoker on a steam boiler produces steam at a price unequalled by any other method. Other advantages are that the pressure is automatically maintained at a pre-determined level and another important factor is the elimination of the loss of unburned coal through bars, which is usually associated with hand fired grates. Free technical advice may be had from any of the offices listed below

Iron Fireman
"FIRST AND FOREMOST"
Automatic Coal Stokers



ASHWELL & NESBIT LTD.,
BARKBY ROAD, LEICESTER

LONDON: 12 Great James Street, W.C.1
BIRMINGHAM 4: 12 Whittall Street
MANCHESTER 13: 184 Oxford Road
LEEDS 6: 32 Headingley Lane
GLASGOW: 103 Douglas Street, C.2

The installation illustrated is at the Co-operative Wholesale Society premises, Boulton-on-Deane.

BATHROOM TILE

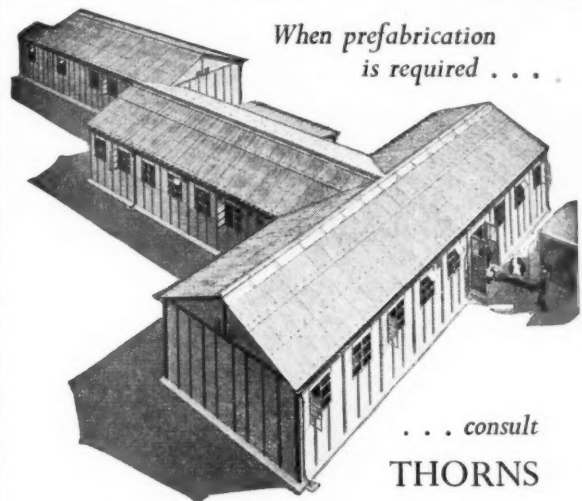
WALL TILE—SANITARY FIXTURE HARMONY CHART

FIXTURE COLOUR	MATCHING TILE COLOUR		
	DULL MOTTLE	BRIGHT MOTTLE	FRECKLE
"IDEAL" FIXTURES			
IVOIRE DE MEDICI	D.M. 2028	—	F. 58
CLAIR DE LUNE BLUE ..	" 2039	O.M. 157	" 69
CORALLIN	" 2042	" 158	" 53
MING GREEN	" 2037	" 153	" 65
"TWYFORD" FIXTURES			
PRIMROSE	D.M. 2028	—	F. 64
PEACH	" 2042	O.M. 158	" 53
JADE GREEN	" 2041	" 160	" 71
JUBILEE BLUE	" 2039	" 157	" 69
TURQUOISE	" 2036	" 154	" 66
AMBER	" 2044	—	" 50
HYACINTH	—	—	" 51
OLD IVORY	D.M. 2040	—	" 73
"SHANKS" FIXTURES			
CORN YELLOW	D.M. 2028	—	F. 64
IVORY	" 2040	—	" 73
JADE	" 2041	O.M. 160	" 71
SHELL PINK	" 2011	" 158	" 53
ARCTIC BLUE	" 2036	" 154	" 66
"ROYAL DOULTON" FIXTURES			
OLD IVORY	D.M. 2040	—	F. 73
PRIMROSE	" 2028	—	" 64
PASTEL PINK	" 2043	—	" 63
OPAL GREEN	" 2041	O.M. 160	" 71
SKY BLUE	—	—	" 51

YOUR MATCHING PROBLEM SOLVED

BY

JEFFREY TILES LTD.
HEREFORD
ENGLAND



*When prefabrication
is required . . .*

. . . consult
THORNS

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

Similar structures are very suitable for:

HALLS • CLUBS • OFFICES • PAVILIONS • LIGHT INDUSTRY

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

We shall be pleased to send details and prices.

J. THORN & SONS LIMITED (Dept. 188)

BRAMPTON RD., BEXLEYHEATH, KENT.

Tel. Bexleyheath 305

Established 1896

BD432

DESIGNED TO SUIT ARCHITECTURE



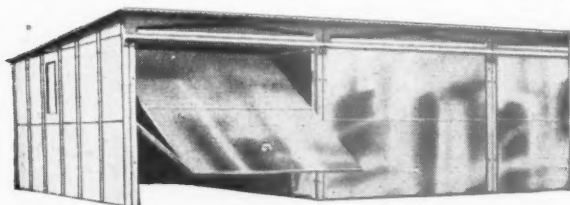
*Illustrations and quotations
on request*

ROLLING SHUTTERS are pleasing in appearance and are constructed to suit individual requirements. They give maximum accessibility with efficient performance, and when closed form permanent security. Suitable for all sizes of openings. Manual or Power operations. Please write for Technical assistance.

Roller Shutters Ltd

**239-242 GREAT LISTER STREET
 BIRMINGHAM. 7. (Phone: Aston X 4061-2)**

BATLEY LOCK-UP GARAGES



NOW AVAILABLE WITH UP AND OVER DOORS

With the present-day high cost of building materials and labour, BATLEY Multiple Concrete Garages offer tremendous economies. Employing the well-known Batley principle of tongued and grooved concrete units which are simply bolted together on a firm, level foundation, these Garages can be erected by unskilled labour in hours instead of days. Fitted with smooth-sliding, space saving Up and Over Doors as an alternative to hinged doors at no extra cost. In addition to the big saving in initial cost, Batley Garages require no maintenance—they last a lifetime without attention. They are completely fireproof, weatherproof, rotproof and vermin-proof. Wherever lock-up Garages are required—for Municipal Housing Estates, Hotels, Flats, Armed Services Camps, etc.—it will pay you to investigate.

**FIVE YEARS
FREE FIRE
INSURANCE**

No. of Garages	Size	Clear Height	Total Cost
2	16ft. 3in. x 16ft. 4in.	6ft. 3in.	£125 - 0 - 0
3	24ft. 3in. x 16ft. 4in.	6ft. 3in.	£180 - 0 - 0
6	48ft. 3in. x 16ft. 4in.	6ft. 3in.	£345 - 0 - 0
9	72ft. 3in. x 16ft. 4in.	6ft. 3in.	£510 - 0 - 0
12	96ft. 3in. x 16ft. 4in.	6ft. 3in.	£675 - 0 - 0

Plus £55 per additional garage to any number required in one block. Also available with a clear height of 7ft. 9in., an alternative length of 19ft. if required.

FREE DELIVERY IN ENGLAND & WALES. DEFERRED TERMS AVAILABLE.

BATLEY MULTIPLE CONCRETE GARAGES

send for full details and brochure to—

ERNEST BATLEY LTD., 63, Colledge Rd., Holbrooks, Coventry

Phone: 89245/6

HEAT

PRESERVATION

BY

EETO



CYLINDER JACKETS

The ORIGINAL sectional Cylinder and Tank jacket, as used and recommended by almost every Municipal Undertaking in the Kingdom. There is no substitute

EETO SERVICE IS PROMPT
AND EFFICIENT.

EETO INSULATIONS
RIVER ST., BOLTON, LANCs.
Tel.: BOLTON 3764.

1987 (2074)

Plan for NATURAL DAYLIGHT

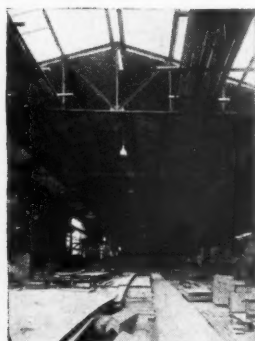
The improvement of using Natural Daylight to its best advantage is clearly shown in the photographs (completely untouched), of a typical Pennycook contract. Our lead sheathed steel bars can be adapted to suit any type of roof and can take clear spans up to 11ft.

We can also supply aluminium bars with double lead wings and lead seatings below glass. Where flat roofs are concerned we recommend our Standard or Purpose Made Lanterns.

Materials are despatched promptly to suit the progress of the job and are fixed by our experienced erectors.



Illustrations are all of the **JOS. WESTWOOD & CO. LTD.,
MILLWALL WORKS, LONDON**



with PENNYCOOK'S PATENT ROOF GLAZING

THE PENNYCOOK PATENT GLAZING & ENGINEERING CO. LTD.

ST. MUNGO WORKS • BISHOPBRIGGS • GLASGOW

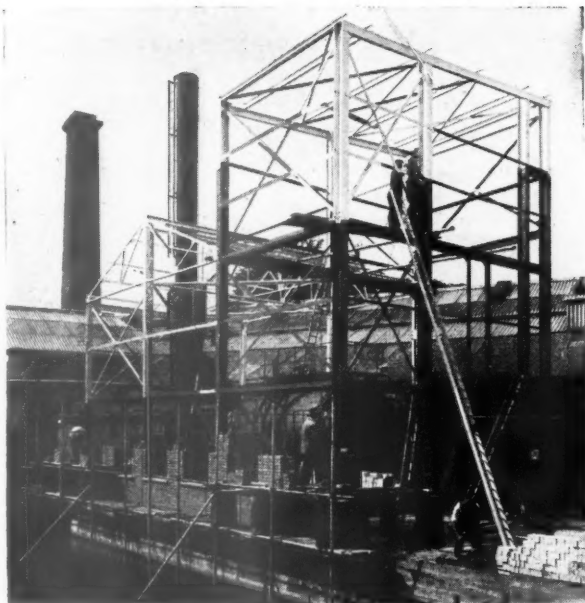
Tel: Bishopbriggs 1117/9 Grams: "Pennycook", Bishopbriggs.

London Office:

3 VICTORIA STREET • WESTMINSTER • S.W.1.

Telephone: ABBEY 6610





STRUCTURAL STEELWORK
FOR INDUSTRIAL AND AGRICULTURAL BUILDINGS

CROGGON & CO. LTD.

230, UPPER THAMES ST., LONDON, E.C.4
Central 4381/3 Works: Colnbrook

ESTD.
1835



FOR
**PERFECT
FLOORING**

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

British Standard 1076: 1942
" " 1410: 1947
" " 1451: 1948

Specify
**TRINIDAD
LAKE
ASPHALT**

Further particulars on request from

Telephone
LONDON Wall
4313

PREVITÉ & CO. LTD.
CAPEL HOUSE, 54 NEW BROAD ST., LONDON, E.C.2



A **TOUCHY** SUBJECT


What is this Tutch Latch that has aroused the interest of so many architects and designers, particularly in its application to modern built-in furniture? The Tutch Latch is a simple automatic latch which eliminates protruding knobs and handles and enables any cupboard or cabinet door to be opened and closed at a mere touch of the hand, wrist or elbow. The door is lightly touched and it opens; touched again and it closes. And since the Tutch Latch is fitted *on the inside and out of sight*, a smooth, stylish and unbroken appearance is presented in any room by the absence of door handles and fittings. We shall be only too pleased to discuss its possible applications with you in detail.

**Linread
TUTCH LATCH**

LINREAD LTD · COX ST · BIRMINGHAM 3

**SANITARY
EQUIPMENT**
BY
BROADs

domestic
hotels
hospitals
schools
industrial



BROAD & CO. LTD., 4, SOUTH WHARF, PADDINGTON, W.2.
Showrooms: 22, PRINCE STREET, PADDINGTON, W.2.
Telephone: PADDington 7061 (20 lines).

The Cistern Float with the right background ...

and a bright future

The Background?

Fordhams have been making cistern floats for years, and they have built up quite a reputation

The Future? That reputation is going to grow and grow with the practically indestructible Polythene float which won't sink, rot, perish or corrode.

... self-threading
... unbreakable ... ever
... shable ... bounceable ...
... -proof ... self-threadi
... ikable ...
... eable ...
... thre
... last
... odors
... ros
... eris
... ak-pr
... break
... bounceab
... self-thre
... verlasting
... non-odorou
... corrosion-proo
... imperishable ...

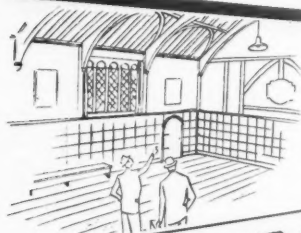


Fordham POLYthene

Fordham Pressings Limited, Dudley Works, Wolverhampton
TEL.: 23861

CUPRINOL provide a complete Wood Preservation Advisory Service

**PRESERVATION OF
OLD & NEW TIMBER**



**TREATMENT OF
WOOD DECAY
AND DRY ROT**

The Cuprinol Technical and Advisory Services have been extended to give every possible assistance to architects, builders and municipal authorities who have to tackle problems of wood deterioration in churches, schools, public buildings etc. These services provide:—

1. Cuprinol experts who will help with diagnosis and give advice on methods and materials to be employed.
2. Assistance in hiring appropriate equipment to firms requiring it for special work.
3. Introductions to nearest authorised Cuprinol Application Specialists, who will collaborate or sub-contract for work.
4. The Cuprinol Training School at which contractors, architects or municipal employees may take a special course in wood preservation in buildings.

★ Cuprinol Ltd. are manufacturers of Wood Preservers and do not engage in contracting work in competition with builders. For further details of services available please write to

**DESTRUCTION OF
WOOD BORING BEETLES**



**TRAINING SCHEME
FOR
BUILDING OPERATIVES**

CUPRINOL LTD., 33 BRUTON STREET, LONDON, W.1



There's nothing as good as 

No!
There is nothing to compare with wood for long-lasting quality and satisfaction. And generations of buyers for more than sixty years have found that wood is put to good account in the skilled hands of 'SBK' craftsmen

The new 'Sunlight Range' lets in more light

SHARP BROS. & KNIGHT LTD.

BURTON - ON - TRENT

CONNECTIONS MADE CHEERFULLY

"Yes" says Alf, our pugilistic plumber, "here is a knockout for plumbers who know the ropes. With a minimum of footwork you can fix the nastiest bits of work in the trade in two minutes flat. You'll never be called on to make a break if you stick to Securex — the little talisman that is second to none when you are forced to withstand pressure."

For the perfect joint coupled with Copper piping, always specify "Securex."

BIF

3-14 May
CASTLE BROMWICH
BIRMINGHAM
SEE OUR EXHIBIT



JAMES H. LAMONT & CO. LTD.

ENGINEERS — BRASSFOUNDERS

SECUREX
SOLDERLESS COMPRESSION
JOINTS

Gylemuir Works, Corstorphine, Edinburgh 12, Scotland
Telephone: Corstorphine 66641-2 Telegrams: "Solderless, Edinburgh"

London Office: Norfolk House, Laurence Pountney Hill, E.C.4
Telephone: Mansion House 5700 Telegrams: "Yutaka Cannon, London"

CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 3, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

Public and Official Announcements

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

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

AYCLIFFE DEVELOPMENT CORPORATION. ARCHITECTURAL AND QUANTITY SURVEYING STAFF.

Applications invited for the following appointments:—

ARCHITECTURAL ASSISTANT. £695-£760 p.a. (Grade A.P.T. VI). Applicants should be Associate Members of the R.I.B.A. and have had at least three years' varied experience, including the administration of contracts.

ASSISTANT QUANTITY SURVEYOR. £735-£810 p.a. (Grade A.P.T. VII). Applicants should be Associate Members of the R.I.C.S. or approaching that standard. Must be capable of taking off quantities, preparing bills of quantities, completing measurements, and preparing final accounts.

Appointments subject to N.J.C. Conditions, Superannuation, and medical examination.

Housing accommodation if necessary.

Applications, together with names of two referees, to arrive not later than 3rd April, 1954.

A. W. THOMAS, General Manager.

Newton Aycliffe, Co. Durham. 1987

WELSH REGIONAL HOSPITAL BOARD. ARCHITECT'S DIVISION.

Applications are invited for the post of ASSISTANT QUANTITY SURVEYOR.

Salary: £600 × £25 (7) × £30 (3) — £865 p.a. The starting salary may commence above the minimum of scale where experience at full professional standard is shown.

Applicants must hold Corporate Membership of the Royal Institute of Chartered Surveyors and have experience in taking off and preparing Bills of Quantities and Final Accounts, etc.

The person appointed will be engaged upon the preparation of Bills of Quantities and Final Accounts, Site Measurements and Valuation for interim certificates, etc., on Capital Works throughout Wales, including quantities in connection with Engineering Services.

The appointment is superannuable and terminable by one month's notice on either side.

Applications, stating age, experience, qualifications and present position, together with names and addresses of two referees, should be addressed to the Secretary, Welsh Regional Hospital Board, Temple of Peace and Health, Cathays Park, Cardiff, within 14 days of the appearance of this advertisement. 1988

BATHAVON RURAL DISTRICT COUNCIL. APPOINTMENT OF ARCHITECT.

Applications are invited for the above appointment in the Surveyor's Department, at a salary in accordance with Grade VII of A.P.T. Division of the National Scales of Salaries, the commencing salary to be fixed within that Grade according to the experience of the successful applicant. A travelling allowance at the appropriate rate will be paid.

Candidates should be qualified Architects, preferably with local authority experience in layout, house design, preparation of working drawings, specifications, supervision, and final settlement of accounts. The appointment will be subject to three months' notice on either side, to the National Scheme of Conditions of Service, and the Local Government Superannuation Acts. The successful candidate will be required to pass a medical examination.

Canvassing will disqualify, and applicants must state whether they are related to any member or senior officer of the Council.

Applications, stating age, present and previous appointments, qualifications and experience, and naming two referees, should be addressed to the undersigned not later than the 2nd April, 1954.

S. G. FOXTON PRICE, Clerk of the Council.

Council Offices, Westgate Buildings, Bath. 1990

BOROUGH OF POOLE. APPOINTMENT OF ARCHITECTURAL ASSISTANT ON General Division at a salary ranging from £170 to £470 per annum (Males) and £138 to £380 per annum (Females), according to age.

Applications for the above post are invited from probationers of the R.I.B.A., learners, beginners, or trainees.

Application forms and details of the appointment are available from the Borough Engineer & Surveyor's Office, Municipal Buildings, Poole, Dorset, and must be returned to the undersigned not later than Monday the 12th April, 1954.

WILSON KENYON, Town Clerk.

March, 1954. 2077

COUNTY BOROUGH OF SWANSEA. BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following established posts:—

(1) ONE SENIOR ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VIII.

(2) ONE SENIOR ASSISTANT ARCHITECT, Grade A.P.T. VII.

Applicants for appointment No. 1 should be Associates of the R.I.C.S. (Quantities), and have experience in the "taking off" of large building contracts, and for appointment No. 2 should be Associates of the R.I.B.A. and experience in the design and construction of new school buildings, and organisation and supervision of new building contracts will be an advantage.

Candidates must be under 45 years of age unless in Local Government Service. The appointment will be subject to the provisions of the Local Government Superannuation Acts, and may be terminated by one month's notice on either side. The successful candidate will be required to pass a medical examination.

Forms of application may be obtained from the Borough Architect, The Guildhall, Swansea, and are to be returned with the names of two referees, to the undersigned not later than Monday, 5th April, 1954.

Canvassing disqualifies.

T. B. BOWEN, Town Clerk.

The Guildhall, Swansea. 1954

BOROUGH OF TAUNTON. ENGINEER AND SURVEYOR'S DEPARTMENT.

ARCHITECTURAL ASSISTANT (GRADE VI).

Applications are invited from suitably qualified and experienced persons for the superannuable appointment of ARCHITECTURAL ASSISTANT in the Borough Engineer and Surveyor's Department at a salary in accordance with the National Scale, £695 rising to £760 per annum.

Applicants must be capable of preparing designs, working and detailed drawings and specifications for architectural and general building work (other than housing) executed by contract or direct labour.

Consideration will be given to housing accommodation.

Applications, made in accordance with details to be obtained from the Borough Engineer and Surveyor, St. Paul's House, Taunton, Somerset, must be received by him not later than Monday, 5th April, 1954.

Canvassing in any form will disqualify.

L. ATWELL, Town Clerk.

Municipal Buildings, Taunton, Somerset. 2085

MINISTRY OF WORKS.

Vacancies exist in the Chief Architect's Division, in London, Cambridge, Colwyn Bay and Bristol for ARCHITECTURAL ASSISTANTS. Must have had at least three years' architectural training, one year's experience in an architect's office and be of Inter. R.I.B.A. standard.

London salary: Up to £870 per annum. Starting pay up to £580 per annum according to age and experience. Salary outside London slightly lower. Although not established posts, many have long-term possibilities. Reasonable promotion prospects; competitions held periodically for establishment.

State age, nationality and full details of training and experience to W.G. 10/C.A.4, Ministry of Works, Abell House, John Islip Street, London, S.W.1. 2075

OXFORD REGIONAL HOSPITAL BOARD.

Applications are invited from qualified persons for the post of ASSISTANT QUANTITY SURVEYOR in the Regional Architect's Department.

Salary scale: £600 × £25 (7) × £30 (3) — £865 p.a. Starting salary may be above the minimum.

According to years of experience since qualifying. A subject to a maximum of not more increments than the years by which a candidate's age exceeds 25. Compulsory Superannuation. A car is desirable.

Applications, stating age, training, qualifications (giving dates), previous experience and present salary, with the names of two referees, should be submitted to the Secretary, Oxford Regional Hospital Board, 43, Banbury Road, Oxford, by not later than 30th March, 1954. 1986

CITY OF CARLISLE. APPOINTMENT OF ARCHITECTURAL ASSISTANT (HOUSING SECTION).

Applications are invited for the above post. Salary A.P.T. Grade III (£650 × £15 — £595). Preference given to applicants with Inter. R.I.B.A. examination and housing experience.

Forms of application from City Surveyor, 18, Fisher Street, to whom applications are returnable by 3rd April.

H. D. A. ROBERTSON, Town Clerk.

2078

OXFORDSHIRE COUNTY COUNCIL. DEPUTY COUNTY ARCHITECT.

Applications are invited from suitably qualified Architects for the appointment of DEPUTY COUNTY ARCHITECT (No. 2) at a salary within the scale of £1,050 rising by annual increments of £50 to a maximum of £1,250 per annum according to experience and qualifications. Applications must be received not later than 12th April, 1954. Full details of the appointment and general conditions may be obtained from the undersigned.

G. G. BURKITT, Clerk of the Council.

County Hall, Oxford. 2061

SOUTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD.

REGIONAL ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff of the Regional Architect (except where otherwise stated) generally in accordance with the conditions of P.T.B. Circular No. 19:— London Headquarters (London Weighing applicable).

ONE ASSISTANT QUANTITY SURVEYOR.

The commencing salary will be within the grade £600 × £25 (7) × £30 (3) — £865. Applicants must be Associate members of the Royal Institution of Chartered Surveyors (Quantity Surveying branch) and have sound practical experience in the estimating and analysis of prices, working up and taking off of quantities for small contracts and also of checking Contractors' accounts.

ONE BUILDER'S ESTIMATOR AND SURVEYOR.

Commencing salary will be within the grade £440 (at age of 21 or over) × £25 (1) × £20 (8) — £625. Applicants must be licentiate members of the Institute of Builders or hold an equivalent qualification and have had good general training and experience in a Quantity Surveyor's or Contractor's office and be capable of preparing estimates, schedules of works, obtaining sub-contractors' quotations, checking contractors' prices and accounts and capable of working up quantities under the direction of the Principal Assistant Quantity Surveyor.

ONE LAND SURVEYOR.

Salary grade £875 × £30 — £1,025. Applicants must hold Corporate membership of the Royal Institution of Chartered Surveyors (Land Surveying branch) and have had sound practical experience of the surveying of land and buildings and be familiar with the Town and Country Planning Acts and Building Bye-laws and be capable of taking charge of a small sub-section of the staff of the Architect's Department and will be responsible for producing and maintaining record plans of the Hospital buildings within the Regional Board area.

ONE LAND SURVEYING ASSISTANT (temporary appointment).

Commencing salary within the grade £440 (at age 21 or over) × £25 (1) × £20 (8) — £625. Applicants must have passed the Intermediate examination of the Royal Institution of Chartered Surveyors (Land Surveying branch) and have had experience in the surveying of land and buildings and will be required to assist the Land Surveyor in the preparation of record plans of Hospital buildings.

Western Area Office at Winchester (candidates must reside in or near Winchester).

ONE SENIOR ASSISTANT ARCHITECT.

Salary grade £875 × £30 — £1,025. Applicants must be associate members of the Royal Institute of British Architects and have had sound practical experience of the planning and construction of Hospitals and public buildings and be capable of carrying through projects from commencement to completion and of taking charge of a sub-section of the Architect's Department, working under the supervision of a Principal Assistant Architect.

ONE BUILDING INSPECTOR.

Commencing salary within the grade £440 (at age 21 or over) × £25 (1) × £20 (8) — £625. Applicants must be licentiate members of the Institute of Builders or hold an equivalent qualification, and have had good general training and experience in a Quantity Surveyor's or Contractor's office; be capable of preparing estimates, schedules of works, obtaining sub-contractors' quotations, checking contractors' prices and accounts and be capable of inspecting properties and reporting upon their condition and compiling estimates of cost of renovation, and be capable of preparing estimates of costs of minor works of adaptation and for small building extensions.

Applications, stating age, experience, qualifications, present appointment and salary, together with the names and addresses of three referees, to be sent to Secretary (S2), marking the envelope ARCHITECTURAL STAFF, South West Metropolitan Regional Hospital Board, 11a, Portland Place, London, W.1, not later than 1st April, 1954. 2061

MINISTRY OF WORKS—MANCHESTER. ASSISTANT ARCHITECT required.

Salary range £660 (age 26) to £980 p.a. Maximum entry rate £680 p.a. Women's rates slightly lower. Qualifications: Registered Architect by examination with experience in design and construction of modern buildings.

Apply to Establishment Officer, Ministry of Works, Warwick Road South, Manchester, 16. 2074

SOLIHULL URBAN DISTRICT COUNCIL. DEPARTMENT OF SURVEYOR.

Appointment of ASSISTANT ARCHITECT, A.P.T. Grade VII.

Applications are invited from suitably qualified persons for the appointment of ASSISTANT ARCHITECT, A.P.T. Grade VII (£735-£810). This appointment is subject to the National Scheme of Conditions of Service and the provisions of the Local Government Superannuation Acts. The successful applicant will be required to submit to a medical examination.

Applications stating age, experience and previous appointments, together with the names of three referees, should be sent to the Engineer and Surveyor, 90, Station Road, Solihull, not later than Tuesday, 6th April, 1954.

W. MAURICE MELL, Clerk of the Council.

Council House, Solihull. 2096

**BOROUGH OF TAUNTON.
ARCHITECT'S DEPARTMENT.**

Applications are invited for the undermentioned appointments in the Borough Housing Architect's Department:—

- (a) ASSISTANT ARCHITECT—Salary (A.P.T. Grade V) £620-£670.
(b) ASSISTANT QUANTITY SURVEYOR—Salary (A.P.T. Grade V) £620-£670.

Applicants for appointment (a) should be qualified Architects, having had experience in the design and construction of Municipal Housing Estates, and for appointment (b) preference will be given to Candidates who are members of the Royal Institution of Chartered Surveyors. The Council have adopted the National Scheme of Conditions of Service and 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 candidate will be required to pass a medical examination.

Consideration will be given to housing accommodation if required.

Applications, stating age, qualifications, previous experience and the earliest date when available, together with the names of two referees, should be sent to C. Bacon, F.R.I.B.A., Borough Housing Architect, Ploek House, Station Road, Taunton, to reach him not later than Wednesday, 14th April, 1954.

L. ATWELL,
Town Clerk. 2065

Municipal Buildings, Taunton.**WARWICKSHIRE COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments:—

- (a) ASSISTANT ARCHITECTS, A.P.T. V (£620-£670). Candidates should be Members of the Royal Institution of British Architects.
(b) ARCHITECTURAL ASSISTANT, A.P.T. II (£520-£565).

(c) CLERK OF WORKS (£11 per week) to supervise erection of new school buildings. The appointment will be for the duration of the contract and the successful applicant will, wherever possible, be transferred to other contracts on completion of the initial project. The successful applicant may be required to supervise more than one contract in the same area in which case a travelling allowance will be paid. The commencing date of the school in the Rugby area will be in the near future.

The appointments (a) and (b) will be subject to the Scheme of Conditions of Service of the National Joint Council and to Local Government Superannuation Acts, 1937 and 1953.

Application forms can be obtained from G. R. Barnsley, F.R.I.B.A., County Architect, Shire Hall, Warwick, to whom they are returnable by 5th April, 1954.

L. EDGAR STEPHENS,
Clerk of the Council. 2064

**WEST MIDLANDS GAS BOARD.
WALSALL AND DISTRICT DIVISION.
ARCHITECTURAL ASSISTANT.**

Applicants should be capable of preparing sketch plans, working drawings and architectural details in connection with new industrial projects with a minimum of supervision.

The commencing salary will be in accordance with the experience and qualifications of the candidate and within the range of Grade 6 (£510-£590 per annum) of the National Salary Scales for Gas Staffs.

The post is pensionable and the successful candidate may be required to pass a medical examination.

Applications, stating age, full particulars of education, qualifications and experience, together with the names of two referees, should be addressed to Mr. E. Hardiker, Divisional General Manager, West Midlands Gas Board, Walsall and District Division, Walsall Factory Estate, Tame Bridge, West Bromwich Road, Walsall, to reach him within 15 days of the appearance of this advertisement.

F. H. CURETON,
Secretary to the Board. 2015

**MIDDLESEX COUNTY COUNCIL, COUNTY
ENGINEER AND SURVEYOR'S DEPARTMENT.**

SENIOR TECHNICAL ASSISTANT, in charge of the Entertainments Licensing Section, required. Salary: £1,150-£1,350 p.a., plus evening inspection allowance £140 p.a. Motor car allowance considered. Applicants must have suitable technical qualifications and extensive administrative and technical experience with large Licensing Authority controlling cinemas, theatres, dance halls, and other premises of public entertainment. Established, pensionable, subject to medical assessment and prescribed conditions. Application forms from undersigned, returnable by 10th April, 1954 (quote N214 A.J.). Canvassing disqualifies.

CLIFFORD RADCLIFFE,
Clerk of the County Council. 2013

Guildhall, Westminster, S.W.1.

**COUNTY BOROUGH OF CROYDON.
ARCHITECTURAL ASSISTANT.**

Applications invited for junior appointment. Local authority housing experience desirable. Salary: A.P.T. I (£490-£535 per annum, plus London weighting). Applications (on forms from the Borough Engineer, Town Hall, Croydon) must reach him by the 31st March, 1954.

E. TABERNER,
Town Clerk. 2016

FLINTSHIRE COUNTY COUNCIL invite applications from Associate Members of the Town Planning Institute or others holding equivalent qualifications, for appointment of PLANNING ASSISTANT. Salary as revised £520-£670 (A.P.T. V) or £520-£710 (A.P.T. Va) according to qualifications and experience. Good experience in Town and Country Planning required, particularly preparation of Development Plans and layout of Housing Estates. Car an advantage. Applications, on a form to be obtained from the undersigned, are to be returned by 10th April, 1954.

W. HUGH JONES,
Clerk of the County Council. 2097

County Buildings, Mold.**OXFORDSHIRE COUNTY COUNCIL.**

Applications are invited from suitably qualified persons for the following appointments in the County Architect's Department:—

- (a) ASSISTANT ARCHITECT—A.P. & T. Grade V/VI, £620-£760.
(b) ARCHITECTURAL ASSISTANT—A.P. & T. Grade IV, £580-£625.
(c) QUANTITY SURVEYOR'S ASSISTANT—A.P. & T. Grade III/IV, £550-£625.
(d) CLERK OF WORKS—A.P. & T. Grade III/IV, £550-£625.

The appointments are subject to the provisions of the Local Government Superannuation Acts, 1937/53, and to medical examination.

Applications giving details of date of birth, present employment, previous posts and experience, and any special qualifications, together with the names of two referees, are to be sent to the County Architect, Park End Street Offices, Oxford, not later than the 5th April, 1954.

GERALD GALE BURKITT,
Clerk of the Council. 2063

County Hall, Oxford.

15th March, 1954.

BRACKNELL NEW TOWN.

Applications are invited for the following appointment:—

- ARCHITECTURAL ASSISTANT £530-£630. Applicant must have passed Intermediate R.I.B.A. Superannuation schemes. Medical examination. Housing available in due course. Apply by 6th April giving age, education, qualifications, experience and appointments held (with dates and salaries), and two referees, to General Manager (A.A.), Bracknell Development Corporation, Farley Hall, Binfield, Bracknell, Berks. 2076

**CITY ARCHITECT'S DEPARTMENT,
MANCHESTER.**

Applications are invited from persons having suitable qualifications and/or experience for the following appointments:—

PERMANENT STAFF:

- (a) ASSISTANT QUANTITY SURVEYOR. Salary: Grade A.P.T., VI (£695 to £760 per annum).

- (b) ASSISTANT QUANTITY SURVEYOR. Salary: Grade A.P.T., V (£620 to £670 per annum).

- (c) ASSISTANT ARCHITECT. Salary: Grade A.P.T., V (£620 to £670 per annum).

- (d) TECHNICAL ASSISTANT / DRAUGHTSMAN, experienced in the design and detailing of all types of school furniture. Salary: Grade A.P.T., IV (£580 to £625 per annum).

- (e) TECHNICAL ASSISTANT, with specialised knowledge of cooking equipment for schools, experienced in ordering new equipment and repairs. Salary: Grade A.P.T., IV (£580 to £625 per annum).

TEMPORARY STAFF:

- (f) TEMPORARY ASSISTANT ARCHITECT. Salary: Grade A.P.T., V (£620 to £670 per annum).

- (g) TEMPORARY CLERK OF WORKS. Salary: Grade A.P.T., III (£450 to £495 per annum).

Forms of application may be obtained from the City Architect, Town Hall, Manchester, 2, and should be returned to the same address by 8th April, 1954.

Canvassing is prohibited. 2014

**HERTFORDSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.**

Applications are invited for the following appointments:—

- (a) CHIEF ASSISTANT ARCHITECT. Grade X (£920-£1,050).
(b) ASSISTANT QUANTITY SURVEYORS. Grade II (£520-£565).

Applicants for (a) should have had experience in contemporary design, and hold high academic qualifications.

Applicants for (b) should have reached the Intermediate R.I.C.S. standard.

Previous Local Government experience is not essential.

Applications stating clearly which post is applied for, together with the names of three referees, should be addressed to County Architect, County Hall, Hertford, Herts., to be received not later than 3rd April, 1954.

2017

Architectural Appointments Vacant

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

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

ARCHITECTURAL ASSISTANTS required for busy practice engaged upon schools, industrial buildings, offices, etc. Write, giving full particulars of qualifications, experience and salary required, to Johns & Slater, F.A.R.I.B.A., 21, Foundation Street, Ipswich. 1956

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

NEW ZEALAND ARCHITECTURAL PRACTICE, mainly in commercial and industrial work, requires SENIOR ASSISTANTS, preferably qualified A.R.I.B.A., with some experience since exams., either single or married, although accommodation easier for a single man. Good opportunity enterprising and capable man considering emigration. Commencing salary £750/£900 according to capabilities. 2 years assured engagement and passage money assistance for right man, subject certain conditions. Apply airmail, with snapshot and personal and experience details, plus small working drawing own work, to Mitchell & Mitchell and Partners, P.O. Box 187, Wellington C.I., New Zealand. 1905

SENIOR ASSISTANT able to take charge of West End Architect's office, with predominantly industrial experience. Details of this experience, with age, qualifications and salary required to Box 1913.

ARCHITECTURAL ASSISTANT required in Westminster office of Consulting Engineers for work in connection with designs of Power Stations, Industrial Buildings, Administrative Office Blocks, etc. Apply stating age, experience and qualifications. Box 1904.

ARCHITECTURAL ASSISTANT required, Central London office, engaged on housing, offices, churches, etc. Salary: £400-£450 per annum. All applications will be answered. Write, giving brief details of qualifications, experience, etc., to Box 1926.

ARCHITECTURAL ASSISTANTS required. Applicants should have completed their National Service and have had at least 2 years' office experience. Apply in writing, stating age, training and experience, to the Chief Staff Architect, Ilford, Ltd., Romford, Essex. 1923

ARCHITECT required for Civil Engineer's Department of large industrial concern in Kent. Responsible for supervision of office, dealing with varied industrial and commercial projects. Applications should be made in writing stating full particulars of qualifications, age, experience and salary required. Box 1985.

UNIVERSITY OF OXFORD—ARCHITECTURAL DRAUGHTSMAN, of Inter. standard, required immediately. Experience in general alteration and small works an advantage. Salary about £400. Apply fully to the Surveyor to the University, 5, South Parks Road, Oxford. 2011

SENIOR ARCHITECTURAL ASSISTANT required immediately in busy and varied practice in the West Riding of Yorkshire. Final R.I.B.A. essential, and some office experience desirable. Salary according to R.I.B.A. scales as a minimum, and to qualifications and experience. Pension scheme in operation. Apply with full particulars. Box 2005.

JUNIOR ARCHITECTURAL ASSISTANT required immediately in busy and varied practice in the West Riding of Yorkshire. Intermediate R.I.B.A. qualification essential, and a minimum of two years' office experience. Salary in accordance with R.I.B.A. scales as a minimum and to qualifications and experience. Pension scheme in operation. Apply with full particulars. Box 2006.

ARCHITECTURAL ASSISTANT. Building development company requires the services of an ARCHITECTURAL ASSISTANT. Applicant must be quick and accurate draughtsman with sound knowledge of modern building techniques. Production of ½ in., ¼ in., and P.S. working drawings and ability to apply standardised methods of construction to new buildings. Salary commensurate with experience. Apply Box 1966.

ARCHITECTS ASSISTANT required in small A.I.A. but busy West End office. Should be good draughtsman with some knowledge of design and construction. Please write stating age, experience and salary required to Box 2067.

TWO ARCHITECTURAL ASSISTANTS between R.I.B.A. Intermediate and Final Standard, good draughtsmen and detailers. Required immediately. Country Practice. Salary offered: £450, or according to experience. Box 2068.

JUNIOR ARCHITECTURAL DRAUGHTSMAN required in Architectural Department of H. & G. Simonds, Limited, Reading. Applications, marked Confidential, stating age, experience, and salary required to be addressed to R. E. Southall, Chief Architect, The Brewery, Reading. 2069

ASSISTANT ARCHITECT required for responsible position offering valuable experience of prefabrication and other new building techniques. Preference for recently qualified, school-trained man up to 30 years of age, with minimum of one year's experience. Nottingham/Derby area. Salary £520-£620 with excellent prospects. Superannuation scheme. Box 2071.

VACANCIES exist for **ARCHITECTURAL ASSISTANTS** in the office of the Architect, Eastern Region, British Railways, at King's Cross Station. Salary range: £400-£500 per annum, according to age, experience and qualifications. Applicants should have attained at least Inter. R.I.B.A. standard, and have had practical office experience. Free residential railway travelling facilities within specified limits, and other reduced rate rail travelling facilities after qualifying period of service. Five-day week and canteen facilities. Apply in writing, giving full particulars as to age, experience, and qualifications, etc., to the Civil Engineer, Eastern Region, British Railways, King's Cross Station, N.1. 2095

JUNIOR ASSISTANT required in Bath, about R.I.B.A. Intermediate Standard, able to undertake surveys, working drawings and specifications of small work neatly and expeditiously. Salary by arrangement. Apply, giving brief particulars to Box 2070.

ARCHITECTURAL ASSISTANT up to Intermediate standard required for housing work. Reply with details of experience and salary required to T. H. Johnson & Son, 20, Priory Place, Doncaster. 2073

H. NEWSUM, SONS & CO., LTD., of Lincoln, have a vacancy in their Prefabricated Building Department for an **ARCHITECTURAL ASSISTANT**, of Intermediate standard, to work under their own Architectural staff. The position offers good prospects to a suitable applicant of contemporary outlook and with an interest in prefabrication. Apply, in writing, to The Housing Director, H. Newsom, Sons & Co., Ltd., Carholme Road, Lincoln, marking envelope "Architectural Assistant." 2093

ARCHITECTURAL ASSISTANT, Intermediate R.I.B.A. standard, with office experience, required in small private office. Write, stating experience and salary required, to S. W. Wendes, 29a, Lugley Street, Newport, I.W. 2094

ASSISTANT required to work on small alteration works and housing, preferably with experience of this type of work. Write full particulars to Lancaster & Lodge, FF./R.I.B.A., 10, Woburn Square, W.C.1. 2096

LEICESTER Architects require **ASSISTANTS**, approx. Intermediate to Final standard. Full particulars and salary required to Albert Herbert & Son, 18, Friar Lane, Leicester. 2100

ARCHITECTURAL ASSISTANT required for small private office, London, W.1 district, to prepare working drawings and details, and undertake site supervision. Varied practice. Apply R. P. Shartman, A.R.I.B.A., 13, Welbeck Street, W.1. 2091

YOUNG Registered **ARCHITECT** required (male) in London office of John E. Beardshaw & Partners. Reply in writing, stating age, experience and salary, to 36, Seymour Street, London, W.1. 2090

YOUNG office-trained **ASSISTANT** required for Norfolk office. Car driver; competent surveyor; draughtsman and detailer. Knowledge of final accounts a distinct advantage. Apply, with details of experience and salary required, to Box 2088.

SIR JOHN BURNET, TAIT & PARTNERS require **ASSISTANT ARCHITECT**, with experience in Hospital construction and an interest in theory of Hospital planning. Salary according to experience. Apply in writing, giving particulars of experience. 2087

ASSISTANT (qualified) required for Architects' London office engaged in major works of restoration and rebuilding and construction of Schools and Colleges. Must be experienced in good quality work and able to supervise. Salary up to £700 p.a. 2086

ARCHITECTURAL ASSISTANT required in busy City office. Must be quick and accurate. Salary according to age and experience. Apply to Westmore & Sanders, 121, Cheapside, London, E.C.2. MONarch 3537. 2083

MAJOR Building Contractors require the services of **ARCHITECTURAL DRAUGHTSMEN** for their London office. Must be capable of producing working detail drawings of General Building Construction, and be able to alter existing designs to suit requirements, speed, and accuracy essential. Apply, stating age, experience and salary required, to Box 2084.

CHIEF ARCHITECTURAL ASSISTANT. Salary: £624 per annum. Experienced in design, working drawings, and specifications. Write full particulars to D. J. Read, L.R.I.B.A., Chartered Architect, 610, Christchurch Road, Bournemouth. 2079

ARCHITECTURAL ASSISTANT required. Office experience an advantage. Salary by arrangement. Write, giving full particulars, to Milner & Craze, F./R.I.B.A., 120, Crawford Street, London, W.1. 2019

JUNIOR ARCHITECTURAL ASSISTANT required immediately for busy practice on South Coast. Apply in writing, with full details of experience, age, etc., to Box 2021.

ARCHITECT (Qualified) required for temporary post in Edinburgh office. Salary according to experience. Applications to Box 120, Robertson & Scott, 42, Charlotte Square, Edinburgh, 2. 2059

CO-OPERATIVE WHOLESALE SOCIETY, LTD., **ARCHITECTS' DEPARTMENT, LONDON**.

ASSISTANT ARCHITECTS required, of Intermediate R.I.B.A. standard, capable of preparing sketches, working drawings and details under supervision of Senior Architects, and

TAKER-OFF and **TWO WORKERS-UP**, with experience of commercial/industrial buildings.

The appointments are permanent and offer prospects of up-grading. Successful candidates will be required to undergo medical examination for compulsory superannuation scheme.

Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.1. 2025

ARCHITECTURAL ASSISTANTS required in North-West London office engaged in domestic and industrial schemes, which offer excellent experience and good scope. Apply, stating age, qualifications, experience, and salary required, to Sydney Greenwood, A.R.I.B.A., 33, Bunn's Lane, Mill Hill, N.W.7. 2027

ARCHITECTURAL ASSISTANT required. Intermediate to Final standard. Interesting and varied practice. Small office. Salary by arrangement. Apply in writing to E. William Palmer & Partners, Chartered Architects, 8, The Town, Enfield, Middlesex. 2020

SENIOR ARCHITECTURAL ASSISTANT required. Please write, giving particulars of experience. Leonard J. Multon, F.R.I.B.A., 6, Greenfield Crescent, Birmingham, 15. 2022

ARCHITECTURAL ASSISTANT required for small practice. Office experience essential, and must be good draughtsman. Salary: £416 per annum, according to experience. Please apply in writing, giving full particulars of experience and training. R. Jelinek-Karl, F.R.I.B.A., 2, Chancery Lane, W.C.2. 2023

JUNIOR ARCHITECTURAL ASSISTANT required in small but busy Central London office, general practice. Write to Michael Barnett & Bampton, 329, High Holborn, W.C.1, or telephone CHAncery 4661 for appointment. 2024

QUALIFIED SENIOR ASSISTANT ARCHITECT, experienced in Industrial Development, required in North-West London office. Applicants must be experienced in the layout of Industrial Estates and Buildings. Age under 45. Apply in writing, stating age, qualifications, experience, and salary required, to Sydney Greenwood, A.R.I.B.A., 33, Bunn's Lane, Mill Hill, N.W.7. 2026

The MARLEY Concrete Garage



offers all the advantages of the traditional brick garage at considerably lower cost

It has been specially designed for easy erection by unskilled labour. The detailed notes and drawings provided make assembly on site a simple matter. Made of high-grade, reinforced concrete, with asbestos roofing and stout timber doors, it is attractive in appearance and, although very strong and permanent, it can easily be taken apart and moved if desired. It is fireproof, rot-proof and vermin-proof and gains the ready approval of all local authorities.

From £50 Complete

Available in widths of 7ft. 10ins., 9ft. 2ins., 11ft. 10ins. and 13ft. 2ins. in lengths as required.

Delivery free within a radius of 75 miles of Romford, Guildford or Cheltenham

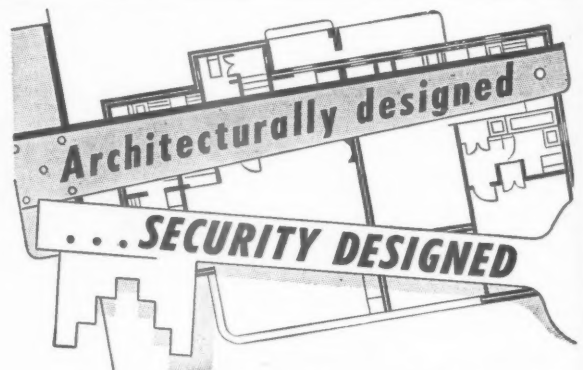
Write for illustrated brochure

Erection service available

THE MARLEY TILE CO. LTD.
Stifford Rd., South Ockendon, Nr. ROMFORD.

Telephone: TILBURY 893

FARM AND FACTORY BUILDINGS



Buildings of sufficient importance to be designed by an Architect should obviously contain adequate provision against unlawful entry.

That is best done by specifying Hobbs Hart security equipment as installed in such prominent places as

- ★ BANK OF ENGLAND
- ★ TOWER OF LONDON
- ★ HOUSES OF PARLIAMENT
- ★ WINDSOR CASTLE

and leading Banks and commercial buildings.

We shall be glad to consult with you on all your security problems.

HOBBS HART & CO. LTD.



Staffa Road, Leyton, London, E.10

Showrooms: 76 Cheapside, London, E.C.2.

Architectural Appointments Wanted

SENIOR R.I.B.A. member with wide experience at home and overseas, seeking responsible position with established London firm. Partnership or prospect, welcomed as alternative. Capital available. Box 1893.

CHARTERED ARCHITECT (40) requires senior position in London area or provinces. 20 years' experience in Design, Construction, and Supervision of all types of buildings. Salary £800. Box 1960.

ARCHITECTURAL ASSISTANT, school trained, aged 30, seeks progressive post with private Architect anywhere in North-East. Own car. Write Box 864.

ARCHITECTURAL DRAUGHTSMAN, several years exp. in design and prep. of persp., & in W.D. details. Pref. London or Surrey. Box 2066.

ARCHITECT, A.R.I.B.A. (27), school trained, 7 years' office experience of contemporary design, and lately on restoration of historical buildings and landscape, seeks part-time employment in London area. Box 1965.

ARCHITECT to large Multiple Company whose London office is closing down, desires similar appointment with multiple firm or Corporation, preferably in London or the South. Box 863.

ASSISTANT, woman (age 25), with experience in domestic building, showrooms, shops and furniture design, requires position in London area. Box 865.

Other Appointments Vacant

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

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she or the employment, is accepted from the provisions of the Notification of Vacancies Order, 1953.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City Firm. Box 1720.

JOINERY.—Woodworking Manufacturers, proposing major development of their Joinery Department, require fully qualified and experienced **MANAGER**, to take charge of Sales and Production. Salary basis: £1,250 p.a., plus overall commission on department. Excellent prospects of advancement for capable and progressive executive. Write, stating qualifications, experience, etc. 2082

TECHNICAL ASSISTANT, with wide knowledge of building practice. Good personality and appearance essential. Write, stating age, experience, salary required, to Technical Service Manager, Celotex, Ltd., North Circular Road, Stonebridge Park, London, N.W.10. 2080

CLERK OF WORKS required for Extension to Maple & Co., Ltd., Tottenham Court Road, London. Salary: £15 per week. Estimated duration of contract 15 months. Apply in writing, giving full particulars of age, experience, and enclosing copies of recent testimonials, to the Architects, Sir Percy Thomas & Son, 10, Cathedral Road, Cardiff. 2092

DRAUGHTSMAN or **DRAUGHTSWOMAN** (Architectural) required for temporary post in Edinburgh office. Salary according to experience. Applications to Box 1209, Robertson & Scott, 42, Charlotte Square, Edinburgh, 2. 2028

Services Offered

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

EXPERIENCED LONDON ARCHITECT with own office able to give assistance to Architects, etc. Gladstone 7355. Box 1640.

ARCHITECTURAL MODEL MAKERS.—Speed and service. 22, Holland Road, W.14. Western 9908. 1781

SURVEY of Sites and Buildings, Detailed Drawings, Quantities, Variations Measured, Final Accounts, Specifications and Reports. Qualified Surveyor. LIV. 1839. 1352

ARCHITECT (47), experienced, London and Tropics, offers services full- or part-time for short period, fee or hourly basis. Box 1950.

CHARTERED ARCHITECT. Own office. Able to give assistance to Architects in South Yorks area. Box 2060.

GOOD LETTERING IS ESSENTIAL for Commemorative Wall Tablets, Foundation Stones, etc. Layouts and F.S. templates prepared. Estimates given for the finished work in any material. Renowned as a Lettering Centre since 1934. Sculptured Memorials, 67, Ebury Street, London, S.W.1. Tel.: Sloane 6549. 2010

For Sale or Wanted

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

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway Belvedere, Kent. Tel.: Erith 2948. 6803

PRACTICE FOR SALE. Small but growing general practice. South-West suburban town. Good scope for energetic architect. Office fully equipped in central position. Apply first instance Box 1961.

"IDEAL HOME MAGAZINE." Complete numbers from August, 1945, in excellent condition. Nearest offer to 6s. Reply to R.P.R., 30, Sherrard Road, London, E.7. 2099

PORTABLE DRAWING STAND, with double elephant drawing board 42 in. x 29 in. in excellent condition—£15 15s. 762, Finchley Road, N.W.11. Spe 8343. 2072

FOR SALE, very cheaply. One Miles Reprostat Imperial Model Copycat Photography Outfit, including Automatic Dryer. Dolman & Sons, Newport. 2018

Miscellaneous

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

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, W.I. Casonbury 2061.

FOR FULLY GALVANISED Chain Link always specify **MASTERFOIL**, made to B.S.S. 1722. Fencing & Gates, Ltd., 14, Stanhope Gate, London, W.1. Tel. Grosvenor 4527. 9926

WHST END OFFICES TO LET. **WIGMORE STREET, W.1**. Open space offices available on 2nd, 3rd and 4th floors. Total area, 1,250 sq. ft. Rent only £550 p.a. ex. Corner building, ample natural light. May consider letting 3rd and 4th only. Area 920 sq. ft., rent £400 p.a. ex. Apply Manners, Hearne & Manners, Surveyors, 45, London Wall, E.C.2. MON. 0794. 2008

Partnership

F. R.I.B.A., A.M.T.P.I., seeks practice for sale or alternatively partnership with a view to taking over at a later date. Box 2089.

Educational Announcements

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

R. I.B.A. AND T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.) and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., W./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assoc.), prepare **Students** by correspondence 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

R. I.C.S., I.Q.S., and I.A.A.S. Postal Courses for all exams, including R.I.C.S. Preliminary and I.Q.S. Special Test conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B Old Brompton Road, S.W.7. KEN. 4477. Descriptive Booklet on request. 7020

COURSES for all R.I.B.A. EXAMS.

Postal tuition in History, Testimonies, Design, Calculations, Materials, Construction, Structures, Hygiene, Specifications, Professional Practice, etc. Also in general educational subjects.

ELLIS SCHOOL OF ARCHITECTURE

Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A., 103B OLD BROMPTON RD., LONDON, S.W.7
Phone: KEN 4477 and at Worcester

For Electric motor Starters of proved reliability—specify—**ELLISON**

MADE BY GEORGE ELLISON LIMITED · PERRY BARR · BIRMINGHAM · 22B

Steel furniture for Church
and Municipal Bodies,
Canteens, Cafes, Sports Clubs

SEBEL

• STAK - A - BYE
• FOLD - A - BYE
• NEST - A - BYE

Sebel Products Ltd, 177 West Street, Erith, Kent

ARCHITECTURAL & CONTEMPORARY SIGN LETTERS

IN A VARIETY OF METALS AND FINISHES

SEND FOR BOOKLET

WARD & CO.

4 GLOUCESTER STREET BRISTOL 2

Telephone: 21536

LIFTS**by MORRIS****Herbert Morris Ltd**

Loughborough

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

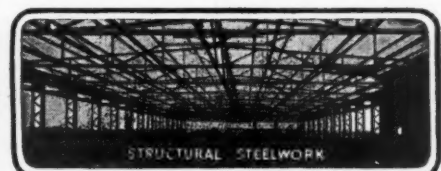
ANOTHER

Sommerfelds'

PRODUCT

LONDON OFFICE 167 VICTORIA ST. S.W.1
TEL. VIC. 1000

SOMMERFELDS LTD. WELLINGTON · SHROPS · TELE 1000



Alphabetical Index to Advertisers

A.B.C.D. (Raynes Park), Ltd.	PAGE
Accordo Blinds, Ltd.	lviii
Anderson Construction Co., Ltd.	xx
Architectural Press, Ltd., The	lxxxviii
Ashwell & Nesbit, Ltd.	iv
Atcoat, Ltd.	lxxxviii
Austin, James, & Sons (Dewsbury), Ltd.	lxxxviii
Automatic Pressings, Ltd.	lxxxviii
Barking Brassware Co., Ltd.	lxxxviii
Batley, Ernest, Ltd.	lxxxviii
Berry, Z. D. & Sons, Ltd.	lxxxviii
Biddle, F. H., Ltd.	lxxxviii
Bitulac, Ltd.	lxxxviii
Boulton & Paul, Ltd.	lxxxviii
Bovis, Ltd.	lxxxviii
Brightside Foundry & Engineering Co., Ltd.	lxxxviii
Briggs, Wm., & Sons, Ltd.	lxxxviii
British Plaster Board, Ltd., The	lxxxviii
Broad, & Co., Ltd.	lxxxviii
Cafferata & Co., Ltd.	lxxxviii
Cape Asbestos Co., Ltd.	lxxxviii
Cargo Fleet Iron Co., Ltd.	lxxxviii
Catesbys, Ltd.	lxxxviii
Cellon, Ltd.	lxxxviii
Celotex, Ltd.	lxxxviii
Chance Bros., Ltd.	lxxxviii
Colt, W. H. (London), Ltd.	lxxxviii
Colt Ventilation, Ltd.	lxxxviii
Conex-Terna, Ltd.	lxxxviii
Coseley Eng. Co., Ltd.	lxxxviii
Courtney, Pope, Ltd.	lxxxviii
Cox & Co. (Watford), Ltd.	lxxxviii
Crittall Mfg. Co., Ltd.	lxxxviii
Crogon & Co., Ltd.	lxxxviii
C.S.A. Industries, Ltd.	lxxxviii
Cupinol, Ltd.	lxxxviii
Denton & Jutson, Ltd.	lxxxviii
Douglas, Robt. M. (Contractors), Ltd.	lxxxviii
Ebner, Josh. F. (1953), Ltd.	lxxxviii
Edison Swan Electric Co., Ltd.	lxxxviii
Ecto Insulations	lxxxviii
Ellis School of Architecture	lxxxviii
Ellison, George, Ltd.	lxxxviii
English Electric Co., Ltd.	lxxxviii
Etchells, Congdon & Muir, Ltd.	lxxxviii
Evode, Ltd.	lxxxviii
Excel Asphalt Co., Ltd.	lxxxviii
FEB (Gt. Britain), Ltd.	lxxxviii
Federation of Gelatine & Glue Manufacturers	lxxxviii
Ferodo, Ltd.	lxxxviii

Fibreglass, Ltd.	PAGE
Finch, B. & Co., Ltd.	viii
Fisher & Ludlow, Ltd.	xvi
Fordham Pressings, Ltd.	lxxxviii
Furse, W. J., & Co., Ltd.	lxxxviii
Gas Council	lxxxviii
Gent & Co., Ltd.	lv
Gliksten, J., & Sons, Ltd.	xv
Gulf Radiators, Ltd.	v
Gyprox Products, Ltd.	v
Hall, J. & E., Ltd.	xxi
Hangers Paints, Ltd.	lii
Harvey, G. A., & Co. (London), Ltd.	lvii
Hawkesley Construction Co., Ltd.	lvii
Henderson, P. C., Ltd.	lvii
Hickson's Timber Impregnation Co. (G.B.), Ltd.	xliv
High Duty Alloys, Ltd.	xliv
Hills, F. & Son, Ltd.	xxiv
Hills (West Bromwich), Ltd.	xxiv
Hobbs, Hart & Co., Ltd.	lxxxviii
Hollis Bros., Ltd.	lxxxviii
Hope, Henry, & Sons, Ltd.	lxxxviii
Hostess Tubular Equipment, Ltd.	lxxxviii
Imperial Chemical Industries, Ltd.	lxxxviii
Jeffrey Tiles, Ltd.	lxxxviii
Jenolite, Ltd.	lxxxviii
Kerner-Greenwood & Co., Ltd.	lxxxviii
King, J. A., & Co., Ltd.	lxxxviii
Kinnell, Chas. P., & Co., Ltd.	lxxxviii
Kwikform, Ltd.	lxxxviii
Lamont, Jas. H., & Co., Ltd.	lxxxviii
Lever, Jas. & Sons, Ltd.	lxxxviii
Linoleum Mfrs.' Association	lxxxviii
Linread, Ltd.	lxxxviii
Lion Foundry Co., Ltd.	lxxxviii
London Brick Co., Ltd.	lxxxviii
McArd, Robt. & Co., Ltd.	lxxxviii
Mallinson, Wm., & Sons, Ltd.	lxxxviii
Marley Tile Co., Ltd., The	lxxxviii
Marvita Drafting Machines, Ltd.	lxxxviii
Metal Sections, Ltd.	lxxxviii
Midland Joinery Works, Ltd., The	lxxxviii
Mills Scaffold Co., Ltd.	lxxxviii
M.K. Electric, Ltd.	lxxxviii
Montgomery, Stobo & Co., Ltd.	lxxxviii
Morris, Herbert, Ltd.	lxxxviii
Myton, Ltd.	lxxxviii
New Day Electrical Accessories, Ltd.	lxxxviii
Nu-Way Heating Plants, Ltd.	lxxxviii
Nu-Way Mfg. Co., Ltd.	lxxxviii
Orit, Ltd.	lxxxviii

Ornamental Gate Co.	PAGE
Ozalid Co., Ltd.	lxxxviii
Paul, W. H., Ltd.	ix
Peglers, Ltd.	xi
Pennycook Patent Glazing & Engineering Co., Ltd.	lxxxviii
Permanite, Ltd.	lxxxviii
Permutit Co., Ltd.	lxxxviii
Phoenix Rubber Co., Ltd.	lxxxviii
Pilkington Bros., Ltd.	lxxxviii
Plastahide (Coverings), Ltd.	lxxxviii
Previte & Co., Ltd.	lxxxviii
Pritchett & Gold & E.P.S. Co., Ltd.	lxxxviii
Prodorite, Ltd.	lxxxviii
Pyrene Co., Ltd., The	lxxxviii
Radiation (Group Sales), Ltd.	lxxxviii
Range Boilers, Ltd.	lxxxviii
Richardson & Starling, Ltd.	lxxxviii
Robertson Thain, Ltd.	lxxxviii
Roller Shutters, Ltd.	lxxxviii
Rom River Co., The	lxxxviii
Rubery, Owen & Co., Ltd.	lxxxviii
Sanbra, Ltd.	lxxxviii
Sankey, J. H., & Son, Ltd.	lxxxviii
Sankey-Sheldon, Ltd.	lxxxviii
Sealanco (St. Helens), Ltd.	lxxxviii
Sebel Products, Ltd.	lxxxviii
Scaffolding (Gt. Britain), Ltd.	lxxxviii
Semtex, Ltd.	lxxxviii
Sharp Bros. & Knight, Ltd.	lxxxviii
Shires & Co. (London), Ltd.	lxxxviii
Silixine Paints, Ltd.	lxxxviii
Simplex Electric Co., Ltd.	lxxxviii
Smith's English Clocks, Ltd.	lxxxviii
Sommerfeld's, Ltd.	lxxxviii
South Durham Steel & Iron Co., Ltd.	lxxxviii
Spencer, Lock & Co., Ltd. (Royal Board)	lxxxviii
Taylor, Robt. & Co. (Ironfounders), Ltd.	lxxxviii
Thorn, J., & Son, Ltd.	lxxxviii
Thorp, John B.	lxxxviii
T.I. Aluminium, Ltd.	lxxxviii
Tretol, Ltd.	lxxxviii
Trussed Concrete Steel Co., Ltd.	lxxxviii
Tucker, J. H., & Co., Ltd.	lxxxviii
Turners Asbestos Cement Co., Ltd.	lxxxviii
United Kingdom Provident Institution	lxxxviii
Venetian Vogue, Ltd.	lxxxviii
Ward & Co.	lxxxviii
Warerite, Ltd.	lxxxviii
Williams & Williams, Ltd.	lxxxviii

For Appointments (Wanted or Vacant), Competitions Open, Drawings, Tracings, etc., Education, Legal Notices, Miscellaneous Property, Land and Sales, lxxxv, lxxxvi, lxxxvii, lxxxviii.



A WINDOW in GLASCREE

Reinforced Concrete and Glass



This pleasing example of the use of GLASCREE Mullion Construction can be seen at the London Transport Garage, Garston, Watford.

Thomas Bilbow, Esq., F.R.I.B.A.,
Architect to the London
Transport Executive

Data, applications and possibilities of Glascrete are given in our interesting Brochure P 45 which we shall be pleased to send on request.



PAGE
xxxix
xxxviii
lx
xl

lxxx

xxxviii

xxiii

lxxvi

lxxx

x

lxxvi

ii

iv, liii

xxxii

xxxviii

xxxv

lxxix

xxiii

lxxii

xxxvii

lxxii

xxxvi

xxxvii

xxvii

xlx

lxxvi

xxxiii

lxxii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

xxxvii

A

D
D

BR

A
50
Ad
Ma
Su
Iso



The
HIG

NATURALLY resistant to damp



Just as the Arctic Bear has confidence in his coat to resist the moisture of his element, so Architects and Builders trust Nature's own damp resistant—"Aqualite", the Bitumen impregnated dampcourse.

BRIGGS AQUALITE BITUMEN DAMPCOURSE

"Laid in a minute . . . lasts as long as the wall!"

WILLIAM BRIGGS & SONS LTD. DUNDEE.

BRANCHES THROUGHOUT THE UNITED KINGDOM

MAVITTA DRAFTING MACHINES

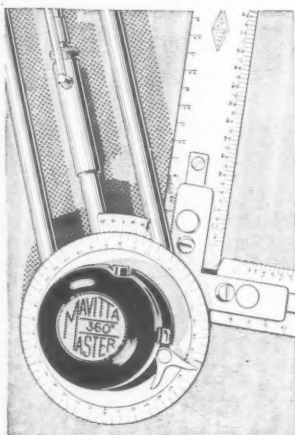
A complete range of Drafting Machines for Boards up to 50 feet long, both vertical and horizontal.

Adjustable Drawing Stands and Boards.

Mathematical Scales in various materials.

Surveyor's Rods.

Isometric Projection Machines.



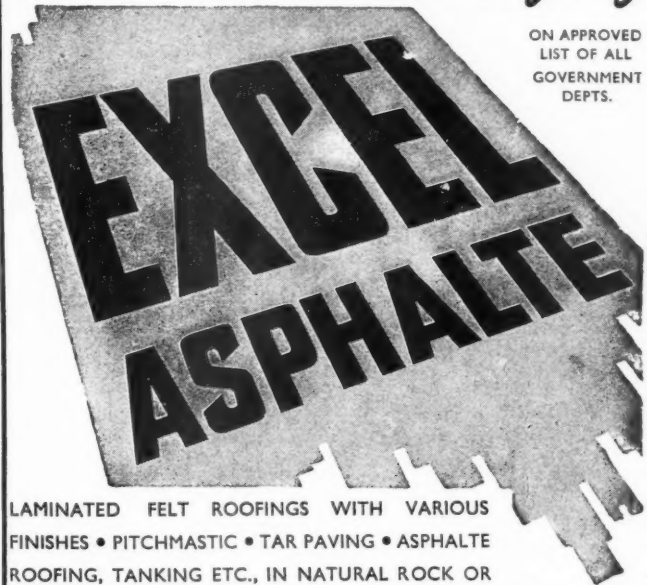
THE MASTER—latest in our range—Linkage by steel bands and pulleys—360 degrees rotation of index head—automatic location of main angles by press button through knob—quick release of head for lining up to drawings—counter balanced for vertical use—modern styling and high quality finish.

FULL CATALOGUE ON APPLICATION

The MAVITTA DRAFTING MACHINES LTD.
HIGHLANDS ROAD • SHIRLEY • BIRMINGHAM
Phone: SOLIHULL/2231/2. Grams: Mavitta, B'ham

M18

The ASPHALTE with a Service that Excels in every way



ON APPROVED LIST OF ALL GOVERNMENT DEPTS.

LAMINATED FELT ROOFINGS WITH VARIOUS FINISHES • PITCHMASTIC • TAR PAVING • ASPHALTE ROOFING, TANKING ETC., IN NATURAL ROCK OR MASTIC ASPHALTE • COLOURED ASPHALTE PAVING OR FLOORING
EXCEL ASPHALTE CO LTD Broadway Chambers, Hammersmith, W.6
Telegrams: "CESLYM", LONDON. Telephone: RIVerside 6052 (5 lines)



BRITAIN'S SUPER SASH CORD

Weatherproofed by scientific process
AT NO EXTRA COST



Sash Cords do not break, they Rot.
Stop the Rot, fit
EVERLASTO

- Weatherproof
- Non Stretch
- Durable
- Long Life
- Low Cost



Registered Trade Mark No. 519412

Supplied in knots of 36ft., 50ft., 100ft. and coils of 1000ft. and 5000ft. lengths.

Weatherproof and Rot Proof

SASH CORD

Also Ideal for Colour Poles, Aerial Poles, Inside Clothes Airer Rails, etc., etc.

JAMES LEVER & SONS LTD
Everlasto Cordage Works
Delph Street • BOLTON



ENDLESS CORD
STRONG DURABLE
Ask for details and prices

MILLPROPS

make it

a FAST

job



Head Plate for Beam Prop showing Specially Strengthened Web.

- Robust and dependable
- High Tensile Steel Pin
- Adjusted by Nut and Handle
- In three sizes Standard and Beam Types
- Individually tested to Safe Load

TYPE	HEIGHT		APPROX. WEIGHT IN LBS.	SAFE LOAD IN TONS	
	FULLY CLOSED	FULLY EXTENDED		FULLY CLOSED	FULLY EXTENDED
A	5 ft. 7 ins.	9 ft. 9 ins.	50	5.00	4.12
B	8 ft. 1 in.	12 ft. 3 ins.	58	5.00	3.57
C	10 ft. 7 ins.	14 ft. 9 ins.	72	5.00	2.17

AVAILABLE FOR SALE OR HIRE
IMMEDIATE DELIVERY

MILLS SCAFFOLD CO. LTD.

(A subsidiary of Guest, Keen & Nettlefolds, Ltd.)

Head Office: TRUSSLEY WORKS, HAMMERSMITH GROVE, LONDON, W.6. (Riverside 5026/9)

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

