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The Architects' JOURNAL for January 9, 1958

THE ARCHITECTS' JOURNAL

standard contents

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

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THE ARCHITECTURAL PRESS

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Registered as a Newspaper.

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. L. Stevenson, College of Art, Hope Street, Liverpool 1.	Royal 1826
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 1, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ARCUK	Architects' Registration Council. 78, Wimpole Street, W.1.	Welbeck 2915
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards' Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 4040
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 32, Millbank, S.W.1.	Tate Gallery 8134
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 65491
CAS	County Architects' Society. C/o S. Vincent Goodman, F.R.I.B.A., Shire Hall, Bedford.	Bedford 67444
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Belgravia 6661
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611 Ext. 1284
CDA	Copper Development Association. 55, South Audley Street, W.1.	Grosvenor 8811
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland	
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DOT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Associations of Specialists and Sub-Contractors, 14, Bryanston Street, W.1.	Welbeck 1781
FBBDO	Fibre Building Board Development Organization Ltd. (Fidor), 47, Princes Gate, Kensington, S.W.7.	Kensington 4577
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd., Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GPDA	Gypsum Plasterboard Development Association, 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 2 Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1.	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266

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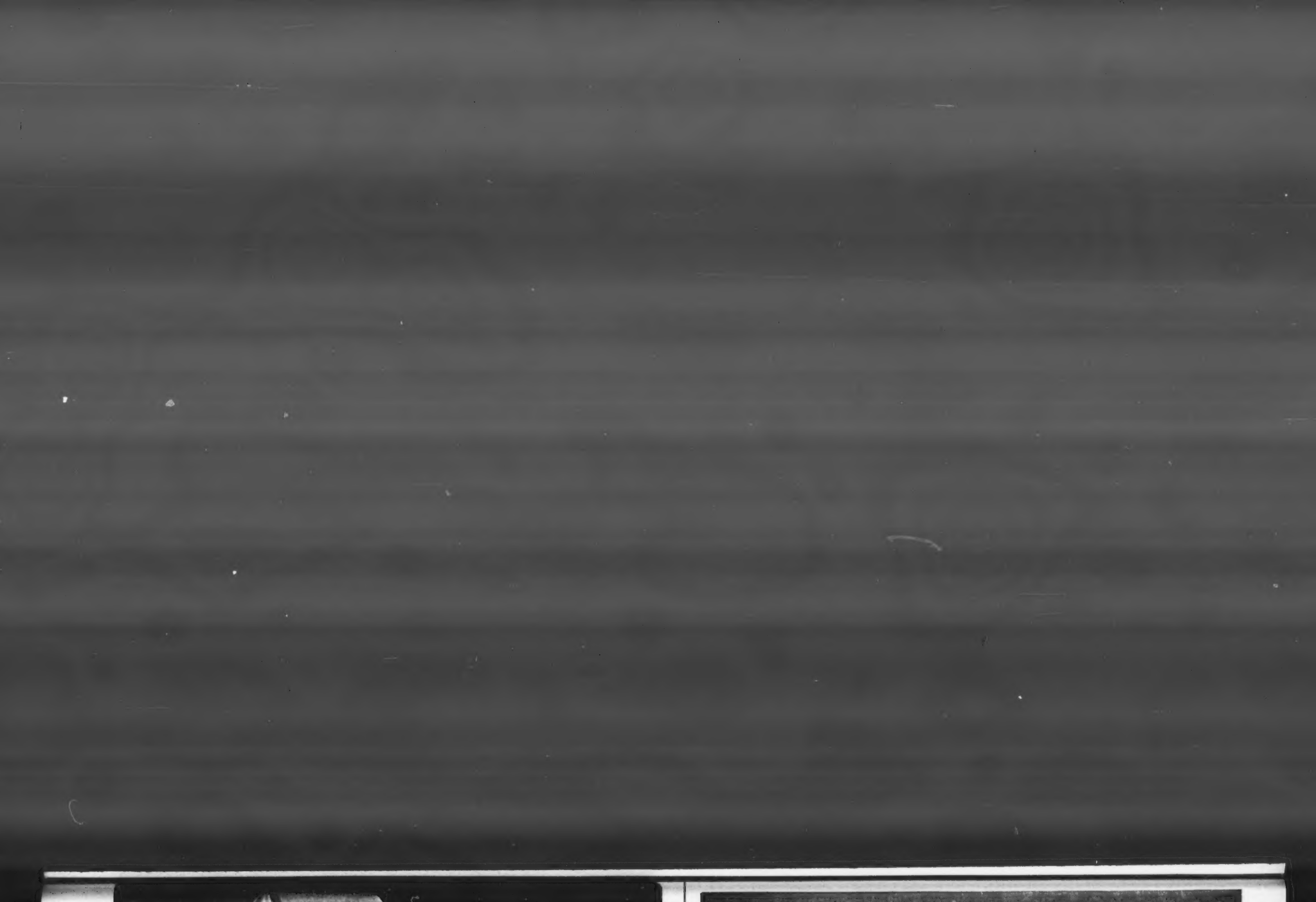

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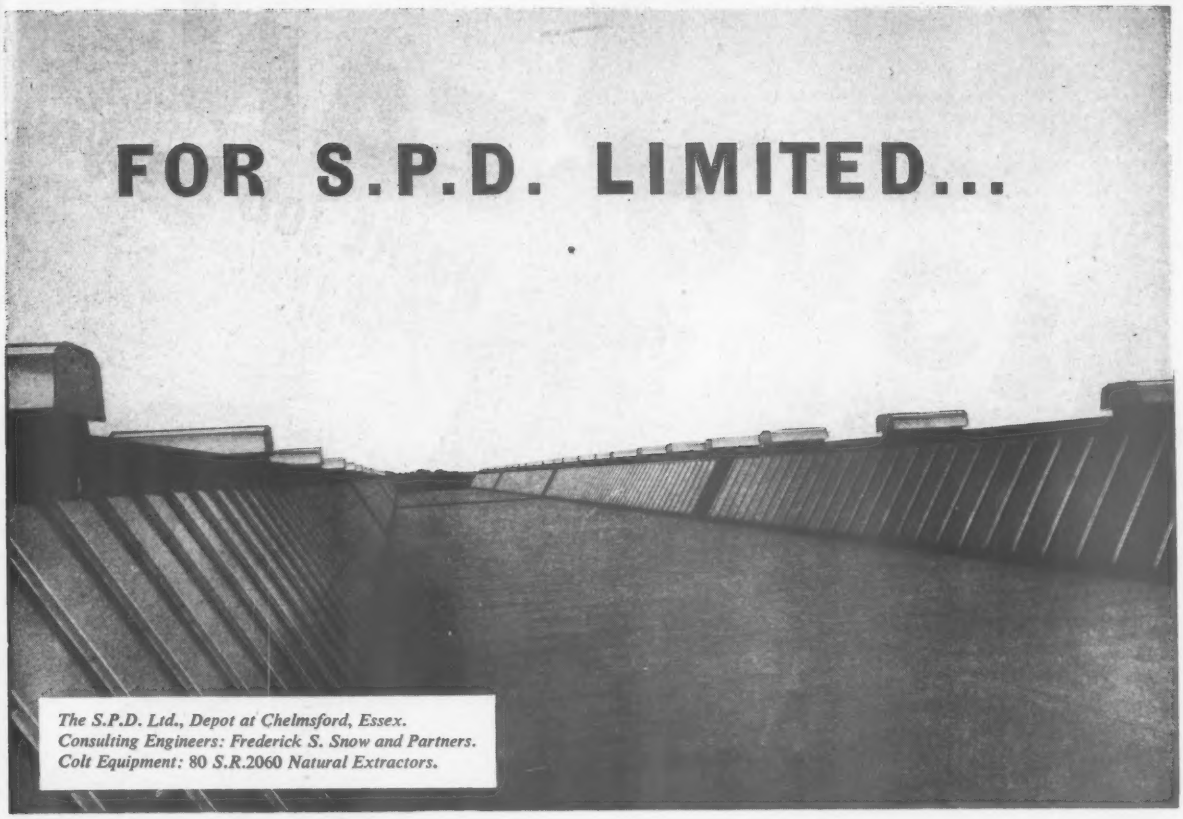

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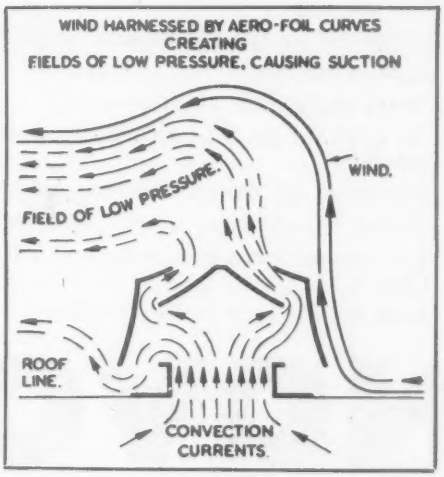

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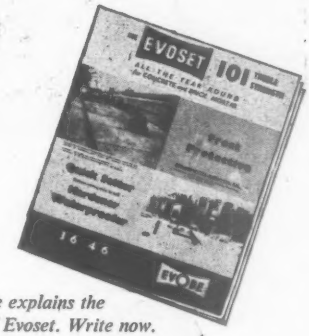

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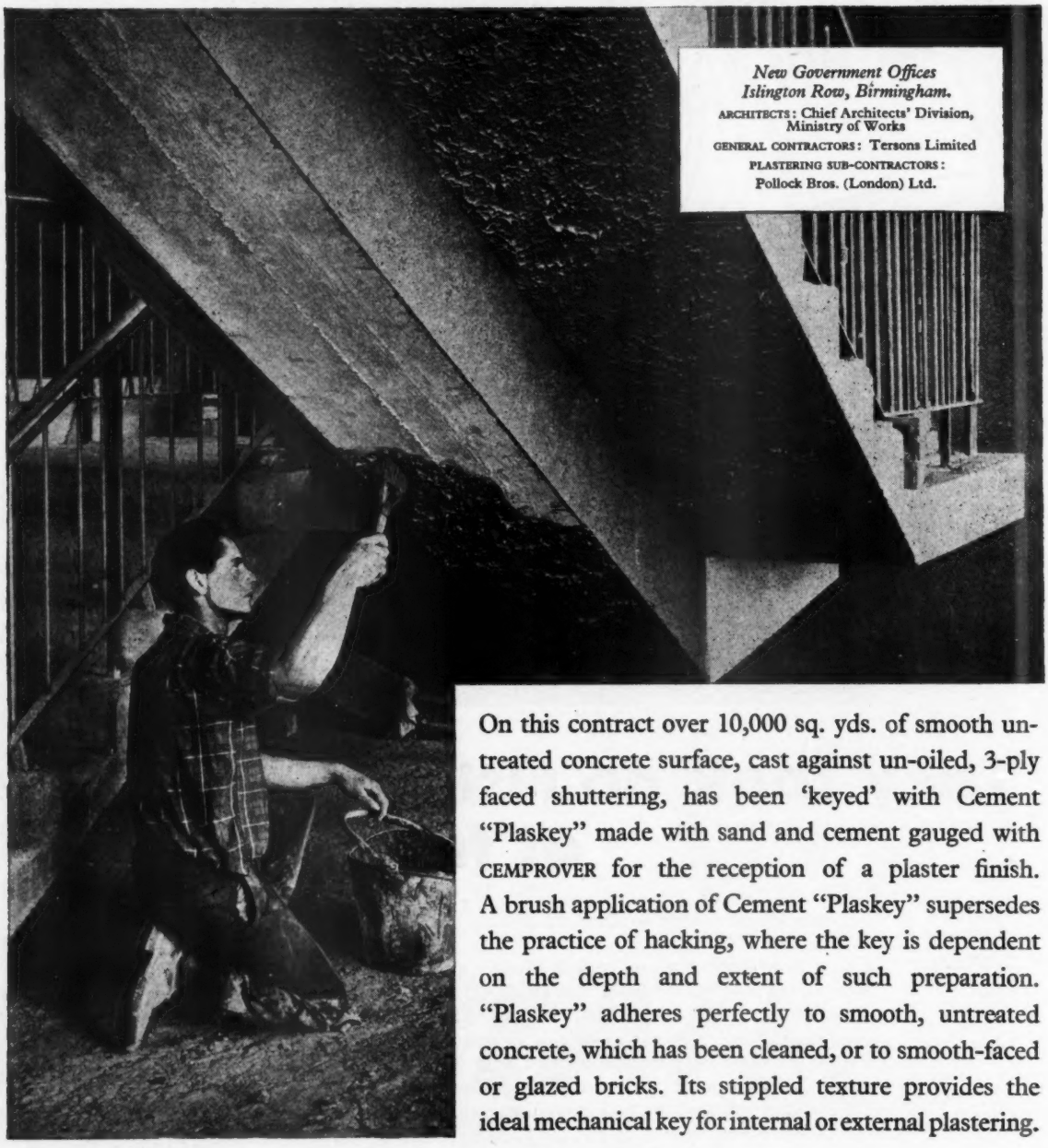

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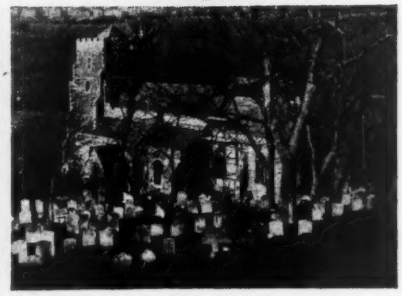

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		Initial test	*Retested after 3 years' natural weathering*
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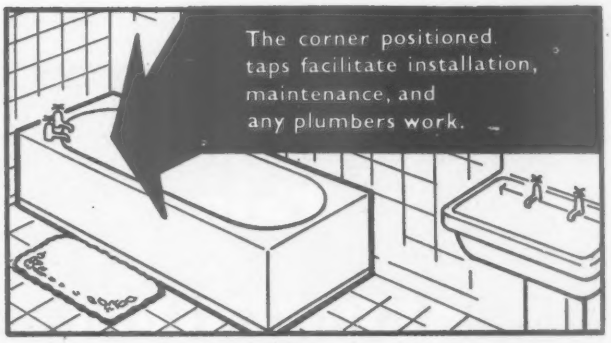

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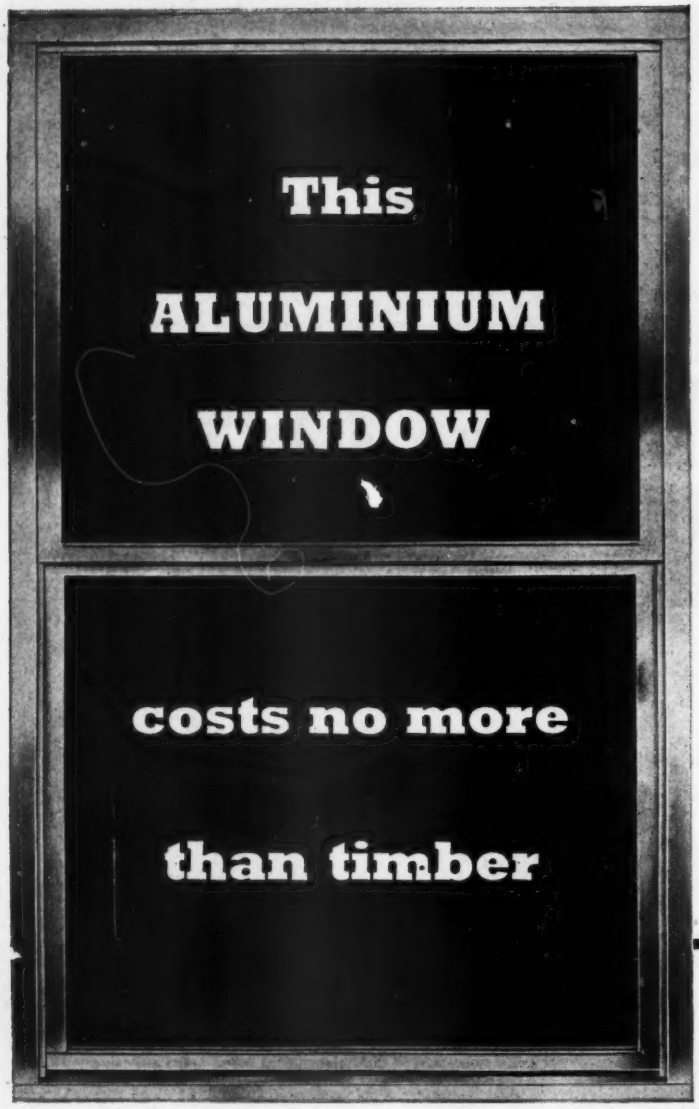

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Type 35, 4′ 8¼″ x 2′ 8½″	Type 45, 4′ 8¼″ x 3′ 5½″
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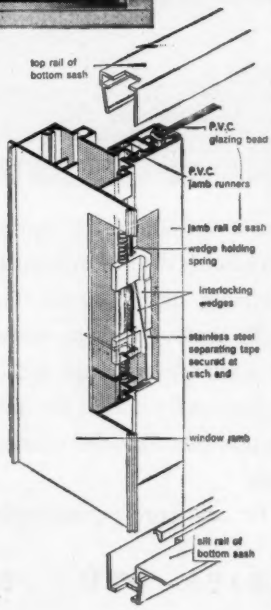

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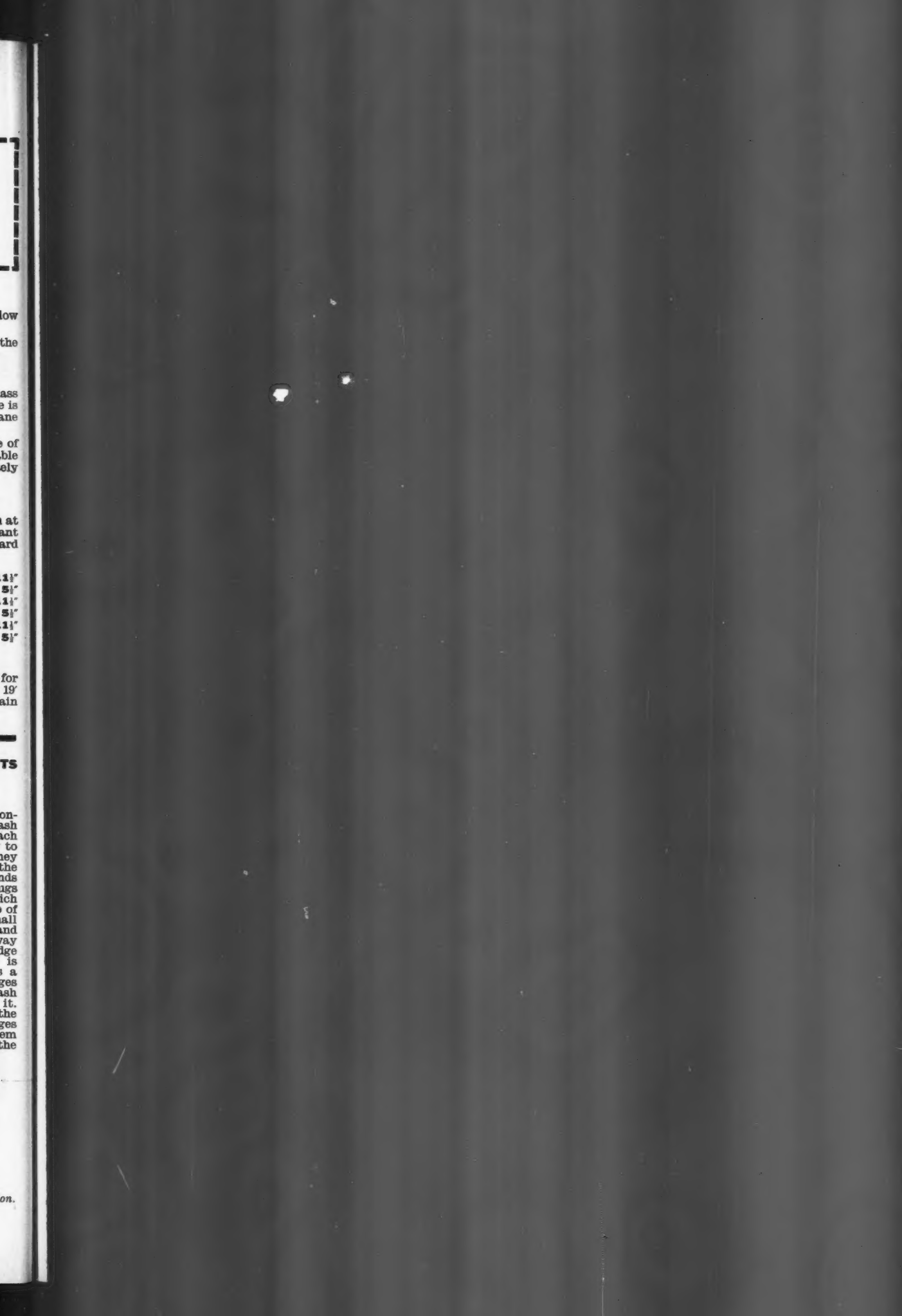

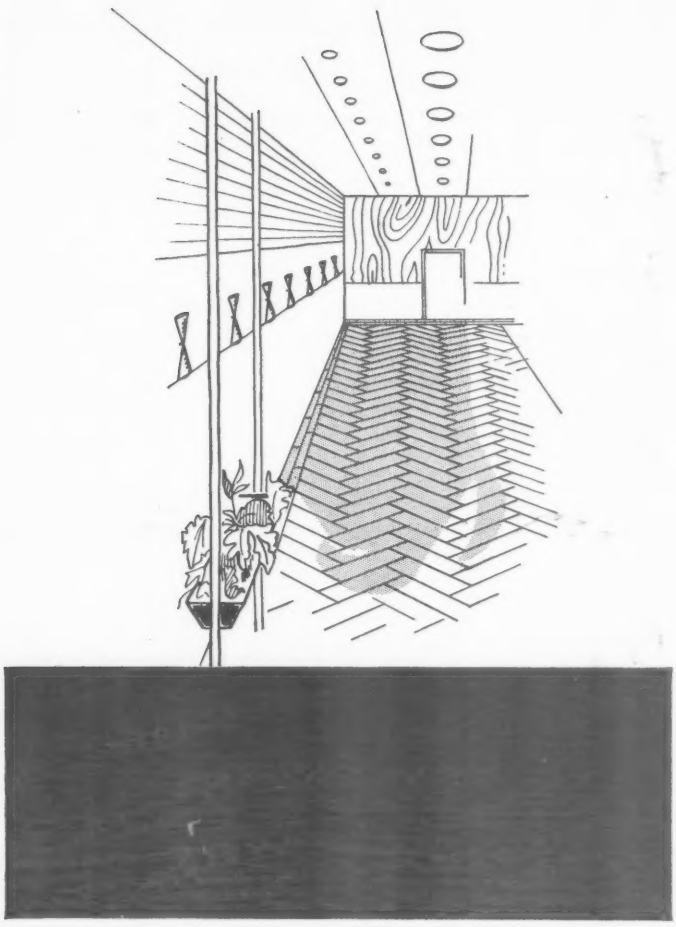

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LEICESTER • HULL • LONDON • BIRMINGHAM

Maximum output with minimum input

Riley Oil Burning Equipment

—is designed for consistent high-combustion efficiencies

Riley pressure jet oil burners exploit higher air and oil pressures than generally obtain in present day practice. They are factory set to give high CO_2, thus dispensing with the need for site adjustment.

There are Riley Oil Burners with throughputs ranging up to 700 lbs. per hour.

Type HL Burner

HIGH/LOW/OFF OPERATION

For capacities above 10 gallons per hour using 220 secs and 950 secs oil. Gives clean combustion and 13% CO_2 at variable firing loads. Incorporates one small and one large air register, each with its own atomiser. On low load only the small burner is alight, at high load both are working at optimum efficiency. Large burner has tip shut off, arranged for hot oil circulation to start and self cooling on shut down.

Type F Burner

ON/OFF OPERATION

Available in capacities from 20 lbs. to 90 lbs. per hour, using 220 secs oil. Air/Oil ratios and pressures are factory set to give suspended intense flame with 13% CO_2, and do not require further adjustment on site.

Type G Burner

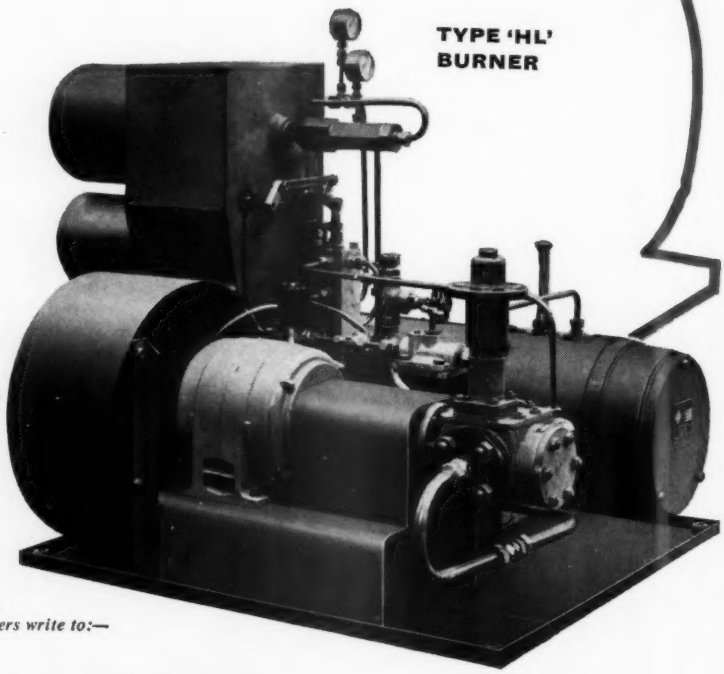
ON/OFF OPERATION

Generally similar to type F burner, but designed for use with 40 secs oil.

Type M Burner

FOR HORIZONTAL SHELL BOILERS

Spill return type atomiser with output range of 3 to 1. Specially developed air register to give clean narrow flame without impingement. Hot oil circulation to start and self cooling on shut down. Suitable for light and heavy fuel oils.



TYPE 'HL' BURNER

For booklets giving full details of these burners, also Riley Oil Fired Combustion Chambers and Air Heaters write to:—

RILEY (IC) PRODUCTS LIMITED

A Member of the International Combustion Group of Companies.

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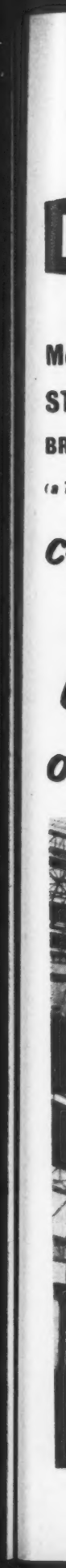


ELECTRIC FURNACE BUILDING

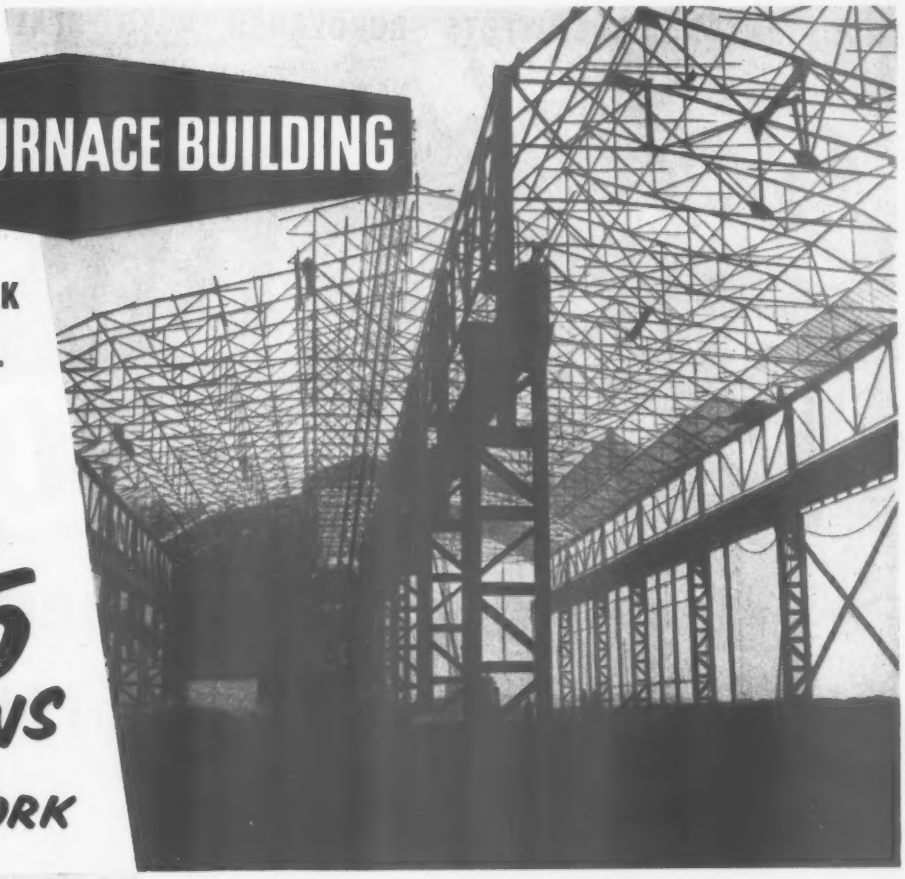
for

Messrs. ROUND OAK STEEL WORKS LTD.

BRIERLEY HILL

(a T.I. Group Company)

CONTAINING 1,225 TONS OF STEELWORK



New Factory building now being erected for Messrs. Round Oak Steel Works, Ltd., Brierley Hill, comprises three bays each of approximately 70ft. span and 375ft., 320ft. and 265ft. long respectively. Height to the eaves is 57ft. and total height of building 92ft. Bays are equipped with crane gantry girders of all-welded construction weighing 12-tons each, to take 110-tons and 75-tons E.O.T. cranes. The main lattice stanchions weigh 18-tons each.

STEELWORK designed, fabricated and erected by

RUBERY OWEN

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P.O. Box 10, Darlaston, Wednesbury, Staffs.
Technical Bureaux at London, Birmingham, Coventry & Southampton.

Member of the Owen Organisation.

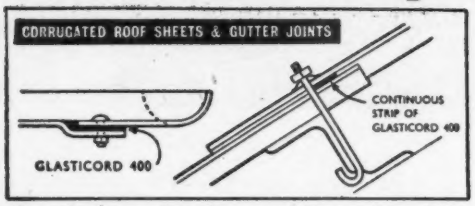
"OWEN TREAD" STEEL FLOORING

Open mesh flooring, light in weight, strong, and designed for maximum light penetration. 'OWEN-TREAD' panels have a wide variety of uses in every industry. Rubery Owen offer a complete service in steel flooring structures incorporating stairways.

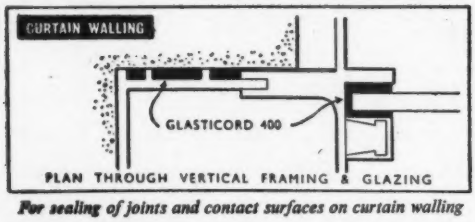
IMPORTANT TO ARCHITECTS CONCERNED WITH SEALING OF JOINTS

Specify GLASTICORD '400'

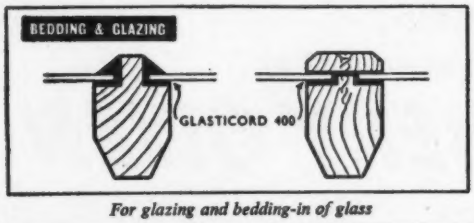
the latest development in Extruded Tape Sealers from U.S.A.



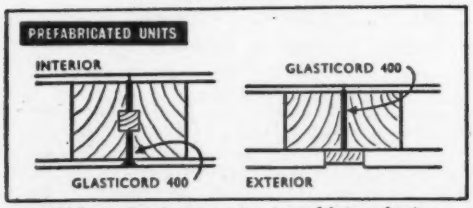
For sealing between laps of corrugated sheets and gutter joints



For sealing of joints and contact surfaces on curtain walling



For glazing and bedding-in of glass



And for sealing between joints in prefabricated units

Glasticord Extruded Tape Sealers are made under exclusive British licence from the Presstite-Keystone Engineering Products Company of St. Louis — the largest manufacturer of joint sealers in the world.

Glasticord Strip has outstanding adhesion and will form a seal in any joint — against metal, wood, glass, masonry, rubber or plastic. It remains permanently plastic and can be used between materials subject to expansion, contraction, vibration or any other form of movement.

Glasticord Extruded Tape Sealers are made in a wide range of section sizes, both circular and strip, designed to fill every building requirement.

GLASTICORD '400' has greater adhesion than any other tape sealer available today, for the purposes illustrated. Supplied in stone grey colour only.

Kelseal Limited also manufacture a wide range of joint sealers including gun mastics.

Write for technical data and price lists. Samples of all Kelseal Products available on request.

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rubber and plastic cables of course

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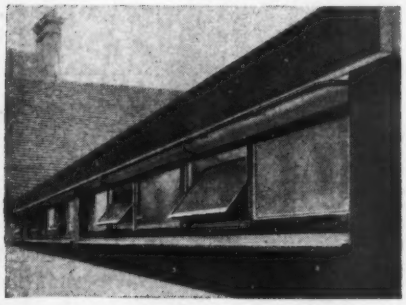
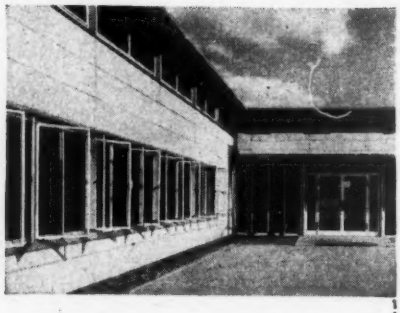
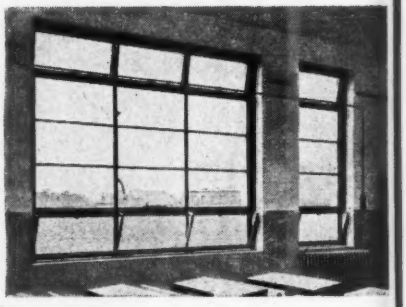
Neat...efficient...unobtrusive...

ARENS WINDOW CONTROLS







Today's functional, 'unfussy' architecture calls for neat and unobtrusive window controls. Fit ARENS remote controls, the result of more than 26 years of specialisation in one study. Made for light or heavy duty, for single or multiple operation, ARENS Window Controls are simple and efficient in design and can either be run beneath the plaster or painted to match the walls.

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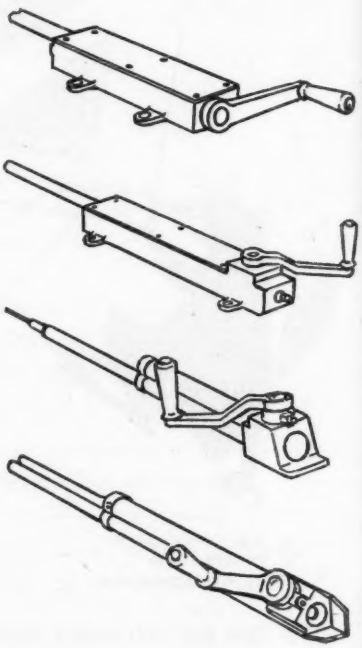


For substantial economies in daylighting flat-roofed buildings – specify

ROBERTSON DECKLIGHTS

✻ **DECKLIGHTS are designed for use only with Robertson Q-DECK roofs.**

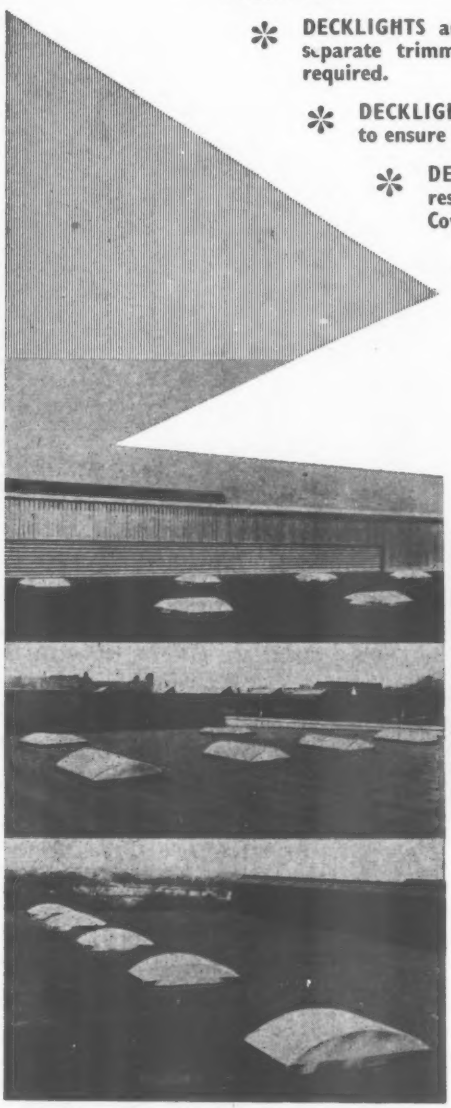
✻ **DECKLIGHTS are integral with roof deck — no separate trimming or supporting steelwork is required.**

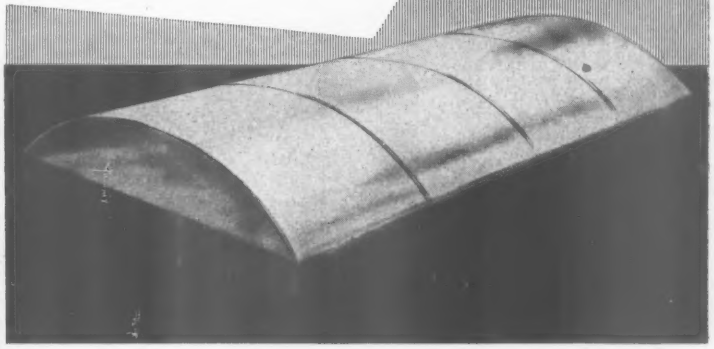
✻ **DECKLIGHTS can be distributed evenly in Q-DECK to ensure maximum daylighting.**

✻ **DECKLIGHTS have outer cover of polyester resin/glass fibre, constructed in one piece. Cover is leak-proof and unbreakable.**

✻ **DECKLIGHTS give more light where you want it and at a substantial cost reduction.**

✻ **Three sizes are available: 4 ft. x 4 ft.; 6 ft. x 4 ft., and 8 ft. x 4 ft. The larger dimension runs in the same direction as the deck unit in which the DECKLIGHTS are fitted.**





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Issued by Robertson Thain Limited
PIONEERS OF DEVELOPMENTS IN METAL DECK CONSTRUCTION

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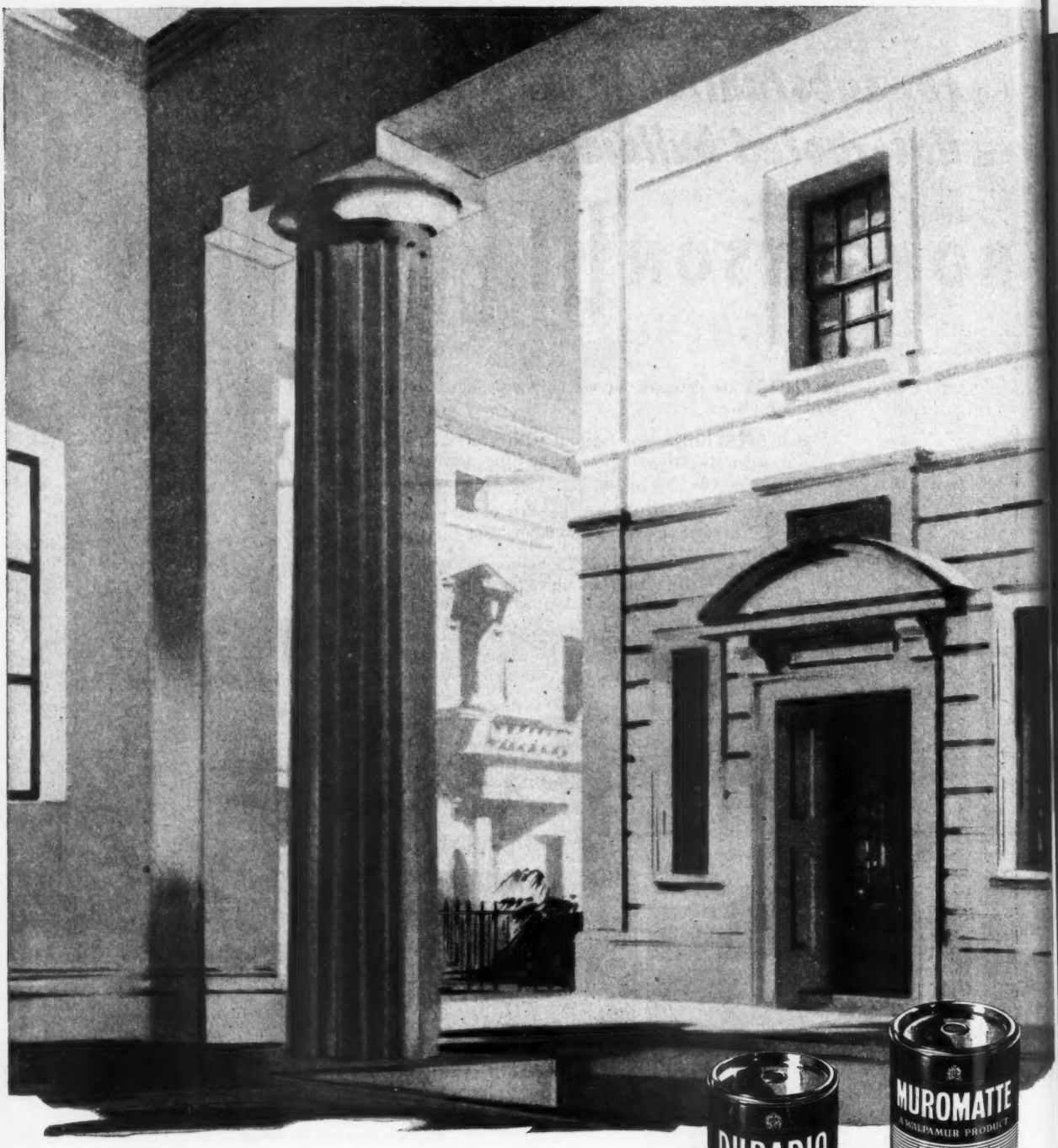

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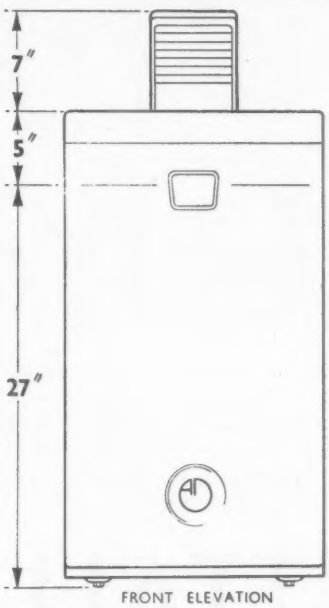
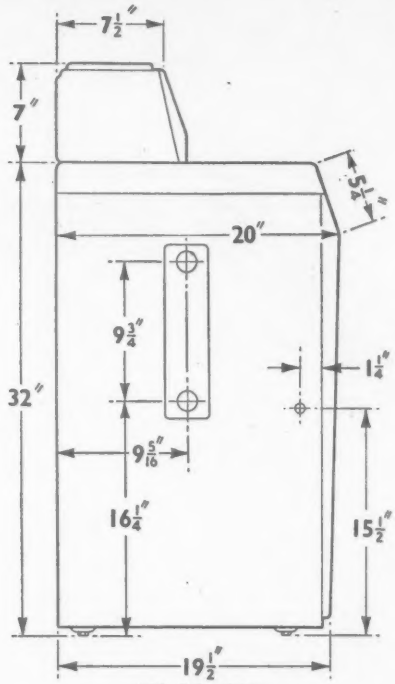
WS40

THE RAYBURN Oil-fired BOILER



FRONT ELEVATION



SIDE ELEVATION

less than 3 feet high, and no external working parts

Here for the first time is an oil-fired boiler small enough, neat enough and clean enough to go *in the kitchen*. And what service it gives there! All the hot water for the whole house—taps, radiators and towel rail—*without attention*. The Rayburn runs itself, precisely and economically, under thermostatic control. Apart from having the oil-fuel delivered two or three times a year (at bulk-purchase rates), the owner has nothing to do.

This is the boiler for people who enjoy luxury *and* leisure—for busy people in an age when domestic help is hard to come by. The Rayburn will work *by the year* without any variation—and without stoking, without riddling, without ash-disposal.

The Rayburn can usually be connected to an existing water-system and an existing chimney. The installation is simple—no extras are normally necessary beyond the oil storage tank outside the house and the oil feed pipe for which we recommend the use of refrigeration-type flare fittings.

Performance For domestic hot water only, the Rayburn will heat from a 20-gallon to a 60-gallon cylinder: for space-warming only, 155 sq. ft. of radiating surface. Or the two can be combined—for example, a 30-gallon cylinder plus 100 sq. ft. of radiating surface.

Measurements 18½″ wide, 20″ deep and 32″ high.

Colours All-white, all-cream—or a body of either colour with a black vitreous enamelled top-plate and flue box.

Recommended fuel BP 'Domesticol', supplied all over the country by the Authorised Distributors of Shell-Mex and B.P. Ltd.

Price The boiler costs £75, and can be supplied on hire-purchase terms.

The Rayburn Oil-fired Boiler is a product of

ALLIED IRONFOUNDERS LTD

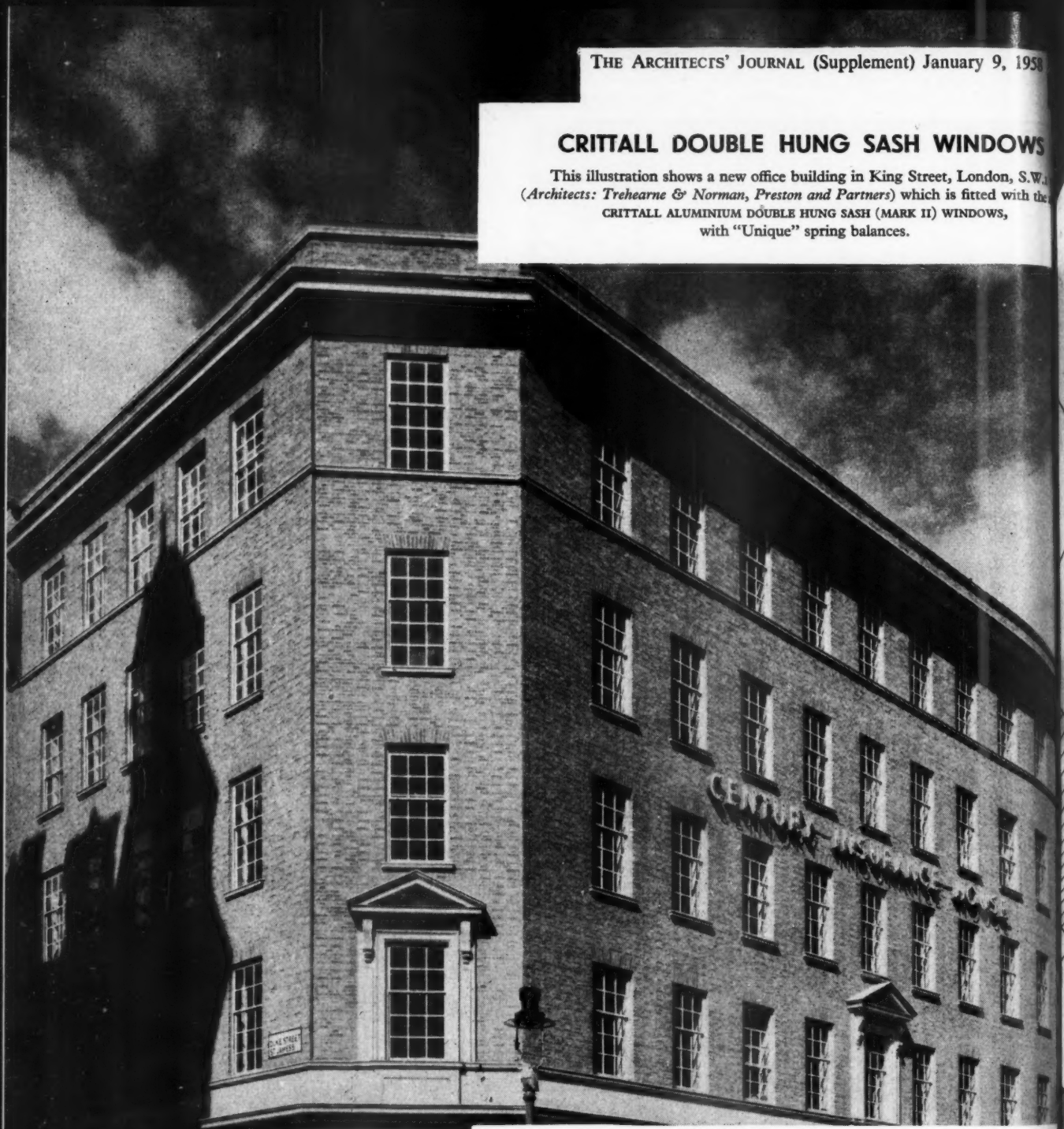
Makers of cookers, boilers, fires, stoves and baths.

28 Brook Street, London, W.1

Rayburn is a registered trade mark of Allied Ironfounders Ltd.

CRITTALL DOUBLE HUNG SASH WINDOWS

This illustration shows a new office building in King Street, London, S.W.1 (*Architects: Trehearne & Norman, Preston and Partners*) which is fitted with the CRITTALL ALUMINIUM DOUBLE HUNG SASH (MARK II) WINDOWS, with "Unique" spring balances.



Of all the many calls upon their services in the manufacture of purpose-made windows, none has a readier welcome at Crittalls than that which poses some new problem in function or design. For it is out of the accumulated experience which comes from tackling such new concepts, that Crittalls will be made more able still to contribute their skills, and in greater measure, to the buildings of the future.

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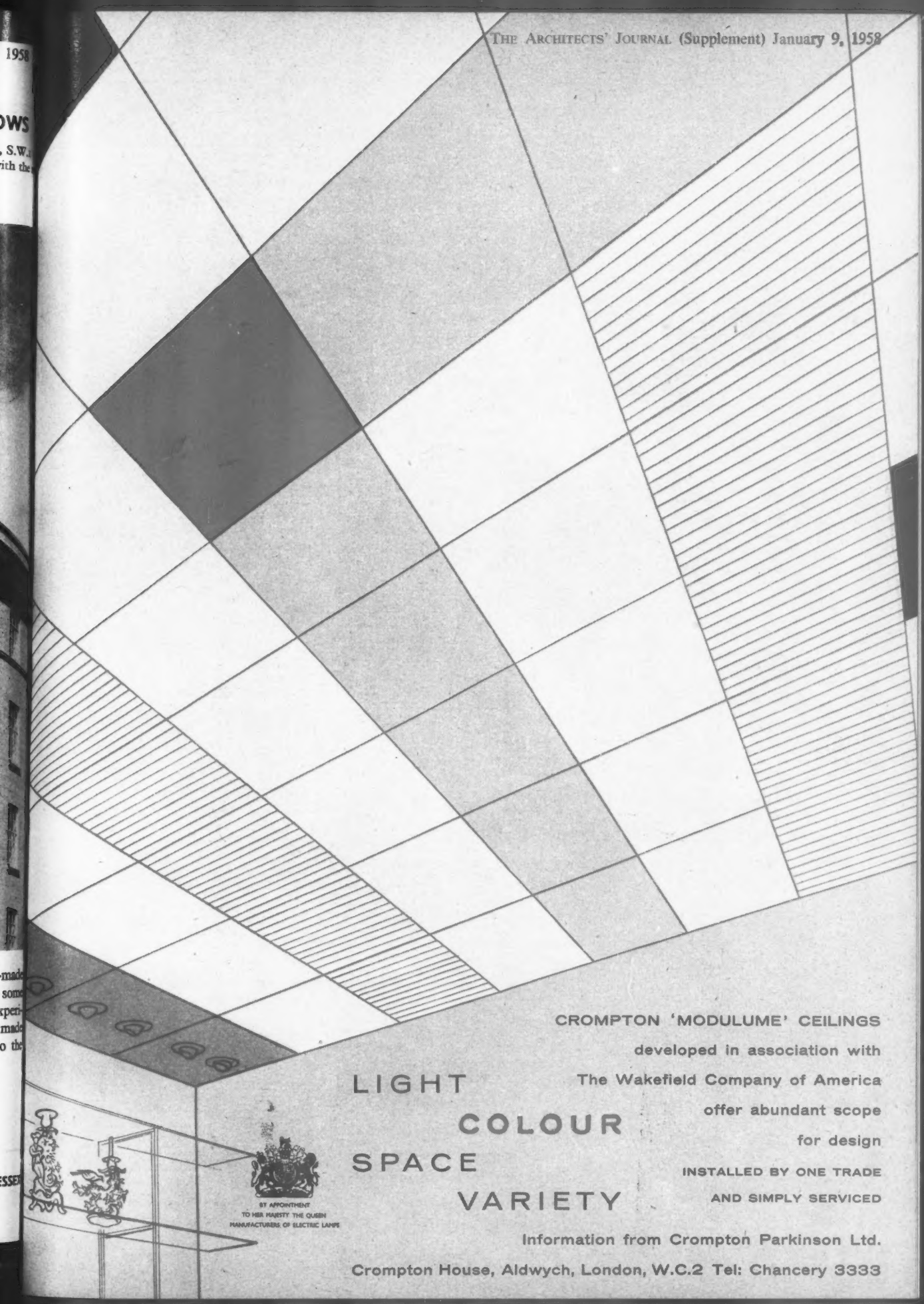

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offer abundant scope
for design
INSTALLED BY ONE TRADE
AND SIMPLY SERVICED

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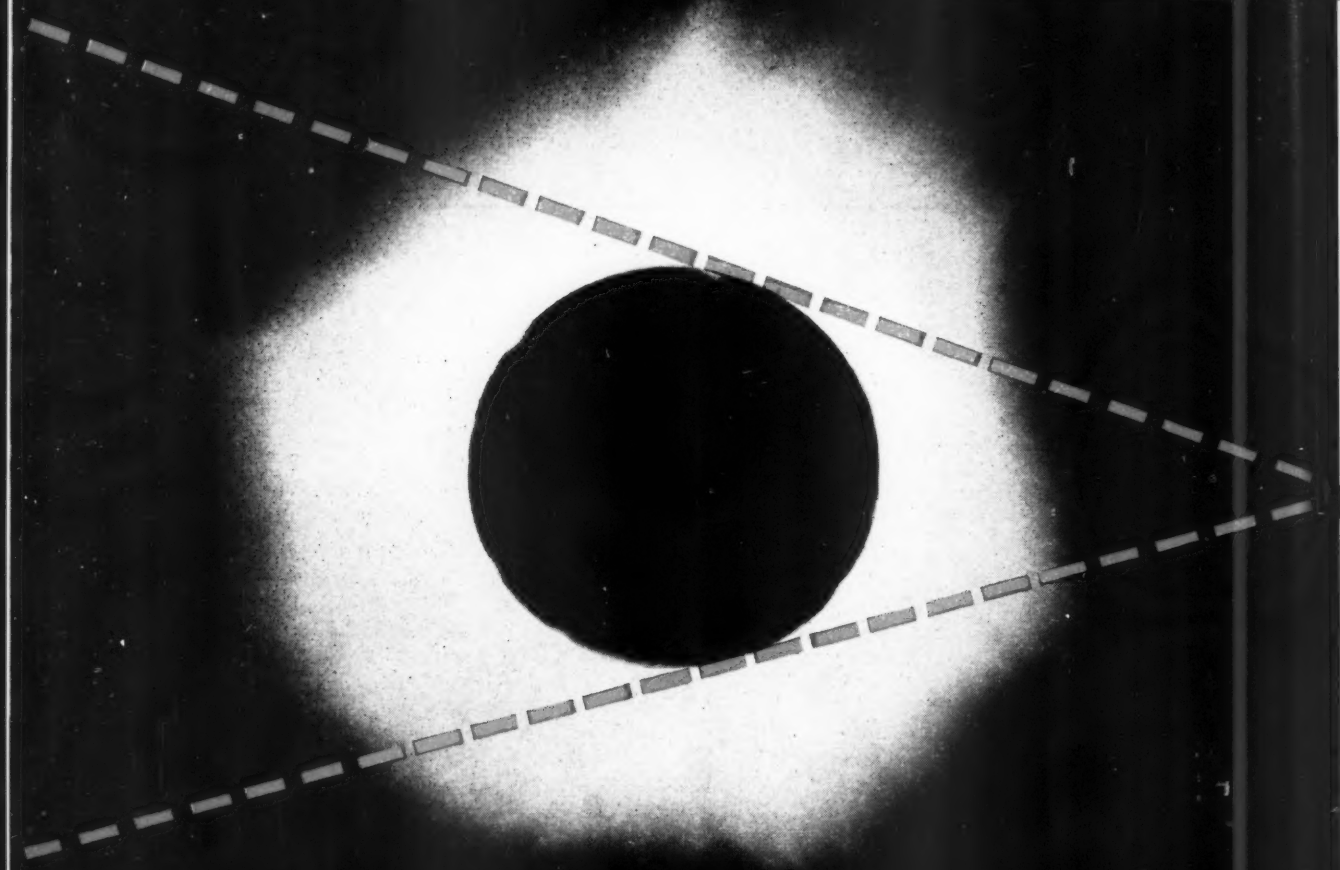
LIGHT



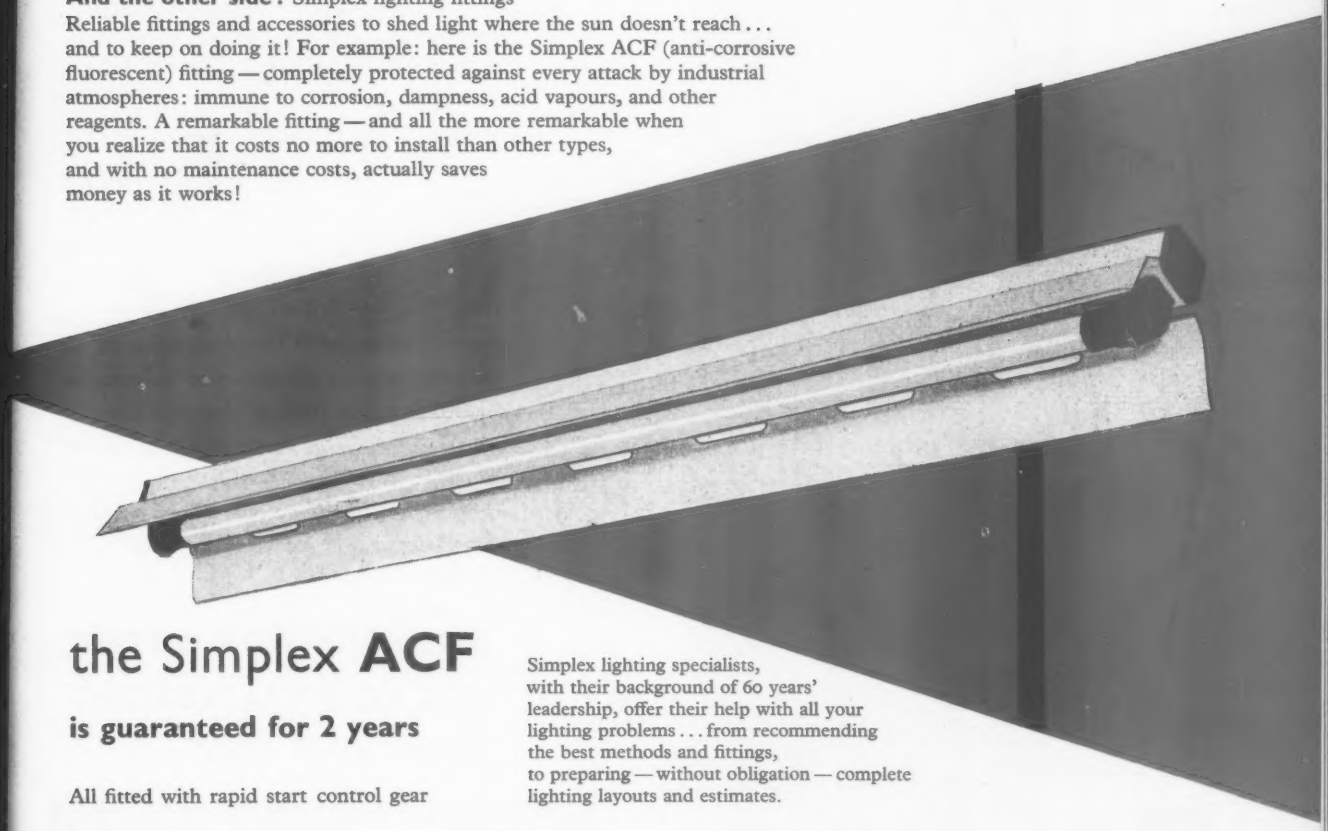
th

SOLAR CORONA
Solar observations come within the scope of the work of scientists of more than 50 nations throughout the International Geophysical Year. Photograph by courtesy of the Hamburg Observatory

that won't fail . . .

One side of the picture—
the sun: hub of the solar system. A light that always burns

And the other side? Simplex lighting fittings
Reliable fittings and accessories to shed light where the sun doesn't reach . . . and to keep on doing it! For example: here is the Simplex ACF (anti-corrosive fluorescent) fitting — completely protected against every attack by industrial atmospheres: immune to corrosion, dampness, acid vapours, and other reagents. A remarkable fitting — and all the more remarkable when you realize that it costs no more to install than other types, and with no maintenance costs, actually saves money as it works!



the Simplex **ACF**

is guaranteed for 2 years

All fitted with rapid start control gear

Simplex lighting specialists, with their background of 60 years' leadership, offer their help with all your lighting problems . . . from recommending the best methods and fittings, to preparing — without obligation — complete lighting layouts and estimates.

cut costs and specify

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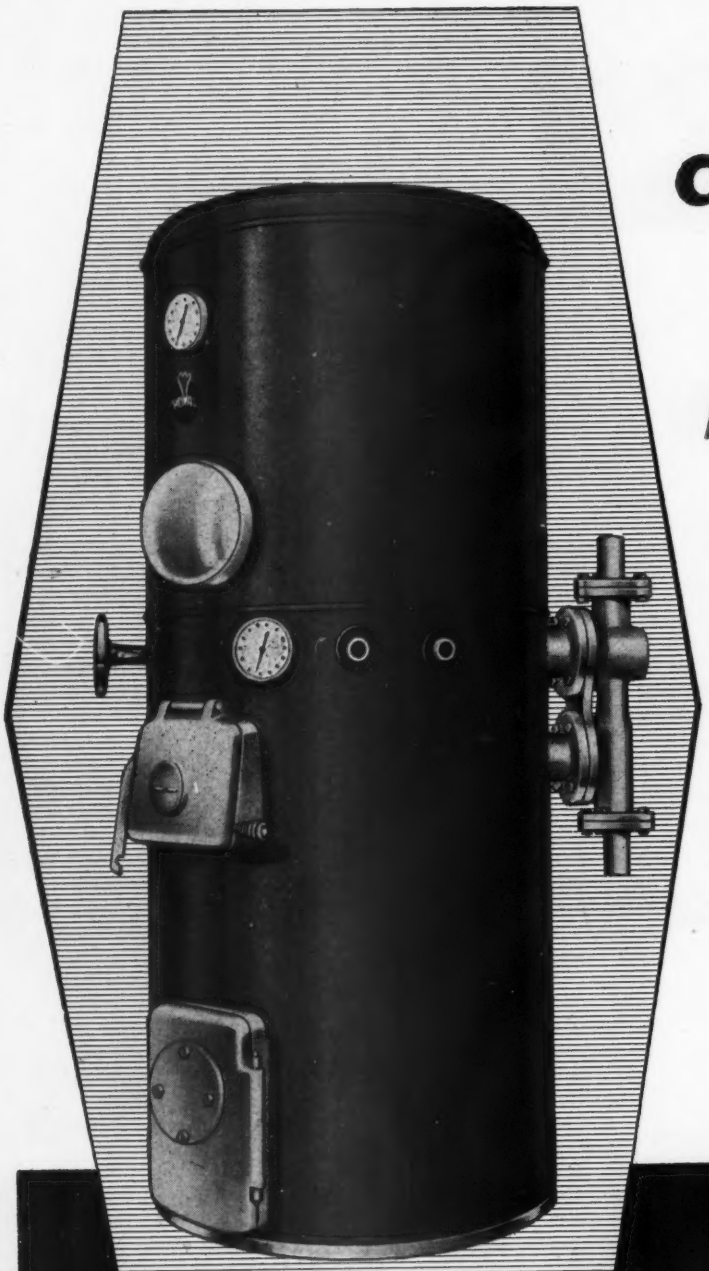

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More of the many reasons why you can—with confidence—specify

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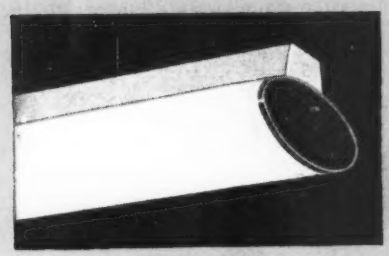
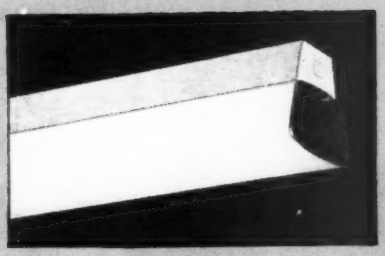
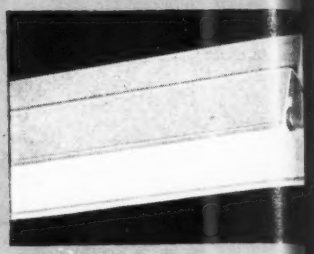
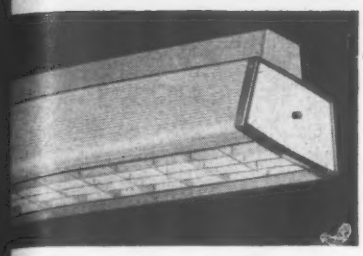


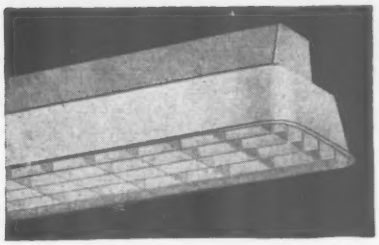


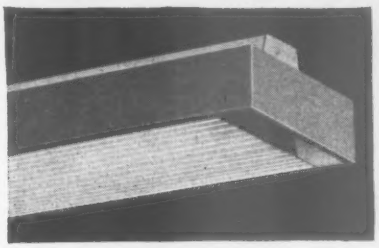


what's so new abou
fluorescent fitting

THE GENERAL ELECTRIC CO. LTD., MAGNET HOUSE, KINGSWAY, LONDON, W.C.2.







these anyway?

Everything is new! *The '101 Range' is an entirely new range of contemporary styled industrial, commercial and decorative fluorescent fittings. The successful result, in fact, of team work between G.E.C. fittings designers and illuminating engineers. Competitively priced—outstandingly modern in conception! NEW also is the introduction of basic channels for single or twin tubes, 1½ ft. to 8 ft. which, with specially designed attachments, form an interchangeable system of great versatility with particularly simple installation and maintenance. It is important that you learn all about this exceptional range —the '101 Range'—of G.E.C. fluorescent fittings, so write for fully descriptive catalogue No. F 4068.*

new adaptability

The G.E.C. '101 Range' sets a *new standard* of adaptability. Using as a basis, channels of common cross section, industrial, commercial and decorative fittings are built without a multitude of small parts. Each is a soundly engineered fitting, of modern appearance and incorporates many aesthetic and mechanical refinements. Installation and maintenance are absolutely simple.

new reflectors

For the first time the industrial user can have vitreous enamelled closed end trough reflectors made from a single pressing, with well-rounded corners and without joints. They are therefore particularly easy to clean. New techniques enable them to be made lighter than previous types and therefore easier to handle and less susceptible to damage.

new 8 ft. tubes

Recessed double contact (R.D.C.) caps are fitted to OSRAM 8 ft. 125 w. tubes for use in the '101 Range'. This new cap design protects the tube ends and allows replacement by one person from one ladder position. Recessed double contact caps also provide firm, reliable support and location for these tubes without relying on contact pins or independent clips. This results in easier tube replacement after cleaning or maintenance. Unsightly shadows are reduced, as the new cap gives a smaller "dead region" at tube ends. Osram Guaranteed Tubes, with their freedom from early failures, are recommended for all G.E.C. lighting fittings.

G.E.C. range 101

Release date: 3rd February

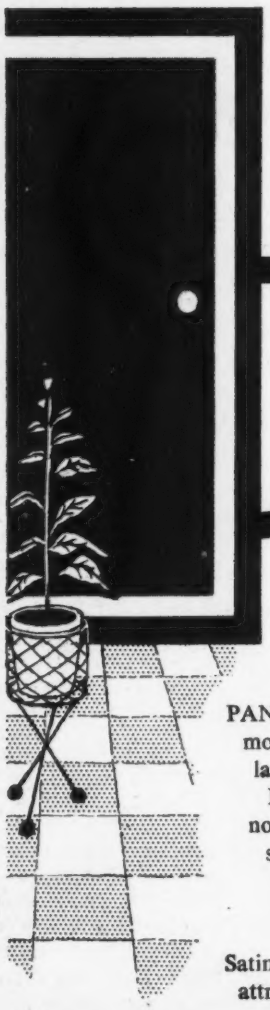
fluorescent fittings

THE REALITY OF A COMPLETE LIGHTING SERVICE

NBP4

Plan with PANAX

MELAMINE SURFACE PLASTIC

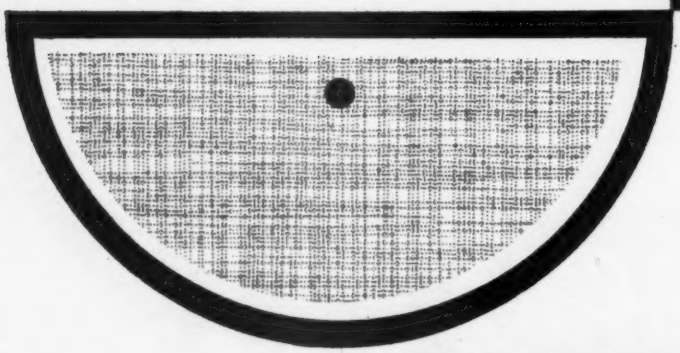


DECORATIVE-DURABLE

with endless possibilities for surface application

CUTS COSTS

PANAX, while being more heat resistant, more flexible than otherwise comparable laminates, is highly competitive in cost. PANAX is ivory-hard, micro-smooth, non-absorbent, and of high dimensional stability. It is proof against heat up to 320° F.; resistant to oil, water, mild acids and alkalis; stain resistant and easily kept bright and clean. Satin finish in a wide range of colours and attractive designs, including wood grains.



EASY TO FIX

with impact adhesives. An adhesive suitable for any surface and conditions under consideration will gladly be recommended.

STANDARD SHEET DIMENSIONS

8′ × 4′ × $\frac{1}{16}$″

specify... **PANAX**

MELAMINE SURFACE PLASTIC

FOR SHOPS, SHIPS, HOMES, HOTELS, HOSPITALS, RESTAURANTS, CAFES, CANTEENS, CLINICS, CINEMAS, COACHES, ETC.

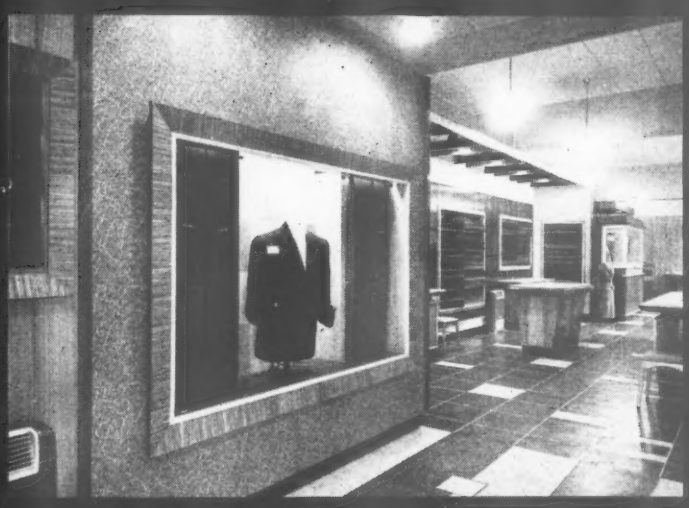
SAMPLES AND INFORMATION FREELY AVAILABLE ON REQUEST TO :-

NORTH BRITISH PLASTICS LIMITED Blaydon, Co. Durham. Phone: Blaydon 346/9. Telegrams Panax, Blaydon-on-Tyne.

THE ARCHITECTS' JOURNAL (Supplement) January 9, 1958

a new and exciting note

in store



and shop décors...

More and more department, chain and other types of store are featuring RYDURA in the decor of their new branches, and in their re-decoration plans for existing shops. RYDURA is shown here as a decoration for the pillars and walls of the Crawley Branch of Boot's Pure Drug Co. (left) (Photo by courtesy of C. St. G. Oakes Esq., Chief Architect); and as a wall decoration at the Darlington branch of Jackson The Tailor (below). RYDURA was used in this store for the entrance, stairs, ground floor and lower ground floor walls.

OUTSTANDING MODERN DESIGNS AND COLOURS
ATTRACTIVE APPEARANCE
DURABLE AND HYGIENIC
HAS DIRT AND STAIN RESISTING PROPERTIES
EASY TO KEEP CLEAN
VIRTUALLY UNSTAINABLE

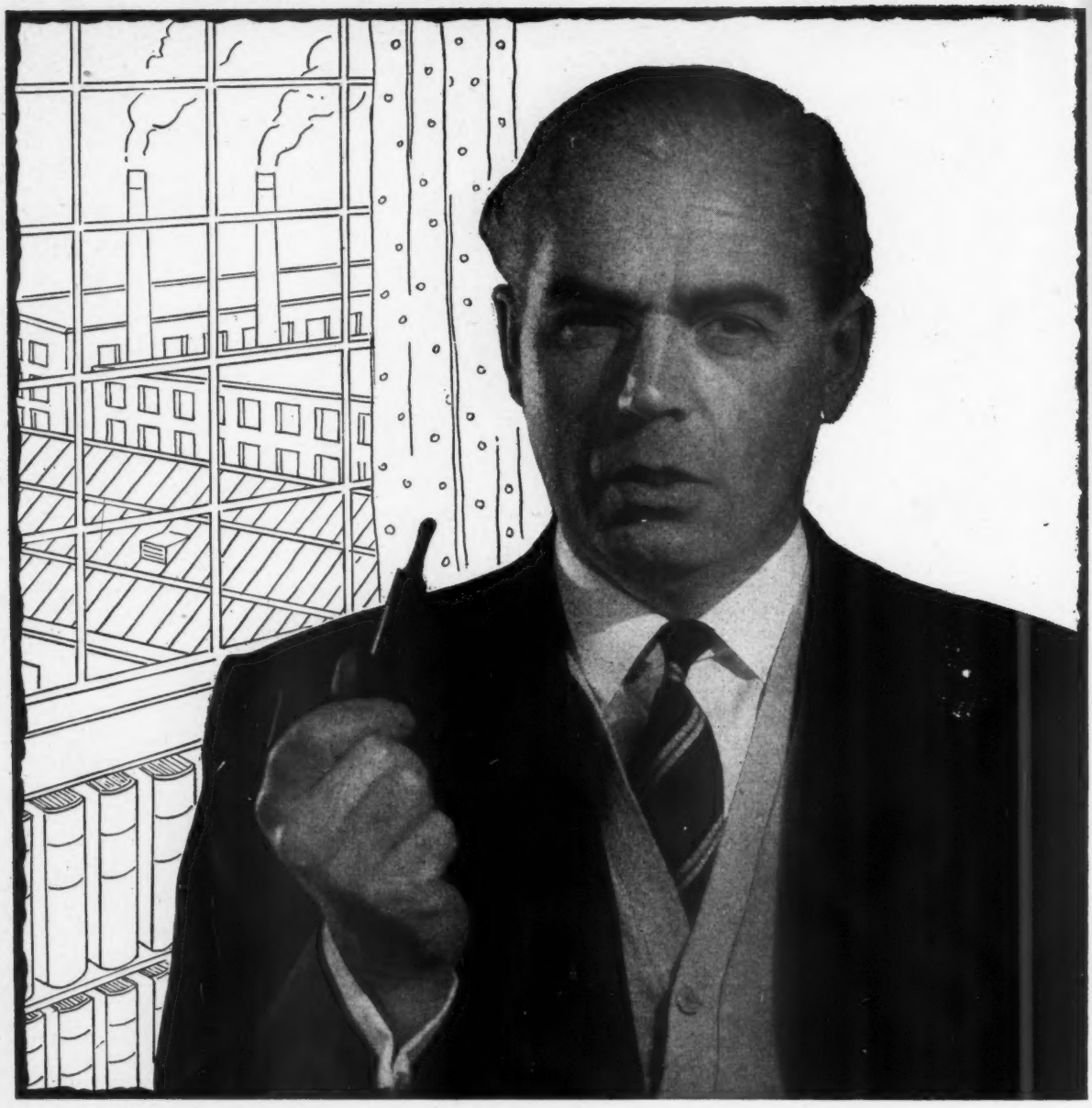
CHAIR UPHOLSTERY, CABINET AND TABLE DECORATION AND, OF COURSE, FOR WALLS

Full details on request to:—

RYJACK PRODUCTIONS LIMITED
(Prop. The Calico Printers' Association Limited)
89 Oxford Street Manchester 1
Tel. Manchester Central 0020

Rydura

THE VERSATILE FABRIC WITH THE 'PROFILM' FINISH



"Of course, I want Wednesbury Tube!"

A wartime film on enemy mine detection began: 'You cannot fail to identify a TmiZ 35' But some people could — and suffered by their failure.

Similarly when you say "Copper Tubing" you probably think of Wednesbury, quality-controlled, copper tubing. And very often you will get it. But make sure. For domestic use or in manufacture (refrigerators, for example) specify Wednesbury.

choose WEDNESBURY TUBE

Obtainable from your local stockist or builders' merchant

THE WEDNESBURY TUBE CO. LTD, BILSTON, STAFFS

Associated Company, Glynn Bros. Ltd, London and Manchester

THE 'TRENT'

THE 'SHERWOOD'

THE 'TYPE B'

Good flush doors speak for themselves . . .

There is no mistaking the outstanding high quality of Leaderflush flush doors wherever they are seen—it is a quality born of many years' experience in specialised manufacture—a quality which speaks for itself.

STOCKISTS:—LEADERFLUSH DOORS can be obtained immediately ex stock from the following officially appointed distributors for the areas stated:—

BIRMINGHAM & W. MIDLANDS
British Door Marketing Co. Ltd., Burton-on-Trent.

BRISTOL & SOMERSET
Iron & Marble Co. Ltd., Bristol.

DEVON & CORNWALL
Jewsons Ltd., Plymouth.

ABERDEEN & N. SCOTLAND
George Gordon & Co. Ltd., Aberdeen.

SOUTH WALES
H. R. Paul & Son Ltd., Barry.

ANGLESEY & CAERNARVONSHIRE
Wm. Roberts & Co. Ltd., Menai Bridge.

GLOUCS., WORCS., WILTS., BERKS.
Sharpe & Fisher Ltd., Cheltenham.

CUMBERLAND & WESTMORLAND
Wm. Coulthard & Co. Ltd., Carlisle.

DURHAM, NORTHUMBERLAND & N. RIDING of YORKSHIRE
J. M. & J. Bartlett Ltd., Newcastle-on-Tyne.

To areas not covered by Stockists deliveries are made direct by Leaderflush Ltd.

"DELIVERY ON TIME" To all parts of Great Britain and the world is the recognised policy of LEADERFLUSH.

LITERATURE—giving full specification of LEADERFLUSH doors will be gladly sent on request.

Leaderflush

BRITAIN'S FINEST FLUSH DOORS

LEADERFLUSH (DOORS) LTD., TROWELL, NOTTINGHAM.
Tel: ILKESTON 623 (4 lines). Telegrams: LEADAFLUSH, ILKESTON, NOTTINGHAM.

★ **THERE ARE OVER 2,000,000 LEADERFLUSH DOORS IN USE TODAY.**

SANITARY SPECIALISTS

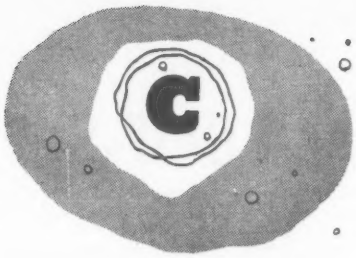
A service to architects

The Eastwoods Sanitary Fittings Department is providing a service to Architects, Local and Municipal Authorities and Hospital Management Committees on the installation of Sanitary ware and fittings, and is able to supply any type of installation for industrial buildings, office blocks, hospitals, schools, aerodromes and barrack installations, Municipal projects or domestic and housing installations, including luxury fittings. Quotations can be prepared against existing plans, or we shall be happy to co-operate with Architects in the preparation of suitable specifications incorporating modern designs.

EASTWOOD SALES LIMITED

Eastwood House,
158-160 CITY ROAD, LONDON, E.C.1.
Telephone: CLErkenwell 2040 (30 lines)

NORTHERN SALES OFFICE:
29 St. Sepulchre Gate, Doncaster. Telephone: 49256



what do you look for in roof lighting?

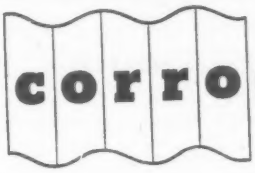
The danger of fire spread, particularly in roofs is a matter of major concern to all associated with the building industry. Vague claims are often made about the flame spread characteristics of roof lighting materials. The accepted authority is BS. 476:1953.

1 safety at the point of danger

To clarify the position a series of tests, summarised below, were made by a leading independent laboratory in accordance with BS. 476:1953. The results clearly establish Corroglaze as ***the only corrugated roof lighting sheet which cannot in any way assist the spread of flame.*** Corroglaze is 100% pure glass, reinforced with 1" square wire mesh. It cannot flash, smoulder or drip flaming particles. Corroglaze gives better light transmission and distribution and is unaffected by exposure or fumes. It compares favourably in cost with all other forms of roof lighting and is suitable for use with standard corrugated sheeting. Write for literature.

MATERIAL	Time Lapse before ignition	Spread of flame after 30 secs.	Condition after 3-3¼ minutes
Sample 'A'	5-7 seconds	2"	Complete disintegration with molten material dripping off
Sample 'B'	5-7 seconds	2"	Completely burnt out—shell of burnt out fibre only remained
CORROGLAZE	NO IGNITION	NO IGNITION	No melting, the only effect being a slight cracking of the glass

Designed and constructed under the supervision of G. A. Wilson, Esq., M.Eng., M.I.C.E., M.I.Mech.E., Chief Engineer, Port of London Authority; Main Contractors, Messrs. Tubewrights Ltd.



corroglaze

100% pure glass
(wire reinforced)
the non-combustible sheet

For further information write to :—

CORROGLAZE LTD., PALACE OF ENGINEERING, WEMBLEY, MIDDLESEX - - TEL : WEMBLEY 9411.

Duramel helps to sell Self-Service

DURAMEL *Plastic-Faced Plywood is widely used throughout the fine new Self-Service Store of the Dartford Industrial Co-operative Society at Hextable.* (Photograph by courtesy of the Society)*

The vastly increasing use of DURAMEL in shopfitting is the surest evidence of its fine, practical qualities.

DURAMEL was selected for check-out counters, island fittings and all shelves and plinths of the wall fixtures throughout this splendid new store of the Dartford Co-operative Society — the most modern store in the district.

DURAMEL's hygienic, plastic surface is not only ideal for food storage, but stands up to hard wear of constant rubbing by jars and tins. It is resistant to moisture, acids, grease and fruit juices. Carpenters and shopfitters like it because it works like wood. And of course DURAMEL is thoroughly economical. At the Hextable store, for instance, fixtures are made on a 2′0″ modula, which means that in using standard sheets the wastage is negligible.

We need only add that DURAMEL is made in a range of colourful finishes and also in plain white.

*DURAMEL *supplied through Rex Bousfield Ltd.*

Duramel
THE PLASTIC-FACED PLYWOOD

SIZES: 72″ x 48″, 84″ x 48″, 96″ x 48″, 36″ x 24″, 48″ x 24″.

STANDARD THICKNESSES: ¼″, ½″, ¾″.

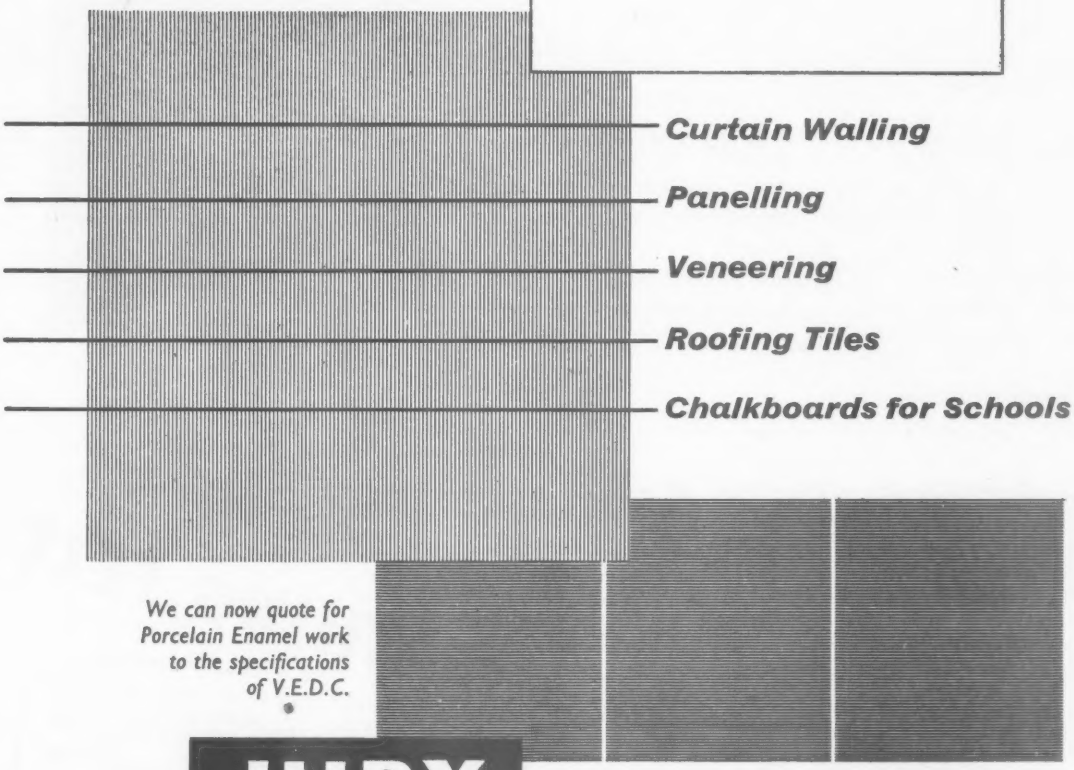
Sole manufacturers: **F. HILLS & SONS LTD., NORTON ROAD, STOCKTON-ON-TEES.** **Tel: STOCKTON 67141** *For full details write to your nearest distributor.*

MAIN DISTRIBUTORS:

LONDON & HOME COUNTIES: C. F. Anderson & Son Ltd., London, N.1 • Allied Manufacturing Co. (London) Ltd., London, N.1 • Bambergers Ltd., London, E.C.2 Rex Bousfield Ltd., London, E.C.4 • Walter S. Fry Ltd., London, S.E.1 • **SOUTH WEST:** Rowe Bros. & Co. Ltd., Bristol, 1 • **MIDLANDS:** Rowe Bros. & Co. Ltd., Birmingham, 1 **NORTH WEST:** Barderal Distributors Ltd., Swinton, Manchester • John Cartmell & Sons (1947) Ltd., Morecambe • W. H. M. (Manchester) Ltd., Manchester, 3 G. E. Robinson & Co. Ltd., Salford, 5 • Rowe Bros. & Co. Ltd., Liverpool, 13 • **NORTH EAST:** Henry Moat & Son Ltd., Newcastle-upon-Tyne, 1 • **EAST ANGLIA:** Arthur Saul Ltd., Norwich • Palgrave Brown Ltd., Colchester • **SCOTLAND:** Graham & Wylie Ltd., Glasgow, S.E • P. McDonald Ltd., Glasgow, C.3 • Henry Moat & Son Ltd., Edinburgh, 1.

JURABILD

VITREOUS PORCELAIN ENAMEL SHEETS
THE NEWEST BUILDING MATERIAL



We can now quote for Porcelain Enamel work to the specifications of V.E.D.C.

JURY
HOLLOWARE LTD

ARCHITECTURAL DIVISION

BRIERLEY HILL . STAFFS . Tel: Lye 2126/7

Members of the Vitreous Enamel Development Council
Members of the Porcelain Enamel Institute (U.S.A.)

J3756

Splendid Isolation

BLACK SHEATHING FELT gives complete and utterly effective isolation from the substructure without cracking, as movements of buildings are not transferred to the asphalte.

This tough composition of water-proofed jute and flax fibres is the ideal underlining for hot asphalte, and the perfect keying medium.

There is no wrinkling while laying and Black Sheathing Felt is not easily damaged. Simple and pleasant to lay, it aids application by retaining heat.

Architects help themselves—help experienced asphalters by specifying Black Sheathing Felt—laid to last.

Specify **Asphalte laid on**

BLACK SHEATHING FELT

for your job

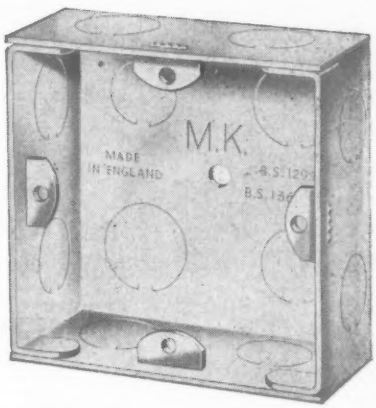
Manufactured by

Robt. McCalmont & Sons Ltd., Belfast ; F. McNeill & Co. Ltd., London ; Permanite Ltd., London ; John Rogers Ltd., Belfast ; D. Anderson & Son, Ltd., Manchester ; Engert & Rolfe Ltd., London ; John Erskine Ltd., Belfast.

BSF 11

TAKE A SOCKET . . . PLUS A SWITCH . . . PLUS A PILOT LAMP

ADD MK INGENUITY AND THEY ALL GO INTO A BS 1363 BOX!



THESE NEW PILOT-LIGHT SWITCHSOCKETS are so compact that they fit into the standard BS 1363 box with ample room for wiring on a ring circuit and looping to a spur if necessary. This is made possible by careful designing and the use of a miniature neon lamp. The lamp is complete with a resistance and uses a negligible amount of current. Replacement is easily made if necessary, but the normal life of the lamp is very long.

Flush patterns are available with insulated plates finished brown or ivory and with brass plates finished BMA or matt chrome.

Surface metalclad units of equivalent dimensions are also available with steel frontplates finished aluminium stove enamel or brass frontplates finished BMA.

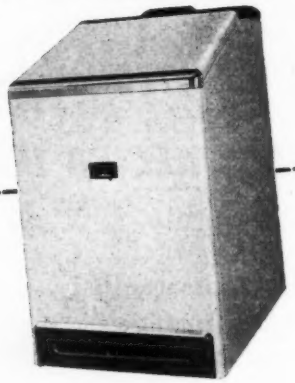
Write today for full details of this useful and competitive new range.

MK .... the mark of leadership

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

Hot water and central heating

for a four bedroom house



Here, at last, is a brand new *fully* automatic oil-fired boiler designed to fit your needs and your pocket.

'POTTERTON' 53

OIL-FIRED BOILER

No stoking! No lighting! No dust, dirt, smoke or ashes!

Oil-firing is the modern way of providing hot water and central heating in the home, but it is no longer the privilege of those with big houses and big incomes. Here is an oil-fired boiler that has *all*, repeat *all*, the features of the more expensive boilers!

The 'Potterton' 53 Boiler is *fully* automatic. There is never any need to put it out or relight it, as it shuts itself off completely when the water is hot enough, and the electric ignition relights it automatically when necessary. It can also be fitted with a clock control which will automatically shut off the boiler for any chosen periods during day or night—and that means even further saving.

The pressure-jet burner uses the lowest-priced oil fuel for the home. No other boiler offers so much for £148. Drop a line to the address below, or ring Miss Meredith at Vandyke 7202 for details of this wonderful new boiler.

'POTTERTON' BOILERS

OIL-FIRED OR GAS-FIRED

The Key to comfort

POTTERTON DIVISION, Thomas De La Rue & Co Ltd., 30/38, Buckhold Road, London S.W.18.

This advertisement is appearing during January in Good Housekeeping, Homes & Gardens, House Beautiful, House & Garden, Housewife, Ideal Home and Woman's Journal.

The art of being seen and talked about

The first job of an advertisment is to be seen, the second to be talked about, the last, but not least, to sell the goods.

The advertisement on the opposite page is one of a series now appearing in newspapers and periodicals with a combined readership of 11,780,000. The *important* point is that many of this total are just those people now giving thought as to what method of house and water heating to employ. They are the people with the means either to build their own houses or to make structural changes to old ones. They consider a sound heating system to be a worthwhile investment and are prepared to go into the matter very thoroughly. They are the people who will talk about getting a 'Potterton', who are both able and prepared to accept the estimate for its installation. That is where this sort of of advertising must help you directly.

You probably know all there is to know about the 'Potterton', but if you would like your staff to be aware of the latest facts, figures and developments, we shall be glad to send you details of the practical instruction courses which are available at the Potterton Training Centre.

'Potterton' Boilers

OIL-FIRED OR GAS-FIRED

POTTERTON DIVISION Thomas De La Rue & Co. Ltd., 20/30 Buckhold Road, London, S.W.18. *Tel: Vandyke 7202.*

DL808

AMONG THOSE WHO HAVE PROVED THE EFFICIENCY OF THE COLT OIL-FIRED AIR HEATER ARE

Alexander Controls Ltd.,
Alfred Imhof Ltd.,
Anna Valley Motors (Andover) Ltd.,
Associated Portland Cement Manufacturers Ltd.,
Austin Hoy & Co. Ltd.,
Belling & Lee Ltd.,
Birmingham Aluminium Casting (1903) Co. Ltd.,
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Conallcrete Ltd.,
F. Coupe & Son Ltd.,
Consett Iron Company Limited,
Cow & Gate Ltd.,
Cowley Concrete Co. Ltd.,
Cu-Ni-Craft Ltd.,
Decca Radar Ltd.,
Dexion Ltd.,
Essex Tile & Concrete Co. Ltd.,
Esso Petroleum Co. Ltd.,
Everett, Edgcumbe & Co. Ltd.,
Firestone Tyre & Rubber Co. Ltd.,
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Varley—F.M.C. Ltd.,
Viking Marine Co. Ltd.,
Winston Electronics Ltd.,
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Heating by COLT

at MICROCELL LIMITED, CAMBERLEY, SURREY

For the heating of their new factory at Camberley, Microcell Limited required a method of heating which would combine the advantages of efficiency and economy with quick heat-up and flexibility to suit changing factory layout.

Thus they selected Colt equipment, installing 6 PJ.250 models.

COLT OIL-FIRED AIR HEATING HAS THE FOLLOWING OUTSTANDING ADVANTAGES:–

- Immediate delivery
- Lower installation costs
- Lower running costs
- Lower maintenance costs
- Qualifies as fuel economy plant under 1956 Finance Act
- Automatic firing
- Quicker heat-up
- Even distribution of heat throughout factory
- Sterilises air
- Complete flexibility—units free standing
- Heaters remain tenants' property—not fixtures
- Provides ventilation during summer-time
- No danger from burst pipes

Send for Free Manual on Colt Heating & Ventilation to Dept. L150/1

COLT OIL-FIRED AIR HEATER

COLT VENTILATION LTD · SURBITON · SURREY · Tel: ELMBRIDGE 6511 (10 lines)

U.S.A. Subsidiary: Colt Ventilation of America, Inc., Los Angeles.
Branches at: Birmingham, Bradford, Bridgend (Glam), Bristol, Dublin, Glasgow, Leamington Spa, Liverpool, London, Manchester, Newcastle-upon-Tyne, and Sheffield. Agents in: Australia, Belgian Congo, Belgium, Burma, Canada, Cyprus, India, Indonesia, Madagascar, Malaya, Mauritius, New Zealand, Pakistan, Portugal, Rhodesia and Nyasaland, South Africa, and West Indies.

G986A

No. II of a series

Who are we ?

JOE MURPHY as a boy was being constantly reminded that Joseph had a coat of many colours — a saying which became significant when he joined this firm in 1922 at the age of 16. Started by filling and labelling tins. Also had the illustrious task of fetching the men's beer each morning, which brought his income up another 1/4d. a week — a useful sum of money in those days. After a few years of this, he went on to the colourful art of Paintmaking. Much of it, of course, was made by hand in those days. Today, of course, modern equipment at SMITHSON has revolutionised the Paint manufacturing industry.

Today, Joe Murphy is solely responsible for the production of SMITHSON Distemper — a job he has been doing steadily for more than 25 years and which, he says, never fails to hold his interest.

Smithson

Regd.

Makers of fine Paints and Varnishes since 1790

A private, entirely independent Company devoted to good paint-making and really personal service.

THOMAS SMITH & SON LTD., 238-240 Whitechapel Road, London, E.1

Telephone BIShopsgate 3717-8-9

'Pudlo' Brand External Water Repellent is colourless and is entirely suitable for weatherproofing the external surfaces of all types of buildings, including houses, flats, agricultural buildings, offices, factories, public buildings, etc. Amongst its many advantages are the following:

- It will repel extremely heavy rainfall.
- It minimises efflorescence. When efflorescence is severe and continuous, the source of the moisture penetrating into the body of the wall should be traced and eliminated before applying the Repellent.
- It retards frost spalling, cracking and disintegration.
- It reduces deterioration of interior finishes.
- Exterior surfaces are kept freer from dirt and soot.
- Surfaces can be painted over if desired after the application of the Repellent.
- It may be applied at freezing temperatures provided the surface is dry.
- It does not clog the pores and thus allows masonry, bricks, etc. to breathe.
- It does not alter the texture, appearance or colour of the surface treated.

PRICES: INCLUDING PACKING AND CARRIAGE	
	1 GALLON 32/-
	2 GALLONS 62/-
	5 GALLONS 150/-

Write for full particulars, including the name of your nearest Ironmonger or Builders' Merchant stocking 'Pudlo' Brand Products to the makers:

KERNER-GREENWOOD & CO. LTD.
KING'S LYNN, NORFOLK TELEPHONE: KING'S LYNN 2293

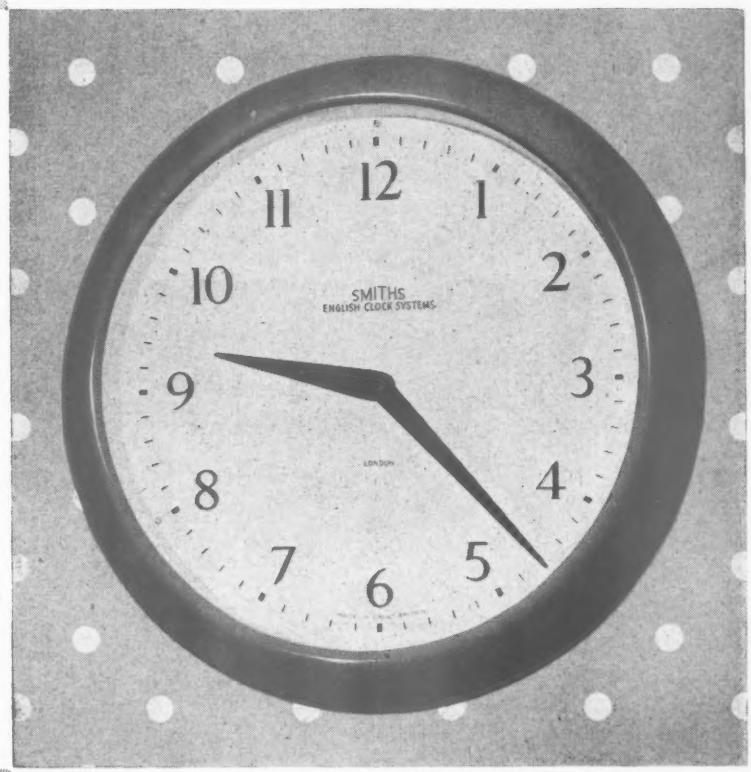
* 'Pudlo' Brand External Water Repellent is manufactured by the makers of the famous 'Pudlo' Brand Cement Waterproofer, which has been used and accepted as the leading Cement Waterproofer by the Building Industry all over the world for more than fifty years.

SMITHS

new service for the ARCHITECT & DESIGNER

Smiths Clocks and Watches Ltd. and English Clock Systems have combined to give a complete service to both Architect and Designer. All Wall Clocks in the new extensive Smiths and E.C.S. ranges together with 'specials' can now be ordered through the Architects' Service Department of English Clock Systems. Clocks can be either 'Sectric' or fitted with impulse movements for operation from E.C.S. Pendulum Master Clock.

Also available: the larger interior/exterior clocks, advertising clocks, time recorders, bell signal clocks, watchman's clocks, time switches and process timers etc. In fact, the new Architects' Service Department can supply the complete range of timekeeping equipment required for factory, school or office.



'SPECIALS' SERVICE

In case there is not a suitable clock for the particular requirements from the wide range available we can now produce to Architects' own specification from 6" Wall Clocks to the largest Tower Clock.

Flint FLUSH FITTING WALL CLOCK from the E.C.S. range. Black Perpetua numerals on a circular white dial. Simple tapered hands. Case of spun aluminium. Cream or White finish (any colour supplied at small extra cost). Stud and keyhole fixing. Complete with 6" wall box.
Dimensions: Dia. of face 9", 12". Overall dia. 10 7/16", 13 3/8", Projection from wall 1 1/8".
Surface mounted model **MONARCH** – hinged-type case – bronze finish. Also BERKELEY – Walnut finish Bakelite case – 6", 9", 12" dials.

INFORMATION AND LEAFLETS FROM THE ARCHITECTS' SERVICE DEPT.

ENGLISH CLOCK SYSTEMS*

BRANCH OFFICE & SHOWROOMS
IN MANCHESTER, BIRMINGHAM
GLASGOW & BELFAST

Head Office and Showrooms
179-185 GT. PORTLAND STREET, LONDON, W.1
Telephone: LANgham 7226

*A BRANCH OF THE CLOCK AND WATCH DIVISION OF SMITHS S. SMITH & SONS (ENGLAND) LTD.
GI198

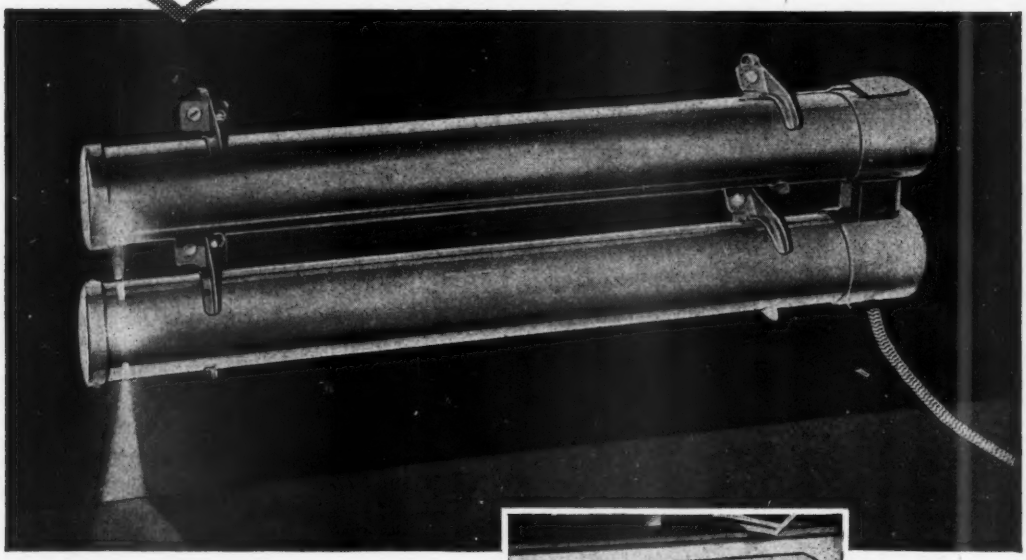
introducing..... a tubular heater with a PILOT LIGHT

(PATENT PENDING)

This new SIEMENS EDISWAN model

fills a long-felt need

The latest Siemens Ediswan heater fulfils the long-felt need for a tubular heater with a pilot light which gives visual indication that the current is switched on and the heater is working.



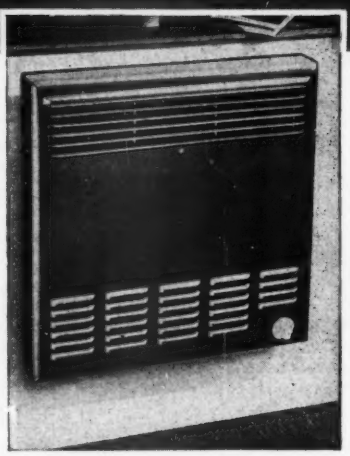
another from the Siemens Ediswan range

the **WAFER**

CONVECTOR HEATER

in the following sizes 500, 1000, 1500 and 2000 watt

— durable and trouble-free — wall-mounted and removable for easy cleaning



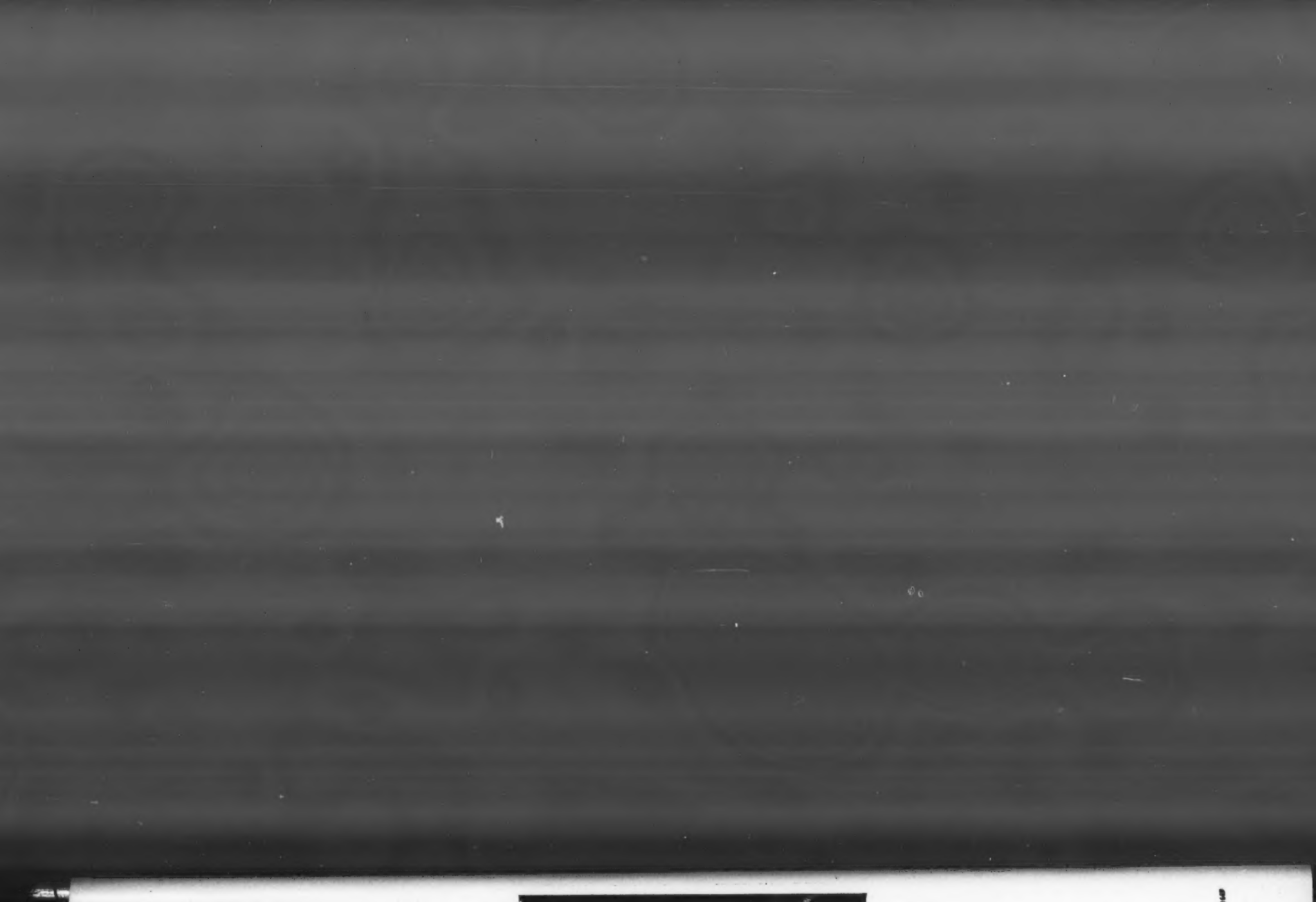
For full details, write for our new Space Heating Equipment leaflet DA5.

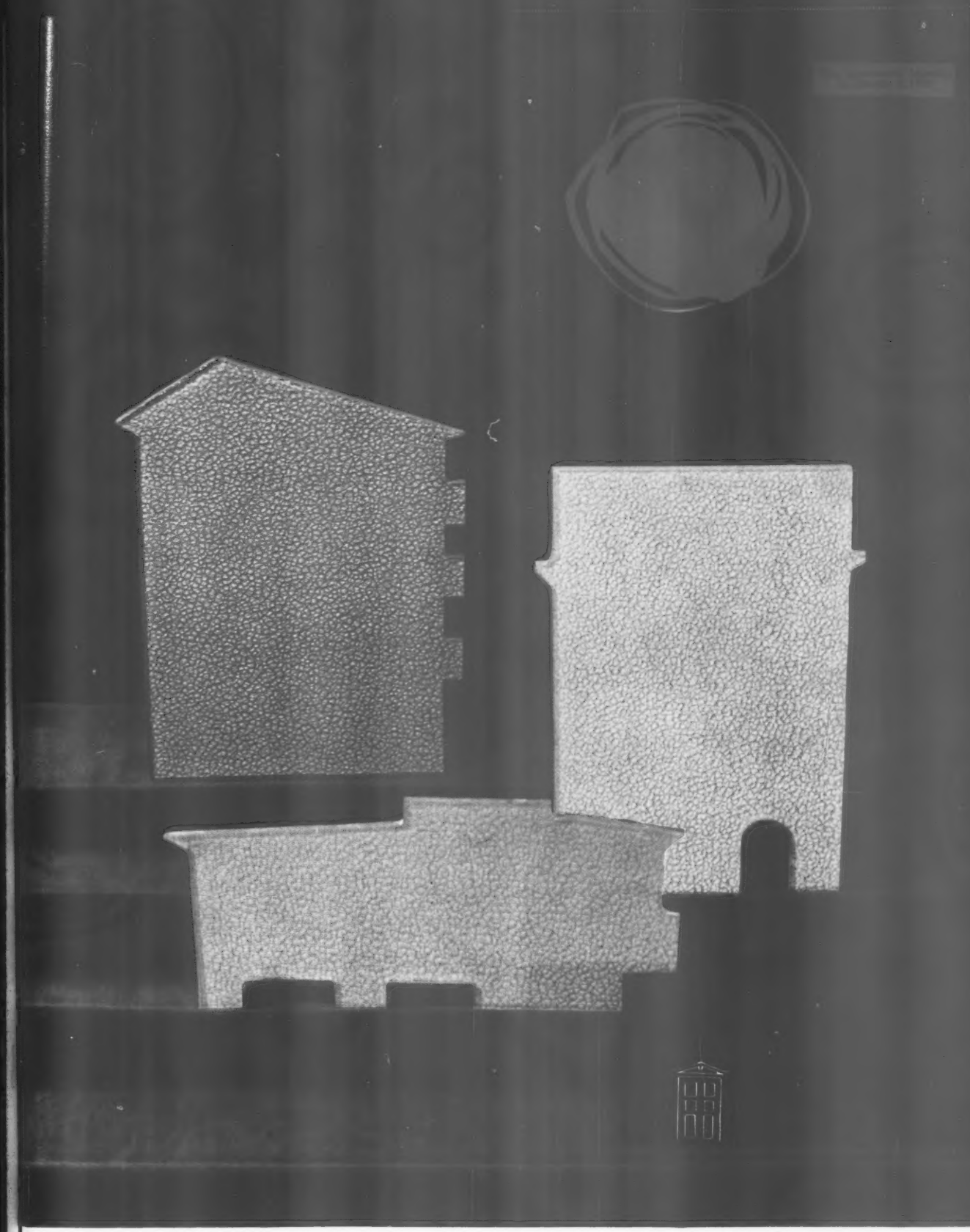
SIEMENS EDISWAN

SIEMENS EDISON SWAN LTD *An A.E.I. Company*

38-39 UPPER THAMES STREET · LONDON EC4 · *25 branches throughout the country*

TA 1164





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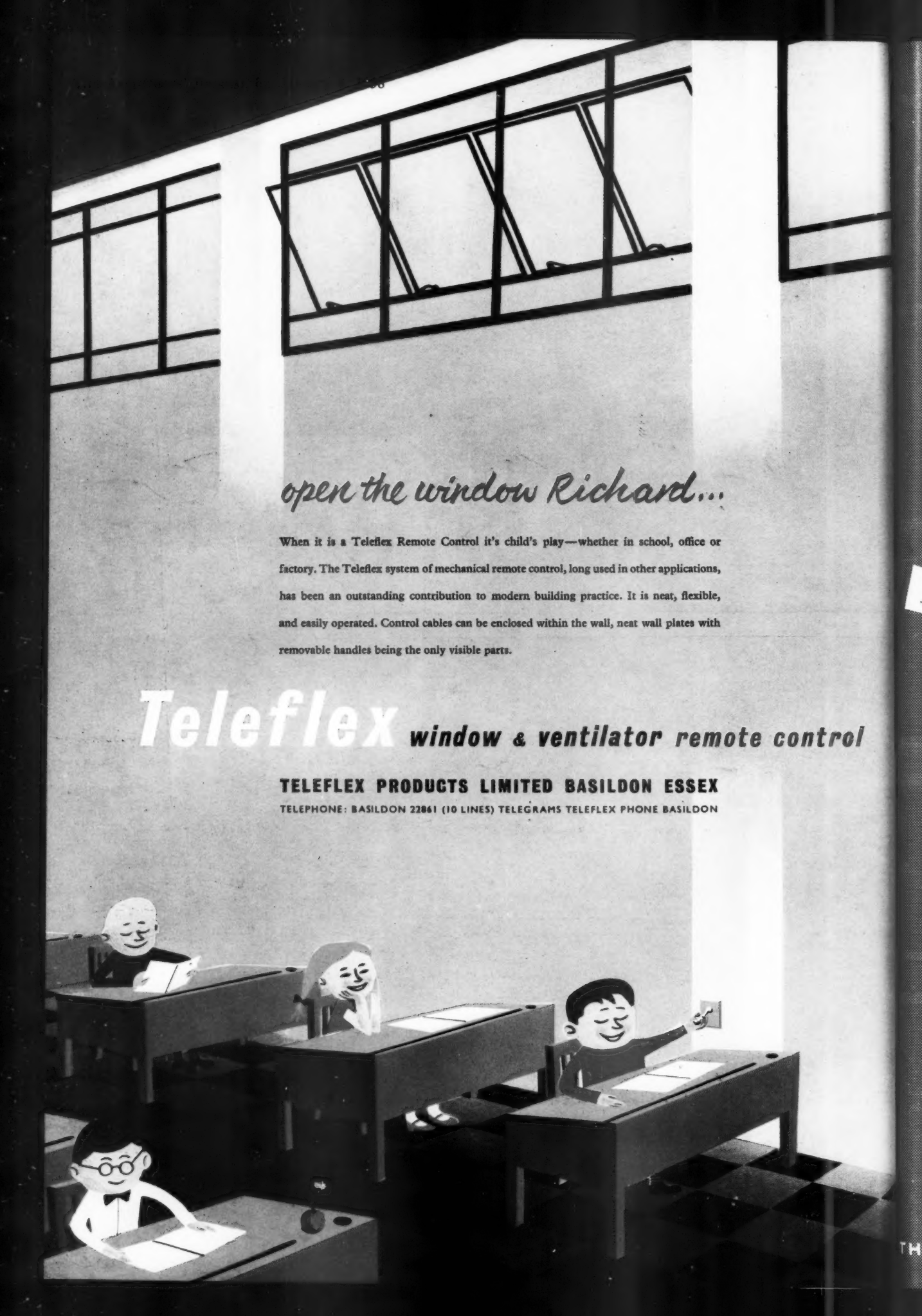
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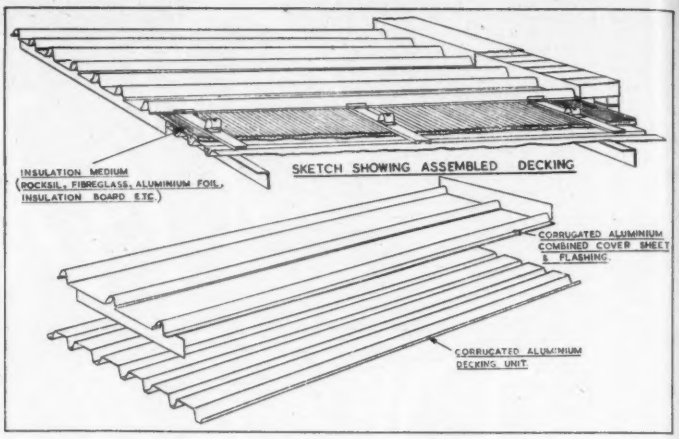

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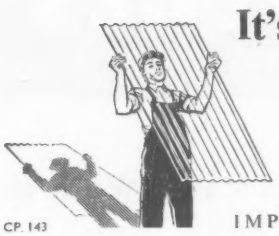

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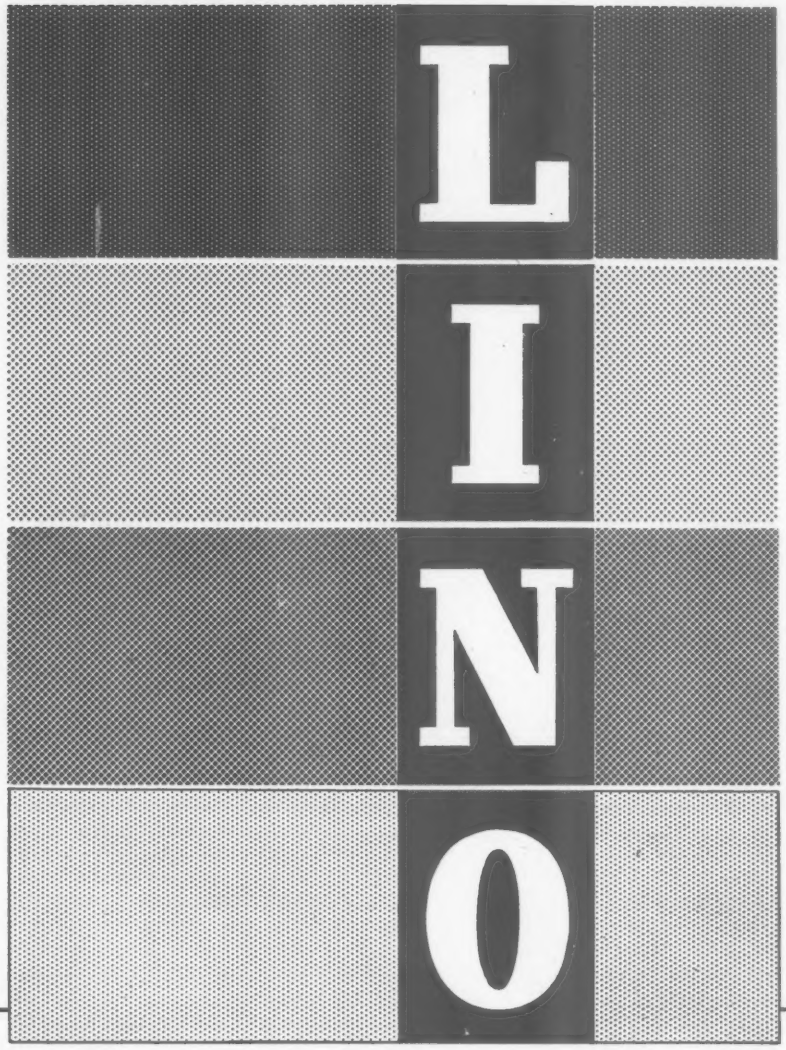

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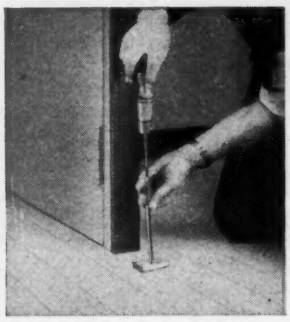
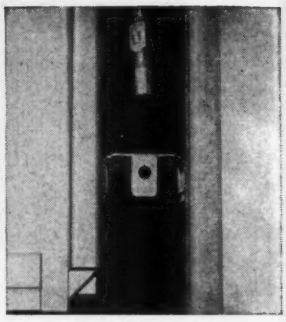
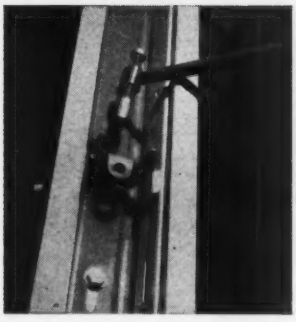


1 Two steel sole plates for each unit of partitioning are screwed to the floor with wood screws.

2 The 40" wide, modular units are bolted to the sole plates. All units are interchangeable.

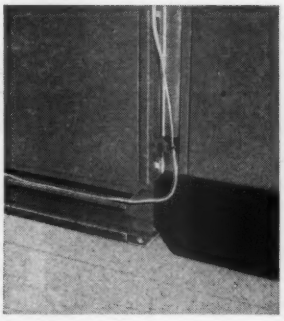


3 Five link plates, at 15" centres, drop into ready pressed out pockets and fix each unit to the next.

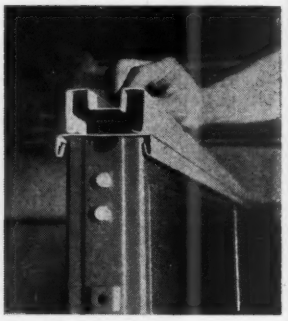


4 Link plates are also used for 3-way fixing — but in this case they are finally bolted in for extra strength.

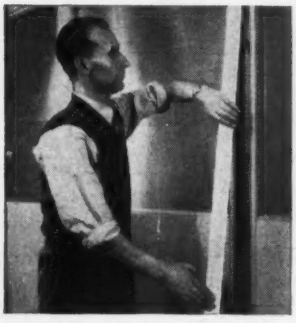
5 The 40" wide modular door frame, linked in with the rest of the system, is firmly anchored at the foot by a cleat.



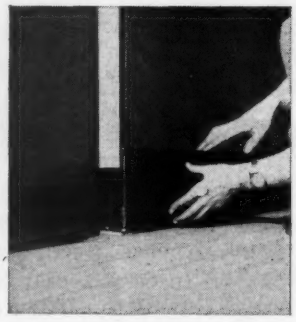
6 Electric wiring runs down between partitioning units and along specially provided channels at the bottom.



7 A head channel, cold rolled like all Roften Modular Partitioning sections, finishes off the top of the free-standing screening.



8 Pilasters are clipped on to the notches of the link plates to finish off the joins between units.



9 Skirting is clipped on to the bottom of each unit. Plinths cover the joins in between.

10 Four rubber-buffered glazing beads clip in. Special beads are available for double glazing.

11 Any type of 32 oz. glass slips into the opening, followed by the second set of four glazing beads.

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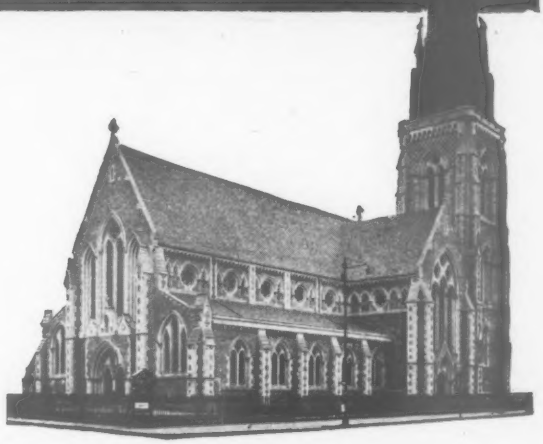

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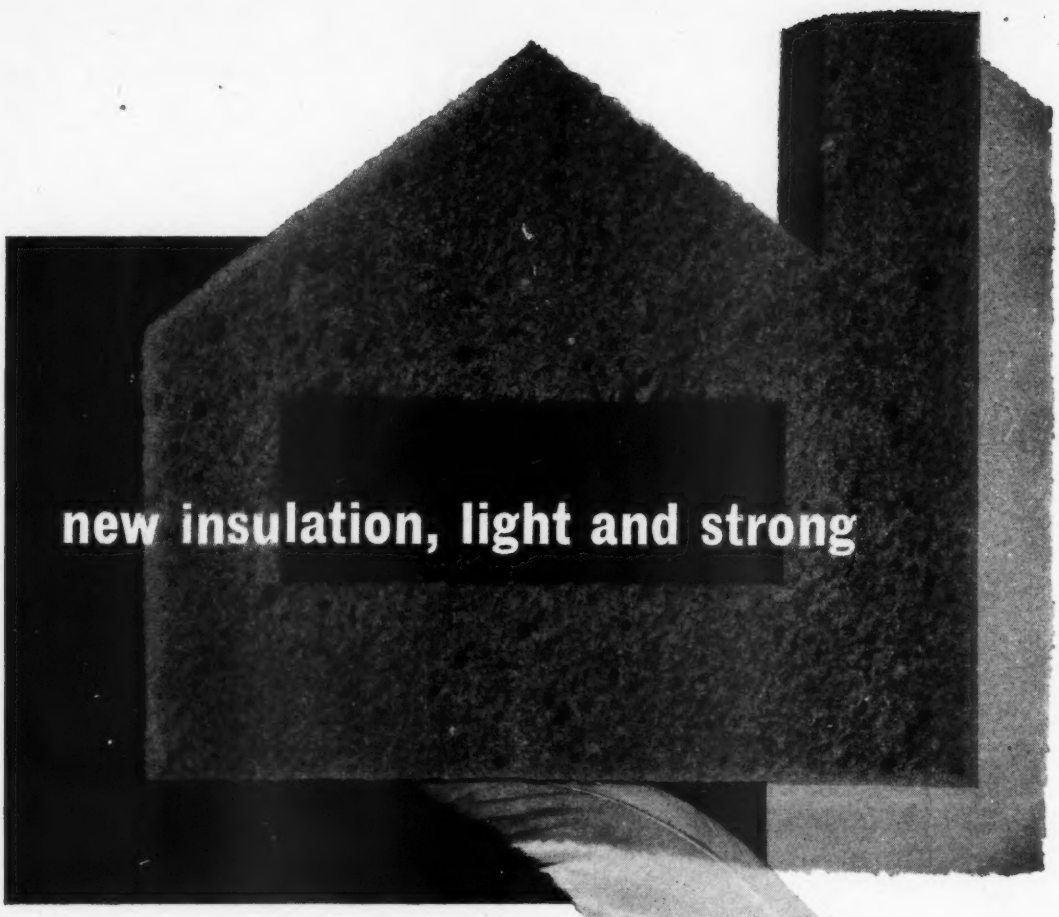

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THE ARCHITECTS' JOURNAL

No. 3280 Vol. 127 January 9, 1958

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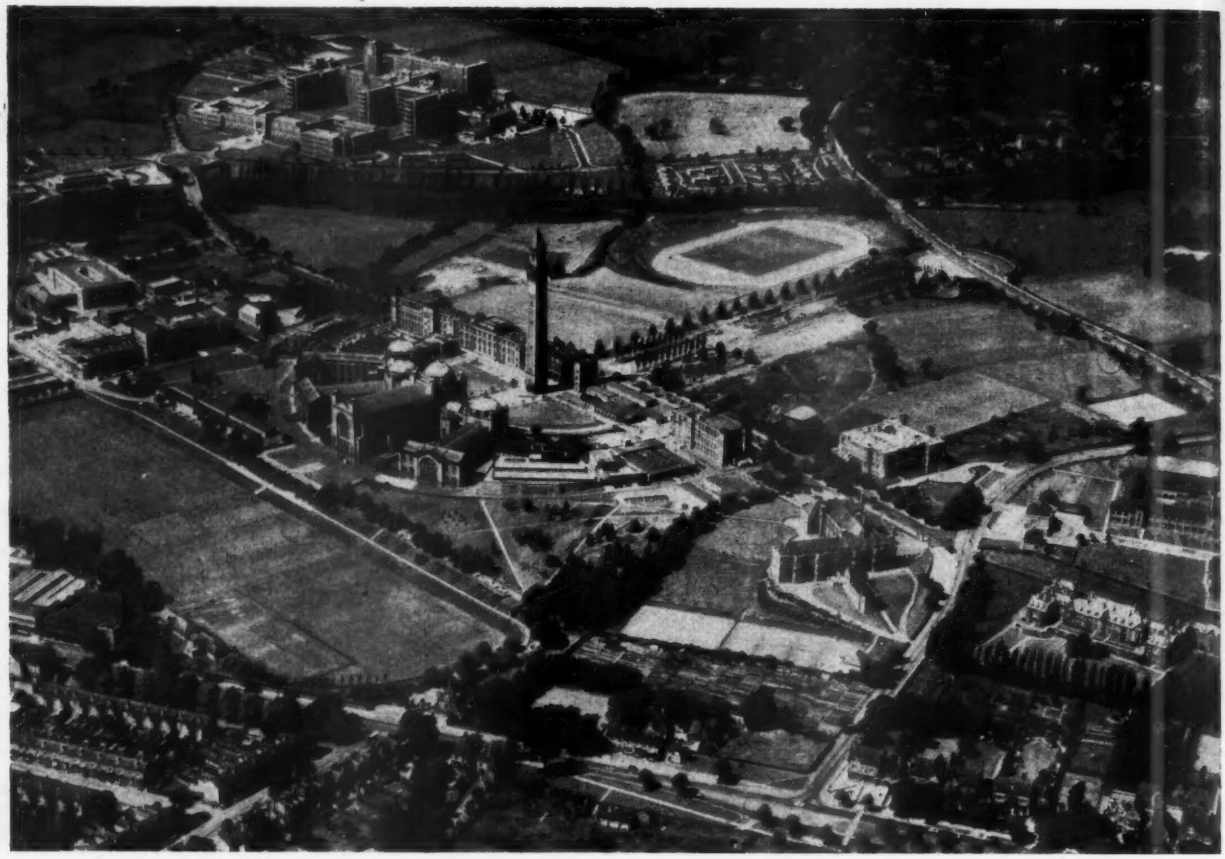
BRITISH UNIVERSITIES: 2

This week we conclude the JOURNAL'S *survey of British universities. Last week the universities of London, Wales and Scotland were described. This issue deals with the remaining English universities. In every case the attempt has been made to give a brief account of the problems of the university as regards its physical environment, to illustrate typical post-war building and some examples from the future building programme, and to indicate some of the problems and dangers which confront the universities.*

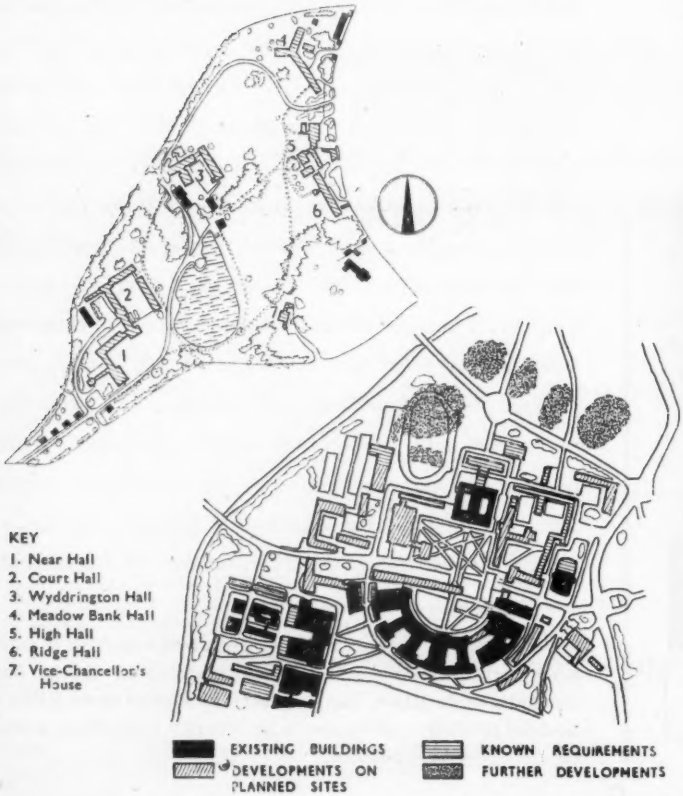
The overall picture which is revealed by this survey is not a very encouraging one. Obviously, far too many universities have delayed until too late in preparing a development plan—indeed, some have still not done so—and many of the plans prepared are only bare zoning proposals and are not the three-dimensional plans which are so essential before design details can be thoroughly worked out. If it is fair to describe universities as the country's repositories of learning, it is obvious, too, that a large number have not learnt enough about architecture and planning. Although some are using modern architects, they do not necessarily appreciate the full meaning of modern architecture. Many appear to think of it merely as a style which is more fashionable than the traditional styles. They do not yet appreciate—and it is up to the younger members of the profession to bring this home to them—that they cannot get the efficiency of performance they require from their buildings, at a price they can afford, save by accepting modern, functional, architecture. The survey and research for most of this week's article was undertaken by Elisabeth Beazley, A.R.I.B.A. *Articles on some individual universities were by Lionel Brett and the editors.*

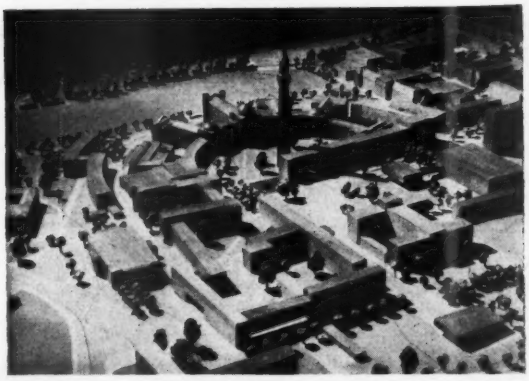
NEXT WEEK: **Space does not permit us to publish a most important statement which has been prepared by the ad hoc committee of the RIBA. This, together with a report on the RIBA's financial problems, will appear in next week's issue which is also the AJ's New Year Number.**



Birmingham University

Birmingham University from the air, with the medical school and Queen Elizabeth hospital in the background. The main entrance is on the right foreground, with on the left the Students' Union and beyond, the Barber Institute of Fine Arts. Sir Hugh Casson's and Neville Conder's proposals for developing the formal layout started by Aston Webb are shown in the plan, left, and in the view of the model, below. Also on the left is Sir Hugh Casson's and Neville Conder's proposals for the university residential area, which lies to the north of the main buildings. The plan shows several halls of residence set in flowing parkland.





Birmingham University has grown from the Mason Science College, a grim and rather unlovable Victorian Gothic building (*circa* 1875) in the middle of the city which is still used by the university but is due to be demolished when the city's centre is redeveloped. The major portion of the university moved to Edgbaston, three miles to the south west of the centre, in the early 1900's and is largely housed in a formidable, vaguely oriental array of domed and turreted buildings—in the appropriate harsh red brick—designed by Sir Aston Webb. The long.

vaguely dumb-bell shaped site of 400 acres, is fringed by industrial development to the south, but is shielded from the surrounding suburbia by King Edward's school and a golf course to the east and the open grounds of the Queen Elizabeth hospital and the attached Medical School to the west. The ground is gently undulating and in parts well wooded.

The original college was founded to serve the needs of the Midland's industries, hence the bias in favour of science, but the university's influence is now international rather than regional. It is sufficient to note the work done on nuclear physics, on the development of radar and of artificial silks to be aware of the very great contribution in original research made by this, one of the oldest and most influential of the provincial universities.

In 1900, when the Mason College received university status it had about 1,000 students. Today there are 3,500. This figure will increase during the next five years to 4,600 or possibly 5,000. Of the present 3,500 students, 2,000 are in lodgings, 1,150 live at home, and a mere 350 in halls of residence. The university's aim, however, is to build sufficient halls to enable all students to have at least one year in residence. There are four existing halls, which also provide accommodation for from one to four unmarried members of the staff. The university's physical relationship with the city results in a great deal of travelling to and fro on the part of the students. To encourage students to spend as much time as possible at the university a fairly lavishly equipped student's union building has been provided. Nevertheless the students' tendency to use the university only during normal working hours and to go home early is exercising the authority's mind.

The top half of the dumb-bell site has been planned by Sir Hugh Casson and Neville Conder for halls of residence, and it is the university's hope that small units can be developed for students, graduates and staff so that the essential informal exchange of ideas between the members of the university can readily take place.

The existing university buildings can best be described as solid, worthy, and unimaginative. In the centre is Aston Webb's two-thirds completed, rigidly axial group. This stands on the brow of a hill and, with its Sienna-style campanile, dominates in a sombre, institutional manner, the surrounding area. Webb's layout formed a D on plan, with wings radiating from the curve. Part of the vertical stroke of the D and two of the radiating wings have never been built. On the axis a formal avenue was laid out before the war to form an imposing entrance. As the imposing entrance gates were sited on a relatively minor road the result was a mild anti-climax. The axis, and the avenue, has now been blocked by the library building now under construction. A considerable amount of infilling, in the form of huts and factory structures has taken place between the radiating wings and in other conveniently accessible corners.

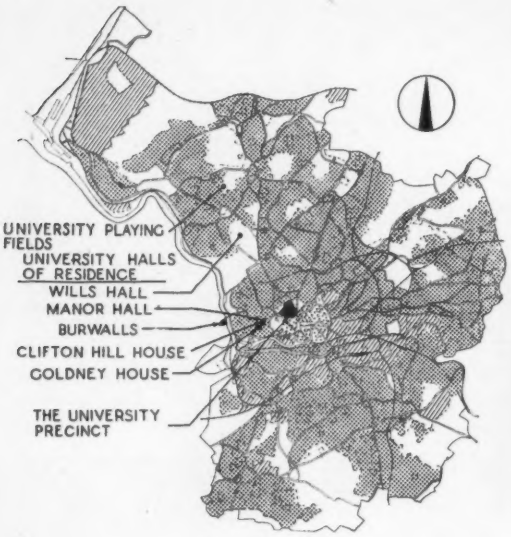
No doubt it was through realizing how much this inadequately planned development was creating a sordid and inefficient environment that the authorities appointed Sir Hugh Casson and Neville Conder to prepare a development plan for the university. This was no easy task. A number of new buildings (one or two of which are promising, such as Playne and Lacey's chemistry building), are now going up, to a total value of over £2 million. The site is cut in two by University Road, and Webb's fatally rigid unfinished plan will require immense skill to prevent it looking oddly and permanently incomplete. Casson and Conder are planning all the halls of residence for the northern end of the mile-long site.

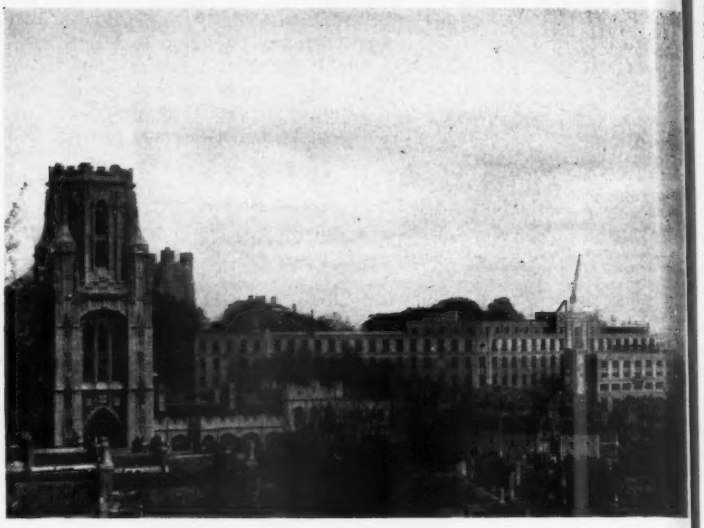
All the evidence suggests that Casson and Conder will produce an agreeable solution to the present unsatisfactory layout. It is to be hoped, however, that the university will ask Casson and Conder to do more than a planning job, and give them some actual buildings to design so that the virtues and efficiency of modern architecture in a modern setting can be adequately and conclusively shown.

The sketch, above, of the Casson-Conder scheme looking parallel with the Webb axis, marked by an avenue in the aerial view but now to be blocked by a library.

Above is a chemistry building by Playne and Lacey. It is sited alongside the east-west road which crosses the campus.

Off to the right in the aerial view is the university's site for halls of residence. Sir Hugh Casson and Neville Conder have prepared a layout plan for this area, and the sketch above shows a hall, in the form of a tower block rising amongst trees on the far side of a lake. An extension of this lake, under the bridge, leads to the site of a group of administrative and recreational buildings serving all the halls. The group, shown below, has the scale and character of a village. (*See the* JOURNAL *for October* 31, 1957.)





Bristol University precinct, with Oatley's Gothic revival tower on the left and the enormous range of engineering buildings beyond, designed by the firm of Messrs. Oatley and Brentnall.

Bristol University

Education in Bristol has a long history; several schools and institutes date back to the sixteenth century. The university college was opened in 1876 and it achieved university status in 1909. It was in 1913 that the Wills family gave the money for Sir George Oatley's Gothic revival university buildings dominated by the famous tower.

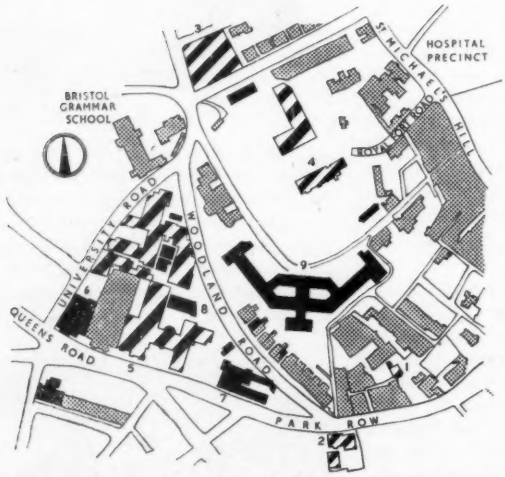
In the City Development Plan an area, with this building as its southern base, is shown as the university precinct. It is a fairly steep sloping site, falling towards the south, with a commanding position over the centre of the town. Park Row and Queen's Road—its southern boundaries—follow the contour round the rising ground and give access to the original hub of the university. To the west is an area zoned for shopping, north of which lies the Grammar School. North of the precinct is a residential area, and to the north-east is the hospital precinct. This is separated from the university by St. Michael's Hill. This steep street has great architectural value as a whole, and it is to be hoped that it can be preserved. This the university intends to try and do.

At the end of the last war the university owned about one third of the property in the precinct; a policy of buying-up the remainder is being carried out with the city's co-operation.

At the time of the preparation of the City Development plan, Sir Percy Thomas and Partners were asked to prepare a scheme for the precinct, but apart from the siting of the new engineering block this scheme is only being followed in general, with modifications in the layout of individual buildings. There is now no consultant architect, but Messrs. Oatley and Brentnall have done all major work for the university.

The original triangle (University Road/Woodland Road/Queen's Road) is entirely built up with faculty buildings and refectory so any future major development must take place in other parts of the precinct.

The major project completed since the war is the new engineering building. It follows the contours in three main but undivided sections round the hill; each one of these is itself nearly as long as the frontage of the main university building on Queen's Road. Its plan (somewhat reminiscent both in size and shape of something in inter-planetary warfare) means that at least two-thirds of it can generally be seen from any distance and this makes one particularly aware of its scale when compared with the existing buildings. However, the colour of the materials is sympathetic to its surroundings. The views from inside the buildings are carefully thought out, but those from the Royal Fort House garden must have been lost as the new building tends to wall this in. It is to be hoped that the new medical school which is to go between St. Michael's Hill and the Engineering School will be more sympathetic. This build-



A plan of the university precinct, showing pre-war buildings hatched and post-war buildings solid black.

KEY
1. Original medical school (1833)
2. Original University College (1876)
3. Hiatt Baker Botanical Gardens (1916)
4. Royal Fort House (1917)
5. Main buildings: art, law (1925)
6. Refectory (1949)
7. Veterinary school (1950)
8. Biological chemistry (1951)
9. Engineering (1951)

ing is still at an early stage so plans are not available. Perhaps the most forward piece of thinking to be seen at Bristol is the district heating scheme which will serve both the hospital and the university.

The university would like to continue their residential tradition in spite of the increase in student numbers; 1939: 900 students, '47: 2,064, '55: 2,767. The present figure, which is approaching the 3,000 mark, is what had been considered desirable by the university if they were to revive their residential tradition. This year there are about 700 students in residence so there is a long way to go before they are even 50 per cent. residential. However, the university have land for development in the grounds of their existing halls. Wills Hall (for men), built before the war in the quadrangular tradition, is a most successful straight revival. Other new halls are less successful in avoiding the hostel atmosphere. The converted houses often have fine grounds; Goldney is quite exceptional in this respect, and being only half-a-mile from the university is easily accessible for outdoor functions and parties. It also has a splendid grotto (what other women's hall can boast of that?). There are no halls proposed for the precinct, which seems a pity, as there might be space to the north, but the group containing Goldney is reasonably near for students to return to lunch in hall or to the university after dinner.

These are relatively small details. The real worry to an outsider appears to be the disposition of buildings in the main precinct. What form will they take and where will they go?

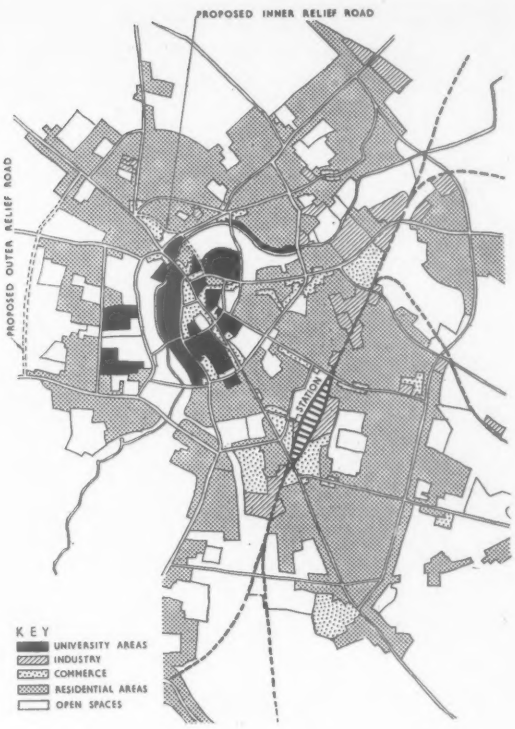
Above, veterinary laboratories at Langford and, below, the Churchill hall of residence, both designed by Messrs. Oatley and Brentnall.

Buildings completed since 1945 or in progress

Veterinary laboratories (approx. cost £90,000); *School of Engineering* (approx. cost £1,350,000); *Laboratories, surgery wing and hostel at veterinary field station* (approx. cost £170,000); *Churchill hall for men* (approx. cost £240,000). Architects: Oatley and Brentnall. *Glasshouses and laboratories* (approx. cost £80,000); *Long Ashton Research Station*. Architects: Eustace H. Button and Partner.

Projected

Medical school (approx. cost £1,200,000); *Chemistry laboratories* (approx. cost £70,000); *Goldney House for women* (approx. cost £225,000). Architects: Oatley and Brentnall.

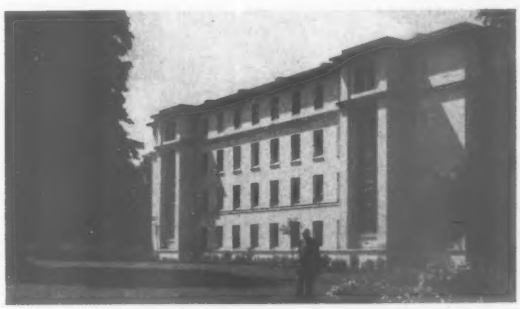


Cambridge University

Cambridge University some time ago advanced to the stage of seeing the necessity for having their own development plan. They have not yet, however, produced one. On the other hand they disagree, apparently, with some of the proposals put forward by Sir William Holford which are now the basis of the County's plan for the development of the city. (The city is a non-county borough and therefore has no powers to prepare and submit a plan.)

It is remarkable that a city such as Cambridge did not object when the planners decided that she should be limited in growth. This decision was made because the planners felt that expansion would result in a less efficient university city, and others might agree that it would also probably result in a less beautiful city. The city, for the sake of the university, is accepting the limitation of its chances of growing larger and wealthier.

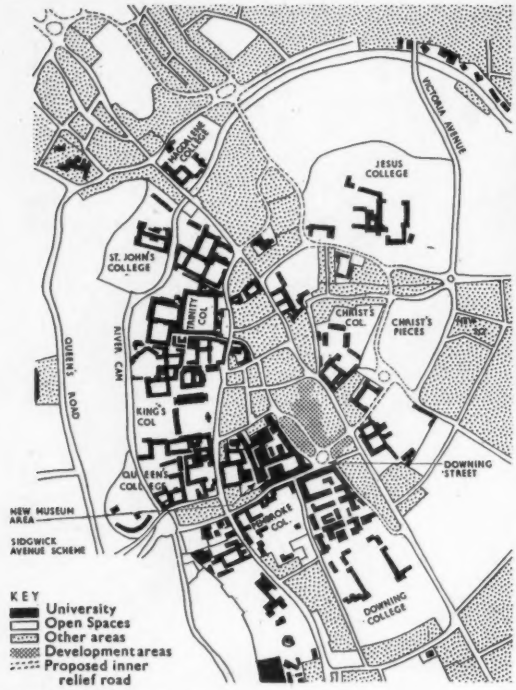
Although Cambridge is becoming increasingly a regional centre, every endeavour is made to persuade minor



A post-war extension to Christ's College by Sir Albert Richardson.

industry and surplus population to settle in the surrounding villages rather than in Cambridge itself, and the major industries have agreed to make their necessary expansions

Cambridge University: continued



Plan of the University Precinct.

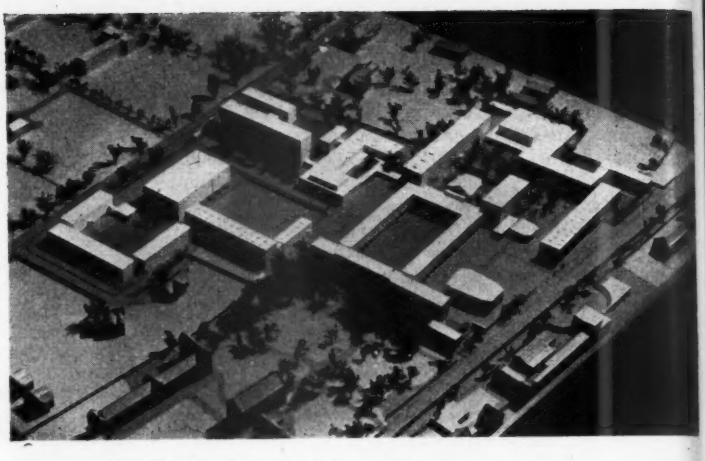
in other towns. There will therefore, be no Cowley for Cambridge. And, presumably none of the concomitant financial advantages Oxford has received from Lord Nuffield. Cambridge University seems to be prepared to forgo such a possibility. Some consider that Oxford has paid dearly for the financial gain. The university even hopes for a reduction in industrial work in Cambridge, as it would ease their difficulty in finding staff.

This gesture of size restriction is remarkable only in that no one knows whether a town can be kept permanently to a planned size. The alternative to growth may be decay —or is tradition imperishable?

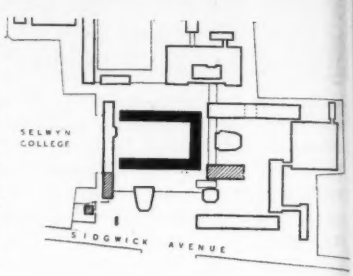
At any rate, the policy of size limitation is effective. It was started in 1950, and the last two years have shown that the growth has been arrested. However, not all agree with this limitation of size, and members of the university have said they would certainly create more colleges if the money was available, and the university's planning adviser sees no reason why the city should not be allowed to expand, provided that the expansion is properly planned.

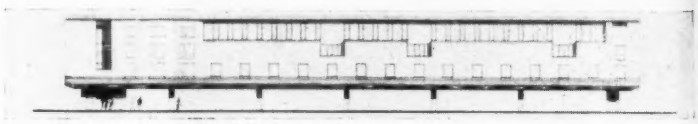
Chemistry laboratory in Lensfield Road, designed by Easton and Robertson.

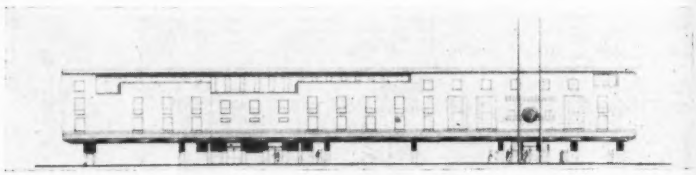
So those who fondly imagine that all the university, at least, are happy that there is no chance of the university becoming a part of a large industrial town are deluding themselves. It seems only the county planning authority can be relied on to advocate limited growth. The *city authorities*, incidentally, are, at the moment neutral. An ominous situation.

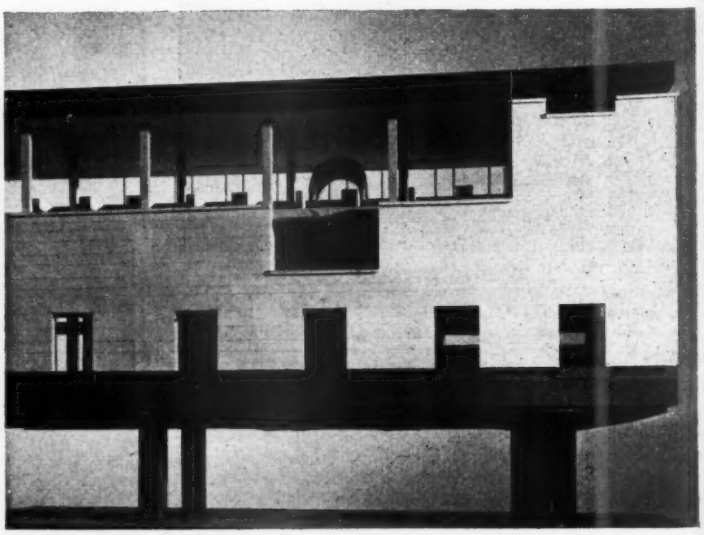


Above, a model for the proposed Arts buildings off Sidgwick Avenue, designed by Sir Hugh Casson and Neville Conder, and, right, a plan of part of this area, which is the development plan for this site and was made in 1952. The buildings shown shaded are now under construction. The raised building (black on plan) was designed in 1956 and is to start building early in 1959. The building houses the Faculties of English, Moral Science, and Modern and Mediaeval Languages, together with seminar rooms and studies which are not attached to any one faculty. Right, a sketch of this building from the south-east, and below, and centre, below, the north elevation of the north wing and the south elevation of the south wing. Bottom, a sketch model showing part of the north wing.

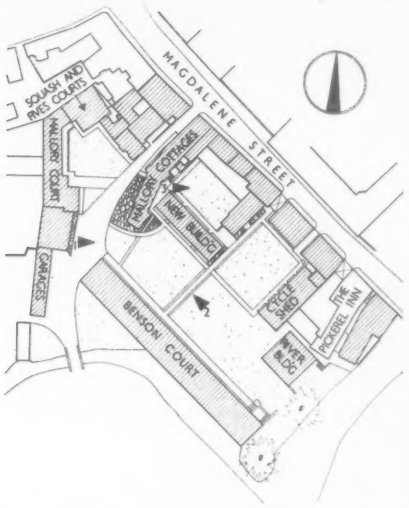








Above and left, three views, shown on the plan below, of new, restored and converted buildings for Magdalene College by D. Wyn Roberts.



Cambridge University today has 8,300 students. It receives over £2 million per annum from the Treasury, and gets another £1½ million from the Colleges, as fees, and from investments, and endowments. It cannot control the student intake. This is the responsibility of the Colleges.

The planning of University development is largely the responsibility of the Finance Board. It now includes Professor Sir Leslie Martin, and the Board is now engaged in tentative development plans for as far as thirty years ahead.

The University only partly accepts the recommendation of the Holford-Myles Wright plan that University expansion should be, in the main, to the west. It is here that the new Arts buildings (which will, in the end, cater for 4,000 students) are being built at Sidgwick Avenue (architects: Sir Hugh Casson and Neville Conder). This scheme will satisfy all foreseeable Arts Faculty needs for some time.

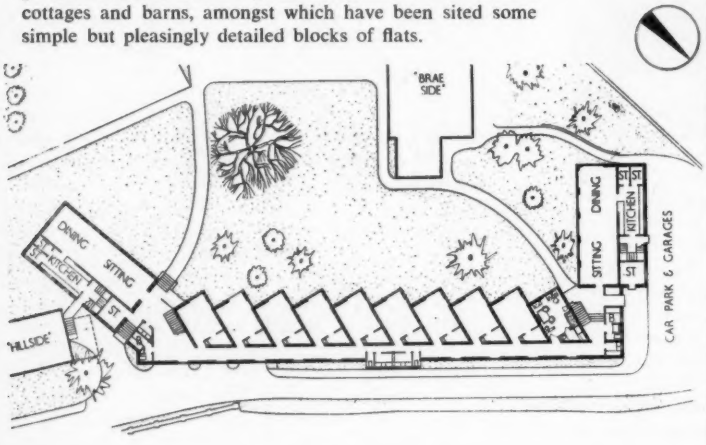
Two areas in the centre, however, are becoming due for reconstruction. The first, and most urgent case is known as the New Museum area. It is east of Trumpington Street and north of Pembroke College. Although part is solidly-built Victorian stuff, and some relatively new, the site is hopelessly congested and many of the buildings inefficient. A sub-committee of the Finance Board is now preparing a comprehensive plan for the area. The rebuilding will, of course, be a lengthy process, extending for up to 15 years. The other area in the centre shortly to be redeveloped is between Downing Street and Downing College. The University area is slowly extending westwards—an area largely owned by the University, and by Jesus, St. John's and Trinity Colleges. This will eventually make Queen's Road as important a north-south route as the present St. John's and Trumpington Streets. The University therefore approves of the plan to remove the present heavy traffic from it by building an outer relief road further still to the west. The university does object, however, to the proposed inner relief road to the east of Sydney Street and Bridge Street. They object on two scores. First because the new road will cut through Christ's Pieces and a small portion of Jesus College, but also because they claim that the road will encourage, rather than relieve, congestion in the centre. The official plan proposes the comprehensive development of an outworn area just east of the New Museum area referred to above. This development will include a large three-storey car park. When redevelopment, as envisaged, with large shops this area will meet the demand on Cambridge as a regional shopping area. It might also, as the university claim, increase congestion. Though eventually it is intended to make the central area a pedestrian precinct. The university proposes that, as the bulk of the population lives to the east of the city, a new shopping centre be started around New Square, east of Christ's Pieces (an area largely owned by Jesus College, incidentally) and that the inner relief road be run on widened existing roads to this area and north along Victoria Avenue. The planners object that this would not function so well as regards traffic needs,

Cambridge University: continued

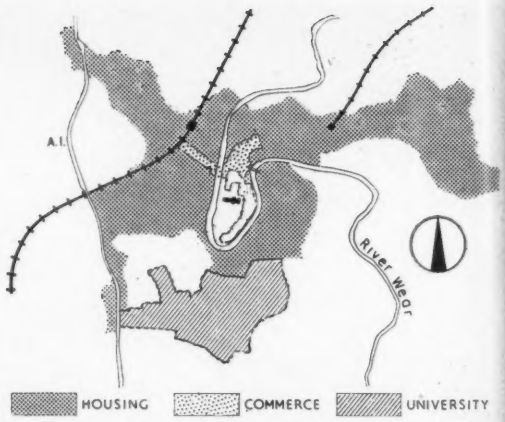
and that it would be impossible to start a major shopping centre in rivalry with the existing centre. The university would like to see the proposed development area used for civic buildings of which the City is notably deficient. The university's feelings on these issues, which are technically not their concern, are such that they are retaining Dr. Thomas Sharp as a consultant to advise on the problem.

Shortage of university-owned sites in close relationship, and lack of an appreciation of the need for planning has meant that in the past university buildings have tended to get higher and bulkier. Slowly the skyline in the centre has crept up and up. The latest example of this is Easton and Robertson's laboratories in Lensfield Road. These are in part, 6-storeys high, and, it would generally be agreed, are too massive. The county refused permission on these grounds, but were over-ruled. The alternative of building towers, rather than slabs, might well be studied by university and college planners. They would punctuate, rather than merely raise, the skyline but not necessarily with the phallic outline of Scott's New Library stack. In this connection it is interesting to learn that one college, Jesus, have approved the erection of a 15-storey block of flats nearby (architect: Eric Lyons).

As has been pointed out elsewhere there are no notable post-war buildings in Cambridge, although the Sidgwick Avenue scheme of Sir Hugh Casson and Neville Conder promises to be Cambridge's redemption. There has been, however, on a much smaller scale, some excellent work carried out by D. Wyn Roberts for Magdalene College and Clare College. The former, as the illustrations on p. 43 show, is a brilliant piece of reclamation of derelict cottages and barns, amongst which have been sited some simple but pleasingly detailed blocks of flats.



Proposed lodging houses for Clare College by D. Wyn Roberts.



Durham University

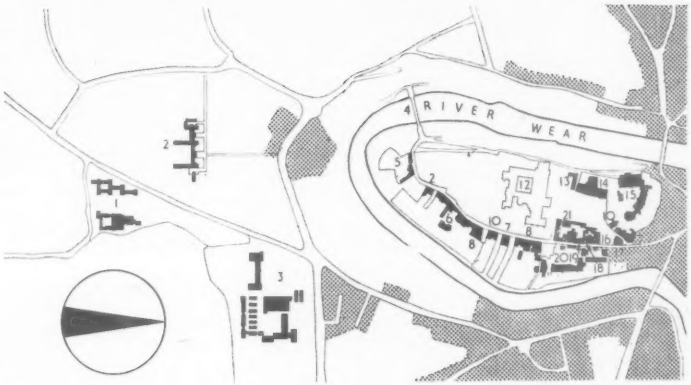
In spite of many earlier efforts to found a university at Durham, this did not actually happen until 1832 when the Bishop, Dean and Chapter provided funds and also gave the Castle for university use. This meant that during the next 100-odd years the university developed on the cathedral promontory.

Today the university consists of two divisions—Durham and Newcastle.

Durham has like everyone else an expansion problem, but it must be almost unique in deliberately planning for a split. There really is no alternative. All the older colleges and faculty buildings are on the cathedral peninsula; a more splendid site for a university would be hard to imagine. The rock, bounded by a loop of the river dominates the town and is crowned by the magnificent cathedral. Palace Green, which is really the heart of the university precinct, is also the forecourt of the cathedral which forms its south wall. To the north lies the castle, and on each side lower buildings such as the library, lecture rooms and other faculty buildings in ancient stone or mellow brick. Other university buildings occupy the Bailey and take the whole of the promontory where it is not occupied by the Church. There just is no site for major development.

The approach to the university up Owengate must be one of the most dramatic in the country. The narrow road climbs in a gentle curve, revealing by degrees the two west towers of the cathedral, then the upper part of the nave, and finally the whole of the north side appears as a backcloth to Palace Green framed by buildings at the top of the street (one of these must be one of the most sensitively sited public lavatories in existence). This approach and group of buildings is one of the finest things in England and is more than a university heritage. There must be times when the university wish they were in the heart of an industrial city, free from historical obligations, and it must be sentiments such as these that gave rise to vague ideas to straighten out Owengate (easier for motor-coaches). One must sympathize with people who have the responsibility of buildings which have been allowed to fall into disrepair, but which the general public feel should be preserved. Theirs is no easy job, and they deserve all the support (moral, advisory and financial) that can be given. It is the line and mass of the buildings that matter. *If* the experts are forced to the conclusion that restoration is out of the question in any individual case, it is possible to imagine a satisfactory sympathetic contemporary solution (rather than a slavish copy) in an area that is already a history notebook of succeeding styles. But it would have to be very good indeed.

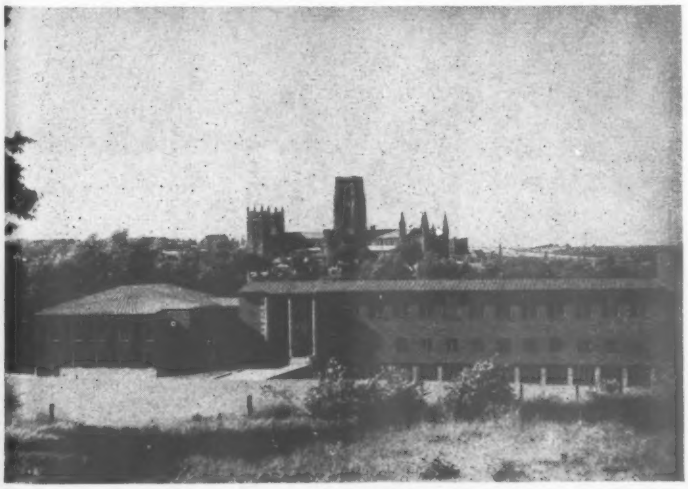
Above left, Owen Gate—the dramatic approach to the University. Above right, an aerial view of Durham, with the university buildings around Palace Green in the foreground. In the distance, right, can be seen part of the science wing on the low ground across the river. To the right of it has since been built the new wing for the departments of Mathematics and Geography, designed by Professor J. S. Allen. The reverse view, with Professor Allen's block in the foreground, is below, showing the new building in its relationship with the cathedral. Professor Allen's building is the most distinguished example of post-war university building so far completed in this country. Regrettably, and unaccountably, he has been given no further commissions.



Right, a plan of the university area:

KEY

1. Men's New College
2. St. Mary's College
3. Science
4. Prebends Bridge
5. St. Cuthbert's Society
6. St. Johns College
7. Hostel
8. St. Chads College
10. St. Aidan's Society
12. The Cathedral
13. Divinity House
14. Union Society and Library
15. The Castle
17. English Dept.
18. University offices
19. University College
20. Hatfield College
21. Lecture rooms



The Durham division is organized on the collegiate system like Oxford and Cambridge and it is important to judge its planning problems against this background. Student numbers in the university have risen from between four and five hundred before the war to 1,375 today which means that their accommodation is stretched to the utmost. During the next 10 years they may have to increase to 2,000, which since the digs situation is saturated and they want to maintain their residential tradition, would mean finding close on 700 places in colleges. The answer adopted is to build science buildings and new colleges to the south of the peninsula on the ground across the river.

A plan was made for this area after the war by Professor Allen. This has not been adopted but the principle of development of buildings in parkland is being followed, but the area involved is to be restricted to that part of the original site nearer the cathedral. This seems reasonable but unfortunately no consultant architect has been appointed, nor is there a current development plan.

It seems particularly difficult to work satisfactorily with-

Durham University: continued

Above, St. Mary's College, and Hatfield College, below, designed by Vincent Harris.

out one; the relationship between the various colleges and between the science buildings both existing and proposed is most important in itself, but their collective relationship to the cathedral which dominates the whole landscape is even more important. It is hoped that as soon as student numbers are settled some plan will be produced.

There will, of course, be a tendency for arts men on the peninsula to become separated from the scientists in the valley but since the university pattern is collegiate this is not of such importance as they will automatically mix out of working hours. The Union too, is simply a debating society, as at Oxford and Cambridge and therefore its geographic position is not so vital as it would generally be. One difficulty will be the distance from the further colleges and science buildings to Palace Green. It is a very pleasant walk across Prebends Bridge (foot only), and then a real climb up to the cathedral. So this is a non-bicycle minded university. But the walk in the valley will be long, and the distance round by the road much longer. A well-designed bicycle park (it might have to take up to a thousand) near Prebends Bridge could be an answer. Particularly if lunch in college is to continue.

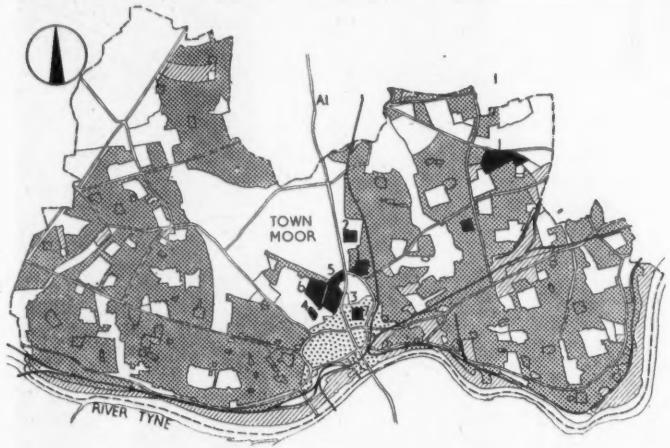
Of the newer buildings Professor Allen's distinguished science building and boiler house fit well in the landscape, but St. Mary's College dictates a formality and grandiosity which seems unsympathetic to the area. Its axial approach is too domineering, and almost appears to pretend to link it visually with the cathedral, instead of forming part of the park-like pattern below it. All the best photographs play down this aspect. Obviously no trouble or expense have been spared in choosing and detailing the stonework roof tiles which are particularly sympathetic to the landscape.

Major buildings put up since the war

Pace Buildings—containing additional students' rooms for Hatfield College. Architect: E. Vincent Harris, F.R.I.B.A. *The West Building—including accommodation for the Departments of Mathematics and Geography, a large lecture theatre and a science library.* Architect: Professor J. S. Allen, F.R.I.B.A., in association with Oscar Faber & Partners, consulting engineers. *St. Mary's College—new buildings containing accommodation for about 125 women students.* Architect: E. Vincent Harris, F.R.I.B.A.

The following buildings are likely to be started within the next few years.

A new college for about 200 men students. Architects: Thomas Worthington & Sons, F.R.I.B.A. *A new science building to provide accommodation for the Departments of Chemistry and Geology.* Architects: Easton & Robertson, F./F.R.I.B.A.



KEY: 1. Halls of residence. 2. Proposed halls of residence. 3. Town hall. 4. Leazes Terrace. 5. University precinct. 6. Royal Victoria Infirmary. 7. Dental Hospital.

UNIVERSITY
HOUSING
COMMERCE
INDUSTRY
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Durham University: Newcastle

King's College, the Newcastle division of Durham University, came into being as such in 1937 when the College of Medicine and the Armstrong College of Engineering were united. Fortunately they occupied adjacent sites. From a population of 1,200 in 1939 they have now grown to 3,200 and an increase to 5,000 is a probability by 1962. This phenomenal expansion has thrown existing development plans into the melting pot but it is worth tracing the situation to date.

Lord Percy became the first rector, and development plans were worked on with the professor of architecture, Professor W. B. Edwards. At the end of the war it was foreseen that considerable expansion must take place and the university was ready with its outline policy. It had been decided to stay at the present university site rather than move to the outskirts of the town. In spite of the difficulties of expansion this seems a very wise decision. A university like King's should be at the heart of things. Newcastle is a great commercial capital, famous for ship-building and engineering, and the university could lose a lot of its vitality if it was removed to some idyllic country park, or featureless suburb.

To realize this idea a far-sighted programme of compulsory acquisition of property was then worked out with the City who designated the area for the university precinct on their development plan. The programme was bold and involved property which included a hotel, bars, shops, a brewery, and a considerable amount of housing. This would have deterred most of our universities, but those concerned at Newcastle are working hard at it and got away to a good start as early as 1948.

The precinct, centred on the existing core of King's College, is bounded on the east by Barras Bridge—a continuation of the A1 (beyond which the town centre is planned); on the north by the Town Moor—nearly 1,000 acres of common land—and the Queen Victoria Road separates it from the teaching hospital on the west. The south boundary includes the commercial area over which compulsory powers of purchase exist.

Queen Victoria Road is at present a major factor in the planning as its future is undecided. The city engineer's department want it as an inner ring road (it is not shown as such on the development plan), while the university feel it is splitting the medical school from the hospital. Whatever the final decision, it will be a vital factor in the university's new development plan as it is not known yet where future expansion will take place. It must be remembered that the precinct planned did not envisage an expansion of anything like the number recently suggested by the UGC (3,000 was the figure until recently —not 5,000 as today's probable target).

When visited, the university had no three-dimensional representation of their plans, but the photographs on this page give some idea of the development, which is very mixed and on a very congested site. The university's architectural policy, unlike its drive and initiative in acquiring sites, seems undecided. Compare, for example,

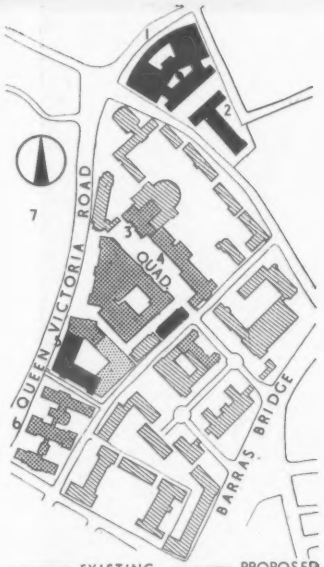
Newcastle

INDUSTRY
OPEN SPACE

cinct on their development plan. The programme was bold and involved property which included a hotel, bars, shops, a brewery, and a considerable amount of housing. This page give some idea of the development, which is very mixed and on a very congested site. The university's architectural policy, unlike its drive and initiative in acquiring sites, seems undecided. Compare, for example, the proposed new library extension with the new physics building and the Stephenson Engineering Laboratories. The last hardly reflect the spirit of that pioneer (but their wall surfaces are not stained by bad detailing as are some of the "contemporary" buildings seen elsewhere). One small example of this apparently un-three-dimensional planning is the closing of the main quadrangle by the new arts building to the west of the library (see plan). This is parallel to the road and therefore not square on to the existing quad, so a low building is to be placed in front of it to square things off. On the plan this may look convincing, but in fact it is hard to imagine it being effective as the arts block sliding behind it is so dominant. The future of Eldon Place is still undecided. It has architecturally unpretentious but quietly charming terraces of small houses now containing small departments, etc. It may well disappear as land is so scarce, but it is sad that before the final decision is made a part of it will have to be demolished to make room for the new library.

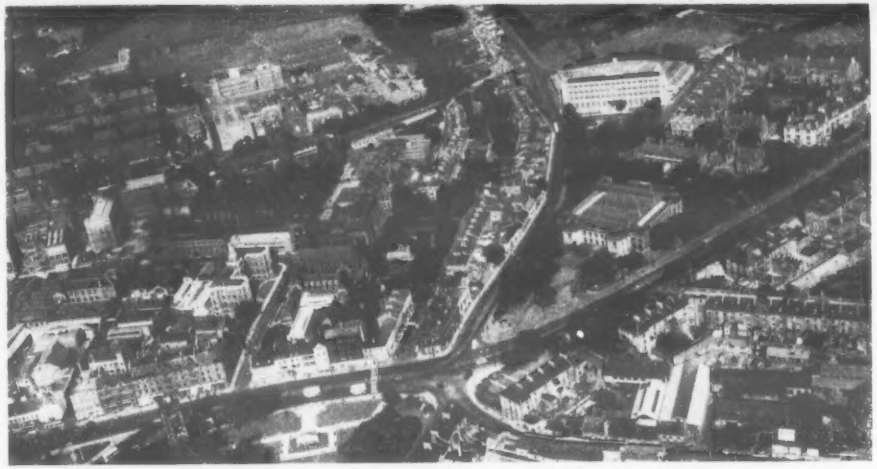
New areas for expansion are under consideration but when the numbers to be catered for are considered, space is very limited. A possibility seems to be to build really high. The town moor would give scale to such development and one could have the exciting contrast of working in a small, domestic, early-nineteenth century house or an elegant young skyscraper looking across the shipyards or to the line of the Roman wall.

Halls of residence now house a very small number of students but Professor Edwards & Partners have completed Ethel Williams Hall for women since the war. Jack Napper is designing one for men at Mooredge, and an extremely interesting scheme is afoot for the conversion of Leazes Terrace (Dobson 1830) into halls of residence.

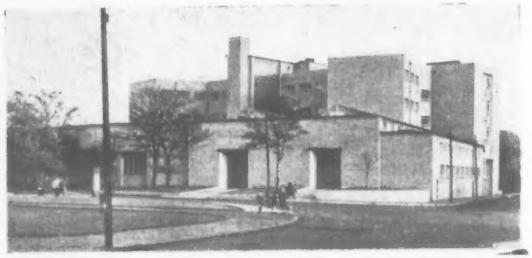


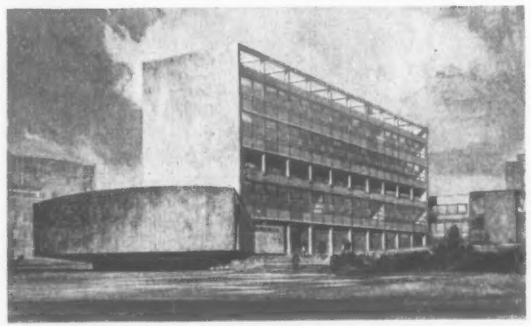
University development plan

1. Stephenson building. 2. Civil engineering. 3. Library. 4. Architecture. 5. Chemistry. 6. Medicine. 7. Royal Victoria Infirmary.



Top right, an aerial view of Newcastle before the Civil Engineering building (architects: W. B. Edwards and Partners), shown right, was started. It now occupies the triangle of open space in front of the new building (the Stephenson Engineering building, designed by Messrs. Edwards and Manby) in the top right corner. Two further views of the Stephenson building are shown right and far right, centre. In the centre, tree-lined, is Eldon Place. In the far left, the Ethel Williams.





Hall of Residence, by Messrs. Edwards and Manby, showing the common-room terrace. Left, the proposed library on which work has now begun. It is sited at the top of Eldon Place. Architects: Easton and Robertson. Above, the proposed Physics building, by Basil Spence.

New buildings since 1945

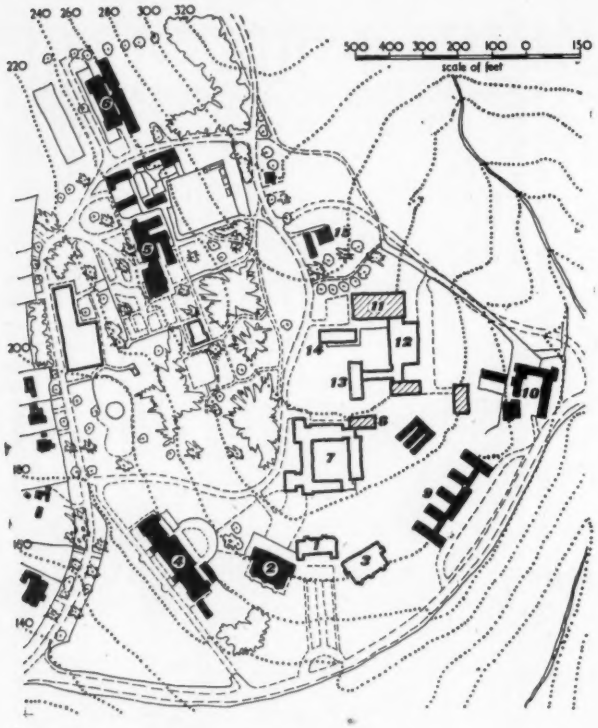
Physical chemistry laboratories (1948); *chemical laboratories 1st stage* (1949); *Ethel Williams hall of residence* (1950); *Stephenson building* (*Department of Mechanical, Marine, Chemical, Agricultural Engineering and Mathematics* (1951); *civil engineering building* (1956). Architects: W. B. Edwards & Partners, F.R.I.B.A. *Medical school, extension of the south block* (1954). Architects: Newcombe & Newcombe, A./A.R.I.B.A.

Under construction

Second stage of the chemical laboratories; *art department*. Architects: W. B. Edwards & Partners, F.R.I.B.A. *Library*. Architects: Easton & Robertson, F./F.R.I.B.A. *Physics*. Architects: Basil Spence & Partners, F.R.I.B.A.

Next five years

Extension medical school. Architects: Newcombe & Newcombe, A/A.R.I.B.A. *New hall of residence*. Architects: J. H. Napper & Partners, F.R.I.B.A. *Staff club*, Architects: Spence & Price, A./A.R.I.B.A. *Students' Union*. Architects: Cackett, Burns, Dick & Mackeller.



The university area:

KEY: 1. Chapel. 2. Roborough library. 3. Library extension. 4. Washington Singer building. 5. Reed Hall. 6. Mardon Hall. 7. Arts building. 8. Arts building extension. 9. Hatherly laboratories. 10. Streatham Hall Farm. 11. Hall. 12. Refectory. 13. Union building. 14. Administration. 15. Squash court.

Exeter University

The university college was granted university status in 1955. But in 1922, when still a college, it was presented with Streatham Park, on the northern outskirts; more land has been bought there with the result that today there are 200 acres for development.

Arts departments and administration are still in the centre of the city in Gandy Street, close to the Royal Albert Memorial Building, which originally housed the institution from which the university eventually grew. The Development plan prepared by Sir William Holford and Partners in 1954 envisages a complete withdrawal from Gandy Street and a concentration on the Streatham Park site.

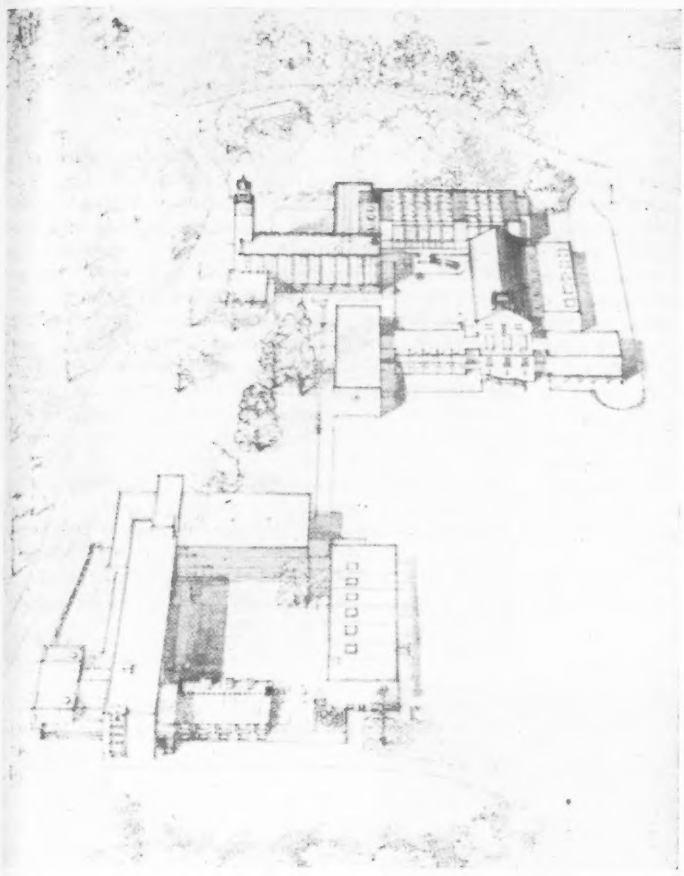
This is within the city, and about one mile north-west from the centre. It is separated from it by a deep valley of grazing land which acts as a lung for the city and also means that the university is not crowded in by housing. From here the ground rises steeply to the wooded parkland which was part of the estate of Reed Hall. The Streatham Estate, and an additional area for possible expansion in the future, have been designated as a university precinct on the city's development plan.

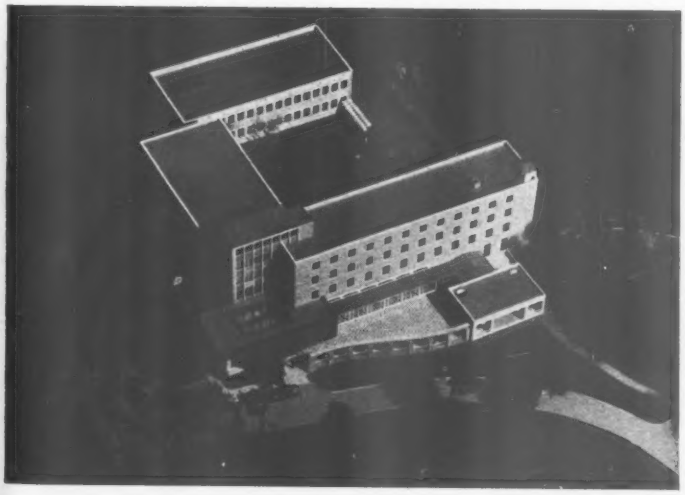
The pre-war buildings and the Hatherly Laboratories (by Vincent Harris) were planned round the perimeter of the site to the south with access from Prince of Wales road. A grand avenue was planned driving steeply straight up the hill into the interior.

The disadvantages of this scheme were both practical and æsthetic.

It was hard to relate the formality of the scheme to the informal character of English parkland designed in the

An aerial view showing the University site on the edge of the town. In the foreground are readily distinguishable the buildings shown in solid black on the site plan. The chapel is under construction. All these buildings were designed by Vincent Harris. The curving line of Sir William Holford's finely landscaped new road can be seen behind the Washington Singer Building.





A model of the proposed Arts Building, 7 on the site plan, designed by Sir William Holford and Partners. Top, a sketch by Sir William Holford showing the Arts Building with the Refectory; Administration, Union buildings and Great Hall beyond.

eighteenth century manner on steeply rising ground.

It was also impossible without much costly excavation to extend the buildings which had been constructed round the southern perimeter of the site as they were already so dug into the hill.

The new plan (Sir William Holford) has tackled the problem by providing a new road (the Queen's Drive) which leads off Streatham Drive and opens up the interior of the site, *i.e.*, the best part for new building.

It has thus been possible to abandon the idea of the memorial avenue, which, apart from being unsympathetic to its surroundings, would have been steep for vehicles to negotiate. The avenue is now terminated by the Memorial Chapel which crosses its axis and has a commanding position a little higher than the library, but still remains part of the group.

Thus the site has a perimeter ring of formal buildings to the south and will have an interior, now opened up by the new drive, where new buildings can be placed on the less steeply sloping ground towards the crown of the hill. The Arts building (now under construction) and the Students' Union building are the two main elements here. Both are planned in an informal way to create internal courtyards (not necessarily completely closed). The Arts building thus takes advantage of the splendid views from the site (over the city to Exmouth to the south, and also to the moors over the Devon countryside), and will at the same time give a sense of enclosure and shelter when walking about the buildings. One of the disadvantages of the siting of the Washington Singer building and the others on the perimeter is their windswept bareness. (Bicycles propped up against the kerb were blown flat and students hurried from the library and laboratories through driving rain.) The new drive and buildings, though higher up, should themselves make sheltered outdoor spaces, and the new road (very much a country house drive) curves pleasantly between the fine trees of Reed Hall and obtains shelter from them.

This drive leads up to the sports field on the crown of the hill—a wonderful position and also extremely convenient. The only disadvantage is that the levelling necessary has formed embankments which tend to make it look slightly like a reservoir from below. These hard straight lines are foreign to the gently curving character of the site.

Halls of residence are mostly in extended and converted Victorian and Edwardian houses to the east and also in Reed Hall and Mardon Hall (built as a hall of residence) in Streatham Park. It will be a great advantage when new halls are built on the main site itself, and there is room for this. About 50 per cent. of the 1,200 students are now in the halls, and it is expected that of the possible increase to 1,500 to 2,000 the majority will have to be in halls, as lodgings in the town are becoming difficult to find.

The social hub of the university will contain the Union, Refectory, Administration and Great Hall. This will be the core of student life both during the day and in the evenings. It has a commanding position and is also geographically near the centre of gravity of the whole scheme. From the city of Exeter the new buildings should be an impressive addition to the landscape. One feels that some particular feature—perhaps at the southern end of the north-south wing of the Arts building—could give a focal point to the group. It is rumoured that a piece of sculpture may be considered here.

The site already has some particularly fine trees and more should be planted. If an avenue of planting is required on each side of the memorial avenue, one species only should be planted in place of the mixture now there.

Major buildings completed since the war

Hatherly biological laboratories. Architect: E. Vincent Harris, F.R.I.B.A. *The Vice-Chancellor's house; sports pavilion; boathouse.* Architect: R. M. Challice & Son, F.R.I.B.A.

Under construction or likely to be built in the next five years

Arts building (under construction—started 1956). Architect: Sir William Holford & Partners, F.R.I.B.A. *Mary Harris Chapel (under construction—started* 1956). Architect: E. Vincent Harris, F.R.I.B.A. *Refectory, Students' Union building* (starting 1958). Architect: Sir William Holford & Partners, F.R.I.B.A.

Buildings which it is hoped might be started during the next five years

Administration building (plans prepared). Architect: Sir William Holford & Partners, F.R.I.B.A. *Chemistry laboratories; new halls of residence; library extension and physics.* Architects not yet appointed.

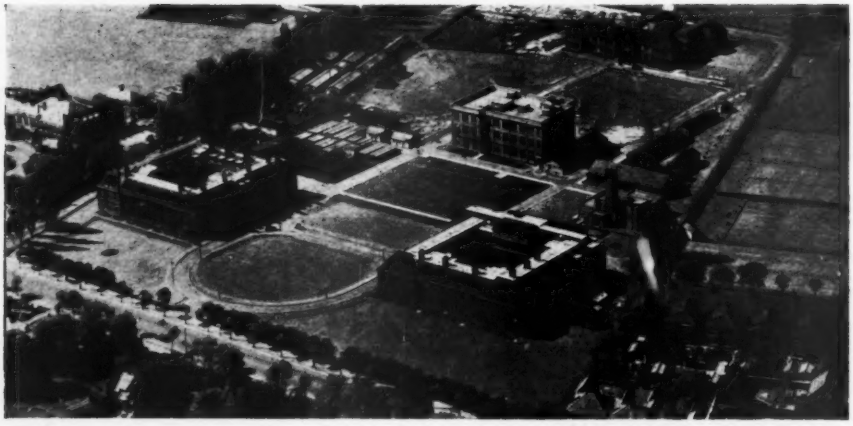
Hull University

University College, Hull, was founded in 1927 and achieved university status in '54. Unlike many other young universities it has no particular links with the town's industries, engineering and medicine are not taught, and its "specialities" are arts and pure science. It is also unique in that until recently it was almost entirely residential. Owing to the tremendous expansion in numbers this idea has had to go (in '38 there were 190 students, in '58 1,294, the probable ultimate target is 2,000).

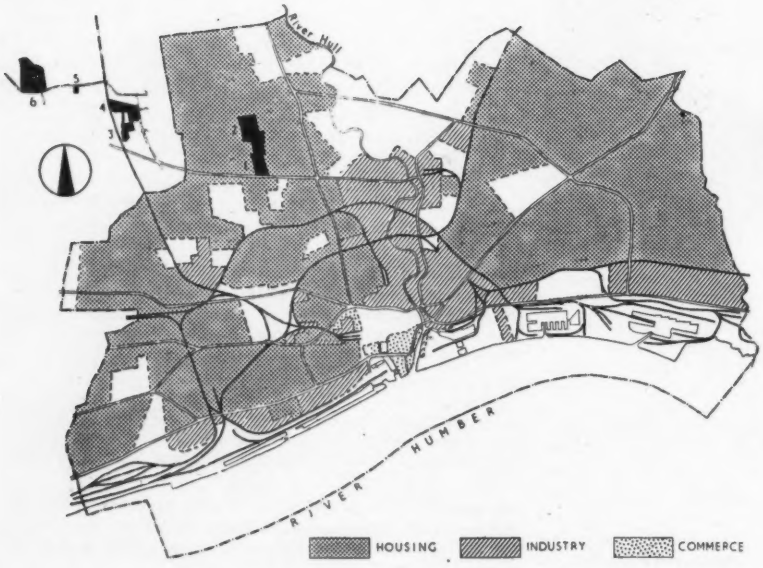
The university is about two miles from the centre of Hull. The approach is by a not very inspiring road of slightly tired commercial and residential property which eventually leads out through the suburbs to Cottingham village. The site is flat and an inch or two above sea level. Together with the teacher's training college, a school site, and the playing fields belonging to these three institutions, it makes a large open area in a sea of housing.

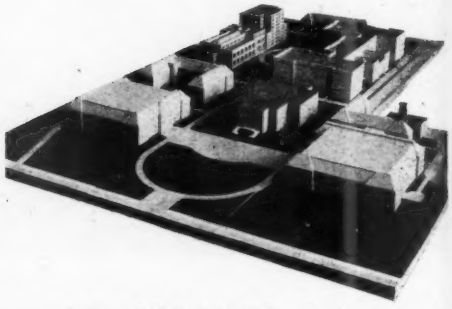
Thanks largely to their own enterprise and forethought the university has neither of those two great headaches: a split in the faculty buildings nor no room for expansion. Their policy of buying up adjoining land started long before the war so that by 1945 they owned about 70 acres. They had also acquired considerable property at Cottingham, a village nearly two miles further out of Hull and the policy is to develop this as halls of residence. Here there are now 600 students in residence in four halls. This includes those still in the hutted camp which was acquired at the end of the war. Although it would be ideal to have the halls on the main site as envisaged by the original development plan in the '20's, this could not be done with the increased population, Cottingham seems a very good second best. There is plenty of room for expansion, the grounds of the various halls have some good trees and lawns, the village has character, and, as the country is dead flat, bikes abound, lessening the distance problem. A large number of the staff live there (in addition to the 4 or 5 in each hall) so the village has a definite university stamp. Its main disadvantage is that the distance means that those in the further halls cannot eat lunch in hall, and catering has to be duplicated in the refectory. It also means that the university is not quite as alive in the evenings as it might otherwise be; meetings often taking place at Cottingham rather than in the Union.

Planning problems are therefore confined to within the university's own properties. Here again Hull got away to a good start and while some universities are beginning to think in terms of development plans in '58 they had one



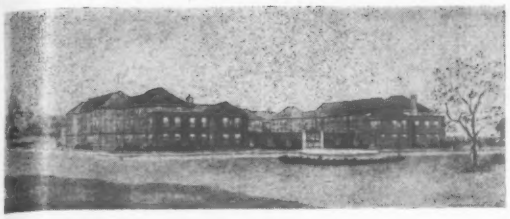
Left, an aerial view of Hull, showing the axis, at right angles to the road, which all too soon runs out of the right side of the site. In the model below are shown future developments on this site. Left to right, second row, are the proposed Arts/Administration building, the Great Hall, and one of the science buildings alongside the existing central boiler house. In the rear, left, is the proposed library block, by Forsyth and Partners, on which work has now started.





A plan of Hull showing the university area on the outskirts.

KEY
1. University
2. University playing fields
3. Cleminson Hall
4. Thwaite Hall
5. Needler Hall
6. Ferens Hall Site



Above, Ferens Hall of Residence, now completed, designed by Forsyth and Partners. Below, the dining hall extension to Cleminson Hall by Gregory Wilson.

in '27. The architects consulted were W. Forsyth & Partners. Like all development plans it has had to change with changing requirements, but in this case the requirements have changed so completely, it seems a pity that the plan has not been thought out entirely afresh. The restrained domestic formality of the 1927 buildings has been lost in the post-war amendments. The 1956 edition is a dull compromise between symmetry and expediency. An entirely informal plan should have produced an easier solution, and the central siting of the great hall (because of its function a large and solid building) could then be reconsidered. The buildings too have lost the quiet, considered treatment of their forebears, nor do they speak with any architectural conviction of their own. It is hard to believe that the Students' Union was built in 1950. However, the institution it houses is full of life and will become more and more important as the proportion of students in residence drops. Hull is to be congratulated on having a model of their proposed developments, although it clearly indicates great opportunities sadly missed.

It was interesting to see that in their latest hall of residence Feren's staircase access to sets of rooms has been adopted instead of the institutional corridors so often found. This houses 150 men in an undistinguished 3-storey building of a quadrangular plan. It seems a much more satisfactory solution than the 2-storey, corridor, hall built earlier. The dining hall at Cleminson was a particularly sympathetic addition to a late Victorian part of the house and is the most "contemporary" architecture the university has so far. (It was designed by Gregory Wilson, A.R.I.B.A.)

Major buildings built since the war

Thwaite Hall (hall of residence for women); changing rooms; boilerhouse; Students' Union building; Animal house (for the Department of Zoology). Architects: W. A. Forsyth, F.R.I.B.A., & Partners. *Cleminson Hall (temporary hall of residence for women).* Architect: W. Gregory Wilson, B.ARCH., F.R.I.B.A. *Chemistry building—stage I; Ferens Hall—stage I (residential wings of hall of residence for men).* Architects: W. A. Forsyth, F.R.I.B.A., & Partners.

Major buildings now under construction

Ferens Hall—stage II (completion of hall of residence for men). Architects: W. A. Forsyth, F.R.I.B.A., & Partners.

Major buildings likely to be built in the next five years

Library (1958); *science building, comprising chemistry stage II and biology* (1959). Architects: W. A. Forsyth, F.R.I.B.A., & Partners.

EXISTING BUILDINGS
FUTURE BUILDINGS

The university development plan:

KEY

1. Principal's residence
2. Registrar's residence
3. Refectory
4. Refectory extension
5. Domestic bursar's department
6. Sick bay
7. Men's halls of residence
8. Women's halls of residence
9. Warden's house
10. Students' Union
11. Staff houses and flats
12. Assembly Hall
13. Conference hall
14. Chapel
15. Teaching and administration
16. Teaching block
17. Teaching block extension
18. Department of Geography
19. Department of Physics
20. Department of Chemistry
21. Department of Biology
22. Department of Geology
23. Department of Education
24. Library
25. Sports pavilion and gymnasium
26. PT Anenometer
27. Meteorological station
28. Maintenance yard and garage
29. Electricity sub-station
30. Gas meter house
31. Academic workshop
32. Future academic building
33. Grounds garage
34. Car park
35. Boiler house

University College of North Staffs.

Keele

It was response to many years' agitation for a university college in North Staffordshire that led to its founding at

An early aerial view of Keele College with the original Keele Hall, used as the teaching and administration block in the foreground right, and the staff housing in the background left. When the photograph was taken, the Conference Hall and teaching block (staff architect: J. A. Pickavance) had not been built. Their sites are below the tennis courts shown as a dark rectangle in the top right corner.

University of North Staffs: continued

Keele in 1950. It was agreed that it should be a co-educational college for about 600 students and that it should have power to grant its own degrees which were to be based on a four-year course which was to include both arts and science subjects. It was to be fully residential. It is therefore unique among British university institutions, and therefore of correspondingly more importance and interest than it would have been if it had followed an established pattern.

The college acquired the property of Keele Hall—a stone Victorian house of considerable character—which stands in a fine eighteenth-century park surrounded by farmland about 5 miles north of Stoke-on-Trent. It is surrounded by army huts which were quickly converted into temporary accommodation while energetic conversion went on within the house itself.

From such beginnings one would expect great things. There was a splendid site, men alive with educational ideals and energy, co-operative local authorities—in fact all the ingredients one would imagine necessary except a development plan. It is most extraordinary that this was not considered a first essential. But it was not, and although a consultant architect (Sir Howard Robertson) was appointed in 1956, there is a sad bulk of building which bears witness to the unplanned period. However, this will become less conspicuous as new buildings go up. From the disorderly collection of professors' houses on the sky line to the north, one progresses to an area of semi-detached's around a central green of which most new towns would be proud (but could they not have been terrace housing?) to the new women's Halls of Residence well sited in a secluded area with views southwards. Here the new library is planned as the hub of the new scheme. Faculty buildings lie to the north-west, men's Halls on steeply sloping ground to the east, and women's to the south-west. The development generally is informal, apart from what appears to be a rather forced axis from the physics building, between a "workshop" and "future academic building" to the Department of Education. It seems a pity to tie one's hand to symmetry when the future requirements are so uncertain.

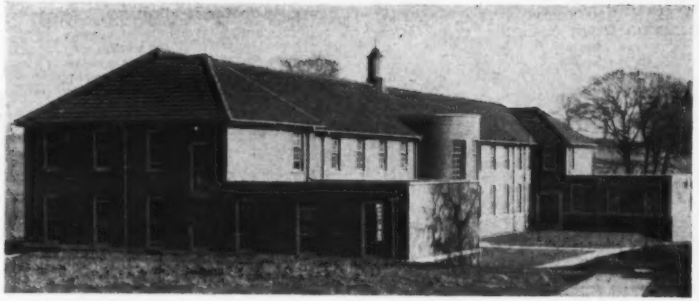
Much will depend on the detail treatment of the landscape.

Keele could easily have two of the dangers that occur in new towns: too much space for expansion and too even a skyline. It would be a great pity if the university was too loosely developed as it could very easily lose that sense of cohesion and corporate life which it now so markedly has. Also, as experience of new towns tells us, one can have *too much* grass between buildings. The most telling vertical elements in the scheme will probably always be mature trees, of which there are many fine forest specimens (more are needed, rather than the small thorns that have gone in so far). The library (designs not sufficiently advanced to be seen) could make a fine foil to the lower rectangular teaching and hostel blocks, as could the chapel if this is to have a spire or campanile. (Keele village has a splendid spiky one.) The present site of the chapel is rather too low and submerged in trees for any vertical feature to be seen to its best advantage.

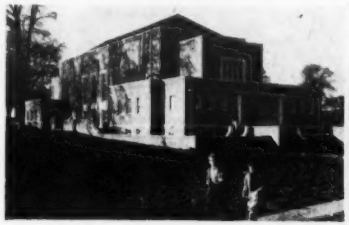
The existing buildings are neither distinguished for enterprise nor scholarliness in design. Equally undistinguished buildings are to be seen in other universities, but here where everything should be so good, it hurts more. If buildings are to be neo-Georgian they should obey the rules of their forebears. At the moment the Union building (Nissen huts) reflects the spirit of the place much more truly than the Conference Hall. However, the scene is not entirely drab. In the new students' houses in Keele village (designed by J. A. Pickavance) there is the germ of what could develop into an excellent hostel plan—and what is more, at £850 per student place. These are now in "semi-d" pattern, but the blocks could easily be arranged in terraces or quadrangles, and in three or even four floors. They consist of sets of students' rooms off a staircase with no institutional corridors. The kitchen, which takes the place of the pantry and common room found elsewhere, has cooker and sink at one end and a large table at the other. It is really based on the farmhouse kitchen idea and makes a comfortable informal room, where the inhabitants can foregather for coffee, supper, etc., and settle the affairs of the world. Ordinary meals, common rooms, etc., are provided in Keele Hall.

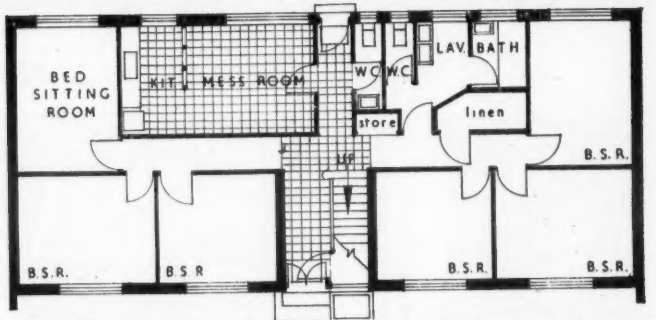
There are now 600 students and by '64 there will probably be at least 1,000. Their needs have been considered, by a consultant architect (Sir Howard Robertson), and a landscape consultant (Mrs. S. M. Haywood, A.I.L.A.). J. A Pickavance is an architect member of the staff. So that somewhat haphazard start is a thing of the past.

Projects: 1959, Library—Sir Howard Robertson. 1958. Men's hostels—J. A. Pickavance, F.R.I.B.A.

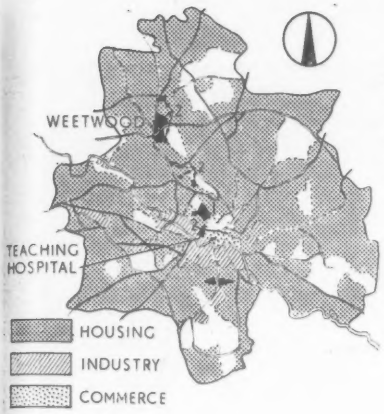


Above, the teaching block. Below left, the Conference Hall. Below right, staff housing.





Students' houses in Keele village. Above, the ground floor plan (scale $\frac{1}{16}$ in. = 1 ft. 0 in.) and, below left, the front elevation. Below right, is a typical study bedroom.



Leeds, showing the position of the university precinct just north of the town centre, and the halls of residence strung out on the way to Weetwood and the playing fields.

1. University precinct
1. Halls of residence

Leeds University

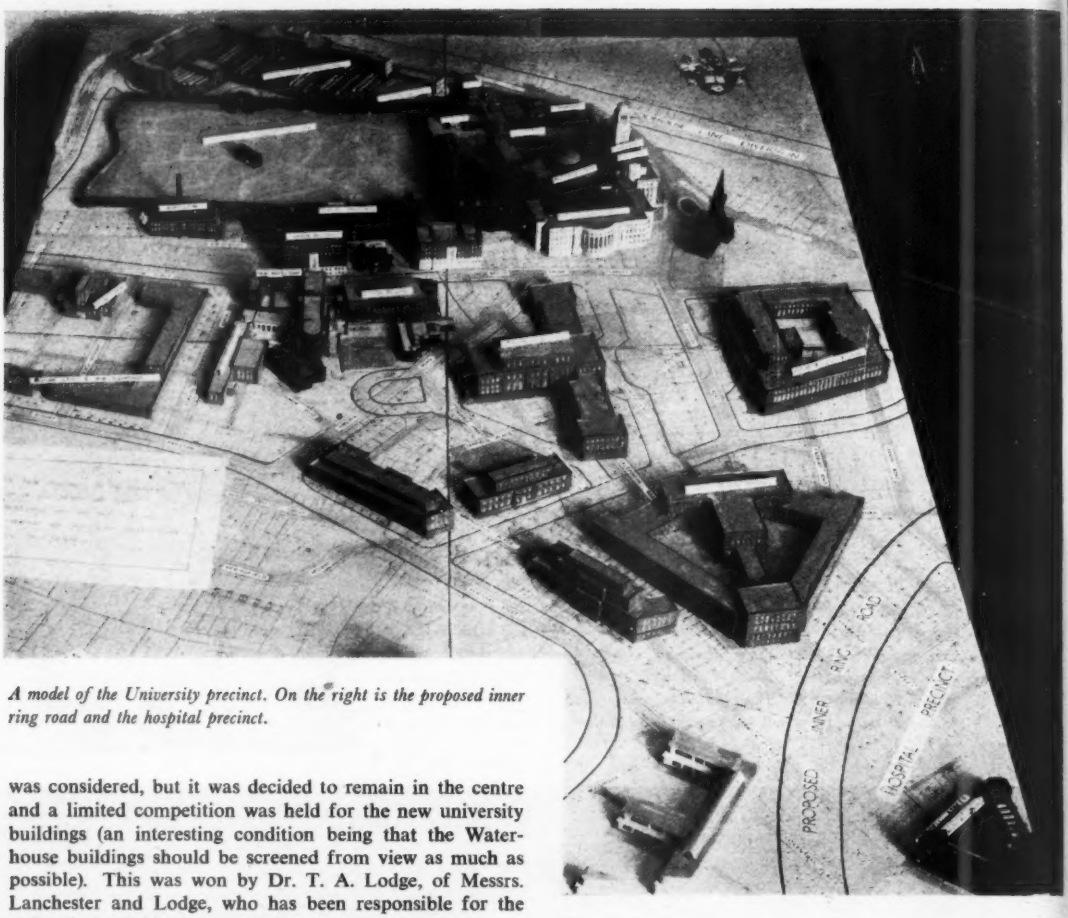
This is a civic university if ever there was one. Close to the town centre its mass of buildings give an unparalleled display of inter-war civic pride rather reminiscent of the town-hall architecture of the period. The Parkinson building and the Brotherton Library give the names of two of the many benefactors who have left their mark in no uncertain manner, while the rather unwieldy name of the new "Man-made Fibres Building" shows another close link between town and gown in this hub of the cloth manufacturing industry.

Leeds medical school (1831) amalgamated with the Yorkshire College of Science in 1884 which later became part of the Victoria University. In 1904 it became a separate university and was centred on the red brick Waterhouse gothic of the Yorkshire College.

In the 1920's an exodus to the outskirts at Weetwood

Below, Leeds University from the air. In the foreground is the Parkinson Building (architect: Dr. Lodge of Lanchester and Lodge), on the right is the Chemistry Building, and behind is the circular Brotherton Library, both by the same architects who were asked to screen Waterhouse's old Yorkshire College buildings beyond. The post-war buildings in the background are the Refectory block, left, and the Man-Made Fibres Building, also by Lanchester and Lodge. On the right is the cemetery, eventually to form a campus on to which the Engineering and Fuel Buildings, above right, will face. Right, is a recently started Arts block which will complete the symmetrical Parkinson Building.

Leeds University: continued



A model of the University precinct. On the right is the proposed inner ring road and the hospital precinct.

was considered, but it was decided to remain in the centre and a limited competition was held for the new university buildings (an interesting condition being that the Waterhouse buildings should be screened from view as much as possible). This was won by Dr. T. A. Lodge, of Messrs. Lanchester and Lodge, who has been responsible for the university's architecture until his retirement last year.

Town and gown have resolved the overall planning problems by providing a precinct in the town development plan (see photograph of model). This runs south from the existing buildings to include an area for future expansion which now consists of residential property which the university is gradually acquiring. Much of this is ripe for re-development. The southern edge is bounded by the proposed inner ring road, beyond which lie the teaching hospital and the college of technology. It is proposed to link the hospital with the medical school by a bridge or tunnel. Immediately south again is the town centre. To the east is Woodhouse Lane, which will be a major artery to the town centre. The southern section of this is under discussion. The City Engineer feels it could make a more worthy approach to the centre if it did not pass so close to the university buildings. The cemetery included in the precinct is intended to become an open campus and the new buildings are to turn towards it. North and west lie public open space and residential property.

Expansion in numbers has made the digs situation extremely difficult. In '39 there were 1,750 full-time students, now there are 4,150 (the target set immediately after the war was 3,500) and the possible target is 5,500 by '64. Halls of residence are therefore particularly important. They now lie in the direction of Weetwood in a number of properties off Woodhouse Lane—so even though dispersed they are in one direction and near a clear traffic route. Eventually it is intended to build some within the precinct (a place for point blocks?), but since land is not available at the moment (apparently CPO's would be no help as the problem of rehousing the occupants remains) the university are hoping to develop part of the Weetwood site (now zoned for playing fields) for halls for 600 men. A public enquiry has just been held to decide this. The disadvantage is its distance from the precinct. Its main point is the possibility of relieving the saturated digs situation immediately in what could be a most interesting and imaginative manner.

A great weight of building has taken place since the war (see photographs) and more is programmed. The area to the south of the Union and new refectory has not yet been cleared. It says on the model "the new buildings in the southern half of the model are purely representational and are not intended to portray any particular architectural design or treatment." The reasons behind the astonishing layout shown on the model are difficult to understand and make some awkward spaces and axes, in both existing and proposed buildings, which seem to be neither in the spirit of the original Parkinson building, nor mid-twentieth century design. The approaching completion of the current development scheme has caused the university to rethink their programme, and this may also be the point where they rethink their architectural policy. Signs of this are promised in the new engineering building.

Projects and recently completed buildings

Completed since the war

Parkinson building; Refectory; man-made fibre buildings; senior common room. Architect: Dr. T. A. Lodge, F.R.I.B.A., of Lanchester and Lodge.

Under erection

Fuel technology building; extensions to physics and chemistry building; Arts building; civil engineering building; boiler house. Architect: Dr. T. A. Lodge, F.R.I.B.A., of Lanchester and Lodge.

Near future

Mechanical engineering building; electrical engineering building. Architect: Dr. T. A. Lodge, F.R.I.B.A., of Lanchester and Lodge. *Hall of residence; sports pavilion.* Architect: D. M. Jones, M.A., A.R.I.B.A., of Jones & Stocks.

The main building of Leicester, once an asylum.

Leicester University

Leicester university, founded in 1918, reached university status this year. It started with 100 students, it now has 930 and will increase to 1,100 by 1962 and an ultimate 1,500 by 1964. Of the present number, 530 are in residence, 55 live in their homes and 345 are in lodgings. All students are in residence for their first year and may continue to stay in Hall under certain conditions. About twenty of the staff also live in the halls of residence. The policy is to have at least 80 per cent. of the students in residence. The university has no particularly close connection with the city, and its graduates (in Arts, Science and Social Sciences) look for greater opportunities than are provided by the relatively small, if wealthy, manufacturing concerns in the area.

The university is contained within three sites and Professor Sir Leslie Martin has recently been appointed to advise on their development. Two are purely residential: one at Oadby, beyond the city boundary, two miles from the university; and one at Knighton (which is approximately mid-way between Oadby and the university). The university site itself is about one mile from the city centre. Professor Leslie Martin is at present designing a women's hall of residence at Knighton, and Messrs. Thomas Worthington & Sons have recently designed a men's hall at Oadby consisting of 75 study-bedrooms arranged symmetrically in small, two-storey blocks, around a court. The rest of the halls of residence consist in the main of large Edwardian mansions which have been converted for the purpose. There is one women's hall alongside the university in a building due for demolition.

KEY: 1. Chemistry teaching. 2. Chemistry. 3. Physics. 4. Lecture theatre. 5, 6, 7. Projected buildings not yet allocated.

Left, the proposed development to the north of the university by Sir Leslie Martin. In the centre is the L-shaped Chemistry building which has been designed by the Architects' Co-Partnership in association with Sir Leslie Martin. A view of this building is shown below, centre. To the right of the chemistry building on the block model is the refectory and Students' Union, now nearing completion. It was designed by Thomas Worthington and Sons and the perspective, bottom, shows it as it will appear when seen from the road.

The university building itself is late Georgian, and was built as a mental asylum. Originally an E plan, the open side was filled in shortly after the war by a rather utilitarian building by Messrs. Pick, Everard, Keay, & Gimson of Leicester. The internal court thus formed was then divided into three by a library extension by Messrs. Thomas Worthington & Sons. This firm, in association with Messrs. Pick, Everard, Keay & Gimson, have also designed new biological laboratories, and alone have been responsible for the refectory and students' union building now under construction. These two new buildings stand on either side of the old building. To the north is an open space on which Professor Martin has prepared a layout for the university's new science buildings (see the JOURNAL for April 4, 1957).

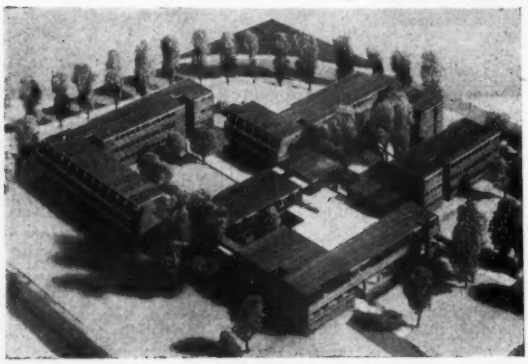
The setting of the university has not the potentialities inherent in the sites at, for instance, Exeter, Nottingham, or Birmingham. The site is small. It is on rising ground but looks on to nothing more inspiring than a cemetery on one side and a boys' school on the other. A not unattractive park also flanks one boundary, but is heavily screened by trees.

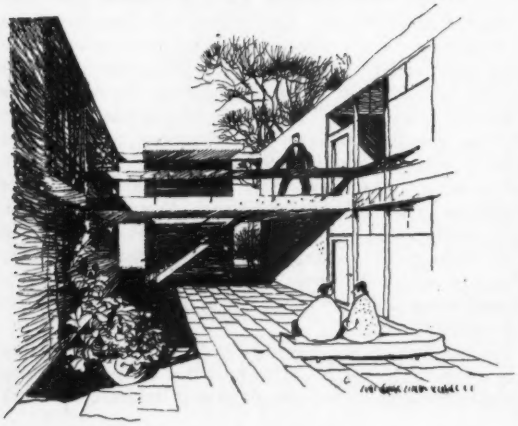
The big decision the university had to make was whether to move further out of the town, so that halls and teaching blocks could be on one site, or to split residence and work

Leicester University : continued

place. The latter course has been adopted. Students in hall have breakfast and evening meals there, and only eat lunch at the refectory. The refectory is fully used, however, as for the time being the women's hall on the university site takes all its meals in the refectory. This would seem to provide an adequate excuse for keeping one, and preferably more, halls on the university site, small though it is. To have the buildings used to the maximum makes good economic sense, and the university would gain from being alive for 16 hours out of the 24.

In his tentative development proposals Professor Martin has been at pains to keep his buildings low. This seems a debatable point besides necessitating some site works. Leicester is a low, evenly developed city. Two or three towers of student accommodation on the edge of the park, clearly and proudly dominating the scene would be a welcome break to a dull skyline and a visual reminder





Three halls of residence: above, a men's hall at Oadby by Thomas Worthington and Sons; and two proposed halls, one for 162 women students, with three 3-storey residential blocks and dining space for 230, designed by Sir Leslie Martin in association with Trevor Dannatt, below, and the other, for men, bottom, by Richard Sheppard and Partners. This consists of a dining hall and a long, stepped, two-storey terrace with the study-bedrooms grouped round patios. Access to the upper floor is by an external staircase and gallery. Six studies are arranged on each floor around an internal kitchen and sanitary accommodation.

KEY

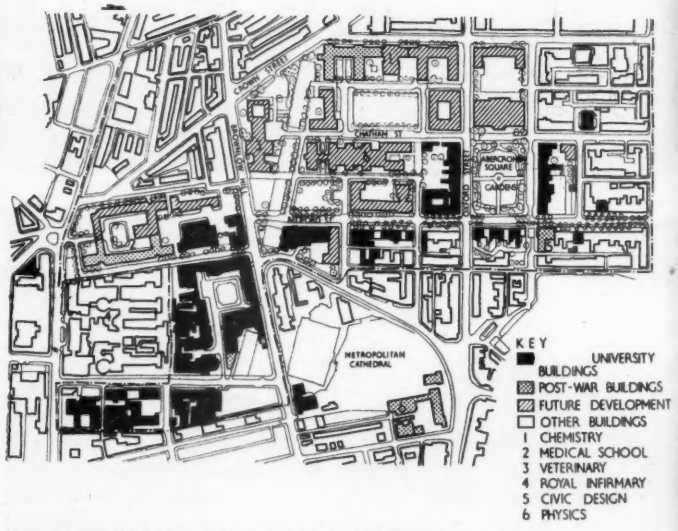
1. University and United Hospital Reservation
2. Halls of Residence
3. University playing fields

Mulberry Street, Liverpool, a scene typical of the area surrounding the university. The spire is of Victoria Building, part of the university.

Liverpool University

to the city of the presence of a great university in its midst.

Liverpool, originally part of the Victoria University, achieved independence in 1903. The university was centred on the Victoria building (red terracotta and brick, and



The university development plan. Some of the buildings shown solid black are post-war.

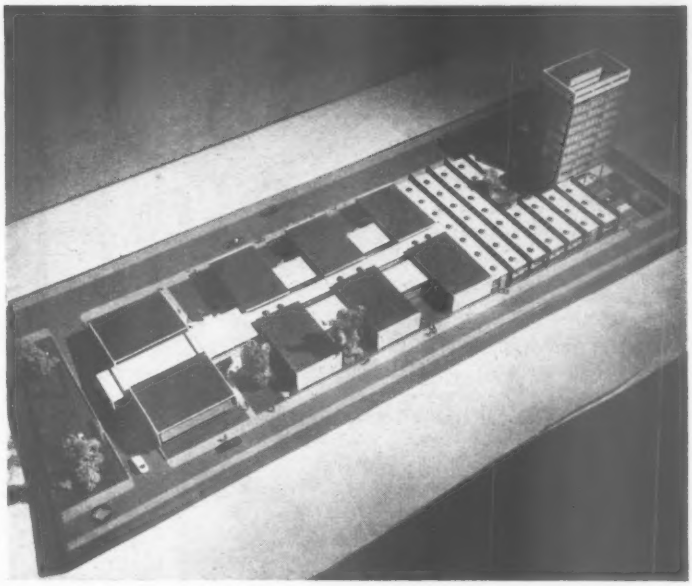
internal tiling like golden toffee—very indestructible). This was conveniently near the Royal Infirmary and therefore provided a nucleus for future expansion.

In 1945 it was obvious that the existing properties were stretched to breaking point and, if they were to expand, still further new sites must be found. Student numbers give an idea of the problem: 1939—1,901; 1946—2,707; 1956—3,238; one possibility was to desert Liverpool for a site in the Wirral. This would have saved many headaches but had three major disadvantages. It would have separated the university and the teaching hospital—the hospital itself obviously had to remain near the men who were to teach in it, *i.e.* the doctors in Rodney Street. It would have aggravated the already acute lodging problem (the vast majority of students live or lodge in the Liverpool area, there are only 477 in halls). Lastly, and in the long run most important, it would have meant pulling another element out of a city which has perhaps suffered more from blight and blitz than any in the country. Because what Liverpool needs more than anything is life put in, not withdrawn, from it. The city does not only consist of the port trade and shipping which one associates with a great river, of St. George's Hall, sooty and splendid, of Bold Street, the Royal Philharmonic, and Rodney Street's quiet Georgian, but of a sprawling mass of suburb with a vast derelict housing problem in its midst. The traditional residential areas for the people who made Liverpool, even as recently as the first part of this century, now present one of the worst housing problems in the country. Whole streets are ripe for demolition but there is nowhere to put the people. Some seem to have given up hope; others carry on defiantly polishing the window sills of their decaying houses in cardinal red or gravy brown. There is not a blade of grass or a tree to be seen. Whole streets are closed to traffic in an effort to give children somewhere to play. Most of the university precinct lies in an area such as this. In 1946 there were 10,000 people to be re-housed in the areas of the university and hospital precincts.

After the war the university got away to a good start by appointing Sir William Holford to advise them on their redevelopment. Thorough surveys were made of various possibilities, and largely for the reasons already given the present precinct was chosen. This has been slightly modified by the 1949-54 report since like all good development plans it is flexible, within limits. Professor H. Myles Wright, who is the Professor of Civic Design in the Univer-

Inorganic chemistry laboratories, designed by R. Robertson Young.

The new medical school by Weightman and Bullen.



Above and below, two views of the proposed Physics Building by Basil Spence and Partners. In the low blocks are lecture theatres and teaching and research laboratories. In the tower are research rooms and administration offices.

Liverpool University: continued

sity, and is also a partner of Sir William Holford & Partners, has now taken on the duties of Consultant Planner. Being on the spot, and therefore seeing the problem from the university's as well as the planning points of view, he is able to deal with the detailed planning to a greater extent than was Sir William Holford, as well as with an over-all outline scheme.

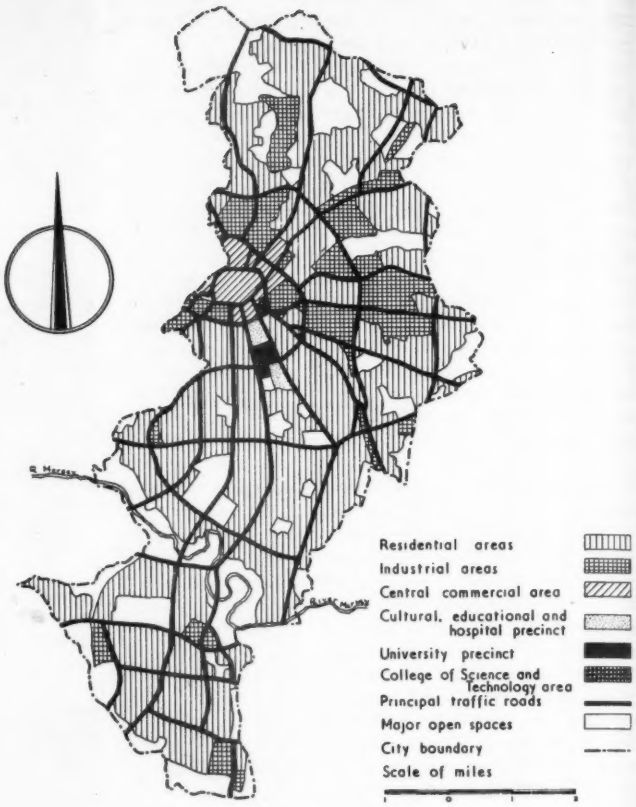
The precinct, which has been worked out with the city authorities, is adjacent to the Royal Infirmary in the hospital precinct, which is also shown on the city's development plan. It would be impossible, and probably wrong, to make all roads within such a large area "precinctual." Oxford Street and Brownlow Hill continue to be east/west through roads. The lateral route south of the precinct is still under discussion, but once this is settled it is hoped that Bedford Street could actually be reduced in width in some places. The Veterinary school is already planned to stop Chatham Street. Crown Street —a major route—cuts off a small northerly triangle of the precinct which is zoned for later development. Perhaps this is no serious drawback.

The most striking feature in the development so far is the restoration of Abercromby Square. In the whole precinct, the university, with the city's co-operation, have been buying up property as it falls vacant, and have also formed a housing society in an attempt towards solving the housing problem. Abercromby Square is their most notable achievement. The central area has been repaved and planted. All the houses are now in university ownership and most house small departments. The façade of the church at the head of the Square and the flanking buildings have been restored. The result is a contribution to the city as well as the university.

Other areas have been cleared for new buildings. The Department of Civic Design is a quiet, carefully considered building which was put up after the war when building was extremely difficult. The architect was Gordon Stephenson. Inorganic chemistry is a somewhat fierce design, externally, but with an agreeable, efficient interior. An attempt has been made to provide interest in the large medical school (architects: Weightman & Bullen) by varying the position of the brick panel within the frame. No Halls are at present programmed for the precinct but are on two other sites, three miles away, where the university owns 70 acres. This is understandable under present rehousing difficulties, but seems a most regrettable policy if pursued. Such a large precinct will have a particular tendency to go dead after the last lecture, and lose its university character. Some high, point blocks for students would greatly add to the interest of the skyline as seen from the city centre. And the feeding of the students might be arranged economically in the precinct refectory rather than duplicated in distant halls. Some of the latest buildings are shown in the photographs but more interesting ones are promised. The quality at present is not such that one wishes that the Cunarders still docked at Liverpool; they would at present make a disappointing introduction to the Old World for the Leica-minded American. But better things are promised.

New buildings

1957, *new physics building* (approximate cost £500,000). Architects: Basil Spence & Partners, F.R.I.B.A. 1958, *women's hall of residence for* 160 *students*. Architects: Hellberg & Harris, F/F.R.I.B.A. 1958, *men's hall of residence for* 155 *students*. Architects: Willink & Dod, A.R.I.B.A. 1957, *extension to existing dental school* (approximate cost £100,000). Architects: Dawbarn & Blair, A./A.R.I.B.A. 1958, *engineering building* (approximate cost £250,000). Architects: Fry, Drew, Drake & Lasdun, F.F.A./F.R.I.B.A. 1960, *Veterinary anatomy and veterinary pathology building* (approximate cost £250,000). Architect: Maxwell Fry, F.R.I.B.A. 1959, *mathematics building* (approximate cost £250,000). Architects: Westwood Sons & Partners. 1960, *new organic chemistry, stage I* (approximate cost £300,000). Architects: Stephenson Young & Partners. *Students' Union* (approximate cost £300,000). Architects: Bridgewater & Shepheard.



Manchester University

Manchester grew from the famous Owen's College, through its life with Leeds and Liverpool as the Victoria University, to being recognized as an independent and autonomous institution in 1903. Its life is still centred on the Victoria building (1883) whose black gothic quadrangle seems extremely appropriate to a city like Manchester. It is big, bold, and has conviction. There are also red and pale yellow glazed brick gothic, and Jacobean buildings which have less character, but fenestration which

The main university building in Oxford Road.

is flexible and not entirely unsuited to their original purpose.

The university, who are not yet in a position to discuss their possible increase in numbers, now have 4,300 students. The figure in 1939 was 2,500. In order to house this increase, they are, with the co-operation of the city acquiring property to form a university precinct. This area is eventually to be bounded by two new north/south roads which will relieve the traffic on the Oxford Road which now cuts the precinct longitudinally.

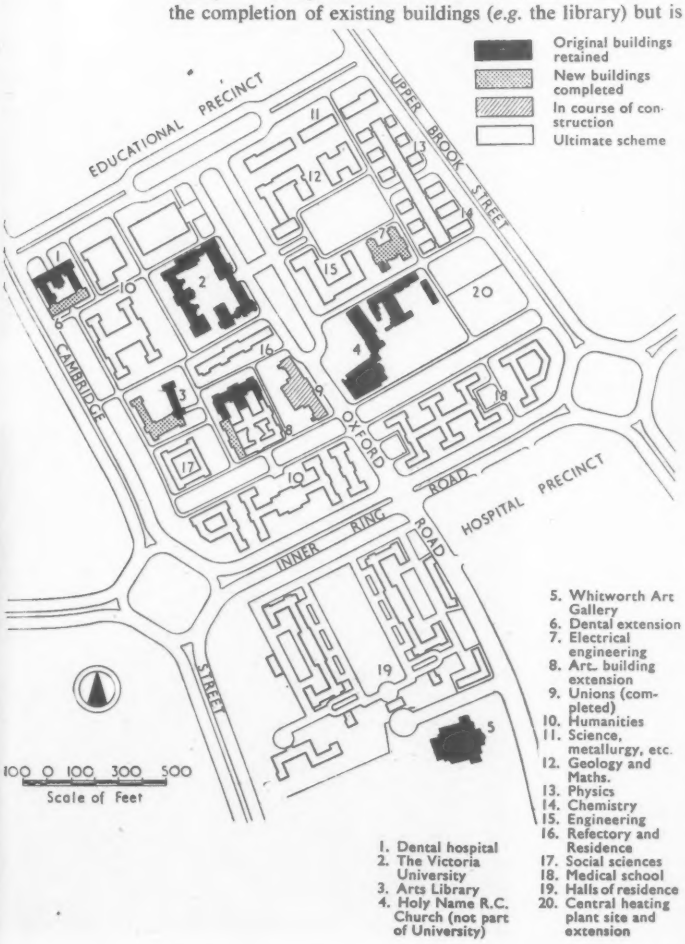
It is also cut laterally by a proposed inner ring road, but faculty buildings will be to the north of this, buildings to the south being halls of residence. The teaching hospital is also immediately south of the ring road, opposite the proposed **Medical School.**

The layout plan ("under revision and diagrammatic only") shows a scheme largely based on a series of axes which is, of course, of a quite different character to the more informal and romantic approach of the original buildings, which have, incidentally, a much more flexible layout. The formality of the plan cannot, of course, be consistent throughout since existing buildings and street patterns interfere with it.

The arts departments are to the west, and science to the east, of Oxford Road. The science centre is under review after a visit from the RFAC. A less even skyline and possibly a less formal plan is now under consideration.

As one of the university authority's major worries is the rehousing of tenants within the precinct it is not always possible to demolish houses even in their ownership. The realization of their plan is therefore extremely difficult and it is hard for the outsider to see where the £3 million spent on building since the war has gone.

However, the buildings, when found, are solid enough. On the whole the university have seemed to favour Neo-Georgian throughout. This would be understandable for the completion of existing buildings (*e.g.* the library) but is



Above, the Electrical Engineering Building, designed by J. S. Beaumont. The left-hand wing consists of three storeys of teaching rooms, the right wing, with similar fenestration, is a single-storey, high voltage laboratory.

The Arts Library extension, above, and the new Dental Hospital extension, temporarily used by the school of architecture, below, by Sir Hubert Worthington.

Below, the Arts Building extension by Messrs. H. J. Fairhurst and Son.

Manchester University: continued

Above, the new Union building by J. S. Beaumont, and, below, his proposed multi-storey hostel and refectory block.

incomprehensible for new buildings such as Electrical Engineering (the symmetry here means that the same fenestration has to light a three-floor block of teaching rooms on one side balanced by a high-voltage laboratory three floors high on the other side of the entrance). It is hardly surprising that the younger members of the university have revolted against this sort of development but it is sad that their reasoned arguments have met with no response.

The type of design approved by the building committee is seen in the photographs, and ranges from the recent extension of the library (which whether one favours the style or not it has its own character) to the arts extension, on which comment is superfluous.

However, the proposed departments for Geology and Mathematics in the new science centre may be the forerunners of a better architectural policy, of simple straightforward design.

The precinct covers a large area in the city. It is good to see that 30 acres of this is to be set aside for residential blocks. These may be on the dormitory block system (as adopted at Swansea and Keele) making use of the university refectories for meals. Besides being an obvious advantage to university life, students living here will give life to an area of the town which otherwise would tend to go dead after the last lecture.

The university now have only 971 students in halls of residence but they own 24 acres at Fallowfield and are building more halls there—but this is a couple of miles from the precinct and will therefore not help directly in keeping it alive.

Buildings erected since the war

Dental Hospital extension. Architect: Sir Hubert Worthington, F.R.I.B.A. *Arts building extension.* Architects: H. S. Fairhurst & Son, F.R.I.B.A. *Electrical engineering building.* Architect: J. S. Beaumont, F.R.I.B.A. *Clinical sciences building, New Unions building.* Architect: J. S. Beaumont, F.R.I.B.A. *Arts library extension.* Architect: Sir Hubert Worthington, F.R.I.B.A.

In the course of construction

Second science centre building (for Departments of Geology and Mathematics). Architects: H. S. Fairhurst & Son, F.R.I.B.A. *Hall of residence, Fallowfield.* Architect: Sir Hubert Worthington, F.R.I.B.A.

Next stage of development

Engineering building. Architects: H. S. Fairhurst & Son, F.R.I.B.A. *Refectory/Residence block.* Architect: J. S. Beaumont, F.R.I.B.A.

Manchester College of Science and Technology

The College of Science and Technology has taken various names and been the responsibility of several different authorities since it started life as the Mechanic's Institute in 1824. It is now a self-governing university college within the University of Manchester and it is also independent of them financially.

These developments were completed less than a year ago, and it is now hoped to double the number of students by 1962; planning therefore is still in the early stages.

Building since the war consists only of the completion of the extension of the original college building. It would be unfair to comment on this since it is based on designs submitted in 1927. In fact, it is an excusable mistake to think that the new extension is a building which has just been cleaned.

The proposed area for development has now been agreed with the city. It was originally zoned for commercial use. It lies to the south of the college and is separated from it

The old, above, and the new extension, below (architects: Bradshaw Gass and Hope) for the Manchester College of Science and Technology.

Manchester College of Science and Technology: continued

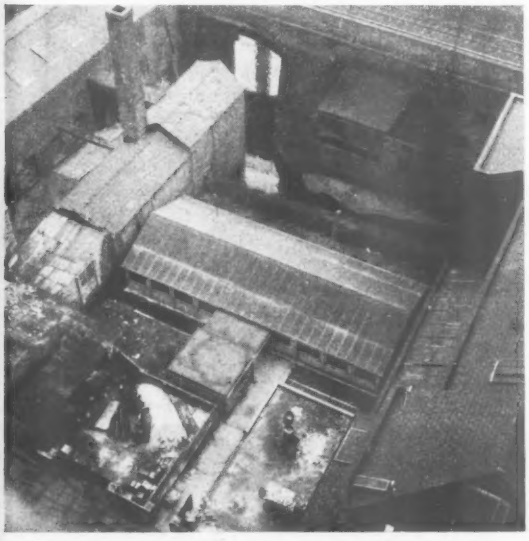
by a small railway viaduct. The areas to be developed are: 20 acres immediately south of the railway; the narrow strip of land separating the existing college from the railway—this must obviously be in the college's possession if it is not to form a barrier between old and new; and an area to the west for future expansion. The site has one or two new buildings, but is by and large a romantic industrial slum which must be awful to live in—fortunately there are few families left.

The River Medlock winds its way through the cliffs of buildings of the Nut and Bolt works, under the viaduct and back again in a great loop under Sackville Street. Sad to say, this is described by some as an open sewer, and all agree that it must be culverted and not exploited as a feature of the site. The college are most disappointed about this as they realize its possibilities, but they say the smell is often unbearable.

The rest of the site is being bought up as property becomes available. The cotton mill has been converted into a chemical engineering laboratory. The Corporation already own some of the property and are co-operating with the college in matters of acquisition. The site is bounded on the south by the proposed inner by-pass road from the docks to the east. There will be no access on to this road. The main part of the site is separated from the immediate expansion area by Sackville Street and there is a possibility that this road may eventually be closed.

The arches under the railway viaduct will be opened up. This could form an exciting arcade approach from the college to the new buildings. Plans for the new area are not yet available. It is to be hoped that it will be found possible to maintain the dramatic quality of the site and its use. Buildings housing the technologists of the future with their splendid machines and equipment need not follow the pattern of grassy quads and polite, medium-height, blocks. Here in the depths of an industrial city is a chance for them to establish a solution of their own. If the architecture of the buildings reflects the progressive attitude of college, they certainly will.

Part of the area for the development of the college, showing the River Medlock and part of the railway.



Building since the war

Completion of college building. Architect: R. M. McNaught, F.R.I.B.A., of Bradshaw Gass & Hope.

Projects

Lecture room block; civil engineering block; catering block: Architects: either H. F. Fairhurst & Sons, F.R.I.B.A., or Cruickshank & Seward, A.R.I.B.A.

Nottingham University

Nottingham University has severed its connections completely with the city centre and for nearly 30 years—thanks to Sir Jesse Boot—has enjoyed a fine parkland site two miles away to the south-west. The Faculties are:—Arts, Law, Social Sciences, Education, Pure Science and Applied Science (there is also a Department of Agriculture 12 miles away at Sutton Bonington).

The area of the site is 257 acres and it is hoped to increase this eventually to 430 acres. At present Boots Agricultural and Horticultural Research Department occupies a considerable portion of the centre of the site, and the City Corporation owns the lake and parkland which lies before the main university buildings and also part of the sports ground which is yet further south-east, on the far side of University Boulevarde. It is not beyond the bounds of possibility that the university will acquire an alternative sports ground for the City and suggest an exchange, which would be of great advantage to the former and no hardship to the latter. P. Morley Horder was the architect to the Trent Building, the first building on the site, and in a formal, neo-classic style gave the university the solid-seeming, essentially worthy background which seems to have once been thought psychologically necessary for a raw young university. He also designed a neo-Georgian women's hall of residence. Cecil Howitt has continued this eclectic approach by designing a neo-classic union building which, like the Trent building, is stone before and brick behind, and stands, on a similarly frustrated axis, on a commanding position above the lake and lavishly dug into the hillside. Howitt has also designed a women's hostel, a five-finger exercise in planning, five stories high, which is surprisingly bulky for an open country site and yet not high enough to be graceful. The university's own building department has designed an unpretentious brick and tiled-roof biological science block consisting of three under-sized courtyards and a fringe of projecting wings. This worthy, if heavy-footed, effort has not proved a success and is not to be repeated. It was substituted for David du R. Aberdeen's rather aggressively modern shell-domed project. On the north-east side of the site is a typical MOW brick-built slum of hutments sprawling in wasteland. This is being redeveloped by Basil Spence as faculties for pure and applied science. His design is still being considered, and cannot therefore be published, but it promises to be a most satisfactory solution to a very involved problem.

Sir Percy Thomas acts as consultant to the university and in 1948 was commissioned to create a development plan. In 1954, G. A. Jellicoe was asked to prepare a landscape design for the university. It is based on Sir Percy's plan and has been accepted "in principle." The university buildings occupy the centre and the north-east section of the site and are ringed on the south-west, west and the north-east by halls of residence and staff houses, each standing in their own grounds. Two further halls run from the edge of the site to the centre. The encircling halls are separated from the university by a magnificent sweep of parkland.

The university has accepted that students will bicycle to work. The design approach, therefore, is more in line with an open, spacious, American campus-type layout, than with the traditional quadrangular-collegiate plan. The intention is to have the halls disposed in the parkland, each separated from the other in a carefully planted setting. Some halls may be designed by traditionalists and some by modern architects. The students will walk or bicycle to the main university buildings which will crown the hill in the centre of the park (where, also, the chapel will be) or they will cross the park to the science faculties to the east by means of a ring road. This treatment for the layout of the halls could be very satisfactory provided that there is not too great a disparity of

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Nottingham University: continued

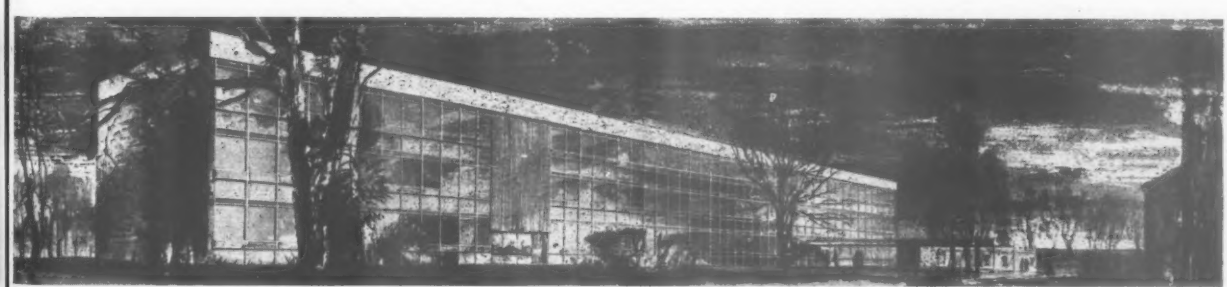
G. A. Jellicoe's landscape design for Nottingham University. This has been accepted in principle, but detailed replanning of certain areas are now under consideration by the university. Centre, facing the lake, are Morley Horder's Trent Building, on the left, and Cecil Howitt's new Union Building. To the right is the biological science block, designed by the university's own building department (another view, right). Right again is an area which has been redesigned by Basil Spence for faculties for pure and applied science. Around the fringe of the park are suggested and existing halls of residence.

approach on the part of the architects, and provided one architect is given the job of welding all the buildings into a composition as carefully considered, in twentieth-century terms, as an eighteenth-century landscape.

The layout of the extensions to the main university buildings, for which G. A. Jellicoe suggested the solution shown here, is being further revised, and proposals are being put forward by Messrs. Farquharson & McMorran, who have also prepared a design for one of the halls of residence.

The university has at present 2,300 students. It is now planning to increase to 4,000 students by the late 'sixties. At present 390 men and 300 women are in halls of residence. Of the remainder, only 200 have their homes in Nottingham, the rest are in lodgings. The ultimate policy is to provide two years' residence in halls for each student. A number of tutor's houses are built alongside each hall of residence, to form the beginnings of a possible college system. All graduates are members of convocation, there is an association of past students, who receive a news letter, and the Vice-chancellor, B. L. Hallward, is anxious that graduates should remain in touch with, and interested in, the university. He believes in a "long day" policy for students, and to aid this has had built the spacious Union building. This, by Cecil Howitt, has been in part equipped and decorated internally by Sir Hugh Casson, Neville Conder, H. T. Cadbury-Brown, John Wright, Lord Mottistone and others. Where the planning and daylighting permits, the result, internally, is often fresh, colourful and inspiring. Other parts are banal. In the Union, or Portland Building, as it has been named, students can eat, study, debate, visit an art gallery, buy books, or read in the general library until 10.30 at night. As a result of this great contribution to university life the main university library is used more than ever before and scores of research students, staff, graduates and others continue to use the building during the vacations. This reduces the student's life in lodgings to merely bed and breakfast. On the other hand, the students in halls of residence are expected to take all meals in Hall.

Above, two women's halls of residence, by Cecil Howitt and by Morley Horder. Below, Agricultural Sciences building at Sutton Bonington, designed by Basil Spence.



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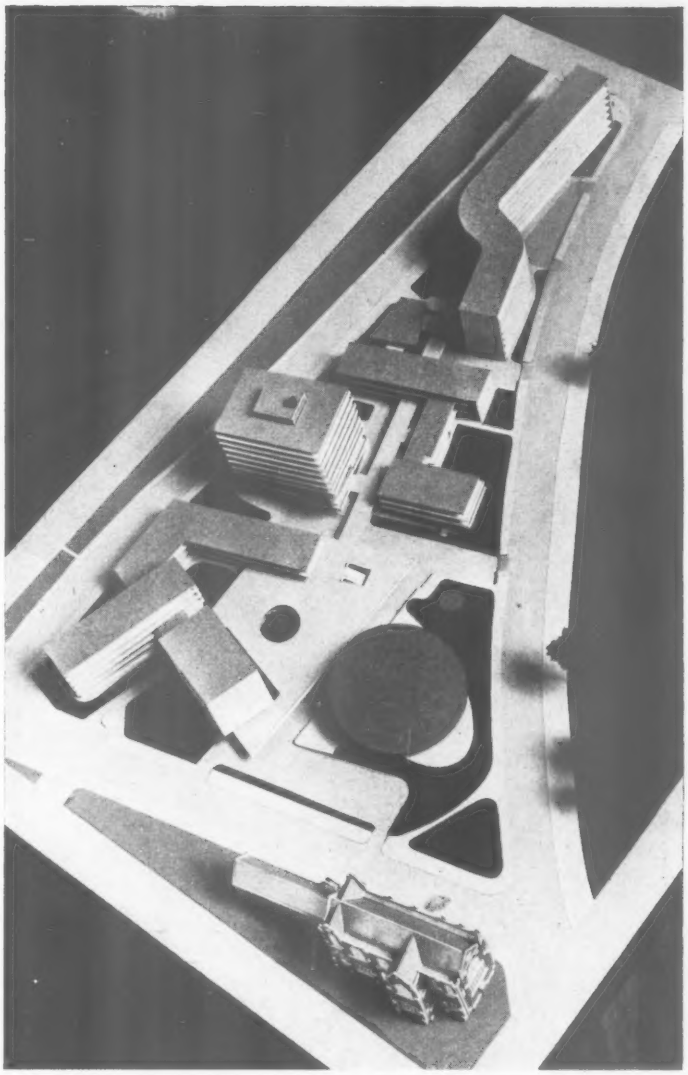
Oxford University

Oxford University is a golden grey academic city of courts and towers, moated by water meadows on three sides. Magdalen Bridge is its front drawbridge, St. Giles its back. But the bridges are down, and an invading army of buses, lorries, vans, motor-cars, marches at will up and down its great Gallery of collegiate architecture, the High, and irrupts into its smaller rooms and passages. The invasion has happened because Oxford, unlike Cambridge (which has learnt from her sister's bitter experience), had not the foresight to limit her industrial growth before it was too late. Now the only remedy is to raise the bridges and divert the invaders round the moat. Oxford's neurosis about this is Britain's mid-century schizophrenia in miniature: whether to grasp the nettle of change or whether to block our ears and dream ourselves back in some past where such desperate remedies did not have to be faced. It is the Suez situation in terms of planning. No other generation would have hesitated, once convinced of its rationality, to build the road and make something fine of it.

Oxford had 5,000 full-time students in 1939, now has well over 7,000; but the University can indicate no trend. That is up to the Colleges, most of which are hemmed in and only capable by the utmost ingenuity of fractional additions to their accommodation. The only hope of coping with the post-conscription bulge is to find more lodgings in the city and induce undergraduates to emigrate right out to the perimeter of the 3-mile limit. The Registrar now has a full-time officer engaged on this task.

Meanwhile the new colleges like Mansfield and St. Anthony's are helping to some small extent, and there are hopes of a newer still in the bend of the Cherwell beyond Holywell Manor. Wadham, Keble, St. Anne's and Pembroke have made minor additions, of which the new Wadham block is the most interesting (though it suffers from the prevailing Oxford addiction to curves) and there are projects for St. Anne's, Somerville, St. John's and Exeter. But broadly the colleges can do no other than accept the residential accommodation they have got, and settle their undergraduate strength by the numbers they can teach. To do this, the problem of teaching space has to be solved.

In 1956 Oxford had 4,723 arts students and 1,471 students of Science, Technology, Medicine and Agriculture. Yet the tutorial system, the Bodleian and the Examination Schools seem still capable of handling the former, and apart from a Law Library planned for Manor Road (Peter Shepheard) and a new Cast Gallery for the Ashmolean (Easton & Robertson) there are no substantial proposals for new Arts buildings. In comparison, the appetite of science and technology for new building is nowhere more voracious than at Oxford. The University having now almost completed the great new scientific quarter along South Parks Road has urgent plans for another in the seven-acre triangle north of Keble. After some controversy and changes of policy, Mr. Basil Ward has now produced a definite plan for it. He had before him and beside him the warning of South Parks Road, where in the lee of Ruskin's University Museum and along the green edge of the University Parks is Oxford's most sadly missed architectural opportunity. It is sad enough that this great scientific quarter was largely built before news of modern architecture (which would have suited it so ideally) had penetrated to Oxford. It is sadder still that the largest inter-war example of compact and urban university development (at a time when so much was suburban) should be just a huddle, with little evidence in its layout of either scientific method or artistic imagination. Mr. Basil Ward, who is to be responsible for a number of the



Basil Ward's proposed development for the triangular, seven-acre site north of Keble.

A proposed extension to St. John's College consisting of 30 sets of rooms in the North Quadrangle. It was designed by the Architects' Co-partnership.

Looking ahead–and far beyond

which is, of course, second nature in our business. That really large oak beam, for instance, which somebody is bound to order about 1968, is being prepared *now*—ready for the day when it will be required. Today, also, we are laying-in stocks of hardwoods for buildings still unplanned, but which will be the projects of tomorrow. So to manufactured panels. We believe that there is no time like the present to grapple with the problems of the future in insulation, fire resistance, durability, and suitability. To look forward intelligently it is essential to look back occasionally and profit from the lessons of hard experience. In looking so far ahead we are guided by a wealth of experience which is at the service of the many Architects who specify Mallinson products.

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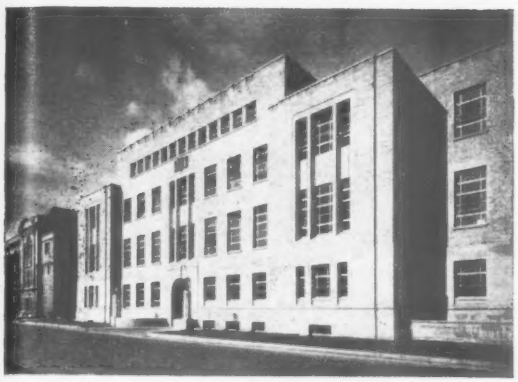
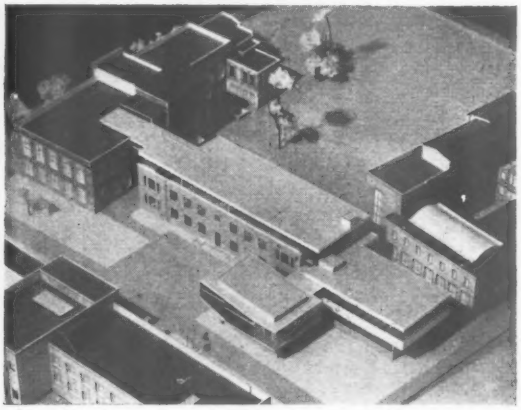
Oxford University: continued



Two contrasting styles of inorganic chemistry laboratories. Above, by Lanchester and Lodge; below, a project by Ramsey, Murray, White and Ward.



new group of scientific buildings, has a great opportunity. There is no space for even the briefest glance at the problems of Oxford as a whole. Mr. Chandler is one of the still rare examples of a city architect who is also planning officer, and Oxford is thus ahead of most British cities in having a planning administration which should at any rate work in theory. But Oxford's problems are psychological rather than administrative. Space for University expansion is the least of them. Northwards up the Banbury and Woodstock Roads the leases of North Oxford will fall steadily in during the next decade or two, and the University can spread in this direction without having to jump natural barriers or eat up its own green belt. The parks may some day be in the centre rather than on the fringe of the academic city. Let us hope that the right kind of thinking will be done in good time.

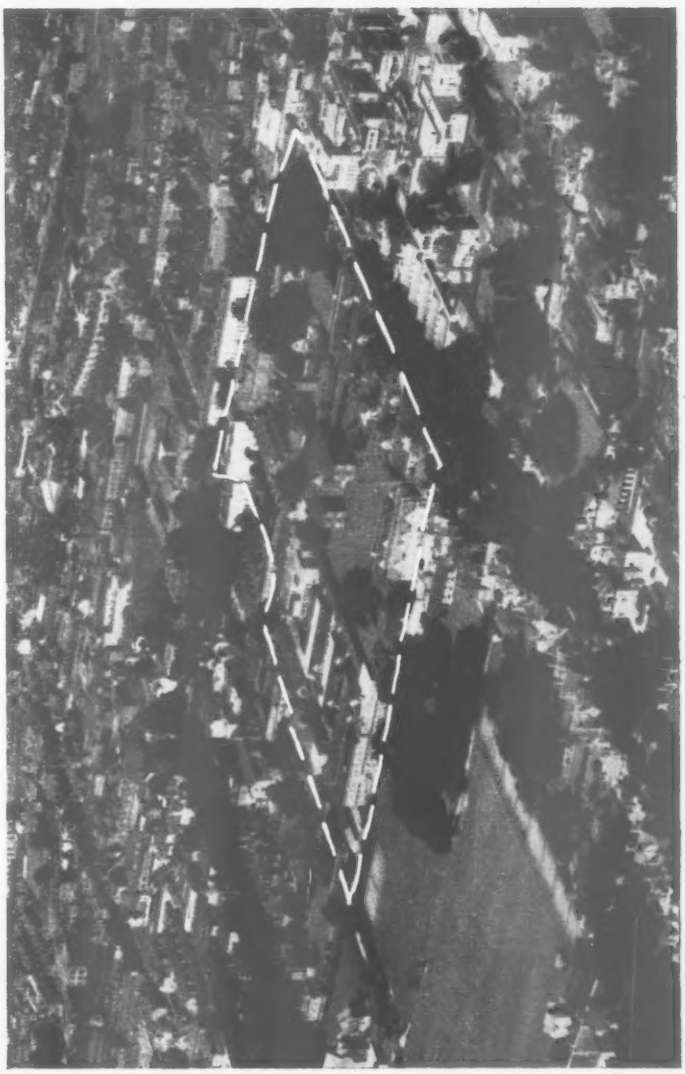
Meanwhile we should not take Oxford's recent architectural past too tragically; it is a small episode in a long story.

A pair of double boathouses, for New, Balliol, Brasenose and Exeter colleges, designed by Bridgwater and Shepheard.

Reading University

What we now call Reading University is a daughter of Oxford, and dates from 1892, when a University Extension College, based upon the local Oxford University Extension Centre and the local Schools of Science and Art, was formed in Reading under the charge of a student of

Left, an aerial view showing the present main university site off London Road. Right, the Library, with the Memorial Tower on the left, part of the cloisters in the centre, and the Departments of Fine Art and of Botany beyond.



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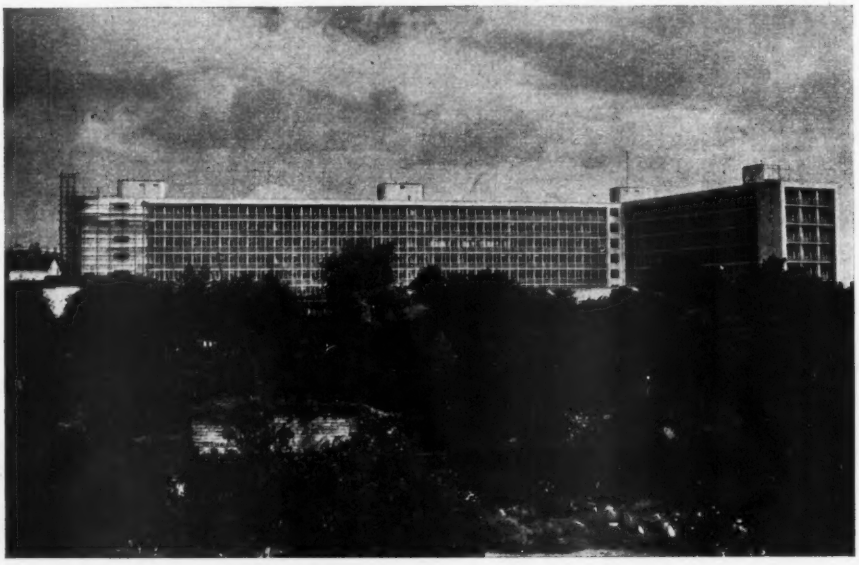

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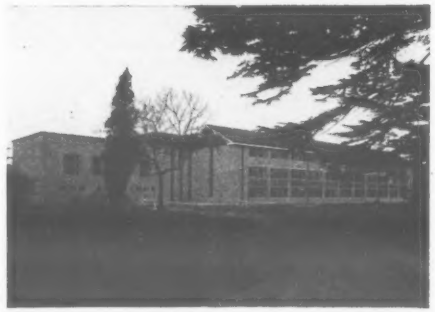
villas, and the nibbling away of some corners by the hut-

Reading University: continued

KEY

1. School of Music
2. Gymnasium
3. Small Hall and reception
4. Great Hall and reception
5. Administration
6. Senate
7. Education
8. Faculty of Letters
9. Library
10. School of Art
11. Senior Common Room (temporary)
12. Faculty of Science
13. Faculty of Agriculture
14. Workshops and boiler house
    A Initial boiler house
    B Sewage disposal pump house
15. Students Union, etc.
16. St. David's Hall
17. Swimming bath
18. Open-air theatre
19. Hall of Residence
20. Sports fields and University Training Corps
21. Porters' lodges
22. Staff houses
23. Car park and bicycle sheds



Two views of the new Faculty of Letters in Whiteknights Park, designed by Easton and Robertson.

Christ Church, Sir Halford Mackinder. The new college, which gained its Charter as a University in 1926, had, and still has, a definite rural bias, with a strong faculty of agriculture and horticulture and a rare speciality—dairying.

Since 1904 the University has occupied a curiously discreet site off London Road, hidden by late Georgian terraces and filled (to overflowing) with modest redbrick buildings somewhat in the style of Ernest George, linked by covered ways. Most of its buildings it owes to the generosity of the Palmer family. The district is the nicest in Reading, with pleasant early nineteenth century stucco shading off, as one climbs the long slope towards Whiteknights, into a bosky and blossomy late Victorian suburb. It has the charm of North Oxford without the boredom of the Banbury Road. The University's seven halls of residence are all on this airy slope, and all within a mile of the present faculty buildings.

Unfortunately the London Road site has become congested to the point of slumminess. With over 500 students of Letters, 350 students of Science and 350 of Agriculture, and with plans to expand to 2,000 students within ten years, it has long since been clear that the university would have to move. It was, therefore, a stroke of good fortune and good management that acquired for the university, in 1947, the freehold of Whiteknights Park.

Whiteknights Park is a 300-acre enclosure of Georgian landscape, complete with lake, in the midst of Reading's eastern suburbs, the creation of a spendthrift Duke of Marlborough. Broken up on his death into half-a-dozen "model" estates, it has suffered nothing worse in the last two centuries than the loss of some of its oldest clumps (more than offset by some fine Victorian conifers) the silting up of its lake, the erection of some gentlemen's villas, and the nibbling away of some corners by the hut-slummery of World War II, which, needless to say, still survives. It was where for many a long year people went to beg for building licences or petrol coupons.

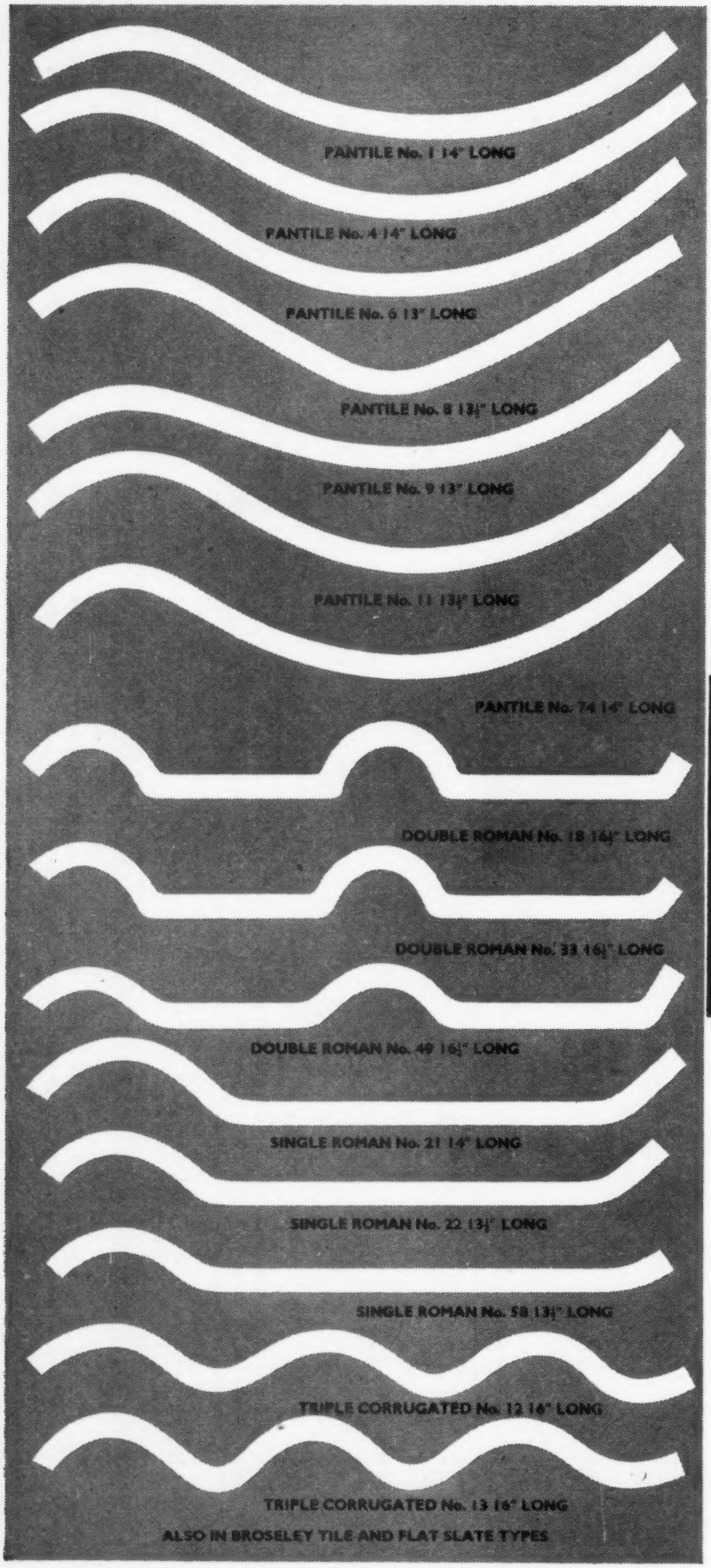
For this University, which, like Reading itself, has always been suburban rather than urban in character, it is a setting both spacious and convenient, since it is no further from the existing halls of residence than the existing faculty buildings, and already on the fringe of the university zone. For the planners and architects of the new university, Easton and Robertson, it is as good a background as heart could desire. One can see only one danger: there is so much space for deployment and so many fine trees to dodge that there will always be a temptation to scatter the new buildings ("space for expansion") among endless lawns and car parks, so that they cease to support and enhance one another. To strike the perfect mean between intimacy and flexibility, the formality possible on a virgin site and the deference due to old trees and other fragments—that is the problem. The layout (already outdated by recent expansion proposals) suggests that the architects are well aware of it.

The first of the new buildings, the Faculty of Letters, is a notable start, finely finished and pale fawn among cedars and ilexes.

But it would be a great pity, considering the wide spaces between the sites of the new buildings, if any of the fine Victorian arboretum had to be disturbed. One is conscious of the need here for a contemporary Capability Brown, capable of seeing the whole park in a broad painterly way and creatively moulding its future. Minor planting schemes in connection with new buildings and a vaguely preservationist attitude elsewhere will not bequeath a landscape of real splendour, and there is no reason why this University should be content with less.

Socially, Reading has the inevitable problems of split personality. The centre of gravity remains in London Road until such buildings as a Library, Students' Union and Administrative offices can be built at Whiteknights. This matters less than elsewhere because Reading has a strongly "collegiate" tradition, with 60 per cent. of the students spending three years in Hall. To keep this up (essential because of the shortage of lodgings in the town) new halls are urgently needed, though whether all should be built at Whiteknights (campus idea) or all scattered (collegiate idea) is still in dispute. A large-scale start is shortly to be made on the Faculty of Science, by the same architects.

The practice by which a students' committee is consulted by the architects at the design stage of each new building is to the credit of the University and of the architects, and should be copied elsewhere.



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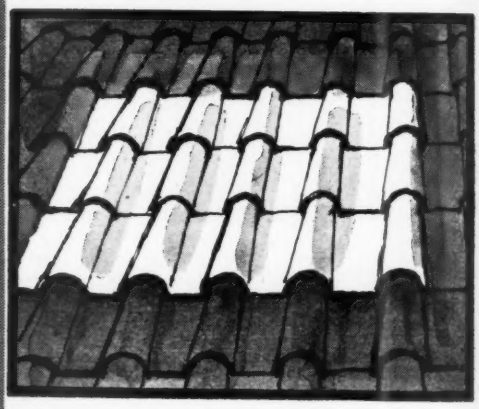

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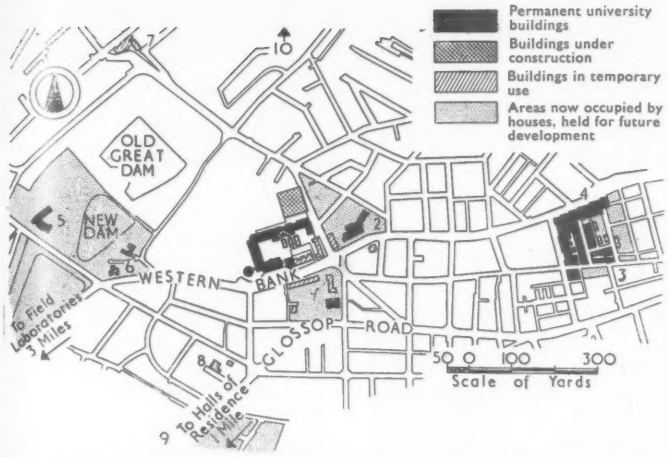


Western Bank area. 2. Chemistry Building. 3. St. George's Square area. 4. Engineering. 5. Glass Technology. 6. Student health service, Institute of Education, German and Philosophy. 7. Forensic medicine, extramural studies. 8. Spanish, architecture. 9. Site of new teaching hospital. 10. To Royal Infirmary.

Sheffield University

When Sheffield became a university proper in 1905 it sprang from a university college, formed in 1897, through an amalgamation of the School of Medicine, Firth College, and St. George's Square Technical School. Firth College moved to their shiny red brick Jacobean buildings designed by the Sheffield architect Gibbs at Western Bank, but the Technology Department remained where it was. So the university faculty buildings are still developing in two main areas about a quarter of a mile apart and about three-quarters of a mile west of the city centre; the university are, of course, aware of the disadvantages but the five minute walk involved is of little importance at the moment; whether the split will be a more serious matter when the proposed inner ring road (100 ft. wide and dual carriageways) is constructed between them remains to be seen. The university are not worried.

In order to make development possible after the war a considerable area was compulsorily acquired by special Act of Parliament. But rehousing the occupants is still a great problem.

The broad divisions are now as follows:

Western Bank: Administration, arts, pure science and medical departments; on the edge of Weston Park—an excellent public open space.

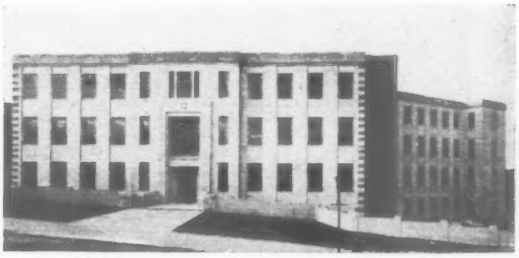
St. George's Square: Technology.

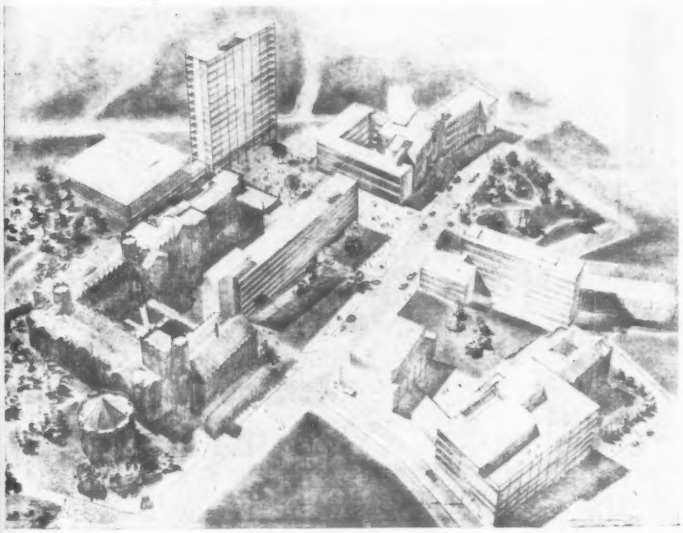
The Dams: Glass Technology and playing fields (these so-called dams are reservoirs which have been, or are now being filled in, and will provide a few playing fields rather nearer the university than the present ones which are at the other side of the town).

Endcliffe: About 1½ miles west of Western Bank is an area of halls of residence.

Teaching hospital: A precinct is shown conveniently close to Western Bank at Glossop Road, on the Town development plan.

There is no consultant architect for the university as a whole but since winning the competition (in 1953 the university, in search of young blood, held an open competition) for the development of Western Bank, Messrs.





Above, post-war university buildings in Sheffield designed by Messrs. J. W. Beaumont and Sons; top, the Chemistry Building in the Western Bank area, which flanks Gollins, Melvin, Ward and Partners' campus layout; centre, the Engineering Building in Broad Lane in the St. George's Square area; bottom, Stephenson Hall, a men's hall for 89 students, a warden, and academic staff of 6. Left: layout of the Gollins, Melvin, Ward and Partners proposals for the Western Bank area.

Gollins, Melvin, Ward & Partners have been consulted on development here. J. W. Beaumont & Sons are doing new work in the Technological area.

Plans generally are in the melting pot owing to the recent revision in the proposed number of students. Sheffield is another university involved in colossal expansion. The numbers are as follows: 1939, 700. 1957, 2,500. Original target, 3,000. Probable revised target, 4,500.

Two-thirds of the new 1,500 will be reading science or technology but nobody yet knows in what proportions,

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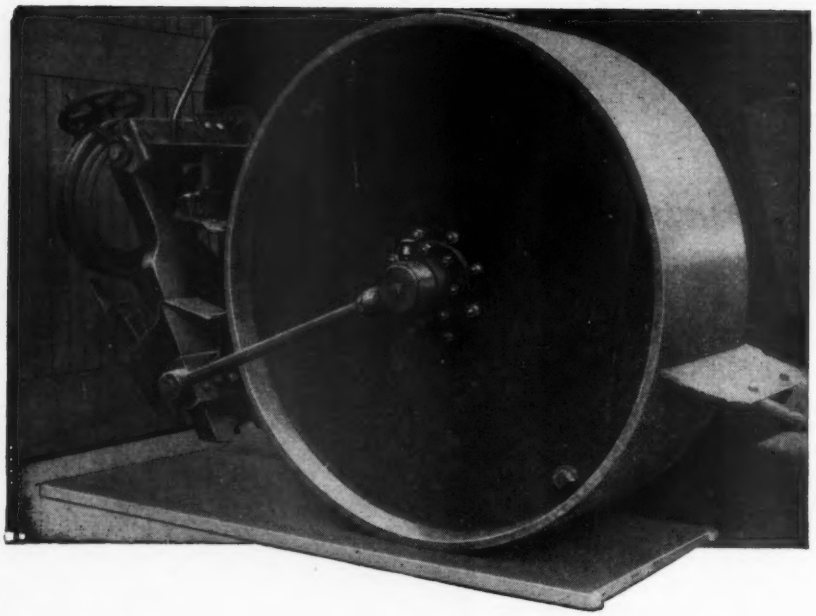

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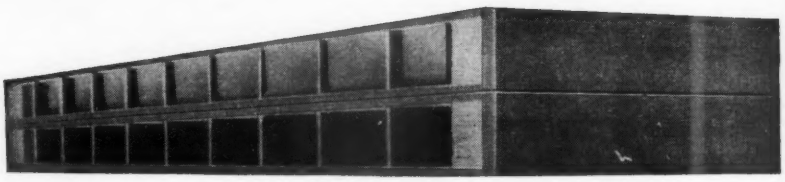

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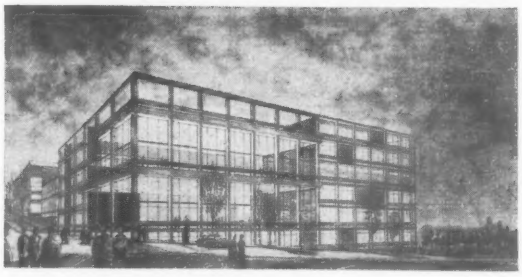
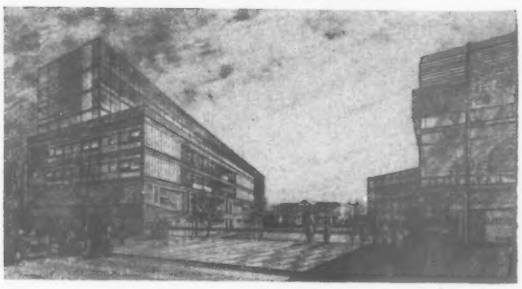
Sheffield University: continued





Three sketches showing the latest developments of Gollins, Melvin, Ward and Partners' proposals for the Western Bank area of Sheffield university. Top, a view of the Arts and Architecture block from the campus. On the left is the old Firth College building, with, beyond it, the new library, now under construction. On the right is the Chemistry extension which links up with the Chemistry block by J. W. Beaumont & Sons, illustrated on page 66. Above left, the Students Union, seen from the south in Glossop Road. Above, the Physics and Mathematics blocks, with lecture theatres in the foreground. On the right is the theatre, with part of the Students Union beyond. All these perspectives were by H. Prince and P. Guest.

which makes planning difficult. Western Bank is a relatively clear area, and is being developed in a flexible informal manner, and although obviously involving a tremendous amount of work and thought, has great possibilities. The St. George's Square area, where a dense mass of building of fairly uniform height has taken place, can give no idea of the dramatic possibilities of the hilly romantic city, and development here is restricted by the available space on the site.

Sheffield are to be congratulated on their boldness in accepting the winning scheme in the Western Bank competition, and this initiative should reward them in many ways. The juxtaposition of the low square library and the tall teaching block of 17 floors has tremendous possibilities however finally solved. It is good to see that the library is already well out of the ground. Demolition of old property goes on around it. The latest stage of the architects' proposals are illustrated here, from which can be judged the quality of one of the most promising of post-war university schemes and the first modern design for a university in the country of any size.

The university are particularly aware of the residential problem but it is too early to discuss their halls of residence policy, which at the moment is following a fairly typical pattern, but with an emphasis on hall against hostel.

New buildings

(a) *Completed since* 1945

Stephenson Hall for men (Stage I); chemistry building.*† Architects: J. W. Beaumont & Sons, F.R.I.B.A. *Mining extensions*‡. Architects: Hadfield, Cawkwell & Davidson, F/F.R.I.B.A. *Engineering extensions*‡. Architects: J. W. Beaumont & Sons, F.A.R.I.B.A.

(b) *Now under construction*

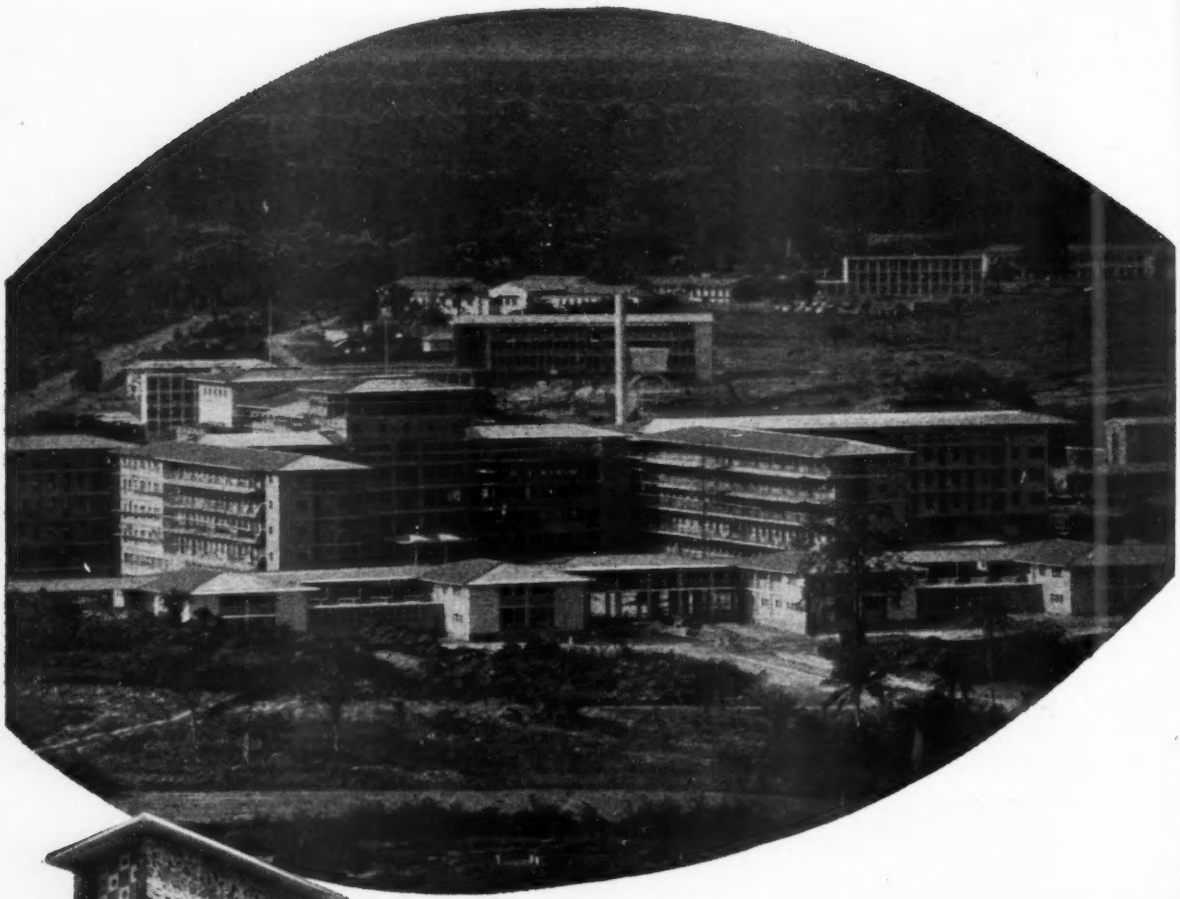
Library.† *Chemistry extension.*† Architects: Gollins, Melvin, Ward & Partners, A./F./A.R.I.B.A.

(c) *Due to start in* 1958 *Western Bank central boiler house.*† Architects: Gollins, Melvin, Ward & Partners, A./F./A.R.I.B.A. *Fuel technology and chemical engineering block.*‡ Architects: J.W. Beaumont & Sons, F.A.R.I.B.A. *Physics/mathematics block*†; *Students' Union refectories/senior common room.*† Architects: Gollins, Melvin, Ward & Partners, A./F./A.R.I.B.A.

* On a separate site about a mile away from Western Bank.

† Western Bank.

‡ St. George's Square.



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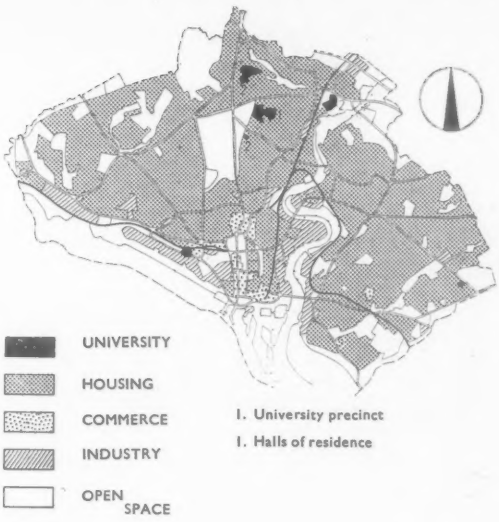
Southampton University

Southampton is one of the most up-and-coming of the youngest universities. From 300 students between the wars, numbers have now risen to 1,400 and are planned to reach 2,000 by 1965. There they intend to stay, feeling that this number will give full academic variety without loss of community sense. Science and engineering students (with a strong accent on aeronautics) slightly outnumber arts students, but both sides will increase to a planned proportion of 57:43. It is also hoped, when the present rush subsides, to return to 50 per cent. in Halls of Residence.

That is the future. As to the past, . . .

"Hartley University College," after half a century of rather shadowy existence in its Victorian Italianate building in the High Street (now vanished), bought a small suburban estate on high ground a couple of miles up the Winchester road from Bargate, and was about to move into its first buildings there when World War I broke out and they were taken for a hospital. In 1919 the College returned to its own, and was forced by the exigencies of the time to make use of the huts with which the war department had cluttered up the site. These huts are still in use.

The next thirty years produced a crop of very bricky and mullioned academic buildings and halls of residence. The former were ranged round the central cluster of huts in a roughly squared pattern, but by firmly (and naturally enough) turning their backs on the huts ensured that there could never be a meaningful central space. The latter are scattered in the surrounding sea of rather pleasant suburbia. All are sub-Georgian except the main building and library, which has a touch of Sir Giles Scott. All were perforce humble in scale and built very cheaply.

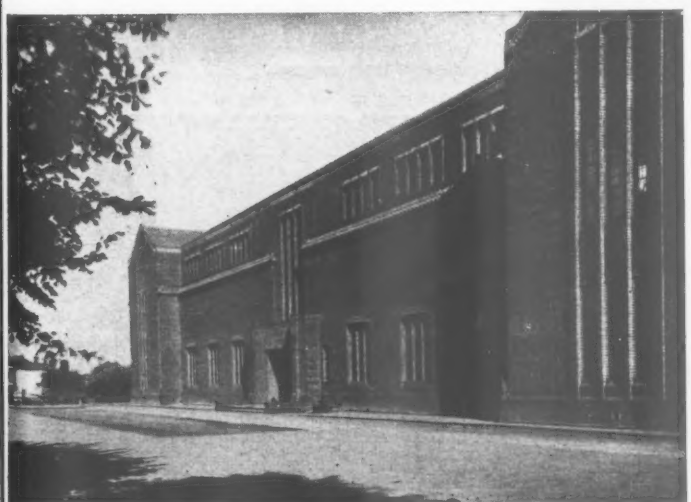


1. University precinct
1. Halls of residence

In 1952 the College received its Charter, and Professor Basil Spence, its newly appointed architect and planning consultant, finds himself with the usual lapful of missed opportunities—missed (one must in fairness add) by the low aim and poor foresight of an earlier generation, rather than by the failings of particular individuals.

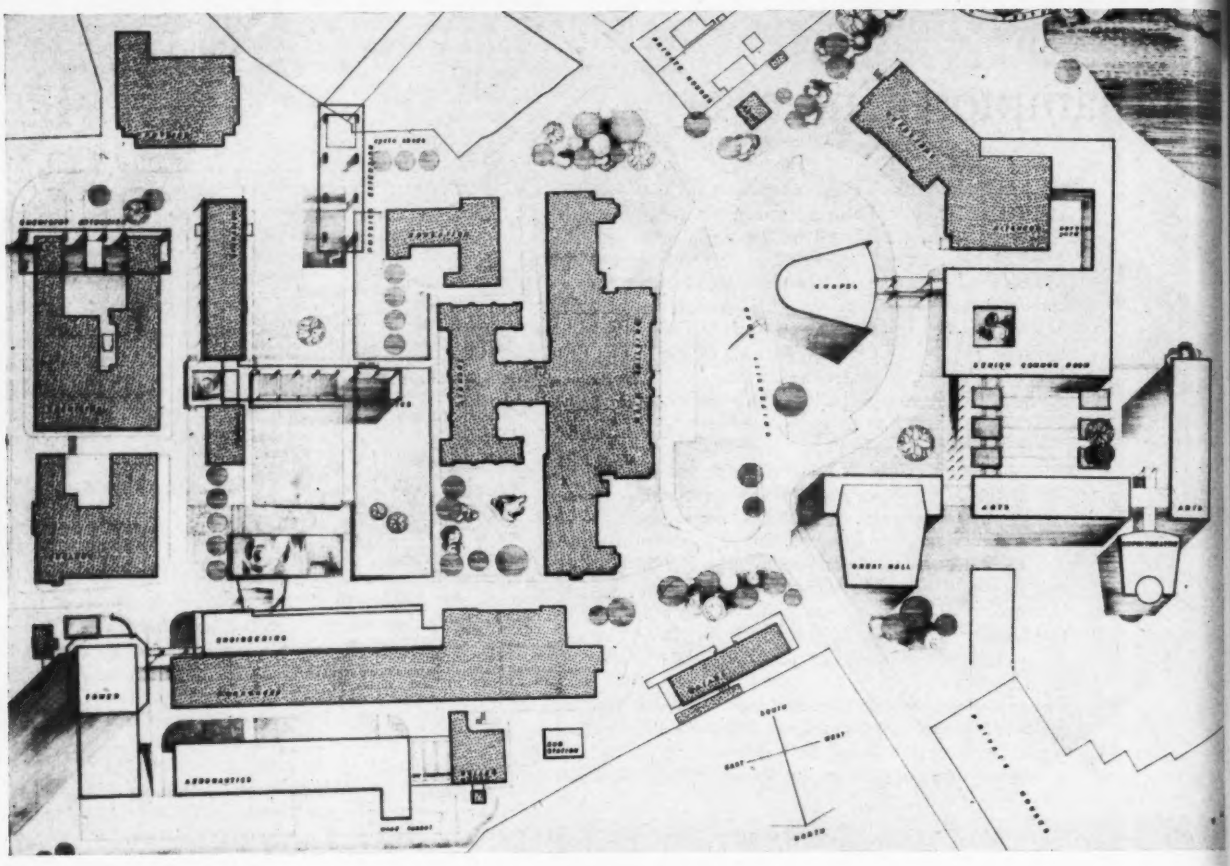
The hilltop site gives no hilltop feeling because every distant vista is blocked. There is no visual link with Southampton's magnificent Common—only a stone's throw away. The layout is barrack-like on one side of University road, subtopian-whimsical on the other. No unifying principle, no invitation to enter and explore, no sense of enclosure. Yet the surroundings are peaceful and airy, there are good trees coming along, and room for more.

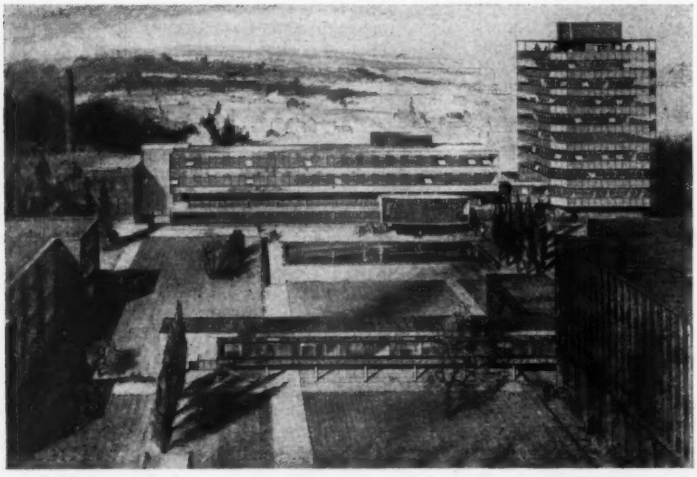
Above : a post-war hall of residence at Southampton designed by Gutteridge and Gutteridge. Below, the main building and library from the south-west, also by Gutteridge and Gutteridge, behind which lies the quadrangle shown right



Professor Spence's first batch of buildings for science and engineering aims to pull together the hinterland of huts and red brick blocks into a sequence of intervisible courts, ultimately defined by lawns and pools and low blocks on stilts, the whole group dominated by a massive 10-storey tower of engineering labs., square on plan, which will proclaim the University's hilltop site from afar. This is admittedly only half the battle. Across the road the Students' Union lies in a rather fiddling public-garden setting unrelated to anything else, with much rockery and shrubbery. Here a new Senior Common Room, and later a Great Hall and a university chapel, will contribute badly-needed definition and climax. A master plan for the whole of this "campus," eventual heart of the University, has been commissioned, and it is not too late for rationality to assert itself.

Southampton's bold planning and big future should not

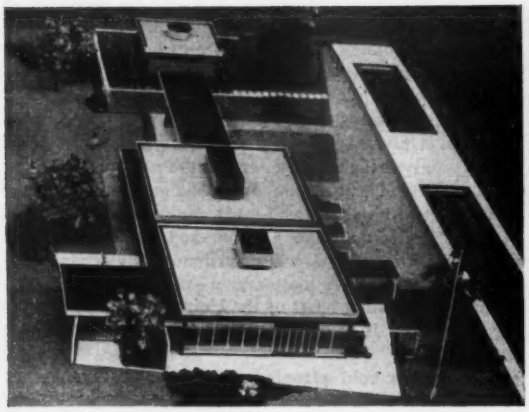


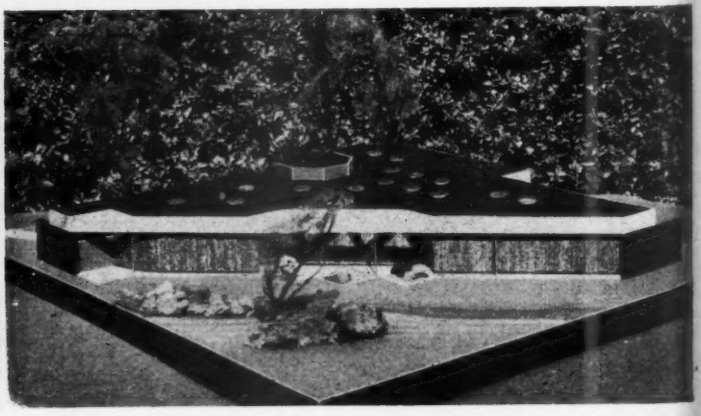


Basil Spence's proposals in the perspective, left, shows approximately the same area of the quadrangle as the picture on page 69 and his plan, above, shows the complete development on both sides of University Road. Existing buildings are shown stippled.

dazzle us to the point of ignoring two delightful little new buildings, both by Frederick Lawrence & Partners of Bournemouth. One is a neat sports pavilion; the other, triangular on plan, houses an enormous hydraulic model of Southampton Water under a cellular Trofdek roof—for no more money and with ten times the visual effect of the huts that weaker spirits would have been content with.

Below: two neat new designs by Frederick Lawrence and Partners; left, a sports pavilion and, right, a building to house a hydraulic model of Southampton Water.





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APPLIED FLOOR TREATMENTS

Type of floor	Initial treatment	Maintenance	Finish obtained
Wood block or strip	Two coats Bourne Seal	Sweeping with Sealsweep or occasional polishing	Non-slip egg-shell finish
	Two coats Bourne Gleem	Sweeping, mopping up any spilt food, etc., with damp cloth or mop	Non-slip gloss finish similar to wax polish
Cork tile	Two or three coats Bourne Gleem	Sweeping, mopping up any spilt food, etc., with damp cloth or mop	Non-slip gloss finish similar to wax polish
Concrete or granolithic	Two coats Bourne Seal	Sweeping and occasional mopping	Egg-shell finish
Thermoplastic tiles	One coat Tileseal	Sweeping with Tilesweep or light washing	Gloss finish
	One or two coats Tilegloss	Sweeping, reburnishing when necessary	Non-slip, high-gloss finish
	Two coats Bournbrite	Sweeping, reburnishing when necessary	Non-slip polished finish
Rubber	Two coats Tileseal	Sweeping and light washing	Polished finish
Linoleum	One or two coats Bourne Gleem	Sweeping, mopping up any spilt food, etc., with damp cloth or mop	Non-slip gloss finish similar to wax polish
P.v.c.	Two coats Tileseal	Sweeping and light washing	Polished finish
Quarry tiles	One coat Bourne Seal	Sweeping and occasional mopping	Non-slip egg-shell finish

This Sheet describes Bourne floor treatments, their application to various types of floor and their subsequent maintenance. The table above gives a brief guide to the selection of treatment for a given type of floor, which is amplified in the following notes. The manufacturer has an advisory service available to make recommendations, and give instruction in the application of Bourne treatments and the maintenance of floors after treatment (see *Further Information*).

Bourne Seal

Description: This is a penetrative treatment prepared by special processing of tung oil and other resins. It renders porous surfaces completely resistant to the absorption of dirt and is extremely tough and durable. It gives a semi-matt appearance which will not craze or chip. Several grades are available for different floor surfaces (see *Coverage*).

Application: Both old and new surfaces may be treated provided they are absolutely clean. All dirt, grease, wax, etc., should be removed completely and the floor thoroughly rinsed to remove all trace of alkalis. When the floor has been allowed to dry, two coats of Bourne Seal should be applied in accordance with the manufacturer's instructions. Alternatively, before applying Bourne Seal the floor may be resurfaced with an electrically-driven sanding machine and "fined up."

Coverage: The approximate coverage, allowing for two coats where necessary, is as follows:

Type of floor	Approx. coverage per gallon	Grade
Concrete or granolithic	50-60 sq. yd.	G72, G131
Softwoods	40-50 sq. yd.	G67
Hardwoods	60 sq. yd.	G67
Pitchmastic	60 sq. yd.	G67, G131
Linoleum (porous types only)	70 sq. yd.	G67
Chipboard, etc.	40 sq. yd.	G131

Maintenance: The treated floor may be maintained by occasional mopping with clean, warm water, or Sealsweep, a sweeping powder which collects dust and dirt and leaves a shiny, non-slip surface. Alternatively, a light coat of liquid wax polish may be applied at intervals to give a gloss finish.

Uses: Bourne Seal is particularly suitable for floors which must be kept constantly clean with the minimum attention, such as in schools, canteens, factories. It may also be used satisfactorily on furniture, e.g. tables, which must be kept in a hygienic condition.

Bourne Pigmented Seal

Description: This is similar to Bourne Seal but gives a coloured surface with a semi-gloss finish. It has been produced primarily for the treatment of concrete, granolithic and jointless composition floors, and is obtainable in various colours.

Application: The material should be applied with a wide paint brush taking care to avoid join marks by working to a wet edge. It should be left to dry (approximately four hours at normal room temperature) and a second coat similarly applied. It should then be left eight hours before traffic is allowed over it. Concrete floors should not be treated for at least six weeks after laying.

Maintenance: The floor should preferably be swept with Sealsweep, and occasionally lightly washed with warm water to which a little soap may be added if there is any grease on the floor. Alternatively, the floor may be given an application of Bourne Brite emulsion polish or Tilegloss which are described in detail below; this will give a high gloss finish.

Coverage: This depends on the type of floor but averages 35 sq. yd. per gallon for two coats and 60 sq. yd. per gallon for one coat.

Bourne Gleem

Description: This is a self-hardening lacquer. The acid hardener is incorporated in the plastic at the time of manufacture and does not become active until it is applied to the surface to be treated. It penetrates

38.H1 APPLIED FLOOR TREATMENTS

deeply and has a waxlike finish which is resilient and will not craze or chip. It is resistant to heat, grease and oil.

Application: The floor surface is prepared in either of the alternative ways given for Bourne Seal, and two coats of Bourne Gleem applied in accordance with the manufacturer's instructions.

Maintenance: The floor requires nothing more than sweeping in the normal way (preferably using a sweeping powder in public buildings) and occasional washing with warm soapy water. Where re-treatment is required the part of the surface where the finish is worn should be washed thoroughly and allowed to dry. One coat of Gleem Shine should then be applied: this has been specially produced for the re-treatment of floors originally treated with Bourne Gleem. It is applied with a soft cloth to the worn part but not to the whole surface as this is unnecessary. It dries in a few minutes.

Coverage: The coverage is as follows:

Type of floor	Approx. coverage per gallon
Hardwood floors, 2 coats	30 sq. yd.
Softwood floors, 2 coats	25 sq. yd.
Cork tiles, 3 coats	20 sq. yd.
Linoleum, 1 coat	45 sq. yd.
Linoleum (porous), 2 coats	30 sq. yd.

Uses: Bourne Gleem is suitable for all porous surfaces which would normally take wax polish, e.g. wood, cork, linoleum. It should not be used on rubber or thermoplastic tiles nor on some types of linoleum which have been treated with wax dressings, unless the dressing is first removed.

Tileseal

Description: This is a water-based plastic emulsion seal which gives a highly dirt-resistant surface. It is quick-drying, does not discolour the floor and has an egg-shell finish.

Application: The floor surface must be thoroughly clean and dry. The Tileseal is applied with a mop, soft cloth or Bourne applicator (the latter is described below) and left to dry for about twenty minutes. Where re-treatment becomes necessary the floor should be washed with detergent, rinsed, and allowed to dry before a new coat of Tileseal is applied.

Coverage: The coverage varies according to the type of flooring material and its condition, but should be 200 sq. yd. per gallon minimum.

Maintenance: Daily sweeping, preferably with a sweeping powder, and an occasional light washing with clean warm water are sufficient to maintain the treated floor surface.

Uses: Tileseal is intended for the treatment of thermoplastic tiles, rubber and p.v.c. floors.

Tilegloss

Description: This is a water emulsion polish giving a brilliant shine with a non-slip surface.

Application: The floor must be thoroughly clean and dry before the polish is applied. One or two coats should be applied, according to the finish required, with a mop, soft cloth or Bourne applicator. The polish dries in less than twenty minutes and the lightest buffing produces a shine.

Coverage: This will vary with the type of floor but on most surfaces will be 250 sq. yd. per gallon minimum.

Maintenance: Daily sweeping is all that is required, removing scuff marks by burnishing. Washing between applications will be required only if the floor becomes exceptionally soiled.

Uses: Bourne Tilegloss is intended for the treatment of thermoplastic tiles, rubber and p.v.c. floors. It may also be used effectively on linoleum and other surfaces.

Bournbrite

Description: This is an emulsion polish which cleans and gives a non-slip finish to floor surfaces without the necessity for burnishing.

Application: The floor must be washed and rinsed and be perfectly dry before the polish is applied and two coats should be given.

Coverage: The covering capacity for the initial treatment of two coats is 125 sq. yd. per gallon and for renewal coats approximately twice this amount.

Uses: Bournbrite is suitable for thermoplastic tiles and all smooth surfaces, e.g. linoleum.

Bourne Applicator

An applicator is available for use with Bourne Seal and Bourne Gleem. It enables large floor areas to be treated quickly and efficiently, reducing the amount of labour and time required and allowing the operator to work in a comfortable position away from fumes. It has a sheepskin pad which is easily detachable for cleaning.

Further Information

The manufacturer also produces sweeping powders, dust-allaying oils and wax polishes of all kinds. The type of treatment required for any floor depends entirely on the surface material and the traffic anticipated. The manufacturer has representatives in every part of the United Kingdom who will advise on the most suitable treatment in a particular case and instruct those responsible in the correct method of application; guidance on maintenance will also be given. There is no charge for this service.

Compiled from information supplied by:

Floor Treatments Limited

Address : Wycombe House, Amersham Hill, High Wycombe, Bucks.

Telephone : High Wycombe 1617.

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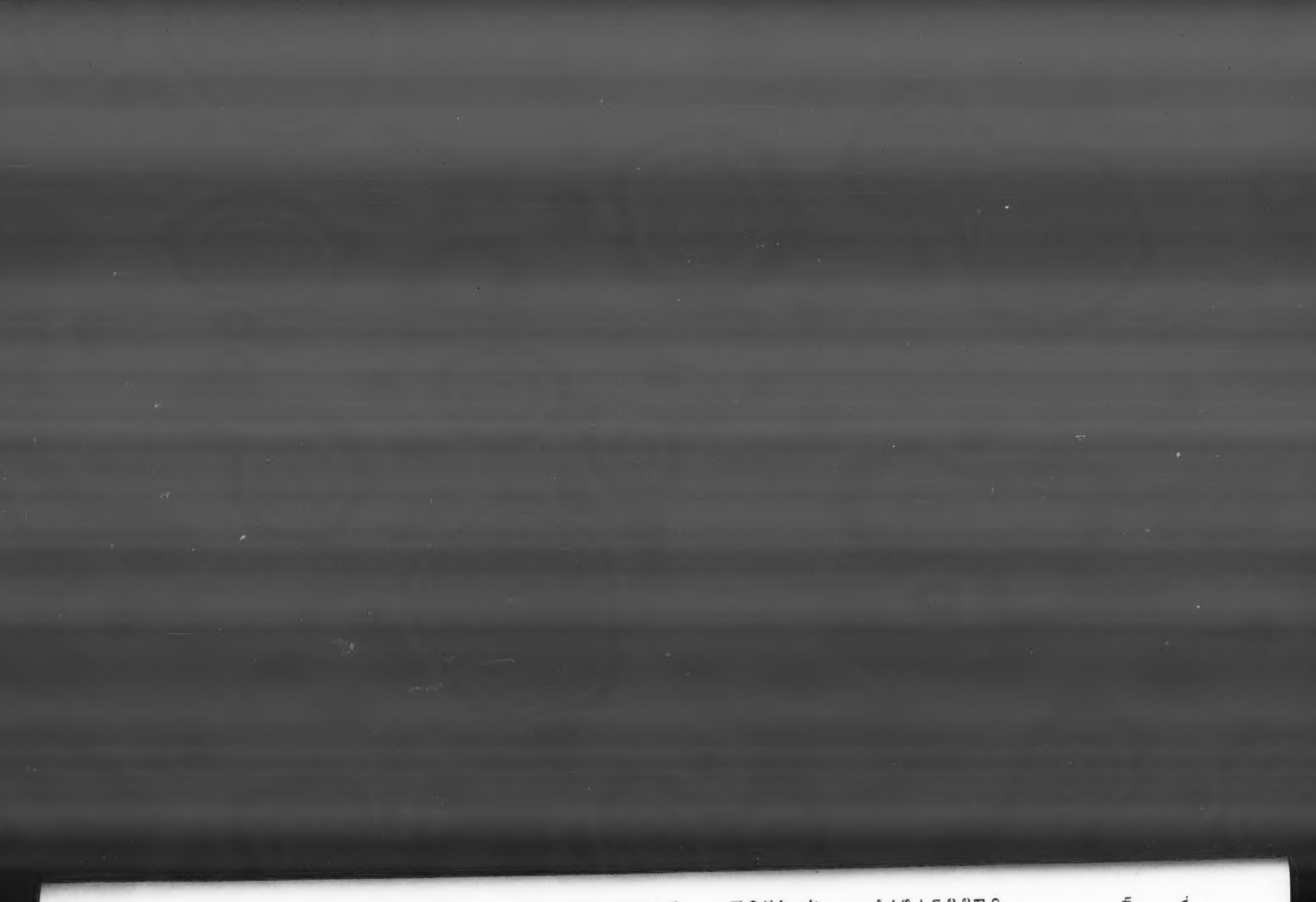

FLOOR STRUCTURAL ELEMENTS | CONCRETE

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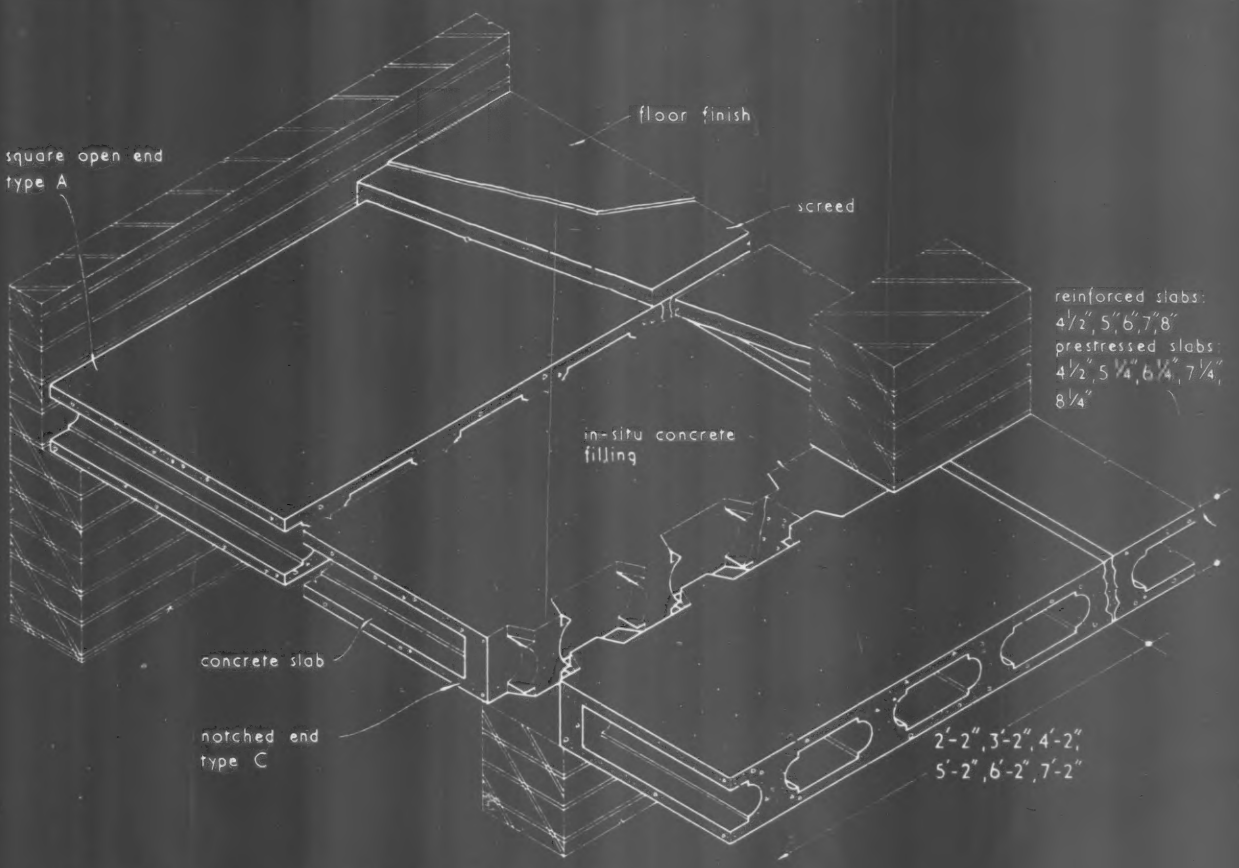
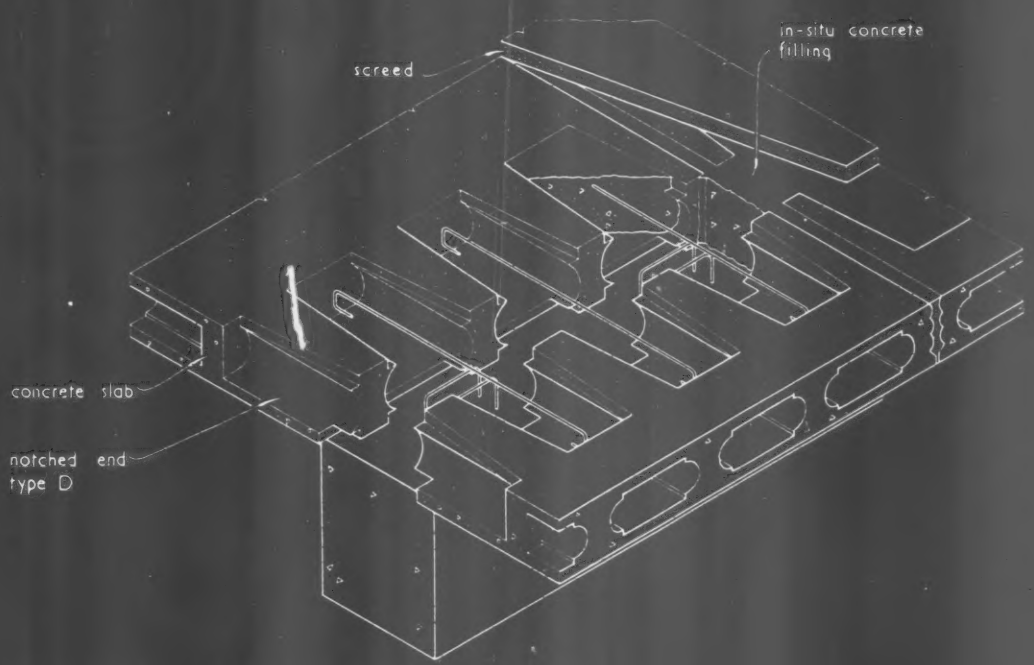


ISOMETRIC VIEW OF FLOOR WITH TYPICAL BEARINGS.



ALTERNATIVE BEARING DETAIL

BISON WIDE SLAB FLOOR. Manufacturer: Concrete Limited.

20.D3 ·BISON· WIDE SLAB FLOOR

This Sheet describes the Bison wide slab floor. The drawings on the face show the general appearance of the slabs and typical bearings.

General

The flooring system is similar in principle to the hollow Bison floor. It consists of precast concrete slabs in widths up to 7 ft. 2 in. with multiple cavities, and is reinforced or prestressed. As the units are too heavy to be laid by hand it is only suitable where it is possible for erection to be carried out by crane. In such cases it shows a substantial economy over Bison units of normal width, especially in the distribution of partition loads or the trimming of holes which would otherwise necessitate the laying of large areas in situ. It is not suitable for steel-framed buildings as it cannot be fixed under the top flange of the bearing steel.

Components

The slabs are of concrete, reinforced or prestressed, shaped as shown in the drawings on the face of the Sheet. Three alternative types of end are available as follows:

Type A, a square open end

Type C, a notched end for intermediate bearings on concrete and brickwork

Type D, a notched end for making an L or T flange to in-situ or precast concrete beams, or r.s.j.'s integral with the floor slab.

The widths of slabs are given on the upper face of the Sheet and they are obtainable in lengths up to 21 ft. 0 in. Reinforced slabs are in depths of 4½, 5, 6, 7 and 8 in. and prestressed slabs in depths of 4½, 5¼, 6¼, 7¼ and 8¼ in. Provision can be made for local strengthening by omission of cavities and for the insertion, within limits, of additional reinforcement. Holes of considerable size can be formed in slabs if required and purpose-made edge units can be supplied.

The underside of slabs may be as from moulds with joints pointed if required, or they may be keyed for plaster or with battens incorporated for counter-battening.

Fixing

Bearings can be taken on loadbearing walls, reinforced concrete beams, completely encased r.s.j.'s or on the top flanges of uncased r.s.j.'s.

The site must be suitable for the operation of a crane of the necessary lifting capacity for slabs of the width required. Floor units for buildings up to three storeys can be fixed by mobile cranes. Almost any type of tower or climbing crane is suitable which will lift one ton at its maximum radius.

Loading

Reinforced slabs.

Depth of Bison slab	Dead weight of slab (lb. per sq. ft.)	Safe distributed superimposed load (lb. per sq. ft.) for given spans (ft. and in.)			
		60	100	150	200
4½ in.	33	10 0	9 0	8 0	7 0
5 in.	35	12 0	11 0	10 0	9 0
6 in.	40	14 0	13 0	11 6	10 6
7 in.	45	16 0	15 6	14 0	12 6
8 in.	50	18 0	17 0	15 0	13 0

Prestressed slabs.

Depth of Bison slab	Dead weight of slab (lb. per sq. ft.)	Safe distributed superimposed load (lb. per sq. ft.) for given spans (ft. and in.)				
		30	60	100	150	200
4½ in.	33	17 0	16 0	14 0	12 0	11 0
5¼ in.	38	20 0	18 0	16 0	13 6	12 0
6¼ in.	43		21 0	18 0	15 6	14 0
7¼ in.	48			21 0	18 6	17 0
8¼ in.	53				21 0	19 0

Further information

The manufacturer maintains an advisory department which is available to answer questions and advise on problems dealing with this subject generally. Full design data are available on request.

Compiled from information supplied by:

Concrete Limited.
Address : 16, Northumberland Avenue, London, W.C.2.
Telephone : Whitehall 5504.

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working detail

ENTRANCE DOORS: OFFICE BLOCK IN LONDON, W.C.1

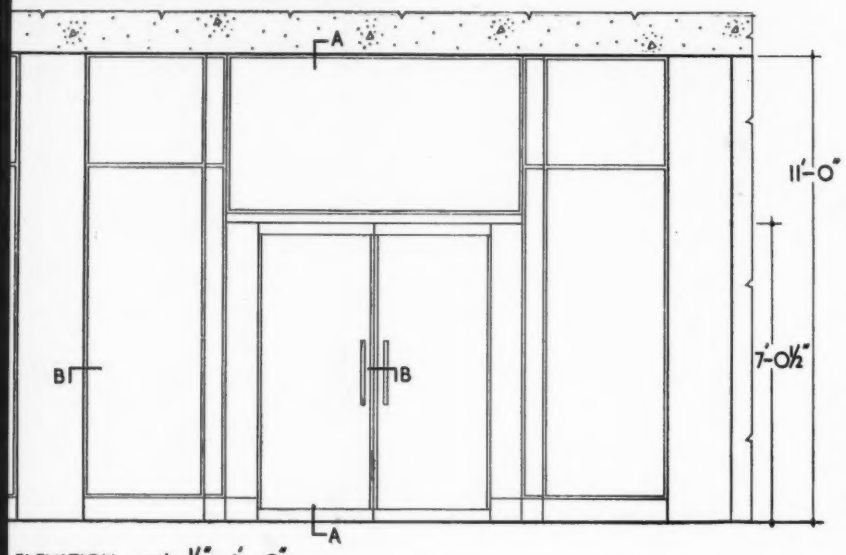
David Aberdeen and Partners, architects

The bronze sections which frame this screen are stiffened by mild steel flats which serve as mullions on either side of each entrance doorway and by a mild steel built-up box transom which spans between each pair. These steel members are sheathed with ⅛-in. bronze plates. All bronze members are jointed by screws. The finish throughout is "penny bronze."

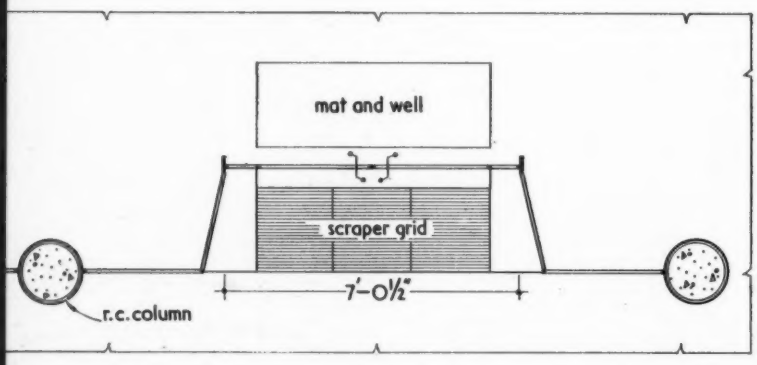
working detail

ENTRANCE DOORS: OFFICE BLOCK IN LONDON, W.C.1

David Aberdeen and Partners, architects



ELEVATION. scale ¼" = 1'-0"



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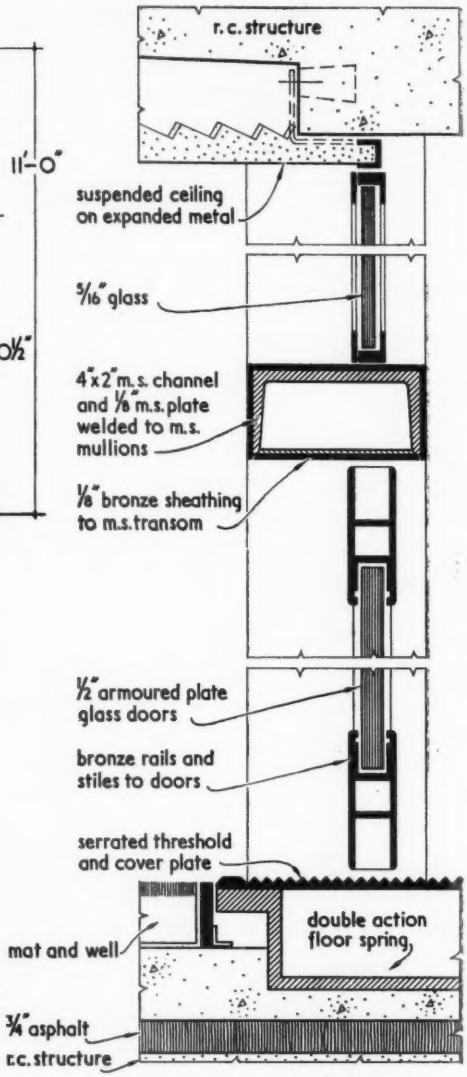
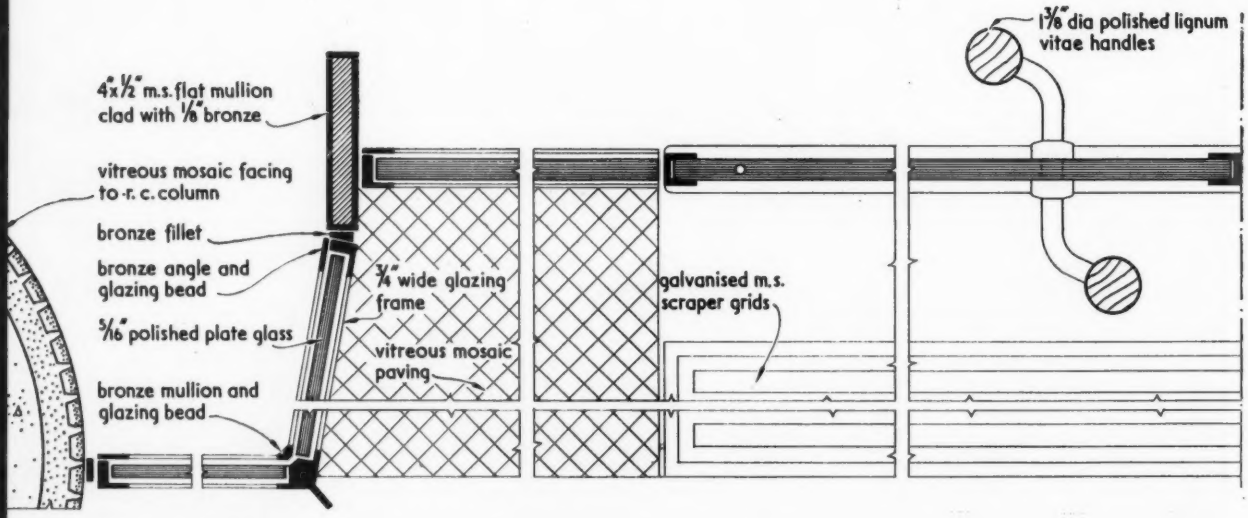
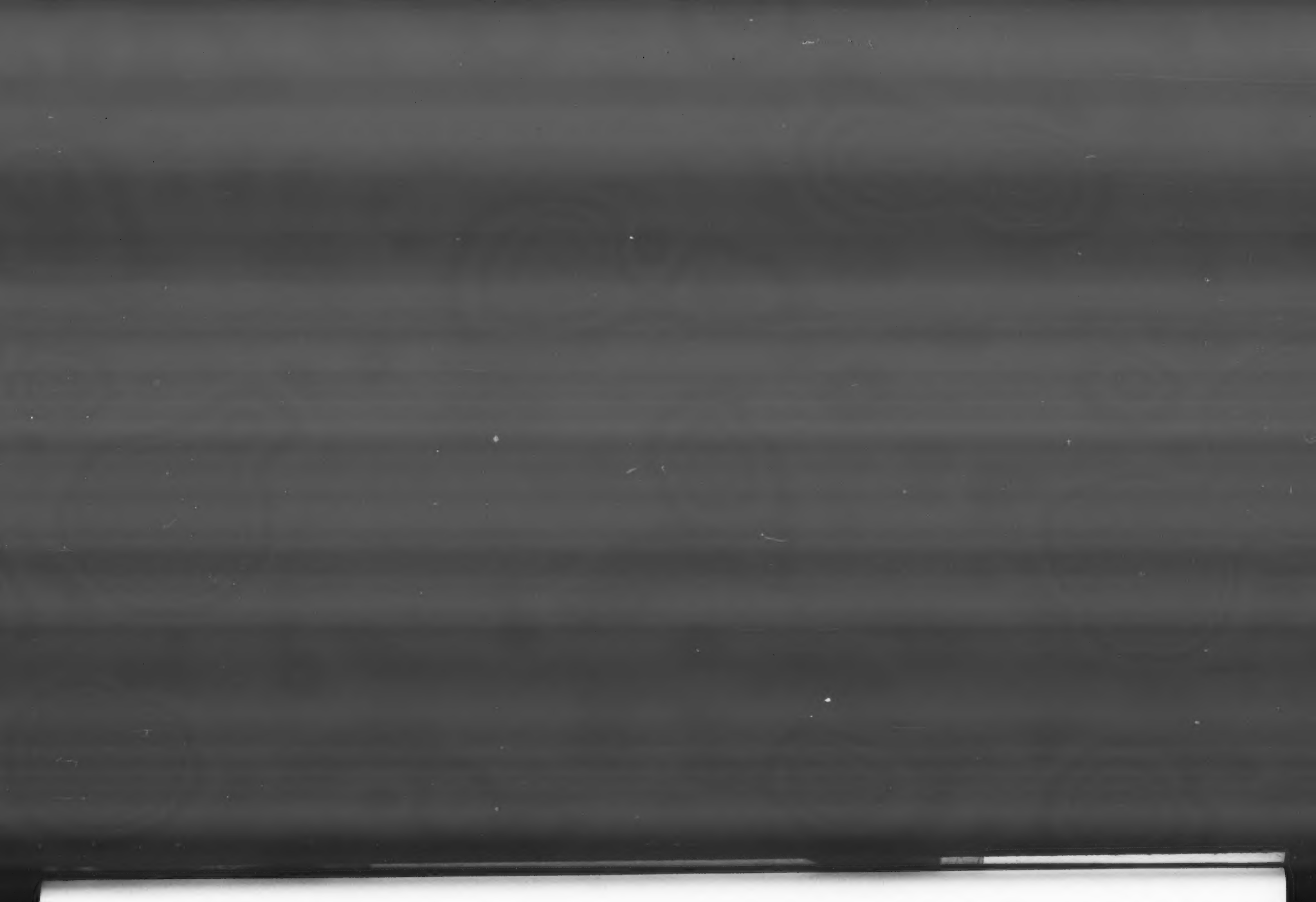


SECTION A–A. scale ¼ full size



PLAN AT B–B. scale ¼ full size



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If she is wise she will take good care
that Leonard's the name the shower valves bear.

If she does not she is apt to find
that the cold's not cold and the hot's unkind.
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More about Leonards in pamphlet No ZC/2

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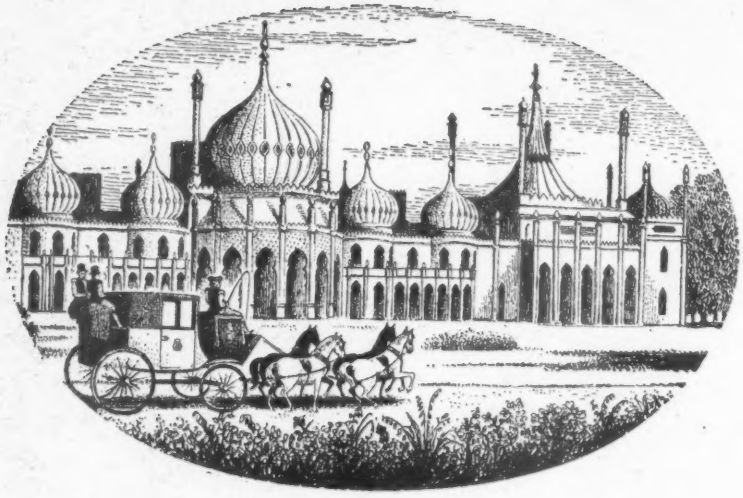

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LADY ILCHESTER, 2nd FEBRUARY, 1816

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NEWS

NEW YEAR HONOURS

Powell but not Moya

Architects do not appear to stand very high in the esteem of Her Majesty's advisers, if the New Year Honours List is anything to judge by. They get no baronies, baronetcies, knighthoods or Orders of the Bath. A. J. P. Powell, of Powell & Moya, is awarded an O.B.E. (As no official reasons are ever given for the award of honours we cannot know why the other half of the partnership remains unrecognized). An O.B.E. also goes to J. N. Meredith, lately Bristol city architect, J. B. Shaw, principal regional architect, North Midland Region, MOHLG, and N. Boothroyd, senior housing and planning inspector, MOHLG. C. S. Titman, senior architectural assistant, MOW, receives the M.B.E. The Council of Industrial Design is honoured by the knighthood conferred on its chairman, W. J. Worboys, and impartiality in the visual arts was maintained by giving Barbara Hepworth the C.B.E. and Charles Wheeler the K.C.V.O.

DSIR : TDA

Timber Research

From January 1, 1958, the provision of advisory services in connection with certain fields of timber research and technological development, hitherto a responsibility of the Forest Products Research Laboratory, will be undertaken by the research and Development Committee of the Timber Development Association.

Activities falling under this heading include:—The standard strength, properties and structural uses of timber; the identification and utilisation of species; the prevention and treatment of decay and insect attack; the effectiveness of preservatives; kiln layout and drying schedules; the production and commercial uses of plywood and allied products; the utilisation of wood waste.

Enquiries for general information on these subjects should now be addressed to the Director, Timber Development Association Limited, 21 College Hill, London, E.C.4 (Tel. City 4771) and not to the Forest Products Research Laboratory at Princes Risborough.

AA

1958 Scholarships

The Architectural Association School of Architecture announces that entrance examinations for admission to the First Year in 1958 will be held on April 14 (interview on April 15, 16 and 17), and, subject to special conditions, on July 23 (followed by an interview).

Closing dates for applications are April 1, July 1. All candidates who are applying for Entrance Scholarships must take the first Entrance Examination and must be seventeen or over on September 1, 1958. Selection board for admission to Years other than the First will be on May 5, followed by interviews on May 7, and 8. Closing date for applications, April 1. All candidates must appear before the Selection Board.

The following Entrance Scholarships are offered for 1958 by the Council of the Architectural Association to applicants of British nationality:

Leverhulme Scholarship (£2,000 over five years); Allied Ironfounders Scholarship (£75 per annum); Metal Window Scholarship (£75 per annum); Natural Asphalte Council Scholarship (£50 per annum); Patent Glazing Scholarship (£50 per annum); The *Architectural Review* Scholarship (£75 per annum); Additionally several awards of £75 per annum may be made from the Members' Scholarship Fund: The Metal Window Senior Scholarship (£50 per annum) tenable for two years is for entry to the Fourth Year.

CORRECTIONS

St. Andrews University

We have been informed that the information given in last week's issue concerning the St. Andrews University's development proposals for the centre of the city, off Westburn Lane, were incorrect, we understand that the correct facts are as follows:

The Secretary of State has zoned for University development the area which the University requires. Part of the zoned area is designated for compulsory purchase but the Secretary of State said in Parliament that he hoped compulsory purchase would not be necessary and that the University might be able to acquire the area by negotiations. Negotiations are still proceeding. Some people in the Borough are reluctant to abide by the Secretary of State's decision but the Town Council has taken no step to set aside that decision or to delay its operation. The Borough has not been instructed to issue a compulsory purchase order, nor has it refused to do so, nor does it intend to take the matter to the courts.

We regret that the name of the reviewer of the book *Workplace for Learning* published in the JOURNAL for December 26 was incorrect. This should have read W. Tatton Brown and not H. T. Cadbury-Brown.

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With Modernfold you can set free those ideas that would otherwise be lost in the unyielding confines of a building designed to have walls that will not budge. Modernfolds have many other advantages. They do not require a floor track and are draught-proof when closed. They have a quiet, smooth action, and will open and shut at a touch. Each one is made to measure. Samples of coverings and literature will be sent you on request.

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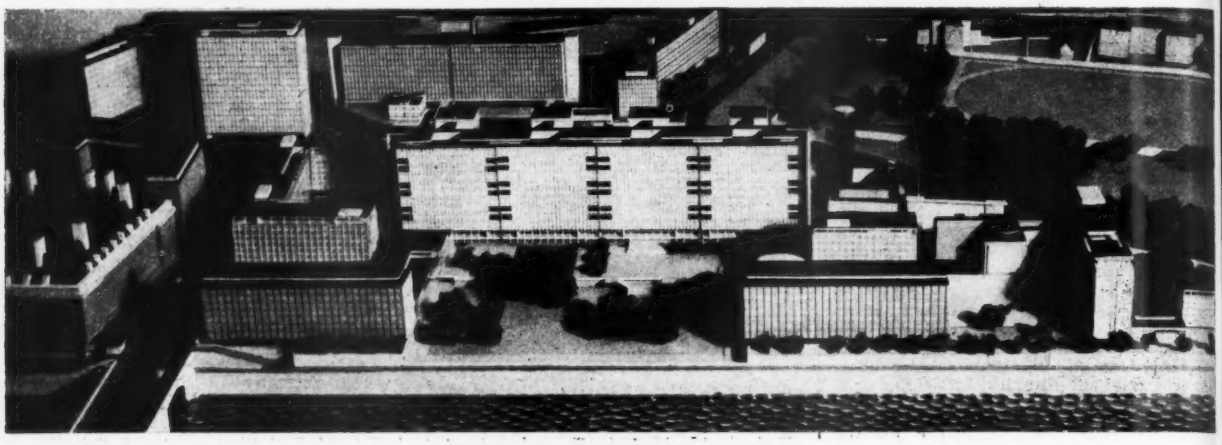
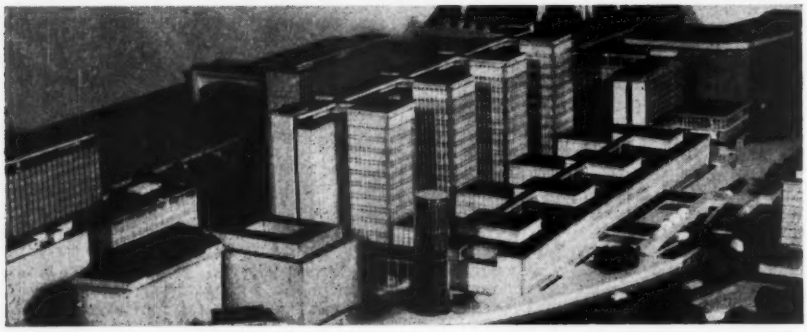
ONE OF THE BROCKHOUSE COMPANIES

PROPOSALS FOR RE-BUILDING ST. THOMAS'S HOSPITAL





The main feature of the plan for the re-building of St. Thomas's Hospital as an 827-bed teaching hospital is a 140-ft. high 11-storey ward block parallel to the river Thames, flanked by 8-storey residential blocks. Above is a view of the river frontage with the ward block in the centre. Right, is the view from the south-east, showing the diversion of Lambeth Palace Road which doubles the hospital site, the four service towers for the ward block, and the low out-patients and theatre block with which they are linked. Architect, W. Fowler Howitt, Architect to the Hospital.

Dundee, Perth and London Shipping Company's premises at Dundee Wharf, London...

Main Contractors:
W. & C. French Ltd., Buckhurst Hill, Essex.
Consulting Engineers:
J. C. Melliss & Co., Westminster S.W.1.

4,616 SQUARE YARDS OF

MARLEY

FLOOR BEAMS

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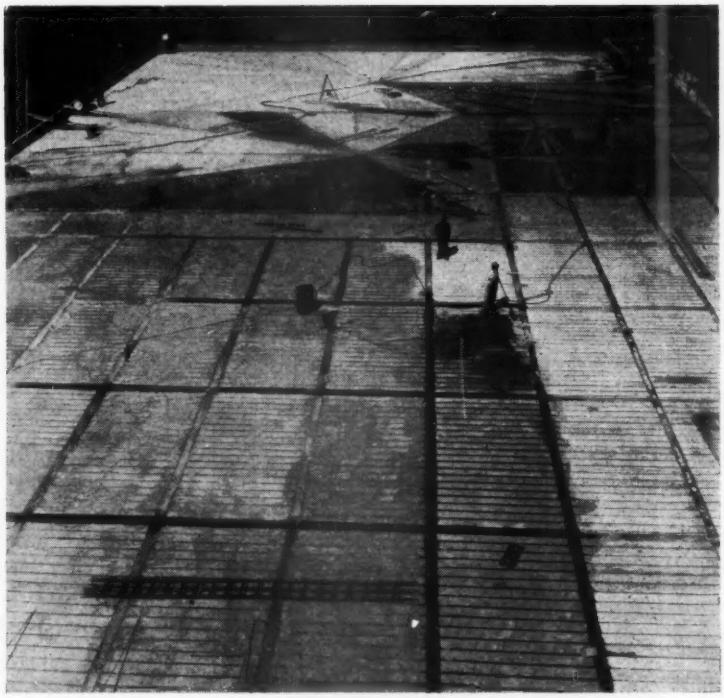

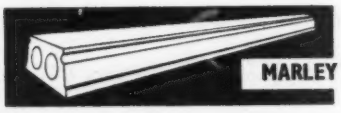

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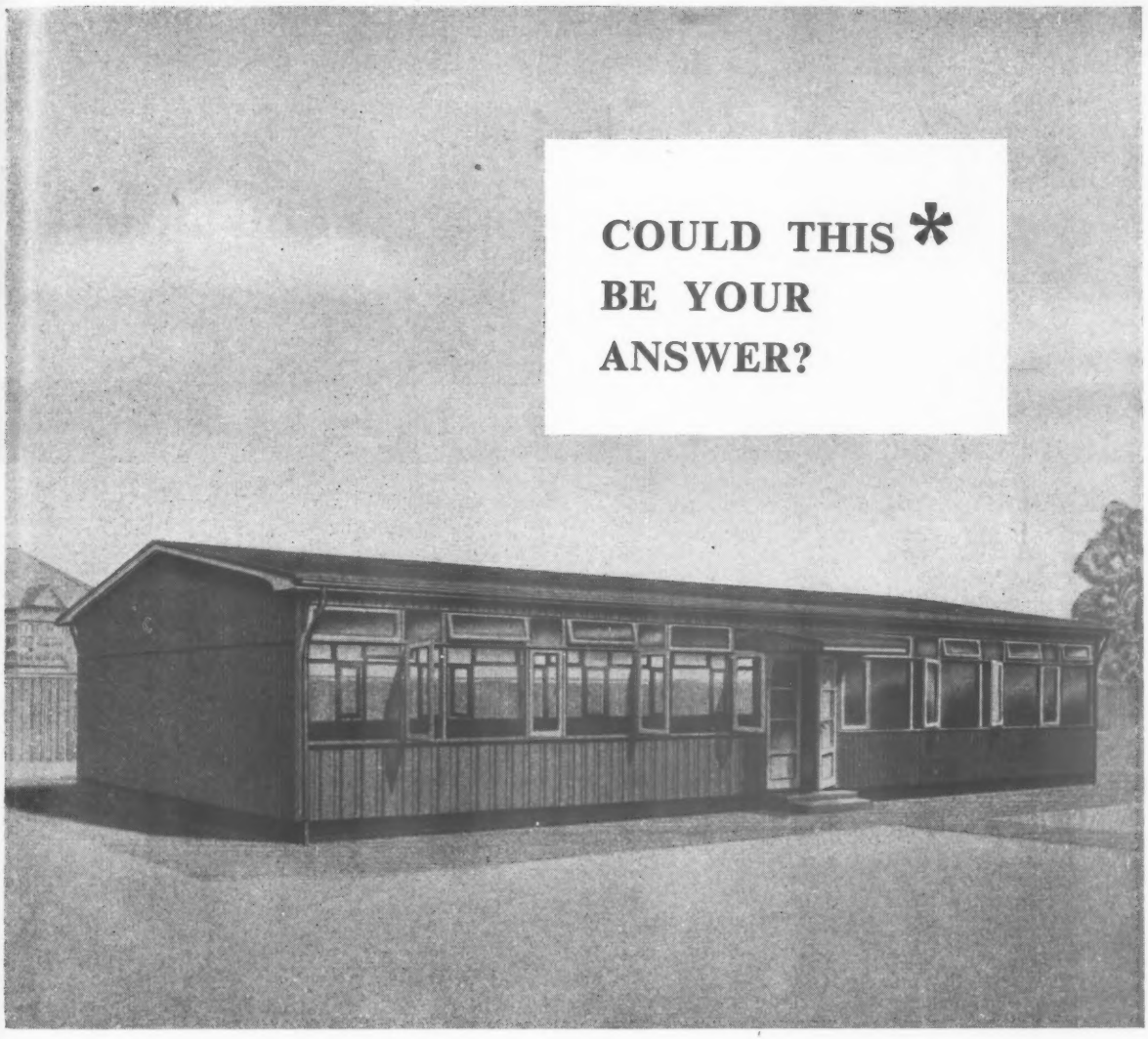

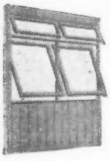

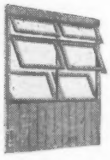

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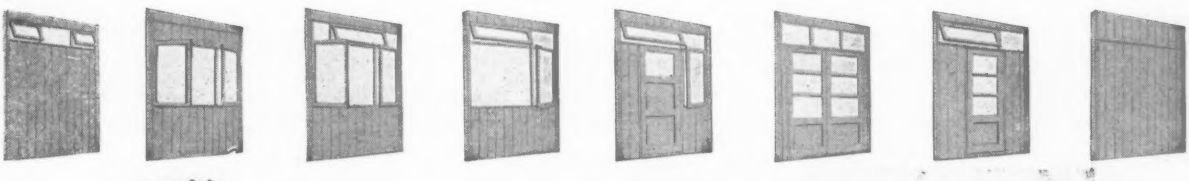

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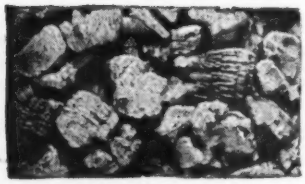

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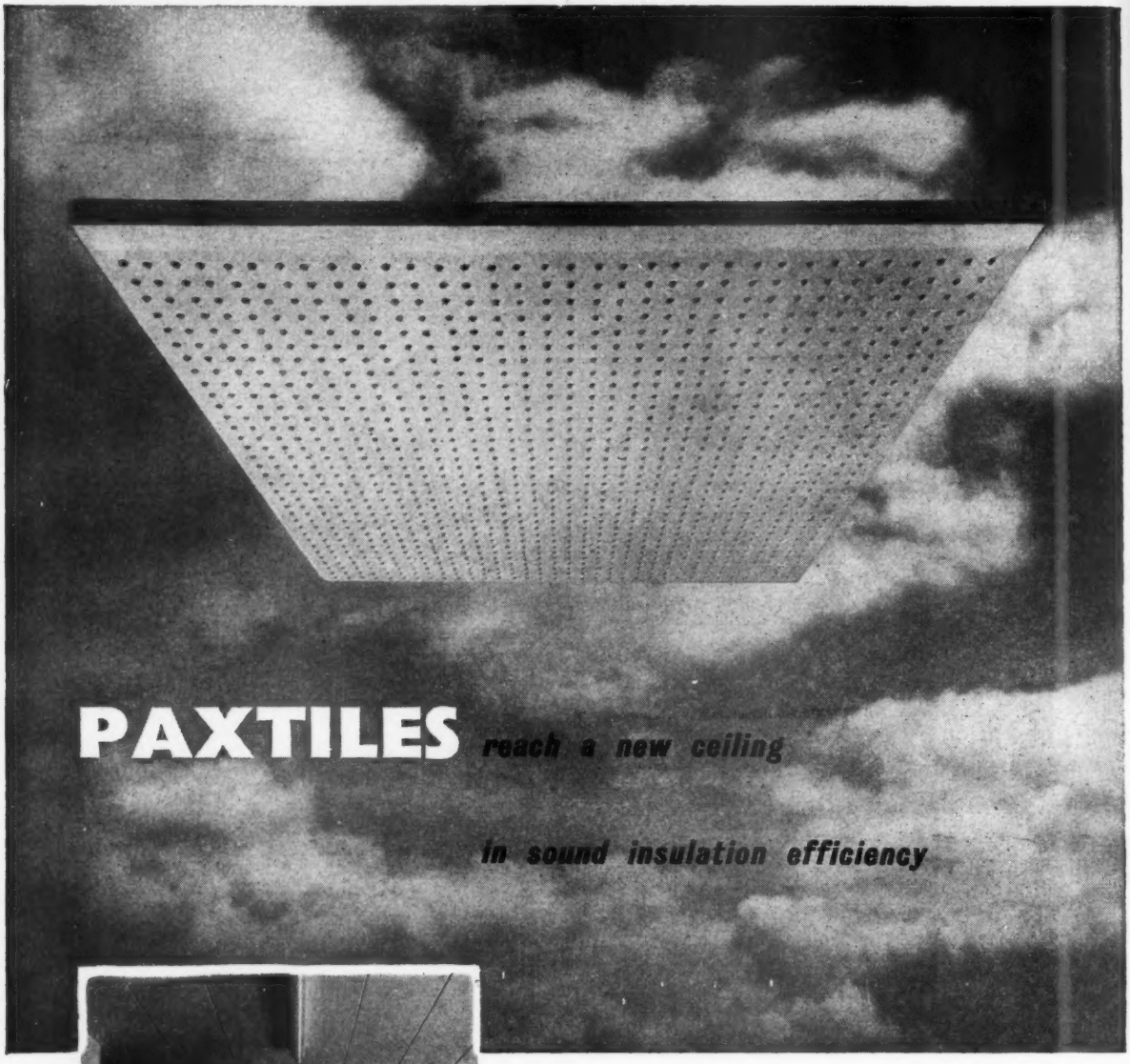

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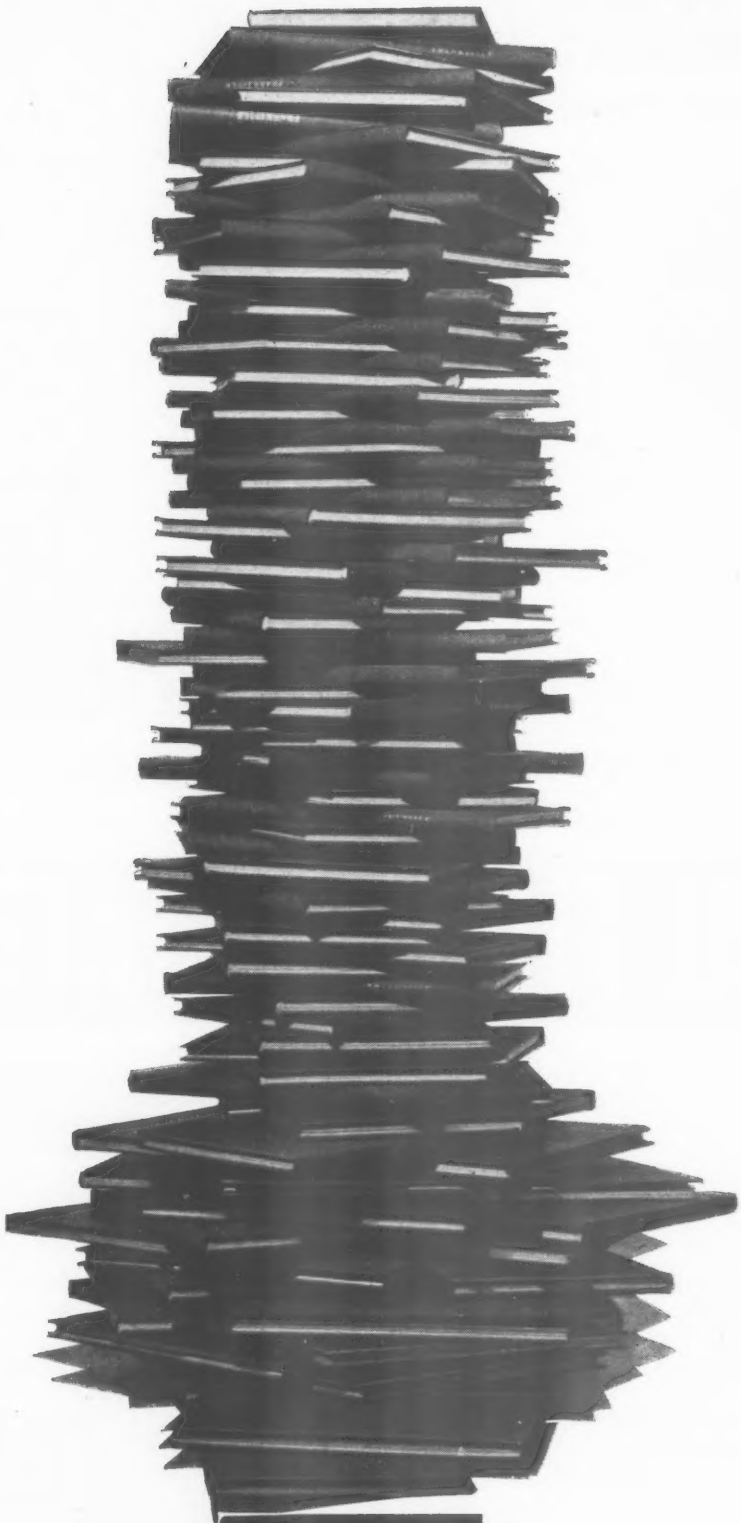

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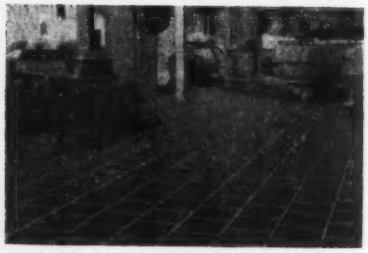

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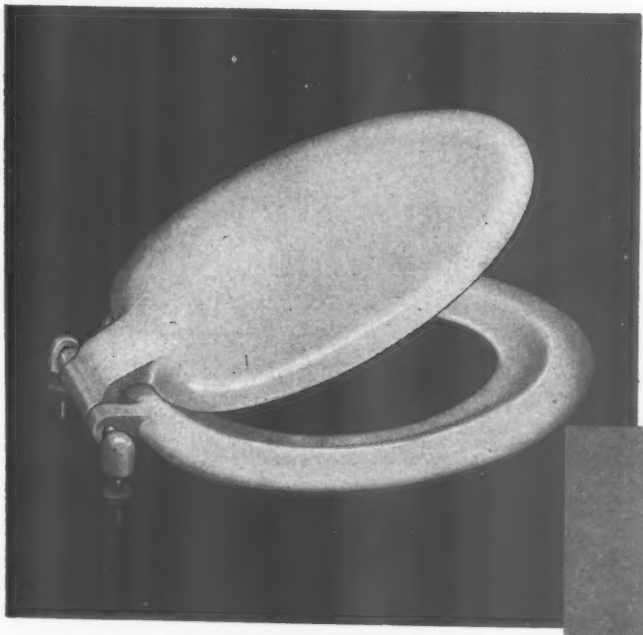

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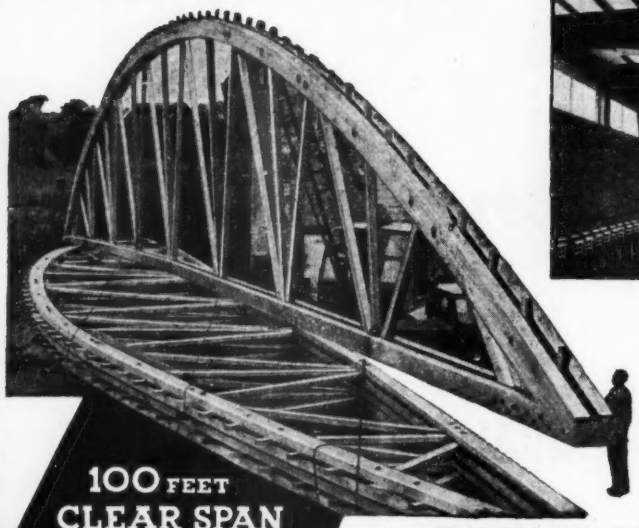

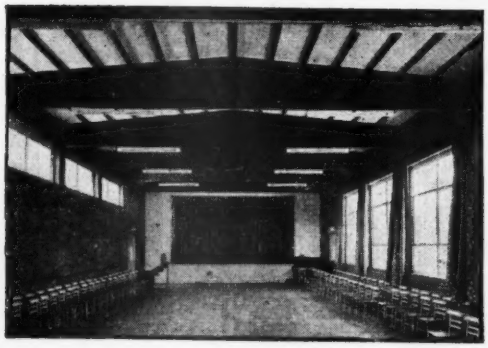

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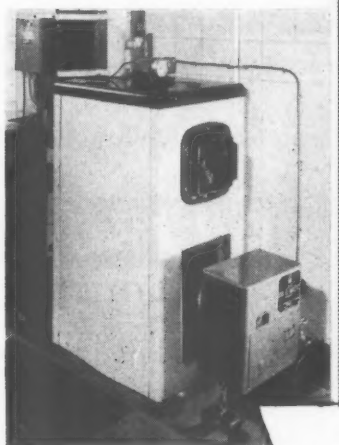

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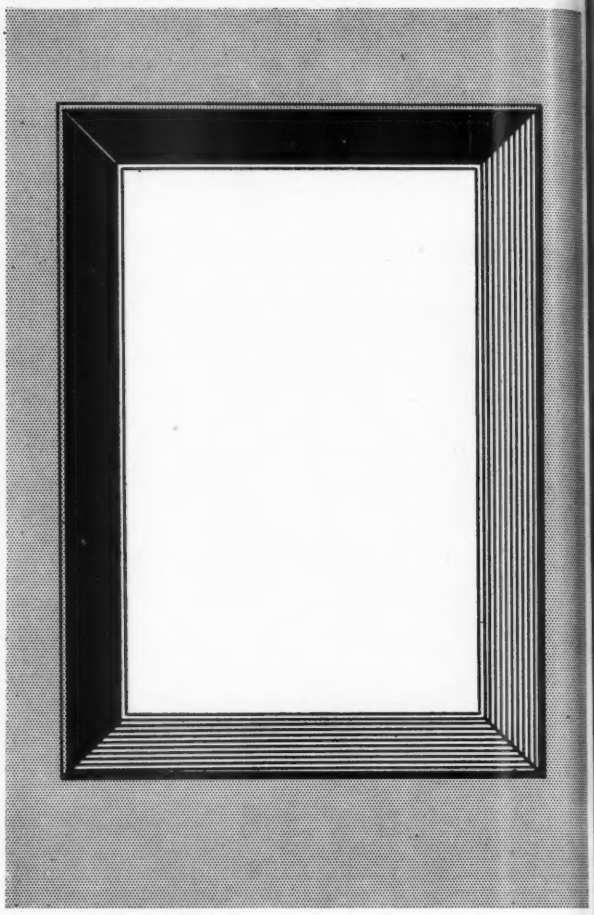

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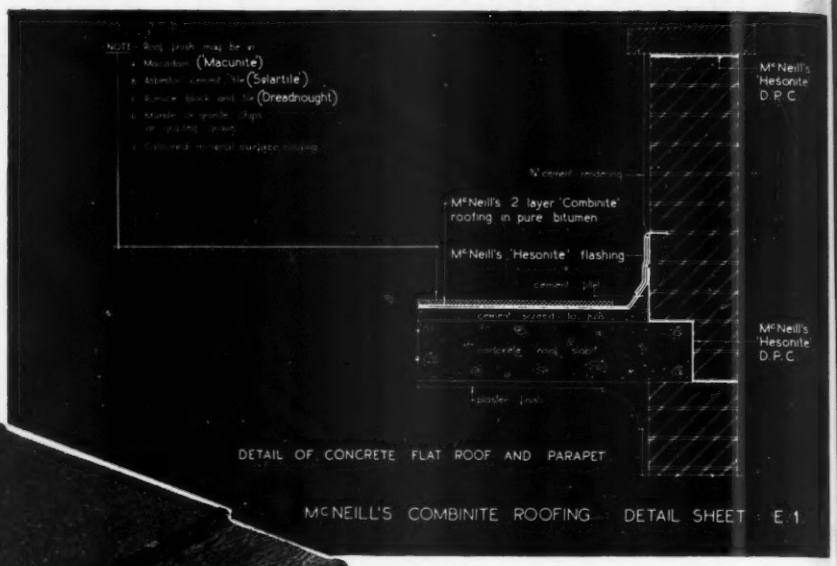

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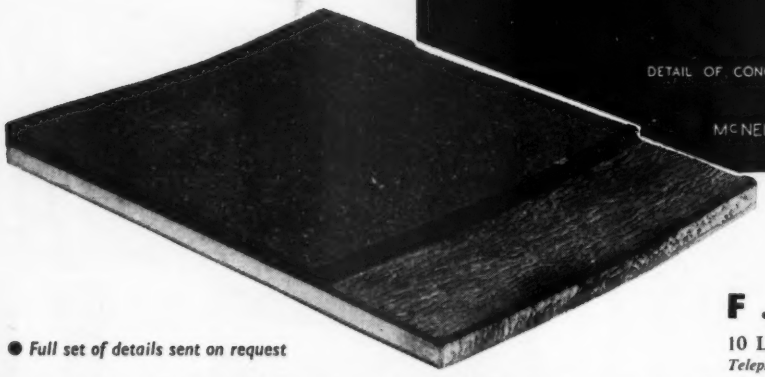

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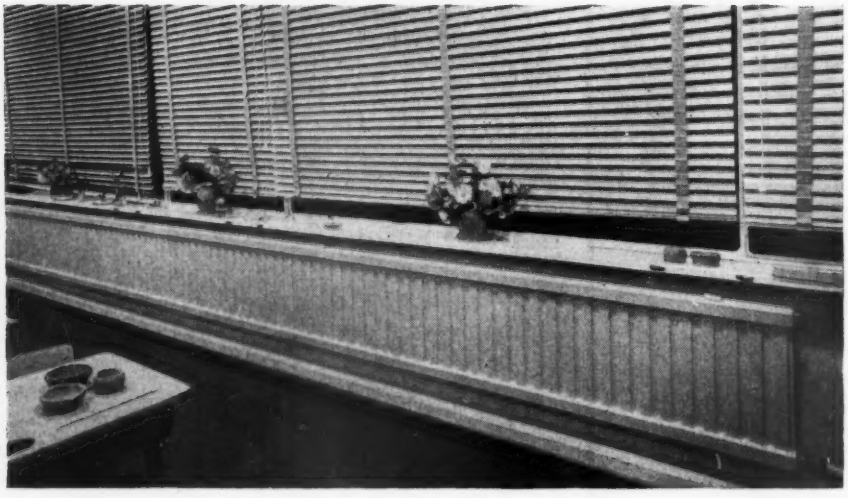

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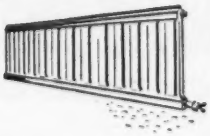

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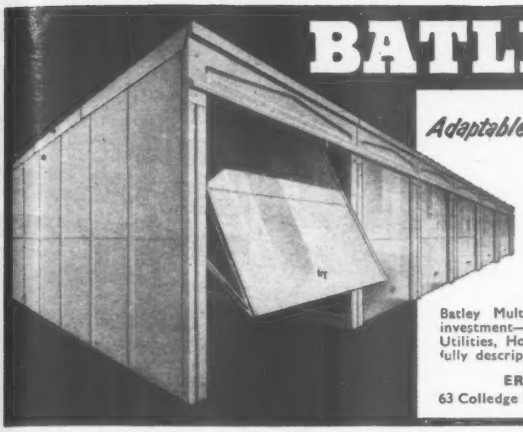

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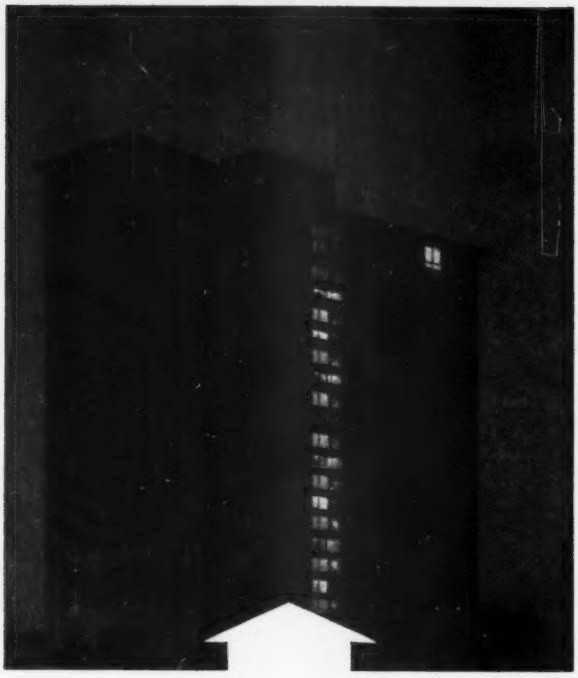

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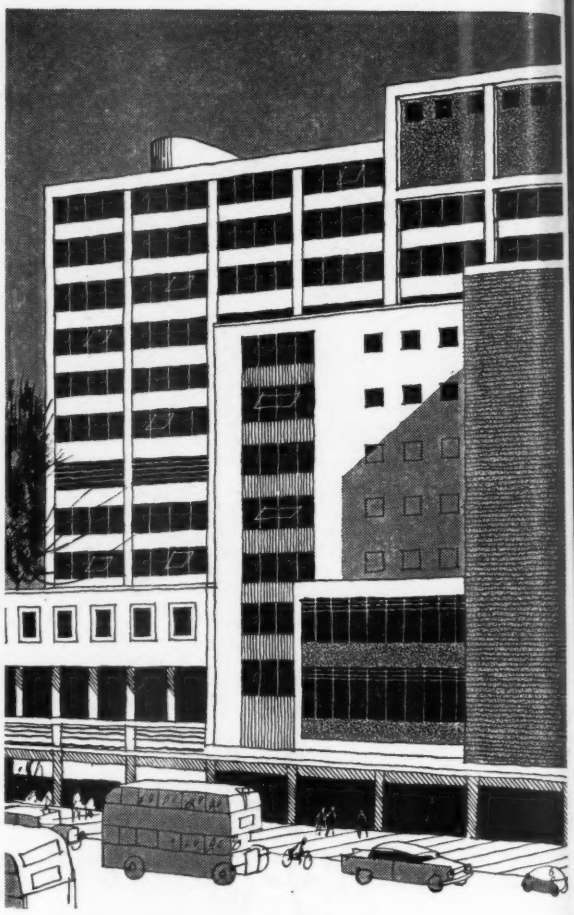

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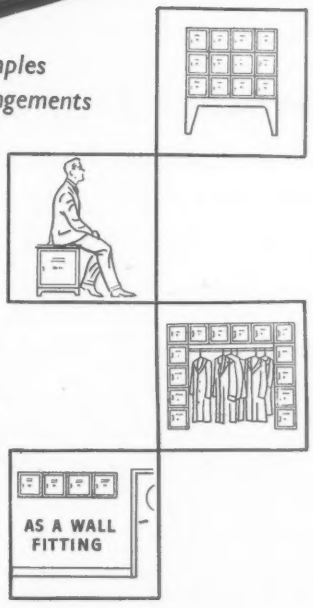

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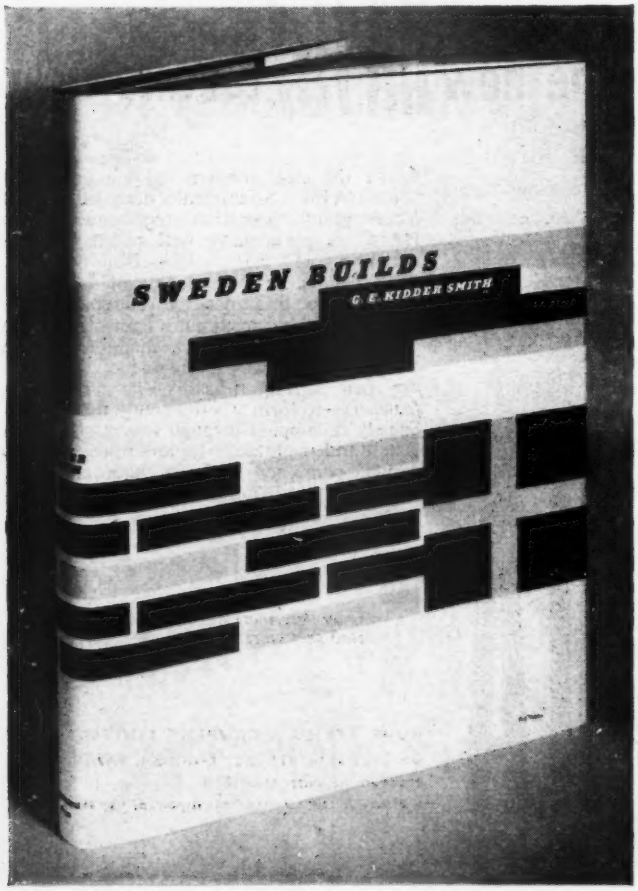

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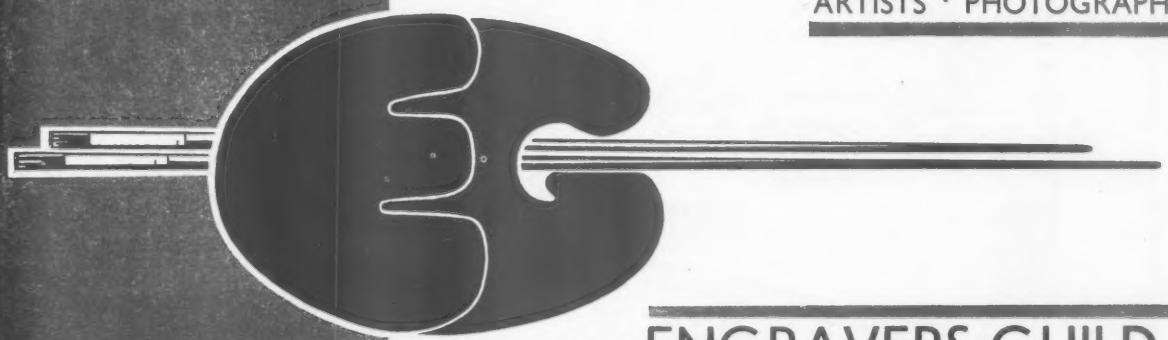

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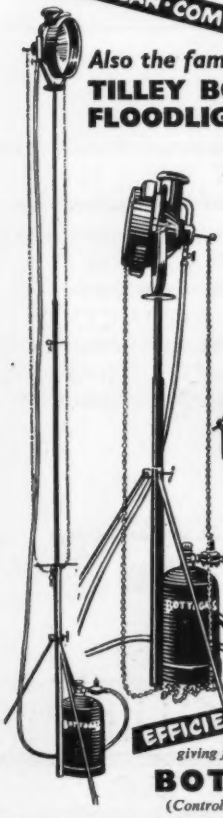

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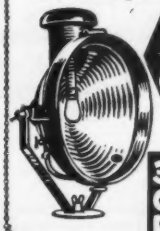

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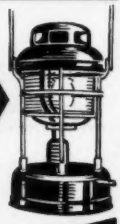

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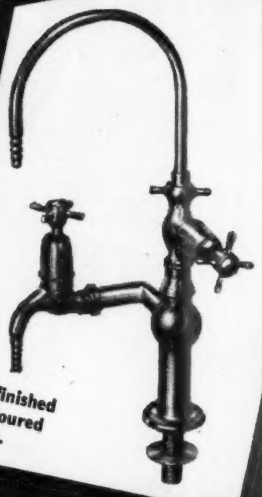

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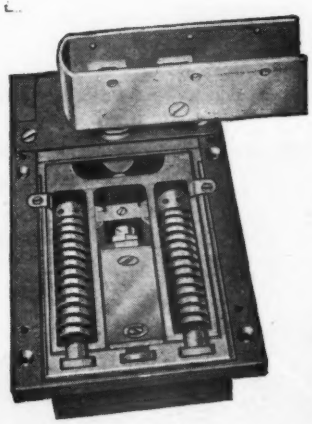

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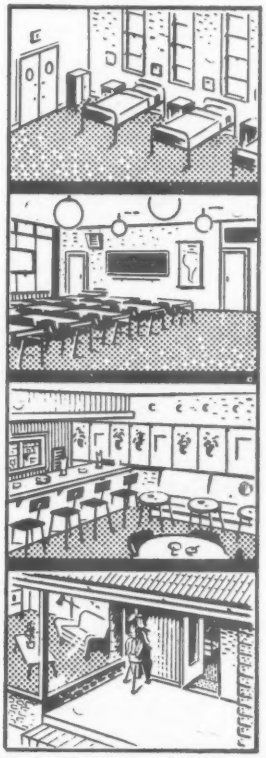

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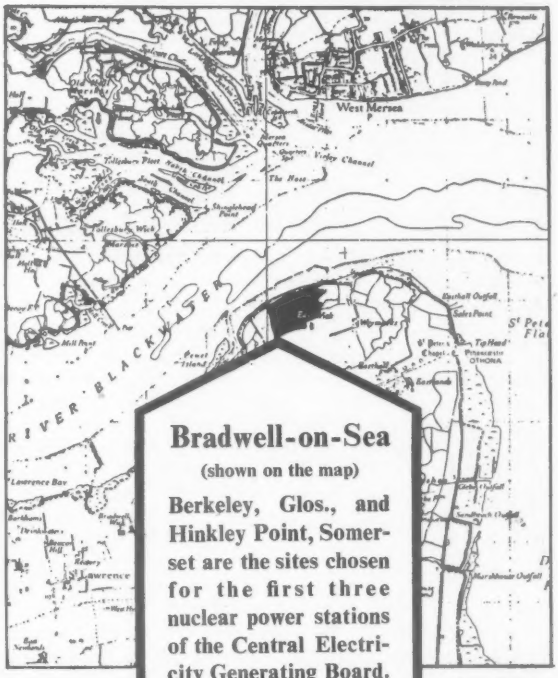

Bradwell-on-Sea

(shown on the map)

Berkeley, Glos., and Hinkley Point, Somerset are the sites chosen for the first three nuclear power stations of the Central Electricity Generating Board.

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The growing need for power

As Britain's industrial efficiency increases, so does the need for power. The demand for power doubles every ten years. The Electricity Supply Industry has already met the doubled demand since 1st April, 1948, and has made provision for a similar expansion in the next decade.

Work on the first two nuclear power stations, at Bradwell in Essex, and Berkeley in Gloucestershire, was started in January, 1957, and on the third in England, at Hinkley Point in Somersetshire, last September. These three stations will have an aggregate of some 850,000 kilowatts.

The Government's revised nuclear power station programme provides for enough nuclear power stations to be completed in the next decade to provide 5/6 million kilowatts of generating capacity. Provision is also being made for the construction of new main transmission lines and the extension of the distribution network.

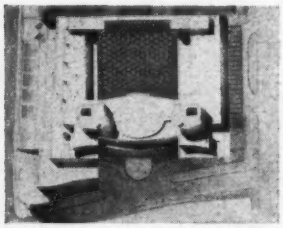
As the demand for power grows, nuclear energy will become more and more important as a source of electric power, upon which the economic future of the country so largely depends.

The Central Electricity Generating Board

TUC
Brasilia
Street Lighting

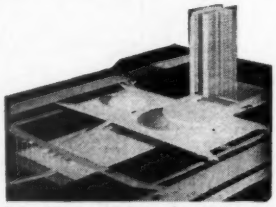
December Architectural Review

Design for public and administrative functions will form the subject of the two most important features in the Review for December. The *TUC Memorial Building*, designed by David Aberdeen, which is only the



Airview drawing of David Aberdeen's TUC Memorial Building.

second public building of consequence to go up in London since the War, will be described and illustrated for the first time in complete form, and a supporting article in *Skill* will examine in detail the finishes and mechanical equipment that make this one of the most lavish buildings—outside the commercial field—of recent years. The other major feature is concerned with *Brasilia*, the projected new capital city for Brazil, typically grandiose and Latin-American in conception, but more likely than most such schemes to achieve completion. Sir William



Oscar Niemeyer's design for the Congress Building at Brasilia.

Holford who was one of the jury who assessed the competition for the new capital's plan, introduces the project and its site, discusses the competition, and adds a few words by way of introduction to the brilliant and unconventional winning scheme, by Lucio Costa father of Brazil's modern movement, whose report is published in English for the first time. Another father of his art, *John Britton*, founder of English topographical studies, will be the subject of an historical article by Peter Ferriday, and the bicentenary of the birth of the great neo-Classical sculptor *Antonio Canova* is celebrated by one of England's leading neo-Classical scholars, F. J. B. Watson, with a chronicle of English visitors and admirers at the sculptor's studio in Rome. Gordon Cullen will tackle one of the most vexed and debated problems of outdoor detailing, *Street Lighting*, in terms of distribution and siting, as well as the design of equipment, and interiors to be described include the IBM offices and the Garden Centre, both in new office blocks in Wigmore Street. Foreign reports will cover the *Triennale di Milano*, and the *Berlin Interbau* exhibition, and regular features like the *Counter Attack Bureau* and Robert Melville's provocative art-criticism will continue.

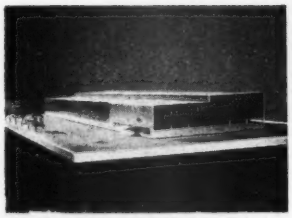
Preview

January Architectural Review

Each New Year, the Review devotes an entire special issue to a survey of what the leading architectural offices in Britain have in hand on the first day of the year.

Assembly Hall of a girls' comprehensive school at Southwark. Architects, Chamberlin, Powell and Bon.

The view presented by *Preview* is an extremely varied one; the buildings it covers range from a pub to a synagogue, by way of schools, universities, colleges, hostels, hospitals, factories, office blocks, churches, airports, planning schemes, housing layouts, a market and a seaside pavilion; and the offices and architects responsible for these projects-in-progress read like a directory of the country's top talent (as indeed they are)—the L.C.C., the Ministry of Works, ACP, T. P. Bennett and Sons, Bridgewater and Shepheard, James Cubitt and Partners, Llewelyn Davies, Easton and Robertson, Frederick Gibberd, Erno Goldfinger, Gollins Melvin and Ward, Sir William Holford, Arthur Ling, Sir Leslie Martin—and so on down the alphabet to Yorke, Rosenberg and Mardall.



Factory at Wokingham. Architects, Yorke, Rosenberg and Mardall.

The reflection in *Preview's* mirror may prove flattering or alarming, but even where there appear to be grounds for satisfaction at the design of the buildings themselves, the environments into which they are being fitted still leave much to be desired, and though this is beyond the architect's control, it is not exempt from the watchful eye of the *Counter Attack Bureau*, whose month by month vigilance will be maintained even in this special issue.

Churches
Adam & Berkeley
Lettering

February Architectural Review

The variety and scope of the buildings illustrated, and subjects discussed, in the February issue will be catholic, even for the Review. *Three Churches* around Coventry by Basil Spence will show what the imaginative use of a modicum of rationalisation can

Church at Bell Green, Coventry, by Basil Spence & Partners.

do even for a church building programme; the spectacular *Teatro de los Insurgentes*, designed by Alejandre Prieto exhibits Latin-American design at its most exuberant and effective; while Erno Goldfinger's precise *Office-block in Albermarle Street* is the kind of building our cities sorely need. Historical studies will re-examine aspects of eighteenth-

Offices Albemarle Street, W.1. by Erno Goldfinger.

century architecture: *Bishop Berkeley's* contributions to architectural theory will be the subject of an article by Marcus Whiffen, while a sheaf of papers on *Robert Adam* by various hands will include some unknown Clérisseau drawings from Russia. Gordon Cullen will complete his set of townscape studies for Bristol University with an analysis of *Trowbridge*, and Jacqueline Tyrrwhitt will examine the planning of *Fatehpur Sikri*, the ideal city of Akbar the Great, somewhat in the manner of Sir Hugh Casson's memorable studies of Peking. In *Skill*, John Sharp will complete his survey of methods and materials in *Architectural Lettering*, *Design Review* will continue to note worthwhile new products and equipment, while the *Interiors* include new showrooms, by Design Research Unit, an officers' mess for the U.S. Air Force, and an ingenious conversion of a house near the docks in Hull.

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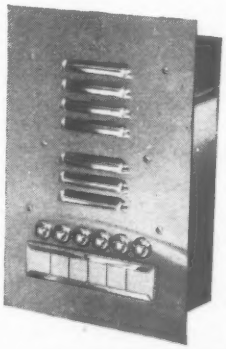

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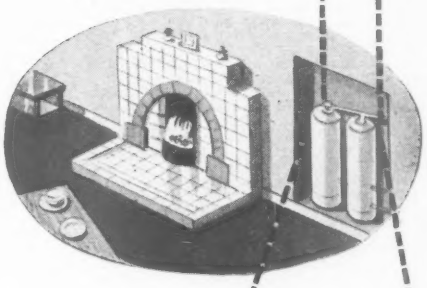

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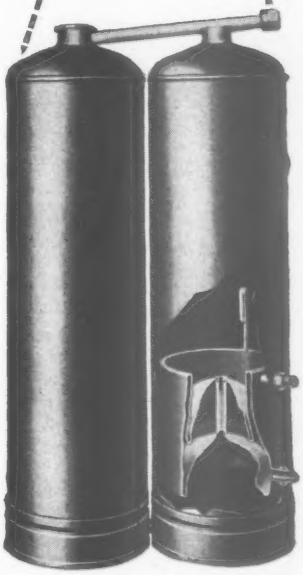

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Candidates should be members (preferably Fellows) of the R.I.C.S. They will have to deal with the financial and contractual aspects of large building programmes and should have wide experience of such work and of the supervision of quantity surveying staff. Salary within the Scale £1,200—£1,515. Application forms and further details obtainable from the County Architect, Springfield, Maidstone. Closing date 20th January, 1958. 8369

QUANTITY SURVEYING ASSISTANTS required by Air Ministry Works Directorate in London and Provinces. Grade and commencing salary based on not less than three or five years' previous experience under Quantity Surveyor or Building Contractor. Approved full time study will count towards five years period. Normally technical qualifications in Builders quantities or building, *e.g.* C. & G. final or O.N.C. or proof to equivalent standard. Duties include abstracting and billing, site measurement and preparation of estimates. Commencing salary and grading according to age, qualifications and experience on salary ranges £545 at age 25 rising to £745 or £695 at age 26 rising to £870. Salaries somewhat lower in Provinces. Five-day week, three weeks' leave a year. Appointments carry liability for service anywhere U.K. or overseas. Applicants normally should be natural born British subjects. Write stating age, qualifications and previous appointments including type of work done, to Manager, Professional and Executive Register, Ministry of Labour and National Service, Atlantic House, Farringdon Street, E.C.4, quoting PE.105/745. No original testimonials should be sent. Only applicants selected for interview will be advised. Opportunities may occur for competing for pensionable posts: promotion prospects. 8423

GOVERNMENT OF JAMAICA
ARCHITECT, DEPARTMENT OF HOUSING

To prepare, under direction, design and construction drawings and specifications for building work, including housing, health centres, small offices and other Government buildings of a minor character and to assist in the education and training of junior drawing office staff.

Contract appointment for three years. Salary scale £820—£1,200 p.a. Gratuity of 20 per cent. of salary payable on satisfactory completion of contract.

Free passages for officer, wife and children to a total of five persons. 1½ months' leave for each completed year of resident service. Assistance towards rent for accommodation.

Candidates must be A.R.I.B.A. Experience in designing for humid, tropical climates an advantage. Write Director of Recruitment, Colonial Office, London, S.W.1 giving briefly age, qualifications and experience, quoting BCD.160/32/06. 8421

CORPORATION OF LONDON

PRINCIPAL ASSISTANT required on permanent staff of BUILDING & ARCHITECTURAL SECTION of the CITY SURVEYOR'S OFFICE.

Applicant must be Associate Member R.I.B.A. and have general administration as well as technical ability.

Duties include erection, alteration and maintenance of civic and commercial buildings and reporting thereon to Committees.

Commencing salary within scale £1,245 to £1,405.

Applications in writing, with the names of three referees to The City Surveyor, Guildhall, London, E.C.2, within 14 days of date of this advertisement. 8391

METROPOLITAN BOROUGH OF FULHAM
BOROUGH ARCHITECT'S AND HOUSING DEPARTMENT

(*a*) PRINCIPAL ASSISTANT ARCHITECT. N.J.C. special scale £750/£1,030 plus £30 p.a. London weighting. R.I.B.A. Final or equivalent and five years' experience.

(*b*) ASSISTANT ARCHITECT. A.P.T. II £725/£845 plus London weighting £20/£30 p.a. according to age. R.I.B.A. Intermediate and at least four years' experience. The work is primarily concerned with schemes of multi-storey dwellings.

(*c*) SENIOR ASSISTANT QUANTITY SURVEYOR. N.J.C. special scale £750/£1,030 plus £30 p.a. London weighting. Associated membership (by examination) of approved professional body. Experienced in taking off, preparation of bills of quantities for large contracts (multi-storey dwellings and public buildings), valuations for interim certificates and finalising accounts.

(*d*) ASSISTANT QUANTITY SURVEYOR. A.P.T. I £575/£725 plus London weighting £20/£30 p.a. according to age. Probationer of an approved professional body experienced in working up and abstracting. Opportunity will be given for site measuring and junior "taking off."

Application forms from Town Clerk, Town Hall, S.W.6. Closing date 20th January, 1958. 8394

COUNTY BOROUGH OF SOUTHEND-ON-SEA
EDUCATION COMMITTEE
MUNICIPAL COLLEGE

Principal: T. L. MORGAN, M.Sc., A.M.I.C.E., A.M.I.Struct.E.

Applications are invited for the post of STUDIO MASTER in the School of Architecture.

Salary: Burnham Technical Report Grade B *viz.* £650 × £25—£1,025 with additions for training and graduate qualifications and increments for recognised experience.

Further particulars and forms of application may be obtained from the undersigned (s.a.e. foolscap).

Completed forms should be returned to the Principal, Municipal College, Victoria Circus, Southend-on-Sea, within fourteen days of the appearance of this advertisement.

D. B. BARTLETT,
Chief Education Officer.

Education Office,
Warrior Square,
Southend-on-Sea. 8402

BOROUGH OF FINCHLEY
HOUSING AND TOWN PLANNING DEPARTMENT
JUNIOR ARCHITECTURAL ASSISTANT

Salary within A.P.T. Grade I, according to qualifications and experience (£575 × £30—£725) plus London weighting.

Subject to satisfactory service, anticipated duration of the post will be approximately 2-3 years.

Preference will be given to those who have passed the R.I.B.A. Intermediate Examination and who have had practical office experience in housing work.

The National Scheme of Conditions of Service and the Local Government Superannuation Acts apply and medical examination is required.

Applications stating age and full particulars of qualifications and experience, with the names of two referees, to be submitted to the Borough Housing and Town Planning Officer, The Avenue, Finchley, N.3, by first post, Wednesday, 22nd January, 1958.

R. M. FRANKLIN,
Town Clerk.

Municipal Offices,
Finchley, N.3. 8420

COUNTY BOROUGH OF DERBY
BOROUGH ARCHITECT'S DEPARTMENT

1. SENIOR QUANTITY SURVEYOR. Special Grade (£750—£1,030 per annum). Qualifications: A.R.I.C.S. (Quantities) or A.I.Q.S. or A.I.A.S. with appropriate experience.
2. ASSISTANT BUILDING INSPECTOR, A.P.T. Grade I (£575—£725 per annum). The position is that of assistant to the Senior Building Inspector and applicants must have a thorough knowledge of Building Byelaws and ancillary duties. Qualifications: Higher National Certificate in Building, or equal.

Commencing salary according to qualifications and experience. Permanent superannuable appointments, subject to one month's notice and to medical examination. National Conditions of Service.

Application forms obtainable from and to be returned to the Borough Architect, The Council House, Corporation Street, Derby, not later than Monday, 27th January, 1958.

G. H. EMLYN JONES,
Town Clerk.

31st December, 1957. 8424

EASTERN ELECTRICITY BOARD
ESSEX SUB-AREA HEADQUARTERS
ENGINEERING DRAUGHTSMAN (ARCHITECTURAL)

Candidates should have had a good technical training and experience in the preparation of plans and detailed drawings of building and civil engineering works including substations, offices and workshops.

Salary—N.J.B. Schedule "D" Grade 6 (£595—£715) plus London Allowance.

The successful candidate will be required to contribute to a superannuation scheme and may be required to undergo a medical examination.

Apply by letter, within 14 days, to E. A. Cullen, M.I.E.E., Engineer, Essex Sub-Area, Eastern Electricity Board, "Millfield," Bentley, Nr. Brentwood, Essex. 8442

CITY OF LEEDS
CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

Post No. 1. ASSISTANT ARCHITECTS, A.P.T. Grade III, Salary Scale £845—£1,025.

2. ASSISTANT ARCHITECT, A.P.T. Grade II, £725—£845.
3. ARCHITECTURAL ASSISTANTS, A.P.T. Grade I, £575—£725.
4. DRAUGHTSMAN (M. or F.), H.G.D., salary according to age with maximum of £560.

Candidates for posts 3 and 4 should be capable draughtsmen with experience in general Architectural work.

Candidates are asked to clearly indicate the post for which they wish to be considered.

The commencing salary for posts (1), (2) and (3) fixed according to experience.

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

The appointments are subject to the Local Government Superannuation Acts 1937—1953 and the successful applicants will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds 9, to whom they should be returned together with copies of three recent testimonials, by 12 noon on Saturday, 1st February, 1958.

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

R. A. H. LIVETT,
City Architect.

Priestley House,
Quarry Hill,
Leeds, 9.
2nd January, 1958. 8439

CORBY DEVELOPMENT CORPORATION

Applications are invited for the following appointments:—

SENIOR ASSISTANT ARCHITECTS, salary grade A.P.T. VII (£999—£1,230).

ASSISTANT ARCHITECTS, salary grades A.P.T. V (£815—£994) and A.P.T. IV (£728—£907).

The salary grades are those approved by the Whitley Council for New Towns Staff and the commencing point within a grade will depend upon experience and qualifications.

Appointments will be subject to superannuation under the Local Government Superannuation Scheme.

The work of the Corporation affords wide experience in the design and construction of houses, town centre buildings, and factories, both in large schemes and in individual buildings.

Housing is available and assistance with removal expenses will be provided.

Applications stating age, education, training, qualifications, experience, present and past appointments and salaries, together with the names of two referees must reach the undersigned by Tuesday, 28th January, 1958.

R. F. BROOKES GRUNDY,
General Manager.

Spencer House,
Corby,
Northants. 8441

CITY OF WORCESTER
APPOINTMENT OF SENIOR ASSISTANT ARCHITECT

Applications are invited for this appointment within the Special Grade (salary £750—£1,030).

Candidates must hold the A.R.I.B.A. qualifications and should preferably have had municipal experience.

The appointment is superannuable and subject to a medical examination.

Housing accommodation will be provided if necessary and a contribution will be made, if required, towards removal expenses.

A casual user's car allowance will be available.

Applications stating age, present and previous appointments and experience together with the names of two referees are to be sent to the City Engineer & Surveyor, 22, Bridge Street, Worcester by 22nd January, 1958.

BERTRAM WEBSTER,
Town Clerk.

Guildhall,
Worcester. 8403

KENT COUNTY COUNCIL

ASSISTANT ARCHITECTS are required for work on the Council's extensive building programme which includes schools, colleges, old people's and children's homes, clinics, fire and police stations and other public buildings. Candidates should be capable of accepting responsibility and displaying initiative, within a group system, in the design and control of building projects, and possess experience and ability in current problems of design and control of costs.

Salaries within Scale £750 × £40—£1,030 a year. Commencing salary according to qualifications and experience. N.J.C. Conditions of Service. Further details and application forms from County Architect, Springfield, Maidstone. Closing date 28th January, 1958. 8370

METROPOLITAN BOROUGH OF HAMPSTEAD
ARCHITECTURAL ASSISTANT (Established) required in Housing Architect's Department (Housing Architect, C. E. Jacob, A.R.I.B.A.). Salary within special scale £750—£1,030 plus "London weighting." No housing provided. Applications giving experience, previous appointments, etc., and names of three referees to Town Clerk (AJ), Town Hall, Haverstock Hill, N.W.3, by 21st January, 1958. 8438

OFFICE OF THE RECEIVER FOR THE METROPOLITAN POLICE DISTRICT

ARCHITECTURAL, BUILDING, and SANITARY ENGINEERING DRAUGHTSMEN required.

Starting pay (minimum 21 years) £550 to £570 per annum according to age and sex. Salary maxima £809 (women), £870 (men).

Five-day, 42-hour, week, paid leave, canteen facilities.

Specialist experience will be an advantage for sanitary engineering draughtsman.

Applications stating qualifications (ordinary National Certificate or equivalent training) experience, age and nationality to Room 578, Receiver's Office, New Scotland Yard, S.W.1. Do not send testimonials. 8422

LONDON COUNTY COUNCIL

Hammersmith College of Art and Building—Department of Art and Architecture. Vacancies exist in this establishment in the Evening and the Day Courses of Architecture for INSTRUCTORS in Design and in Building Construction. Forms of application and further particulars from the Secretary at the College, Lime Grove, W.12. (2379) 8444

ASSISTANT (Outdoor) required in New Works Section of British Road Services in London to supervise substantial building construction programme of works in various parts of country. Applicants must have had considerable experience of control and organisation of building or public works projects and be suitably qualified. The Assistant will be responsible to the Architect, New Works Section, and must be prepared to travel extensively to supervise progress of works. Salary range for the post, which is a temporary one, £1,400—£1,735 per annum. Apply with full particulars to Personnel Officer, British Road Services Ltd., 222 Marylebone Road, London, N.W.1. 8396

METROPOLITAN BOROUGH OF FULHAM
ARCHITECTURAL TRAINEE

Borough Architect's Dept. Excellent opportunity for boy, 16/17 years, to become articled pupil to Borough Architect. Commencing salary during training £270/£300 p.a. Details from Town Clerk, Town Hall, S.W.6. Closing date 20th January. 8393

WORCESTERSHIRE COUNTY COUNCIL

ASSISTANT ARCHITECT required in the County Architect's Department, grade A.P.T. III (£945 to £1,025) or Special (£750 to £1,030), according to qualifications. Forms of application should be obtained from L. C. Lomas, F.R.I.B.A., County Architect, 14, Castle Street, Worcester, not later than 17th January, 1958. (A212) 8440

CITY OF MANCHESTER
HOUSING DEPARTMENT

Applications are invited from suitably qualified persons for the appointment of ASSISTANT ARCHITECT "SPECIAL" Grade £750—£1,030 p.a. (Applicants must have passed the Final examination of the R.I.B.A. or equivalent and point of entry to grade will be according to qualifications and experience.)

Applications, giving full details of age, qualifications and experience to the Director of Housing, Town Hall, Manchester, 2, to be received not later than Friday, 24th January, 1958. 8395

CHESTERFIELD RURAL DISTRICT COUNCIL invite applications for the appointment of ASSISTANT ARCHITECT. The appointment offers excellent experience in a district with a population of 93,000 and which is rapidly developing both residentially and industrially.

The salary scale will be determined by reference to the qualifications and experience held by the successful candidate and will be in the range A.P.T. I—Special Scale (£575—£1,030).

The Council are prepared to assist with Housing accommodation.

Application forms may be obtained from the Council's Engineer, Mr. J. B. Wikeley, M.Eng., M.I.C.E., Barrister at Law, Rural Council House, Saltergate, Chesterfield, and should be returned to the Clerk of the Council by 27th January, 1958.

H. O. HAWKINS,
Clerk of the Council.
8448

CITY OF CARDIFF
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the following appointment in the City Architect's Department.

ARCHITECTURAL ASSISTANT, A.P.T. Grade I, £575—£725 per annum.

Candidates should possess the minimum qualifications and experience prescribed by the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services for posts in the above mentioned Grade.

General Conditions of Appointment may be obtained from the undersigned.

Applications, accompanied by the names and addresses of two referees and endorsed "Architectural Assistant—A.P.T. Grade I," must be delivered to me not later than the 17th January, 1958.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff.
January, 1958. 8450

CITY AND COUNTY OF KINGSTON UPON HULL
TOWN PLANNING DEPARTMENT

Applications are invited from suitably qualified persons for the following posts.

1. SENIOR PLANNING ASSISTANTS (3), Grade for Special Classes of Officers Scale C (£750 × £40—£1,030 per annum).

2. PLANNING ASSISTANT, Grade A.P.T. II (£725 × £30—£845 per annum).

The commencing salary will be fixed according to the qualifications and experience of the person appointed.

Consideration will be given to the provision of housing accommodation in appropriate cases.

Application forms and further particulars regarding the posts may be obtained from the undersigned and forms should be returned not later than Saturday, 8th February, 1958.

H. F. ALSTON,
M.T.P.I., A.R.I.C.S., A.M.I.Mun.E.,
Town Planning Officer.

Guildhall,
Kingston upon Hull. 8451

Harry S. Fairhurst & Son have a vacancy in Manchester for an experienced ASSISTANT. Please apply in writing to 55, Brown Street, 2, giving details of experience and qualifications. First class draughtsmanship is an important consideration for this appointment. 8406

COUNTY BOROUGH OF BOOTLE

Applications are invited for the following appointments :—

(*a*) ASSISTANT ARCHITECT—Grade A.P.T. III, £845—£1,025 per annum.

(*b*) ASSISTANT ARCHITECT—Grade A.P.T. II, £725—£845 per annum.

Preference will be given to those having experience in the design and planning of schools.

Application forms, obtainable from the Borough Surveyor, Town Hall, Bootle 20, are returnable by Friday, 31st January, 1958.

By Order,
HAROLD PARTINGTON,
Town Clerk.
8449

Architectural Appointments Vacant

4 lines or under, 9s. 6d.; each additional line, 2s. 6d. Box Number, including forwarding replies, 2s. extra.

WEST END Architects require at once ASSISTANT ARCHITECT, age 28-35, for responsible position, good designer preferably with experience of large industrial contracts. Salary according to qualifications. Box 8330.

SPECIFICATION 1958

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

THE 1958 EDITION of this unique complete guide to the writing of building specifications, long acclaimed as the standard work covering all sections of the building industry, has been scrupulously revised throughout and now runs to 1,404 pages (1,334 pages in 1956, 1,288 in 1955). Model specification clauses are included in many of the sections, and the general arrangement is that laid down by the British Standards Specification for the sequence of trade headings in specifications.

The 1958 volume contains one entirely new section: *Curtain Walling* by Arthur Parry, A.R.I.B.A., which includes descriptions of many proprietary systems and of infilling panel materials. Three other sections have been re-written completely: *Fire Protection* (previously *Fire Resisting Construction*) by L. A. Ashton, B.Sc.(Eng.); *Ironmonger* by Robert Maguire and Peter Whiteley, A/A.R.I.B.A. (now very well illustrated); *Schools* by John Stillman and John Eastwick-Field, A/A.R.I.B.A. *Structural Aluminium Alloys* has had considerable revision by R. M. Davies, B.Sc.(Eng.), A.C.G.I., A.M.I.C.E. of Aluminium Development Association. Other revisions include: *Carpenter and Joiner*, in which I. D. G. Lee, B.Sc.(Eng.) has revised the information on plywood; *Floors* in which Derek Ebner lists and annotates all currently available flooring timbers; *Plumber, Sanitary Engineer and Water Supply*, revised by M. W. Gilbert, A.R.I.B.A., with the assistance of A. Waddington, B.Sc., A.R.I.C.

In each of its 38 sections will be found not only full details of the established methods of building construction but also the latest information about the constantly changing and ever increasing number of proprietary systems and materials.

You are urged to place your order *now* for the 1958 edition. Price 35s. net. Postage 3s. 3d. inland (6s. 4d. abroad).

THE ARCHITECTURAL PRESS, 9-13 Queen Anne's Gate, Westminster. S.W.1

EXPERIENCED ARCHITECTURAL ASSISTANT required for new hospital project in London. Salary approximately £800 p.a., according to experience.—Write full particulars to Lanchester & Lodge, 10, Woburn Square, London, W.C.1. 8417

CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT, MANCHESTER

APPLICATIONS are invited for the appointment of ASSISTANT ARCHITECTS with experience of work on commercial and industrial projects, capable of preparing working drawings from preliminary details. Five-day week in operation. Applications stating age, experience, qualifications and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Manchester 4. 8276

ARCHITECTURAL DRAUGHTSMAN. To control extensive programme of Aluminium Curtain Walling development. Experience an advantage but initiative and originating ability essential. This is an exceptional opportunity for an ambitious man to progress to a senior executive position. Write full details, age, experience, salary required to Managing Director, Ajax Architectural Products Ltd., Lower Sydenham, S.E.26. 8343

ASSISTANTS required for London office, intermediate standard, with two or three years' office experience. Salary according to experience. Telephone CHAncery 3526. 8352

ARCHITECTURAL ASSISTANT with at least four years' office experience required. Medium size office, varied work. Write or telephone, giving full particulars, age and salary, to Hasker & Hall, L/F.R.I.B.A., 13 Welbeck Street, W.1 (Welbeck 0061). 8342

BRIGHTON architect with small busy practice immediately requires live SENIOR ASSISTANT (30-40) mostly for domestic development. Surveying, levelling, specifications essential. Commencing salary £850 per annum. Box 8344.

ASSISTANT of Intermediate standard, with office experience, good draughtsman, required for work on Flats and Houses. Please state experience, age and salary required to: R. Jelinek-Karl, F.R.I.B.A., 22, Chancery Lane, W.C.2. 8365

ARCHITECTURAL ASSISTANT required by London firm engaged mainly on factory, warehouse and office developments. Salary £800 to £900. Apply Box 8359.

ARCHITECTURAL ASSISTANT required in London Office for preparation of working drawings and supervising work in progress. Apply giving age, experience and salary required to Box 8356.

ARCHITECTURAL DESIGNER. Opportunity arises for man of outstanding ability to join a fast expanding organisation in the architectural aluminium industry. Successful candidate will be required to take entire charge of the Company's programme of development and design of aluminium Curtain Walling, Windows, Entrances, etc., for home and export. This is an exceptional opportunity and a top level appointment for a keen ambitious designer able to handle a vast expansion programme. Write fullest information in confidence to Managing Director, Ajax Architectural Products Ltd., Kangley Bridge Road, S.E.26. 8387

WOKING. ASSISTANT required for general practice. Intermediate or Associate standard. Office experience essential. Particulars to H. A. Whitburn & Son, 12 Broadway, Woking 810. 8376

ARCHITECTURAL ASSISTANT (Intermediate R.I.B.A. standard) required for position in architect's department of multiple firm in London. Five-day week. Canteen facilities. Superannuation scheme.—Apply, in writing, stating age, experience and salary required, Box 8435.

THE following appointments urgently required to be filled for work on overseas projects:—
1. Experienced ARCHITECT to work in West Africa to open and develop a branch office for an established practice.
2. ASSISTANT ARCHITECTS and ASSISTANTS, Intermediate to Final standard, to work in London.
3. ASSISTANT TO ARCHITECT PLANNER for work mainly on site developments.
Salary in all cases by arrangement.—Box 8436.

FREDERICK GIBBERD'S London office requires ARCHITECTURAL ASSISTANT with office experience for a variety of interesting jobs. Salary £600-£750 according to experience.—Apply, in writing, giving full particulars to 8, Percy Street, London, W.1. 8433

GEORGE WIMPEY & CO., LTD., require ASSISTANTS for interesting work in their Manchester Architects' Department. Canteen facilities. Pleasant office. Salary in accordance with experience and qualifications.—Apply, in writing, to 629, Eccles New Road, Salford 5, Lancs. 8432

EXPERIENCED ARCHITECTURAL ASSISTANT required immediately in small London office, good draughtsman, experience in office and shop fitting design and detailing an advantage.—Apply, giving experience and salary required, Gale Heath & Co., 15, New Bridge Street, London, E.C.4. Telephone: FLE. 1651. 8437

VACANCY for young ARCHITECTURAL ASSISTANT who enjoys hard work and responsibility and is anxious to test his ability to build under supervision before launching out. Schools, churches, houses, church halls, etc. Young staff. Five-day week.—Full particulars to Maurice W. Jones, 8, College Yard, Worcester. 8434

SENIOR ARCHITECTURAL ASSISTANT required immediately for a busy growing practice with excellent opportunities for advancement. Salary £500 to £700 per annum according to experience. Apply in writing stating age and experience to A. J. Bloomfield, A.R.I.B.A., 12a, High Street, Billericay, Essex. 8445

BUSY office in Kensington requires ARCHITECTURAL ASSISTANT approaching Intermediate, with 3/4 years' office experience, good draughtsman and sound knowledge of construction essential, for work on Licensed premises. Apply: Mayell, Webb & Hart. Telephone: FRE 8596. 8443

ARCHITECTURAL DRAUGHTSMAN AND SURVEYOR required, £700-£850 p.a. Experience with theodolite an advantage.—Write, stating age and experience, to The Site Survey Company, Blackheath, S.E.3. 8392

ARCHITECT'S ASSISTANT, with office experience, a sound knowledge of straightforward construction, and ability to produce clear working drawings, required in busy Birmingham office. Pension scheme. Salary £850. 8401

INTERMEDIATE ASSISTANT required for busy varied practice in country district.—Apply, with full details, to Edwards & Webster, F/A.A.R.I.B.A., A/A.M.T.P.I., 22, St. John Street, Devizes, Wilts. All letters answered. 8419

ARCHITECT'S ASSISTANT required in large Birmingham firm to work on contemporary schemes for Birmingham, Central London, new towns, etc. Preferably capable of working with minimum supervision. Five day week.—'Phone: EDG. 4571, or write, J. Seymour Harris & Partners, 4, Greenfield Crescent, Birmingham, 15. 8418

JUNIOR ARCHITECTURAL ASSISTANT required in a London Brewery for work on licensed premises. Reply stating age, experience and salary required to Box 8453.

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT required, ARIBA. Must be prepared to take responsibility. Varied work. Application giving details of age, experience and salary required.—Wood & Kendrick & Williams, 57, Colmore Row, Birmingham 3. 8415

ARCHITECTURAL ASSISTANT required. Intermediate standard or above.—Reply, in writing, giving full details of age, experience and qualifications, Wood & Kendrick & Williams, 57 Colmore Row, Birmingham 3. 8416

ARCHITECTURAL DRAUGHTSMAN required. Must be knowledgeable of all of the building trades and have had some experience in modern techniques. Duties will primarily be preparing working details from architects' drawings, etc. Progressive pensionable appointment available.—Apply, stating age, details of general and technical education, experience, details of previous appointments and salary required, to the Secretary, J. M. Jones & Sons, Ltd., Highway Works, Maidenhead. 8414

OPPORTUNITY for advancement occurs for Single Young Man of Intermediate or better standard as SECOND ASSISTANT in country Practice.—Reply to Box 8413.

TEMPORARY assistance required in small private practice, whole or part time. Applicant should be a neat draughtsman and capable of working up drawings and details from sketch plans.—Please reply, stating age, experience, salary required and when free, to John G. Simpson, A.R.I.B.A., 94, High Road, Woodford Green, Essex. 8412

ARCHITECTURAL ASSISTANT required for educational, ecclesiastical and industrial work. Good draughtsmanship essential.—Please state experience, age and salary required, to John A. Strubbe and Partners, F/ARIBA, Beaufort Studio, Ham Street, Ham, Richmond, Surrey. Tel.: RIChmond 3684/5. 8411

ASSISTANT of Intermediate standard required for small practice. Five-day week. Salary by arrangement. Telephone: RIChmond 5412. 8408

ARCHITECTURAL ASSISTANT required, up to Intermediate standard, for good varied practice in London Architect's office—Write, giving details of experience and salary required, to Box 8407.

EDWARD D. MILLS & PARTNERS require ARCHITECTURAL ASSISTANTS for interesting contemporary work. Capable draughtsmen, with sound knowledge of modern construction.—Write, giving full details of experience, salary required and availability, to 15, Carlisle Street, Soho Square, W.1. 8405

ARCHITECTURAL ASSISTANT required, Intermediate standard. Scope for use of own initiative. Varied experience, including hospital, ecclesiastical, domestic and general work. Good draughtsmanship essential.—Apply, giving full details, including salary required, to H. Anthony Clark, F. C. Roberts & Partners, Chartered Architects, 41, Regent Street, Wrexham. 8404

ARCHITECTURAL ASSISTANT required, pre-Final standard, office work and site supervision. Country office. S.C. flat available.—Write, with details, training and salary required, Edwards & Webster, F/A/A.R.I.B.A., 10, St. Mary Street, Chippenham, Wilts. 8400

ARCHITECTS' ASSISTANTS required immediately. Intermediate/Final standard. Salary according to experience. Five-day week. Staff Canteen. Pension Scheme. Applications in writing, giving full details of age, experience and salary to Personnel Department, BRITISH HOME STORES LTD., 129, Marylebone Road, London, N.W.1. 8362

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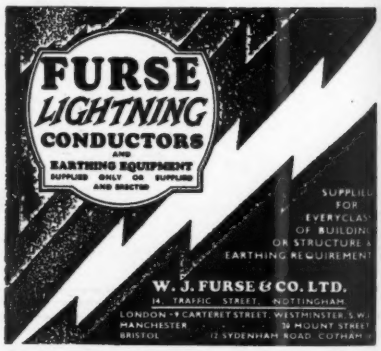

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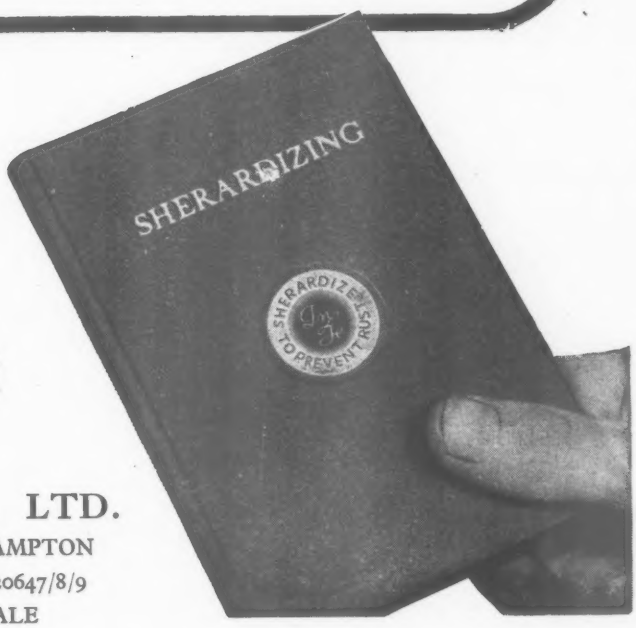

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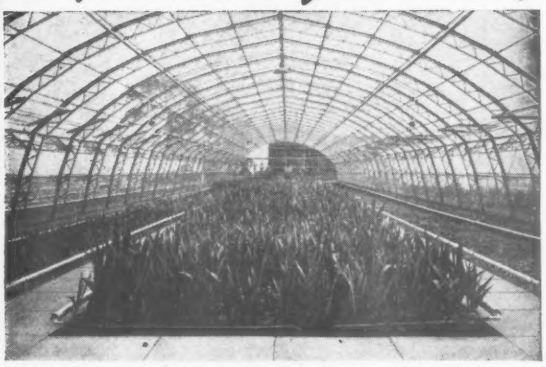

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