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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, 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
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
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
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
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
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
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. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	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
DPT	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. 67, Oxford Street, W.1.	Gerrard 0021
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
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 4041
FS (Eng.)	Faculty of Surveyors of England. 67, Oxford Street, W.1.	Gerrard 0021
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

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Roof of unloading bay at Purfleet for Thames Board Mills Ltd.
Contractors: D. T. Edwards & Co. Ltd., 19 Ashley Place, Westminster, S.W.1.

'Rigidal' Corrugated Aluminium Sheet *brightens Thameside*

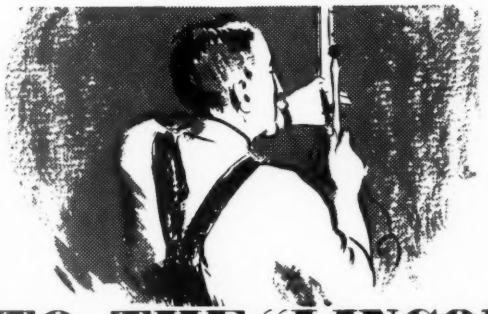
Rigidal corrugated aluminium sheet was used for re-roofing this unloading bay. The light weight of aluminium facilitated transport and handling, whilst the completed roof imposes the minimum of weight on the supporting structure.

An aluminium roof resists the effects of marine and industrial atmospheres; it also requires no painting or other maintenance throughout its long life.

British Aluminium

THE BRITISH ALUMINIUM COMPANY LIMITED
NORFOLK HOUSE · ST JAMES'S SQUARE · LONDON SW1

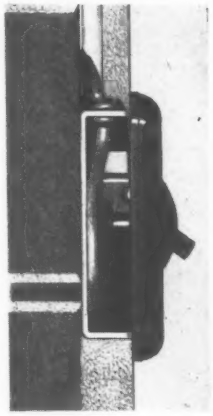
138-1001



Examine these new switches at our
STAND No. 168
ELECTRICAL ENGINEERS' EXHIBITION

SWITCH TO THE "LINCOLN" TYPE AC

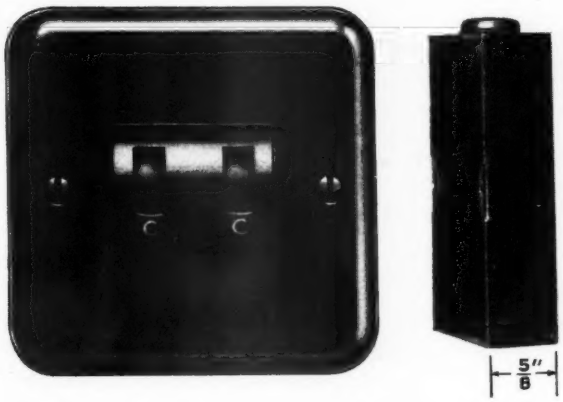
For Plaster-depth Erection



WHILST the new 5 amp. "Lincoln" Type AC switch may be erected in standard boxes to B.S. 1299, its shallow depth makes it particularly suitable for competitive flush wiring schemes.
For such schemes we offer a wide range of extra-shallow boxes. These include both a steel box with bushed entries and a hardwood box for t.r.s. and similar cables as well as steel boxes for either round or oval conduit.
By using the appropriate box, the engineer can provide a completely flush installation without having to cut or chase the brickwork. This high efficiency switch can thus be installed quickly, neatly and economically.

Ask for a copy of Publication No.A152

- Full, positive drive from dolly to moving contact. Contacts of heavy gauge, silver-inlaid copper.
- A competitive, robust, switch in all ways comparable with other "Lincoln" accessories.
- Mechanism is protectively sealed against dust and may be operated in silence.
- Single- or twin-switch units for erection in one-gang extra-shallow or B.S. 1299 boxes.

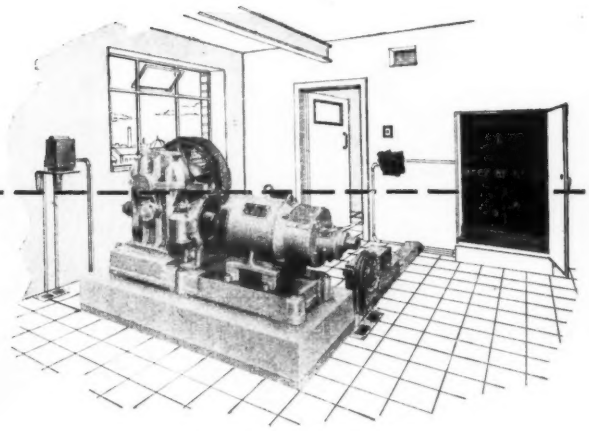


CRABTREE

WIRING ACCESSORIES · SWITCHGEAR · MOTOR STARTERS

"Crabtree" (Registered)

C.680/218 Advt. of J. A. Crabtree & Co. Ltd., Walsall, Staffs.



what is

interconnected

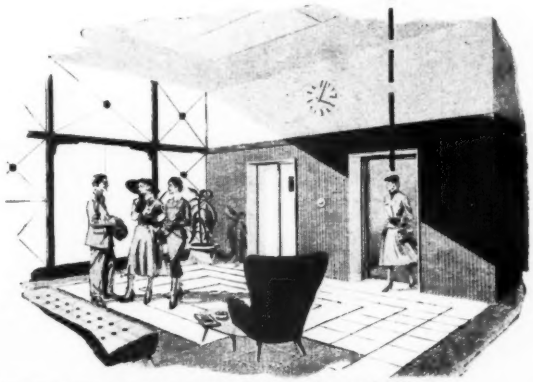
selective ?

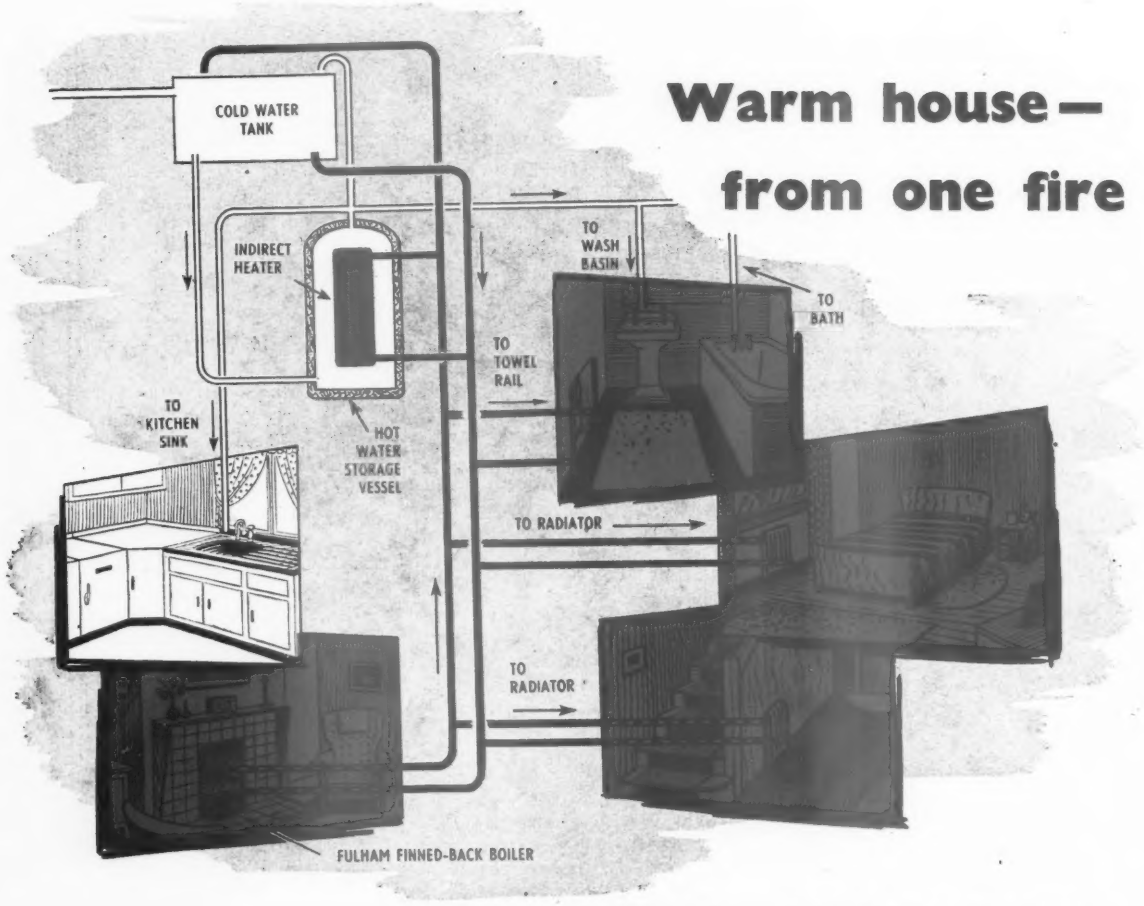
A button is pressed . . . the automatic controller receives the request : ' 3rd. floor call for Ground '.

Car No. 1 is ascending ; so the impulse is conveyed to Car No. 2 which is descending to collect passengers at the 6th. and 2nd. floors, stopping it also at the 3rd.

. . . that is interconnected selective, which H & C will gladly demonstrate.

H & C LIFTS





Warm house— from one fire

An efficient and economical method of hot water supply and room heating can be provided by installing the

FULHAM

FINNED BACK BOILER WITH

NEWBOLD GRATE

The open fire will heat one room and the large surface, high efficiency type boiler will supply hot water for :—

- All domestic purposes.
- Heating towel rail.
- Heating two small radiators.

SUMMA GAS ATTACHMENT. In the summer when the open fire and central heating are not needed this gas attachment can be hooked on to the boiler and it will heat a 30 gallon cylinder of water within 2 hours from 50° to 120°F.

FLAVELS *of* LEAMINGTON

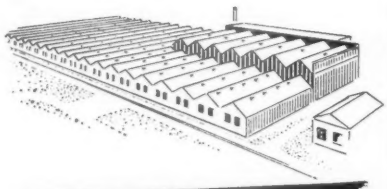
MAKERS OF FINE QUALITY COOKING & HEATING APPLIANCES SINCE 1777

Steel to Steel = Structural Sense
Steel + Steel = Structural Stability

RUBEROID STEEL ROOF DECK

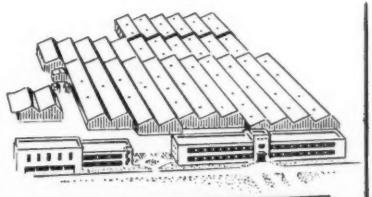
The Ruberoid Company Ltd. realised the possibilities of light-weight steel roofing units 25 years ago and the modern Ruberoid Steel Roof Deck represents a tremendous investment of long-term research and development.
Ruberoid Steel Deck has been used for some of the most outstanding roofing contracts in the world, including India, Singapore, Iraq, Java, South Africa, France, Belgium, and the Argentine. There is not a town or city in the British Isles which does not contain buildings roofed with Ruberoid Steel Deck.

THE ROOF WITH RECORD PERFORMANCE



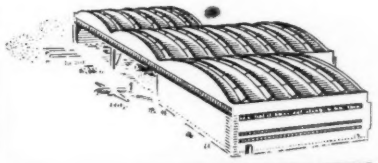
FOR SIZE...

Many of the largest roofs in the world are of Ruberoid Steel Deck as, for instance, the 50-acre roof of a building for the Ministry of Aircraft Production Factories.



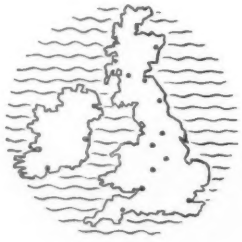
FOR SPEED

Because of its simple construction and the lightness of the individual units, Ruberoid Steel Deck can be erected in record time. A 34,000-sq.-yd. factory roof was completed in 27 working days.



FOR ADAPTABILITY

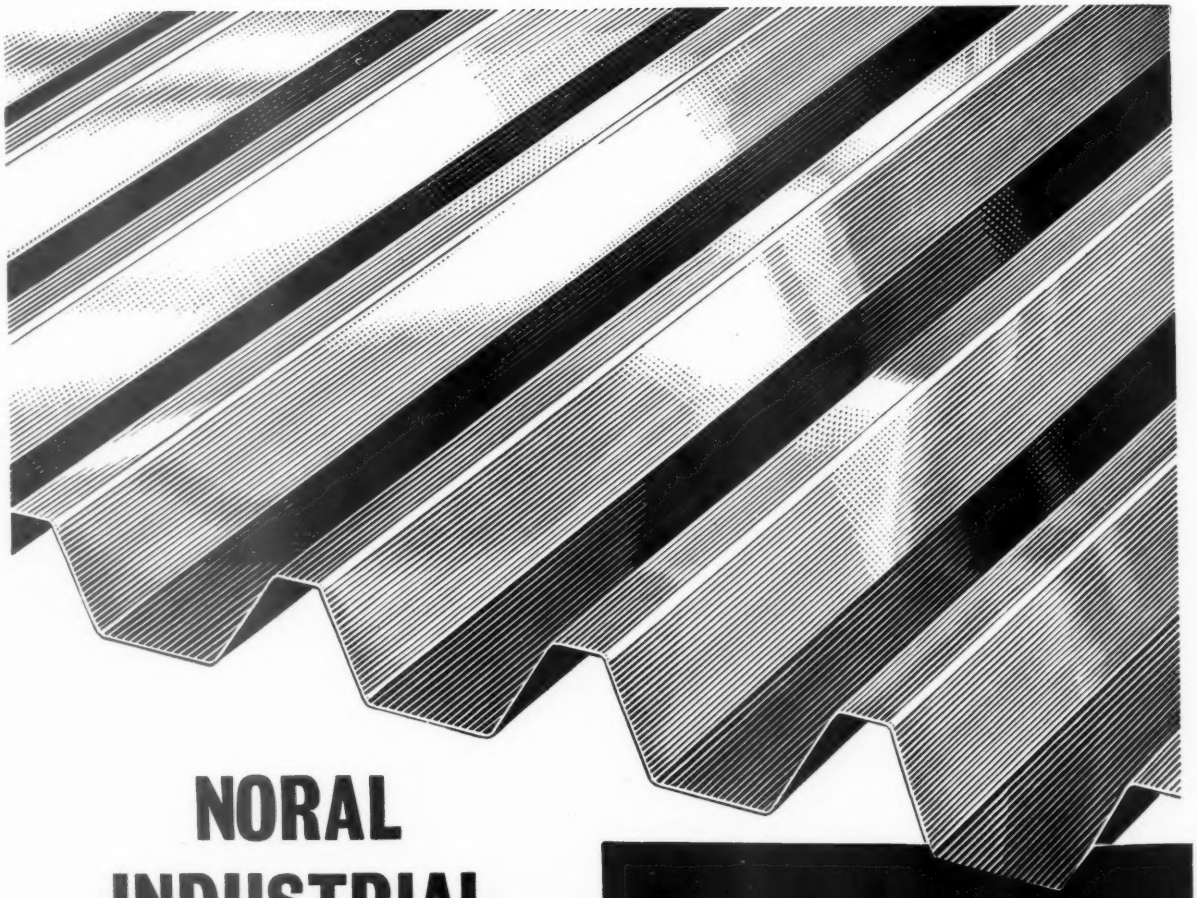
Ruberoid Steel Deck lends itself to every type of roof surface, curved, flat or pitched. On the Bristol Brabazon hangar, for instance, it was employed on all the sloping, flat and vertical areas.



The Ruberoid Contract Department places its wide and long experience with all types of roofing problems freely at the disposal of architects : consultations at the design stage can, and often do, result in structural economy. The Department undertakes the supply and fixing of Ruberoid Roofing specifications on any scale from convenient centres throughout the British Isles.

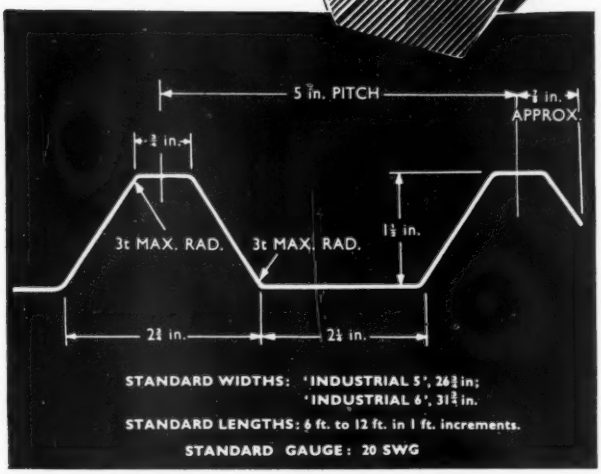
R.123

Write for Illustrated Brochure No. 343.
THE RUBEROID CO. LTD., 1, COMMONWEALTH HOUSE, NEW OXFORD ST., LONDON, W.C.1



NORAL INDUSTRIAL SHEET

Heavy-duty aluminium sheet for factory roofs and walls



NORAL INDUSTRIAL SHEET is a new product for big roofing jobs. It has been designed for maximum strength and stiffness—with the standard 20 SWG sheet purlins can be up to 9 feet apart, economizing in structure and fastenings, and the roof can be walked on in safety and without damage to the material.

This rugged new sheeting of course brings all the well-known advantages of aluminium as a high-quality roofing material: a very long life in industrial atmospheres (without maintenance), lightness and thermal insulating qualities.

Our 44-page booklet 'Noral Corrugated Sheets' gives details of 'Industrial' and the other patterns of Noral roofing and siding sheet; write for your copy now.

ACCREDITED ROOFING AGENTS:

Industrial Engineering Ltd., Albemarle Street, LONDON, W.1.

The Boddy Roofing Co. Ltd., 81, Essex Road, LONDON, W.1.

John Bland Ltd., East Moors, CARDIFF.

W. H. Heywood & Co. Ltd., Bayhall Works, HUDDERSFIELD.

Northern Aluminium COMPANY LIMITED

NORAL

An ALUMINIUM LIMITED Company

MAKERS OF NORAL SHEET, STRIP, PLATE, SECTIONS, TUBING, WIRE, FORGINGS, CASTINGS, ALPASTE FOR PAINT.

SALES DEVELOPMENT DIVISION: BANBURY, OXON. SALES OFFICES: LONDON, BIRMINGHAM, MANCHESTER, BRISTOL, NEWCASTLE UPON TYNE, LEEDS

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STAINLESS STEEL

Modern demands call for materials which will withstand hard wear and stainless steel is ideal for kitchen work-tops and catering equipment.

The polished surfaces are impervious to heat, neither will they chip nor rust and are fully resistant to food acids.

No other material offers a combination of these features.

The stainless steel kitchen unit photographed in natural colour was manufactured by Wallis & Company (Long Eaton) Limited.

THE UNITED STEEL COMPANIES LTD

SAMUEL FOX & COMPANY LIMITED

Associated with The United Steel Companies Limited

STOCKSBRIDGE WORKS · Nr. SHEFFIELD · ENGLAND

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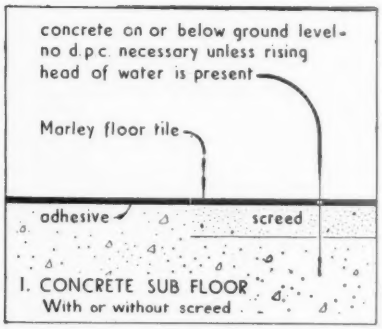
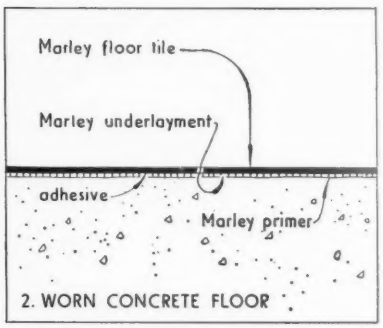
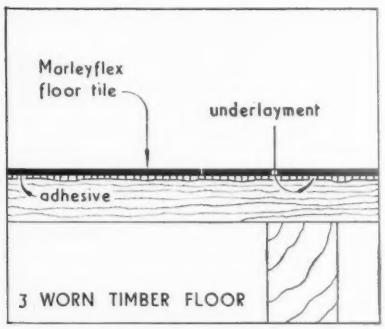
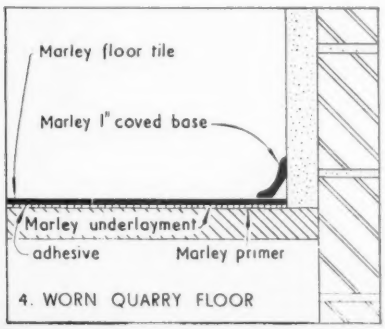
★ ★ ★ ★ ★ A solid floor is over 30% cheaper than a









APPLICATION: Marley Floor Tiles can be laid speedily and economically over any hard, smooth, firm surface. The accompanying sketches indicate methods of application to various subfloors, and treatment at skirtings.

COMPARATIVE COSTS, based upon:—

1. A house with a ground floor area of 500 square feet, allowing for 275 square feet of suspended or solid floor.

2. It is customary in most areas to have solid floors in kitchens, even when suspended timber board and joist floors are used in the rest of the house. In certain parts of the country, moreover, solid floors are customary in halls. The figures given below are based on the presumption that both these practices will be followed and to maintain a level comparison the quantities have been calculated upon the areas of the living rooms only. If the comparison were extended to include the area of the hall and kitchen the amount of the saving would be increased accordingly.

3. All items common to both suspended and solid floors are omitted.

4. The suspended floor level is assumed to be 10½ in. above external ground level.

5. The solid floor is assumed to be on the same level as the damp-proof course (i.e. a nominal 6 in. above external ground level).

ON LEVEL SITES REQUIRING ONLY MINIMUM SURFACE EXCAVATION AND REMOVAL OF TOP SOIL

Suspended timber board and joist floor ..		63 12 6
Solid floor with thermoplastic tile finish ..	42 4 2	
Plus Purchase tax ..	1 18 9	
		44 2 11
Saving		£19 9 7 = 30.62%

ON SITES WITH A DIFFERENCE IN LEVELS OF 18 IN. FROM FRONT TO BACK OF THE BUILDING

	With rammed earth used as a filling below hardcore and concrete		With hardcore filling in lieu of rammed earth	
Suspended timber board and joist floor ..		69 2 0		74 19 0
Solid floor with thermoplastic tile finish ..	44 3 8		59 15 8	
Plus Purchase tax ..	1 18 9	46 2 5	1 18 9	61 14 5
Saving		£22 19 7 = 33.26%		£13 4 7 = 17.65%

ON SITES WITH A DIFFERENCE IN LEVELS OF 36 IN. FROM FRONT TO BACK OF THE BUILDING

	With rammed earth used as a filling below hardcore and concrete (assuming suitable 'spoil' is available)		With hardcore filling in lieu of rammed earth	
Suspended timber board and joist floor ..		78 11 5		84 8 5
Solid floor with thermoplastic tile finish ..	52 1 5		80 13 5	
Plus Purchase tax ..	1 18 9	54 0 2	1 18 9	82 12 2
Saving		£24 11 3 = 31.26%		£ 1 16 3 = 2.15%

Note: The prices given for the solid floor in this section include for mesh reinforcement in the concrete.

These costs have been compiled by a reputable independent firm of Quantity Surveyors and are based upon competitive prices for housing work.

covered with Marley floor tiles a suspended board and joist floor

Marleytile colours shown: C206, D619 and Red Feature Strip

★ ★ ★

For the ground floors of houses, hospitals, schools and public buildings, costings on current prices prove conclusively that very appreciable savings can be made by using solid floors with Marley Tile finishes. Such floors are warmer, drier and more comfortable, and are *completely free from all risk of dry rot.*

Marley Skirtings are extremely durable, rot proof, fire-resisting and provide a perfect union between wall and floor.

A Marley floor is a complete floor in itself; additional floor coverings are unnecessary. The wide colour range gives great flexibility of design.

Marleytile colours shown: D394, C206, C205 and D316

Marleytile colours shown: C205 and D324

Cock o' the walk

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

London Showrooms at Alfred Goslett & Co. Ltd., 127-131 Charing Cross Road, W.C.2. GERrard 7890

Safety floors FOR FALTERING FEET

Redditch Day Nursery, Worcestershire County Council. Capt. L. C. Lomas, F.R.I.B.A., County Architect.

WHERE the need is for floors of quietness and of cushioned comfort, *cork* is the chosen material. Cork for its inherent resilience as much as its natural golden colour: its durable non-slip surface and exceptional hard-wearing qualities as much as its friendly feel underfoot.

In this Day Nursery at Redditch, Armstrong's Cork Tile has been laid with decorative effect in two tones. Upon this safe surface young feet will have more certain grip and falls will be followed by laughter more often than tears. And its warmth will simplify, rather than complicate, heating problems.

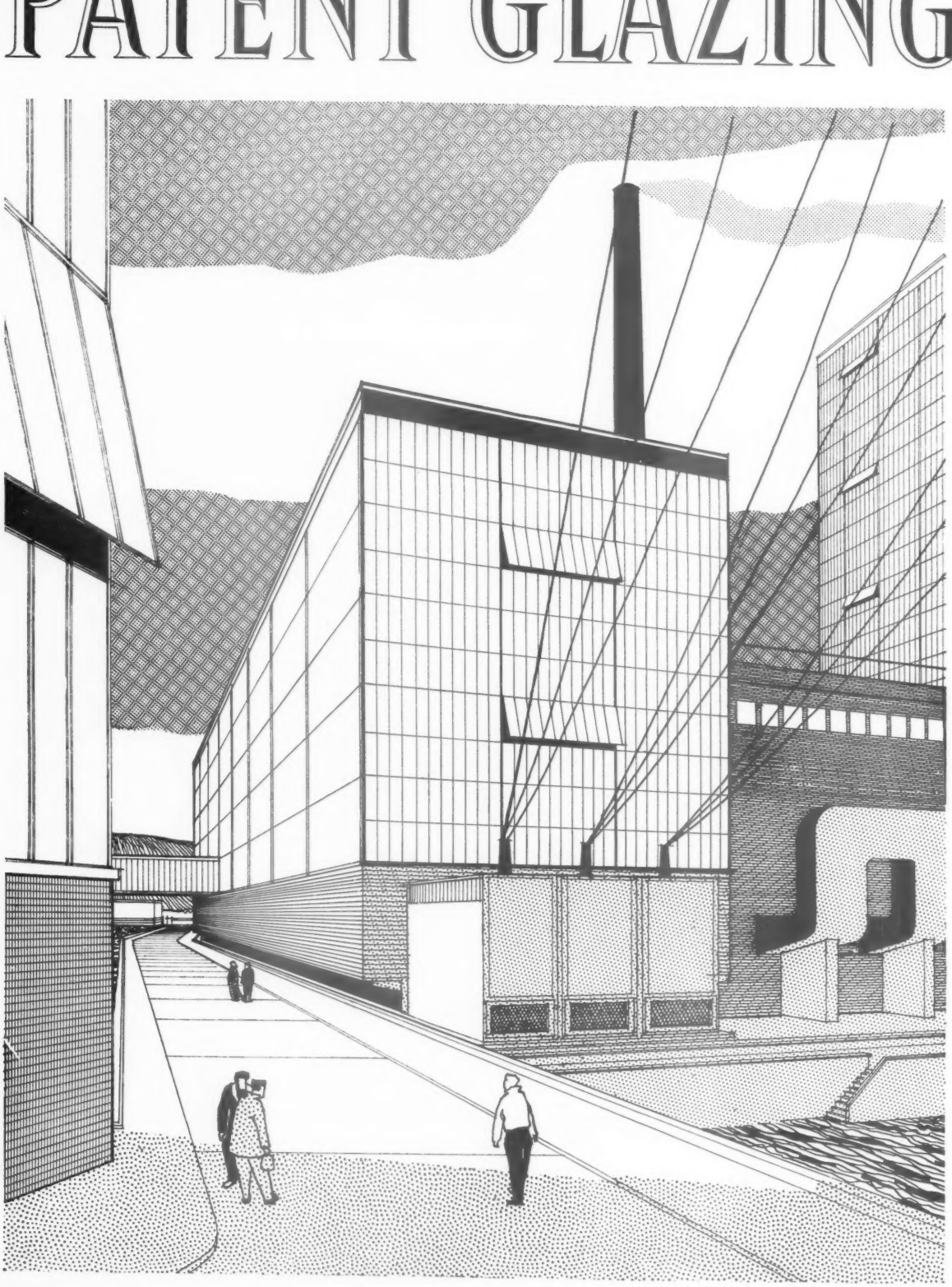
It is for these and other good reasons that many distinguished Architects have specified Armstrong's Cork Tile for Libraries, Offices, Showrooms, Hospitals and other important Contracts.

Armstrong's CORK TILE

Sizes: 12" x 12", 36" x 12", 36" x 6", 9" x 9", 6" x 6". Special sizes cut to order up to maximum of 36" x 12". **Thickness:** $\frac{5}{16}$" square edge or bevelled edge. $\frac{3}{16}$" tongued and grooved or square edge. **Shades:** Light, Medium, Dark. **Coved Skirting:** $\frac{3}{16}$" thick, in lengths of 36", 4" high, $\frac{1}{4}$" radius cove.

ARMSTRONG CORK COMPANY LIMITED, Flooring Department, BUSH HOUSE, ALDWYCH, LONDON, W.C.2. Tel: CHAncery 6281

PATENT GLAZING



From a design by Edward D. Mills, F.R.I.B.A.

SPECIFICATIONS

1. POWER STATION

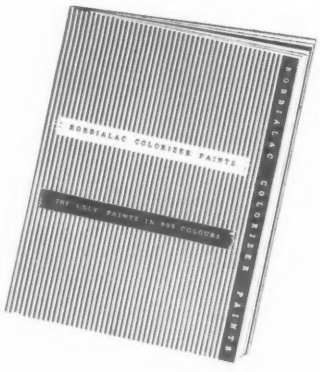
Recent developments in the design of modern power stations have tended to make the older type of power station building with its solid brick walls redundant. The new technique in this field takes into consideration contemporary structural methods and materials, using light steel frameworks to support a light cladding for the major units of the power station.

The design shown on the opposite page illustrates the use of patent glazing as the side wall cladding for the major buildings of such a contemporary power station, giving a light and open appearance, and allowing for the admission of ample daylight. The cladding in this instance, comprising Patent Glazing Bars, $\frac{1}{4}$" glass, and opening lights operated with remote controlled gearing, would be easily erected and maintained.

For all facts about patent glazing, write to the Information Bureau, The Patent Glazing Conference, Burwood House, Caxton Street, London, S.W.1.

ISSUED BY THE PATENT GLAZING CONFERENCE

IT'S ALWAYS BEEN DIFFICULT—if not impossible—in dealing with monochromatic renderings, to find colours available in subtle gradations of hue. Having chosen a colour from a standard colour card, the architect has hardly ever been able to find lighter or darker tones of that same hue. In cases where the decorative scheme requires the ceiling in one shade, the wall in another, and the woodwork in yet another, Robbialac Colorizer Paints in 999 colours offer a perfect solution. For each colour is available in a number of gradations, offering unlimited scope in schemes of this kind. Robbialac Enamel, Eggshell Enamel and Suede Finish are all obtainable in the same colour, *and* in gradations of that colour, and Emulsion paint in 99 shades. Robbialac Colorizer Paints thus make it possible to treat the woodwork in gloss, the walls and ceiling in matt, safe in the knowledge that the colour will be exactly matched on each surface.



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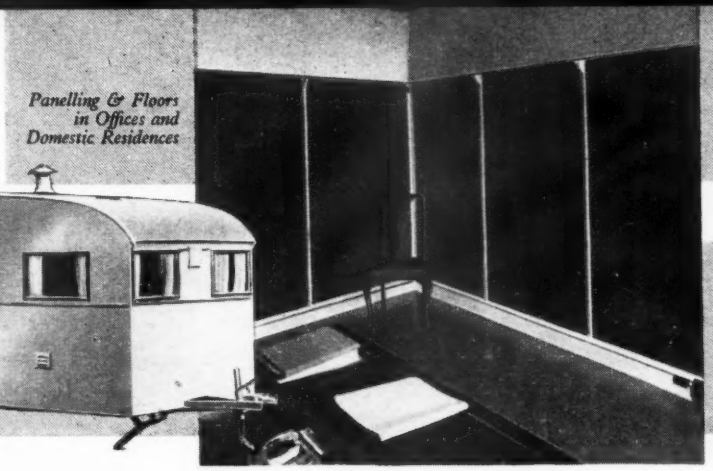

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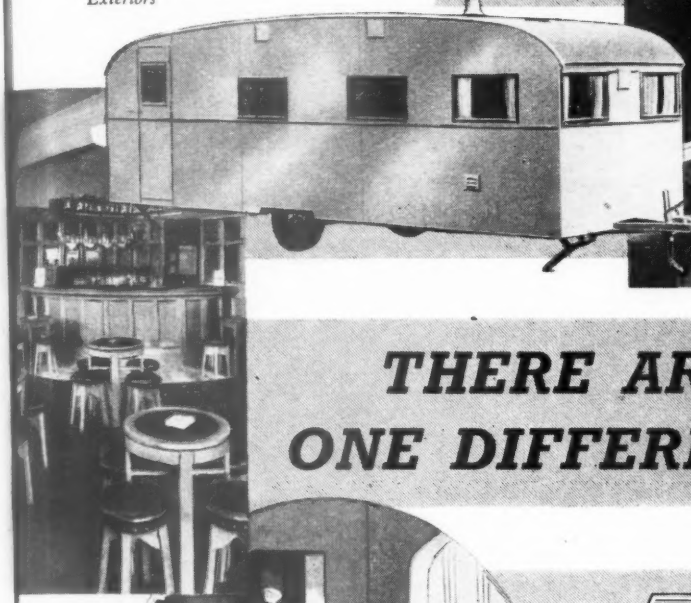

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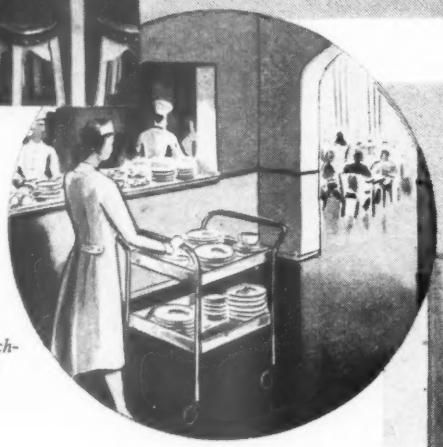

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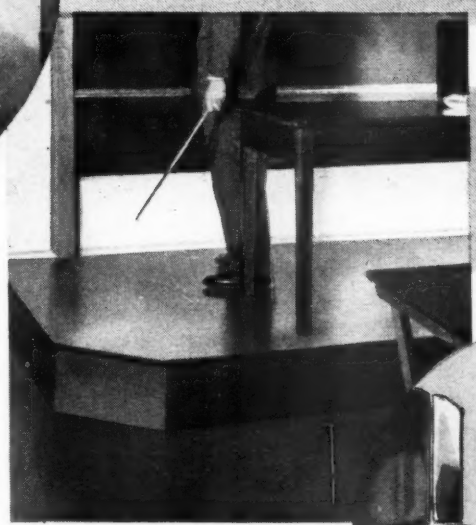

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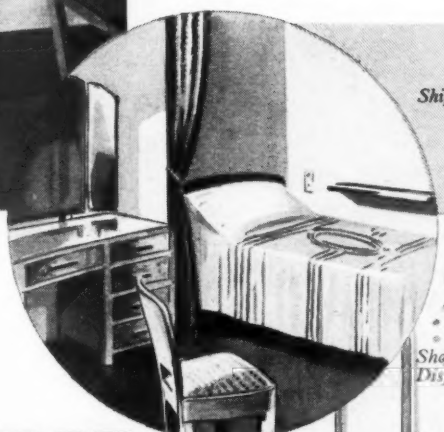

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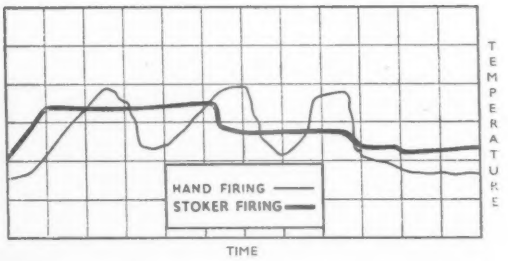

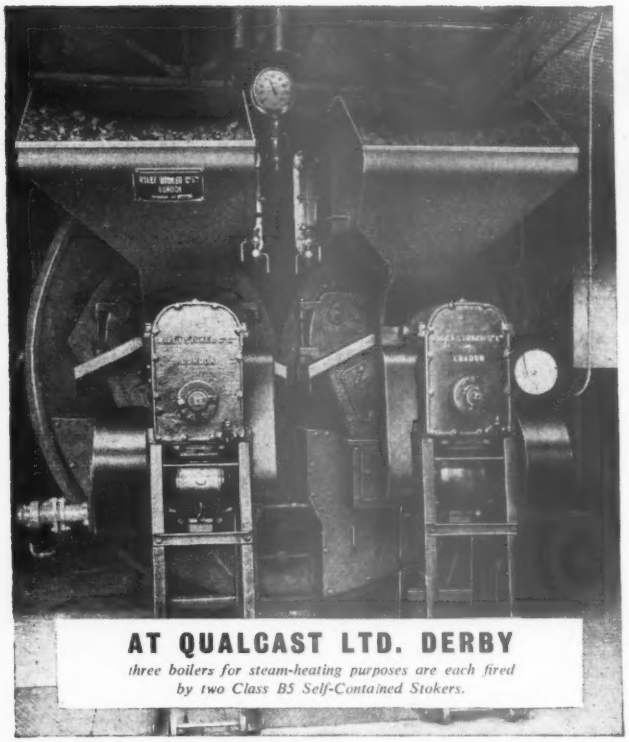

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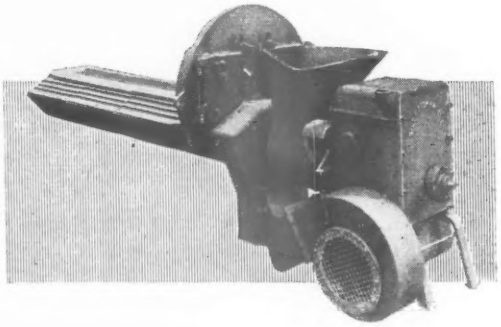

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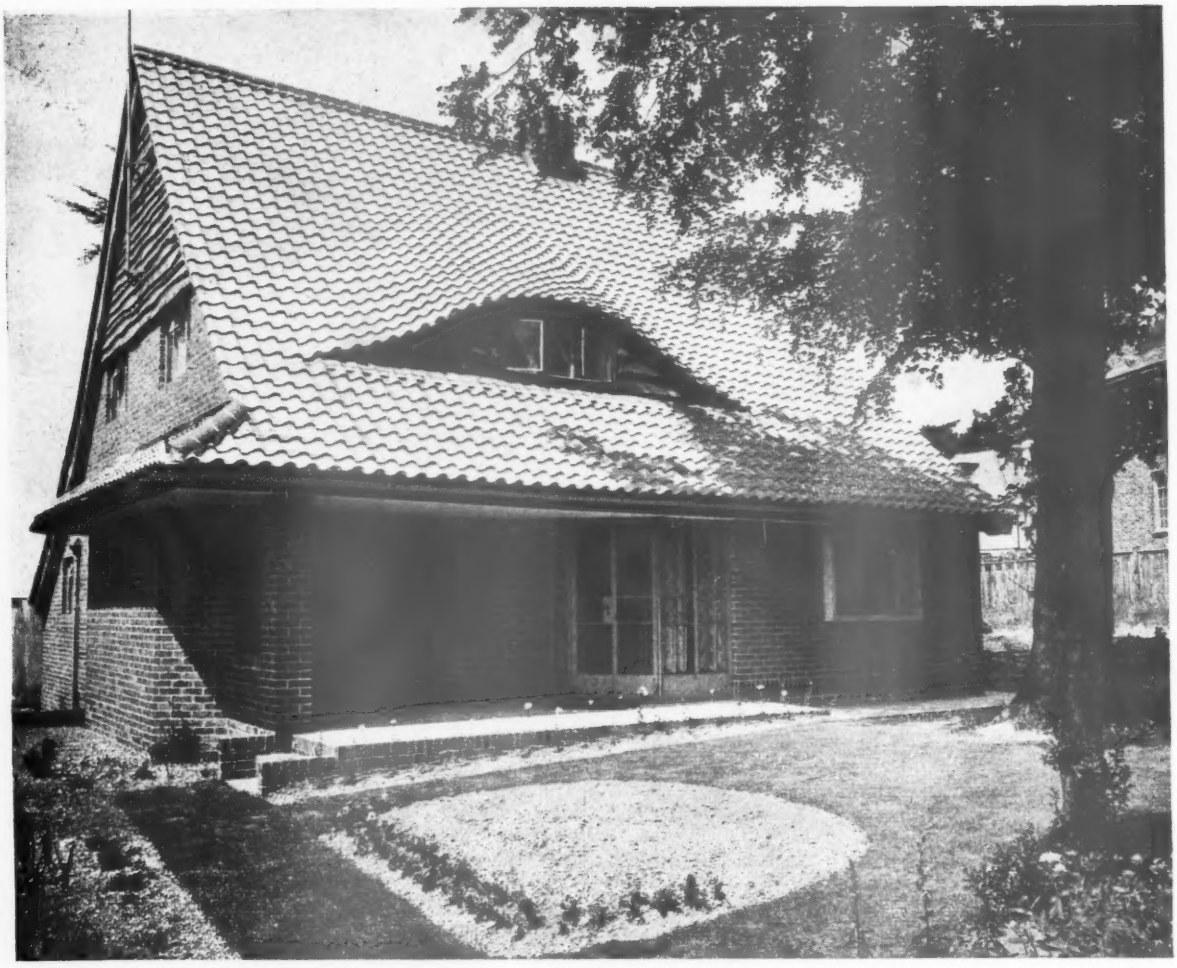

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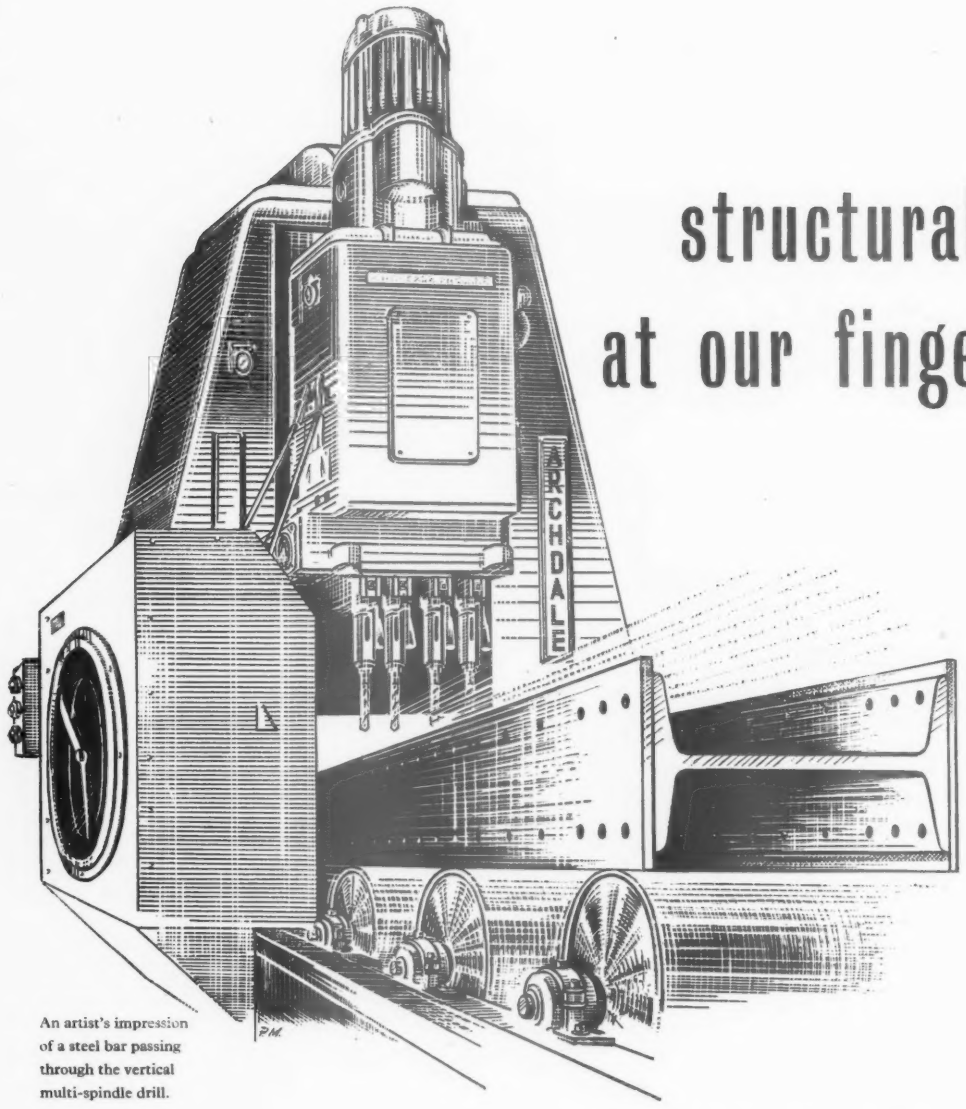

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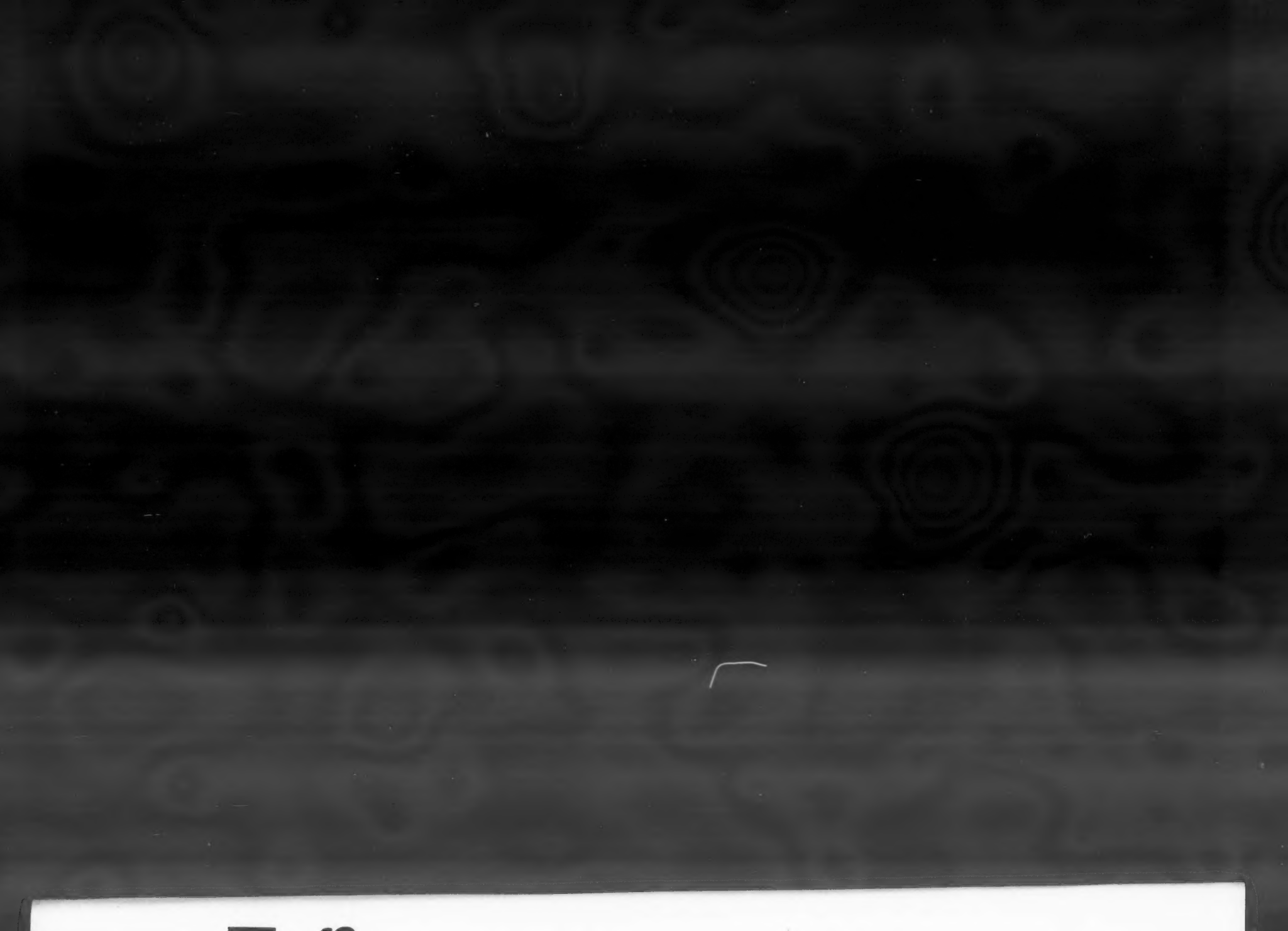

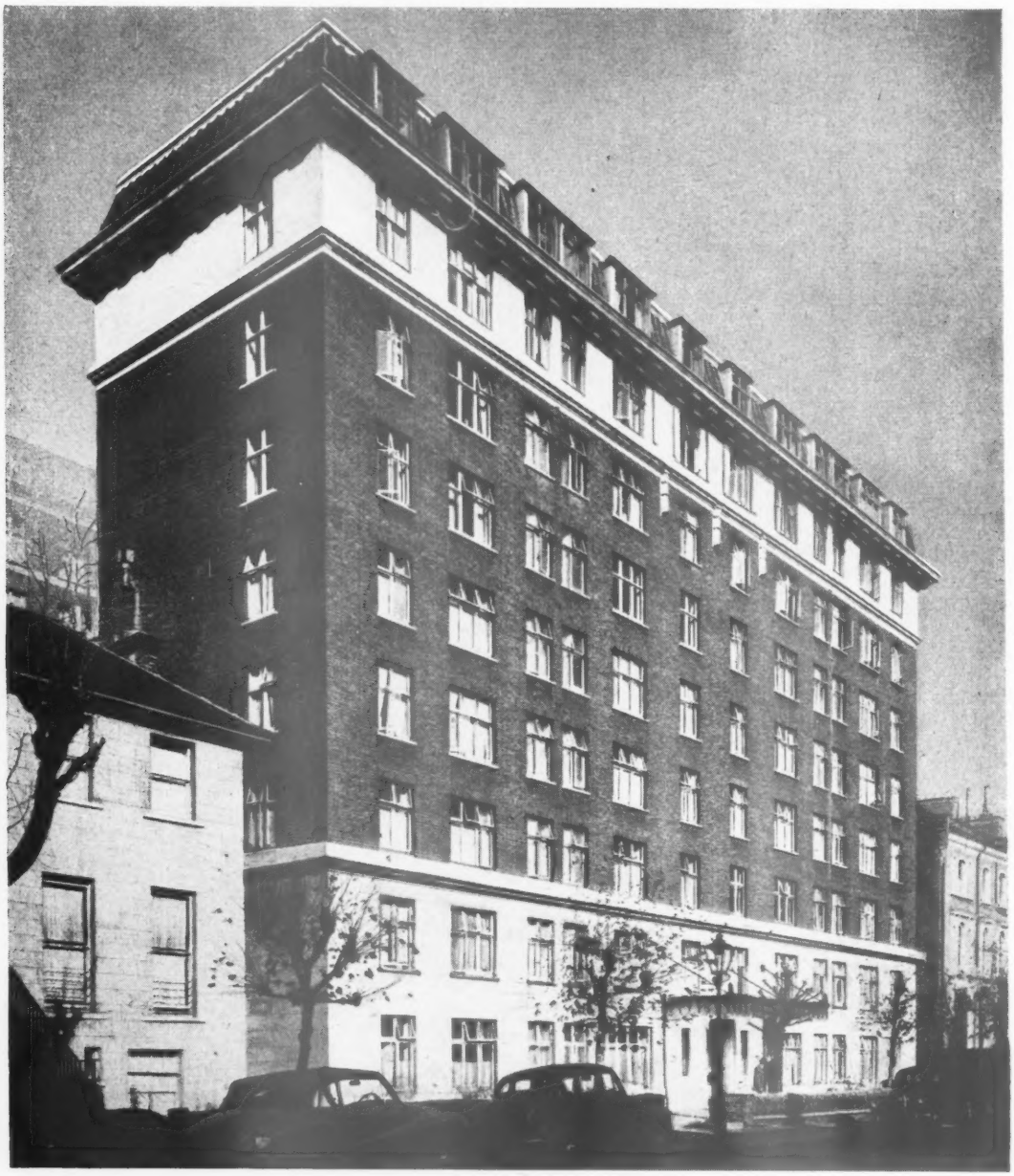

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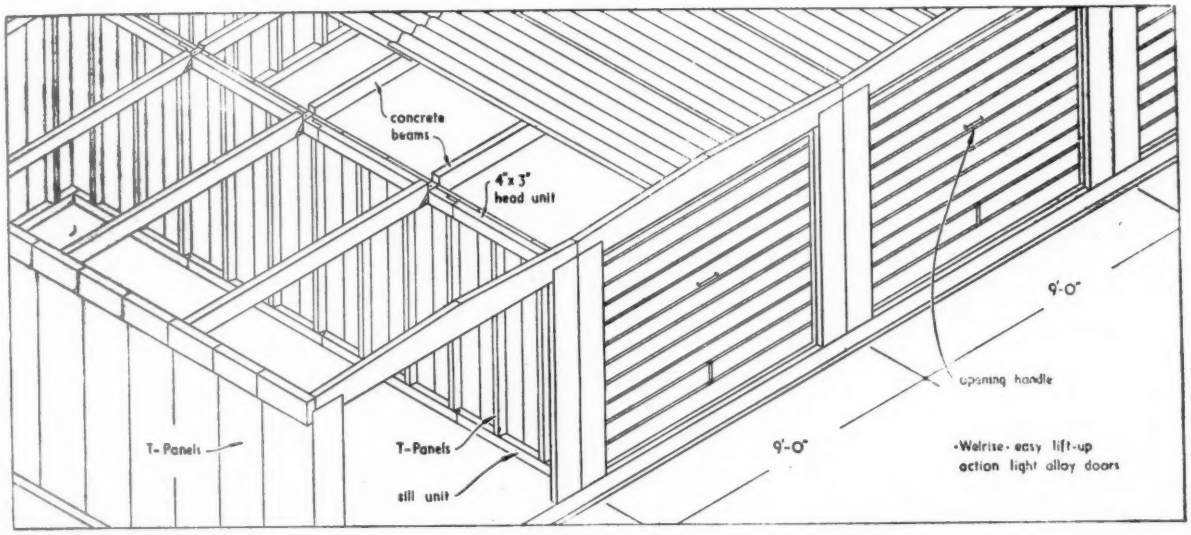

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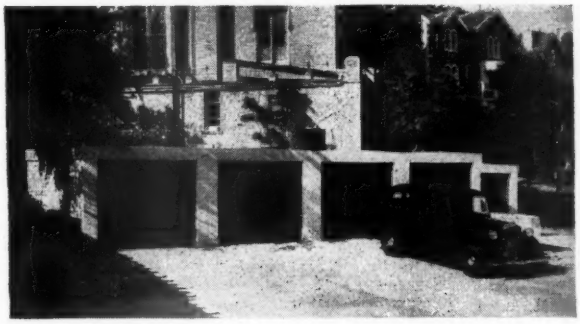

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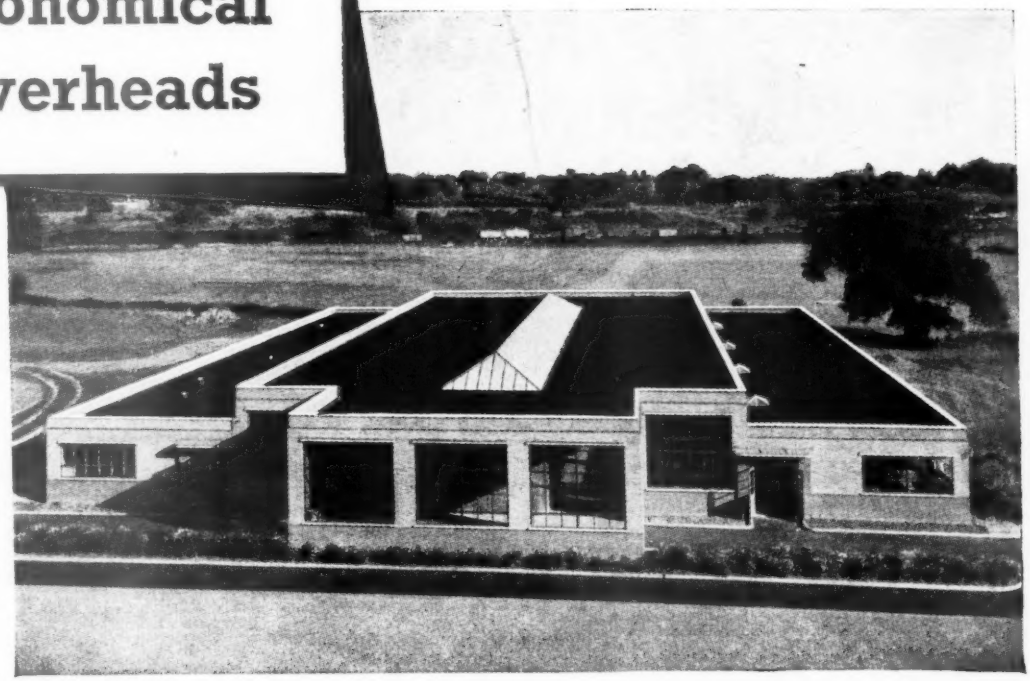

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No. 3079 March 4, 1954 VOL. 119

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PRENEZ GARDE DE LA PEINTURE

ASTRAGAL—always tenacious of an idea once he has grasped it—has still been mulling over the speech by Howard Robertson, the RIBA president, in which he deprecated the current search for "leaders" and "great personalities" in the world of architecture—a search which admittedly many architectural magazines, and particularly those from the US, tend to foster by over-glamourizing the presentation of architects and their buildings.

*

However, a spy recently returned from Manchester—where, he reports, the velvet black buildings stand out splendidly against the clear sky of the central smokeless zone—quite rightly reminds ASTRAGAL of the truth of a remark made by a member at an evening debating session of the Students' Association in that city. The subject, apparently, was Architectural Criticism, and like all debatable subjects it drifted a bit, taking a few side-kicks *en passant* at architectural journals (small "a," small "j"). "If you want pioneers and leaders," said this speaker, "you won't find them among journalists or architects, but among painters. That's where the original inspiration of a new movement always springs."

*

Dead right of course. In particular, modern architecture owes a tremendous debt to modern painting—both to the early impressionists and to the later work of men like Mondrian, Miro, Braque and Leger. You could hardly have a more dramatic example of this than Corb: every building from his hand, every plan form and patterned section is almost a painting. All the more sad that so few architects and practically no painters have more than the most cursory knowledge of, or interest in, each other's work. How seldom do we meet and exchange views. How rarely are we invited to address each other's societies. How cordially do we tend to dislike each other's guts—the architect despising the painter for his arrogance, his lack of discipline, the painter despising the architect for his business interests, his willingness to compromise . . . and *his* arrogance.

*

And the moral? More mixing at student stage, more painter visitors to Portland Place, and, since, to be honest, I think architects have the more to learn at present, we should make the first efforts.

PREACHING PRACTISED

Practising what he preaches, ASTRAGAL, being fortunate enough to work in London, made a quick roller-skate trip round the West End Galleries and found them as usual packed with talent—whether world-famous like Henry Moore—mature and growing (like Mr. Ruszkowski)—or young and promising (Raymond Mason and Eric Atkinson)—none of them, he was interested to note, indulging in black suns, spiky forms, birdcages and bicycle wheels, suspended crescents, and the other modish paraphernalia of the contemporary artist. The merest coincidence perhaps? A slight creaking turn in fashion's wheel? Or just ASTRAGAL'S natural inclination leading him the way he wants to go? Who can say, but anyway a magnificent hors d'œuvres for his afternoon at 66, Portland Place, among the dreaming stones of Venice.

VILLAS IN PORTLAND PLACE

Now that the screens of photographs at the RIBA's Venetian Villas exhibition are properly set up, the plan lacks that Palladian symmetry and logic for which one might have hoped, and it is only by very careful catalogue-work that one can be sure one hasn't missed some odd corner. Could we please have a teeny bit less art and a little more system in the layout of these shows on screens?

*

Having got that off one's chest, it must be admitted that the exhibits themselves look as marvellous as ever, and the greenery and pieces of garden-statuary are a definite contribution to the scene. It is as handsome a show as RIBA have mounted for a long time and it should please all shades of opinion—since

On January 28 ASTRAGAL *reproduced here an advertisement from the back page of* The Times *which illustrated office buildings to be erected in the City of London, and asked readers if these buildings matched up to Sir David Eccles' request for a standard of architecture "worthy of the new age". This week* ASTRAGAL *brings to your attention another advertisement from* The Times *and asks the same question*

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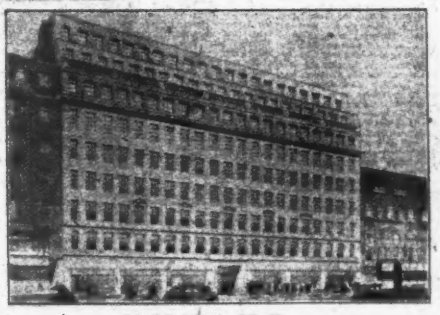

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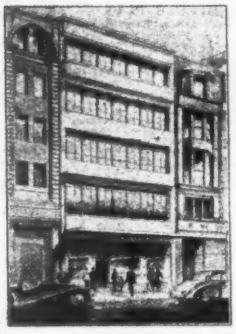

309 Oxford Street
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3 Tenterden Street W.1.

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Palladio is now OK with the ultra-boys —in the profession, and outside it, for that country-house curiosity which is one of our national characteristics should take many members of the general public to it—if they get to hear about it.

ARCHITECTURAL JOURNALISM

Out of sheer morbid professional interest ASTRAGAL went to hear the AA discussion on architectural journalism. The subject is a live one—as you will know if you can read—and there was a good house and a capable platform: an architect with the reassuringly average name of John Smith; Eric Bird of the RIBA journal; Reyner Banham—a surprisingly junior person to have to bear the weight of the weeklies and monthlies, though he kept his end up with spirit—and Nigel Gosling of the *Observer*.

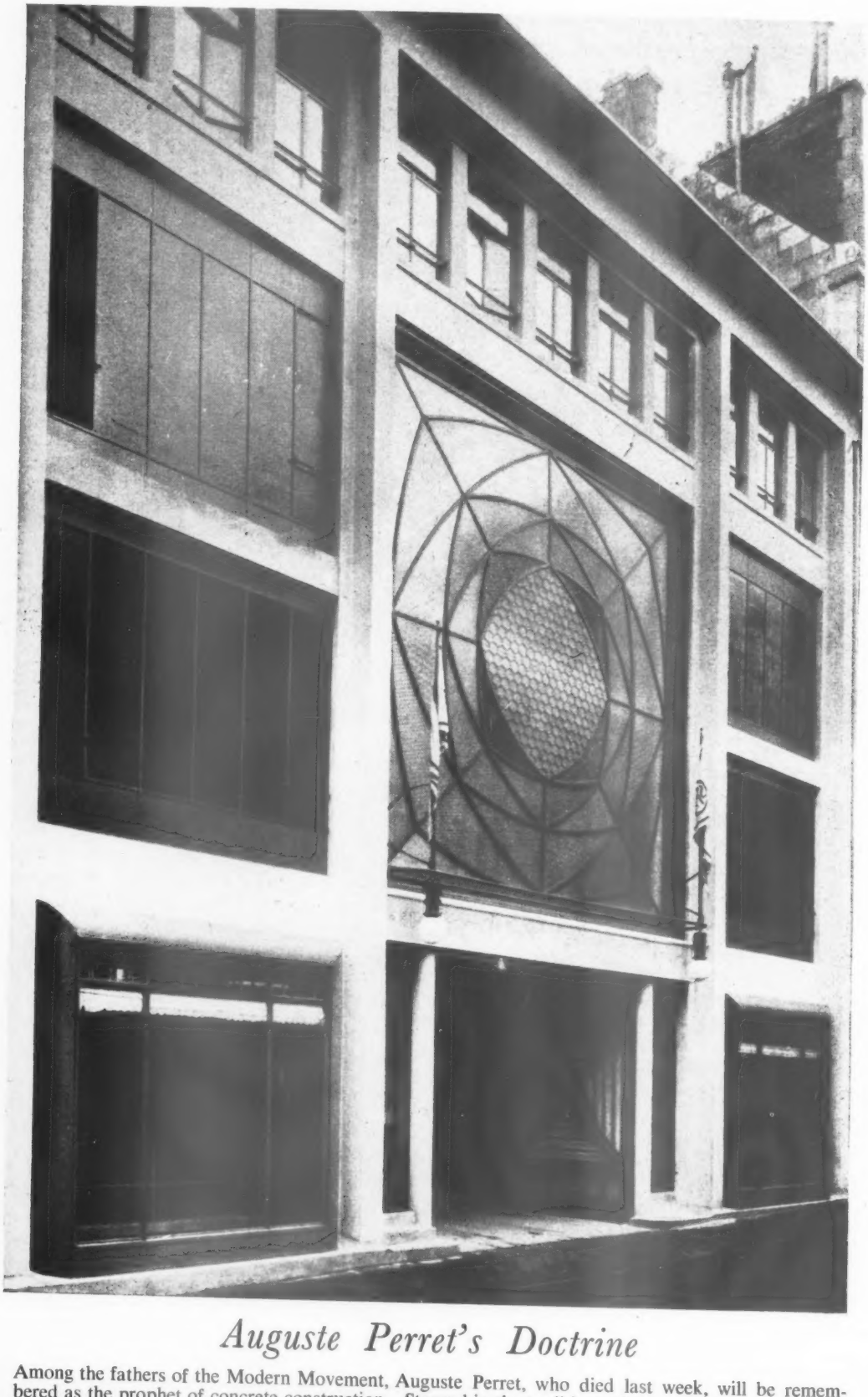
The speakers said what might have been expected of them, but it was Nigel Gosling's words on public indifference to architecture which went deepest. Many of those who spoke from the floor took up the same point, instead of abusing the shinies, which was what one had expected to be the theme of the evening. Gosling had suggested that architecture was too large, too obscure and, above all, too common, to interest a public which could just about deal with pictures, and it was generally felt that this was something that called for action. There were some very serious, and even despairing, contributions from various parts of the house, and ASTRAGAL, who has had his fill of trying to sell architecture to the public, wishes everyone joy of their efforts.

ARCADIAN HOMES

Groping last week through the gloom of an almost unlighted Olympia (ETU . . . Brutes) to visit a job under construction for the Ideal Home Exhibition, a spy of ASTRAGAL'S reports that despite the twilight, the usual mad pre-exhibition atmosphere prevailed . . . false ivy lay in piles over unpacked crates of diamonds . . . marble statues simpered stonily beneath the brown Homburgs temporarily lodged upon their archaic curls . . . giant golden horses swung lazily from wires fifty feet above the floor. The theme this year—is it not clear already?—is Arcadia (the Ideal Home of the Gods), and what with grottos and fountains with lichen and vermiculated stonework 2-in. thick, grass-coloured carpet and real clipped hedges, it's certainly going to look a long way off from Hammersmith—a long way off too from the contemporary exhibition made of brass-tipped hairpins, mahogany-framed boxes, and stretched white cord. More comments next week.

ENEMIES OF EDUCATION

The forces of the anti-school brigade —those who say that architects should be trained by articled pupillage and part-time courses, and pass the RIBA external exams—are gathering strength. It was surprising to see *The Builder*, in a leading article, recommending the "fostering" of part-time courses in schools; but not so surprising, perhaps, to hear rumours that certain members of the profession are lobbying at the RIBA for more attention to be given to part-time training. The complaint that the schools-qualified architect is, at the start, little use in an office is an old story. The remedy lies in reform at the schools (sometimes perhaps in



Auguste Perret's Doctrine

Among the fathers of the Modern Movement, Auguste Perret, who died last week, will be remembered as the prophet of concrete construction. Steeped in the traditions of the *Grands Constructeurs*, he acquired from his master, Guadet, the guiding principles of expressive construction, and combined it with the family business of reinforced concrete work to create the doctrine of the concrete frame. The Garage in the Rue Ponthieu, above, a work of 1906, with its boldly exposed structural elements, is one of the finest early examples of the doctrine in practice. (See also page 274.)

the office) and not in reverting to an obviously inferior education system.

*

Educational issues are, of course, coming to a head again in any event, as they are bound to do in order to cater for the changing rôle of the architect. The schools were formed to provide a very different pattern of architect from that needed today. The form which the new educational techniques will take is still in the melting pot. The decision which surely has to be made soon is whether to treat architectural training as a subject for university education at a high professional level, or as an extended technical training suitable for any secondary-school candidate. ASTRAGAL suggests that there are few, if indeed any, professions which call for higher all-round standards of education than Architecture, with a capital A.

A WORTHWHILE

What schools are setting the educational pace? Birmingham's experiment in "live" programmes suggests one course, and the new principals at Liverpool and Edinburgh will no doubt soon be introducing their own innovations. But the school, with all respect, to which everyone looks for a lead is the AA School. The first in the field, student-formed, and the only truly independent school in the country—it stands unique for its staff-student member relationships and policy of mutual help, constructive criticism, tolerance and intense urge for original thought and research. This means that the students appear to outsiders (who often expect students to be mere information-suckers) as an extraordinary, revolting (in both senses) bunch of hotheads. The student's "free-thinking," in architectural and social terms, does not lead to friction of a destructive kind, because the staff, and many members, are equally forward-thinking, and because students, like the staff and members, realize that education is a life-long process, dependent on a true humility of mind and co-operation.

*

It is a pity that more schools cannot be run on similar lines, and ASTRAGAL only hopes that AA members are giving the students and staff the support in thought and deed which their pioneer work of educational development deserves.

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

WANTED: A NEGOTIATING BODY FOR SALARIED ARCHITECTS

BEER drinking, dart playing, and. more recently, television, are the popular fancies of the masses which, it is somewhat facetiously said, have moved against the normal flow of cultural recreational and intellectual ideas. The notions and tastes of the intelligentsia, the rich, or the exclusive, usually percolate slowly through the successive stratas of society down to the simple, the poor and the *hoi polloi*. Rarely is there a reverse trend, and a creation of popular demand accepted by those in higher stratas.

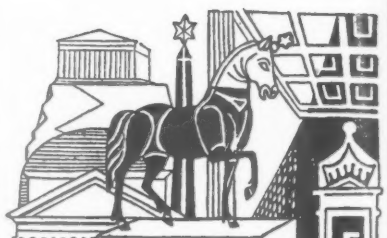
Yet we would suggest that a popular creation, of much greater value than beer or darts, and almost equal to, in potential power for good, and many years older than, television, is about to be accepted and enjoyed by a—so-called—higher strata of society than that which originated it. We are referring to the Trade Union. With the evolution of modern society, the organization which was formed to protect and foster the labourer and the craftsman is now urgently required to serve the needs of the professional man.

Until recently the vast majority of professional men were self-employed. Now, more and more, they are becoming the employees of central and local government and of large national and commercial concerns. The creation of the National Health Service is an example of the sudden change of a profession from virtually complete independence to a position in which it has to negotiate with the State for the professional fees of the bulk of its members. And it is significant that the British Medical Association has found that, as an Association, it has *not* all the powers which it needs to protect fully its members or itself, and that it has had to form another instrument for that purpose. Similarly, the Law Society has formed an *ad hoc* trades union to negotiate for those of its members employed by the British Electricity Authority—which is, no doubt, but a first step towards handling in the same manner problems of a like nature with other fields of professional employment.

To many architects this has, for years, been familiar ground. A considerable number of architects belong to NALGO, about 600 belong to the ABT, and others to the IPCS. There must remain, however, very many *thousands* of architects who are in salaried employment, particularly in private office, who belong to no union, or official, salary-negotiating, body. They pin their hopes of better salaries—at any rate in public offices—on action by the RIBA, and are ignorant of, or ignore, the fact that the RIBA, although willing to do so, is powerless to act as a negotiating body. Its charter was not designed to allow it to do so.

The only effective way of protecting and promoting the well-being of their salaried members, as all the professions are slowly discovering, is through the registered trades union. The question which salaried architects should face up to now is which union to join. Will existing unions serve, or should a new union be created? The RIBA formed, in 1952, a sub-committee to advise on the measures that it would be necessary for the RIBA to take, in order " to provide effective representation of salaried architects, and architectural assistants, in all negotiations affecting their conditions of service, and salaries, in every field of architectural practice."

Some of the findings of that sub-committee are being made known as we go to Press and members are therefore able to see for themselves the courses of action which are open to the RIBA. It is to be hoped that the RIBA will have observed the trends in other professions and will adopt a really progressive policy of joint action. The days of the isolated, independent, self-employed, professional career for every qualified architect—the days when the " field-marshal's baton " spent only a few years in the knapsack, and the " principal in private practice " was a readily attainable aim—those days are now over, for a time at least—for the majority of the profession. Salaried they will start, and salaried they will remain until they retire. And if, as a " profession," they do not want to lose ground, relatively speaking, to the highly organized " trades " or other professions, they must form their own union—a professional body, to negotiate with the authorities who employ them. The actual name of the body is immaterial, and need not overtly offend those " professionals " who do not consider themselves "trades" men. BASA would do for a name—the British Association of Salaried Architects—always provided, of course, that it is registered as a Trades Union. We suggest that NALGO and ABT will not serve as names. Obviously, NALGO can only cater for one section of the salaried architects, and the ABT, besides receiving so little support today, complicates matters by including other professions in its membership. Surely a new body fostered by the RIBA stands the best chance of winning the unanimous support of the salaried architect and therefore achieving the most for him? The JOURNAL suggests that readers should study sympathetically the points raised here before answering the questionnaire on the subject of trade unions which they have just received from the RIBA.



A. Thompson, Student RIBA

Jeremy S. Dodd, F.R.I.B.A.

" Architect "

Eric Brown, L.R.I.B.A., Principal of Department of Architecture, Kingston School of Art

Misha Black, F.S.I.A., O.B.E.

" Hornblower "

A. I. Nellist, A.R.I.B.A.

Ralph Lewis, A.R.I.B.A.

J. S. Boscombe

J. N. Aylwin, A.R.I.B.A.

Standardization

SIR,—Poor Mr. Dodd! As Mr. Thomas says (Feb. 18), you cannot choose an existing " component " as the basis of your module; if you accepted Mr. Dodd's suggestion everyone would immediately comprehend its basic unfairness. For example, the metal window manufacturers might complain it did not fit their chosen dimensions; likewise the carpet manufacturers, the fibreboard manufacturers, etc., etc.

Instead, you select for your primary schools 3 ft. 4 in., because, two modules wide, it makes a corridor wide enough for an adult, and divides up prettily on elevation. Then four feet wide plastic panels are used —messily.

Because these somewhat arbitrarily selected figures have only a tenuous, artificially maintained existence, manufacturers' standards are slow to fall in line (the 8 ft. 3 in. manufacturers are probably now somewhat disillusioned).

Let us, then, throw out of serious architecture those unstable bricks and regain the dimensional purity shown us when that distinguished engineer Mr. Stephenson persuaded our forebears to accept the essential dimension of the north-country farm cart.

A. THOMPSON

Bristol.

SIR,—My plea (AJ, February 4) for basing the design of buildings and their component parts on a brick module could be met equally well by 3 ft. module and 9 in. sub-module. The use of the 2¼ in. closer could be avoided with advantage. There is a great danger of working to a pleasant sounding module, *e.g.*,

the 40 in., when it bears no direct relationship to the height of man or to the common brick. Brickwork can form a dimensionally accurate unit laid between the extremities of a wall that have been previously fixed at a multiple of 9 in. apart.

Why choose a brick module? In a country where many live on clay and all are subject to its damp climate, the brick fits in with our scene. It will be a long time before the brick ceases to form a major part of our shelter. Module for, say, forest regions should perhaps be based on the climatic and economic needs of those areas rather than on the doubtful value of interchange of building components, *e.g.*, in Japan, where timber is cheap, earthquakes are prevalent and a through breeze is necessary; the timber frame system is the governing factor and is based on the "Ken" module, allowing the average man a 6 in. clearance below door head beams establishes a module (the "Ken"). It would be far better to have a brick module now in Britain than wait for the universal voluntary adoption of, say, the 4 in. or 10 cm. module.

In fact, adopt the brick module in time to enable the relevant manufacturers to produce brick-size components that will help to convert and modernize the millions of substandard brick houses in "Operation Rescue."

JEREMY S. DODD.

London.

Architect Wanted ?

SIR,—When is a borough architect and/or deputy borough architect really necessary ? One local authority, which is also a county borough, and has made the following capital expenditure on building, has appointed neither, but the figures suggest that there is scope for one: 1950/51, £316,000 ; 1951/52, £408,000 ; 1952/53, £564,000.

"ARCHITECT."

Lancs.

RIBA Prizes : Why Entries Are Few

SIR,—ASTRAGAL appears to be uncertain of the reasons for the lack of entries for the RIAB's prizes and scholarships.

As far as the listed school student is concerned, the answer is simple. In less than two years he has to cover seven Final Testimonies, a Thesis, reading for the Final, some office experience and probably some school programmes. Summary rejection without explanation of one or more of these Testimonies by the RIBA may add to this work. He may be living on a grant which terminates at the end of his school course or may be dependent on a financially strained parent.

He must, therefore, at all costs, complete this work by the end of his fifth year if he is to qualify for the Final Examination before call-up claims him.

Now, will some representative of the recognized schools tell us why there are so few entries from those schools?

ERIC BROWN.

Kingston-upon-Thames.

SIR,—I fear that ASTRAGAL'S spy (Feb. 18) may be weakened by myopia. The *débris* he saw last week in the Regent Street Electricity Showroom was admittedly a relic of the fire, but now in the contractor's neat piles ready for carting away, with a bit of plastering already started in the background.

The London Electricity Board asked me many months ago (Maxwell Fry being unfortunately in India) to re-do the burnt-out interior, and if this monument is still not fittedly refurbished, the fault lies with my apprehension at making any kind of design decision about so famous a frontage, rather than with a tardy Electricity Board.

MISHA BLACK.

London.

Silent Assessor

SIR,—The Royal Fine Art Commission and the Kent County Council Planning Committee, in their recent condemnation of the winning design in the Marine Parade, Dover, Competition, clearly implied the undesirability of a high continuous block running parallel with the sea front.

Since all the premiated designs in the above competition were guilty, to a greater or lesser degree, of the faults attributed to the winning entry, it is only right to question the wisdom of the assessor's decision amounting to a definite relegation of all designs which had intermittent blocks of flats placed at a right-angle to the sea front. The assessor had not made his decision any more intelligible by a resolute silence on motives which prompted him to come to this verdict.

Even disregarding the fact that the hard work and loss of time of all entrants has merited an assessor's report and that his services to his clients are now of a questionable value, it is unfortunately to be expected that many a Corporation which might have contemplated staging an architectural competition will have second thoughts on any such decision . . . a regrettable loss to the profession.

"HORNBLOWER."

Essex.

Preservation Before Restoration

SIR,—In many quarters there appears to be a complete lack of understanding of the need for preservation or even the elementary protection of damaged buildings.

Since the war I have known of cases of neglect which have resulted in noteworthy buildings slowly mouldering into rubble.

An instance of this was the Masters' House of the Hull Charterhouse, which I believe is not unknown to the National Buildings Record. Largely extended in the eighteenth century round an earlier building, and displaying interesting brickwork in the local vernacular, this structure was left roofless for a number of years whilst the question of reconstruction was being debated. The weather was more purposeful than the debate and much of the building has now been demolished.

Prompt first-aid measures could have avoided this and many other tragedies.

Some initial expense on such a basic architectural requirement as roofing, however temporary, could save many buildings whilst their fate is decided. Tremendous havoc and cost have been added to the results of enemy bombing by sheer neglect and lack of action.

A. I. NELLIST.

Lowestoft.

Life

SIR,—Experience, quoting Wilde, is the name we give our mistakes.

In the course of them, we are asked to honour our forebears ; to have high-minded sentiments on the question of being artists ; to read objectively the facts of life accurately summarized by guest editors ; and—this year—to don rose-coloured spectacles to see new projects in old 3-D. Even to follow the City Fakers, *via* ASTRAGAL, through the Neo-Georgian Never-Never Land, or to be comforted by the fact that the profession has an awful lot of Renoirs down in Rio.

All this, and the quest of salaries as high, not as low, as £700 to £800 per annum without Mr. Shrosbree. To pay willingly, or begrudgingly, four guineas to the RIBA, to subscribe fifty shillings for the backing of NALGO, plus a further pound note as a registration fee to ARCUK, after January has passed, leaving a sterling gap hangover like the Great Wall of China.

With this experience, the young and not so young architects whose schemes, like Europe, are ravaged but interesting in parts, can be comforted by your correspondence on the baited traps of National Cheddar by NALGO, of Stilton by the RIBA, and overripe Camembert by those private practices (39 per cent.) whose associates and fellows are neither lonely nor virtuously obscure.

RALPH LEWIS.

Brighton.

Intelligence in Oxford

SIR,—May I refer to ASTRAGAL'S note (December 17) on "Oxford Undergraduates."

Whilst it is a fact that Oxford has no Faculty of Architecture, it must be borne in mind that Oxford possesses many students known as Rhodes Scholars, drawn from the USA and the Commonwealth, among whom may well be several qualified architects and town planners. I happen to know one in particular, representing this Colony, who holds an honours degree in architecture at Cape Town University. Thus it may not be so surprising or astonishing "at the knowledgeable and intelligent discussion that emerged" at Mr. Jordan's lecture.

J. S. BOSCOMBE.

Southern Rhodesia.

Subsidized Competition

SIR,—The letter from "Rotarian" published in your issue of December 31 should not pass unchallenged. In it he stated that many practitioners in the large cities are able to cut down the supervision of work. The city practitioner, with his heavy overhead expenses, is also compelled by the present low general standard of craftsmanship to spend considerable time in supervising his work in order to obtain even a finish acceptable to his clients but, in my opinion, any architect worthy of the name would wish his work to be satisfactory, without having regard to any ultimate results.

The practice of the submission of plans by local government employees is not confined to rural areas and also exists in the London suburbs, but it is appreciated that in view of the shortage of rural work, the country practitioner particularly resents what he may regard as subsidized competition; it is to be hoped that ventilation of the grievance in this manner may assist in obtaining some action by the responsible authorities.

J. N. AYLWIN.

London.

DIARY

Ideal Home Exhibition. National Hall, Olympia. (Sponsor: Daily Mail.) Open: 10 a.m. to 10 p.m.

UNTIL MARCH 27

Library Group Meeting. At the RIBA, 66, Portland Place, W.1. Identification of unknown drawings in the Library. 6 p.m.

MARCH 8

The Land Utilisation Survey of Britain. Dr. E. C. Willatts. At the TCPA, The Planning Centre, 28, King Street, W.C.2. 6.30 p.m.

MARCH 8

Modern French Architecture. M. Paul Tournon. At University College Architecture Theatre, Gower Street, W.C.1. (Sponsor: University of London.) 5.30 p.m.

MARCH 11 AND 12

W. R. Lethaby and his Times. At the RIBA, 66, Portland Place, W.1. Professor Basil Ward. (Sponsor: Royal College of Art.) 5 p.m.

MARCH 17

LIVERPOOL

Slum Clearance

For the last two and a half years, Liverpool has succeeded in demolishing 750 slum dwellings per year. With an occupational density of over one family per dwelling, this has meant that roughly 1,000 families per year have been taken out of sub-standard dwellings and given satisfactory accommodation. These figures were quoted by Dr. Ronald Bradbury, last Tuesday, when he gave a talk at the Housing Centre, London, on how Liverpool is tackling her slum clearance problem.

The re-housing of slum dwellers in Liverpool was being facilitated, Mr. Bradbury explained, by two factors: firstly, 90 per cent of the flats now being built in the central areas of the city, 90 per cent. of the "relets" of older flats in the central areas, plus 300 dwellings per year in the peripheral areas were being reserved for families from slum clearance areas. This, said Mr. Bradbury, was not as unfair as it sounded, since most of the people (other than the occupants of slum property in the central areas) on the Council's waiting list preferred houses in the suburbs to flats in the central areas (and vice versa).

Secondly: by partly evening out the rents of pre-war council-owned property and new council flats and houses (the proportion at present is roughly 40 of the former to 58 of the latter), it had been possible for the City Council to keep the rents of new dwellings in the central areas below the level of rents in the suburbs.

By building a certain proportion of 10-storey flats, and only a small number of two-storey houses (most of the accommodation is in three-storey flats), the Council was able to rehouse 60 per cent. of the families from the clearance areas within the same areas; the remaining 40 per cent. having to be rehoused in the suburbs. The Council was working to a gross density in the central areas of 140 persons per acre.

Questioned by Max Lock, Mr. Bradbury admitted that the Council's policy meant that they had to put large numbers of families into flats, but it was the only thing they could do—if the father of the family was a docker, he had to live near his work in the central areas.

Mr. Bradbury had explained earlier how the Council was unable to demolish all the buildings on its re-development sites so long as some of them were fit for use, and how this was one of the reasons for the small proportion of houses being built on these sites (more houses were to be built when the remaining buildings were pulled down); Mr. Lock called this "patchwork" development and said that it resulted in social and architectural compromise. Mr. Bradbury said that he was as keen as anyone on high

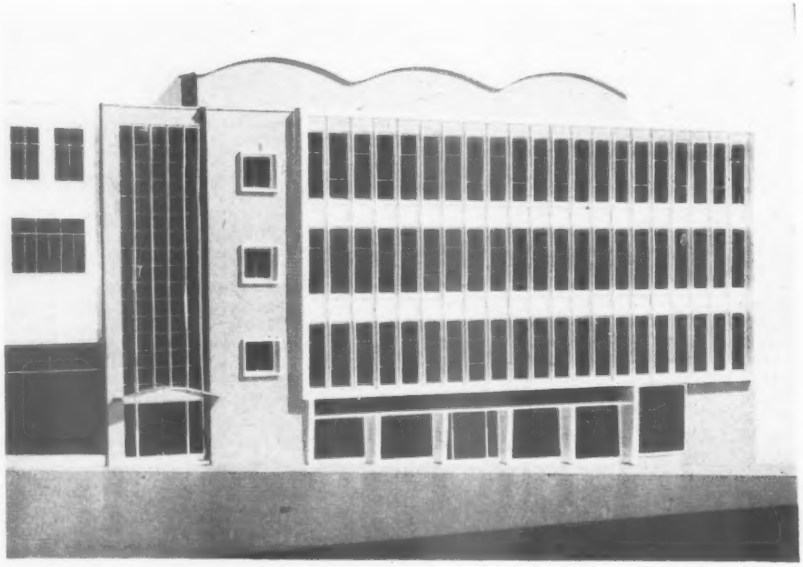
BUILDINGS IN THE NEWS

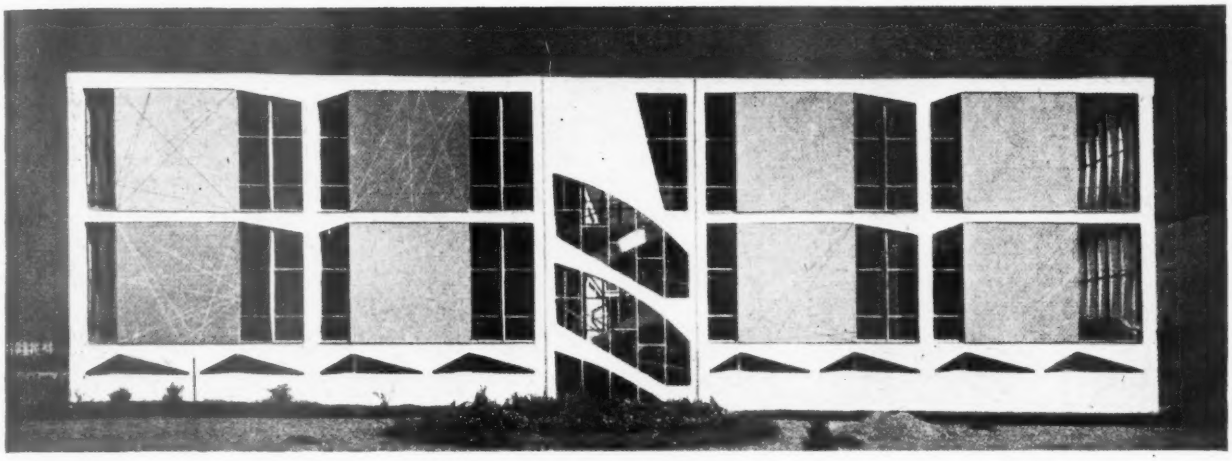
Housing and Shops at Enfield

This block of flats, shops and maisonettes, in Old Hertford Road, is among the buildings at Enfield which will be visited tomorrow by Harold Macmillan, the Minister of Housing and Local Government. The flats were designed under the direction of Frank Lee, Engineer and Surveyor to the Enfield UDC. Assistant architect, H. T. Townsend.

Department Store Extension, Maidstone

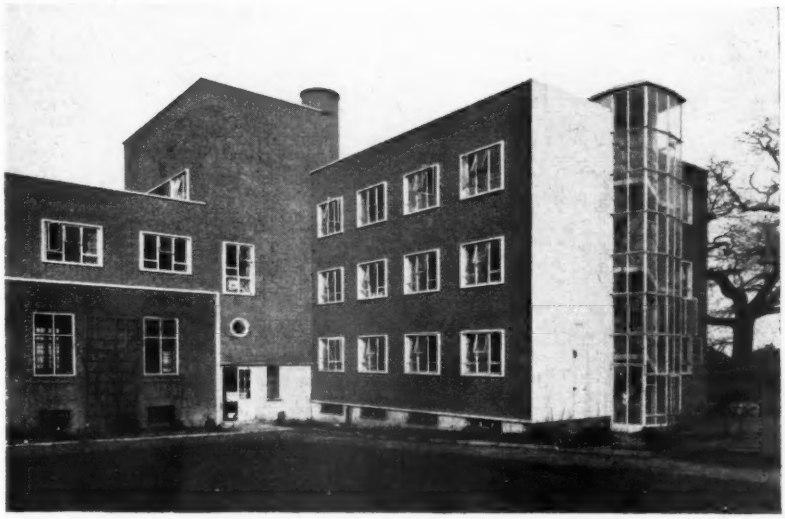
This model shows a proposed extension to a department store in Maidstone. The building, which will have some 50,000 superficial feet of floor area in its four storeys, will be constructed with a steel frame on mass concrete lightly reinforced pier foundations over blue clay subsoil, with stanchions machined to bloom bases. The architect is Clifford Worthington.





Exhibition Building, Milan

An unusual and interesting use of asymmetric reinforced concrete construction for an exhibition building at the International Cotton Fair at Busto Arsizio, near Milan. Easily-cut sheet glass is used to conform to the irregular shapes that arise from the construction. The architects were Enrico Castiglioni, Luigi Crespi, Carlo Fontana, Eugenio Prandina, Luciano Sangiorgio.

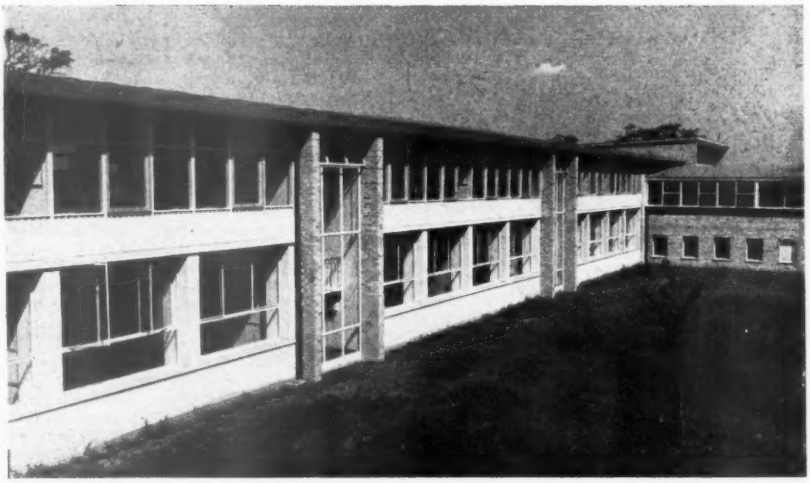


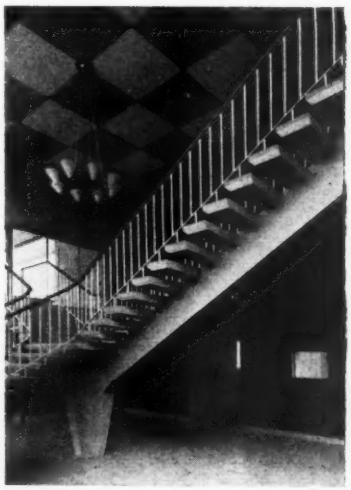
Nurses' Home, Dollis Hill, N.W.2

This extension to a Nurses' Home was designed by H. H. Clark.

Newall Green Secondary School, Manchester

This school, for 450 pupils (floor space: 57,450 sq. ft.), is the first to be built with "Bristol" unit classrooms on the first floor only. (The ground floor is of normal brickwork.) The combination of brickwork and aluminium was used "to achieve both the speed of erection possible only with aluminium units, and the economy of space attained with two-storey work." In the main entrance hall (below right) three concrete staircases converge on a central plinth. The architect was Leonard C. Howitt (City Architect), assisted by his deputy, S. G. B. Roberts, W. E. Humphrey (chief assistant architect, education) and G. Davies, senior assistant architect.





GOVERNMENT BUILDINGS IN CARACAS

Work on the rebuilding of the centre of Caracas, Venezuela, is being carried out on a 24-hour shift system. Above is a general view of new government buildings under construction. In the middle of the road can be seen the entrance to the underground car park. Below, a detail of one of the tower blocks.

architectural standards, but that, under present economic conditions, the Council was compelled to deal with the problem in a somewhat piecemeal manner. It was his job to get people housed!

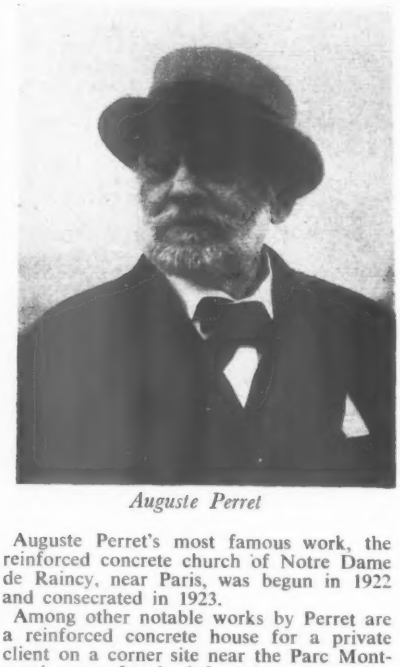
Mr. Bradbury mentioned one other problem of some importance—the difficulty of providing new shops and industrial premises at rents low enough for the man who used to run "the little shop at the corner" and the owner of a very small industrial concern who used to occupy premises with a rent of a few shillings a week. The Council had designed some three-storey flatted factories, but had not yet calculated what the economic rents would be.

OBITUARY

Auguste Perret

Auguste Perret, who received the Royal Gold Medal of the Royal Institute of British Architects for 1948, died last week in Paris at the age of 80.

Born in 1874, he was the head of a firm consisting of himself and his two brothers, Gustave and Claude, the sons of a building contractor. After training at the Ecole des Beaux Arts under Professor Julien Guadet, where they won medals and prizes, Auguste and Gustave, with Claude, entered their father's business. About 1897 the Perret brothers set up for themselves as architects and builders.



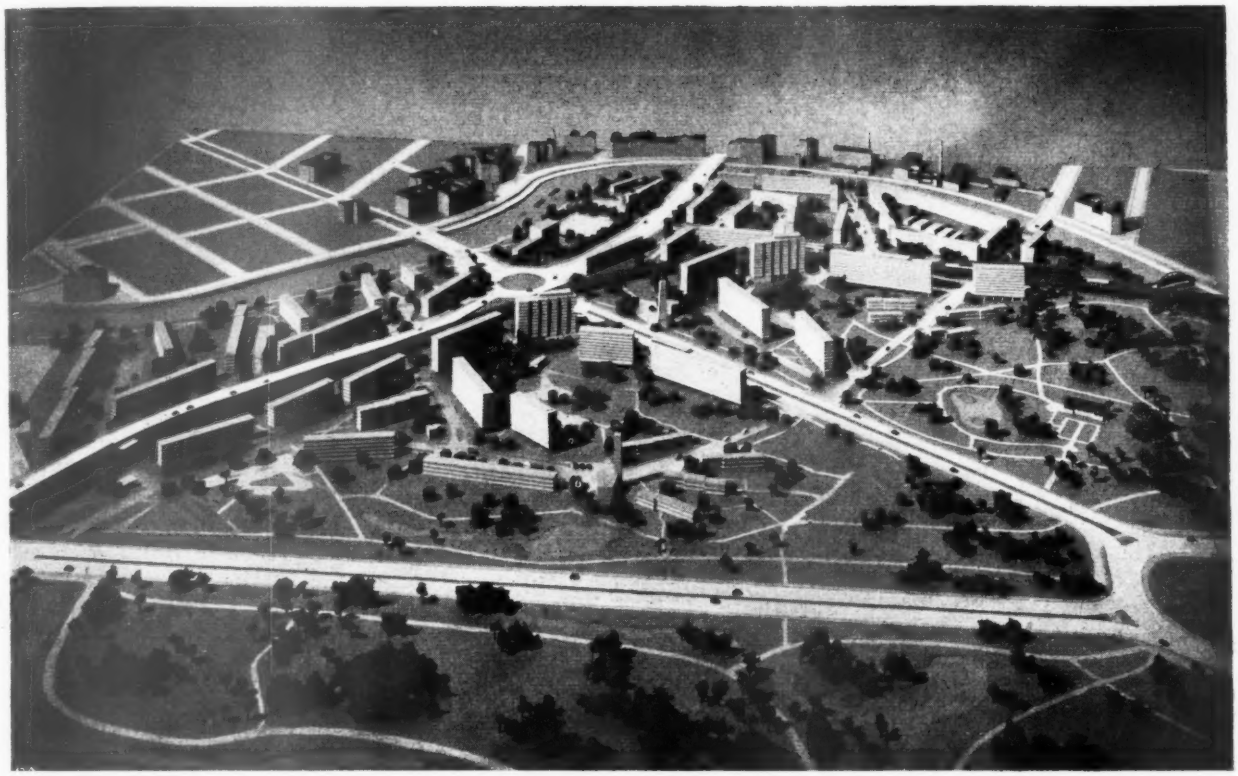
Auguste Perret

Auguste Perret's most famous work, the reinforced concrete church of Notre Dame de Raincy, near Paris, was begun in 1922 and consecrated in 1923.

Among other notable works by Perret are a reinforced concrete house for a private client on a corner site near the Parc Montsouris; an unfaced reinforced concrete water tower at Grenoble, built for an exhibition but destined to remain; the concert hall of the Ecole Nationale de Musique in the Rue Cardinet, Paris, finished just before the outbreak of war in 1939; and the Museum of Public Works, Paris, begun in 1936, delayed by the war and completed after it. In 1947 he replanned the Marignane Airport. Until about 1948 he conducted an outside *atélier* for 160 students at the Ecole des Beaux Arts. (See Frontispiece on page 268.)

On page 180 of the JOURNAL for February 11, we published a letter from R. W. Paine, in which he commented on Martyn Webb's "Focus on You" report. In this letter Mr. Paine wrote that "this is not an age of national expansion." We regret that when this phrase appeared it read: "this is not an age of natural expression."

BERLIN RE-PLANNED: WINNING DESIGN IN COMPETITION



This was the first prize-winning design in a competition for the reconstruction of the Haupstadt district in Berlin. The competition was open to all students, town planners and private and official architects from West Berlin. 97 entries were submitted.

We publish here a talk given by Arthur Ling, chief planning officer, LCC, at University College on February 18.

THE CITY SKYLINE

By Arthur Ling

THE old saying that familiarity breeds contempt is not true of buildings which create the background to city life. The more familiar we become with them, the more affection we feel—especially for those which stand out against the sky, giving the city its distinctive character.

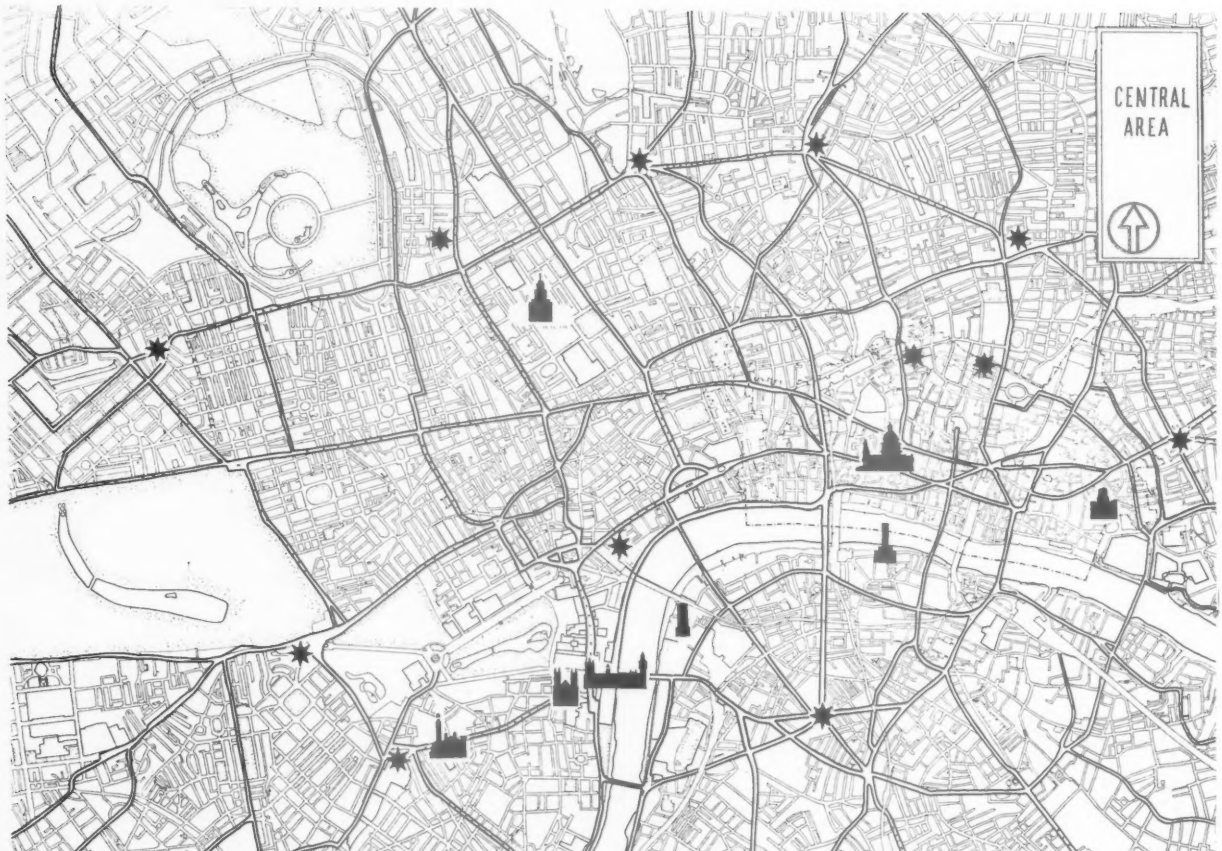
London is fortunate in having a broad river flowing through its centre giving extensive views from its embankments and bridges. It is here, undoubtedly, that the Londoner can appreciate most easily the varied skyline of his city. But the distant view is also a source of immense pleasure and fascination whether it be from Parliament Hill Fields, Ken Wood, Greenwich Park, the Point at Blackheath, the heights of Woolwich, One Tree Hill, Telegraph Hill or from the little mountain of allotments at Knight's Hill. The Sunday morning walk in the suburbs is not complete without contemplation of the familiar landmarks of Central London from these distant vantage points. Then, too, there are the more local views of tall buildings which appear at the end of streets or from open spaces—the flamboyant tower of the YMCA building in Great Russell Street, rising above the Dominion Cinema and closing the view up Charing Cross Road, the sudden view of the tower of London University Senate House down Store Street from Tottenham Court Road, the astonishing array of domes, chimneys, pinnacles, turrets and towers seen from the bridge in St. James's Park looking towards Whitehall.

Some city silhouettes have been created in the last century, others have been gradually maturing, and each age has made its contribution. Originally the ecclesiastical buildings, expressing the power of a religious faith, stood alone above a general level of secular building, but this monopoly of the skyline was challenged by military and civil powers for reasons of practicability as well as prestige. Castles and palaces in time were challenged in the skyline by Houses of Parliament and town halls, expressing the conflict and change which was taking place in the social structure. With the Industrial Revolution the factory chimney entered in the competition for dominance in the urban landscape, and not long after appeared the cupolas, turrets and towers of museums, institutes and new university buildings; simultaneously with these there appeared those monsters, the gasometers, whose harsh rotundity Victorian engineers softened with cast-iron pinnacles and balustrading; to these were added towers and chimneys of waterworks in the Italian Renaissance manner and railway stations that revived the glories of Gothic and Greek architecture.

Together these expressed the greatly enhanced role of the arts and sciences in the life of a nation and a city. Rapidly, expansion of trade and commerce brought yet another competitor in the struggle for a place in the skyline—the tall office block and the parallel development of scientific and engineering techniques produced amongst other things the electricity power station and the tall gasometer. Finally, as though there were not enough giants, our own generation has evolved the tower or point block of flats. No function of a city can now be ignored in considering how we wish to influence its future shape and skyline, and we are in danger of losing London's silhouette entirely because the essence of its effect must be dramatic contrasts.

For London a critical moment has arrived when decisions have to be taken determining whether its skyline should be radically changed, prudently modified or cautiously preserved. To arrive at the right decisions we must understand the nature and effect of the influences that have been at work. The Great Fire made those responsible for city government zealous in applying building restrictions aimed to protect London from a similar disaster. Every party wall had to be of brickwork and the constructional limitations of this material kept the buildings down to four or five storeys, which ensured the undisputed dominance in the skyline of St. Paul's Cathedral and the city churches, while the parochial system resulted in a fairly even distribution of these churches, thus avoiding an overcrowding of steeples and towers in any one part of the City. This first rebuilding was spacious, with adequate daylight penetrating the buildings, for immediately after the fire industry was still on a craft and guild basis and made no demands for a greatly increased centre of trade and commerce; for the extra accommodation that was required there was still plenty of room to spread laterally.

In the nineteenth century, in face of the immense demand for offices, warehouses and other buildings to cope with the new business that steam-powered machines produced, a second rebuilding began. By this time



This map shows silhouettes of some of the buildings which dominate the London skyline; the asterisks show sites where, in Mr. Ling's opinion, high buildings could be placed with advantage.

there was very little room left for lateral expansion which, in any case, was required for the mounting population; land values rose and more accommodation had to be provided on the same sites by building higher and more densely. This reduced the size of the courtyards so that they became mere light wells—an apt description—going up to get light and air instead of down to get water.

BUILDING HIGH

The constructional difficulty of building higher was overcome by the use of cast iron and much thicker brick walls for the lower storeys, but the heights of new buildings were limited in 1844 by the Metropolitan Buildings Act which required a relationship between the heights of the buildings and the widths of the streets. These being narrow kept the buildings fairly low, and happily St. Paul's and the City spires remained unchallenged, though possibly a little nervous.

Later, in 1862, a height limitation of 90 ft. was introduced. I can find no evidence for the apocryphal story that Queen Victoria, looking out from the windows of Buckingham Palace one day, was astonished to see a great block of flats rising higher above the other buildings in the gardens of Wellington Barracks determined, so it seemed, to spoil the Royal view. Finding on enquiry that buildings could be erected without limitation of height, Her Majesty insisted so the story goes, that a new law should be introduced immediately. There is no reference in the Press at that time to any protest at the erection of Queen Anne's Mansions—for these were the offending buildings; the only comment in *The Times* was that they were not as high as the Grand Hotels of Paris and Brighton. The London County Council, when it became the responsible body for London's Government, relaxed the limitation by allowing two extra storeys in the roof.

Whether this was to prevent the elimination of sloping roofs in London I do not know, but it is interesting to note that the Council showed some concern for London's skyline, for its restriction was exclusive of "ornamental turrets or other architectural features or decorations." But for this official solicitude we should not enjoy today the exuberant profiles of buildings like Whitehall Court on the Embankment or the Imperial Institute in South Kensington.

HEIGHT LIMITATION

When the third rebuilding began in this century the replacement of the obsolete 19th century buildings was restrained by the London Building Act of 1894 (which had reduced the height to 80 ft. with two storeys in the roof because of fire risk). The fire-escape ladder now reached to a height of 80 ft., which seemed to provide a logical basis for what had previously been an arbitrary height.

In a few exceptional cases, such as the towers of the London University, the Port of London Authority, and the London Passenger Transport Board's buildings, the height limitation was exceeded, but the use of the upper storeys was prohibited except for storage or other uses not involving occupation by staff. At the same time, the town planning restrictions on bulk of buildings and obstruction to daylight in buildings under the 1932 and previous Acts allowed an even greater density of development.

In recent years, however, the situation has changed considerably; new town planning legislation and codes of practice have encouraged and demanded more open forms of development with better standards of light and air. At the same time, with experience of fire-fighting in tall buildings in New York and other cities, it has been found possible to give waivers of the height restrictions under the London Building Act (subject to any appeal there may be by adjoining owners) if—amongst other things—separate staircase towers protected against the spread of fire and with direct access to the open air at ground level are provided.

The sketches on this page and overleaf, by R. Roberts, were prepared for Arthur Ling to illustrate points he made in his talk about the London skyline. They are not intended to indicate design—only the effect of placing tall building in certain parts of London. This sketch shows Sussex Gardens, looking east . . .

Tall buildings are, in fact, no longer automatically rejected on grounds of fire risk.

Now it is not possible to rebuild the same amount of accommodation as existed previously and secure more open development, better standard of daylighting, as well as space for car parking in buildings which previously had none, without going upwards, and with the new approach in height limitation I have just mentioned, every rebuilding scheme of a substantial nature could result in a skyscraper—or at least a building of 15 storeys, such as Bucklersbury House, the subject of recent controversy in Parliament and the Press. A free-for-all policy limited only by daylighting and plot-ratio restrictions would give more open development but would destroy the character of London as we know it today, and before such a policy is embarked upon it is desirable that we should examine alternative lines of approach.

The issue is not entirely new; it began with a public protest before the war against the erection of the new post office building by the Ministry of Works in Queen Victoria Street and Unilever House on the Victoria Embankment, which to a greater and lesser degree interfered with the views of St. Paul's from the south west and destroyed the established and respected relationship between the cathedral and surrounding buildings. As a result, the Dean and Chapter of St Paul's secured an agreement with the City Corporation that all new buildings within certain areas around the cathedral should be restricted in height even below those allowed by the London Building Act. Such agreement never had the force of law because the scheme under the 1932 Act which would have incorporated these restrictions was never approved by Parliament. The issue has been avoided since the war only because so little rebuilding and reconstruction has taken place and in the one case of a new building next to St. Paul's Cathedral—the offices of the Bank of England—the heights have been restricted to those proposed by the Dean and Chapter. The site of Bucklersbury House lies much farther away but even so, an indication was given in the course of the controversy concerning its height that arose, of the strength of public concern for the preservation of the views of St. Paul's. Here it is a question of preservation, but elsewhere in the central area of London the views of other buildings are important and it may well be that new ones will be built which would justify a restriction on the height of surrounding buildings. So long as statutory controls kept buildings down to a definite height the question of the design of the silhouette of London's central area did not arise but now it is an issue which we cannot avoid.

THE FUTURE SKYLINE

In considering the future skyline of London it is essential that we start with the rights of the individual owners of property and land. If all the land in the central area was in the ownership of the planning authority or a big estate, the problem would be relatively simple because restrictions on development generally would not involve compensation and where higher buildings were allowed, the increased rent values so created would help to offset the loss in income elsewhere. An example of this on a small scale is to be found in the South Bank project for which the London County Council owns the land between County Hall and Waterloo Bridge. This allows for a lower plot ratio or density of development on some parts of the area, which is compensated for by a tall building on another part of the area of much higher density, combining to give a reasonable average density over the whole area. On the other hand, where small scale ownerships of land exist as they do in the central area, each developer naturally wishes to secure the maximum bulk of

. . . and this one shows Victoria Street, looking west . . .

building on his site within the planning authority restrictions.

The average density must therefore be applied and there is no flexibility in design. The 1947 Planning Act gives owners the right to replace not only the same bulk of building as existed prior to redevelopment or before war damage, but also an additional 10 per cent., so that if the planning authority wishes to restrict development to an extent which affects these rights, compensation has to be paid. On the other hand, if it allows development in excess of these rights it is not possible for the planning authority to claim betterment from the developers. The amendment of the financial provisions of the Act removed the Government's power to impose a development charge where rights over and above those that exist are given by the planning authority although the White Paper on amending legislation indicated that where restrictions on development would have involved payment out of the £300 million fund under the previous arrangement, assessment of compensation would not now include restrictions made in the interest of what is called good neighbourliness. A restriction on the height of buildings around St. Paul's is clearly a matter of good neighbourliness, but whether the principle of exclusion applies also to the assessment of compensation payable by the local authority for a restriction on the right to replace what was there previously with the 10 per cent. added is not at all clear. If it does not apply, then we have the peculiar situation whereby the Government grants owners certain rights over and above those that they enjoy in the buildings as they stand and the planning authority has to compensate them for the loss of these if it wishes to restrict development in the public interest, as it undoubtedly would be expected to do, for instance, around St. Paul's Cathedral.

CONFLICT TO BE RESOLVED

Now a 10 per cent. addition to the existing bulk of a building is quite a large amount and it means 10 per cent. more working space, 10 per cent. more people employed. As redevelopment and reconstruction take place it can eventually add up to a 10 per cent. addition in the employment capacity of buildings in London, and this applies to industrial as well as commercial development. This, in turn, means 10 per cent. more people, which means another million inhabitants added to the 10 million that already live in Greater London. National policy, on the other hand, has as its objective the decentralization of sources of employment and population from London to new and expanded towns. There is obviously a conflict here which needs to be resolved.

These are some of the legal, financial and administrative complications that bedevil a straightforward approach to the preservation and enhancement of London's skyline. Putting these aside for one moment but not forgetting them, let us consider the alternative policies in design that might be pursued. Two recent letters to the editor of *The Times* put differing points of view. Mr. McMorran favoured keeping buildings either low to maintain the present relationships so that the City remained a "genial place," but if we had to build higher he favoured going really high, so that a completely new relationship was established in which the City Churches and St. Paul's were left behind, and only the sky was the limit. He did not favour any half measures whereby the general height of buildings was raised from 10 storeys to 15 storeys. He thought that such a policy made the worst of both worlds and if extended generally would be disastrous to the existing skyline of London without making any new contribution. Mr. Messervy, on the other hand, wished to sweep aside all or most of the restrictions on developers and allow them to build skyscrapers wherever they thought fit, a free-for-all policy which has been followed in New York and Rio de Janeiro, and, as he points out, in Milan. He would measure progress in terms of the number of skyscrapers built.

. . . while this one shows a view to the south from Waterloo Bridge.

FOCAL POINTS

I would like to suggest another approach, and in doing so I would like to emphasize that the views I am going to express are my own and have no official significance, although naturally I shall not object if they find official favour. There are, I think, a

number of strategic focal points in Central London where tall buildings would add interest and vigour to the skyline whether viewed from afar or locally. When the question of the siting of such tall buildings has arisen in recent discussions, it has normally been in reference to the City of London, an area which is already dominated by St. Paul's Cathedral and where tall buildings would destroy that dominance unless placed at a considerable distance away. It may well be that to the north of the devastated areas around Fore Street sites could be found near Moorgate and Aldersgate Stations where no conflict would arise, but I doubt whether any other sites would be suitable, and so we must widen our area of inspection, taking in the whole of Central London bounded by what is referred to as the Inner Circular Route in the London Development Plan. This area extends from Park Lane in the west to Petticoat Lane in the east and from the Marylebone and Euston Roads in the north to the Elephant and Castle in the south. If I may be allowed an analogy from the field of sport I would like to see the tall buildings distributed over this area like players on the soccer pitch, rather than concentrated mainly in one part of the field like players so often are around the scrum in rugby football. The City, you will have gathered, is where the scrum is threatening to bunch at the moment.

With this principle in mind, let us look at the potentialities of one or two strategic sites. Let us stand first of all on Westminster Bridge—towards the City there is the view, with the changes of a century added, which inspired Wordsworth to write in 1803 of "ships, towers, domes, theatres and temples"—"a sight so touching in its majesty." But the view southwards towards the Vauxhall gasworks cannot claim to be its rival. St. Thomas's Hospital, Lambeth Palace and the Houses of Parliament make a magnificent foreground to a composition which remains unfinished. What an opportunity there is for an architect to design a building to close and complete this southerly view. The site of the gasworks by Vauxhall Bridge would be admirable, but failing this the site on the other side by the Albert Embankment would be almost as good. Except for the flour mill there are very few buildings of any size there. Imagine a tall majestic building there, and if the restrictions on contemporary architecture prevent you from doing so, imagine St. Paul's Cathedral placed there. With the lower buildings of Thames House and the rather confused ground around the LCC Fire Brigade Headquarters lining the banks a fine tall building in this position would provide an exciting distant climax which I am sure would arouse the emotions of a twentieth century poet.

Or stand on any of the bridges looking towards the South Bank. One does not expect much of the view and it is difficult to avoid a feeling of depression as one contemplates the descent to the lower level; the eye is forced downwards to look along streets with no ending and no drama. St. George's Circus is the meeting point of most of these bridge approaches; imagine a tall building here which would close the view down these characterless streets and make the eye look upwards. So that you are not distracted by architectural misgivings imagine the Eiffel Tower here or the Empire State building or Dr. Holden's University tower, or, if you prefer it, another St. Paul's Cathedral. It would be a landmark from every vantage point north of the river. We would no longer have any doubts as to whether it was worth while crossing the bridge and penetrating the South Bank—we would insist on going. Think, too, of the revitalising effect such a development would have on the whole area extending from Vauxhall Bridge to London Bridge along the river and back into the hinterland as far as the Elephant and Castle. While we are on the South Bank it is worth recalling the view we used to be able to obtain of the Crystal Palace. What a unique contribution it made to the London skyline! Sydenham has never been the same since. Perhaps its glories will return when we see the 640 ft. high television mast, lit up at night, standing alongside exhibition buildings which we hope will have a character as vigorous and uninhibited as Paxton's Palace.

A FINE SITE

On the north bank there are perhaps even more sites where tall buildings would add interest to the skyline. Victoria Street looking westwards lacks a climax to relieve the monotony of dreary buildings, and a tall building here would be seen from many other streets that converge on Victoria Station. Before such a building were decided upon, however, it would be necessary to disentangle the traffic muddle that exists there. Northwards at Hyde Park Corner there is perhaps the finest site of all. It was proposed at one time that St. George's Hospital should move to a new site away from the centre. If this happens there would be an opportunity to build a high building on the site which could be seen from the bottom of Constitution Hill, from Piccadilly immediately one had passed the Ritz Hotel, and of course there would be views of it across Green Park and Hyde Park. Other focal points where tall buildings might be considered are at the western end of Marylebone Road at a point where it would also be on the axis of Sussex Gardens; just north of Euston Road so that a direct view of it could be obtained

This sketch by R. Roberts shows a view looking north, from Westminster Bridge, with an imaginary high building in the background . . .

looking up Tottenham Court Road; at present this road lacks any dominant or dynamic feature, and beyond Euston Road there is nothing to arrest the eye. The view of the Hampstead Heights has long since been obliterated. East of St. Pancras Station, Euston Road descends towards a nondescript collection of low buildings; in conjunction with a new traffic roundabout a tall building would provide a grand terminal feature at a point where it would have significance also for the other roads which converge on this point, Grays Inn Road, Pentonville Road, Caledonian Road and York Road.

I have no time to deal adequately with the problem elsewhere in London—in the suburban centres and in residential areas—but I should just like to say that I think the siting of tall blocks of flats should not be left to chance. The most logical disposition would be in and around the local shopping and business centres where they would emphasise the functional and social structure of the area or adjoining open spaces where their occupants could enjoy the amenities and distant views of the buildings could be obtained.

Returning to the Central Area problem, you may have noticed that many of the sites I have suggested lie on the periphery of that area. This distribution would have the advantage of avoiding traffic congestion at the centre, and by providing new offices near the main line railway stations the pressure on the public transport system would be relieved. In addition, it would be far less costly to provide car parks at these points than at the centre. A local decentralisation would be achieved to areas which, when the proposed improvements are carried out, would have effective lateral connection along the Inner Circular Road.

To maintain the dominance of these buildings it would be necessary to restrict the height of buildings elsewhere, and in some cases this would mean that the Planning Authority would, under present legislation, have to pay compensation to owners. It would seem reasonable, therefore, that the Planning Authority should benefit from the enhanced values created where tall buildings with much greater bulk or lettable floor space are allowed. By purchase of the sites and leasing to developers this could be secured. There may be other ways of securing the same result, for example by levying a special development charge on these sites. The future of London's skyline obviously depends very much on finding the right kind of legal and financial basis of development, but it is not my intention to try and solve these difficult problems over a lunch hour lecture.

Finally, the success of any proposals for the enhancement of the London scene would depend on the architects who design not only the tall buildings but small buildings too, for they all contribute to the London scene. Often in the past regulations for daylighting and pressure from the clients to obtain the maximum development on sites has prevented architects from designing the buildings as they would wish. They have produced an amazing series of terraces and set-backs on high which make the buildings look as though they are creeping backwards above the sixth floor. There have recently been attempts to clear up the muddle on the roofs but with the flat roof there has been a tendency to disconnect the design above roof level from that below as though one were trying to start life anew at a higher level, creating a roof-top city of penthouses, roof gardens and caretakers' flats. The excrescences on the roofs, like chimneys and water tanks, are too often left off the design drawing and regarded as rather a nuisance, not as an opportunity for embellishing the design. What happens against the sky is most important because every detail or the absence of detail is emphasised by its contrast of dark against light. Have architects today lost the art of designing buildings which give interest and variety in form when seen against the sky, or are economic restrictions preventing them from considering more than the functional roof with lift machinery and water tank boxes on the roof. Must we accept the present approach to the design of tall buildings as exemplified by the United Nations Headquarters and the Lever Building as the only approach? There is a limit to the number of such buildings that London can assimilate without losing its distinctive character. Variety is a vital element in the make-up of London's skyline and we should, I think, strive to retain it.

. . . and this one shows a view to the south from Westminster Bridge, with a high block closing the vista.

OUT-PATIENTS' DEPARTMENT

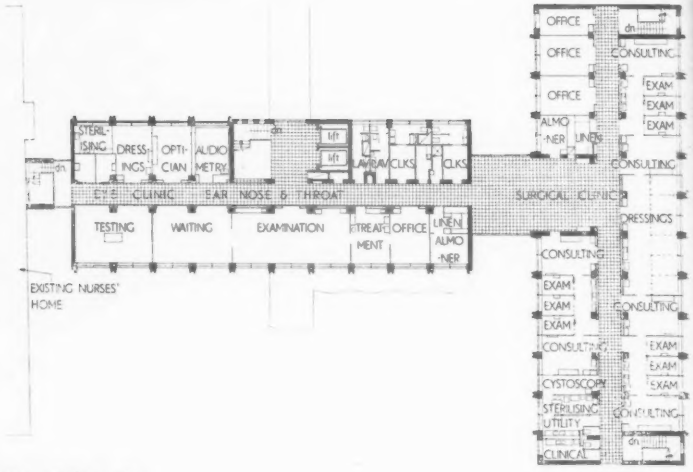
at ST. JAMES'S HOSPITAL, BALHAM, LONDON, S.W.17

designed by DEVEREUX and DAVIES, chief architectural assistant L. E. MARTIN, consultants (structural) CLARKE, NICHOLLS and MARCEL, (mechanical and electrical), H. A. SANDFORD, quantity surveyor, J. K. CARLESS

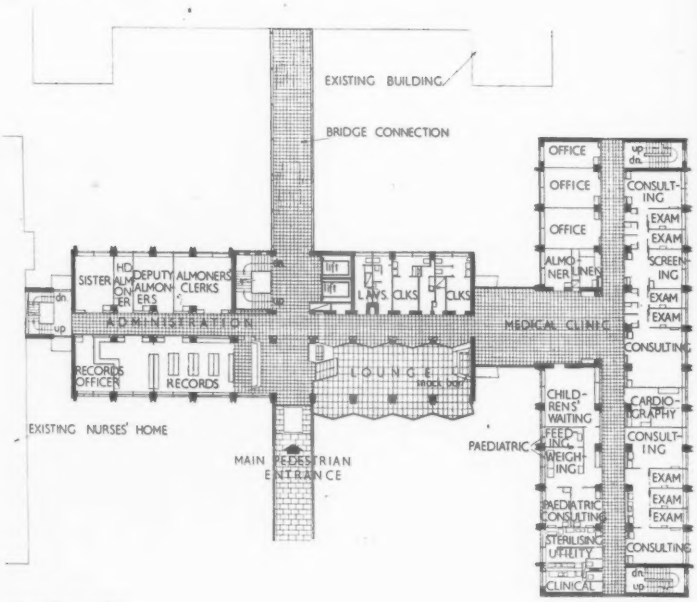
This new extension to the St. James's Hospital, Balham, which was built in 1910 to serve the densely populated areas of Battersea and Wandsworth, is planned as a stage in the ultimate redevelopment of the whole hospital and as an organic part of the premises—not a separate unit. At a time when work on the site had begun a ban was enforced on the use of steel. This led to a change to the use of prestressed concrete and brick piers and all but 25 tons of steel reinforcement were eliminated. It was in December, 1951, that a decision had to be made between closing down the contract and waiting for an improvement in the steel position or redesigning the frame and destroying quantities of calculations. The latter course was chosen and the saving in steel was 125 tons.

Part of the west facade and the main entrance porch.

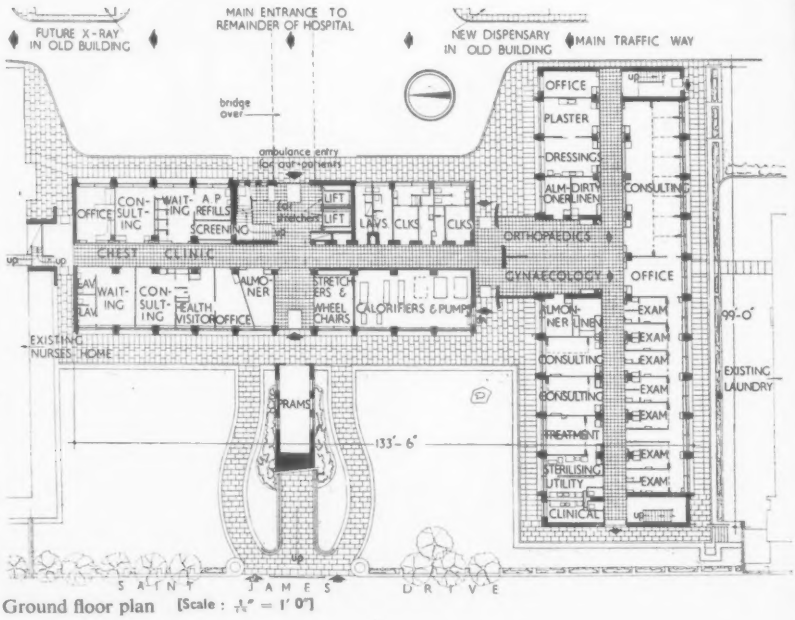
Top, part of the north facade on the left and the link between the two wings of the department, which has a T-plan. Above, the approach ramps, up to the main entrance to the first floor and down to the ground floor, seen from the west.



Second floor plan



First floor plan

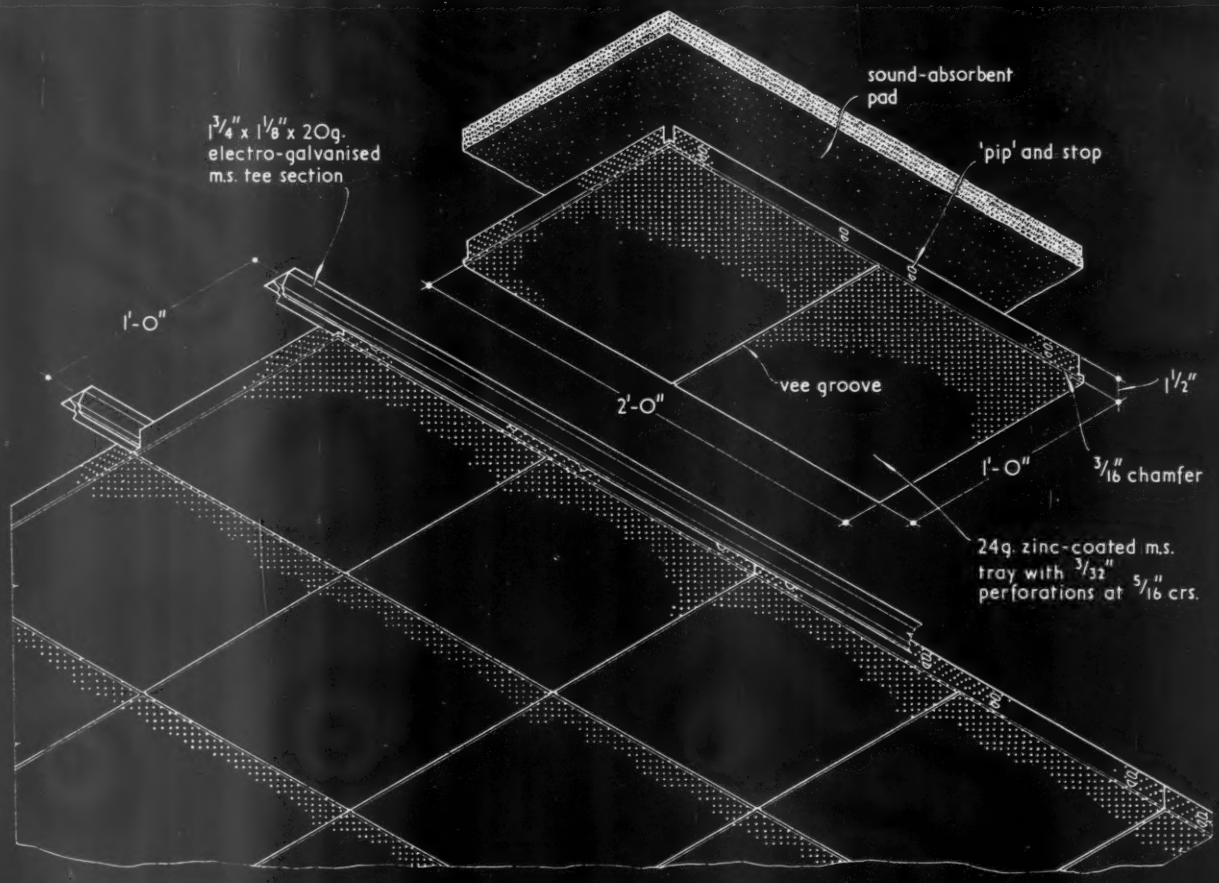


Ground floor plan [Scale : $\frac{1}{16}$" = 1' 0"]

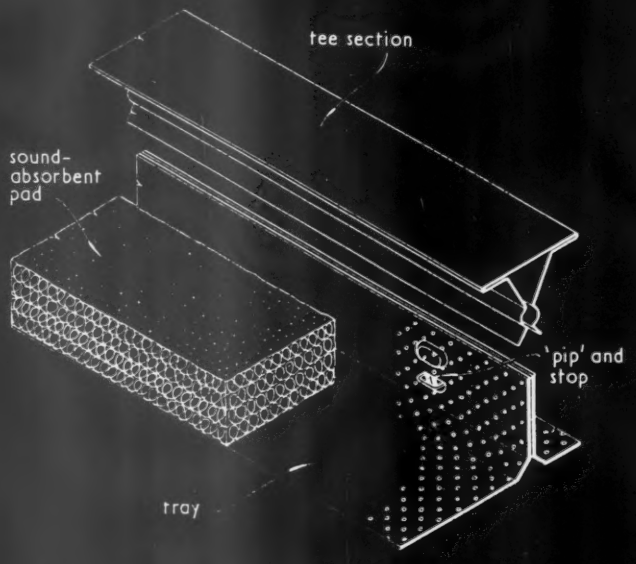
OUT-PATIENTS' DEPARTMENT

at ST. JAMES'S HOSPITAL, LONDON, S.W.17

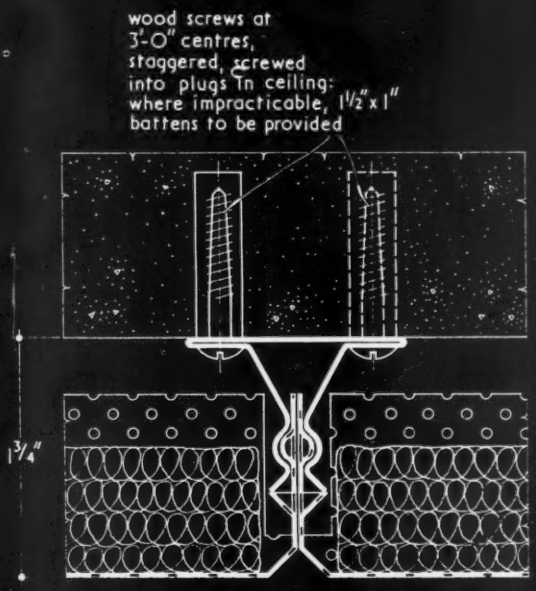
designed by DEVEREUX and DAVIES



ASSEMBLY OF COMPONENT PARTS SHOWING CONSTRUCTION OF TILE.



ISOMETRIC VIEW OF JOINTING ARRANGEMENT.



SECTION SHOWING TEE IN POSITION.

·BURGESS· ACOUSTIC TILES AND FIXING SYSTEM.

Manufacturer: Burgess Products Company Ltd.

27.B11 BURGESS ACOUSTIC TILES AND FIXING SYSTEM

This Sheet describes an acoustic treatment using sound-absorbent tiles supported by concealed mild steel sections. The assembly can be fixed direct to wall or ceiling members or it can be used as a suspended ceiling and in either position may serve for radiant surface heating.

General

The tiles are in the form of perforated pressed metal trays filled with sound-absorbent material. All arrises on the underside of the tiles are chamfered and a vee groove of corresponding size divides each tile in two, so that the finished ceiling is composed of 12-in. by 12-in. squares separated by vee joints. "Pips" and stops are formed at intervals in the long edges of each tile. These engage in the tee section and thus hold the tile in position as shown on the face of the Sheet. The tee sections can be fixed direct to most types of ceiling but it may be necessary to provide cross battens; these may be 1½ in. by 1 in. at 4 ft. to 5 ft. centres.

Tiles

Trays: These are 24 in. long by 12 in. wide by 1½ in. deep and are made from 24 gauge (0·028 in.) perforated mild steel sheet. They can be supplied with $\frac{3}{32}$-in. or $\frac{1}{8}$-in. diameter perforations at $\frac{5}{16}$-in. centres. The chamfers on the underside are $\frac{3}{16}$ in.

Sound-absorbent material: This may be glass silk, rock wool or other suitable sound absorbing medium.

Weight: The weight per tile with glass silk filling is 4·5 lb. and with rock wool filling 4·7 lb. including the tee section.

Supporting Tee Sections

Material and size: The tees are 1¾ in. by 1⅛ in. by 20 gauge and are rolled mild steel. The sections are fixed at 1 ft. 0 in. centres to correspond with the tile width.

Weight: 0·24 lb. per foot run.

Sound Absorption

The following table is extracted from the National Physical Laboratory's Report, reference S.1183 (a), 27th May, 1953.

Material as tested (specimen 10 ft. by 10 ft. in area)

Burgess Acoustic Tiles, type (c): 24 in. by 12 in. by 1½ in. deep, 24 g. metal trays perforated $\frac{1}{16}$ in. diameter holes, 2,765 holes per square foot, filled with resin-bonded Fibreglass slabs, 0·35 lb. per square foot, 1 in. thick.

Tiles clipped to metal T-bar runners on wall, front surface about 1½ in. from wall.

Reverberation Absorption Coefficients (to nearest 0·05) for frequency bands in region (cycles per second)

125*	250	500	1,000	2,000	4,000	6,000	8,000*
0·10	0·30	0·60	0·75	0·80	0·80	0·75	0·80

* The accuracy is subject to reservation at these frequencies where the measurements present special difficulty.

Finish

The trays are zinc-coated and finished with one stoved coat of chromate primer and one stoved coat of matt off-white finishing enamel. They do not require any additional finish after fixing. The supporting tee sections are electro-galvanised.

Maintenance

The surface of the tiles may be easily cleaned by washing.

Compiled from information supplied by:

Burgess Products Company Ltd.
Head Office: Acoustical Division, Hinckley, Leics.
Telephone: Hinckley 700-2.
Telegrams: Burducto, Hinckley.
London Office: 127, Victoria Street, London, S.W.1.
Telephone: Tate Gallery 0251.
Telegrams: Burducto, London.

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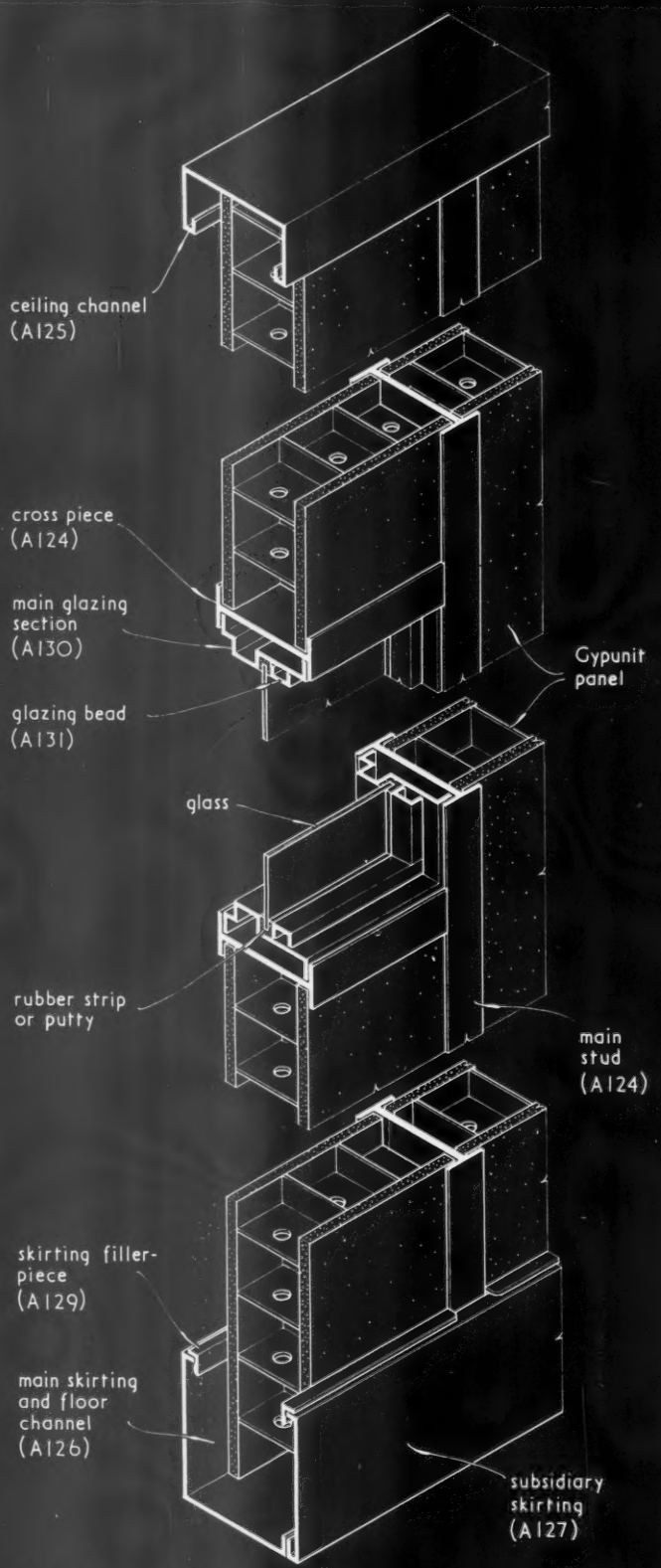
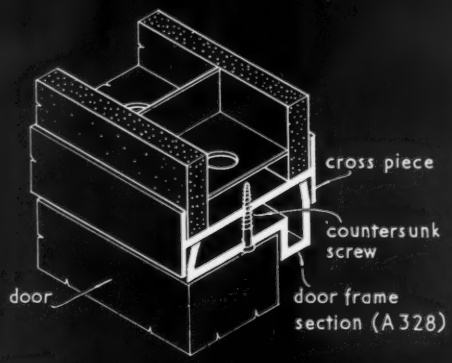
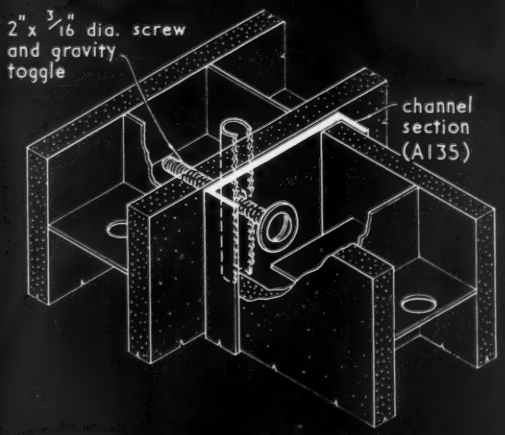


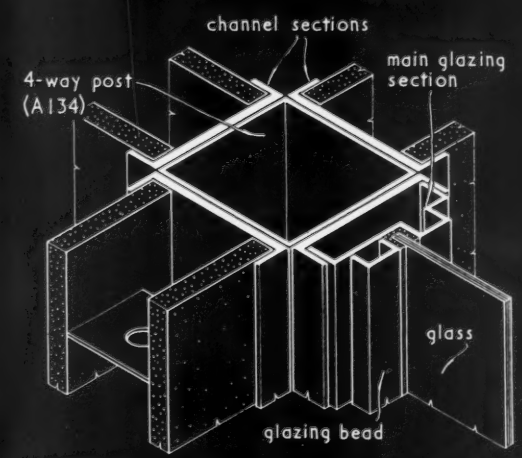
GENERAL ASSEMBLY.



DOOR HEAD.



T-JUNCTION.



4-WAY POST SHOWING GLAZING.

·GYPUNIT· PARTITIONS ASSEMBLED WITH ALUMINIUM FRAMING.

Manufacturer: Gyproc Products Ltd.

21.G2 ·GYPUNIT· PARTITIONS ASSEMBLED IN ALUMINIUM FRAMING

This Sheet describes the Gypunit Partition system, the form of construction used and the method of assembly.

General

The Gypunit Partition is a light-weight non-load-bearing partition which is readily demountable and consists of Gypunit panels supported in a light extruded aluminium alloy frame. The visible flanges of the stud sections and other metal components are unobtrusive. The Gypunit panel consists of two outer layers of Gyproc wallboard separated by a core of cellular construction, the whole unit being bonded firmly together to provide a light-weight, rigid panel.

Sizes

The partition incorporates 2½ in. thick Gypunit panels, the standard sizes of which are 3 ft. and 4 ft. wide and 6 ft., 7 ft., 7 ft. 6 in., 8 ft., 8 ft. 6 in., 9 ft., 10 ft., 11 ft. and 12 ft. long. The panels are easily cut on the site but the wide range of sizes reduces waste to a minimum.

Properties

Weight: The partition weighs approximately 4⅛ lb. per sq. ft.

Sound Insulation: The sound reduction factor over the middle range of frequencies is 29·3 decibels.

Thermal Insulation: The thermal transmittance is 0·38 B.Th.U./sq. ft./hr./°F.

Fire Resistance and Spread of Flame: The fire resistance rating of a partition consisting of Gypunit panels erected with timber framing, when tested in accordance with B.S. 476, is Grade E (30 minutes) and the Gypunit partition with aluminium-alloy framing would, therefore, offer similar resistance to fire.
The outer surfaces of the Gypunit partition consist of gypsum plasterboard, which is classified as having "a surface of very low flame spread," i.e., Class I, in accordance with B.S. 476.

Method of Fixing

The first elements to be fixed in position are the ceiling channel (A125), the wall channel (A135), and the main skirting channel (A126). These are secured to the adjacent surfaces by wood screws, with or without plugging. Each panel is cut with a small clearance between floor and ceiling. It is then inserted into the ceiling channel and dropped into the main skirting channel. The main stud section (A124), is then cut with a small clearance between the floor and the soffit of the ceiling channel and is then wedged up by its web from the bottom until the top butts tightly against it. The procedure is repeated with panel and stud alternately, each unit in turn being pushed to engage with the unit previously positioned.
Cross pieces which serve as lintels to doors and windows are placed in position simultaneously with the section of panel which they support and are secured to the uprights with cleats and self-tapping screws.
Cross pieces which run beneath windows, since they are supported by the panel underneath, do not require to be cleated.
Door frames (A328) are screwed to the uprights already in position. Window glazing sections (A130) are inserted into the studs and cross pieces already in position, and the glazing beads are subsequently screwed to them with self-tapping screws, after the glass has been fixed.
When the partition is in place, the subsidiary finishing skirting (A127) is screwed to the flanges of the upright stud sections and the skirting filler pieces (A129) are worked into the narrow slits which separate the skirting and the panel between the uprights.
Where partitions abut to form a "T" junction, the junction is effected with a channel section (A135), secured with machine screws and gravity toggles to the panels. A box section (A134) is available to form corners and other junctions where partitions are glazed. It is secured at top and bottom by cleats and screws, where necessary.

Further Information

The manufacturer maintains a technical advisory department which is available to give advice on all aspects of this subject.

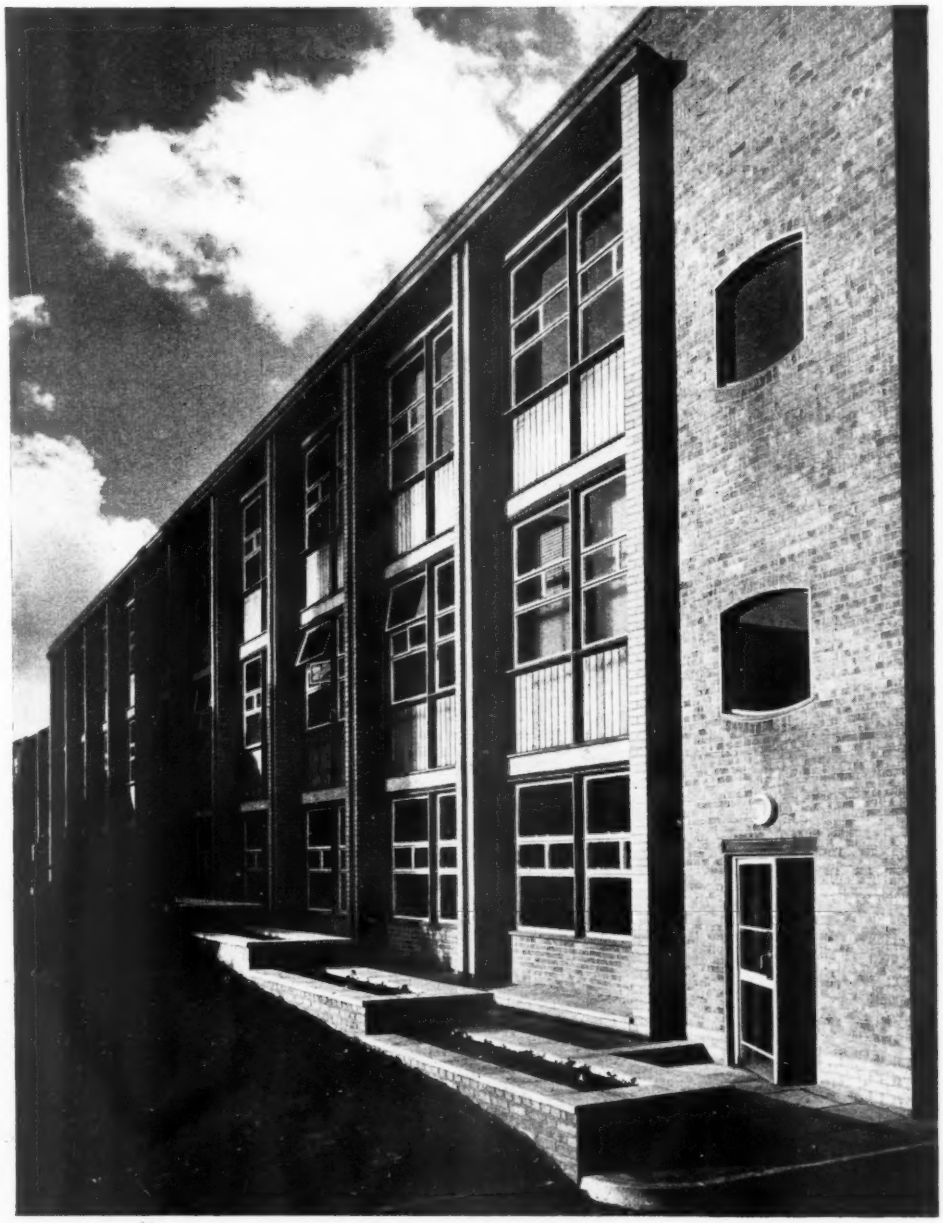
Compiled from information supplied by:

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

PLAN.—The extension, which is planned in the form of a T, had to comply in shape and dimensions with the existing hospital buildings, the amenities and lighting of which had to be carefully considered. The main floor of the out-patients' department was raised above the level of St. James's Drive to enable a connection to be made to the original hospital block to the east by a bridge high enough to permit the passage of ambulances in the new main circulating roadway. The ramps upwards and downwards from St. James's Drive are of an easy gradient for ambulent patients. The large lounge in the north block is not intended primarily for waiting patients, but for the use of those who may have to arrive early and visitors accompanying them. The link between the two new blocks forms, on each floor, a waiting space sufficient for 30 persons, although it is not anticipated that normally as many patients as this will be waiting at once, since there is an appointments system in operation. It was felt that due to variations in the incidence of disease and ailments developments in surgical and medical techniques might, in a short space of time, alter the requirements of space and equipment in the department. Consequently it was decided to use light-weight flush partitions, which could be moved quickly, cleanly and economically. These partitions were to have no surface treatment and be easily stored without deterioration. Partitions of laminated cellular plastic were chosen as most suitable to fulfil these requirements. The planning module of 11 ft. 6 in. was chosen because it is a suitable width for a consulting

OUT-PATIENTS' DEPARTMENT

at ST. JAMES'S HOSPITAL LONDON S.W.17
designed by DEVEREUX and DAVIES



The south facade of the new extension. Between the brick piers, under first and second floor windows, are panels faced with western red cedar.

Above, the children's waiting room on the first floor. The mosaic wall is designed by Vera Davies. Left, interior of the 60-ft. bridge connection to the old building. This bridge was illustrated as a Working Detail in the JOURNAL *for December 17, 1953.*

OUT-PATIENTS' DEPARTMENT

at ST. JAMES'S HOSPITAL, LONDON, S.W.17

designed by DEVEREUX and DAVIES

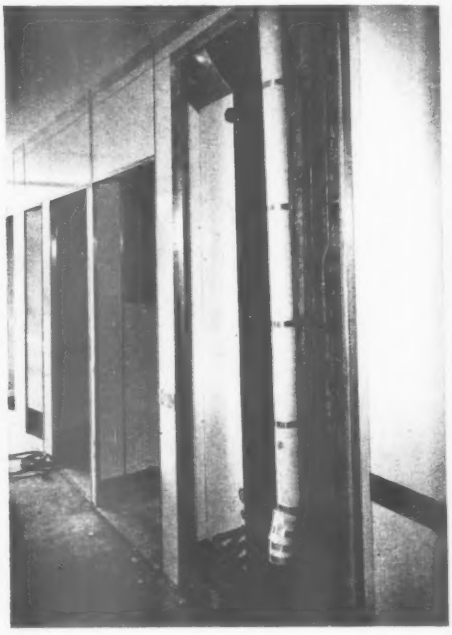
Right, the snack bar at the south end of the main visitors' lounge on the first floor. The wall carving is by D. Wain-Hobson.

The main visitors' lounge on the first floor. The projecting west windows, on the left of this photograph, was illustrated as a Working Detail in the JOURNAL *for February 25, 1954*

room and its moiety, 5 ft. 9 in., is just sufficient for an examination cubicle. The internal arrangement of the clinics and the area allocated to each was decided after consultation with the medical staff, nursing and administrative sections, who had long experience in the use of space and equipment. The orthopaedic clinic required a long open space for the examination of patients walking and cubicles formed merely by curtains,' so that the surgeon could pass rapidly from one to another. In contrast, the gynaecological clinic required cubicles for changing in.

CONSTRUCTION.—Originally the superstructure was designed as a reinforced concrete frame, the centres of the columns at 11 ft. 6 in. in the longitudinal direction and 16 ft., 8 ft. and 16 ft. across the blocks. Although the project was to be a three-storey building, all members were calculated so that an additional three storeys could be added later. Floors were to be normal hollow-tile type, 15 in. deep and incorporating in their thickness transverse bracings so that no beams should project below ceilings. This was an essential for internal flexibility. In December, 1951, it became impossible to obtain steel, at a time when all foundations for the extension had been laid. It was decided that the importance of the work was such that every step should be taken to proceed with the contract. The design was revised, using the existing foundations, and brick piers using engineering bricks and a small quantity of steel reinforcement were designed in place of the r.c. columns. In order to save steel, prestressed floors were substituted for the original r.c. floors on the wider spans. Hollow tiles were

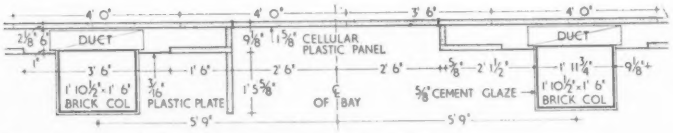
incorporated between the prestressed planks with in situ infilling, so that reinforcing from columns and lintels could be bent over and tied in. By this method uninterrupted flat ceilings were preserved. Prestressed floors were not used over corridors, but a saving in reinforcement was made by the use of high tensile, square, twisted reinforcing bars, having



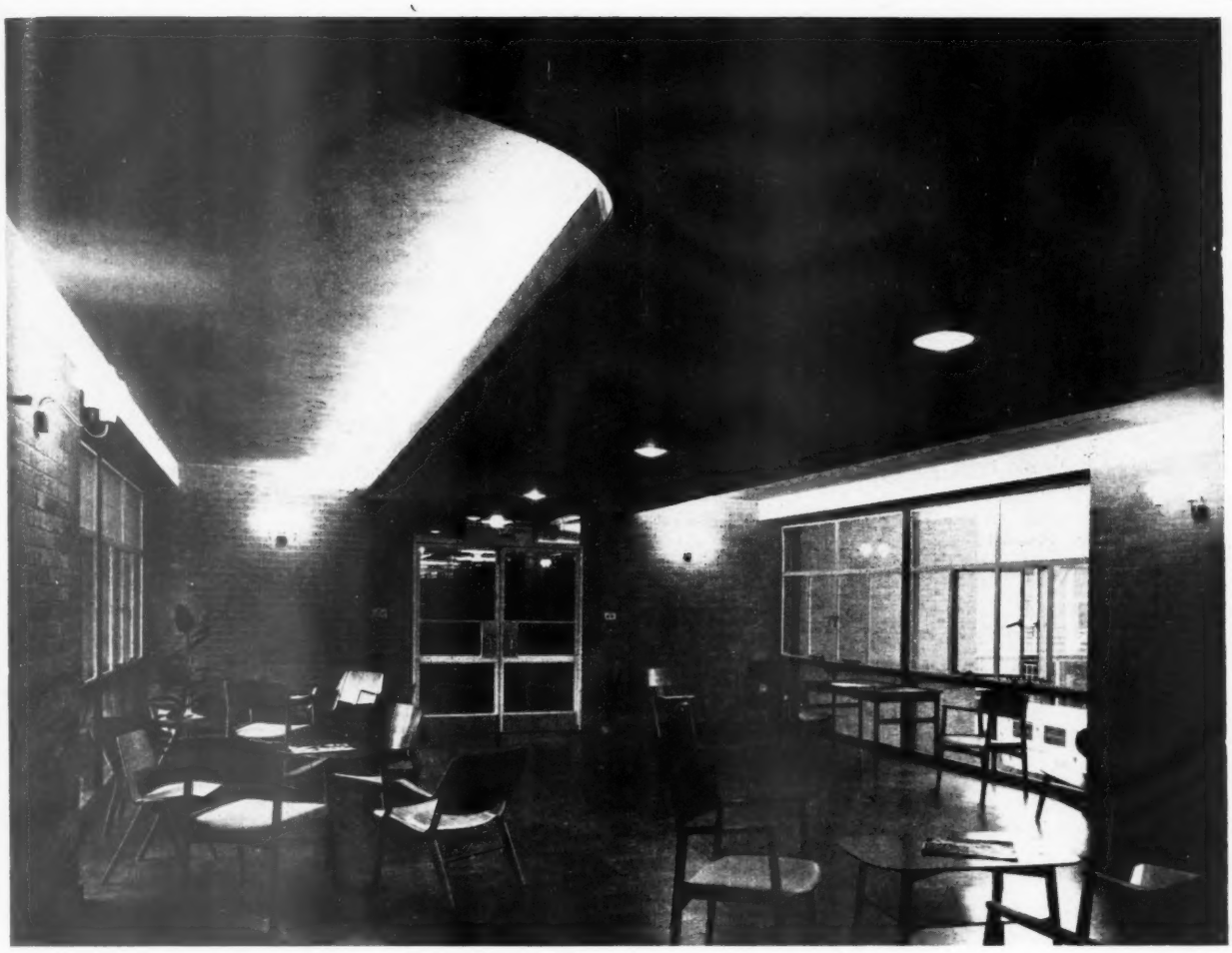
Left, central corridor in south block. Above, typical vertical duct with laminated plastic panel removed to show services. Bottom right, typical examination cubicle.

OUT-PATIENTS' DEPARTMENT

at ST. JAMES'S HOSPITAL, LONDON S.W.17
designed by DEVEREUX and DAVIES



Part plan of typical corridor wall [Scale : ⅛" = 1' 0"]

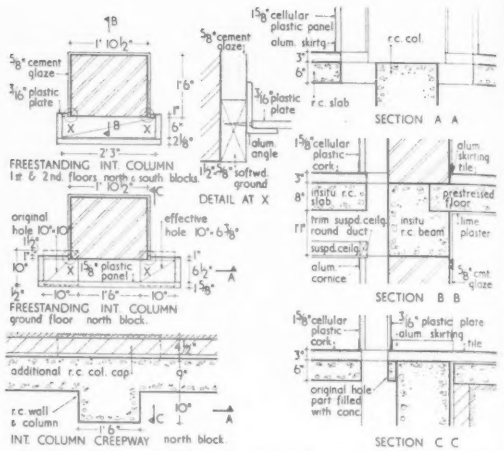


Above, patients' waiting space in the link between the north and south blocks, at first floor level. Below, ambulance exit under the connecting bridge on the east side of the north block.

a working stress of 27,000 lb. per sq. in., as against 18,000 lb. in ordinary mild steel bars. The extra girth and weight of the piers would have been impracticable had not the original foundations been designed for future extra loading. The possibility, however, of future extension upwards is now impracticable. External walls consist mainly of continuous fenestration fixed between brick piers.

FINISHES.—To relieve the heavy brick piers, which are an unusual feature of a modern building, the centre portion of the piers, externally, are recessed and colour washed. Another feature of the west facade is the undulating roof over the projecting windows to the main lounge and entrance porch. Under windows on the main facades are panels faced with western red cedar weatherboarding. Over corridors are false ceilings at a lower level than in adjacent rooms, thus concealing r.c. beams flanking the corridor slabs and also forming arteries for the air conditioning system. Almost the entire internal partitioning is in laminated plastic sheeting and the doors in these walls. All partitions are white and only the doors are in the appropriate clinical shade. The colour code for the various parts of the building is as follows: administration, brown; surgical clinic, green; medical clinic, blue; orthopaedic and gynaecological clinics, yellow; eye and E.N.T. clinics, grey-green; chest clinic, salmon. In contrast to the large areas of plastic sheeting internally, there is wall panelling in places in abura and iroba. To assist sound deadening in corridors floors are covered with cork tiles and ceilings with acoustic boards. In the audiometer room,

Above, view just inside the main entrance from St. James's Drive. On the right, the steps down to the visitors' lounge. Below right, the reception desk and part of the entrance porch.



Details of typical free-standing columns [Scale : ½" = 1' 0"]

OUT-PATIENTS' DEPARTMENT

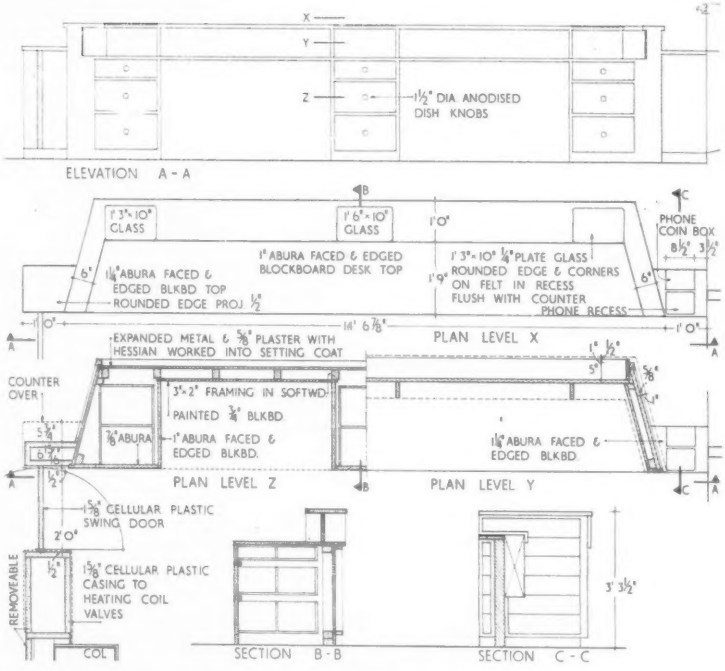
at ST. JAMES'S HOSPITAL, LONDON, S.W.17. designed by DEVEREUX and DAVIES

where special sound-proofing precautions are required, a separate skin, isolated from the main structure is provided; the interstices of the cellular plastic sheeting are filled with sand, and windows are double glazed.

SERVICES.—At every internal pier are vertical ducts extending for the full height of the building containing all piped services. Although permanent features, these ducts are enclosed by plastic sheets, forming part of the partitioning of the corridors. All these ducts lead to the horizontal passage, or creepway, under the buildings, which contains all the horizontal services and drains. Normal rooms are heated by radiators set beneath the windows, supplied with hot water by vertical pipes running in specially formed recesses in the external columns. These risers originate at ground floor level from horizontal pipes set in trenches which surround the building and are covered in by removable paving slabs. The visitors' lounge and waiting spaces are heated by coils embedded in the floor. Electric power, light and clock installations and communication systems are brought to points so that any compartment of half bay size can be equipped immediately. A fire alarm system fed by a battery normally on trickle charge is installed throughout each block. The battery which supplies this system also provides the supply for emergency lighting.

The contract price was £177,598.

The general contractors were Marshall Andrew & Co., Ltd. For sub-contractors see page 294.



Details of main reception desk [Scale : ½" = 1' 0"]

TECHNICAL SECTION

Speaking to a non-technical audience at his Chadwick Lecture, at the RSI last week, Mark Hartland Thomas reported the progress which the Modular Society Limited, were making with their catalogue. The aim of this catalogue—which is ultimately to be published—is to list those building components now on the market which conform to the 4-in. module. This is one way of grasping the Modular nettle, and it is interesting to compare the worldy wisdom of the present generation of architectural theorists with the rarefied idealism of their predecessors in the 'thirties, who did not think it necessary to carry the Building Industry with them. The creation of a 4-in. Band Wagon on to which manufacturers are invited to jump was an astute move, which perhaps has more to commend it on rational grounds than appearances might suggest. But it is important to establish that the provisional acceptance of a 4-in. module *is* only provisional—a point of departure and not a summary conclusion—and that the parallel research of BRS and BSI in this field is not compromised in advance. It is, of course, scandalous that the resources that BRS have been allowed to devote to modular research are so slender. For this reason alone it will presumably be a long time before any authoritative findings can be expected. In the meanwhile, it is important that a climate of opinion favourable to the *principles* of dimensional co-ordination should be created in the industry, and there is probably no better way of achieving this than by representing dimensional co-ordination as a practical commercial issue.

CURRENT PRICES FOR MEASURED WORK

Prepared by Davis, Belfield & Everest, chartered quantity surveyors

Prices are for work executed complete and are for an average job in the London area. All prices include overhead charges and profit for the general contractor. Current prices of materials and rates of wages last appeared in the JOURNAL *for Feb. 18.*

PRELIMINARIES

To all valuations for measured work add for Preliminaries, Water and Insurances, according to the nature of the job (say)		10%

EXCAVATOR

Excavation

N.B.—The following prices are applicable to hand excavation in heavy soil.

Surface digging, 6″ deep	per yard super	1/–
Ditto, 12″ deep	,,	2/–
Excavating not exceeding 10′ 0″ deep to reduce levels	per yard cube	7/11
Excavating not exceeding 5′ 0″ deep to form basement	,,	8/11
Ditto exceeding 5′ 0″ and not exceeding 10′,0″ deep ditto	,,	12/10
Excavating not exceeding 5′ 0″ deep to form surface trenches	,,	10/10
Ditto exceeding 5′ 0″ deep and not exceeding 10′ 0″ deep ditto	,,	14/9
Excavating not exceeding 5′ 0″ deep to form basement trench commencing 10′ 0″ deep		18/9

EXCAVATOR—(*continued*)

Disposal

Returning, filling and ramming around foundations	per yard cube	3/6
Wheeling excavated soil not exceeding 100 yards and depositing	,,	3/11
Ditto and spreading and levelling	,,	5/2
Ditto, ditto, and consolidating to make up levels under floors and pavings	,,	6/6
Filling into lorries and carting away	,,	12/2

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5′ 0″ deep	per ft. super	–/6½
Ditto not exceeding 10′ 0″ deep	,,	–/8
Planking and strutting to sides of surface trenches not exceeding 5′ 0″ deep (both sides measured)	,,	–/2
Ditto not exceeding 10′ 0″ deep (ditto)	,,	–/3

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½″ coarse aggregate in foundations and masses exceeding 12″ thick	per yard cube	66/8
Ditto 1 : 2 : 4 with ¾″ coarse aggregate ditto	,,	67/5

CONCRETOR—(*continued*)

Add to Basic Prices for :—

Working around rod or mesh reinforcement	per yard cube	3/11
Being in beds less than 12″ thick (6″-12″)	,,	2/–
Ditto less than 6″ thick (4½″-6″)	,,	5/11
Being in small quantities not exceeding 3′ cube	,,	15/9
Being in suspended floors and roofs....	,,	11/10
Being in walls not exceeding 6″ thick	,,	19/8
Ditto exceeding 6″ but not exceeding 12″ thick	,,	13/9
Ditto exceeding 12″ thick	,,	9/10
Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	,,	29/6
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	23/8
Ditto exceeding 144 sq. in. sectional area	,,	19/8
Being in columns not exceeding 72 sq. in. sectional area	,,	37/5
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	,,	29/6
Ditto exceeding 144 sq. in. sectional area	,,	23/8

Formwork

Close boarded formwork and supports to soffites of floors not exceeding 12′ high	per yard super	14/10
Ditto to vertical faces of walls (both sides measured)	,,	15/–
Ditto to sides and soffites of lintols and beams	per foot super	2/2
Add to any of the above for wrot formwork and rubbing down concrete	per yard super	2/8

Reinforcement

⅜″ to 1″ diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	per cwt.	53/2
½″ diameter ditto	,,	57/4
⅝″ diameter ditto	,,	57/11
Steel wire mesh fabric reinforcement to B.S. 1221, weighing 4·71 lb. per yard super, well lapped at joints and embedded in concrete	per yard super	3/5
Ditto weighing 9·32 lb. per yard super ditto	,,	6/7

BRICKLAYER

Common Brickwork

		Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)	per yard super	29/–	34/9
Add to the above :—			
If in cement mortar (1 : 3)	,,	–/3	–/3
If circular on plan to flat sweep	,,	4/8	4/11
Ditto to quick sweep	,,	9/4	10/–
Half brick wall in cement lime mortar (1 : 3 : 9)	,,	15/9	18/8
Ditto built fair and pointed both sides with a neat flush joint	,,	17/9	20/8
One brick wall built fair and pointed both sides with a neat flush joint	,,	34/3	40/2
11″ hollow wall with 2″ cavity and galvanized iron twisted ties	,,	34/1	40/–

Engineering Brickwork

		Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)	per yard super	42/9	74/11
Half brick wall in cement mortar (1 : 3)	,,	23/1	39/5
Dittobuilt fair and pointed both sides with a neat flush joint	,,	25/–	42/2
One brick wall built fair and ditto	,,	47/1	79/8

Sundries

Extra for internal fair face and flush pointing	per yard super	1/1
Horizontal damp-proof course of two courses of slates and bedding and pointing	per foot super	3/8
Ditto of hessian base bitumen well lapped at joints	,,	–/10
Fixing only metal window, size 1′ 8″ × 4′ 0″, including cutting and pinning lugs to brickwork, bedding frames and pointing in mastic one side	each	8/2
Ditto, 3′ 3″ × 4′ 0″ ditto	,,	12/8
Ditto. 6′ 6″ × 4′ 0 ditto	,,	22/4

BRICKLAYER—(*continued*)

Partitions

		2″	2½″	3″	4″
Clinker concrete solid partition blocks to B.S. 492 and setting in cement mortar	per yard super	7/11	9/3	10/10	13/3
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	,,	8/10	9/–	11/9	–
Moler hollow partition blocks, keyed on both sides and ditto	,,	18/2	19/7	21/1	25/5

Facings

		Ordinary facings, p.c. 239/6 M.	Ordinary facings, p.c. 254/10 M.	White glazed facings p.c. 1,280/– M for stretchers 1,260/-M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c.110/– M for facings as described, and pointing with a neat weathered joint :—				
To solid wall in Flemish bond	per yard super	14/2	15/2	78/7
To cavity wall in stretcher bond	,,	11/7	12/4	63/1
To ditto in Flemish bond with snapped headers	,,	13/8	14/8	—
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint	,,	26/2	26/11	—
Ditto pointed both sides	,,	27/2	28/–	—
One brick wall in facings built fair and pointed one side	,,	48/10	50/5	—
Ditto pointed both sides	,,	49/10	51/5	—
Brick on end flat arch in facings 4½″ on soffite and 9″ high and pointing	per foot run	3/–	3/1	—
Brick on edge coping to 9″ wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing		5/1	5/2	—

ASPHALTER

Tanking

		To B.S. 1097	To B.S. 1418
Horizontal asphalt tanking in three thicknesses on brick or concrete	per yard super	18/5	29/5
Vertical ditto	,,	23/8	33/7

Roofing

		To B.S. 988	To B.S. 1162
½″ asphalt flat in two thicknesses on and including felt underlay	per yard super	13/2	22/1
½″ asphalt skirting 6″ high with angle fillet at bottom and rounded top, turned into groove	per foot run	2/4	2/7
½″ asphalt fascia 6″ high with solid water check roll at top and undercut drip at bottom	,,	4/6	5/3

DRAINLAYER

Trenches and Beds

N.B.—The following prices are applicable to hand excavation in heavy soil, only requiring planking and strutting for depths of 3′ or more.

Excavate trenches for 4″-9″ pipes, including planking and strutting, filling in and ramming, and wheeling and spreading surplus :—		
For each 12″ in depth, for trenches not exceeding 3′ 0″ deep	per yard run	3/2
Ditto for trenches exceeding 3′ 0″ and not exceeding 5′ 0″ deep	,,	4/7
Ditto for trenches exceeding 5′ 0″ and not exceeding 10′ 0″ deep	,,	7/3

		4″	6″
6″ concrete (1 : 3 : 6) bed and benching for pipes	per yard run	8/11	10/5
6″ ditto, and surround	,,	14/6	17/6

DRAINLAYER—(*continued*)

Drains

		3″	4″	
Clayware butt-jointed land drains and laying in trench	per foot run	-/4½	-/5½	
" Seconds " quality glazed stoneware socketed drains and laying and jointing in trench	,,	2/1	2/11	4/10
" British Standard " quality ditto	,,	2/5	3/6	5/11
Extra on " Seconds " quality for bends	each	3/1	4/8	13/9
Ditto " British Standard " quality ditto	,,	4/-	5/11	17/6
Extra on " Seconds " quality for equal single junction	,,	5/4	7/11	17/2
Ditto " British Standard " quality ditto	,,	7/10	9/9	21/6
Cast iron socketed drains to B.S. 437 and laying and jointing in trench	per foot run	10/11	16/8	32/6
Extra for short radius bend (Fig. No. 4)	each	22/-	43/6	121/5
Extra for single junction (Fig. No. 18)	,,	40/-	76/9	230/-

Fittings, etc.

		4″	6″
Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	each	23/1	42/8
Ditto with vertical inlet ditto	,,	38/7	48/2
Cast iron trapped gulley with high invert, grating, and 4″ outlet and setting in concrete	,,	58/4	—
Ditto with vertical inlet ditto	,,	67/-	—
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	,,	72/5	84/4
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	per foot run	1/10	2/9
Ditto ordinary channel bend and ditto	each	5/6	7/9
Cast iron coated single seal manhole cover and frame to B.S. 497 Grade C and setting frame in cement and cover in grease	,,	24″ × 18″ 41/7	24″ × 24″ 61/5
Galvanized ditto	,,	69/7	105/8

PAVIOR

		¾″	1″	1¼″
Cement and sand (1 : 3) floated screed to receive pavings	per yard super	3/5	4/1	4/7
Ditto trowelled smooth to receive linoleum	,,	3/9	4/5	4/11
Cement and sand (1 : 3) paving trowelled hard and smooth	,,	3/10	4/6	5/-
Granolithic paving (1 : 2½) laid on concrete	,,	1″ 6/3	1¼″ 7/1	1½″ 7/11
½″ red composition paving to B.S. 776 laid on prepared screed	per yard super		16/7	
¾″ terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	,,		34/2	
Extra for white or cream cement	,,		5/3	
¼″ rubber flooring in all colours, laid on prepared screed	,,		58/3	
⅛″ × 12″ × 12″ rubber tile flooring ditto	,,		48/10	
9/32″ × 12″ × 12″ cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	per yard super		46/2	
1½″ hard red paving bricks p.c. 404/6 per M. laid flat on prepared bed in cement mortar	,,		23/-	
1½″ ditto laid herringbone	,,		24/11	
6″ × 6″ red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	per yard super	½″ 21/9	⅝″ 24/7	
6″ × 6″ buff quarry tiles as last	,,		25/1	28/4
2½″ (finished) gravel path laid on prepared bed, well watered and rolled to cambers and falls	,,		2/10	

MASON

		Portland	Artificial
Portland stone and all labours in pilasters, and quoins	per foot cube		36/6
Ditto in jambs, lintols, etc.	,,		38/10
Ditto in arches	,,		47/3
Ashlar av. 6½″ on bed with plain dressed face	per foot super		21/3
Portland stone or artificial stone to B.S. 1217 :—			
4½″ × 4″ sill, sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	per foot run	7/1	4/1

MASON—(*continued*)

		Portland	Artificial
9″ × 3″ ditto	per foot run	8/4	6/2
2″ × 12″ Coping, weathered and twice throated, set and jointed as last	,,	7/5	5/6
3″ × 12″ Ditto	,,	11/-	8/2
5″ × 12″ Saddle back coping twice throated, set and jointed as last	,,	18/5	12/6
6″ × 12″ Ditto	,,	20/6	14/1

SLATER, TILER AND ROOFER

Slate

		20″ × 10″	16″ × 10″
Best Bangor slates to B.S. 680 laid with 3″ lap, each slate nailed with two stout copper nails	per square	273/-	246/9
Ditto hung vertically to dormer cheeks and gables	,,	278/3	257/3

Tiles

		Hand made	Machine made
Best sand faced plain (nibbed) tiles to B.S. 402, 10½″ × 6½″ laid to a 4″ gauge with each tile in every fourth course nailed with galvanized nails	per square	175/11	162/3
Ditto hung vertically to dormer cheeks and gables to 4½″ gauge with each tile nailed with galvanized nails	,,	190/-	178/6
Berkshire hand made sand faced red pantiles 14½″ × 10″ laid to 2½″ head and 1½″ side laps, each tile in every third course nailed with galvanized nails	per square	187/-	
Ditto to mansard slopes	,,	210/-	
Bridgwater hand made Double Roman red sandfaced tiles 16½″ × 14″ laid to 3″ laps, each tile in every course nailed with galvanised nails	,,	135/6	
Concrete plain (nibbed) tiles to B.S. 473, 10½″ × 6″ laid as before described for plain tiles	,,	131/9	
Ditto hung vertically to dormer cheeks, and gables, ditto	,,	154/4	
Concrete interlocking tiles 15″ × 9″ laid to 3″ lap, each tile in every third course nailed with galvanized nails	,,	97/2	
Ditto to mansard slopes ditto	,,	102/6	

Asbestos Cement

6″ corrugated asbestos cement sheeting fixed to wood roofs with galvanized drive screws and washers with a side lap of 1½ corrugations and an end lap of 6″	,,	102/6
6″ ditto but fixed vertically	,,	113/-
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	,,	4/9

Felt

		Two layer	Three layer
Reinforced bituminous roofing felt laid with 3″ laps and nailed to rafters at 18″ centres with galvanized clout nails	,,		22/-
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	per yard super	8/8	11/6
Extra on last for finishing with granite chippings	,,		-/9½

CARPENTER

Carcassing

Softwood, sawn and fixed, in plates, sleeper joists and lintols	per foot cube	14/8
Ditto in floor and ceiling joists	,,	16/6
Ditto in stud partitions	,,	18/3
Ditto in rafters	,,	18/1
Ditto in purlins and struts	,,	18/3
Ditto and framing in ridge	,,	18/1
Ditto in hip and valley rafters including cutting rafters to sizes	,,	20/4

Battening and Boarding

		Roof slopes	Vertical hanging
¾″ × 2″ battens nailed to softwood for 20″ × 10″ slates to 8½″ gauge	per square	31/-	33/-
Ditto 16″ × 10″ slates to 6½″ gauge	,,	41/6	43/7
¾″ × 1½″ ditto for 10½″ × 6″ tiles to 4″ gauge (4½″ for vertical hanging)	,,	52/6	52/6

		Roof slopes	Mansards
¾″ × 2″ ditto for 14½″ × 10″ pantiles to 12″ gauge	,,	23/8	24/8
¾″ × 1½″ ditto for 15″ × 9″ concrete interlocking tiles to 12″ gauge	,,	18/5	19/5
Roof boarding in batten widths close jointed and fixed to flat or sloping roofs	,,	¾″ 109/-	1″ 135/5
Ditto tongued and grooved and prepared for felt roofing including firring to falls		162/2	189/1

OUTSIDE PAINT has an outsize job

Outside painting is quite a different proposition from inside painting. *Outside* painting has to do a protective job, and if that job is ever neglected the very soundness of the building may be endangered. It's as simple as that, and as serious. What kind of paint can protect a door, a window frame, a cement-rendered or stucco front from the ceaseless attack of British weather? What kind of paint needs fewer repaints, and less expensive repaints because it doesn't crack or flake? The answer has been proved good over centuries.

White Lead Paint Lasts.

Magnet White Lead Base HARD GLOSS Paint is the up-to-date version of this trusty friend. Hard Gloss. Lasting Protection. A range of 32 intermixable colours.

Specify **MAGNET for the** *OUTSIDE*

ASSOCIATED LEAD MANUFACTURERS LIMITED LONDON · NEWCASTLE · CHESTER

CARPENTER—(*continued*)

		Roof Slopes	Mansard
Sawn gang boarding fixed to joists in roof	per foot super	1/2	1/5
Wrot and crosstongued eaves soffite	,,	1/11	2/2½
6″ wrot and grooved eaves fascia planted on	per foot run	-/10½	1/-

Wall and Ceiling Boards

		Vertically	Soffites
¼″ fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	per yard super	5/11	6/-
3/16″ asbestos cement flat sheeting to B.S. 690 fixed as last	,,	6/7	7/-
¼″ ditto	,,	7/8	8/2

JOINER

Floors and Skirtings
(All thicknesses stated are nominal)

		¾″	1″	1¼″
Plain edge softwood flooring in batten widths nailed to floor joists	per square	134/-	149/-	179/6
Tongued and grooved ditto	,,	143/-	159/-	190/6

1″ double grooved and tongued and grooved wood block floor laid herringbone with two-block border, set in hot mastic composition on prepared screed and wax polished :—

Swedish softwood	per yard super	26/3
European beech	,,	33/7
English oak	,,	46/3
European oak	,,	41/-
Burma teak	,,	45/8

		Sectional area 3″ to 6″	Over 6″
Softwood skirtings with splayed or molded top edge, planted on (per inch sectional area)	per foot run	-/2¾	-/2½
Extra for grounds plugged to brickwork	,,	-/8	

Windows in Softwood

		1½″	2″
Rebated and molded softwood fanlights and casement sashes divided into squares for glass	per foot super	3/1	3/4½
Extra for hanging	each	6/9	6/9
Cased frames with 6″ × 3″ oak sill and 2″ molded double hung sashes including pulleys, line and weights	per foot super	—	10/1

N.B.—The above prices are for purpose made joinery. Standard pattern casement windows and double hung sashes and frames to B.S. 644 are cheaper.

Doors in Softwood

		1½″	1¾″	2″
Framed ledged and braced doors filled in with 1″ T. & G. and V-jointed boarding and hanging	per foot super	6/4	7/-	7/-
Four-panel door, square both sides and hanging	,,	5/3	5/11	5/11
Ditto molded one side	,,	5/9	6/6	6/6
Ditto molded both sides	,,	6/4	7/-	7/-

N.B.—The above prices are for purpose made doors. Standard panelled doors to B.S. 459 are cheaper.

1¼″ standard flush doors 2′ 6″ × 6′ 6″ internal pattern	each	118/6
2″ ditto external pattern	,,	127/-

Linings, Frames, etc., in Softwood

		Sectional area Up to 6″	6″ to 12″
Window and door linings etc. (per inch in sectional area)	per foot run	-/4	-/3½
Frames wrot all round and framed (ditto)	,,	-/3	-/2¾
Mullions, transomes and cills (ditto)....	,,	-/3½	-/3

		2″ to 4″	4″ to 6″
Moldings, architraves, etc. (ditto)	,,	-/3¼	-/3¼

		Thickness 1″	1¼″
6″ Window boards with rounded nosings, tongued at back and including bearers	,,	3/2½	3/5
9″ Ditto	,,	3/6½	3/10

Shelving and Fittings in Softwood

		¾″	1″
Shelving of 2″ slats spaced 1″ apart on bearers (measured separately)	per foot super	2/8½	3/-
Shelving on ditto	,,	2/5½	3/0½
Cross tongued shelving on ditto	,,	3/1	3/8
Shelving 9″ wide on ditto	per foot run	1/9	2/1½
2″ shelf bearers plugged to walls	,,	1/0½	1/2½
The following in framed up cupboard fittings :—			
T. & G. & V-jointed back	per foot super	2/1½	2/6
Cross tongued top, bottom shelf or division	,,	3/2	3/8½
1¼″ flush cupboard doors	,,	7/3	
Labour rebate or groove	per foot run	-/3½	

JOINER—(*continued*)

Labour cross-grain	per foot run	-/4½
1″ × 2″ bearers screwed on	,,	-/6

N.B.—The above prices are for purpose-made cupboard fittings Standard pattern kitchen fittings to B.S. 1195 are cheaper.

IRONMONGERY

		Softwood	Hardwood
3″ steel butts (medium quality)	per pair	5/1	6/2
4″ ditto (ditto)	,,	6/9	8/3
Double action floor springs and top centres including filling boxes with oil P.C. 149/3	each	182/1	188/2
Overhead check action door springs. P.C. 66/8	,,	84/6	88/3
6″ barrel bolts. P.C. 5/6	,,	7/9	8/3
Cupboard locks. P.C. 8/2	,,	12/4	13/5
Norfolk latches. P.C. 5/6	,,	10/6	12/-
Cylinder night latch. P.C. 15/11	,,	23/1	25/-
Mortice latch. P.C. 9/4	,,	14/9	16/3
Rim lock. P.C. 10/-	,,	14/4	15/6
Mortice lock. P.C. 15/2	,,	22/3	24/2
Door furniture. P.C. 24/-	per set	27/6	27/10
Sash fasteners. P.C. 9/-	each	11/8	12/3
Casement fasteners. P.C. 7/11	,,	10/1	10/6
Casement stays. P.C. 11/6	,,	14/-	14/5

STEEL AND IRONWORKER

Structural Steelwork

The following prices are for Basic sections only. Prices for other sections vary roughly in proportion to the price of the steel ex mills—see "Current Market Prices of Materials."

		£	s.	d.
R.S.J.—in steel framed structures hoisted and fixed complete	per ton	59	17	0
Riveted compound girders including plates and rivets	,,	70	7	0
R.S. stanchions including caps bases, cleats, etc	,,	69	7	0
Riveted compound stanchions ditto	,,	74	11	0
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30′ span	,,	105	0	0
Ditto 40′ span	,,	101	17	0

Sundries

		£	s.	d.
Simple wrot iron balustrades fixed complete (excluding mortices etc.)	per cwt.	11	10	6
Bolts with heads, nuts and washers and fixing	,,	11	1	9

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffites	per yard super	5/2

Lime and Gypsum Plaster

		Lime	"Sirapite"
Three coat lime and two coat "Sirapite" or similar gypsum plaster :—			
On brick walls and partitions	per yard super	5/11	4/8
On concrete soffites including hacking	,,	7/3	6/7½
On soffite of E.M.L. (measured separately)	,,	6/-	7/2½
On and including wood laths, to soffites	,,	12/-	—
⅜″ Gypsum plasterboard fixed to softwood soffites, in accordance with manufacturer's instructions, scrimmed and finished with setting coat of suitable plaster	per yard super		7/5
Plaster moulded cornice or cove (per inch in girth)	per foot run		-/4½

Cement Rendering

Rendering in Portland cement lime sand(1:1:6) and setting in Keenes cement on brick walls and partitions	per yard super	5/9
Portland cement and sand (1 : 3) plain face trowelled smooth on ditto	,,	5/3
Portland cement and sand (1 : 3) screed for tiling on ditto	,,	2/9½

Wall Tiler

6″ × 6″ × ¼″ standard quality white glazed wall tiles set and jointed on prepared screed	per yard super	38/10
Ditto eggshell matt or glossy glazed enamelled	,,	48/10

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

		Flats	Gutters, flashings, etc.	Stepped flashings
Milled sheet lead and labour	per cwt.	197/6	197/6	206/6

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER—(*continued*)

		Flats	Gutters, flashings, etc.	Stepped flashings
24 S.W.G. sheet copper and labour	per foot super	5/3	5/7	5/9
23 S.W.G. sheet copper and labour	,,	5/8	6/-	6/3
14 gauge zinc and labour	,,	2/1	2/4	2/7

Rainwater Pipes and Gutters

		3″		4″	
Cast iron medium section (3/16″ metal) R.W. pipes and jointing and fixing to walls with pipe nails and distance pieces or holderbats (cutting and pinning holderbats measured separately)	per foot run	With holderbats 5/-	With nails 4/-	With holderbats 6/-	With nails 5/-
Pressed steel R.W. pipes and ditto	,,	24 G. 3/11	3/4	20 G. 5/6	4/10
Asbestos cement R.W. pipes and ditto	,,	3/-	—	3/8	—
		4″		6″	
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	,,	1/2″ 2/9	3/16″ 3/1	1/2″ 4/1	3/16″ 4/10
Ditto O.G. ditto	,,	3/1	3/11	4/7	6/-
18 Gauge pressed steel half round ditto	,,	2/8		3/8	
Ditto O.G. ditto	,,	3/2		4/4	
Asbestos cement half round ditto	,,	2/4		3/9½	

Soil and Ventilating Pipes

		3″	4″
Lead soil, waste and ventilating pipes (17 lb. per yard for 3″ and 22·8 lb. per yard for 4″ diameter) fixed to walls with lead tacks and brass screws	per foot run	11/2	15/5

		Heavy 11/16″	Medium 3/16″	Heavy 11/16″	Medium 3/16″
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	,,	5/2	4/9	6/7	6/6

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

	½″ lb.	¾″ lb.	1″ lb.	1¼″ lb.
Supply	7	11	16	21
Distributing	6	9	12·5	16
Flushing and overflow	3	5	7	9
Waste and ventilating	—	—	—	7

		½″	¾″	1″	1¼″
Supply pipe in trench (measured separately)	per foot run	3/9	5/8	8/1	10/8
Ditto fixed to walls and ceilings	,,	4/2	6/3	8/11	11/9
Distributing pipe fixed to walls and ceilings	,,	3/9	5/5	7/4	9/6
Flushing and overflow pipe ditto	,,	2/4	3/8	4/10	6/4
Waste and ventilating pipe ditto	,,	—	—	—	5/6
Joints to fittings	each	4/8	5/6	5/9	6/5
Bends	,,	—	—	—	1/11
Branch joints	,,	6/-	7/-	7/5	8/8

Steel Tubes and Fittings

		½″	¾″	1″	1¼″
Galvanized steel tubes to B.S. 1387 Class C with screwed joints in red lead as supply pipe laid in trench (measured separately)	per foot run	1/11	2/4½	2/7	3/3
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	,,	1/11	2/3	2/5½	3/-
Joints to fittings	each	3/8	4/2½	5/1	6/1½
Bends	,,	—	—	3/2	4/7
Tee, equal or reducing	,,	2/2	2/6½	3/1	4/-

Copper Tubes and Fittings

Prices are based upon the following gauges :—

		½″	¾″	1″	1¼″
Supply		18	17	16	16
Distributing, waste, etc.		19	19	18	18
Copper tubes to B.S. 1386, as supply pipe laid in trench (couplings and trench measured separately)	per foot run	1/9	2/7	3/6	4/7
Ditto to B.S. 659 as distributing, waste pipes, etc. fixed to walls and ceilings. Couplings measured separately	,,	1/9½	2/3½	3/1	3/8½

INTERNAL PLUMBER—(*continued*)

		½″	¾″	1″	1¼″
Brass compression type couplings—copper to copper	each	4/4½	5/-	6/10	8/10
Ditto bends	,,	5/8	6/7	8/4	11/10
Ditto tees	,,	7/4	8/5	12/7	18/-

Sanitary Fittings

		£ s. d
Fireclay sinks 24″ × 18″ × 10″ including cutting and pinning brackets to tiled wall. P.C. 75/-	each	4 16 0
Combined metal sink and drainer 42″ × 18″ × 8½″ to bearers (measured separately). P.C. 330/-	,,	18 11 9
Fireclay lavatory basin 25″ × 18″ with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 138/6	,,	8 5 0
Rectangular cast iron porcelain enamelled bath 5′ 6″ long, with taps, and panels to side and one end fixed to framing (measured separately) P.C. 390/6	,,	23 9 3
Fireclay w.c. pan with trap, plastic seat, high level cistern and flush pipe, including screwing pan to floor and cistern brackets to backboard. P.C. 200/-	,,	12 12 3
Ditto with low level cistern. P.C. 240/-	,,	14 17 6

GLAZIER

		To wood	To metal
18 oz. Ordinary quality sheet glass and glazing with putty in squares not exceeding 4 ft. sup.	per foot super	1/-	1/1
24 oz. Ditto and ditto	,,	1/1¾	1/3
32 oz. Ditto and ditto	,,	1/7½	1/8½
⅛″ figured, rolled, and cathedral—untinted and ditto	,,	1/4	1/5
¼″ rough cast and ditto	,,	1/8½	1/9½
¼″ wired cast and ditto	,,	1/10½	2/-
¼″ Georgian wired cast and ditto	,,	1/11	2/0½
¼″ Georgian wired polished plate and ditto	,,	6/1½	6/3
¼″ polished plate (glazing quality) and ditto	,,	6/-	6/2

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered walls and ceilings	per yard super	1/1½
Prepare and twice distemper with washable distemper on plastered walls and ceilings	,,	1/8½
Ditto on brick or concrete	,,	2/3
Prepare and paint two coats emulsion paint on plastered walls	,,	2/6
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	,,	4/7

Paint on Metal

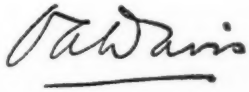
		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	per yard super	2/11	1/4
Ditto metal casements	,,	4/6	1/11½
Ditto members of roof trusses	,,	3/8½	1/8
Ditto balustrades one side	,,	4/6	1/11½
Ditto bars, etc., not exceeding 6″ girth	per yard run	-/9	-/4
Ditto small pipe	,,	-/9	-/4
Ditto large pipe	,,	1/6	-/8

Paint on Wood

		Basic price	Add for each additional coat
Knot, prime, stop and paint one coat oil colour on general surfaces of woodwork	per yard super	3/3	1/4
Ditto on skirtings, rails, frames, etc., not exceeding 3″ girth	per yard run	-/5	-/2
Ditto ditto for each additional 3″ in girth	,,	-/4½	-/2
Ditto on sash squares one side	per dozen	3/9	1/6
Ditto on large sash squares one side	,,	6/10	2/9

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	per yard super	3/8
Ditto on skirtings, rails, frames, etc. not exceeding 3″ girth	per yard run	-/6
Ditto ditto for each additional 3″ in girth	,,	-/5



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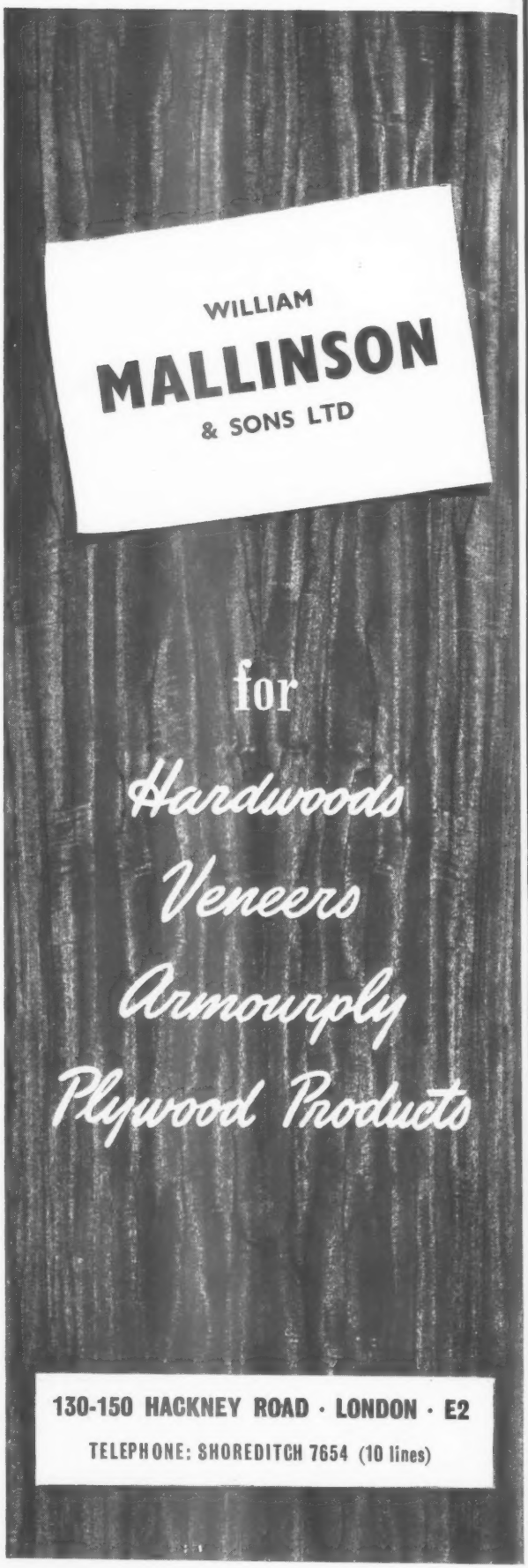


THE INDUSTRY

From the Industry this week, Brian Grant reports on the use of hardboard for floor covering, new lighting showrooms, greenhouse heaters, new switch sockets, and a handbook on light alloy stuctures.

FLOOR COVERINGS

I have recently laid sheets of hardboard (⅛ in.) in the hall of my own house. The existing timber floor was in reasonably good condition, and the "hall" is really no more than a rather dark passage, typical of the speculative building of the time. (Dr. Pevsner says about 1840.) As it is only a small fraction over 4 ft. wide I laid 8 ft. by 4 ft. sheets with a straightforward butt joint, and without any form of fixing, the sheets staying in position by their own weight. I had expected the join to be somewhat uneven but in fact it is not so, and the hardboard makes a quite adequate and economical floor—a little noisy perhaps, but not much more so than linoleum, and safe enough provided a non-slippery polish is used, certainly much safer than some of the jointless magnesite death-traps one meets all too often in office buildings. Why, I wonder, must some architects put wood block on office corridors and an ice rink on landings and staircases? I should have mentioned that the hardboard I used is Royal Board, it has been down since last Christmas and no trouble so far. A progress report will follow in six months or so, or if anything goes wrong. (*Spencer Lock & Co. Ltd., Suffolk House, Laurence Pountney Hill, London, E.C.*4.)

NEW SHOWROOMS

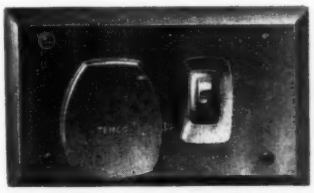
Falks have recently opened new showrooms in Manchester, Leeds, Newcastle and Cardiff, for the display of their new range of lighting fittings. During the last year or so this firm has introduced a number of new and pleasant designs, mostly the work of J. M. Barnicot. One of the new showrooms is illustrated below. (*Falk, Stadelmann & Co. Ltd.*, 91, *Farringdon Road, London, E.C.*1.)

ELECTRICITY FOR HEATING GREENHOUSES

A new range of weatherproof tubular heaters for use in horticultural glasshouses has recently been introduced by the GEC. They are available in 4, 6, 8, 10 and 12-ft. lengths, with a loading of 60 watts per foot run, and are intended for both the amateur and the commercial user. They should be used with thermostats, which are produced at £3 9s. 8d., or at £5 19s., the more expensive type being intended for use where accurate temperature control is needed and having a temperature differential of plus or minus 1° F. These heaters, because they are designed for horticultural use only, are exempt from purchase tax, and sell at prices varying from £2 3s. to £4 9s., according to length. (*The General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.*2.)

SWITCH SOCKETS

The illustration below shows one of the new flush type Temco sockets. They are of the round pin type to BS546 and are made in 5 and 15 amp sizes in brown and cream, single or double pole. These sockets are intended for a.c. only and the switch contacts are silver, with a small gap, as is quite usual nowadays: the switches have a snap action, but can be operated in complete silence. Prices vary from 9s. for the single pole 5 amp socket in brown to 18s. for the 15 amp double pole in cream, all prices including plugs. (*T.M.C.-Harwell (Sales) Ltd.*, 37 *Upper Berkeley Street, London, W.*1.)

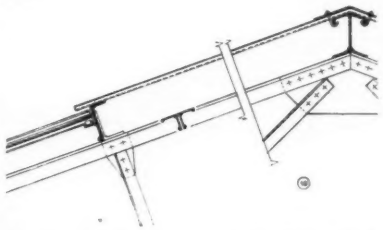


One of the new flush type Temco sockets.

Falk's new lighting showroom at Manchester.

LIGHT ALLOY STRUCTURES

In the years since the war a number of light alloy structures have been built, such as aircraft hangars, bus garages, and, of course, the Dome of Discovery. While there are several specialist firms who have built up a considerable volume of design knowledge and experience, nothing very much has been published, and one may therefore welcome a structural design handbook recently published by T.I. Aluminium Ltd., which deals with the design of struts, beams and tension members, and explains the difference between normal design in steel and in light alloys. These are quite considerable, for although aluminium alloys are of the same order of strength as mild steel, their elastic modulus is about one third. At the same time a far greater variety of section shapes is available, as the extrusion process is far more flexible than the rolling and forming applied to steel.



Typical Roof Structure details showing special headed angles and Purlin Extrusions.

In general, it may be said that far more attention has to be paid to the buckling of struts than with steel, particularly local and tensional buckling, and also to the compression buckling of beam flanges. These points are well understood, but the lengthy calculation methods so far published are more suited to aircraft designers, where weight saving is of the greatest importance. It is perhaps worth mentioning that a saving of only 1 lb. in structural weight in an air liner is worth between £45 and £50 a year in extra revenue. Compared with figures of this order building structure weights may not matter much, but aluminium alloys are expensive, and the cost saved by careful design can be very considerable. The formulæ in this book are relatively simple and the whole publication should be of considerable value to structural engineers. Section properties of the new headed flange channels and angles are also given. (*T.I. Aluminium Ltd., Redfern Road, Tyseley, Birmingham.*)

THE LIBRARY OF INFORMATION SHEETS

CANCELLATION

Sheet 27.B11 *has been cancelled and should be withdrawn from the library. It is re-published in this issue.*

15.T9. *REFERENCE BACK*

*Readers are asked to note the following correction and amend their copies of the Sheet: Face of Sheet—Under "Edge finishes for veneered tabletops and shelves," third row, subtitle; "hard-*wood *edges tongued and grooved to core."*

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

ENQUIRY FORM

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

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Please ask manufacturers to send further particulars to :—

NAME .....

PROFESSION or TRADE

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ADDRESS .....

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4.3.54

Buildings Illustrated

Out-Patients' Department, St. James' Hospital, St. James' Drive, Balham, S.W.17, for the S.W. Regional Metropolitan Hospital Board. (Pages 279-286.) Architects: Devereux & Davies, F/F.R.I.B.A. Chief Architectural assistant: L. E. Martin, A.R.I.B.A.; Consultants: Clarke, Nicholls and Marcel (structural); H. A. Sandford, M.I.MECH.E. (mechanical and electrical); Quantity Surveyor: J. K. Carless, F.R.I.C.S.; specially woven curtains in ground floor waiting space, Michael O'Connell; special mosaic wall in children's room, Mrs. Vera Davies; carved wood panel at end of lounge, and bronze statue, Mr. Wain-Hobson; General contractors: Marshall Andrew & Co. Ltd. Clerk of works: F. H. Duckett. General foreman, J. Bexley; Sub-contractors: asphalt, Lawford Asphalte Co. Ltd.; reinforced concrete, Costain Concrete Co. Ltd. (pre-stressed concrete floors); bricks, Hall & Co. Ltd.; stone (floor of lounge), Wandsworth Stonemasonry Works; artificial stone, Coulson & West (copings and sills), Noelite Ltd. (external paving); structural steel, Square Grip Reinforcement Co. Ltd (reinforcement), Fairfield Ship Building Co. Ltd. (bridge); special roofings, Alphamin Ltd. (laminated roofs over lounge projection and over penthouse); partitions, Holoplast Ltd. (laminated plastic); glass, Faulkner Greene & Co. Ltd.; flooring, Armstrong Cork Co. Ltd. (Accotile) and Art Pavements & Decorations Ltd. (Terrazzo); tanking to underground water storage, Lawford Asphalte Co. Ltd.; central heating, Barrett & Wright Ltd., Fred. A. Pullen & Co. Ltd. (pumps), Hartley & Sugden (calorifiers); sterilizers, James Slater & Co. (Engineers) Ltd.; gasfitting, Barrett & Wright Ltd.; boilers, Rother Boiler Co. Ltd; electric wiring, Johnson Pearce & Co. Ltd., Wallsall Conduit Co. Ltd (conduits), British Insulated Callender Cables Ltd. (electric cables); electric light fittings, The Merchant Adventurers of London Ltd.; electric switchgear, William White Switch Gear Ltd.; ventilation, Barrett & Wright Ltd. (mechanical ventilation), Westwell Works Ltd. (hoods and sterilizers, aluminium trunking); plumbing, Barrett & Wright Ltd.; sanitary fittings, John Bolding & Sons Ltd.; door furniture, Yannedis & Co. Ltd. (including specially designed handles to architect's drawing and specification); metal doors, windows, bronze and aluminium window furniture, W. James & Co. Ltd.; bells, Johnson Pearce & Co. Ltd.; telephones, Ericsson Telephones Ltd., and Johnson Pearce & Co. Ltd.; steel staircases, Fredk. Braby & Co. Ltd.; sunblinds, Tidmarsh & Sons (Venetian and black-out); decorative plaster, J. Ellis & Son Ltd. (cement glaze), Horace W. Cullum & Co. Ltd. (accousti-celotex tiles to corridor ceilings); specially dyed curtains, Tidmarsh & Sons; most built-in wooden furniture, L.M. Furniture Ltd.; shrubs and trees, Southwood Bros. (gardens, including fencing and lawns); hospital fittings, Cambridge Instrument Co. Ltd. (thermometers), William Sugg & Co. Ltd. (incinerators), Vann Bros. (cautery and coldlight units); lifts, Hammond & Champness Ltd.; clocks, Synchronome Co. Ltd.; water supply system and high pressure distribution, Bruston Autopneumatic system; booster pumps, G. C. Pillinger Co. Ltd.

The tall flats in Berryknowes Road, Glasgow, illustrated on page 250 of the JOURNAL for February 25, 1954 were designed in the office of the former Director of Housing in Glasgow, Dr. Ronald Bradbury, B.A.(ARCH.), M.SC., PH.D., F.R.I.B.A., A.M.T.P.I., now City Architect and Director of Housing, Liverpool. The scheme was, however, carried out under Archibald G. Jury, City Architect and Planning Officer, Glasgow.

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CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

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

COUNTY BOROUGH OF SOUTH SHIELDS.
CHIEF ASSISTANT (QUANTITY SURVEYOR).

Applications are invited for the above appointment in the Borough Engineer's Department at a salary in accordance with Grade A.P.T., IX (£815-£935. An additional £25 per annum has been recommended by the N.J.C. as from 1st April, 1954).

Candidates should be Chartered Quantity Surveyors, possessing administrative ability and a sound knowledge of building contract procedure; be experienced in the preparation of estimates, specifications and bills of quantities, and accustomed to settling final accounts.

The appointment is subject to medical examination, the Local Government Superannuation Acts, and the N.J.C. Conditions of Service.

Housing accommodation may be made available to a successful married applicant, if required.

Applications, on forms to be obtained from the Borough Engineer, Town Hall, South Shields, should be returned to him not later than Monday, 15th March, 1954.

HAROLD AYREY,
Town Clerk.
1798

NEWCASTLE REGIONAL HOSPITAL BOARD.
REGIONAL ARCHITECT'S DEPARTMENT.
Appointment of
(*a*) ONE ASSISTANT ARCHITECT, and
(*b*) TWO ARCHITECTURAL ASSISTANTS.

Applications are invited for the following permanent (superannuable) appointments on the Headquarters Staff of the Regional Architect, Philip H. Knighton, M.B.E., A.R.I.B.A.:—

(*a*) ONE ASSISTANT ARCHITECT.

Applicants must be Associate Members of the Royal Institute of British Architects. The commencing salary, within the grade £600×£25 (7)× £30 (3)—£865, will depend upon the extent of the successful applicant's practical experience at full professional standard, but the number of additional increments given on this basis will not be more than the number of years by which the applicant's age exceeds 25.

Candidates should have had sound practical experience of the planning and construction of large public buildings and, preferably, have had some experience also of hospital and health-service buildings. They should be capable of carrying projects through all stages and of taking charge of a small sub-section of the staff of a drawing office if required to do so.

(*b*) TWO ARCHITECTURAL ASSISTANTS.

Applicants must have passed the Intermediate Examination of the Royal Institute of British Architects. The commencing salary, within the grade £440×£25 (1)×£20 (8) to £625 per annum, will depend upon the applicants' age and amount of practical experience since passing the Intermediate Examination, but will not exceed £525.

Applicants must have had a sound architectural training, and some practical experience in a practising architect's office is essential.

Evening study facilities for the R.I.B.A. Final Examination are available at King's College of the University of Durham in Newcastle.

To Assistants who wish to gain experience of hospital planning and construction the posts offer an excellent opportunity for doing good-class work of an interesting and widely varied nature in an architectural department which is being expanded to deal with a considerable work-programme.

The terms of appointment and conditions of service will be as set out in the Whitley Council Circulars P.T.B.19 and 20, relating to professional and technical staffs of Regional Hospital Boards. The successful candidates will be required to pass a medical examination.

Applications, giving all relevant particulars, including training and experience, whether married, present appointment and salary, war service if any, date available, and the names of three referees, are to be received by the undersigned not later than 15th March, 1954.

R. DOBBIN,
Secretary.
"Dunira," Osborne Road,
Newcastle-upon-Tyne, 2.
18th February, 1954. 1807

BUCKS. COUNTY COUNCIL.

Applications are invited from R.I.B.A. Probationers for appointment of JUNIOR ARCHITECTURAL ASSISTANT in General Division. Scale of salary (£295 p.a. for males aged 21, rising to £470 p.a.).

Application forms giving details obtainable from County Architect, County Offices, Aylesbury, and returnable by 12th March, 1954. 1767

ISLE OF ELY COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the undermentioned appointments on the Staff of the County Architect:—

(*a*) ASSISTANT ARCHITECT. Grade A.P.T., V (£620-£670).

(*b*) ASSISTANT QUANTITY SURVEYOR. Grade A.P.T., III (£550-£595).

(*c*) QUANTITY SURVEYOR'S CLERK. Grade Misc., III (£395-£460).

(*d*) JUNIOR ARCHITECTURAL ASSISTANT (Temp.). Grade Misc., I/II/III (£320-£460).

All posts with the exception of (*d*) are permanent, and all are subject to the National Scheme of Conditions of Service, the Local Government Act, and to the passing of a medical examination.

Intending applicants should apply for forms, stating for which post they wish to apply, to the County Architect, County Hall, March, to whom they must be returned not later than Tuesday, 16th March, 1954.

R. F. G. THURLOW,
Clerk of the County Council.
1801

CITY OF PLYMOUTH.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the established staff. The appointments are subject to the Conditions of Service of the National Joint Council for Local Authorities Administrative, Professional, Technical and Clerical Services; the Local Government Superannuation Act 1937; a satisfactory medical examination and one month's notice on either side for termination.

(*a*) 1 ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. V (£595 to £645).

(*b*) 1 ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. III (£525 to £570).

(*c*) 1 ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. 1 (£465 to £510).

Candidates for appointment (*a*) should be members of the Royal Institution of Chartered Surveyors (Sub-Division III Quantities).

Candidates for appointment (*b*) should have had experience in the measurement of works on site and (*c*) must be capable of squaring and abstracting dimensions and will be expected to give general assistance in the preparation of Bills of Quantities and the settlement of accounts. Preference will be given to those who have passed the Intermediate Examination (Quantities Sub-Division) of the Royal Institution of Chartered Surveyors.

Applications on forms obtainable from the undersigned, accompanied by copies of not more than three recent testimonials and/or names of persons to whom reference may be made, should be received at my office not later than the 13th March, 1954.

The Corporation may make housing accommodation available to the successful married candidate for (*a*) if required.

H. J. W. STIRLING, A.R.I.B.A.,
City Architect.
Seymour Road, Plymouth. 1776

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

Vacancies for TECHNICAL ASSISTANTS (up to £721) in Structural Engineering Division. Work includes steelwork and reinforced concrete design and detailing for Council's building, and checking structural designs and calculations under London Building Acts.

Application forms from Architect (AR/EK/SE/5), County Hall, S.E.1. (1270) 1057

LONDON COUNTY COUNCIL.
ARCHITECT'S DEPARTMENT.

(*a*) PLANNING OFFICERS, Grade III (up to £862 10s.).

(*b*) PLANNING ASSISTANTS (up to £721).

Professional qualifications: A.R.I.B.A., A.R.I.C.S. and/or A.M.T.P.I. required. Application forms and particulars from Architect (AR/EK/P/4), County Hall, S.E.1. (1322) 1330

AIR MINISTRY WORKS DEPARTMENT requires ARCHITECTURAL ASSISTANTS in Design Branch. Applicants should be experienced in planning and preparation of working drawings and details for permanent and semi-permanent buildings. Professional quals. an advantage. Vacancies mainly London, few Provinces. Appointments carry liability for overseas service, for which allowances payable. Salaries up to £733 p.a., starting pay dependent upon age, quals. and experience. Extra duty allowance or overtime payable. Reasonable prospects of promotion. Posts temporary and non-pensionable, but have long-term possibilities. Competitions held periodically to fill established vacancies. Applications from natural born British subjects only, quoting BH, and stating age, quals., and previous appointments, giving dates and stating type of work done, to Air Ministry, S.2(h)/NA, Cornwall House, Stamford Street, London, S.E.1. 1596

BASILDON NEW TOWN.

Applications are invited for the post of DEPUTY CHIEF ARCHITECT/PLANNER (£1,350-£1,600 p.a.). The appointment is superannuable and will be made within the range given, according to experience and ability. Wide experience of architecture and planning is required in order to co-ordinate the main facets of a building programme of £3 million per annum and to represent the Chief Architect/Planner as necessary.

Applications should be made on the special form (obtainable from the Chief Architect) to the General Manager, Basildon Development Corporation, Basildon, Essex, by 17th March, 1954. 1844

BRITISH ELECTRICITY AUTHORITY.
EAST MIDLANDS DIVISION.

Applications are invited for the following positions within the Division:—

ENGINEERING DRAUGHTSMAN (CIVIL), CONSTRUCTION DEPARTMENT. (Vacancy No. 1/54.)

Candidates should have experience in design and detail of reinforced concrete structures, piled and slab foundations for heavy plant, culverts, cable subways, etc, for general building construction drainage and sanitation schemes, associated with official and administrative buildings.

The salary will be in accordance with Grade V (£567-£671 per annum) or Grade VI (£433-£567 per annum) of Schedule D of the National Joint Board Agreement.

ENGINEERING DRAUGHTSMAN (MECHANICAL). CONSTRUCTION DEPARTMENT. (Vacancy No. 2/54.)

Senior Draughtsmen are required in the Mechanical Section of the Construction Department at North Wilford Power Station. Candidates should have experience in one or more of the following:—

(*i*) Design and layout of Power Station equipment, including turbo-alternators, boiler plant, coal and ash plant, and general station auxiliaries.

(*ii*) H.P and L.P. steam and feed pipework. Condensing plant and feed heating systems.

(*iii*) Conveyor plant, coal handling systems and material handling of station auxiliary equipment.

The salary will be in accordance with the National Joint Board Agreement Grade V (£567-£671 per annum) and Grade VI (£433-£567 per annum) of Schedule D according to experience.

ENGINEERING DRAUGHTSMEN (ELECTRICAL). CONSTRUCTION DEPARTMENT. (Vacancy No. 3/54.)

Candidates should have experience in the preparation of layouts and diagrams for the installation of E.H.T. and L.T. Switchgear, transformers, E.H.T., and L.T., cables; knowledge of protective gear systems would be an advantage.

The salary will be in accordance with the National Joint Board Agreement Grade V (£567-£671 per annum) and Grade VI (£433-£567 per annum) of Schedule D according to experience.

The above positions will be pensionable within the provisions of the British Electricity Authority and Area Boards Superannuation Scheme.

Applications should be submitted on the official form which may be obtained from the Divisional Establishments Officer, British Electricity Authority, Barker Gate, Nottingham, and should be returned to the undersigned. Please quote Vacancy Number

L. F. JEFFREY,
Divisional Controller.
1813

Amended Advertisement
THE URBAN DISTRICT COUNCIL OF FELLING.
CHIEF HOUSING OFFICER'S DEPARTMENT.

Applications are invited for the following appointments:—

(*a*) QUANTITY SURVEYOR. Salary: Grade A.P.T. Va to A.P.T. VI. Applicants should have passed the Final Examination of the Royal Institution of Chartered Surveyors (Quantities).

(*b*) JUNIOR QUANTITY SURVEYOR. Salary: Grade A.P.T., III. Applicants should have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors (Quantities).

The appointments are to be made in connection with the development of a Neighbourhood Unit to accommodate approximately 12,000 persons, and although the same are temporary it is anticipated that they will extend over a minimum period of six years.

The Neighbourhood Unit will comprise some 3,500 houses, with shops, cinema, churches, swimming baths, licensed premises, and schools and a community centre

Forms of application, together with particulars and conditions of employment, can be obtained from the undersigned, to whom they should be returned not later than Saturday, 13th March, 1954.

Housing accommodation will be provided if required.

JOHN DONKIN,
Clerk of the Council.
Council Buildings, Felling, Gateshead, 10. 1856

WEST SUSSEX COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the appointment of an ASSISTANT COUNTY ARCHITECT at a salary in accordance with Grade X A.P.T. Division (£920-£1,050) of the National Scales of Salaries.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom detailed applications must be submitted not later than 19th March, 1954.

T. C. HAYWARD,
Clerk of the County Council.
County Hall, Chichester.
19th February, 1954. 1827

DERBYSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from ARCHITECTS for appointments in the Department on A.P.T. Grades VI, V, IV and III. N.J.C. conditions.

Details of the various appointments will be sent with application forms to be obtained from: F. Hamer, Crossley, St. Mary's Gate, Derby. 1826

COUNTY BOROUGH OF BURNLEY.

Applications are invited for the appointment of a QUANTITY SURVEYING ASSISTANT in the Borough Engineer's Department. The salary will be within the A.P.T. Grades I, II or III (£465-£570 per annum) of the National Scales, according to the experience and qualifications of the successful applicant.

Applicants should have a sound knowledge of Building Construction and experience in the preparation of Bills of Quantities, and Measurement of Works is essential.

Preference will be given to candidates holding appropriate qualifications

Forms of application and conditions of appointment may be obtained from the Borough Engineer, 22/24, Nicholas Street, Burnley, to whom applications should be returned not later than 9.0 a.m. Monday, 15th March, 1954.

C. V. THORNLEY,
Town Clerk.

1825

CITY OF PETERBOROUGH.
CITY ENGINEER'S DEPARTMENT.
APPOINTMENT OF ASSISTANT CLERK OF WORKS (HOUSING).

Applications are invited for the above appointment at a salary in accordance with Miscellaneous Grade III (rising from £395 to £460).

Applicants must have a thorough knowledge of all branches of the building trades, be competent in the reading of plans, bills of quantities and specifications, setting out of works and site measurements, supervision of work in progress and submission of progress reports.

Applications, stating age, experience and qualifications and giving the names and addresses of two referees, must be received by the City Engineer & Surveyor, Mr. F. J. Smith, M.B.E., A.M.I.C.E., Town Hall, Peterborough, not later than 19th March, 1954.

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

C. PETER CLARKE.
Town Clerk.

Town Hall, Peterborough.
February, 1954. 1828

COUNTY OF ESSEX.
ILFORD COMMITTEE FOR EDUCATION.

The Essex County Council invite applications for the post of ARCHITECTURAL ASSISTANT in the Offices of the Borough Engineer of Ilford. Candidates should have passed the R.I.B.A. Intermediate Examination, or its equivalent, at one of the recognised Schools of Architecture and have worked in an architectural office for a period of not less than two years

The scale of salary will be in accordance with the National Joint Council A.P.T. Division, Grade IV, £580 × £15—£625, plus the appropriate London Area Allowance.

Application should be made on a form to be obtained from, and returned to, the Borough Education Officer, Education Offices, Town Hall, Ilford, together with copies of not more than three recent testimonials, within 14 days of the appearance of this advertisement. 1812

CITY OF ROCHESTER.
ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment in the City Surveyor's Department, at a salary in accordance with Grade IV (Administrative, Professional and Technical Division) of the National Scale of Salaries, viz. £580-£625 per annum.

Preference will be given to candidates who have passed the Intermediate Examination of the Royal Institute of British Architects.

A good general experience is desirable, particularly in the preparation of drawings and specifications for Municipal Housing Schemes. A knowledge of quantities would be an advantage.

In an appropriate case the City Council will provide the successful applicant with suitable housing accommodation.

The appointment will be subject to :—

(1) The Scheme of Conditions of Service of the National Joint Council for Local Authorities' Administrative, Professional, Technical and Clerical Services.

(2) The Local Government Superannuation Acts, and the successful candidate will be required to pass a medical examination.

(3) One month's notice on either side

Applications, stating age, qualifications and experience, together with names and addresses of three persons to whom reference may be made should be delivered to the City Surveyor, 66, Maidstone Road, Rochester, not later than 17th March, 1954.

Canvassing, directly or indirectly, will be deemed a disqualification, and applicants must state whether to their knowledge they are related to any member or senior officer of the Council.

JOHN H. A. CRUNDELL,
Town Clerk.

Guildhall, Rochester.
22nd February, 1954. 1843

SURREY COUNTY COUNCIL.

Applications are invited for the appointment of a TEMPORARY ARCHITECTURAL ASSISTANT GRADE III, commencing salary £525 × £15 to £570 p.a. plus London Allowance.

Applicants must be of good general training and give full details in their applications. Preference will be given to those who have passed the Inter. R.I.B.A.

Applications stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, County Hall, Kingston-on-Thames, not later than the 13th March, 1954. 1842

NORTHWICH URBAN DISTRICT COUNCIL.
TEMPORARY ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of TEMPORARY ARCHITECTURAL ASSISTANT at a salary in accordance with Grade III of the A.P.T. Division of the National Scales (£525 to £570 per annum).

The appointment will be subject to the Scheme of Conditions of Service, the Local Government Superannuation Acts, to a month's notice on either side and to the successful applicant passing satisfactorily a medical examination.

Applications, giving details of age, qualifications and experience, together with the names and addresses of two referees, should be received by the undersigned by 9 a.m on Monday, 15th March, 1954.

Canvassing will disqualify and applicants must disclose in writing whether they are related to any member or senior officer of the Northwich Urban District Council.

HAROLD GRANTHAM,
Clerk of the Council.

The Council House, Northwich, Cheshire.
24th February, 1954. 1845

BOROUGH OF ILFORD.
APPOINTMENT OF TEMPORARY CLERK OF WORKS (HOUSING).

Applications are invited for the position of TEMPORARY CLERK OF WORKS on the staff of the Borough Engineer.

Salary will be in accordance with Grade A.P.T II commencing at £520 per annum and rising, subject to satisfactory service, to £565 per annum, plus London Weighting of £30 per annum at age 26 or over.

Applicants must have had considerable experience in a similar capacity, have a sound knowledge of building construction and be capable of supervising housing contracts including 3-storey flats.

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

Application forms obtainable from the Town Clerk, Town Hall, Ilford, should be returned by the 13th March, 1954. 1846

TUTBURY RURAL DISTRICT COUNCIL.
APPOINTMENT OF CLERK OF WORKS.

Applications are invited for the Appointment of CLERK OF WORKS in connection with the Council's housing schemes for permanent traditional and non-traditional houses including the construction of estate streets and sewers, in various parishes in the rural district.

The salary will be according to A.P.T Grade III at present £525 per annum rising to £570 per annum, by annual increments of £15.

Applicants should possess a car and the Council will pay the appropriate travelling allowance on the national scale up to the figure for an 8-h.p. car. A house will be available on completion if required.

The Appointment will be subject to the Local Government Superannuation Acts, and will be terminable by one month's notice on either side.

Applications, stating age and full details of experience and qualifications together with copies of two recent testimonials, should be sent to the undersigned as soon as possible and in any case not later than first post on 9th March.

R. E. FURNER,
Clerk of the Council.

"Kingsley," 44, Rolleston Road,
Burton-on-Trent.
22nd February, 1954. 1811

BRACKNELL NEW TOWN.

Applications are invited for the following appointment :—

ARCHITECT. £1,010 × £40 × £50—£1,100. To take charge of a small section engaged on projects within the proposed Town Centre. Applicants should be corporate members of the R.I.B.A. with considerable experience in the design and construction of shops, offices and public buildings.

Superannuation schemes. Medical examination. Housing available in due course. Apply by 19th March, 1954, giving age, education, qualifications, experience and appointments held (with dates and salaries) and two referees, to General Manager, Bracknell Development Corporation, Farley Hall, Bracknell, Berkshire. 1883

COUNTY COUNCIL OF ESSEX.

Applications are invited for:—

(*a*) SENIOR ASSISTANT ARCHITECTS. Grade IX, A.P.T.D., salary not exceeding £935.

(*b*) SENIOR ASSISTANT ARCHITECTS. Grade VIII, A.P.T.D., salary not exceeding £835.

(*c*) ASSISTANT ARCHITECTS. Grade VI, A.P.T.D., salary not exceeding £735.

(*d*) ARCHITECTURAL ASSISTANTS. Grade IV, A.P.T.D., salary not exceeding £600.

Candidates for appointments (*a*), (*b*), and (*c*) must be Associates of the R.I.B.A. The work includes technical colleges, schools, health centres, police buildings and hostels.

The commencing salary for each appointment will be fixed according to experience and qualifications. Application forms from H. CONOLLY, F.R.I.B.A., County Architect, County Hall, Chelmsford, Essex (state post for which form is required), to be returned with copies of testimonials as soon as possible.

Canvassing disqualifies. 1885

BATTERSEA BOROUGH COUNCIL require ARCHITECTURAL DRAUGHTSMAN. Salary : £465-£540 plus London weighting (A.P.T. I-II). Local Government Superannuation Act. Application forms from Borough Engineer, Town Hall, Battersea, S.W.11. Closing date 15th March. 1814

NATIONAL COAL BOARD—
NORTH EASTERN DIVISION.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT, Grade II, on the staff of the Divisional Chief Architect at Denaby Main, near Doncaster. Salary, within the range of £440 × £20 to £540, will depend on qualifications and experience. The above appointment is for the established staff and is subject to the Board's Principal Superannuation Scheme.

Applicants should have passed the intermediate examination of the Royal Institute of British Architects, have had not less than 3 years subsequent practical experience, should be able to prepare sketch plans and working drawings under supervision, and have a sound knowledge of building construction.

The work for this post will consist chiefly of pithead baths, canteens, medical centres, offices and laboratories, etc.

Application forms may be obtained from Mr. J. A. Dempster, F.R.I.B.A., Divisional Chief Architect, National Coal Board, The Mining Offices, Denaby Main, Nr. Doncaster. 1866

BOROUGH OF BEXLEY.
ASSISTANT ARCHITECTS.

Applications are invited for the following posts in the Borough Engineer & Surveyor's department :—

Two ASSISTANT ARCHITECTS (General)—one at a salary within Grade A.P.T. V (£620 × £15 (2) × £20—£670 per annum) and the other at a salary within Grade A.P.T. Va (£650 × £20—£710 per annum) plus London Weighting allowance in each case.

Forms of application with Conditions of Appointment may be obtained from Borough Engineer & Surveyor, West Lodge, Broadway, Bexleyheath, Kent, to whom completed applications must be returned by Friday, 19th March, 1954.

Canvassing directly or indirectly will disqualify.

W. WOODWARD,
Town Clerk

Council Offices, Bexleyheath, Kent. 1865

MONMOUTHSHIRE COUNTY COUNCIL.
APPOINTMENT OF ARCHITECTURAL STAFF.

Applications are invited for the following posts in the County Architect's Department, under the N.J.C. Conditions :—

One SENIOR ARCHITECTURAL ASSISTANT, salary £760-£835 per annum, Grade A.P.T. VIII.

One ARCHITECTURAL ASSISTANT, salary £710-£785 per annum, Grade A.P.T. VII.

Two ARCHITECTURAL ASSISTANTS, salary £595-£645 per annum, Grade A.P.T. V.

One ARCHITECTURAL ASSISTANT, salary £555-£600 per annum, Grade A.P.T. IV.

One ASSISTANT LAND SURVEYOR, salary £525-£570 per annum, Grade A.P.T. III.

Forms of applications, particulars of posts and conditions of service can be obtained from the undersigned.

Applications, together with copies of three testimonials, must be forwarded to the County Architect, Queen's Hill, Newport, Mon., not later than 20th March, 1954.

VERNON LAWRENCE,
Clerk of the Council.

County Hall, Newport, Mon. 1858

SURREY COUNTY COUNCIL.

Applications are invited for the following appointments :—

(*a*) ASSISTANT ARCHITECT, Grade VIII, commencing salary £760 × £25 to £835 p.a. plus London Weighting. Applicants must be Members of the R.I.B.A., have had good training and adequate experience in design and construction of modern buildings, and should give full details of present and previous appointments and salary attaching thereto.

(*b*) ASSISTANT QUANTITY SURVEYOR, Grade VI, commencing salary £670×£20/25 to £735 p.a. plus London Weighting.

(*c*) ASSISTANT QUANTITY SURVEYOR, Grade V, commencing salary £595 × £15/20 to £645 p.a. plus London Weighting.

Applicants should have experience of taking off, site measuring and preparation of interim valuations and final accounts; and for Grade VI must have passed the final examination of the R.I.C.S.

Applications stating age, qualifications and experience and accompanied by copies of three recent testimonials, should be sent to the County Architect, County Hall, Kingston-on-Thames, not later than the 13th March, 1954. 1859

Architectural Appointments Vacant

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

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

ARCHITECTURAL ASSISTANTS required for busy practice engaged upon schools, industrial buildings, offices, etc. Write, giving full particulars of qualifications, experience and salary required, to Johns & Slater, F./A.R.I.B.A., 32, Foundation Street, Ipswich. 1536

JUNIOR ARCHITECTURAL ASSISTANT urgently required (Intermediate standard or just qualified), for small town practice, with considerable and varied types of work. Apply in writing and include references to R. A. Riseley, A.I.A.A., F.R.S.A., Registered Architect, 24a, Mill Street, Macclesfield. 1874

SENIOR ASSISTANT required by old established firm of architects in South Wales (Nr. Cardiff); applicants must be A.R.I.B.A. at least 32 years of age and have had a minimum of five years post graduate experience, including Local Government Housing Schemes, and be able to drive a car; A.M.T.P.I. would also be an advantage. The appointment would be as Senior Assistant Architect with a view to partnership at a later date. Applications should give fullest possible personal details, qualifications, experience and starting salary required. Box 1697.

ARCHITECTURAL ASSISTANT required for Architect's Department of large Maidstone Brewery. Applicants, who should be aged 30-40 must be good draughtsmen with a sound knowledge of construction. Previous experience in the Licensed Trade not essential. The appointment is pensionable and salary will be according to qualifications and experience. Reply with full details to Box 1698.

THE CO-OPERATIVE WHOLESALE SOCIETY LTD., invite applications for the appointment of ASSISTANT ARCHITECTS on the staff of the Manchester Architects Department.

Candidates must have had several years experience, preferably of commercial or industrial projects, possess a sound knowledge of construction and be able to prepare working drawings and details from preliminary sketches.

The appointments are permanent with prospects of promotion. Successful applicants will be required to undergo a medical examination for entry into a compulsory Superannuation Scheme.

Applications stating age, experience, qualifications and salary required, to be addressed to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester. 1689

A SENIOR ARCHITECTURAL ASSISTANT required, full experience in preparation of Working Drawings, Details, and supervision of office and Industrial Buildings in the London Area. Good knowledge of construction and design essential. Apply in writing giving full particulars of qualifications, age, experience and salary required to Box 9829.

CLIFFORD TEE & GALE, F/F.R.I.B.A., require one Senior and one Junior Architectural Assistant for industrial work in their office at 43, Frederick Road, Birmingham, 15. Five-day week. 1729

SENIOR and JUNIOR ARCHITECTURAL ASSISTANTS required. Varied country practice. Reply, stating age, experience, and salary required. Box 1804.

CECIL HOWITT & PARTNERS, Architects, St. Andrew's House, Mansfield Road, Nottingham, require qualified and experienced ARCHITECTURAL ASSISTANTS. Please apply in writing, giving full details and stating salary required. 1821

MR. A. B. GRAYSON, F.R.I.B.A., requires a competent ASSISTANT, single man. Full qualifications not essential, but a capacity for hard work appreciated. Please write, stating age, salary required, and experience, to Hill House, Wincanton, Somerset. 1822

ARCHITECTURAL ASSISTANTS, Inter. standard, male, single (aged 21-30), required by Crocker & Hunt, Chartered Architects, Northern Rhodesia. Salary: £660 to £960, plus bonus. Write, stating age, experience, etc., to Martin Sheffield & Bristow, 29, Sackville Street, London, W.1, who will interview and give further information. 1823

ARCHITECT is offered opportunity for starting own practice in South London with backing of an Estate Agent engaged in building development. Person with some years' experience preferred. 'Phone M. Phillips, POLlards 4455. 1829

DOLCIS SHOE CO. have vacancy for ARCHITECTURAL ASSISTANT in Staff Architect's Department. Genuine interest in contemporary shop design and enthusiasm are essential requirements. Apply in writing, giving full particulars of experience and qualifications, to Dolcis Shoe Co., 7-13, Gt. Dover Street, London, S.E.1. 1831

ARCHITECTURAL JUNIOR ASSISTANT required immediately. Must be good draughtsman and have sound knowledge of construction. Salary according to experience. Jackson & Jackson, Chartered Architects, 13, North Street, Ashford, Kent. 1833

ARCHITECTURAL ASSISTANT, Inter. standard, for country practice with varied range of work; domestic, farming, industrial, estate layout, surveys, etc. State age, experience, salary required. Lambert & Oliver, Chartered Architects, Bridport, Dorset. 1835

IMPERIAL CHEMICAL INDUSTRIES, LTD., Plastics Division, requires an ARCHITECTURAL ASSISTANT in the Engineering Department at Welwyn Garden City. Applicants should have passed the Intermediate Examination of the Royal Institute of British Architects, and it would be to advantage if they had spent a few years in an Architect's office. 5-day—39-hour week. Write for application form to Staff Manager, I.C.I., Ltd., Plastics Division, Black Fan Road, Welwyn Garden City, Herts. 1834

JUNIOR ARCHITECTURAL ASSISTANT required; some experience essential. Salary: £250-£300 p.a., according to experience. Apply H. Davie, A.R.I.B.A., A.M.T.P.I., Staff Architect, Hillier, Parker, May & Rowden, 77, Grosvenor Street, W.1 (MAY. 7666). 1871

MESSRS. EASTON & ROBERTSON have vacancies for ARCHITECTURAL ASSISTANTS in junior and intermediate grades. Applications to 55, Bedford Square, W.C.1. 1851

THE CO-OPERATIVE WHOLESALE SOCIETY, LTD., Architect's Department, Newcastle upon Tyne.—ARCHITECTURAL ASSISTANTS required (aged 25-30). Interested in the design of commercial and industrial buildings. Apply in writing to R. C. Steel, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 90, Westmorland Road, Newcastle upon Tyne. 1847

WANTED.—Keen ASSISTANT, with several years' office experience. Commencing salary: £450-£500, according to experience. Please write to Clifford Culpin & Partner, 3, Southampton Place, W.C.1. 1846

REQUIRED immediately, in West End office, ARCHITECTURAL ASSISTANT, Intermediate standard. Some experience in professional office essential. Work of interesting and varied nature. Salary by arrangement. Box 1852.

ASSISTANT required in London Architect's office. Salary: £500-£600 p.a. 5-day week. Write, stating age, experience, etc., to Box 1853.

ASSISTANT, Inter. to Final standard, required for general practice in South-West. Knowledge of Church work an advantage. State experience, salary, etc. Box 1854.

ARCHITECTURAL ASSISTANT, up to or Inter. R.I.B.A. standard, required for Architects with general country practice. Write, stating age, training, experience, and salary required, to Forsyth Lawson, Cunningham & Partners, 30, Horse Fair, Banbury, Oxon. 1855

EXPERIENCED SENIOR ASSISTANT required, capable of carrying out work from sketch plans to completion, in a private practice dealing with commercial work, offices, shops, factories, etc. Please write, stating experience, salary, etc.

INTELLIGENT LAD required, wishing to embark on an Architectural career; must have drawing ability and have reached matriculation standard. Please write to Lewis Solomon, Son & Joseph, 21, Bloomsbury Way, W.C.1. 1740

ASSISTANT required immediately, with experience in Flats, Business Premises, etc. Prospects for suitable applicant of Intermediate to Final R.I.B.A. standard; busy office. South London area. Box 1815.

ARCHITECTURAL ASSISTANT required immediately for busy practice on South Coast. Apply in writing, with full details of experience, age, etc., to Box 1816.

ARCHITECTURAL ASSISTANT (age 24 to 30 years) (A.R.I.B.A.), wanted for busy Inverness office. Apply, giving details, to Box 1817.

ARCHITECTURAL DRAUGHTSMAN required for Inverness office. Applicants should have served at least 4 years in an Architect's office. Salary to be based on experience and age, both of which should be detailed by applicants applying. Box 1818.

SENIOR ARCHITECTURAL ASSISTANT required immediately for busy practice in W.C. London area. Write, stating age, experience, and salary required, to Box 1820.

CHIEF ASSISTANT required in medium size office in Birmingham. Good salary for a suitable man, with all round design experience. A.R.I.B.A. preferred. Box 1873.

ARCHITECTURAL ASSISTANT, of R.I.B.A. Intermediate standard, required for Architects Dept. of Contractors and Estate Developers in the outer London South-Eastern area, engaged on private estate development, shops, and light industrial premises. Car driver an advantage, but not essential. Reply, stating age, experience, and salary required, to Box 1872.

ARCHITECTURAL ASSISTANT or DRAUGHTSMAN, male or female, urgently required for busy Architects' office in country town near Worcester (Gloucestershire border). Reply, giving particulars of age, experience and salary required. Box 1867.

SAMUEL MORRISON & PARTNERS, 39, Full Street, Derby, require ASSISTANTS for contemporary work: housing, schools, factories and industrial design. Applicants should be of Intermediate standard or Final standard, with minimum of 1 year's experience. 1880

ARCHITECTURAL ASSISTANT required by Talbot Brown, Panter & Partners, F./A.R.I.B.A., "Burysteed," Wellingborough. Sound knowledge of construction and accurate draughtsmanship essential. Apply, stating experience and salary required. 1879

ARCHITECTURAL ASSISTANT required. Applications are invited for the temporary appointment (to last not less than two years) of Architectural Assistant in the Architectural Department of a large industrial concern near Nottingham. Applicants should be of at least Intermediate R.I.B.A. standard or equivalent, and have some knowledge of contemporary reinforced concrete structures. Write, stating age and giving full details, to Box 1832.

YOUNG office-trained ASSISTANT required for Norfolk office. Car driver; competent surveyor; draughtsman and detailer. Knowledge of final accounts a distinct advantage. Apply, with details of experience and salary required, to Box 1786.

LEICESTER Architects require ASSISTANTS, approx. Intermediate to Final standard. Full particulars and salary required to Albert Herbert & Son, 18, Friar Lane, Leicester. 1882

A NEAT and accurate ARCHITECTURAL ASSISTANT required for general practice in London office. Sound knowledge of construction and design essential. Write, giving details of experience and salary required, to Box 1875.

SENIOR ARCHITECTURAL ASSISTANTS urgently required at Head Office. Duties will include preparation of all working drawings and details for contracts involving Multi-Storey Flats and Maisonnettes. Salary range: £650 to £800 per annum, according to qualifications and experience. Permanent appointments, with good prospects. Written applications, giving brief particulars of qualifications and experience, to Staff Architect, George Wimpey & Co., Ltd., 27, Hammersmith Grove, W.6. 1868

ASSISTANT required, with some office experience, preferably domestic. Please write Eric Lyons, Mill House, Bridge Road, East Molesey. 1869

ARCHITECTURAL ASSISTANT required. General practice. Quick and accurate draughtsman. Age, experience, and salary required, to A. W. J. Mullins, L.R.I.B.A., 78, Thoro'fare, Woodbridge, Suffolk. 1881

ASSISTANT for West End office required. Experience essential, good draughtsman, 5-day week. Apply to Box 1876.

ARCHITECT'S SENIOR ASSISTANT required urgently with small busy private practice in Romford or Chelmsford. Engaged on licensed premises, factories, housing, etc. Previous office experience and good draughtsmanship essential. Reply stating salary and details of previous appointments and when available, to J. W. Hammond, Architects, 20, North Street, Romford, Essex. 1884

JUNIOR ASSISTANT required about intermediate standard for provincial practice at Romford, Essex. Must be quick accurate draughtsman. State salary required Box 1860.

ARCHITECTURAL ASSISTANT (preferably qualified) required in West Riding area. Some office experience preferred. Full particulars and salary required to Box 1861.

SENIOR AND JUNIOR ASSISTANTS required for interesting new projects. Senior Assistant also required for London Office. Salary in accordance with qualifications. Reply giving details to J. Brian Cooper, F.R.I.B.A., 177, Corporation Street, Birmingham, 4. 1862

SEATON & CULL, A/A.R.I.B.A., Central House, Lansdowne, Bournemouth, require ASSISTANT. Applicants should be approaching Intermediate standard with sound knowledge of building construction, capable of preparing Working Drawings, Details, etc. Salary according to capability. Apply stating age, experience, etc. 1863

LONDON ARCHITECT (West End) requires efficient SECRETARY with previous experience of Architect's office; able to act on own initiative and with good knowledge of all branches. 5-day week. Salary: £400 p.a. or according to ability. Write with full particulars of experience, age, etc. to Box 1864.

WANTED, for London, competent ASSISTANT. Good draughtsman. Box 1837.

Architectural Appointments Wanted

ARCHITECT, A.R.I.B.A. (33), 17 years' of private practice and commercial office experience, including factories, hospitals, housing, etc., seeks position as Senior Assistant in private office or industrial organisation. London area. Present salary £884. Evans, 79, Mainway, Chorley Woods, Herts. 1809

SENIOR ASSISTANT, A.R.I.B.A. (aged 30), with experience in office administration, staff supervision and design, including work on schools, hospitals, industrial and domestic buildings, requires responsible position with private or industrial firm in London area or East Coast. Salary by arrangement. Box 853.

ASSISTANT, 26 (M.), Final standard, 5½ years' post-Inter. office experience, then 1 year free-lance, seeks job in N.W. or Central London office. Box 849.

SENIOR ASSISTANT (37), 19 years' experience in housing, flats, industrial and conversion work, seeks position, London area or South-East England. Box 851.

SENIOR ASSISTANT (age 36), school trained, neat, accurate, and essentially quick draughtsman. 16 years' comprehensive experience all branches of the profession. Surveys, levelling, site supervision, specifications, ¼ in. W.D., ⅛ in. scales, F.S., perspectives, models, etc. Flats, housing, estate layout, cinemas, breweries, schools, hospitals; industrial, commercial and multi-storey buildings; conversions; rough sketch to contract drawings. Desires appointment with first-class firm or company. London area, not E.C. Excellent testimonials. Salary: 17 gns. per week. Box 856.

CHIEF ASSISTANT ARCHITECT, A.R.I.B.A., seeks responsible position, possibly with a view to partnership at later date. (Over 40 years). Wide experience in Government service and private practice; Schools, Housing, Industrial, Office administration. Extremely interested in modern design. Box 1824.

ARCHITECT, A.R.I.B.A. (33), competent design, and administration, seeks post leading to junior partnership, or suitable profit-sharing remuneration in return for experienced productivity. Box 857.

SENIOR ARCHITECT, A.A., 12 years' experience in London offices. Housing multi-storey and industrial buildings, also prefabrication and conversions, seeks post in London or Home counties. 5-day week. Salary: £650 p.a. Box 860.

SENIOR ASSISTANT, Final standard, part school-trained, 6 years' varied experience most types of building, surveys, specifications, seeks position of responsibility with future prospects. Interested in contemporary design and structural engineering. Box 1878.

ARCHITECTURAL ASSISTANT, 12 years office experience, Brixton School of Building and Poly. evening classes. High standard accurate draughtsman. Working drawings, details, surveys, negotiations with all consultants, etc. Keen and willing to take responsibility, requires post in well established firm, not necessarily a firm of Architects, anywhere in London, but preferably S.W. Salary required: £12 per week. All replies answered. Please reply to Box 859.

STUDENT Probationer, R.I.B.A., seeks position as an ARCHITECTURAL ASSISTANT with firm preferably within the area of London, Cheltenham, Reading, or Hampshire. Box 858.

EXPERIENCED ARCHITECT wishes to purchase a practice or partnership, preferably in the London area, or position leading thereto. Own car. Particulars please to Box 1838.

Other Appointments Vacant

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

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

OLD-ESTABLISHED Mutual Life Assurance House wants a few men of initiative and integrity to act as AGENTS. Architects and Surveyors have the necessary knowledge and contacts to make business most profitable to us and them. Further details from Box 1857.

VACANCY arises for Articled Pupil (Architectural or Building Surveying) in City Firm. Box 1720.

TAKER-OFF and TWO WORKERS-UP required, with experience of commercial/industrial buildings.

The appointments are permanent and offer prospects of up-grading.

Successful candidates will be required to undergo medical examination for compulsory superannuation scheme.

Applications, stating age, experience, qualifications and salary required, to W. J. Reed, F.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 99, Leman Street, London, E.1. 1773

YOUTH HOSTELS ASSOCIATION require ASSISTANT to Surveyor, to prepare plans and help in survey, maintenance and adaptation of hostel buildings. Commencing salary up to £400, according to age and experience, plus travelling expenses. Application form from National Secretary, Y.H.A., Welwyn Garden City, Herts., to be returned by 1st April, 1954. 1839

Services Offered

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

EXPERIENCED LONDON ARCHITECT with own office able to give assistance to Architects, etc. Gladstone 7355. Box 1640.

ARCHITECTURAL MODEL MAKERS.—Speed and service. 22, Holland Road, W.14. Western 9908. 1781

FREE-LANCE.—Surveys, Drawings, Tracings, Perspectives, for Architects, Surveyors, etc. Quick and efficient. Speedwell 6182. 1786

SURVEY of Sites and Buildings, Detailed Drawings, Quantities, Variations Measured, Final Accounts, Specifications and Reports. Qualified Surveyor. LIV. 1839. 1362

SURVEYS, reports specifications and site plans prepared. Experienced staff available to assist with designs and layouts. Valuations and schedules of dilapidation, etc., prepared. WELbeck 0589/0. 1564

QUALIFIED, experienced, R.C. engineer offers services in concrete design and detailing, site measuring and preparation of plans and sections, and estimate drawings. Please write to Box 1870.

BUILDING SURVEYOR with architectural experience seeks responsible position. Fully experienced surveys, drawings, specifications, accounts, supervision, administration, etc. Age 37. London area. Present salary £850. Box 1877.

COMPLETE private service to the profession. Designs, Plans for Ministry, and Preparation of Working Drawings efficiently executed by Chartered Architect at an hourly rate or by arrangement. Box 1840.

CHARTERED QUANTITY SURVEYORS, with own office, offer their services to the profession at Taking-off or Site Measuring, etc. Car owners. Work undertaken in any area. Box 1849.

PART-TIME heating and ventilating design and drawing work required by qualified Engineer, London area.—Box 1886.

DRAUGHTSMAN, with 15 years' experience of Architectural Drawing, offers part-time services at reasonable charges. Box 1841.

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

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos Nissen type, Hall type, etc. All sizes and prices Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway Belvedere, Kent. Tel.: Erith 2948 6801

NEW 5/3½ "Ward" Portable Petrol Driven Concrete Mixers for sale. Full details from Thos. W. Ward, Ltd., Albion Works, Sheffield. 1789

14 FT. Telescopic Levelling Staff, in good condition required. Also 6-ft. Ranging Poles. Price and details to W. D. Sterland, 17, Grange Road, Woodthorpe, Nottingham. 1819

Competition

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

IMPERIAL ETHIOPIAN GOVERNMENT.

International Competition of 1950 for the Imperial Palace at Addis Ababa.

It is desired that four unsuccessful Architects and Engineers who submitted plans for the above competition should communicate to the Imperial Ethiopian Embassy, 17, Princes Gate, London, S.W.7, their postal addresses, so that their drawings may be returned to them. The following are the devices marked on drawings whose owners cannot be identified:—

(1) Letter "B" in the centre of a shield drawn within a circle.

(2) "XX" on black ground.

(3) "THE LION LIKES THE FLIGHT OF THE OWL."

(4) "1874"; author Mr. Constant A. Leclerk. 1761

Miscellaneous

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

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

FOR FULLY GALVANISED Chain Link always specify MASTERFOIL, made to B.S.S. 1722. Fencing & Gates, Ltd., 14, Stanhope Gate, London, W.1. Tel. Grosvenor 4527. 9926

BUSINESS PREMISES.

OFFICES, newly decorated.—High Street, Beckenham. First floor. Imposing corner, with own entrance; space for name plate. Large rooms, with commanding windows overlooking main road. Small Flat, 2nd floor. To Let, £175 p.a. only, exclusive. Agents: George Cross, 40a, Gloucester Road, S.W.7. WEStern 3654. 1836

VERY fine Offices, off Jermyn Street, about 100 yds. from Piccadilly Circus, will become vacant near the end of March. Three rooms, will divide to five, with private lav. and w.c. (600 ft. super.). Third floor, excellent light. Lease for disposal or sub-let. Telephone: Whitehall 0295. 1830

Educational Announcements

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

R.I.B.A. AND T.P.I. EXAMS.—Stuart Stanley (Ex. Tutor Sch. of Arch., Lon. Univ.), and G. A. Crockett, M.A./B.A., F./F.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.), prepare Students by correspondence. 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

R.I.C.S., I.Q.S., and I.A.A.S. Postal Courses for all exams. including R.I.C.S. Preliminary and I.Q.S. Special Test conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7. KEN. 4477. Descriptive Booklet on request. 7020

UNIVERSITY OF LONDON.—A course of two lectures on "Modern French Architecture" will be given by M. Paul Tournon (Architecte en Chef des Bâtiments Civils et Palais Nationaux, France), at 5.30 p.m., on 11th and 12th March, at University College (Architecture Theatre), Gower Street, W.C.1. The lectures will be delivered in French.

Admission free, without ticket.

JAMES HENDERSON,
Academic Registrar. 1850

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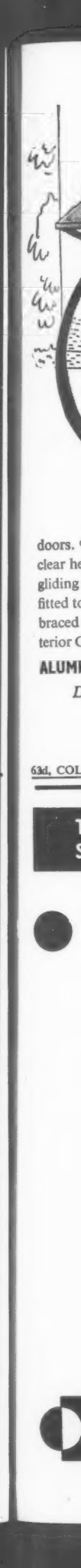

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