

THE ARCHITECTS' JOURNAL



standard contents

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

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*Architectural Appointments
Wanted and Vacant*

No. 3199]

[Vol. 123

THE ARCHITECTURAL PRESS

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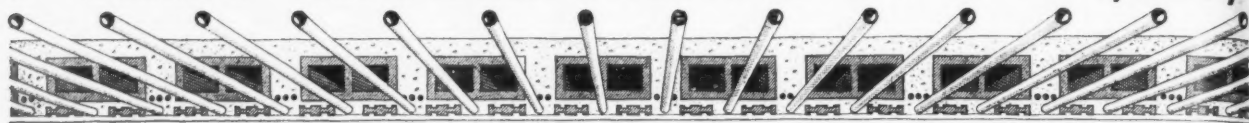
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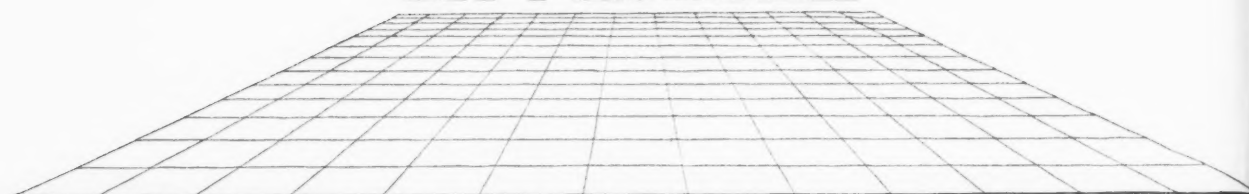
★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ih to Z the next. In all cases where the town is not mentioned the word LONDON is implicit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

IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square. Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 100 Park Street, Grosvenor Square, W.1. Mayfair 7086
ILA	Institute of Landscape Architects. 2, Guilford Place, W.C.1. Holborn 0281
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors, 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 47, Victoria Street, S.W.1. Abbey 6172
ISE	Institute of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
LDA	Lead Development Association. Eagle House, Jermyn Street, S.W.1. Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
LSPC	Lead Sheet and Pipe Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264/4175
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MARS	Modern Architectural Research Group (English Branch of CIAM). Secretary: Trevor Dannatt, A.R.I.B.A., 71, Blandford Street, W.1. Welbeck 4713
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service. 8, St. James' Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council. 94/98, Petty France, S.W.1. Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1. Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers. 10 Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS	National Federation of Housing Societies 12, Suffolk St., S.W.1. Whitehall 1693
NHBRC	National House Builders Registration Council. 82, New Cavendish Street, W.1. Langham 4341
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George St., S.W.1. Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 5, Old Palace Yard, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1. Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, London, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen. Holborn 2646
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4. City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1. Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636

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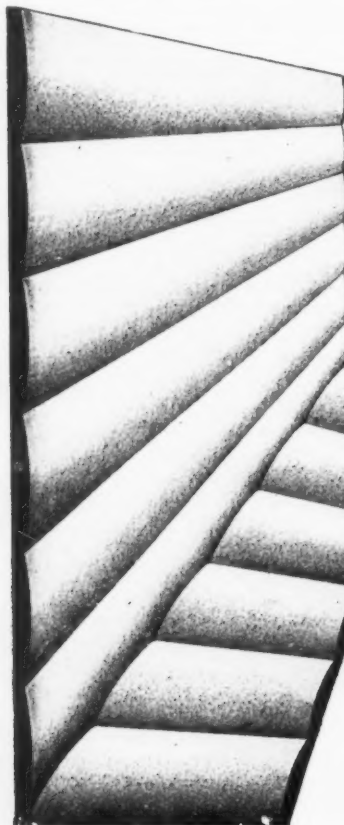


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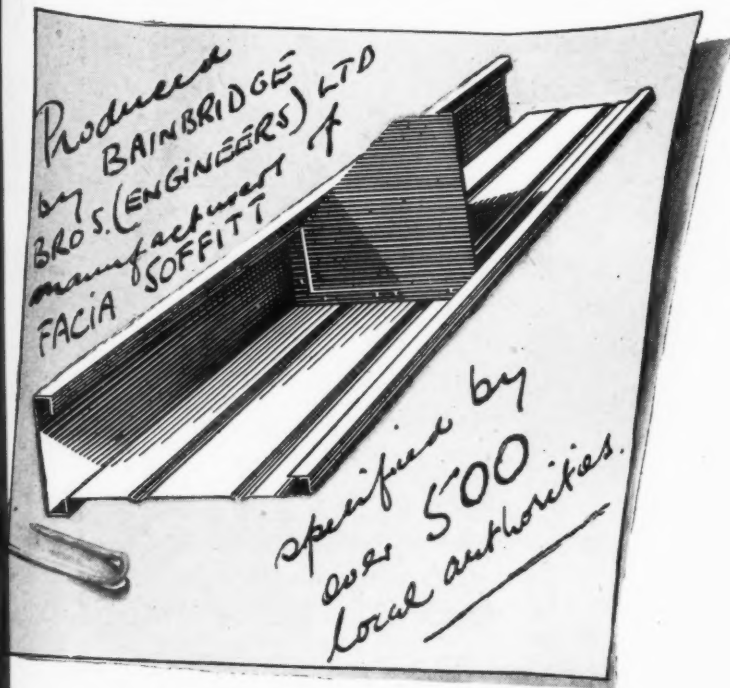
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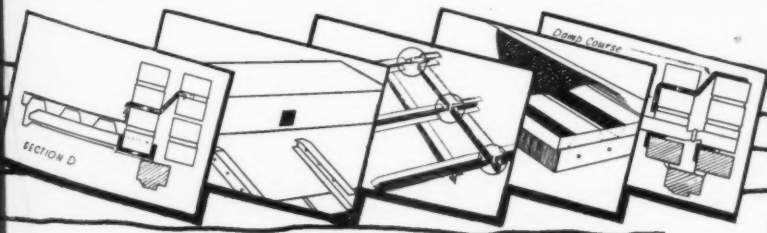
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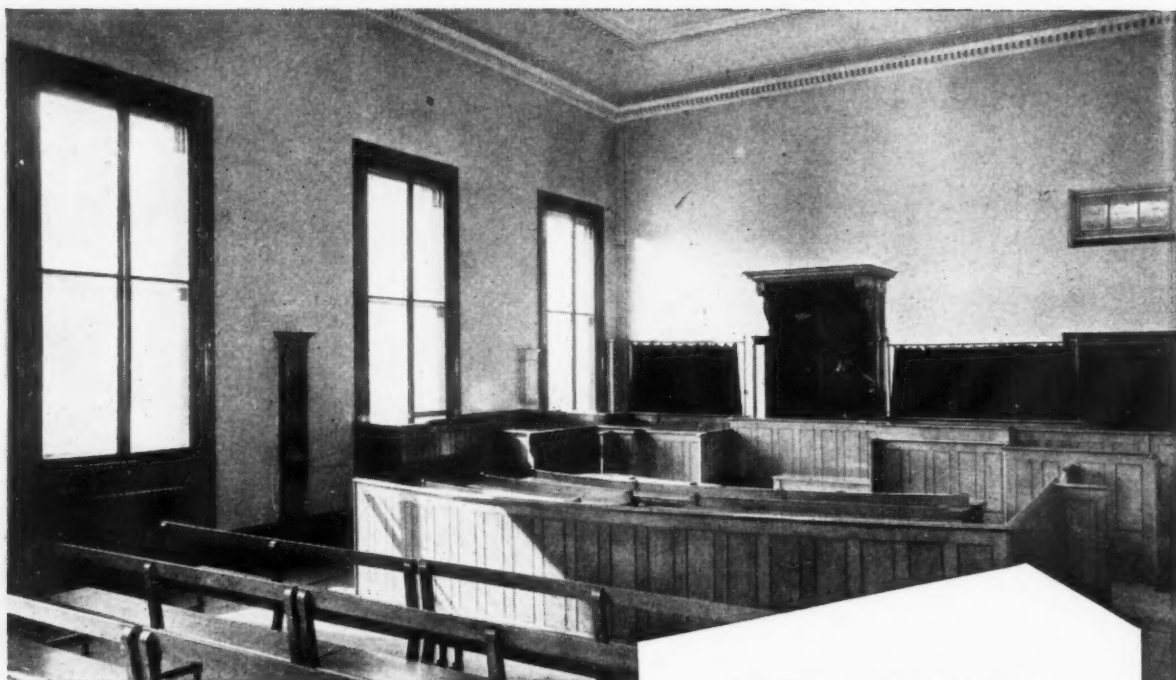


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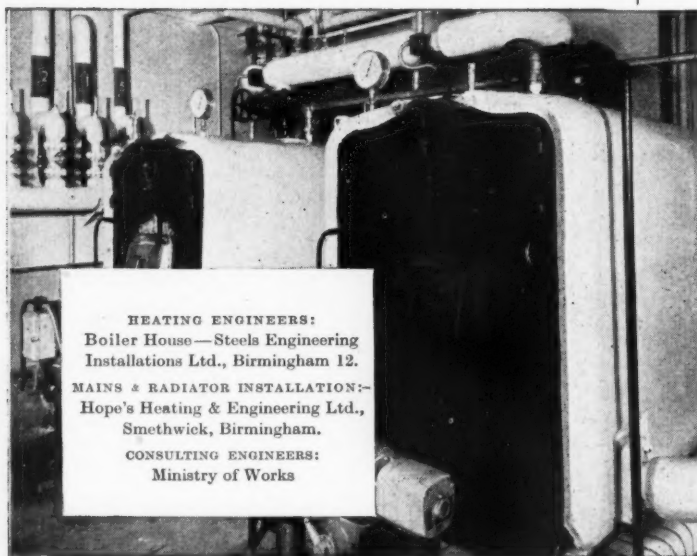


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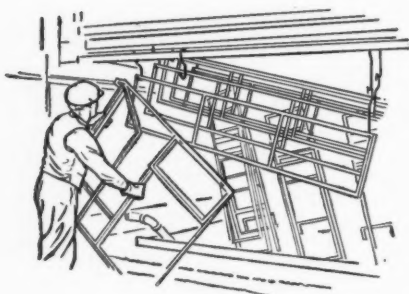


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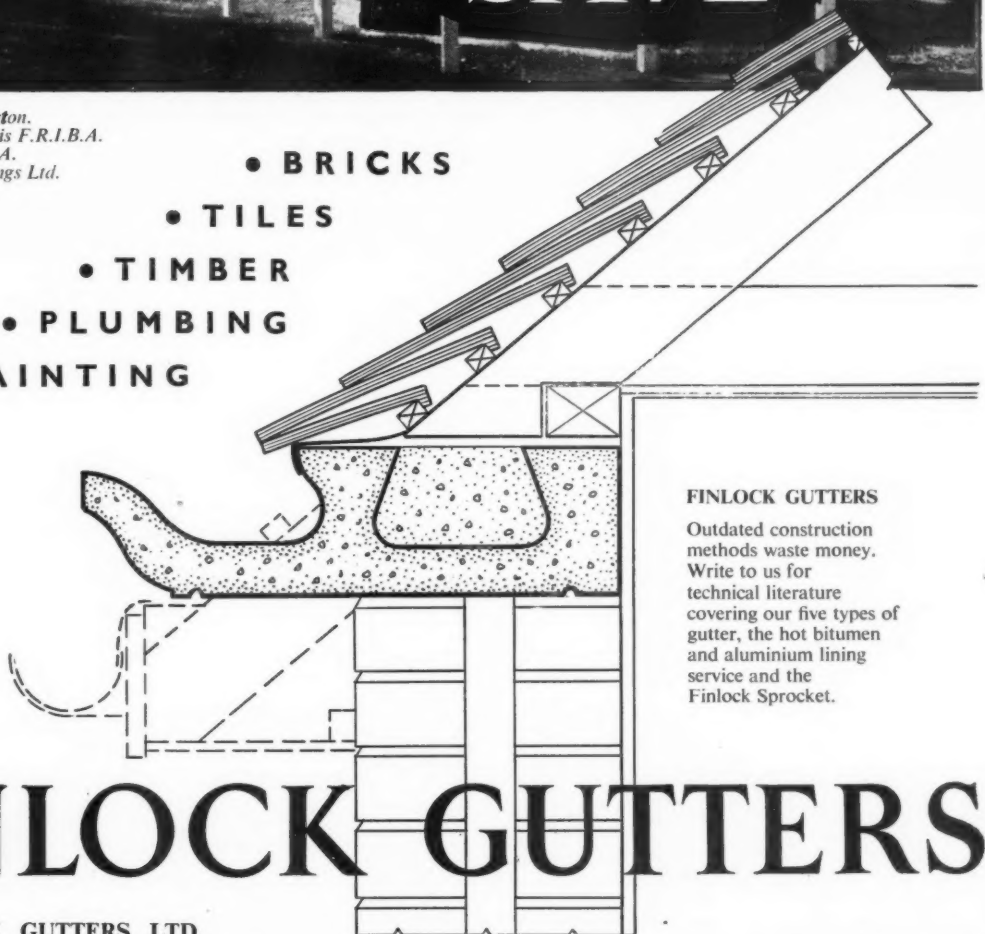
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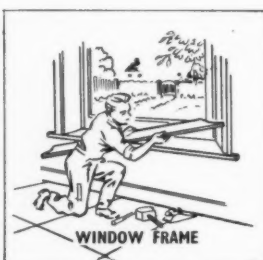
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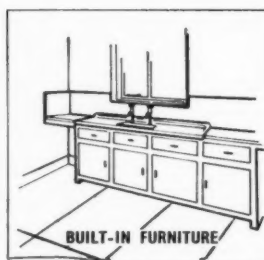
Works at : Southborough, Kent ; Royston, Herts ; Cwmbran, S. Wales ; Crewkerne, Somerset ; Leeds, Yorks ; Wakefield, Yorks ; Musselburgh, Scotland ; Belfast, N. Ireland.



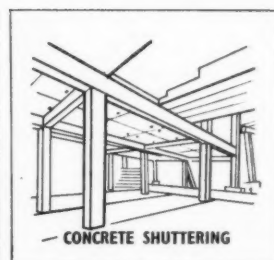
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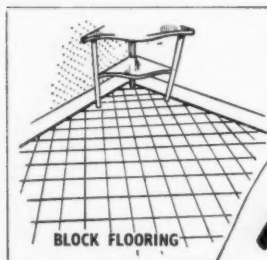
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CONCRETE SHUTTERING



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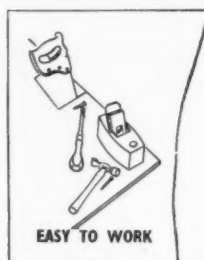
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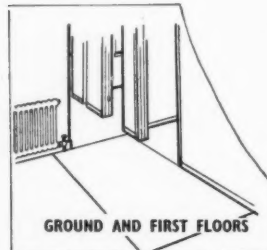
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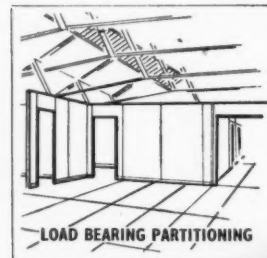
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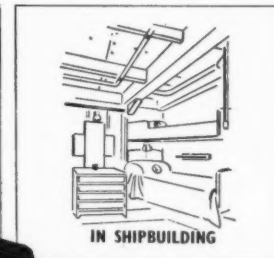
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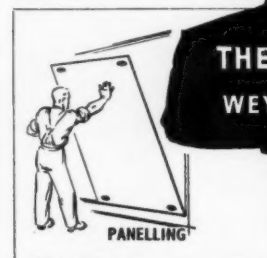
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IN SHIPBUILDING



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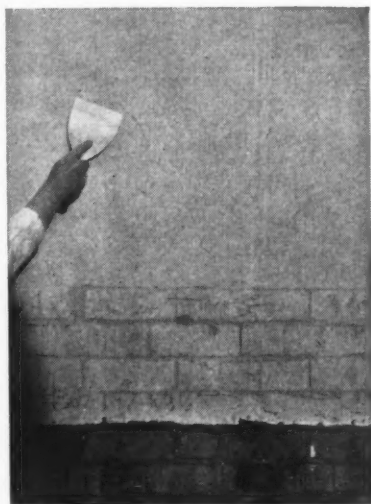


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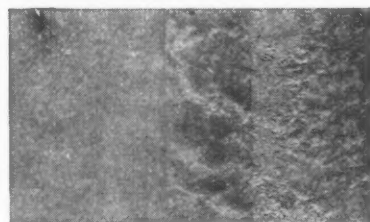
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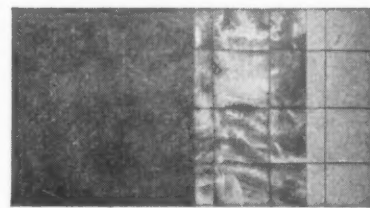
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2 Fillex being applied over textured paint surface



3 Application of Fillex to tiled surface

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DOMESTIC KITCHEN PLANNING

SPECIAL CASES

In many houses and flats it is not always possible to arrange for the classic U and L layouts: the building may not be suitable, and many clients have their own particular requirements, but nevertheless some interesting plans arise which derive their character from such individual circumstances. The examples given in these notes differ considerably from each other, and will give some idea of the possibilities of electric kitchen planning.

Kitchen and Laundry

In the example shown in Fig. 1, a long narrow room had been planned, and it was required to arrange a kitchen and home laundry in it, with a drying cupboard and fixed bench for ironing at one end near the back door. The drying cupboard was placed against an outside wall in which a small extract fan is fitted, and provided with an electric heater in the base under 3-heat control, the loading being 3 kW. The interior of the cupboard (including the backs of the doors) is lined with glazed asbestos sheets and provided with movable rods and a bar to take coat hangers for drying-off wet outer clothing.

A standard type washing machine with electric pump and wringer is provided in correct relation to the sink for rinsing, the counter opposite being used for sorting linen as well as for ironing.

The Organisation of the Kitchen

The design of the kitchen is based on two working levels and the use of a trolley for service to the dining-room. Cooker hob, sink and draining board, together with the counters on each side of the cooker, are 3 ft. high and form a self-contained working unit, the trolley being kept below the counter between sink and cooker when not in use. This counter is used for dishing-up and loading the trolley when serving a meal, and for the accommodation of used plates, dishes, cutlery, etc., from the trolley when clearing away. When washing-up, the dried articles may be placed either directly in place in the china cupboard opposite or stacked on the low level (2 ft. 6 ins.) counter otherwise used for ironing.

Food Preparation and Storage

Most food preparation is done on the low level preparation counter, 2 ft. 6 ins. high, between the cooker and the food store, though vegetables, fruit, etc., are cleaned and prepared in a bowl in the sink or on the counter between sink and cooker. The refrigerator and grocery store are opposite the working areas, which are consequently left free from over-hanging cupboards and are well lighted.

The laundry and kitchen are warmed by electric floor heating (see H.1), and lighting is by fluorescent lamps. The main storage cupboards have full height access with closely spaced shelves and upper and lower doors. All cooking utensils, with the exception of small articles which are kept in drawers under the counter near the cooker, are accommodated in the lower part of a cupboard opposite.

The Galley Kitchen

Another type of layout, much more compact and designed for very different conditions, is shown in Fig. 2. It forms part of a re-built town house (where space was at a premium) and opens directly off the dining-room. Laundry equipment is contained in a back lobby.

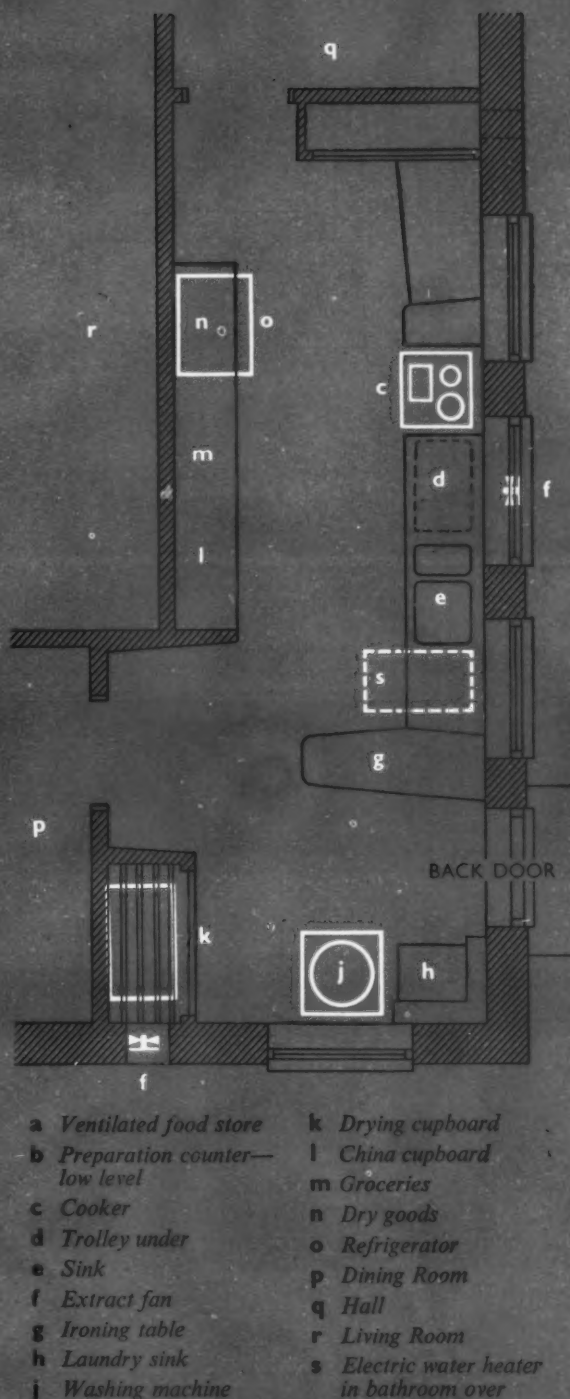


Fig. 1 Kitchen and Laundry

SCALE: 1 FEET EQUALS 1 INCH

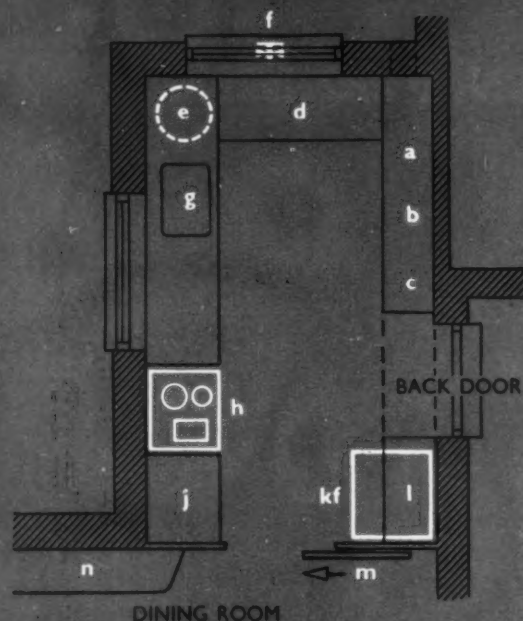
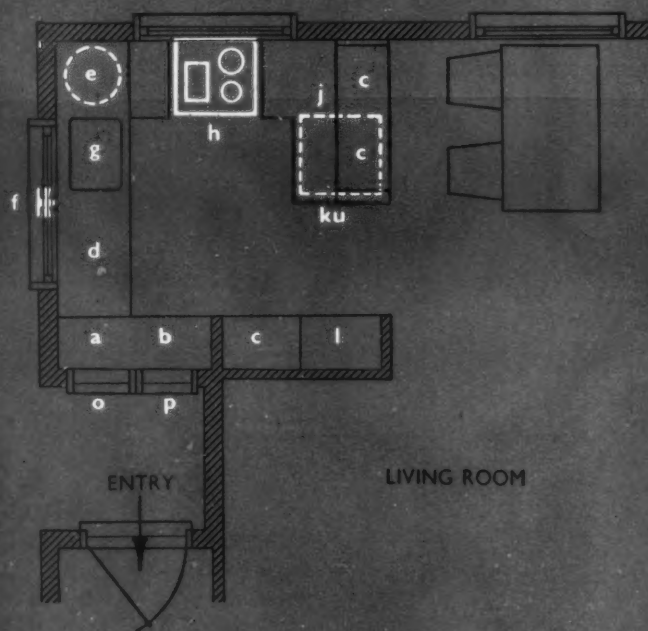


Fig. 2 Galley Kitchen

SCALE: 4 FEET EQUALS 1 INCH



- | | |
|-------------------------|------------------------------|
| a Ventilated food store | kf Freestanding refrigerator |
| b Groceries | ku Refrigerator under |
| c China | l Store |
| d Preparation counter | m Sliding door |
| e Water heater under | n Sideboard |
| f Extract fan | o Ventilator |
| g Sink | p Tradesmen's hatch |
| h Cooker | |
| j Service counter | |

Fig. 3 Internal Kitchen

SCALE: 4 FEET EQUALS 1 INCH

Cupboard Treatment

A feature of this kitchen is the arrangement of the cupboards and storage accommodation. No hanging cupboards are used, the whole working area being unencumbered and lighted by windows on two sides. Again the main storage cupboards are opposite the working area with direct access for their full height. In order to obtain ventilation for the food store, it is placed at a higher level above the china cupboard which is at middle height. The grocery cupboard adjoins the food store, and the utensils, etc., are kept below the china. The refrigerator is in a corner near the dining-room and has a small cupboard above for bread, pastries, etc. A full range of cupboards including a vegetable store is provided beneath the long working area, but they finish a foot above floor level to reduce stooping. There are no cupboards under the preparation counter, but room is provided for a stool and an adjustable electric fire.

Lighting and Socket Outlets

Owing to the size of the room and the light nature of the decorations and finishes, two filament lamps, within open bottom diffusing fittings, give an excellent light. Socket outlets for small appliances are provided immediately under the preparation counter, and above the service counter where the automatic cooker control is situated.

The Internal Kitchen

A recent development in the planning of small houses and flats that has become possible with the full use of modern electrical equipment is the arrangement of an internal kitchen opening off the dining- or living-room and used solely for the preparation of meals and clearing away afterwards. Fig. 3 shows such a scheme prepared for a pre-fabricated house planned on a four-foot grid.

General Features

The plan is self explanatory, but it will be noticed that all the equipment is particularly well placed for food preparation, cooking and washing up, and occupies surprisingly little space. The problem of back and front doors in such a small house is overcome by the use of an entrance porch with tradesmen's hatch opening direct into a self-contained part of the food store. Grocery and other stores are kept in the same range of cupboards with full height access.

This kitchen is exceptionally well lit, cheerful and sunny, with ample room to move about in, and very convenient service arrangements. An electric extract fan is provided and a small water heater is sufficient, as the major demand is only for washing-up. In this particular house it is proposed to install the home laundry equipment in an adjunct of the bathroom, making use of the same electric heater that serves the bath and basin, a system that is frequently used in Sweden and has advantages in small houses or flats.

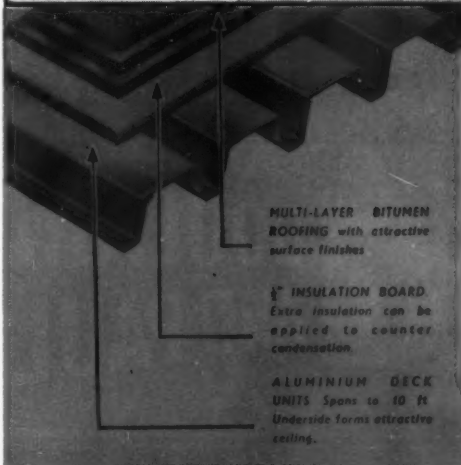
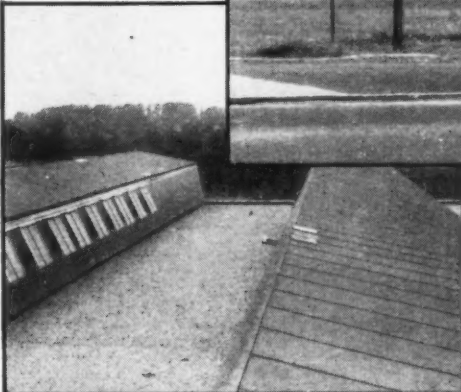
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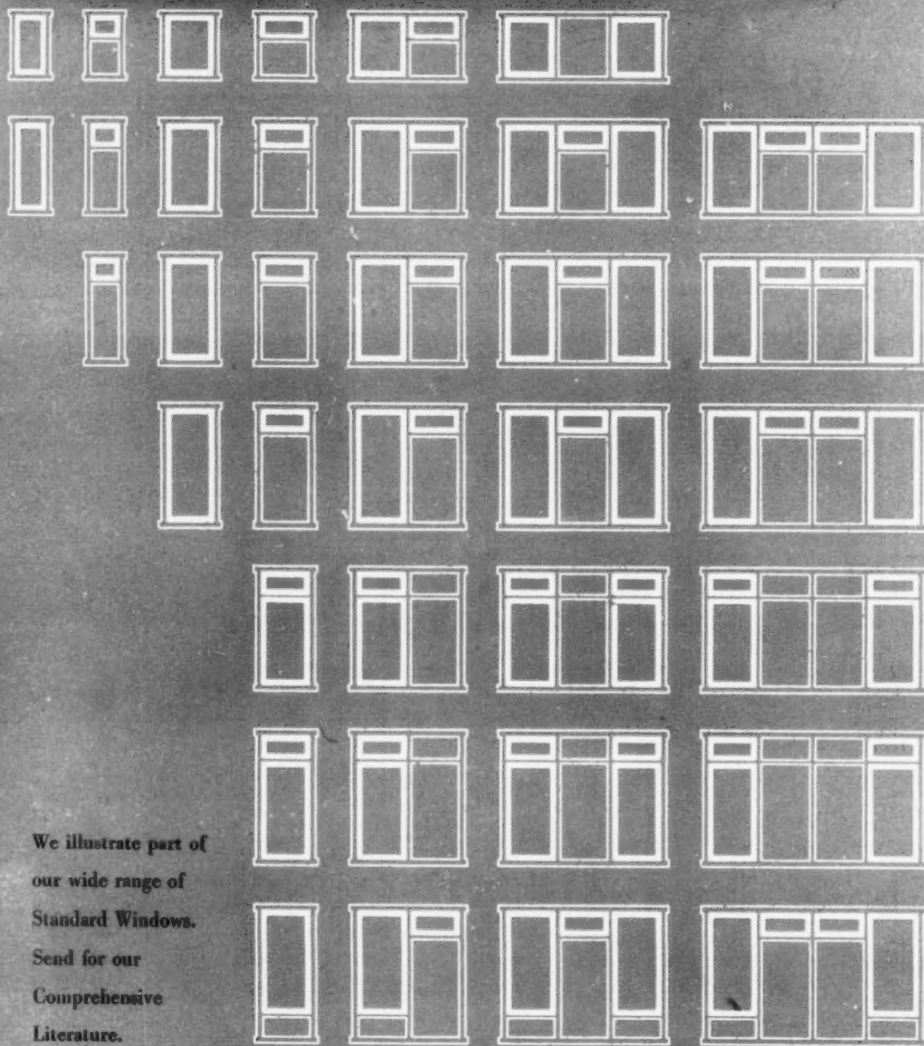
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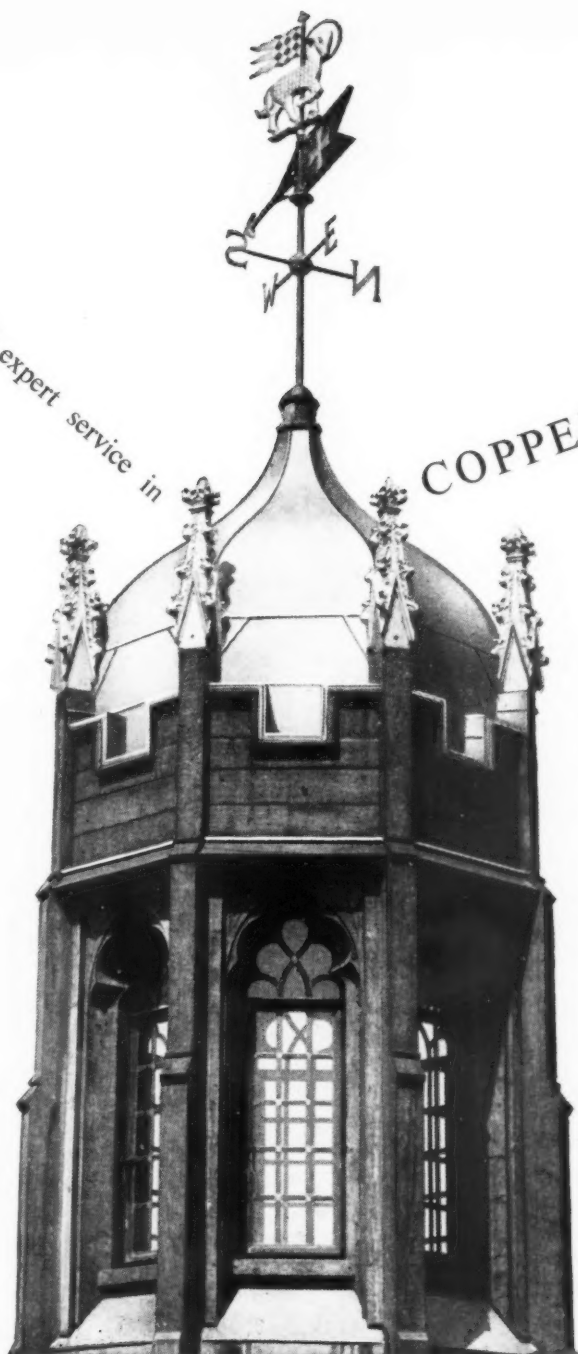
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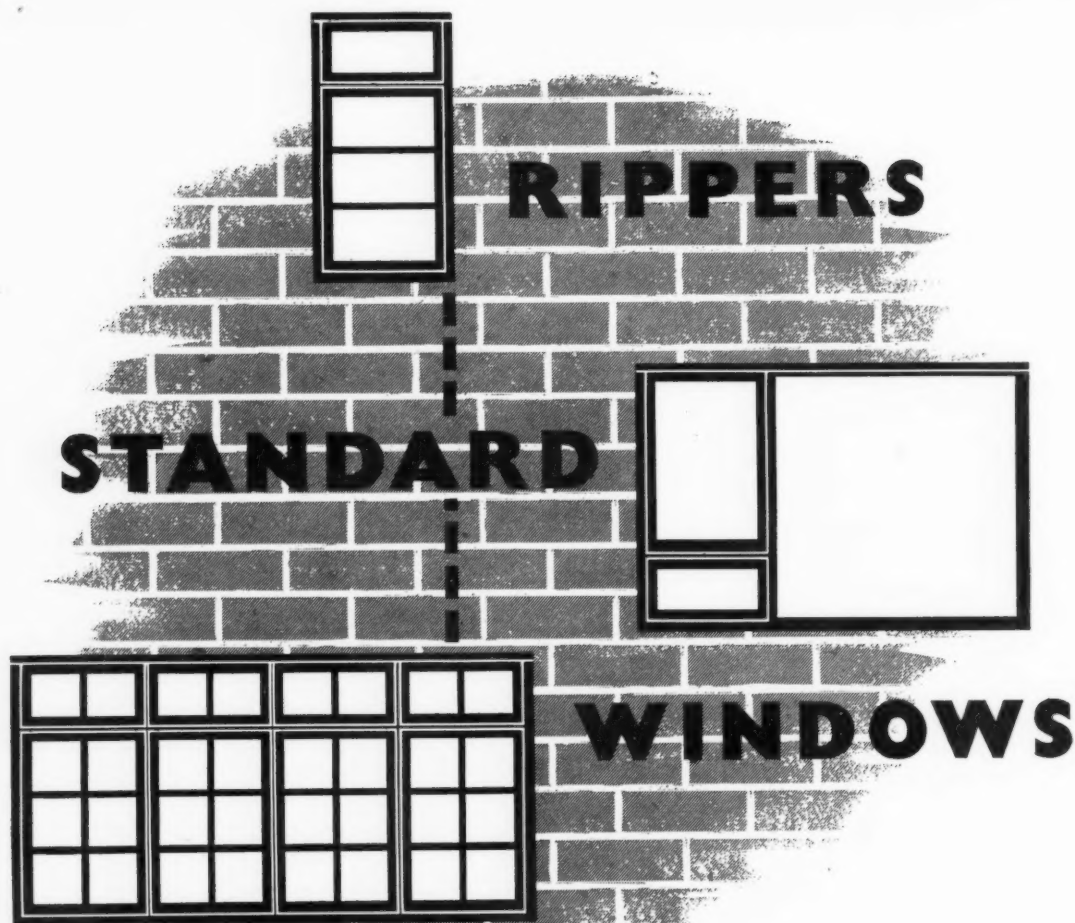
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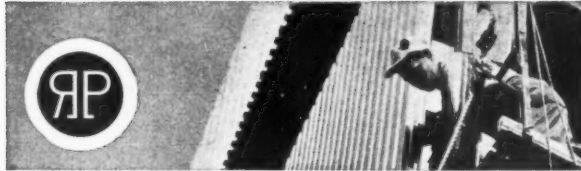
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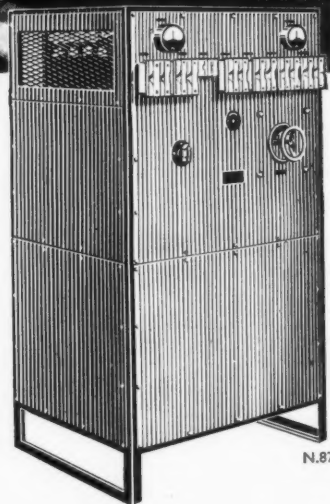


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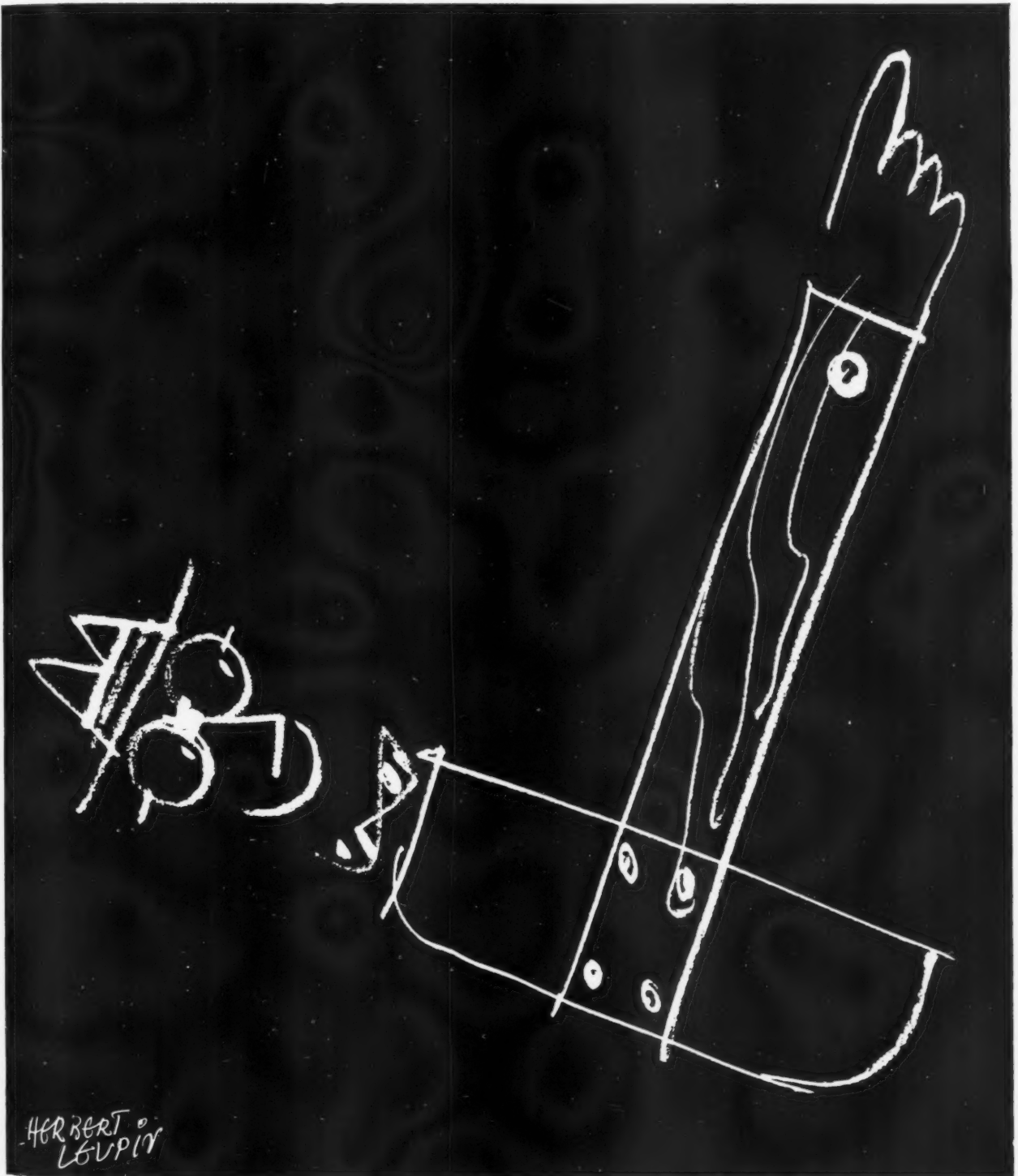
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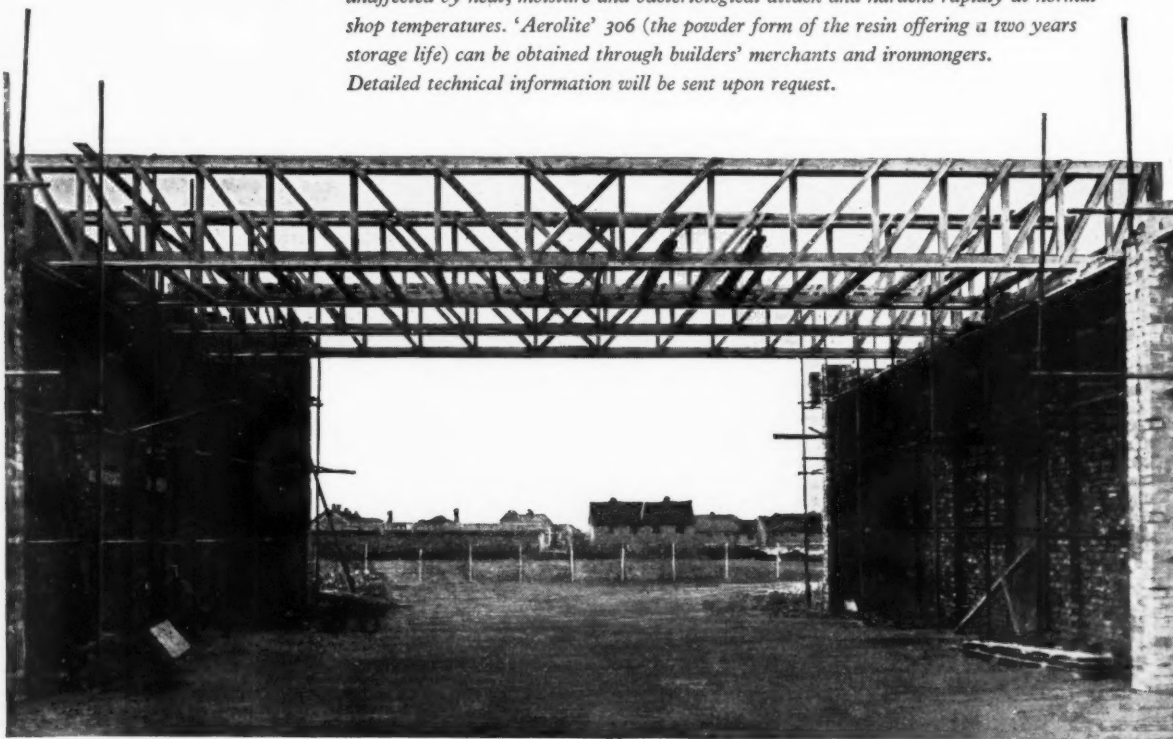
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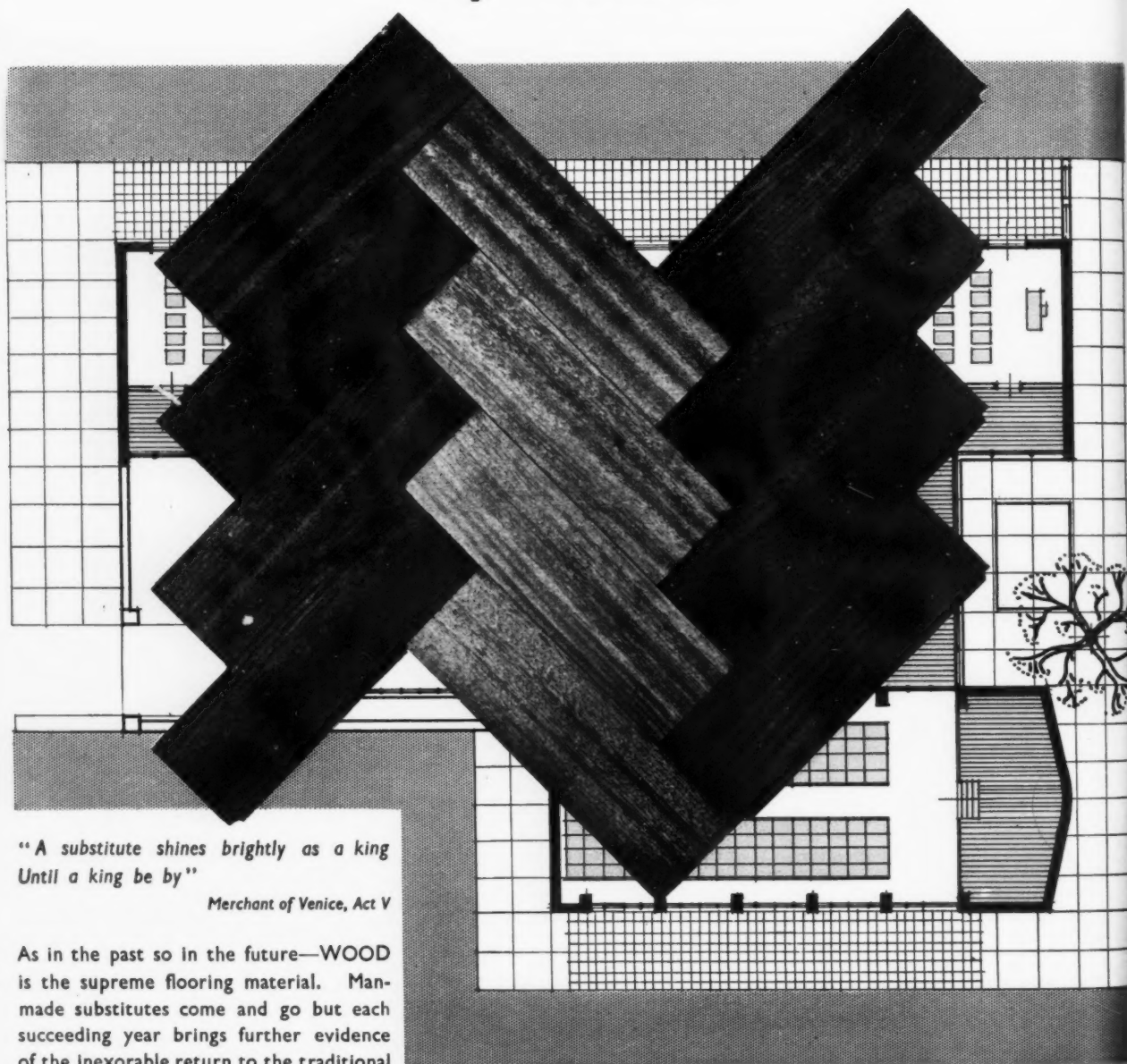
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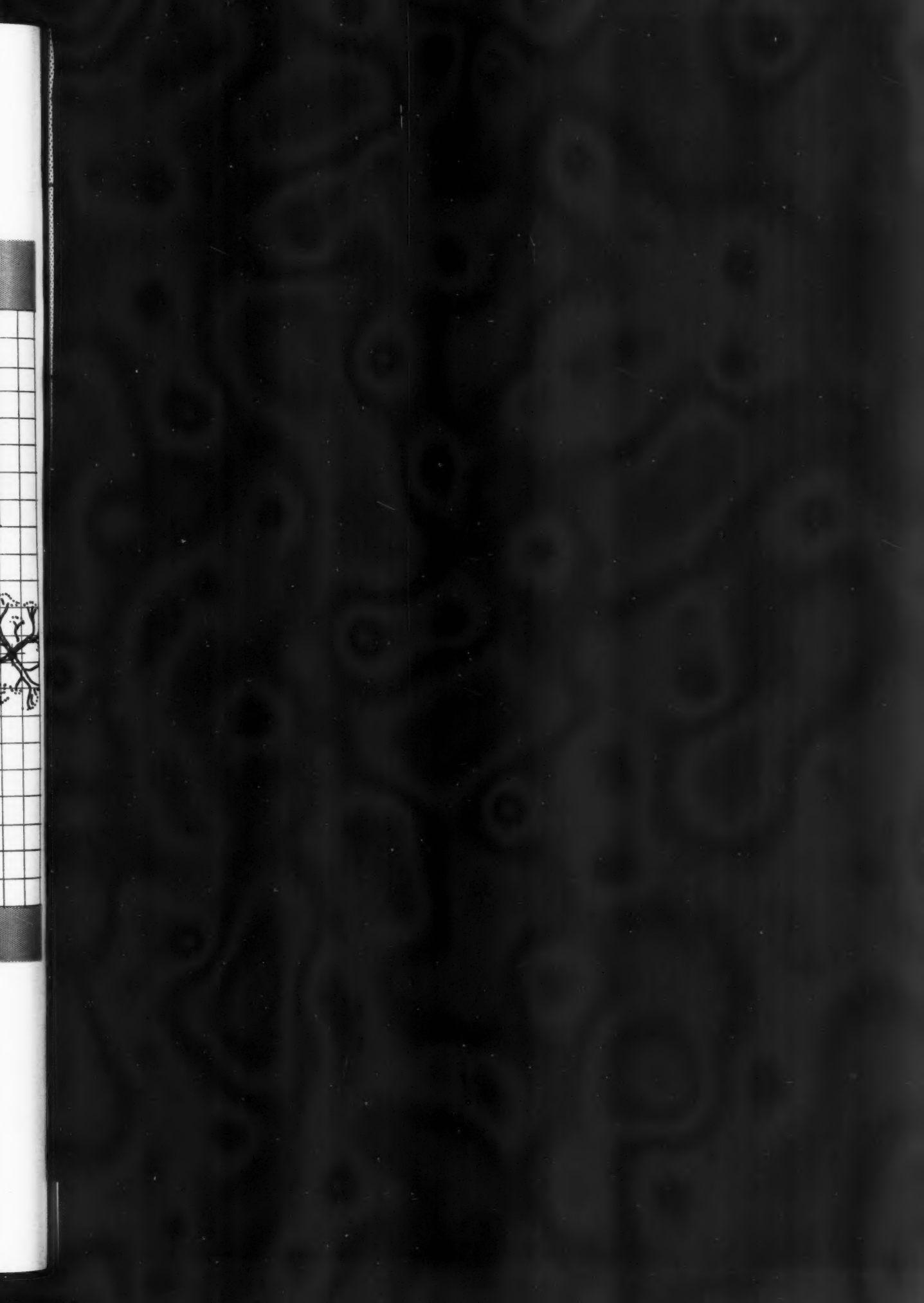
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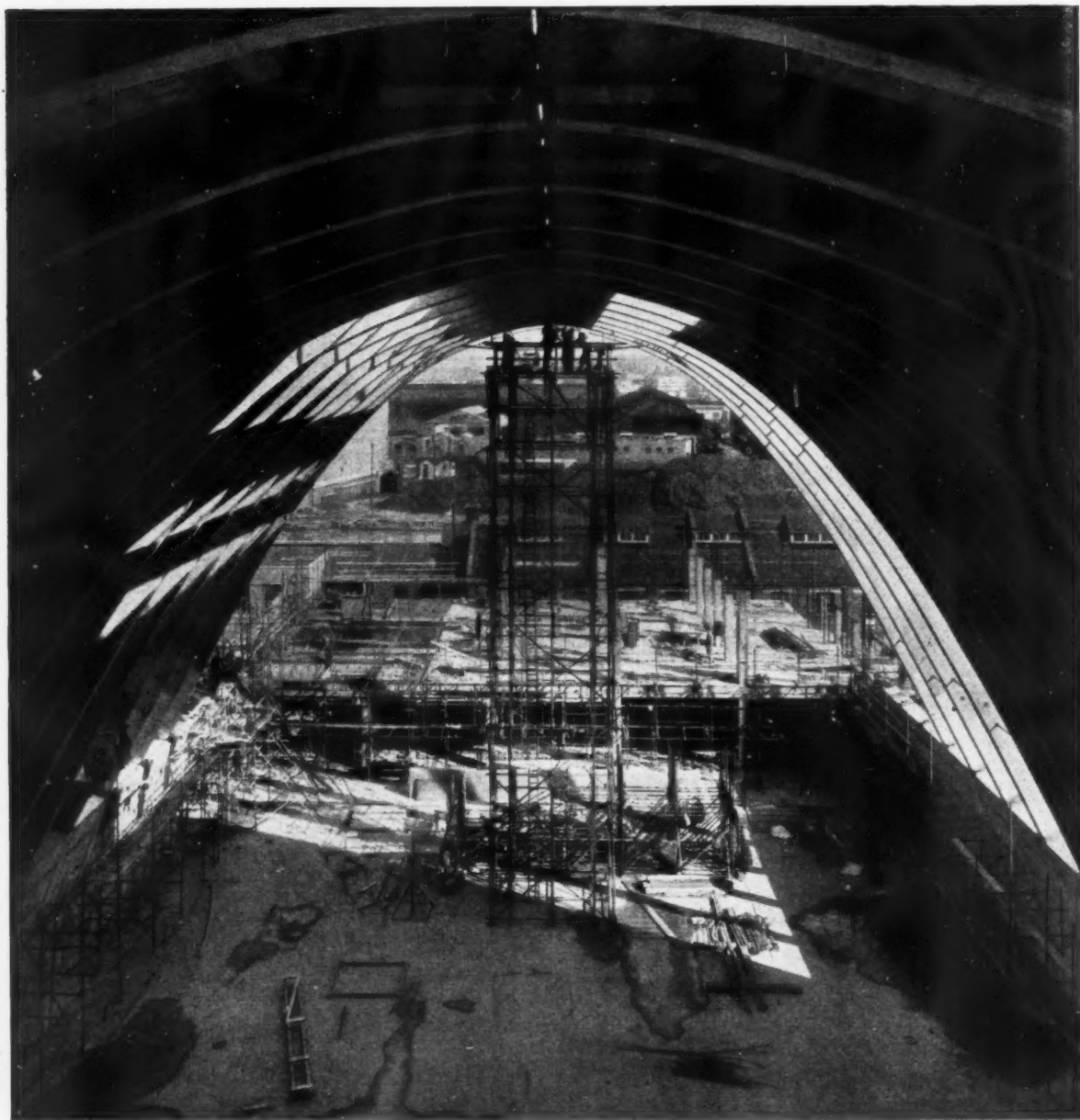
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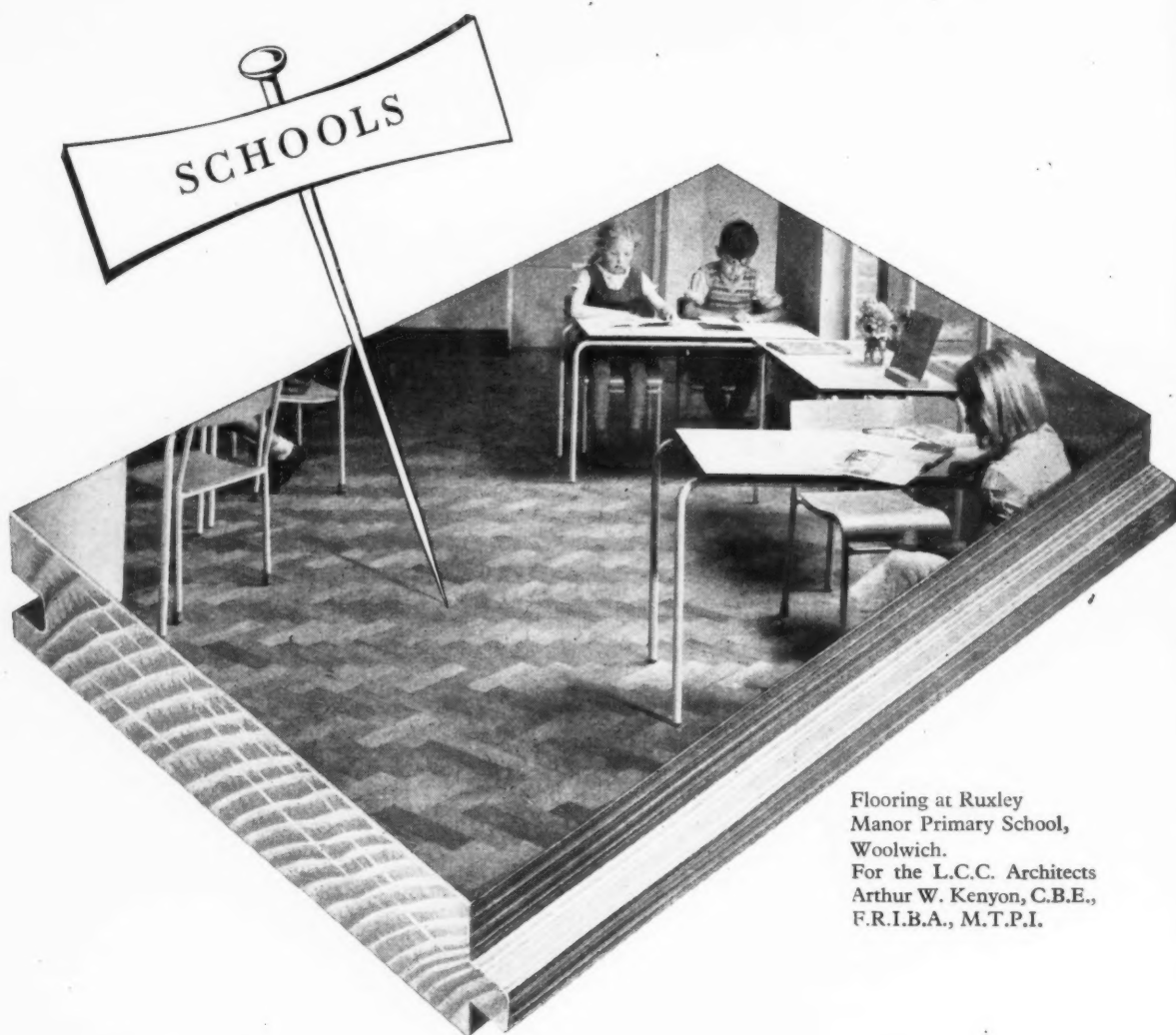
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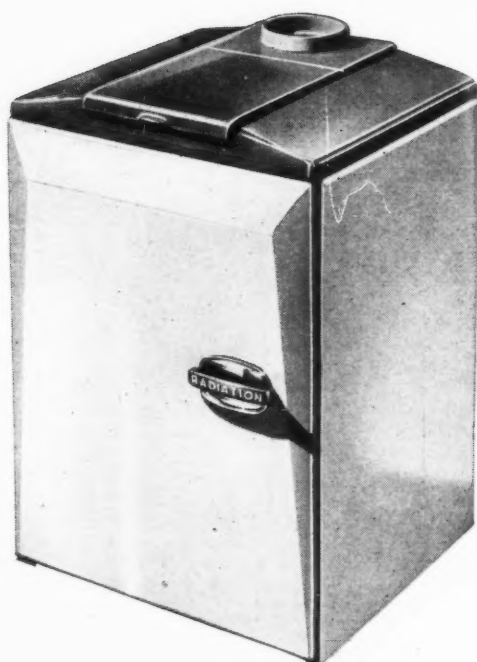
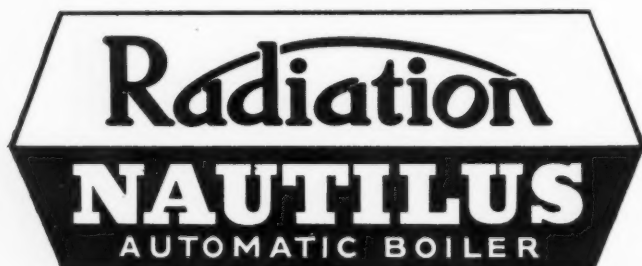
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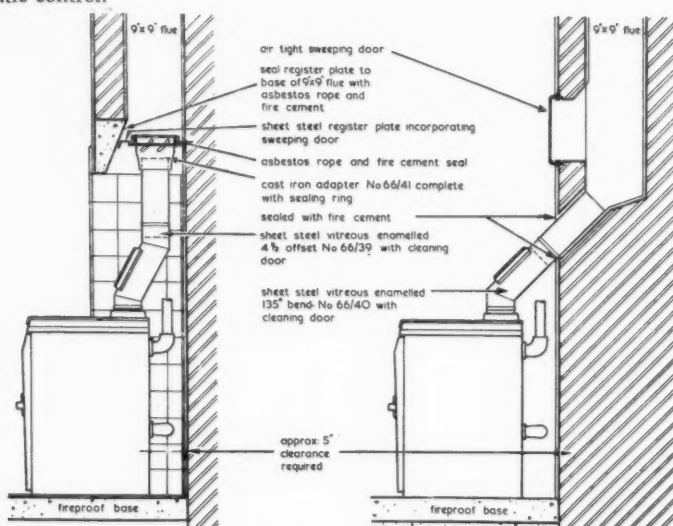
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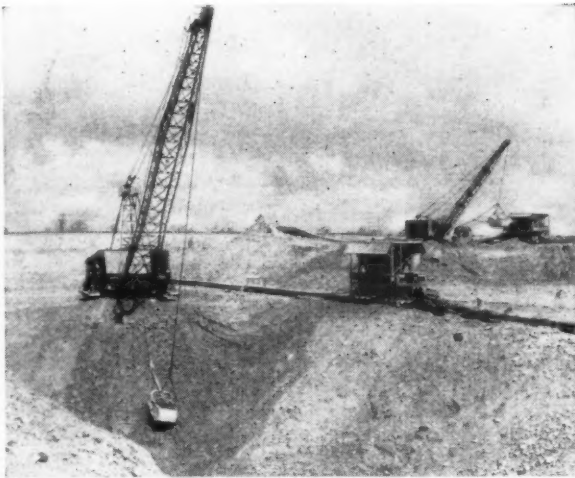


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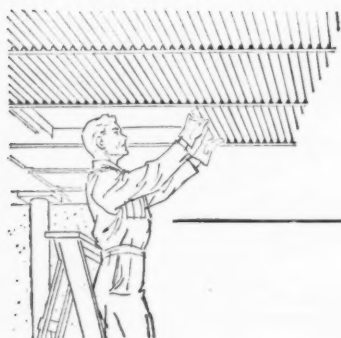
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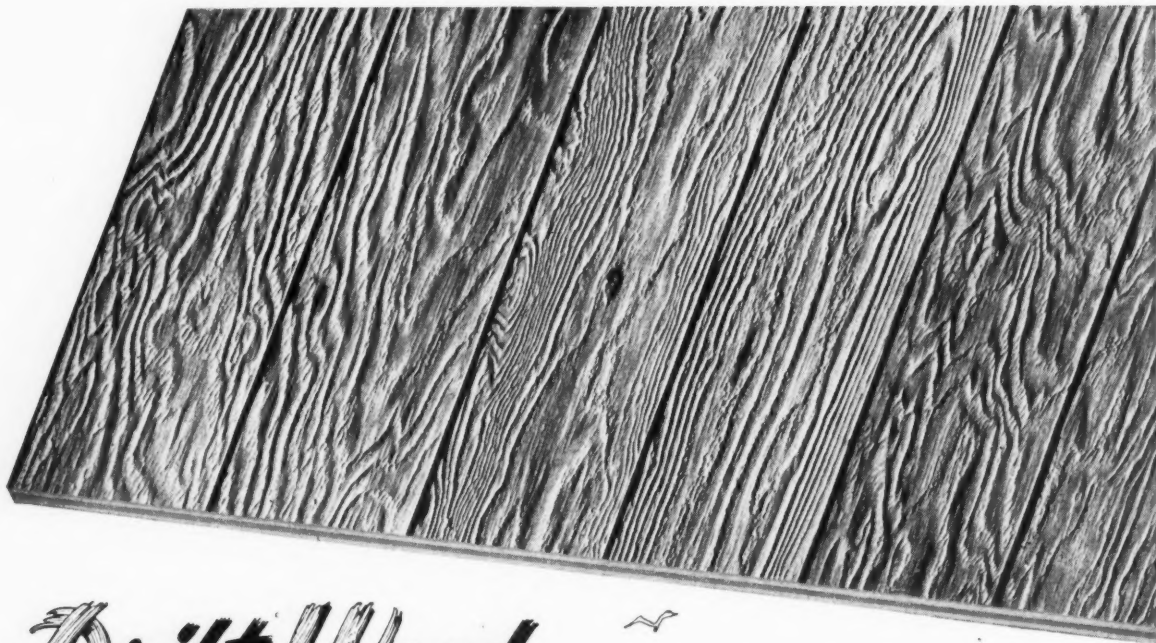
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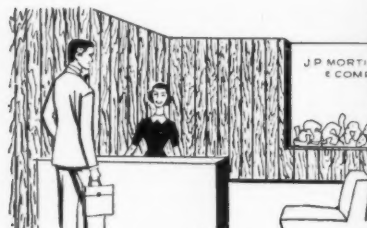
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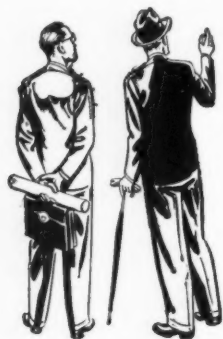
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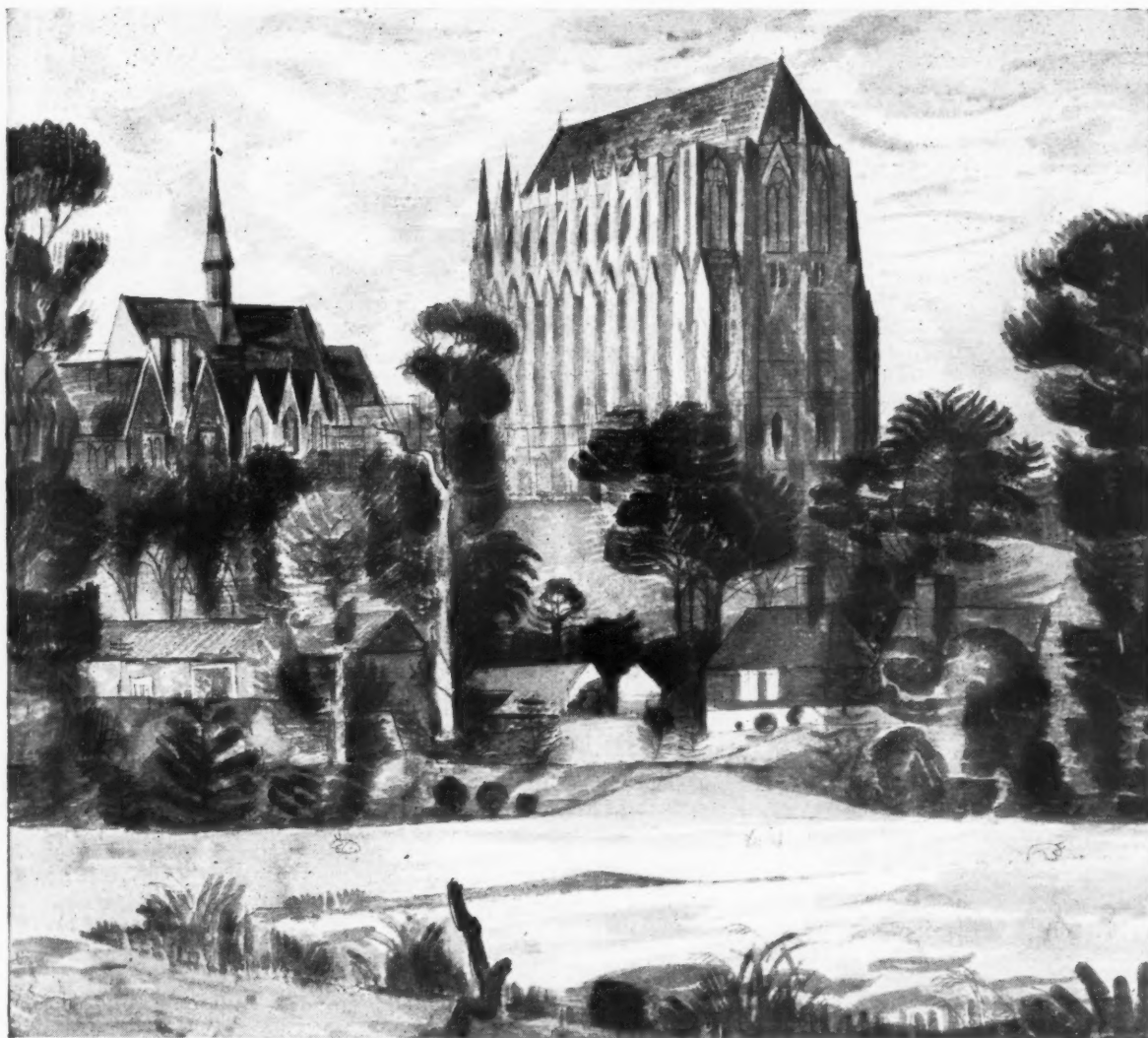


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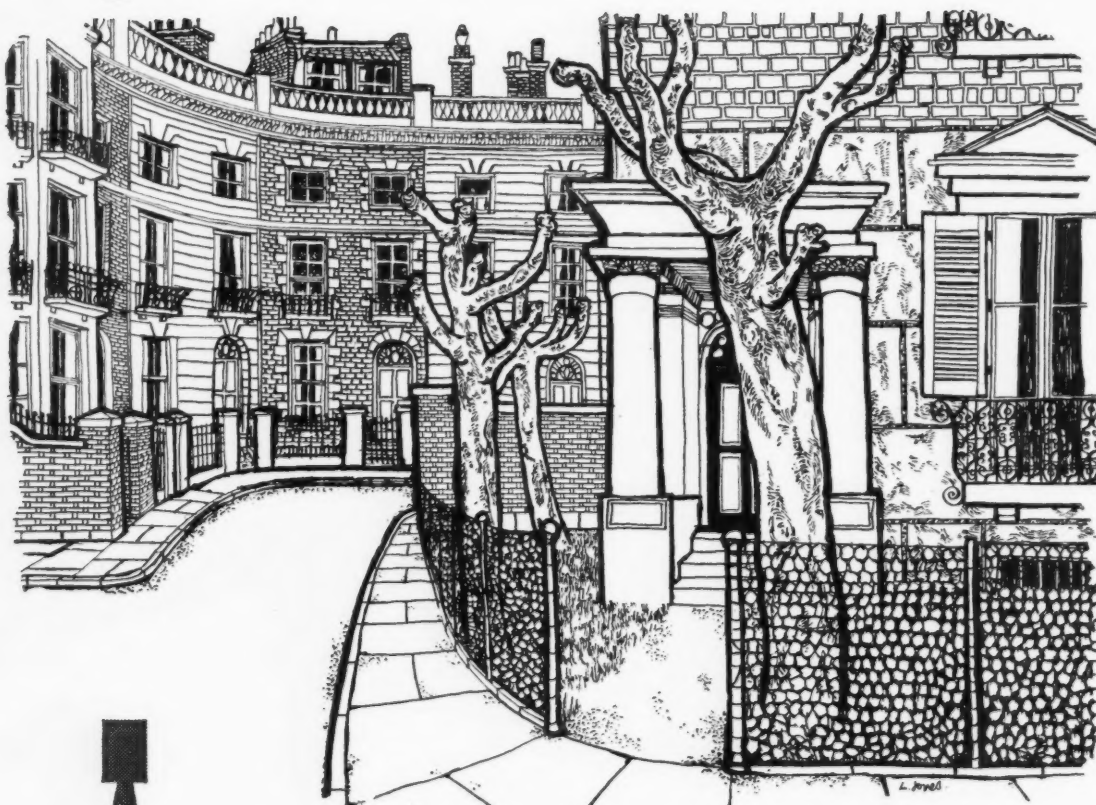
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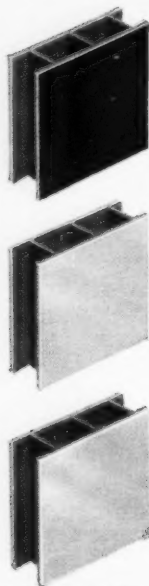
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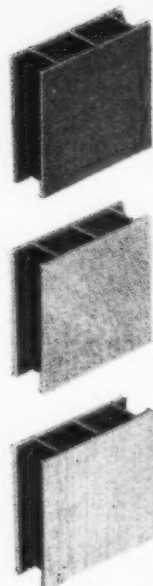


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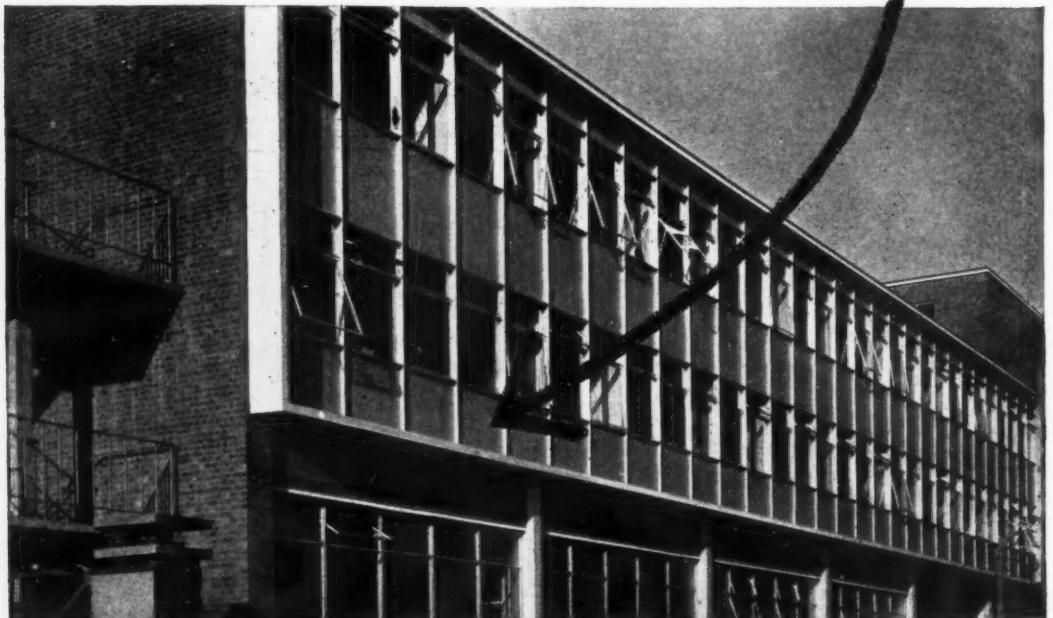
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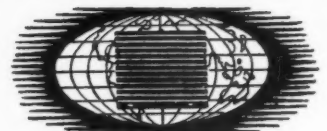
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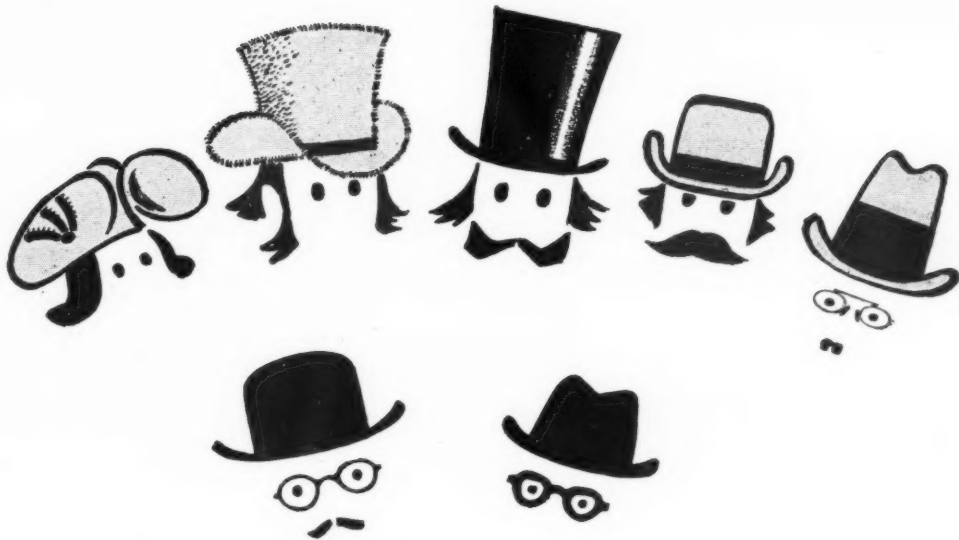
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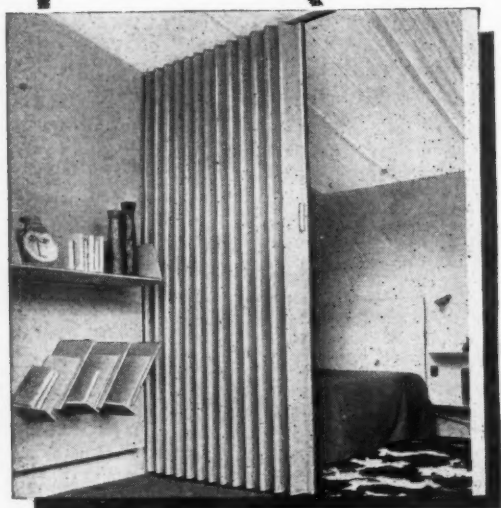
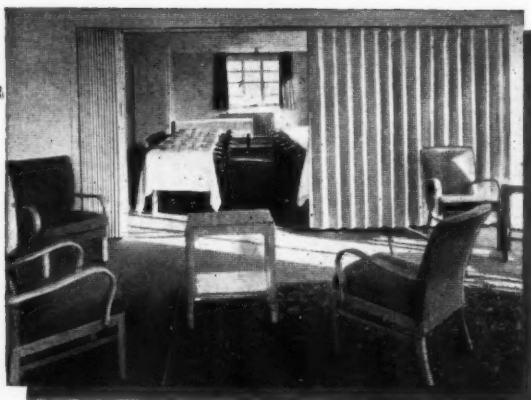


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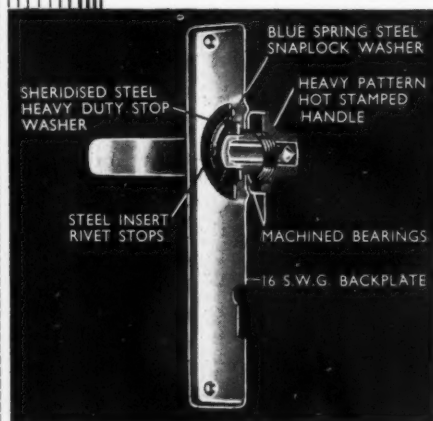
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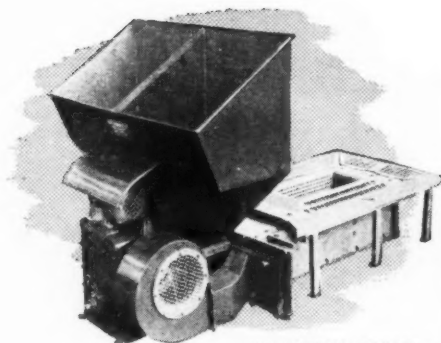
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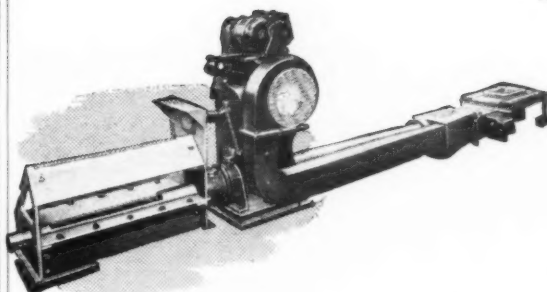
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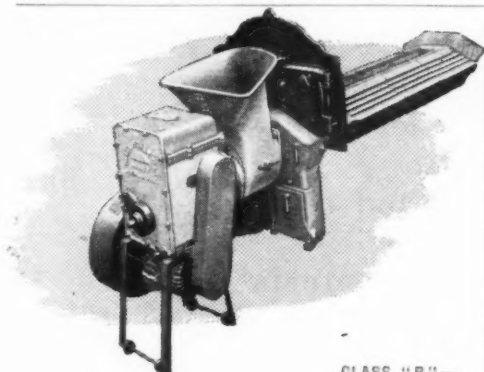
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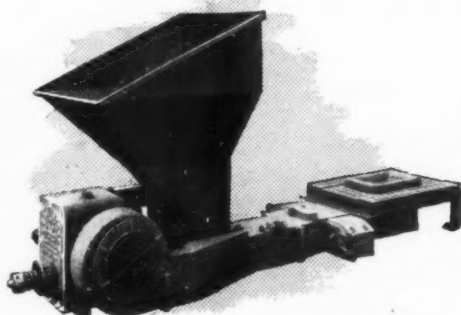
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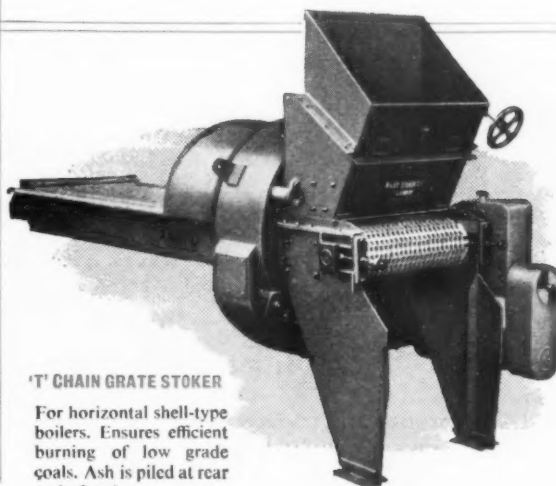
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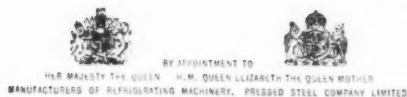
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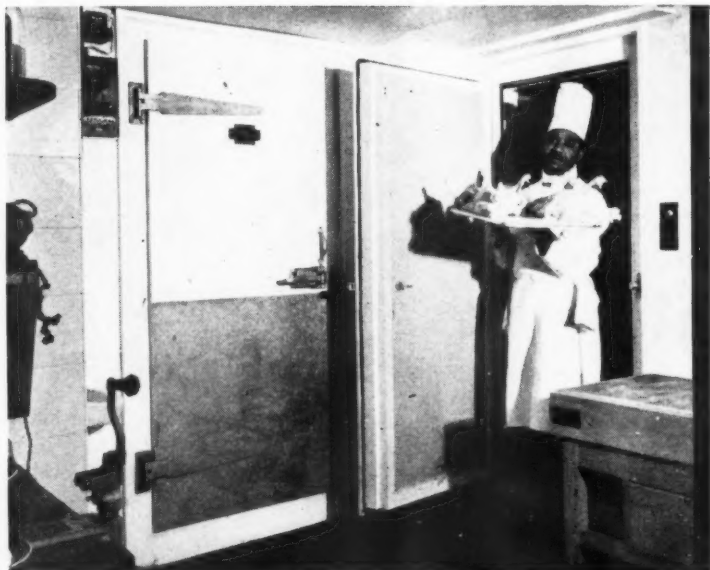
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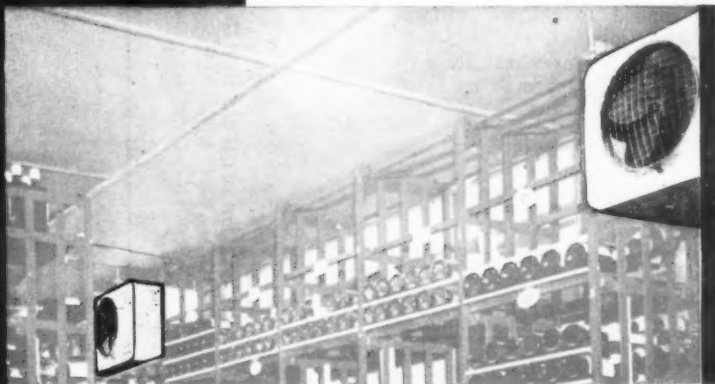
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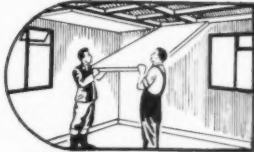
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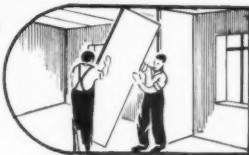


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Seen the Steward's Club?

Seen it. Who hasn't?

Committee ravin' about it . . .

Midred swoonin' with joy . . .

Lady Crocker in transports, says
she's going to have the bar copied . . .
with gold fittings.

Can't understand how they got away with it.

Who—Reed Millican★?

Dazzle 'em old boy.

Blind 'em with science. Bamboozle 'em.

It's all done by mirrors.

Certainly boosts the bar takings.

Bubbly by the bucket.

Fizz by the firkin. Can't hear yourself
speak for the poppin' of corks.

What about a bottle?

Done—and a pony on Glassblower
in the 3-30.



THE ARCHITECTS' JOURNAL

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NOT QUITE ARCHITECTURE*

NEWS LETTER FROM DUBLIN

Architects,—with those suede shoes,
that queer sort of hair, that owlish
manner,—are they . . . all right . . .
socially? (Do their daughters ever even
hose the river police?) Anyway, the
President of Ireland had all sorts of
architects, gents, indigents and injuns,
to tea one cold June afternoon this year,
but incidentally, I mean, smuggled in
under a Study Group of the International
Hospital Federation, like Ulysses under
the belly of that ram,—except he was
on his way out. Architects must be on
their way in?

The President, no Polyphemus, poly-
glottally welcomed them, in French,
English and Irish; later, under the South
Portico of his house, (former Viceregal
lodge), in the Phoenix Park, (former
property of Barbara Villiers property
of Charles II), he gave Thomas P.
Kennedy, Esq. the Triennial Gold
Medal issued once in a blue moon by the
Royal Institute of the Architects of
Ireland. This year's blue moon shines on
Mr. Kennedy's elegant, efficient St.
Luke's hospital, the first to be visited
by the International Hospital Federa-
tion's Study Group in its tour.

The Group's face after its Tour was a
Study. Ten days whirling around the
minuscule sub-tropical isle and they had
seen 24 hospitals, total capital value
£34,000,000. The day before the Presi-
dent's Reception, the Group, complete
with face, was down in Architects' H.Q.,
8, Merrion Square, examining drawings

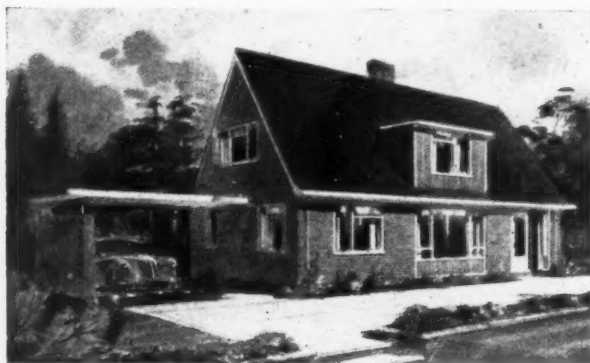
* Meaning exactly what it says.



.. ARTISTRY IN



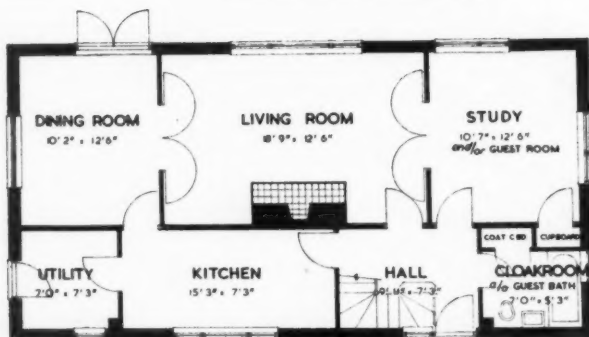
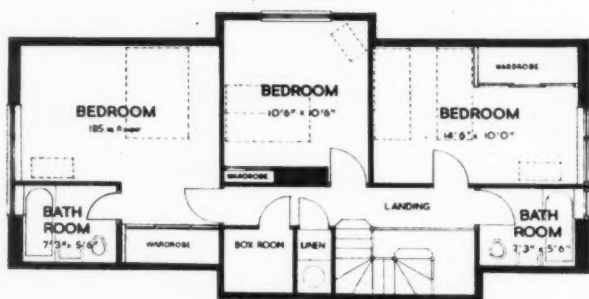
GLASS



Clay Feet on Modern Gods?

There is nothing new about a spec. builder trundling out the same old plan with a slightly different treatment of the exposed half-inch beams. But there *is* something new about an organisation which will provide the same plan and a choice from four facades, of which three are designed by eminent architects. The author of the "unique basic plan" (below) which Boxgrove Houses Ltd., have "perfected and proved after five years of careful research and ruthless

testing" remains anonymous. But the firm proudly announces that the elevations and "certain internal details" are the work of Sir Giles Gilbert Scott, Basil Spence and F. R. S. Yorke.* How splendid it is that Messrs. Yorke and Spence have taken part in this scheme for the marketing of plans. If Sir Giles had been in it alone the profession would not have raised more than half an eyebrow. But doubtless Mr. Spence and Mr. Yorke are looked to by many people for a lead in things architectural, and here they have shown their followers quite clearly that it is now all right to drop any preconceived ideas about elevations being controlled by plans, sites and townscaping. Is this, perhaps, the first step towards an easier life for busy architects who find the designing of private houses unprofitable? Can the intelligent client be made to realise that any talk of aspect and prospect is just old-fashioned nonsense, and that what really matters is that he, like Smith, Jones and a few hundred other people, owns a "unique" exterior curtain autographed by a celebrity? ("Yes we decided he was the best man for the job: mind you he was awfully busy on the cathedral...."). Or will there always be the irritating client who wants individual attention: and is it possible that some architects will always prefer to give such attention? If so, Boxgrove still has a suggestion to make: "If you wish to use the Boxgrove form of construction and layout plan, but would like to have elevations and internal features to your own individual taste and requirements, you can appoint your own architect to work out the details." So you architects need not despair: even if Boxgrove monopolises every Acacia Grove in the country, you will not be squeezed out of business. The public is actually being recommended to come to you for those pretty little touches you have learned to do so well. And, anyway, who wants to be bothered with tiresome plans?



* Photographs: top right, above left and above right respectively.

for . . . more hospitals, the gin and Noilly gurgling in its tired throat. You're starting at the wrong end, said a Scottish architect, referring of course to the hospitals; that money should be spent on schools and houses. (Visions of the Irish Schools Lottery, the Irish Housing Bingo!) Now, apparently, cruising through the luscious Irish grasslands are vast T.B. Sanatoria, white, gleaming, doctor-bearing nurse-haunted—but no passengers! (They're all over in England, on strike for more sick leave.) It is civilisation, the Welfare State, the Absentee Game,—topia for the non-U.

They're too big, said the Scottish architect, when he saw the 2,000-child schools in Dublin's suburbs; you want smaller schools, more widely spaced, so that as birthrates vary from district to district you can close one school, open another, cut your losses, keep the scale intimate. (One didn't tell him but, actually, one's birthrate has no Highlands, no Lowlands, doesn't vary. This is one site where R.C. doesn't mean *béton armé*.)

H.E.'s garden is by Decimus Burton: in clothing his guests Montague played no part. H.E.'s sky, for the party, in pale washes of five pounds lead, is by Nemesis, the well-known blanket. At 17.30 hours, Study Group time, guests deserted the garden for the terrace. The South Portico, proscenium for the presentation of this Medal, is by Francis Johnston, Father of the Royal Hibernian Academy, architect of the Nelson Pillar and of that phoenix's nest, the G.P.O.

So memory fades out this congruous tableau—Francis Johnston, Tom Kennedy, D. (& M.) Burton, H. E. and Mrs. H. E., the Medal, the Architects' President, (inscrutable beard,) the aides, the ceteri. There is a crackle of applauding smiles as the Medallist conjures up between the columns the gay corporeal presences of Freddie Hicks and Alan Hope, winners of the first and second Triennial medals (a church, a factory) and hails the absent No. 3, D. FitzGerald (an aeroplane halt), the only other Gael so decorated. The pleasant afternoon lacked only one thing—a pretty nurse to pluck the medal out of a revolving drum.

NIALL MONTGOMERY

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

The Editors

COMPETITION CONFUSION

THE international competition for the design of a National Opera House at Sydney, Australia, is one of the largest and most important of post-war competitions. The prestige of two of the four assessors: Dr. Leslie Martin and Eero Saarinen is sufficient to stimulate widespread participation in the competition. It is, therefore, distressing to learn that all is not going well. The troubles arise from the official answers given to the questions asked by competitors.

The original competition conditions were admirable: short and clear, leaving great latitude for imaginative and creative thought. There were only two brief pages of relevant building regulations. However, the answers to competitors' questions make, in effect, a further 56 pages of largely design-affecting conditions. Some of these new regulations would seem to rule out most of the buildings of this kind for the last thirty years—the Royal Festival Hall, as well as the halls at Malmö, Gothenburg and Mannheim. These regulations concern the question of raised auditoria, with public circulation underneath, which was a possibility under the original conditions. Do the assessors seriously intend to throw overboard all schemes that do not have their auditoria at ground level? If so, is it reasonable to do so at this stage, when many competitors have three months' work behind them, and when the assessors have stated that the original conditions contain the "relevant building regulations"? Surely a regulation with such a devastating effect on the design is highly relevant? On the other hand, the answers are somewhat ambiguous, and self-contradictory, so that it is not quite clear what is really intended.

Here are two questions and answers which affect this issue:

"387. *Question*: There have recently been examples of auditoria built over public areas and dressing rooms. Provided the requisite fire precautions are taken, will this be allowed? *Answer*: No." (It is not clear what "public areas" are, but this would seem to refer to foyers, etc.)

"293. *Question*: Re Appendix 2—Regulations: This Appendix sets out 'A Summary of Relevant Regulations to be observed.' However, there are certain important provisions in Part 2 of the Theatres and Public Halls Act, 1908-1946, which are not referred to in this summary: for instance, clause 11 of the part, 'Floor Level' requires that 'in no case shall the floor level be more than 3 feet 6 inches above or more than 12 feet below the mean level of the footpath of the main thoroughfare except with the special consent of the Minister . . . etc.' Is this clause relevant or does its absence from the summary infer that the Minister's consent to waiving it is taken for granted? Are other provisions of the Act not covered by the Summary to be ignored for the purposes of this competition, or should the Act be taken as applying in full where applicable? *Answer*: No exemptions from the regulations are to be assumed. It is considered that the summary of requirements set out in the Conditions

indicates the major matters of concern to competitors at this stage and was intended to ensure that as far as possible all competitors would comply with the same mandatory regulations."

It is not clear from the above whether the word "regulations" in the first line of the answer refers to the regulations in the Conditions or all the existing regulations. There seem to be certain waivers "built in" as it were, to the Acts, but it is still not clear whether the Assessors consider these to be exemptions from or part of the regulations. Incidentally, steeply raked auditoria such as the Festival Hall would be ruled out by the "floor level" requirement, as obviously, from the dimensions given above, 15 feet 6 inches is the maximum permissible drop for the rake.

Here are further examples of muddled replies to questions:

"329. *Question:* Appendix 2, para. 15 (Dressing rooms etc. not to be placed under the stage or the auditorium). Does this mean conversely that an auditorium should not be placed under dressing rooms or a stage? *Answer:* Yes, if adequate fire protection and escapes are provided." (It seems a fairly safe bet that the Assessors really mean no, i.e. that an auditorium could be placed under dressing rooms or stage because otherwise the qualifying clause is redundant.)

"408. *Question:* Can the two main halls be adjacent to each other or must they be one above the other? *Answer:* A matter for the competitor."

Here the questioner is incorrect in implying that there was a condition that the two main halls be placed one above the other, but it is difficult to reconcile the Assessors' answer with their answers to questions 387 and 239. The auditoria could not be one above the other unless each was 7 feet 9 inches high, and surely an auditorium is a "public area"?

The two questions quoted below add a further confusion on a much less important issue, that of Continental seating.

"326. *Question:* Continental European system of seating (retractable or lifting seats and a clear spacing of at least two (2) feet between rows) sets no limit to the number of seats between two aisles. Could such system be adopted? *Answer:* For the purpose of the Competition this could be assumed."

"348. *Question:* Is so-called 'Continental' or aisle-less seating permitted, as it is by National Board of Fire Underwriters' Code? *Answer:* No."

These ambiguities in answering questions will not contribute to the popularity and good reputation of the competition system, so it is to be hoped that the Assessors will take steps to clarify these issues. Otherwise many progressive ideas on opera house design may be lost.

READ THIS WEEK

Spec. houses with facades by Basil Spence and F. R. S. Yorke ..	page 696
Australian concert hall competitors meet difficulties	page 697
BBC Critics call South Bank Shell building "unadventurous and old-fashioned"	page 698
AJ holiday offer: four more days to apply	page 703
Norwich city centre scheme approved	page 704
Progress photographs of UNESCO headquarters, Paris	page 706



FILE THIS WEEK

The Industry. This week Brian Grant reviews a booklet on conversion schemes which has been produced by manufacturers of water heaters. The schemes illustrated show the use of various types of water heater from the small sink unit to the larger multi-point and the balanced flue type. Mr. Grant also refers to a series of boilers intended for central heating and indirect hot water supplies, some new gas cookers and a range of plastic dome lights.. page 708

Offices in Chiswell Street. Our building of the week is the first lettable office building to be described and analyzed in the JOURNAL. It is also one of the first office buildings in the City of London worthy of close study .. page 715

Working Details. This week's Details include one on a range of glass doors at London Airport and a ventilation duct in the exhibition hall at the Airport.



CAN YOU RELY ON IT?

The BBC's weekly *Critics* certainly pushed Howard Robertson's South Bank tower-block around a couple of Sundays back. R. H. Westwater made a brisk opening, only to retreat into a series of hedging clauses about not judging by the model at the RA, and tried to turn the discussion on to the more general plane of high-rise development in the abstract, but the rest of the critics weren't having any, and insisted on discussing the Shell tower in the concrete (or Portland Stone, to be more precise).

*

Ivor Brown immediately made the sectional point that it would overshadow the National Theatre, and attempts to discuss it as a backdrop to the river-bank buildings got lost as Morpurgo drew comparisons with the New York riverline and skyline, and said that the South Bank must be made more adventurous, a point he re-emphasized later. The Shell tower he found conspicuously unadventurous, a point on which the elegant Alan Pryce-Jones at once backed him up, only to be followed by Freda Bruce Lockhart with a forthright "I think it's positively old-fashioned"—not at all the usual architectural line of the distaff-side critics. Even Gerald Barry turned exponent of the new-look, non-impartial, chairmanship, and announced that he too found it old-



"The big skyscrapers in New York . . . seem to be floating away because they've got wonderful new materials, glass and aluminium, and they're able to use height and use it lightly." Thus spoke Sir Gerald Barry on the BBC's Critics programme recently (as ASTRAGAL reports this week) when describing Sir Howard Robertson's design for the Shell offices on South Bank as "old fashioned." In contrast with British architects' endeavours to design high buildings, here are two designs by Skidmore, Owings & Merrill for offices in New York. On the left is a sketch of the proposed 41-storey offices between Park and Madison Avenues for the Union Carbide and Carbon Corporation which is expected to be completed by the end of 1958. It is estimated to cost \$40,000,000, have a gross floor area of 1,250,000 square feet, including cafeteria, lounges and medical unit, and will be occupied by over 3,000 office workers. Right, the proposed offices for the Chase Manhattan Bank, sited on a 2½ acre site bounded by Nassau, Liberty, William and Pine Streets. It will rise 60 storeys, or 810 feet above the piazza, beneath which are a further six floors. See further illustrations on page 707.

fashioned, and compared the Portland Stone facing unfavourably to the patent glazing of recent US skyscrapers. Although this unfortunately gave the cue for some routine New-Elizabethan trumpetings about Portland Stone and St. Paul's from Ivor Brown, the whole tone of the discussion remained hostile, and the much-vaunted "intelligent lay opinion" of the Critics proved itself for once in tune with much professional opinion.

PENNY PLAIN

Ever since the Danckwaerts award, money has been piling up (at the rate of £80,000 a year) in a special kitty designed to enable doctors to obtain

interest-free loans for building group clinics. Recently ASTRAGAL went to the AA to hear Dr. Stephen Taylor, of the Nuffield Trust, give his views on the sort of buildings doctors ought to want. Of course, as Dr. Taylor pointed out, doctors *don't* want them, being at once the most incoherent, the most vacillating and the most dogmatic of clients. But the few up and down the country who have got the sort of group clinics (conversions, most of them) Dr. Taylor and the Nuffield are gunning for, are reported to be as happy as birds.

*

ASTRAGAL, who was much invigorated by Dr. Taylor's jolly, no-nonsense

attitude, cannot quite see why the doctors should be all that happy. Dr. Taylor's recipe is: do it on the cheap, make the patients feel at home, and for goodness sake fit windows that open. On the planning issues ASTRAGAL has no quibble. But unfortunately this recipe has meant so far using only the sad, tired, building components and furniture which inconsiderate usage has made cheap and familiar. Dr. Taylor spent a rollicking evening holding up for example one artless waiting room after another, pausing only to make wicked asides on the few good-looking objects which happened to flash on to the screen ("lousy basin . . . looks pretty . . . doesn't work").

ASTRAGAL was not convinced. He is all for the domestic scale, for good value for money, and for windows that let out B—if you will pardon the expression—O; but he doubts very much if patients are greatly reassured by finding subtopia in the doctor's waiting room and visual chaos in his sanctum. Good design, after all, is a therapy in itself: National Health patients may not like it because, God knows, it is unfamiliar; but it does them good. Also the argument from economic stringency is nonsense: the clinic building programme represents a not-very-poor profession settling down into the setting which must last them a lifetime. To speak of it as though it were nissen-hut-or-nothing is (to use Dr. Taylor's refreshing outspokenness) tosh, tripe, and bunkum.

SIR ALBERT SPEAKS FRANKLY

Professor Sir Albert Richardson's contribution to the BBC's *Frankly Speaking*, in which he was grilled by Margaret Lane, John Betjeman and Lionel Hale, produced few surprises from the architectural point of view. No doubt demonologists and exorcists will have raised their eyebrows at Sir Albert's suggestion that his house at Ampthill is not haunted because it was once inhabited by Quakers. (Estate agents should find this useful information, too—one can imagine how Honest Roy Brooks will put it to work.)

*

For the rest, beginning with an admission that he found the Twentieth Century rather unreal, the PRA revealed the true soul of an eclectic, admitting that he was a frustrated collector and that he preferred punch, for instance, rather than a straight wine. Beyond this, one got a hair-raising picture of the rigours of trying to live in the eighteenth century. Candlelight—in spite of Lady Richardson's complaints, gas-irons (ghastly anachronisms), the wearing of a wig to stop the head freezing in a house with inadequate heating (one or two bouts of Professorial coughing suggested that even this may not have been altogether effective). Not for me, thought ASTRAGAL, wondering how a man who felt the present century to be unreal could be bothered with talking on the radio . . .

ASTRAGAL



13 Essex Architects

P. L. Money, Deputy Director, TDA

Clarke and Gregory, A./A.R.I.C.S.

Dennis Bowman, A.R.I.B.A.

Walter Segal

John A. Nightingale

A Divided Profession

SIR.—We wish to endorse the views expressed by Mr. Milburn in his letter published in the JOURNAL for May 31, regarding prospects for the younger members of the profession.

The salaried members of the profession—as distinct from the employer and principal members—must indeed be in a poor way, when the essential and basic interests of these employers and principals are directly opposed to theirs as regards conditions and remuneration. The position is certainly grim when firms and authorities advertise for chief, principal and senior, qualified and experienced assistants at salaries in the range of £690 to £820 p.a. It is unfortunate that conditions exist wherein these posts are filled.

Let us admit it—the profession is fundamentally divided in respect of remuneration and conditions for its members. Is it not time we had a more realistic training for the assistant architect and for the architectural assistant? The training of the former should be of the present high standard of degree and diploma courses, enabling the assistant architect to fill the highest posts in the profession. The training of the latter should be of much shorter duration academically, the student receiving instruction in building construction, mechanics, draughtsmanship etc. We feel sure that a two-tier system of this kind would provide a more realistic labour market within the profession, lead towards a greater satisfaction amongst its members and would also further enhance the reputation of the profession.

J. G. WATSON (A), R. S. CHESHER (A), M. RUCHEWICZ (A), J. A. BUCK (A), E. GREENWOOD (A), K. MUNNICH (A), R. THOMAS (A), A. PURCHASE, N. ROBERS (A), W. H. DAVIES (A), A. MERCER, STUDENT, RIBA, K. L. ABBOTT (A), J. N. GRAHAM (A).

Essex.

"You Can't Get The Wood"

SIR.—In your issue of May 17, ASTRAGAL, referring to the recent lecture tour by Professor Lasserre, made the astonishing statement that "Broadly speaking, we cannot get the timber because we cannot find enough dollars to pay for it." This sounds like a voice from the past. There is today no shortage of timber and no restriction upon the import of softwood from dollar sources. Last year, in fact, imports were higher than in any year since 1938, although a comparatively small proportion came from dollar areas. Stocks of softwood, hardwood and plywood are at a high level.

This is really all that I need to say, but your readers may be interested in the following details of our imports in 1955:—Sawn softwood imports totalled 1,656,000 standards, of which 445,000 came from Sweden; 423,000 from Canada; 320,000 from Finland, and 241,000 from the USSR.

Hardwood imports totalled 45,260,000 cubic feet, of which 12,085,000 came from West Africa; 3,382,000 from France; 3,228,000 from Japan; 3,152,000 from Sarawak; 3,130,000 from Yugoslavia; 2,218,000 from Canada; 1,796,000 from Malaya, and 1,302,000 from the USA.

Plywood imports totalled 15,134,000 cubic feet, of which 7,077,000 came from Finland; 2,570,000 from the USSR; 1,462,000 from Japan, and 1,421,000 from Commonwealth countries.

P. L. MONEY.

London.

A Correction And A Compliment

SIR.—We would draw your attention to a small error in the Information Sheet published in the JOURNAL for May 31. The 1½-in. seal indicated on the section through the trap is incorrectly shown from the bottom of the trap to the water level, i.e., the overall depth, whereas it should be from the bottom of the centre division, i.e., the "obstructed" depth.

We should like to take this opportunity of commending the staff of the JOURNAL on the very fine work they have done and are doing in assisting all members of the building industry in the monumental task of filing the mass of technical literature with which they are inundated throughout the year. We find your Technical Section and the Information Sheets extremely useful and the new arrangement of the JOURNAL is particularly helpful in speedy filing.

CLARKE & GREGORY.

London.

Unfair To Post-War Architects?

SIR.—My Society have asked me to bring the following to your notice:

It has been recently announced that a new town hall is to be built for Oldham and that the design is to be entrusted to a firm of architects who have had experience (mainly pre-war) in this kind of work. My Society was not approached in the matter: if we had been, our advice would have been the obvious one—an open competition.

Our profession now has many talented designers who would jump at the opportunity to enter for such a competition. In general, the architects who made their names before the war did so through the medium of competitions and it seems only fair that post-war architects should be allowed to do likewise. It seems unlikely that the design would suffer.

DENNIS BOWMAN.

Oldham.

Trinity v. Mendelsohn

SIR,—I am sure Mr. Banham, whom I have inspected in the meantime at close quarters, and who somehow disarmed me, will now let me have the last word in the matter of Trinity v. Mendelsohn. For by now he knows quite well that I am not a "mockery of the grey eminences," but one of their seemingly renegade offsprings.

However, since Mr. Banham, though apparently not on his own free will, has been entrusted with the custody of the Trinity's dissolute grandchildren in this country he should not be so disrespectful to their elders for the mere sake of re-adjusting Mendelsohn's place in the Pantheon. Once more I feel I can smoothen for him the Face of Fact.

In the first version of the small house at Vaucresson, and oh, Mr. Banham, please look it up, Le Corbusier had a rounded staircase at right angles to the main elevation. Messrs. Storonov and Boesiger, the faithful *élèves*, gave prominence to the little horror so that the Master could record the *change fatale* in the design, e.g., precisely when he left the Velodrom d'hiver where the spectacle of greatness and unity (not my words) had a beneficial influence on the staircase. Other staircases were inspired by Bach's music.

Le Corbusier thought this a strong moment, full of portent on life, and Mr. Banham must be earnestly advised to accept his view and to desist from being ungenerous; many have striven for asymmetry in front and symmetry in the rear, and at Vaucresson the staircase could not assist both. Be fair, Mr. Banham; yes, and to the house at La-Chaux-de-Fonds too, a jolly good effort at 17 when the old man did still better than some of his grandchildren at 34.

And isn't Mr. Banham rather unbending in the matter of starts, particularly when outside his charge's care; but then, of course, art historians like their heroes to be either madly consistent or infuriatingly inconsistent.

The Haus am Horn was designed by Georg Muehe in 1923; Breuer designed the furniture for the living room and the lady's room, Alma Buscher and Erich Brendel those of the children's room. Erich Diekmann designed the dining room and the smoking room and Benita Otte and Ernst Gebhardt were responsible for the kitchen. The light fittings were designed by Alma Buscher, C. J. Jucker and Julius Pap. The decoration was in the hands of Alfred Arndt and Joseph Maltan. Yes, Mr. Banham.

So, while the facts groan I must thank Mr. Banham for having so graciously accepted my compliments on his side elevation; but this, naturally, belongs into the province of disarmament.

WALTER SEGAL.

London.

Mr. Banham replies: Last word willingly conceded—I am too busy digesting all this hard-to-find information on Haus am Horn to argue. Thank you, Mr. Segal.

SIR,—Most architects at some time in their lives get off the train at Basle, but few take the mile odd from there to Dornach to see Rudolph Steiner's concrete buildings mentioned by Mr. Segal.

One of their secrets is the convincing way they show the true nature and use of reinforced concrete. Liberated from a pillar and slab construction which is really a convenient convention of our times it becomes capable of great expressiveness and of coming alive through the possibilities of double curvature.

I recommend this jaunt to all tired of the tyranny of rectangles.

JOHN A. NIGHTINGALE.

London.



FACTORIES

Effect of Credit "Squeeze"

The following report on the effect of the Government's disinflationary measures on factory building appeared in the June issue of *The Times Review of Industry*:

The Board of Trade's figures for approvals of new factory space in the first quarter of the year show little sign that industry has not been greatly discouraged by the Government's disinflationary measures from planning the expansion or renewal of capacity. In the first three months of the year 762 schemes with a total floor area of 21,675,000 sq. ft. were approved. Although in both number and area these figures were lower than in the first quarter of 1955, the area approved was higher than in the third and fourth quarters of last year and was, in fact, the third highest figure for two years. Whether or not the effects of policy measures will be seen later in the postponement of approved projects remains to be seen. In the past about 75 per cent. of approved schemes have been proceeded with.

On their face value, the latest figures could be interpreted as indicating that the proportion of "starts" is being reduced. In the last quarter of 1955 only 438 schemes covering a total area of 10,500,000 sq. ft. were begun, compared with 651 schemes and 19,100,000 sq. ft. in the third quarter and 527 schemes and 13,400,000 sq. ft. in the last quarter of 1954. However, the figures for October-December, 1955, are not final and experience shows that they are later revised upwards by at least 15 per cent. Such a revision would bring the final quarter's "starts" to at least 12 m. sq. ft.

IUA

International Competition

Professor Sir Patrick Abercrombie will be one of the assessors in an international competition promoted by the Department of Public Works for the Republic and Canton of Geneva. The subject is the layout of the Place des Nations and of the approach to the Secretariat of the Palais des Nations in Geneva. The prize money will be 40,000 Swiss francs—to be awarded to a maximum of five entrants. The premiated entry will be bought for 10,000 Swiss francs.

Questions must be sent to the Department of Public Works, 6, rue de l'Hotel de Ville, Geneva, by August 15. Information can

be obtained from the Department on payment of 50 Swiss francs.

The closing date for the dispatch of entries is April 15. In addition to Professor Sir Patrick Abercrombie the assessors will be Jean Dutoit, Eugène Beaudouin, Jacques Carlu, Arnold Hoeschel, Giulio Minoletti, and Werner Moser.

BRISTOL

A Building Centre

A Building Bureau will be open in Bristol (opposite the Co-operative Society Building) from July 4 until August 18. If this pilot scheme is successful a permanent Building Bureau, run on the lines of the London Building Centre, will be opened at a later date. The director of the Bureau is Raymond Moxley, A.R.I.B.A., of 33, Park Street, Bristol, 1.

LCC

Architect Appointed

Hubert Bennett is to succeed Dr. Leslie Martin as architect to the LCC. Hubert Bennett, who is now county architect to the West Riding of Yorkshire, thus becomes the profession's highest paid official architect and head of the largest local authority architectural and planning department in the world. Mr. Bennett is not a qualified town planner, but has the following architectural distinctions: Arthur Cates Prizeman 1953; Soane Medallist 1934; Neale Bursar 1936; and Godwin and Wimperis Bursar 1948. He is President of the West Yorkshire Society of architects.

Hubert Bennett was trained at the Manchester school of art and at Manchester University. He taught for a time, after qualifying at the Leeds School, under Joseph Allen, before going into private practice. After the war he became Southampton's first borough architect. Then followed his appointment to the West Riding. His office as County Architect is at Wakefield. He has a staff of 250, who are housed in a 30,000 sq. ft. clerestory lit purpose-made building designed by him. Illustrations of this building, and of the work of Mr. Bennett's office, were given in the JOURNAL for June 2, 1955.

MOHLG

Battersea Tower

Duncan Sandys, Minister of Housing and Local Government, has agreed to the erection, by Festival Gardens (London) Ltd., of a galvanised steel ascent tower, 15 ft. square and 162 ft. high, at the Festival Gardens in Battersea Park. Nevertheless, he has some doubt whether the design of the tower is as graceful and pleasing as it could be, and he insists that the detailed design shall be subject to further consideration by the LCC.

DIARY

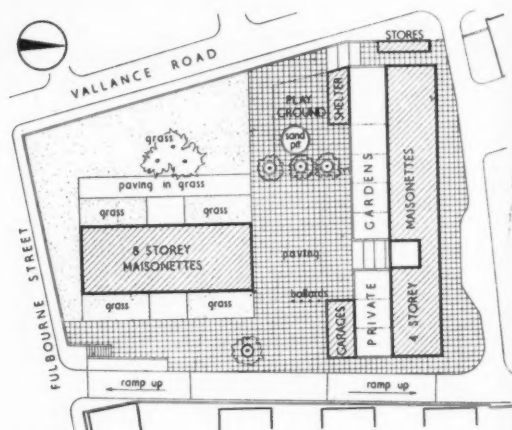
J. B. Fischer von Erloch. Talk by Dr. S. Lang. At a RIBA Library Group meeting. At the RIBA, 66, Portland Place, W.1. 6 p.m. JUNE 25

AA Students' Forum. Discussion on the form of the Fifth Year Programme, including the design subject. At the AA, 34, Bedford Square, W.C.1. 7 p.m. JULY 10

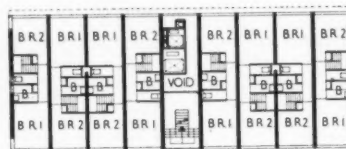
PROPOSED HOUSING ON THE ST. PETER'S HOSPITAL SITE



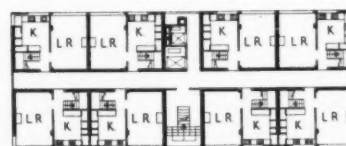
The proposed housing on the St. Peter's Hospital site in Stepney for the Directors of Housing LCC (R. J. Allerton), was commissioned in May, 1954, and the design with cross-over maisonettes was put to the Housing Committee early in 1955. As far as the architects, Stillman and Eastwick-Field, are aware, this was the first time that such a scheme was considered and accepted by this committee. The original hospital which stood on this $1\frac{1}{4}$ acre site has been demolished and the area is to be developed at 149 persons to the acre, mainly with 3- and 4-room dwellings. In the sketch above, from the south-west, Vallance Road is on the left, Fulbourne Street on the right and the block of cross-over maisonettes is in the foreground. The more desirable solution, recommended by the architects, was to provide all the accommodation within a single high block, so as to leave a higher proportion of open space, and raise most of the dwellings above the level of the drab surroundings. This was modified after discussions with planning officers, who were considering the possible development of surrounding areas. As a result, the final scheme consists of two buildings. To the north there will be a 4-storey block of eighteen 4-room maisonettes. Bathrooms and W.C's in the tall block are internal and are sited above the access corridor. Mechanical extract ventilation for these rooms will be provided by the system adopted in LCC schemes now being built. Some of the advantages of this planning arrangement for maisonettes are that external wall space is not taken up by an entrance hall and door because access is to the centre of the building. This means that the cross walls can be closer spaced than is usual, the floor spans are shorter and all rooms can have windows across the full width of the external walls; communal circulation space is less than would be needed with access galleries. Associate-in-charge, R. Smorzewski.



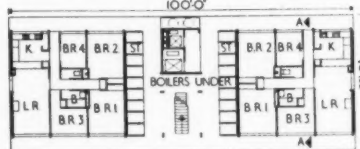
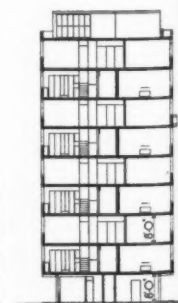
Site plan



Plan, floors 2, 4, 6 and 8

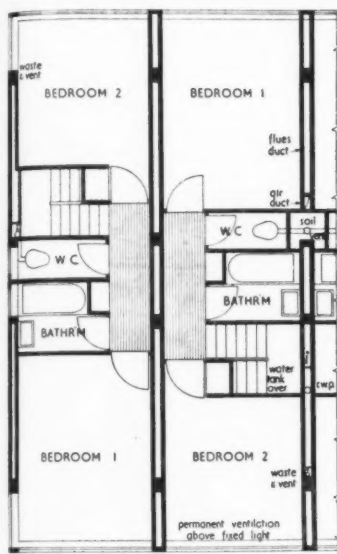


Plan, floors 1, 3, 5 and 7

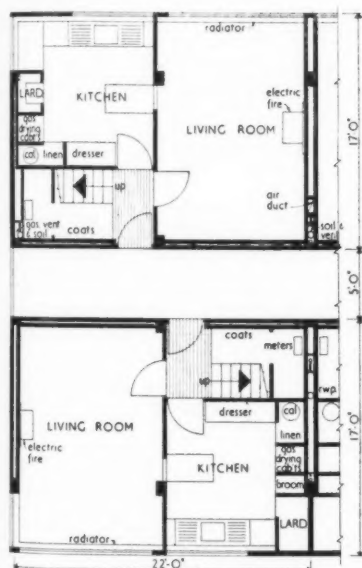
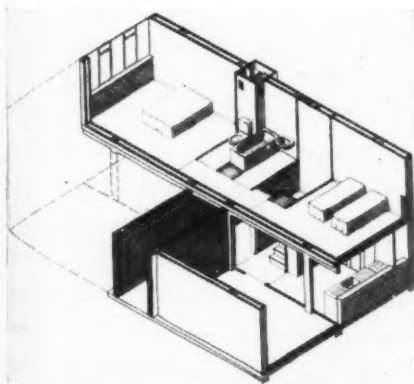
Ground floor plan [Scale: $\frac{1}{8}'' = 1' 3''$]

Section AA

AL SITE, STEPNEY



Upper level

Typical plan, maisonettes, lower level
[Scale: $\frac{1}{2}$ in = 1' 0"]

Arrangement of typical maisonette

WORK YOUR PASSAGE WITH WORKING DETAILS

The AJ holiday offer closes on Monday

You have only a few more days (until June 25) in which to apply for your AJ holiday abroad with pay. Full details of our scheme to give you a holiday in return for some good Working Details of foreign buildings appeared on June 7, but in case you missed the announcement and have mislaid your copy of that issue, here is a reminder.

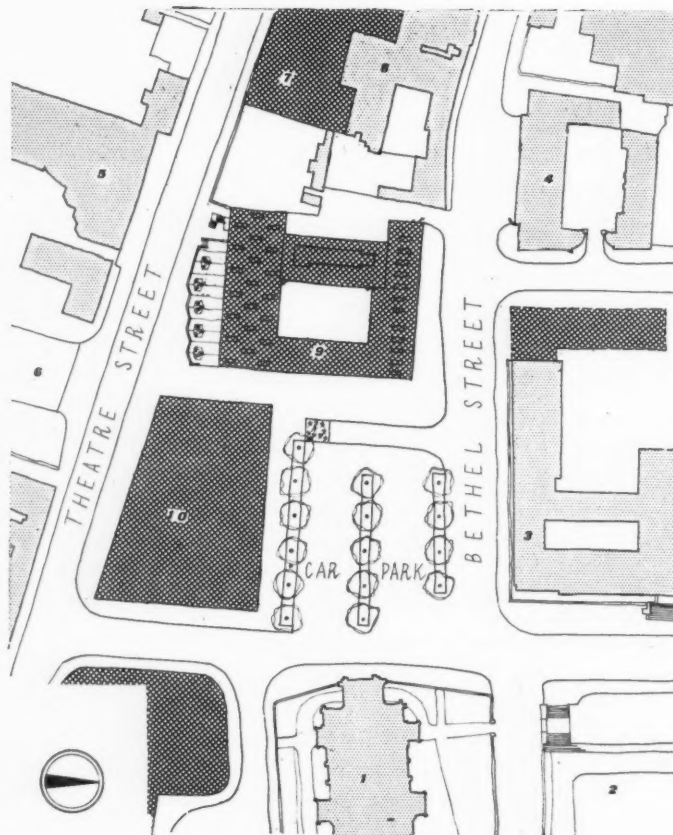
For Students Only: We will pay you between £20 and £40 in advance if you are selected from the applicants. And we will pay a further £6 6s. for each Detail we publish. So if you get enough suitable Details you can acquire enough money to cover your expenses. If you want to take part in this scheme please write to the Editors stating your proposed itinerary, how much you think the journey will cost you, what buildings you propose to get details of, and references to any periodical in which they have appeared. Your application, which will be considered on the basis of the most promising buildings and itineraries, must be accompanied by a letter of recommendation either from the principal of your school of architecture or from one of the principals of your firm.

For Architects Only: If you are going abroad this summer and think you will have time to spare to look for Working Details, please let us know in advance (we want to guard against the remote possibility of duplication). You will not be paid anything in advance but you will get a larger fee (£8 8s.) for each Detail we publish.

Expenses: We will, of course, pay for the photography of Details by professional photographers whether or not the Details are used.

What you must do: We must remind you that a Working Detail—photograph, drawing, caption—is the most exacting item in architectural journalism: it has to show not only the form of all the elements which compose it (including such things as screws, dowels, etc.) but must specify all materials and finishes, must describe methods of fabrication and the way the pieces were put together (if either of these are at all out of the ordinary); and must give the architect's reasons for detailing as he did. It will be necessary to check the architect's drawings against what was actually built, and in some cases it may be necessary to make a measured drawing on the spot.

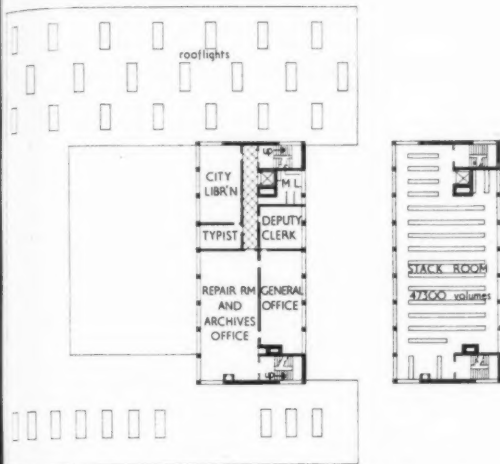
NORWICH CITY CENTRE: COUNCIL APPROVES



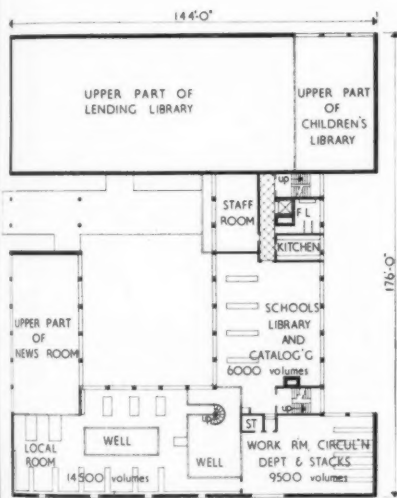
- | | |
|-----------------------|----------------------------------|
| 1. St. Peter Mancroft | 6. Forecourt of Assembly Rooms |
| 2. Market Square | 7. College for Further Education |
| 3. City Hall | 8. Bethel Hospital |
| 4. Fire Station | 9. Library |
| 5. Theatre Royal | 10. Concert Hall |

In the city of Norwich plan, prepared by the city council's consultants, C. H. James and S. Rowland Pierce in 1944, it was envisaged that a new library would be built after the war as part of the city centre to be developed round the city hall. A site has now been allocated south of the city hall and the sketch design illustrated here, prepared by David Percival, the new city architect, has been approved by the City Council. (See also A7 for May 31). This provides for the library to form the western side of a new square, which will have the city hall as its northern side, the church of St. Peter Mancroft on its east side and a site to be reserved for the proposed assembly hall on the south side. (The sketch above shows the building from Theatre Street looking west). A decision about the use of the square for car parking or as an amenity area will be considered later. The architect suggests that a basement car park shall be provided as well; this—together with the ground area—could accommodate about 250 cars. The library will consist of a low-square block, having at its centre a paved courtyard. On the western side of the courtyard the building will rise to five floors in the form of a tower, whose height is carefully related to that of adjoining buildings. This tower will become an important element in the civic design of the city, since it will form the termination of vistas from the shopping centre to the east and play its part in the silhouette of the civic

PLAN FOR FLINT-FACED CENTRAL LIBRARY



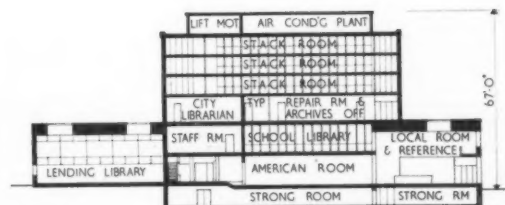
Second floor and typical third, fourth and fifth floor plans



First floor plan

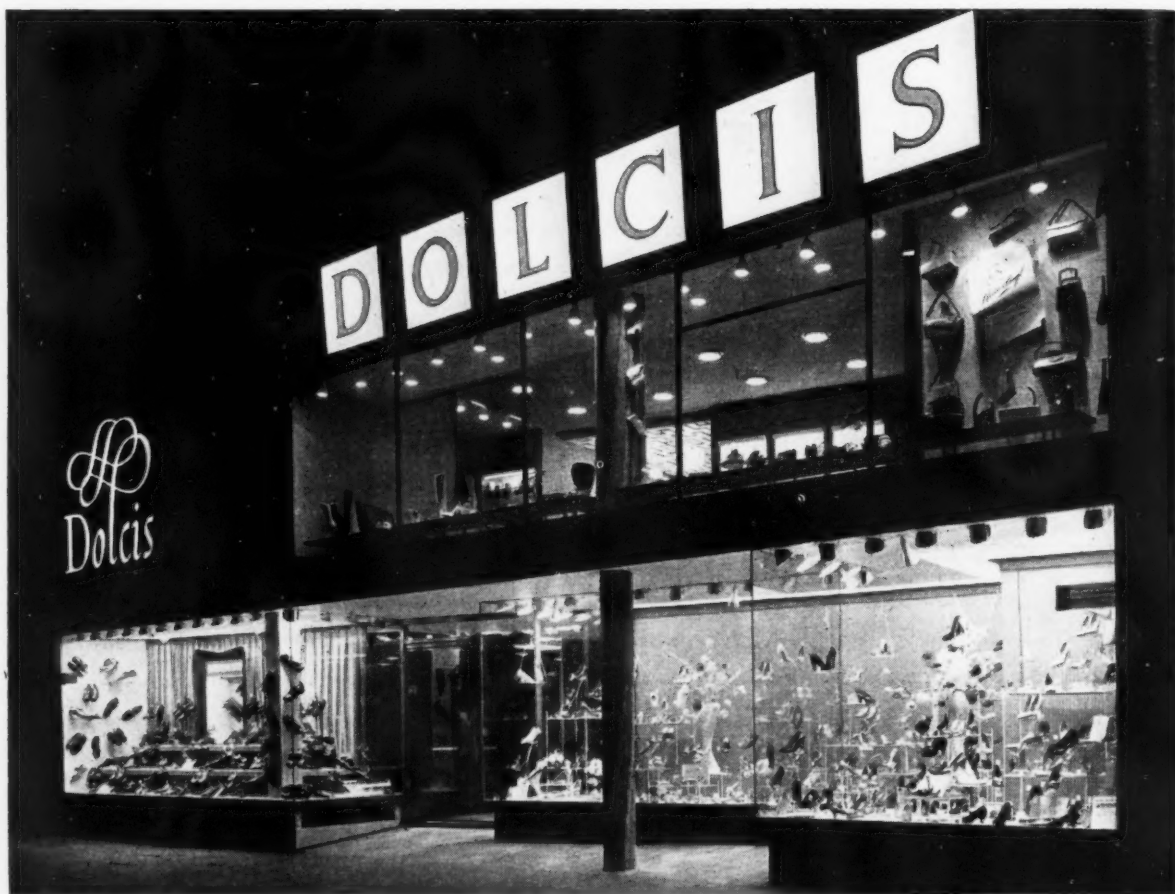


centre as seen from the northern part of the city. The facade towards the shopping centre is treated as the main elevation. The scheme allows for the whole of the accommodation used by the public to be on the ground floor. Students will be accommodated in a gallery in the reference room, which is on the first floor level. The open court round which the public rooms are grouped is intended to be decoratively paved and planted and provided with a small pool containing a fountain. The administrative rooms are at first and second floor level, the strong rooms and archives rooms in the basement, while the third, fourth and fifth floor levels of the tower are used as a stack. The stack will be linked to the public rooms and the administrative rooms by passenger, goods and book lifts. Vehicle service has been provided by a yard in the rear of the building. The architect's recommendation is that the building should be of reinforced concrete, with the ground floor elevations clad in knapped flint work, which would be made up from prefabricated panels. The detailed treatment is intended to be complementary to that of the Guildhall, which is constructed of knapped flint with stone dressings, and that of St. Peter Mancroft, which is in stone with knapped flint panels. It would have much in common in scale with these buildings. This would have the additional advantage of leaving the city hall as the unrivalled centrepiece of the composition. (Below: seen from the north-east of St. Peter Mancroft).

Ground floor and basement plan [Scale: $\frac{1}{8}$ " = 1' 0"]

Section A-A

C R E A T I O N W I T H C R A F T S M A N S H I P



New Dolcis Shoe Shop, Charing Cross Road, London, W.C.2.

Staff Architect : Ellis E. Somake, F.R.I.B.A. Shopfitting Work by
Courtney, Pope Limited. Lighting by Courtney, Pope (Electrical) Limited.

THE ASSOCIATED COMPANIES OF

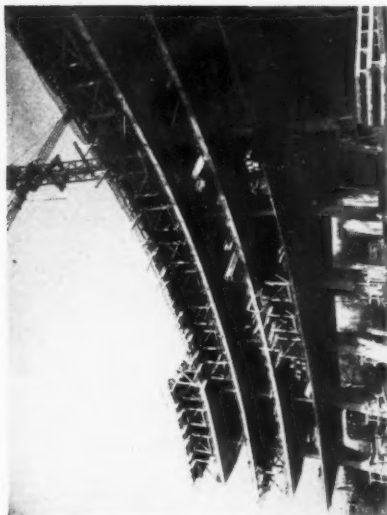
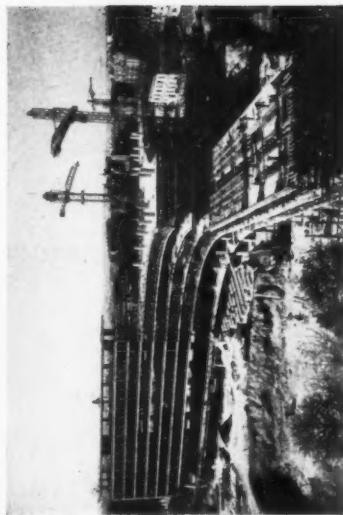
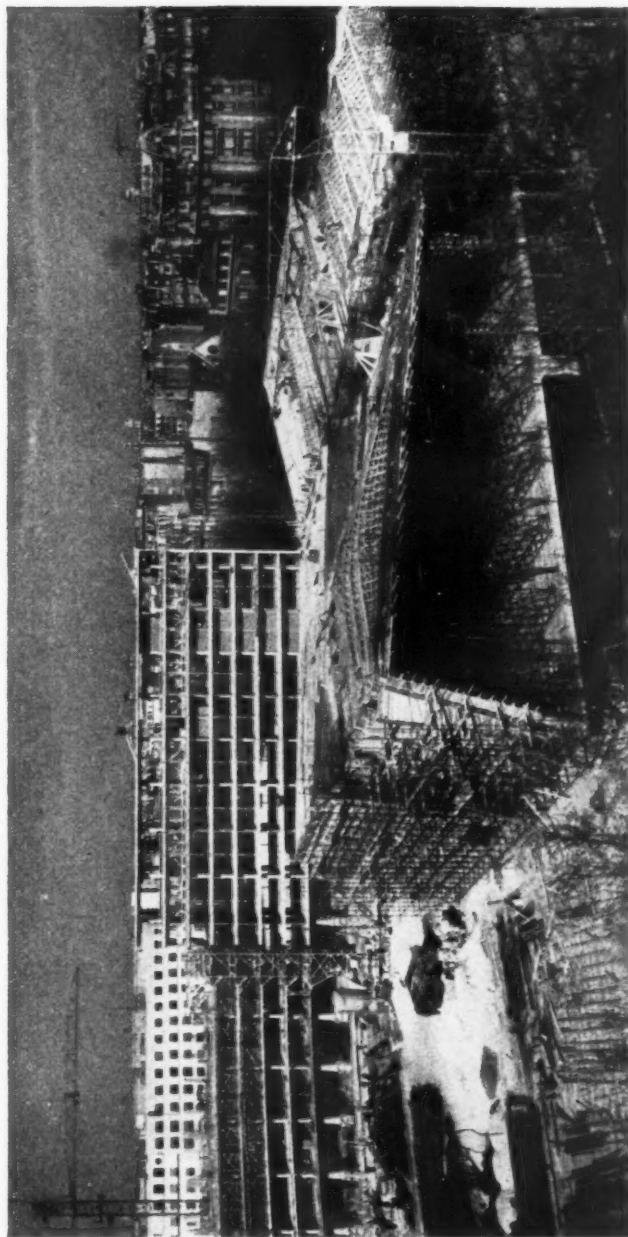
COURTNEY, POPE

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AMHURST PARK WORKS, TOTTENHAM, LONDON, N.15 • STAMFORD HILL 4266 (10 LINES)

PROGRESS PHOTOGRAPHS OF UNESCO HEADQUARTERS, PARIS



The new UNESCO headquarters in Paris is now, after the delays caused by controversy over the site, making rapid progress on the site finally allotted to it in the Place de Fontenoy behind the Ecole Militaire—just off the main axis marked by the Trocadero and the Eiffel tower. The joint architects are Marcel Breuer (U.S.A.), Bernard Zehruss (France) and P. L. Nervi (Italy), with Eugene Callison (U.S.A.) as site architect. As these latest progress photographs show, the reinforced



concrete carcass is up to its full height everywhere except in two wings of the Y-shaped secretariat, which can be seen in the background of the first picture. In the foreground is the assembly hall. Above, two more views of the secretariat, showing its curved plan which follows the perimeter of the site. Left, a view from outside the site showing, right, an end wall of the secretariat and left, the auditorium in which the reinforced concrete structure provides the finished wall surface.

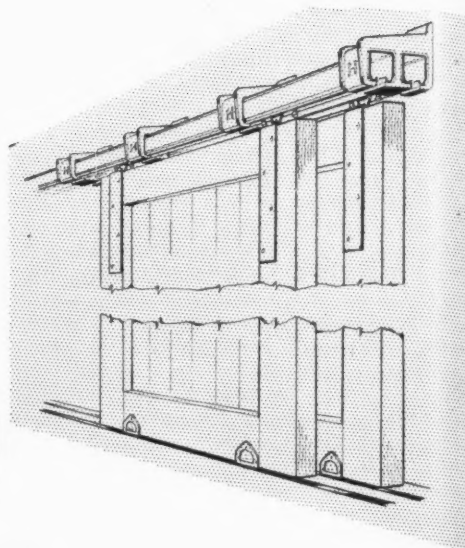
TUBULAR TRACKS

Straight-run Sliding Doors

TOP HUNG · SINGLE LINE · DOUBLE PASSING TRIPLE PASSING

Ten sizes Copper-amalgam rust-resisting tracks, each with rounded troughs and offset for trolley clearance. Hangers with ball or roller bearings, rustless lubricators, positive vertical adjustment. Precision made for wood or for steel frame doors. Bottom Guide (many exclusive types) to aid sweet running and security, and to keep out weather. Drawing Office Trained Technical Representatives wait upon Architects anywhere and will, if required, visit the builder on site. They ensure the right gear is selected and correctly fixed to provide a faultless job.

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(184P) also
available



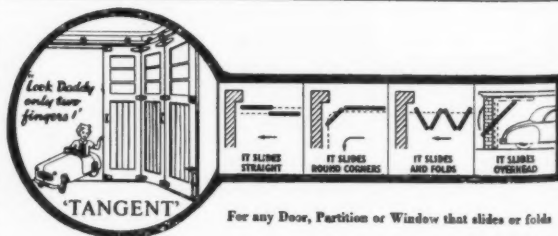
Mulliners Ltd., Birmingham 8. Architect: Harry W. Werden, F.R.I.B.A. & Partners. Contractors: W. J. Whittall & Sons Ltd.

Henderson SLIDING DOOR GEAR

P. C. HENDERSON LTD

HAROLD HILL, ROMFORD, ESSEX

Telephone: INGRebourne 4444

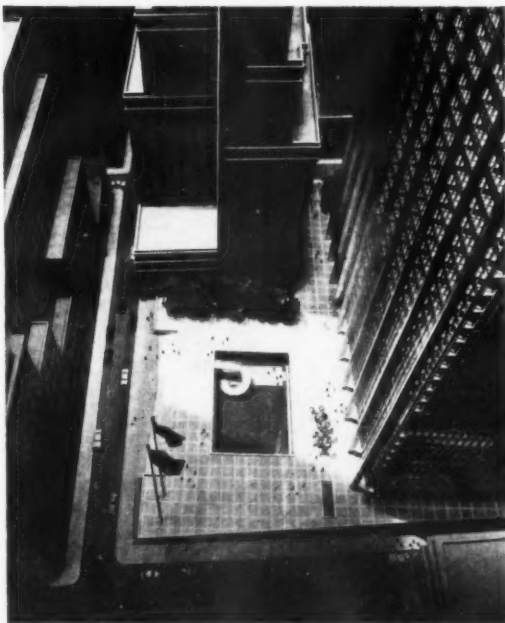


AP.205/H96

OPEN PLANNING IN NEW YORK



These details show the latest American attempts to utilize contemporary planning and design to provide



open planning in congested New York. This 60-storey office building, sited near Wall Street, New York, will be carried on 20 external and 20 internal columns. Designed by Skidmore Owings and Merrill for the Chase Manhattan Bank, the building will provide 1,700,000 sq. ft. of floor area and house about 15,000 workers. Four floors will be used exclusively for heating, air-conditioning and other mechanical equipment, including mechanism for exterior window-washing platforms. There will be 42 lifts and 12 escalators. About 70% of the 2½ acre site will be covered by a piazza with a sunken garden, pool and fountain. Below the piazza will be five 2½-acre floors. The top one will be the public banking floor, with below it floors for cafeteria and recreational facilities, off-street loading and garages, cheque-handling and stock transfer departments. The bottom and smaller floor will be vaults. The tower will measure 810 feet high and 281 feet long by 107 feet broad. See also general view on page 699.

**I knew it
when
it was
a tree...**

Now it's really *workable* wood.
No knots. No trouble. Just pure wood,
compressed into sheets that
won't split or splinter or crack.
Just right for counters and
cabinets and linings for roofs.
It has any number of uses
but only one name...

it's now

Bowater Board

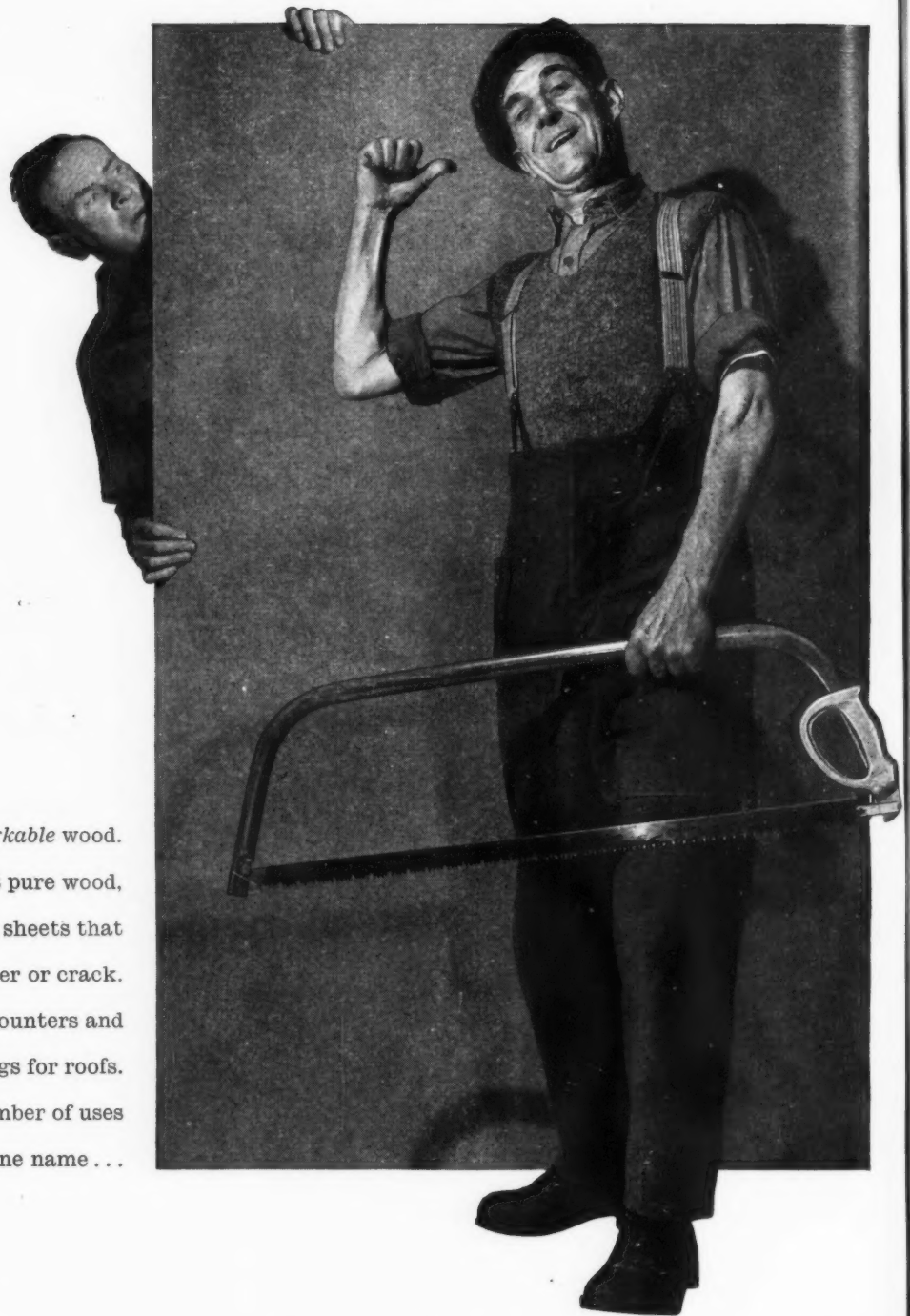
(you used to know it as Lloyd Board)



STANDARD AND SUPER HARDBOARDS, LEATHERGRAINED, REEDED AND PEGBOARD,
INSULATION BOARDS AND 'TALON' FIXING SYSTEMS.

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CAC 41



THE INDUSTRY

From the industry this week, Brian Grant reviews a booklet on conversion schemes and describes a new oil-fired boiler, a series of boilers, a new range of gas cookers and plastic top-lighting domes.

RESCUE OPERATIONS

Readers will remember that quite soon after the end of the war, Ascot Water Heaters produced a book called *Houses into Flats*, giving full details of a number of conversion schemes. Government grants are now, of course, available for bringing sub-standard property up to a habitable minimum and in carrying out this work it is absolutely necessary to provide a proper supply of hot water and washing facilities. Ascots have therefore followed up their earlier publication, with another one called *Houses into Homes* which describes a number of conversion schemes carried out by a number of local authorities all over the country. Ascots, quite understandably, believe that the simplest way of providing a hot water supply is to use an instantaneous water gas heater, and most, though not all, of the schemes illustrated in this new book employ this method. The schemes are illustrated with clearly-drawn plans, which show all the alterations carried out, not only the plumbing. Cost figures are also given, broken down as far as possible, and form a useful guide to the possible cost of similar work.

The schemes illustrated show the use of various types of water heaters from the small sink unit to the larger multi-point and the newer balanced flue type. The publication also contains useful information about installation methods and tabulated performance data and details of all the standard Ascot water heater models. This is an excellent publication which architects should find useful, even though the Government "Operation Rescue"

scheme may not have turned out to be the universal cure that it was at one time expected to be. (*Ascot Gas Water Heaters Ltd., 255 North Circular Rd., London, N.W.10.*)

OIL-FIRED BOILERS

Janitor Boilers Ltd., have for some years been producing anthracite or coke-burning automatic boilers, with outputs from 40,000 Btu's. per hour upwards. They have now produced a new oil-fired version which, they point out, has been designed entirely for efficient oil burning, and is not a solid fuel boiler modified to take an oil burner. A net efficiency of 80 per cent. is guaranteed and two sizes are produced, with outputs of 200,000 and 125,000 Btu's. per hour. (*Janitor Boilers Ltd., Vale Road, Camberley, Surrey.*)

NEW IDEAL BOILER

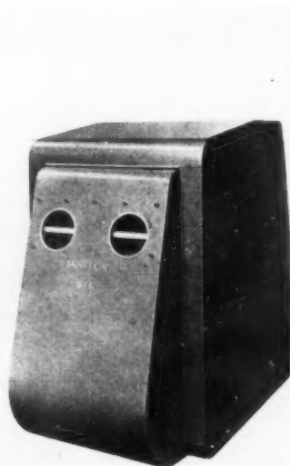
Ideal Boilers & Radiators have now introduced a new No. 1 series of boilers intended for central heating and indirect hot water supplies. The boilers are produced in three versions intended for manual operation, for thermostatic control, or for use with oil burner equipment. Four sizes have been standardised with ratings varying from 35,000 to 65,000 Btu's per hour, the

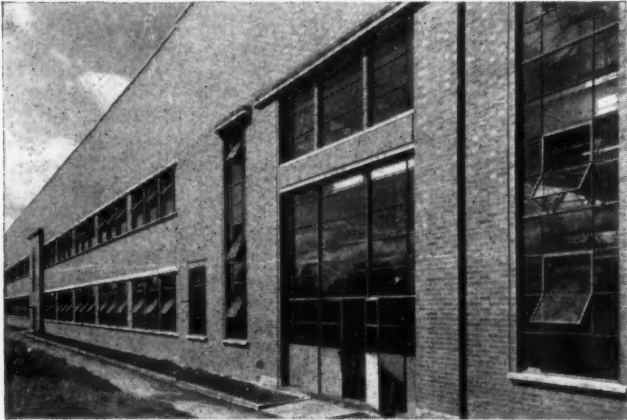

prices of the thermostatically controlled versions varying from £33 6s. 0d. for the smallest to £48 14s. 0d. for the largest. The manually-operated versions cost about 30s. less for each model and the oil-fired types, which are supplied without grate bars and without the oil burner, are about £4 less. The standard finish is cream enamel with a black top plate. (*Ideal Boilers & Radiators Ltd., Ideal Works, Hull.*)

NEW GAS COOKERS

Radiation Ltd. have recently announced several new developments in their range of cookers. Two of the smaller models, 75 and 84, now have the fashionable eye-level grill, and although this reduces the capacity of the plate-warming rack to a certain extent, this is counterbalanced by the clear space left between the top of the oven and the hot-plate burners. The new grill also uses 10 per cent. less gas than previous models. The large model 3528 cooker has been redesigned and now has self-lighting burners working from pilot flames which are left burning continuously since their gas consumption is negligible. A separate gas match is used for lighting the oven, which has a bottom-hinged door and is held closed by a spring, with no mechanical latch.

Below left: the new oil-fired version of the Janitor Boiler. Below: one of the new range of Ideal Boilers.



	January		February		March		April	
	<h1>HOPE'S</h1> <h2><i>Standard Sash</i></h2> <p><i>for lower cost and quicker delivery</i></p>  <p><i>4 weeks delivery in standard sizes</i></p> <p><i>See Catalogue 309</i></p> <h3>HENRY HOPE & SONS LTD</h3> <p><i>Smethwick, Birmingham & 17 Berners St., London W.1</i></p> <p>MEMBER OF THE METAL  WINDOW ASSOCIATION</p>							
	May		June		July		August	

technical section

Many people will also be glad to see the return of the old table-top cooker, now known as Model 71. This has the oven at the side of the hot plate (see illustration),

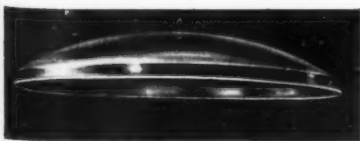


A table-top cooker (Model 71) from the new range of gas cookers by Radiation Group Sales.

both units being attached to a vitreous-enamelled base. The cooker is mounted on legs which also carry a saucepan rack. The cooker can be ordered in either right- or left-handed form, the oven door being hinged to open away from the hot plate, but the cooker can, if necessary, be dismantled and reassembled with the two units interchanged. Standard finish is cream or white and the price is about £50. (Radiation Group Sales Ltd., 7, Stratford Place, London, W.1.)

PLASTIC TOP LIGHTING

Transparent plastics have for some time been available to replace the usual formed glass domes used for top lighting of corridors and other internal areas. The Duplus range



One of the circular Duplus plastic top-lighting domes by William Freer.

of dome lights is now produced with circular units varying in diameter from 24 in. to 48 in. with rectangular versions from 22 in. square to 58 in. by 40 in. The usual fixing method is to bolt the domes to clips which are fixed on the top of a wooden or metal kerb, and the manufacturers also produce ventilating units which can be added to the kerb of rectangular dome lights. (William Freer Ltd., Wellington Street, Leicester.)

CURRENT PRICES FOR MEASURED WORK

prepared by Davis, Belfield and 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 June 7.

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	Yd. super	1/2
Ditto, 12" deep	"	2/4
Excavating not exceeding 10' 0" deep to reduce levels	Yd. cube	9/4½
Excavating not exceeding 5' 0" deep to form basement	"	10/6
Ditto exceeding 5' 0" and not exceeding 10' 0" deep ditto	"	15/3
Excavating not exceeding 5' 0" deep to form surface trenches	"	12/11
Ditto exceeding 5' 0" deep and not exceeding 10' 0" deep ditto	"	17/7
Excavating not exceeding 5' 0" deep to form basement trench commencing 10' 0" deep	"	22/3

Disposal

Returning, filling and ramming around foundations	Yd. cube	4/2
Wheeling excavated soil not exceeding 100 yards and depositing	"	4/8
Ditto and spreading and levelling	"	6/1
Ditto, ditto, and consolidating to make up levels under floors and pavings	"	7/9
Filling into lorries and carting away	"	15/-

Planking and Strutting

Planking and strutting to sides of surface or basement excavation not exceeding 5' 0" deep	Ft. super	-/8
Ditto not exceeding 10' 0" deep	"	-/10
Planking and strutting to sides of surface trenches not exceeding 5' 0" deep (both sides measured)	"	-/2
Ditto not exceeding 10' 0" deep (ditto)	"	-/3½

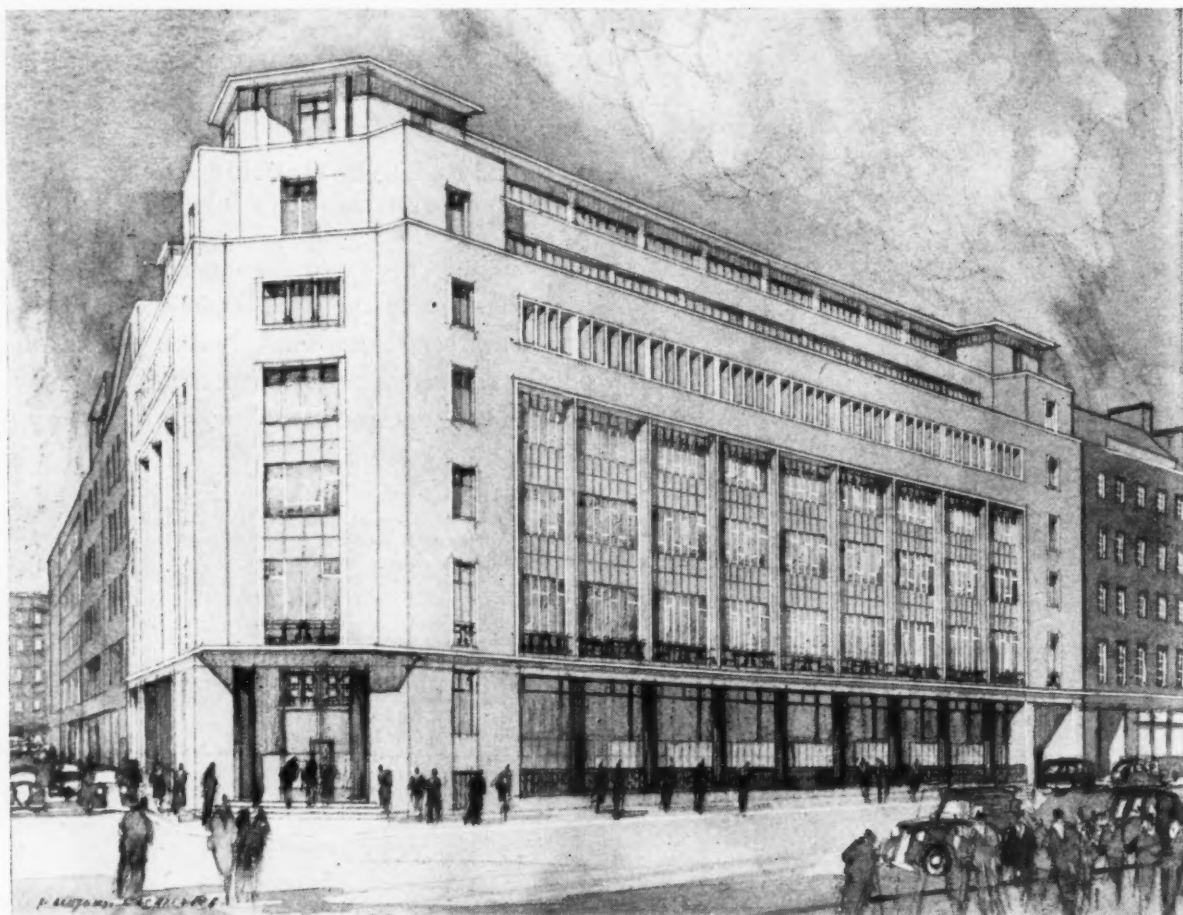
Hardcore

Hardcore filled in, in layers, each layer well rammed with a mechanical rammer	Yd. cube	19/8
Bed of ditto, 4" thick	Yd. super	3/3½

CONCRETOR

Concrete (Basic Prices)

Portland cement concrete 1 : 3 : 6 with 1½" coarse aggregate in foundations and masses exceeding 12" thick	Yd. cube	69/10
Ditto 1 : 2 : 4 with ¾" coarse aggregate ditto	"	76/1
Add to basic prices for:—		
Working around rod or mesh reinforcement	"	4/8
Being in beds less than 12" thick (6"-12")	"	2/4
Ditto less than 6" thick (4½"-6")	"	7/-
Being in small quantities not exceeding 3' cube	"	18/9
Being in suspended floors and roofs	"	14/1
Being in walls not exceeding 6" thick	"	23/5
Ditto exceeding 6" but not exceeding 12" thick	"	16/5
Ditto exceeding 12" thick	"	11/9



Lloyd's Chambers, Crutched Friars

Architects : Messrs. Joseph F.F.R.I.B.A. Contractors : McLaughlin & Harvey Ltd.

*The **BISON** contribution...*

In **11 weeks** from January 27th to April 16th this year — including a period of 4 weeks of almost continuous frost — we carried out on this contract

5,800 cu. ft. of encasement

25 flights of staircases

5,900 sq. yds. of precast flooring

These figures were achieved in an 8 storey building and roof erected in two phases and the work was completed only 10 days after the steelwork was finished.

*... the **BISON** contribution
always gives concrete advantages*



CONCRETE LIMITED

LONDON Green Lane, Hounslow, Middlesex. Hounslow 2323

LEEDS Scourton, Leeds, 10. Leeds 75421

LICHFIELD Dovehouse Fields, Lichfield, Staffs. Lichfield 2404

FALKIRK Etna Road, Falkirk. Falkirk 1930

technical section

CONCRETOR—(continued)

Add to Basic Prices for:—

Being in lintels, beams, etc., not exceeding 72 sq. in. sectional area	Yd. cube	35/2
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	"	28/2
Ditto exceeding 144 sq. in. sectional area	"	23/5
Being in columns not exceeding 72 sq. in. sectional area	"	44/6
Ditto exceeding 72 and not exceeding 144 sq. in. sectional area	"	35/2
Ditto exceeding 144 sq. in. sectional area	"	28/2

Formwork

Flexible formwork to soffits of barrel vault roofs	Yd. super	20/7
Close boarded formwork and supports to soffits of floors not exceeding 12' high	"	16/11
Ditto to vertical faces of walls (both sides measured)	"	17/3
Ditto to sides and soffits of lintols and beams	Ft. super	2/5½
Add to the above for wrot boarded formwork and rubbing down concrete	Yd. super	3/1

Reinforcement

¾" to 1" diameter mild steel rod reinforcement, hooked, bent and tied at intersections as required and fixing in concrete	Cwt.	59/8
1" diameter ditto	"	66/6
1½" diameter ditto	"	85/10
Steel wire mesh fabric reinforcement to B.S. 1221, weighing 4.71 lb. per yard super, well lapped at joints and embedded in concrete	Yd. super	3/10
Ditto weighing 9.32 lb. per yard super ditto	"	7/4

BRICKLAYER

Common Brickwork

	Yd. super	Flettons	Rough stocks
Reduced brickwork one brick thick in cement-lime mortar (1 : 3 : 9)		32/2	38/9
Add to the above:—			
If in cement mortar (1 : 3)	"	-/3	-/3
If circular on plan to flat sweep	"	5/5	5/9
Ditto to quick sweep	"	10/9	11/6
Half brick wall in cement lime mortar (1 : 3 : 9)	"	17/7	20/11
Ditto built fair and pointed both sides with a neat flush joint	"	19/11	23/3
One brick wall built fair and pointed both sides with a neat flush joint	"	38/4	44/11
11" hollow wall with 2" cavity and galvanized iron twisted ties	"	38/3	44/10

Engineering Brickwork

	Yd. super	Lingfield Engineering Wirecuts	Blue Pressed bricks
Reduced brickwork one brick thick in cement mortar (1 : 3)		48/2	85/7
Half brick wall in cement mortar (1 : 3)	"	26/1	45/2
Ditto built fair and pointed both sides with a neat flush joint	"	28/5	48/4
One brick wall built fair and ditto	"	53/3	91/5

Sundries

Extra for internal fair face and flush pointing	Yd. super	1/4
Horizontal damp-proof course of two courses of slates and bedding and pointing	Ft. super	4/2
Ditto of hessian base bitumen well lapped at joints	"	-/10½
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	9/8
Ditto, 3' 3" × 4' 0" ditto	"	14/11
Ditto, 6' 6" × 4' 0" ditto	"	26/4

Partitions

		2"	2½"	3"	4"
Clinker concrete solid partition blocks to B.S. 2028 (Type B and C) and setting in cement mortar	Yd. super	8/11	10/4	12/3	14/10
Hollow clay partition blocks to B.S. 1190, keyed on both sides and ditto	"	9/7	10/7	12/4	15/3
Moler hollow partition blocks, keyed on both sides and ditto	"	21/-	22/3	23/6	28/11

BRICKLAYER—(continued)

Facings

	Yd. super	White glazed facings p.c. 1,504/- M for stretchers 1,480/6M for headers and pointing with white cement
Extra over common brickwork built with bricks p.c. 113/- M for facings as described and pointing with a neat weathered joint:—		
To solid wall in Flemish bond	Yd. super	256/6
To cavity wall in stretcher bond	"	271/4
To ditto in Flemish bond with snapped headers	"	16/-
Half brick wall in facings in stretcher bond built fair and pointed one side with a neat weathered joint	"	17/-
Ditto pointed both sides	"	13/1
One brick wall in facings built fair and pointed one side	"	13/11
Ditto pointed both sides	"	16/6
Brick on end flat arch in facings 4½" on soffit and 9" high and pointing	"	29/3
Brick on edge coping to 9" wall with two courses plain tiles under, laid breaking joint, two cement angle fillets and pointing	"	30/1
	"	31/3
	"	54/5
	"	55/11
	"	57/2
	Ft. run	3/5
	"	3/6
	"	6/-
	"	6/1

ASPHALTER

Tanking

	Yd. super	To B.S. 1097	To B.S. 1413
Horizontal asphalt tanking in three thicknesses on brick or concrete		18/5	29/5
Vertical ditto	"	23/8	33/7

Roofing

	Yd. super	To B.S. 983	To B.S. 1162
¾" asphalt flat in two thicknesses on and including felt underlay		13/2	22/1
Asphalt skirting 6" high with angle fillet at bottom and rounded top, turned into groove	Ft. run	2/4	2/7
Asphalt fascia 6" high with solid water check roll at top and undercut drip at bottom	"	4/6	5/3

DRAINLAYER

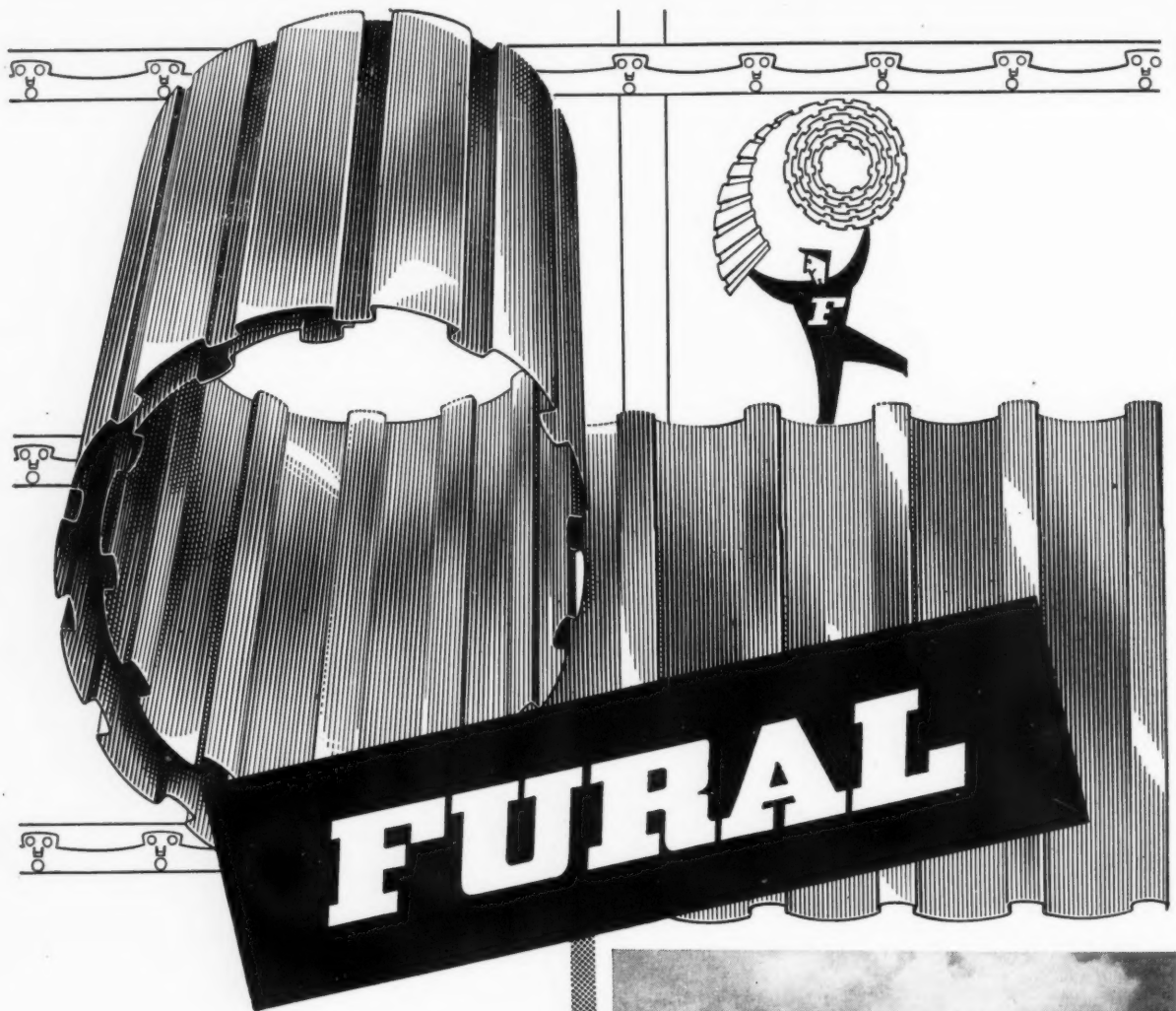
Trenches and Beds

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	Yd. run	3/9
Ditto for trenches exceeding 3' 0" and not exceeding 5' 0" deep	"	5/4
Ditto for trenches exceeding 5' 0" and not exceeding 10' 0" deep	"	8/4
6" concrete (1 : 3 : 6) bed and benching for pipes	Yd. run	9/6
6" ditto, and surround	"	15/5

Drains

	3"	4"
Clayware butt-jointed land drains and laying in trench	Ft. run	-/5
"Seconds" quality glazed stoneware socketed drains and laying and jointing in trench	"	-/6
"British Standard" quality ditto	"	2/3
Extra on "Seconds" quality for bends	"	3/3
Ditto "British Standard" quality ditto	"	3/11
Extra on "Seconds" quality for equal single junction	Each	3/7
Ditto "British Standard" quality ditto	"	5/3
	"	6/6
	"	6/1
	"	8/10
	"	7/5
	"	10/10
	"	23/10



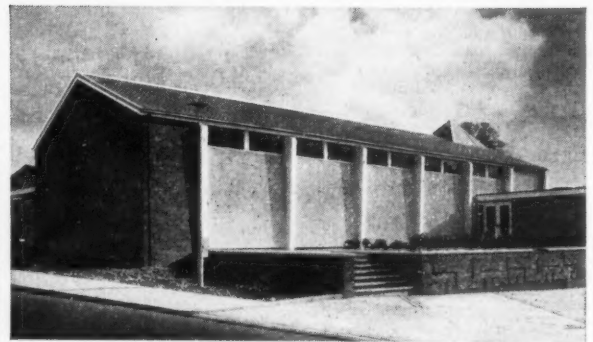
LIGHT METAL ROOFING

Can be laid to pitch of 6 degrees. Secret Fixing—no bolts or nuts.

Low cost, light weight, maintenance free.

Rapid Fixing using Standard Flashings.

Crisp appearance for contemporary buildings.



Roe Green Neighbourhood Centre, Hatfield, Herts.
Architects:—Messrs. Lionel Brett and Kenneth Boyd, Chartered Architects.

FURAL ALUMINIUM ROOFING AND WALL CLADDING S. W. RONALD & CO (LONDON) LTD

329 HIGH HOLBORN, LONDON, W.C.1. TELEPHONE: HOLBORN 2237/1030

Agents for Perthshire and the North of Scotland: Barrett & Bisset Ltd., 13, Bridge St., Aberdeen. Tel: 52331/2

SOME COMPLETED FURAL CONTRACTS

383 'C' Type Houses, Hazelgrove Estate, Hatfield New Town.
97 'M' Type Houses, Hazelgrove Estate, Hatfield New Town.
Compressor House, Shotton, for Wales Gas Board.
Kodak Factory. 24 Star Flats, Plymouth. Perth High School.
Burleigh House Secondary Modern School, Plymouth.
C. of E. Primary School, North Weald, Essex.
Ballymoney Primary School, Northern Ireland.

Blocks of Flats, Peterlee, Co. Durham.
Larne Intermediate School, Northern Ireland.
De Havilland Aircraft Co. Design Block, Hatfield.
No. 4 Wind Tunnel, Bristol Aeroplane Co.
Queen Alexandra Hospital.
4 Blocks of Flats, Basingstoke.
St. Mark's Presbyterian Church, Greenwich.

Compressor House, Aberavon, for South Wales Gas Board.
Old Hale Way Secondary Modern School, Hitchin, Herts.
Herman Infants' & Junior School, Gorleston.
16 Blocks of Flats, Picton Street, Camberwell.
St. Andrew's Church, Ipplepen, Devon.
Shops, Bedwell East Neighbourhood Centre.
Private House at Forest Hill, London.

technical section

DRAINLAYER—(continued)

Cast iron socketed drains to B.S. 437 and laying and jointing in trench	Ft. run	4" 13/5	6" 20/3	9" 39/4
Extra for short radius bend	Each	27/4	66/2	173/9
Extra for single junction	"	50/4	110/7	287/10

Fittings, etc.

Glazed stoneware trapped gulley with galvanized grating and outlet and setting in concrete	Each	4" 25/2	6" 46/8	
Ditto with vertical inlet ditto	"	31/3	52/9	
Cast iron trapped gulley with high invert, grating, and 4" outlet and setting in concrete	"	76/10	—	
Ditto with vertical inlet ditto	"	87/8	—	
Glazed stoneware intercepting trap with inspection arm, stopper and chain and fixing in manhole and jointing to drain	"	79/7	92/9	
Brown glazed stoneware half round straight channels and bedding and jointing in cement mortar	Ft. run	2/1	3/1	
Ditto ordinary channel bend and ditto	Each	6/3	8/10	
Cast iron coated single seal manhole cover and frame to B.S. 497 Grade C and setting in cement and cover in grease	"	24" × 18" 49/7	24" × 24" 73/4	
Galvanized ditto	"	83/3	126/4	

PAVIOR

Cement and sand (1:3) floated screed to receive pavings	Yd. super	3/11	1" 4/9	1 1/2" 5/4
Ditto trowelled smooth to receive linoleum	"	4/4	5/2	5/9
Cement and sand (1:3) paving trowelled hard and smooth	"	4/4 1/2	5/2 1/2	5/9 1/2
Granolithic paving (1:2 1/2) laid on concrete	"	6/10	7/9	8/8
1/2" red composition paving to B.S. 776 laid on prepared screed	Yd. super	16/7		
1/2" terrazzo paving (Portland cement and spar aggregate) laid on prepared screed	"	38/4		
Extra for white or cream cement	"	5/3		
1/2" rubber flooring in all colours, laid on prepared screed	"	55/2		
1/2" × 12" × 12" rubber tile flooring ditto	"	45/8		
1/2" × 12" × 12" cork tile flooring (brown shades) laid in mastic on prepared screed, surfaced and polished	"	45/11		
6" × 6" red quarry tile paving to B.S. 1286 laid on prepared screed with straight joints	Yd. super	28/7	32/2	
6" × 6" buff quarry tiles as last	"	32/1	36/3	
2 1/2" (finished) gravel path laid on prepared bed, well watered and rolled to cambers and falls	"	3/-		

MASON

Portland stone and all labours in pilasters, and quoins	Ft. cube	52/-		
Ditto in jambs, lintols, etc.	"	54/3		
Ditto in arches	"	67/9		
Ashlar av. 6 1/2" on bed with plain dressed face	Ft. super	30/8		
Portland stone or artificial stone to B.S. 1217:—	Port-land	Arti-ficial		
4 1/2" × 4" sill, sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	Ft. run	10/9	4/6	
9" × 3" ditto	"	14/-	6/10	
3" × 12" Coping, weathered and twice throated, set and jointed as last	"	12/5	6/-	
3" × 12" Ditto	"	17/-	9/1	
5" × 12" Saddle back coping twice throated, set and jointed as last	"	26/6	13/10	
6" × 12" Ditto	"	33/6	15/7	

SLATER, TILER AND ROOFER

Best Bangor slates to B.S. 680 laid with 3" lap, each slate nailed with two stout copper nails	Square	20" × 10" 391/2	16" × 10" 303/5
Ditto hung vertically to dormer cheeks and gables	"	396/5	311/4

SLATER, TILER AND ROOFER—(continued)

Tiles	Hand made	Machine made
Best sand faced plain (ribbed) tiles to B.S. 402, 10 1/2" × 6 1/2" laid to a 4" gauge with each tile in every fourth course nailed with galvanized nails	Square	212/8 198/5
Ditto hung vertically to dormer cheeks and gables to 4 1/2" gauge with each tile nailed with galvanized nails	"	238/11 204/9
Berkshire hand made sand faced red pantiles 14 1/2" × 10" laid to 2 1/2" head and 1 1/2" side laps, each tile in every third course nailed with galvanized nails	Square	208/5 220/6
Ditto to mansard slopes	"	141/9
Bridgwater hand made Double Roman red sandfaced tiles 16 1/2" × 14" laid to 3" laps, each tile in every course nailed with galvanized nails	"	122/10
Concrete plain (ribbed) tiles to B.S. 473, 10 1/2" × 6" laid as before described for plain tiles	"	152/3
Ditto hung vertically to dormer cheeks, and gables, ditto	"	91/11 98/9
Concrete interlocking tiles 15" × 9" laid to 3" lap, each tile in every third course nailed with galvanized nails	"	
Ditto to mansard slopes ditto	"	

Asbestos Cement

6" corrugated asbestos cement sheeting fixed to wood roofs with galvanized drive screws and washers with a side lap of 1 1/2 corrugations and an end lap of 6"	"	111/4 122/7
6" ditto but fixed vertically	"	
Add to both last if fixed to steel purlins or sheeting rails with galvanized hook bolts	"	5/3

Felt

Reinforced bituminous roofing felt laid with 3" laps and nailed to rafters at 18" centres with galvanized clout nails	"	Two layer 22/4
One-ply bitumen felt to B.S. 989 laid on concrete. Each layer bedded in hot bitumen	Yd. super	9/5 12/7
Extra on last for finishing with granite chippings	"	-/9 1/2 -/9 1/2

CARPENTER

Carcassing

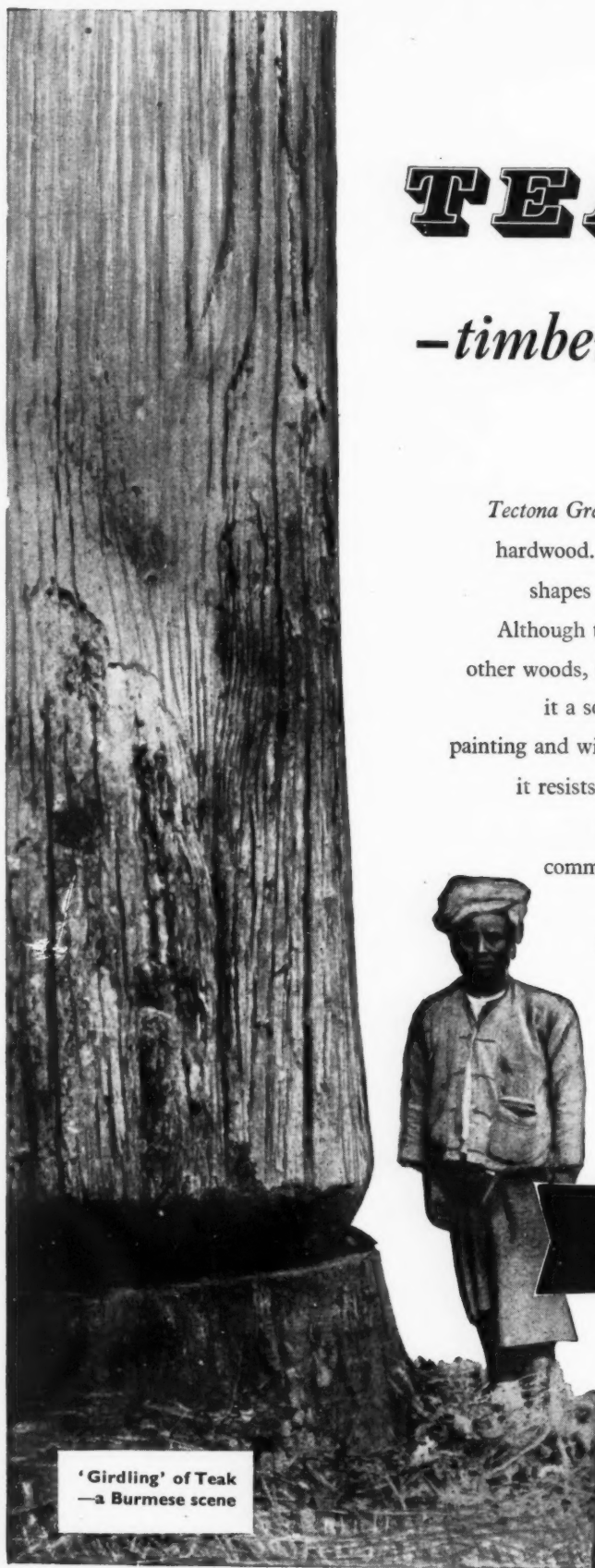
Softwood, sawn and fixed, in plates, sleeper joists and lintols	Ft. cube	15/10
Ditto in floor and ceiling joists	"	18/-
Ditto in stud partitions, purlins and struts	"	20/-
Ditto in rafters, framing and ridge	"	19/10
Ditto in hip and valley rafters including cutting rafters to sizes	"	22/6

Battening and Boarding

1" × 2" battens nailed to softwood for 20" × 10" slates to 8 1/2" gauge	Square	Roof slope 34/11	Vertical hanging 37/-
Ditto 16" × 10" slates to 6 1/2" gauge	"	44/8	47/3
1" × 1 1/2" ditto for 10 1/2" × 6" tiles to 4" gauge (4 1/2" for vertical hanging)	"	57/9	53/7
1" × 2" ditto for 14 1/2" × 10" pantiles to 12" gauge	"	24/8	26/9
1" × 1 1/2" ditto for 15" × 9" concrete interlocking tiles to 12" gauge	"	19/5	20/6
Roof boarding in batten widths close jointed and fixed to flat or sloping roofs	"	120/-	148/3
Ditto tongued and grooved and prepared for felt roofing including furring to falls	"	179/9	209/4
Sawn gang boarding fixed to joists in roof	Ft. super	1/4	1/7
Wrot and cross-tongued eaves soffit	"	2/2	2/6
6" wrot and grooved eaves fascia planted on	Ft. run	1/-	1/2

Wall and Ceiling Boards

1" fibre board to B.S. 1142 fixed with galvanized flat headed nails to softwood	Yd. super	Vertically 6/2	Soffits 6/3
1 1/2" asbestos cement flat sheeting to B.S. 690 fixed as last	"	7/10	8/4
1" ditto	"	9/3	9/9



'Girdling' of Teak
—a Burmese scene

TEAK

—timber of many virtues

Tectona Grandis, the genuine Teak, remains the supreme hardwood. It is equally rewarding to the craftsmen who shapes it and the person who uses the final product. Although the initial outlay on Teak may be higher than other woods, it possesses outstanding qualities which make it a sound proposition in the long run. It needs no painting and will last for centuries with very little attention; it resists attacks by insects, fungi, chemicals and even fire; its shrinkage factor is the lowest among commercial timbers. Added to all this, Teak works well and looks well. By stocking Teak in an enormous number of sizes, Morris can offer a specialised service which cuts down wastage and results in considerable economy to the buyer.

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Specialists in Teak, Mahogany, Iroko and Wainscot Oak. Manufacturers of high grade sliced, decorative veneers.

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Tel: Stamford Hill 6611 (6 lines)

technical section

JOINER

Floors and Skirtings

(All thicknesses stated are nominal)

Plain edge softwood flooring in batten widths nailed to floor joists	Square	149/3	165/9	198/9
Tongued and grooved ditto	"	159/9	178/-	211/-
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	Yd. super		29/5	
European beech	"		32/4	
English oak	"		54/7	
European oak	"		42/-	
Burma teak	"		54/7	
Australian jarrah	"		38/10	
Softwood skirtings with splayed or molded top edge, planted on (per inch sectional area)	Ft. run	-2½	-2	
Extra for grounds plugged to brickwork	"		-9	

Windows in Softwood

Rebated and molded softwood fanlights and casement sashes divided into squares for glass	Ft. super	1½"	2"
Extra for hanging	Each	5/6	5/6
Cased frames with 6" x 3" oak sill and 2" molded double hung sashes including pulleys, line and weights	Ft. super	—	12/7

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

Framed ledged and braced doors filled in with 1" T. & G. and V-jointed boarding and hanging	Ft. super	1½"	1½"	2"
Four-panel door, square both sides and hanging	"	4/10	6/1	6/1
Ditto molded one side	"	5/1	6/4	6/4
Ditto molded both sides	"	5/4	6/8	6/8

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

1½" standard flush doors 2' 6" x 6' 6" internal pattern	Each	50/2
2" ditto 2' 9" x 6' 6" external pattern	"	77/1

Linings, Frames, etc., in Softwood

Window and door linings etc. (per inch in sectional area)	Ft. run	Sectional area Up to 6" 6" to 12"
Frames wrot all round and framed (ditto)	"	-4
Mullions, transoms and cills (ditto)	"	-3½
Moldings, architraves, etc. (ditto)	"	-4
6" Window boards with rounded nosings, tongued at back and including bearers	"	2" to 4" 4" to 6"
Extra for each additional 3" width	"	-4½

Shelving and Fittings in Softwood

Shelving of 2" slats spaced 1" apart on bearers (measured separately)	Ft. super	2/5	2/10
Shelving on ditto	"	2/3	2/10
Cross tongued shelving on ditto	"	2/6	3/2
Shelving 9" wide on ditto	Ft. run	1/10	2/3
2" shelf bearers plugged to walls	"	-8	-10

The following in framed up cupboard fittings:

T. & G. & V-jointed back	Ft. super	4/-	4/8
Cross tongued top, bottom shelf or division	"	4/1	4/9
1½" flush cupboard doors	"		6/5
Labour rebate or groove	Ft. run		-2
Labour cross-grain	"		-2½
1" x 2" bearers screwed on	"		-10

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

IRONMONGERY

3" steel butts (medium quality)	Pair	Soft-wood 5/8	Hard-wood 7/1
4" ditto (ditto)	"	7/7	9/3
Double action floor springs and top centres including filling boxes with oil P.C. 149/3	Each	185/3	192/3
Overhead check action door springs, P.C. 66/8	"	86/6	90/10

IRONMONGERY (continued)

6" barrel bolts	P.C. 5/6	Each	Soft-wood 7/11	Hard-wood 8/7
Cupboard locks	P.C. 8/2	"	12/11	14/3
Norfolk latches	P.C. 5/6	"	11/4	13/1
Cylinder night latch	P.C. 15/11	"	24/1	26/3
Mortice latch	P.C. 9/4	"	15/6	17/3
Rim lock	P.C. 10/-	"	14/11	16/3
Mortice lock	P.C. 15/2	"	23/3	25/5
Door furniture	P.C. 24/-	Set	27/9	28/2
Sash fasteners	P.C. 9/-	Each	12/-	12/8
Casement fasteners	P.C. 7/11	"	10/4	10/10
Casements stays	P.C. 11/6	"	14/3	14/9

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."

R.S.J.—in steel framed structures hoisted and fixed complete	Ton	£ s. d.
Riveted compound girders including plates and rivets		69 10 0
R.S. stanchions including caps, bases, cleats, etc.	"	81 5 0
Riveted compound stanchions ditto	"	80 5 0
Riveted roof trusses with flat and angle members, plates, cleats, etc., 30' span	"	86 0 0
Ditto 40' span	"	120 0 0
	"	113 0 0

Sundries

Simple wrot iron balustrades fixed complete (excluding mortices etc.)	Cwt.	12 15 0
Bolts with heads, nuts and washers and fixing	"	12 14 0

PLASTERER AND TILE FIXER

24 gauge expanded metal lathing and fixing to softwood soffits	Yd. super	6/2
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Lime and Gypsum Plaster

Three coat lime and two coat "Sirapite" or similar gypsum plaster:-		
On brick walls and partitions	Yd. super	Lime "Sirapite" 7/- 5/6
On concrete soffits including hacking	"	8/7 7/9
On soffit of E.M.L. (measured separately)	"	7/3 8/6
1" Gypsum plasterlath fixed to softwood soffits, in accordance with manufacturer's instructions, finished with setting coat of suitable plaster	Yd. super	8/5
Plaster moulded cornice or cove (per inch in girth)	Ft. run	-5½

Cement Rendering

Rendering in Portland cement lime sand (1:1:6) and setting in Keenes cement on brick walls and partitions	Yd. super	6/9
Portland cement and sand (1:3) plain face trowelled smooth on ditto	"	6/3
Portland cement and sand (1:3) screed for tiling on ditto	"	3/3

Wall Tiler

6" x 6" x ½" standard quality white glazed wall tiles set and jointed on prepared screed	Yd. super	45/2
Ditto eggshell matt or glossy glazed enamelled	"	55/2

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER

Milled sheet lead and labour	Cwt.	232/9	Gutters, flashings, etc. 249/3	Stepped flashings 264/2
24 S.W.G. sheet copper and labour	Ft. super	6/9	7/1	7 4
23 S.W.G. sheet copper and labour	"	7/-	7/4	7/7
14 gauge zinc and labour	"	2/10	3/1	3/3
20 S.W.G. super purity aluminium and labour	"	5/3	5/3	5/3
20 S.W.G. commercial quality aluminium and labour	"	4/2½	4/2½	4/2½

Rainwater Pipes and Gutters

Cast iron medium section (¾" metal) R.W. pipes and jointing and fixing to walls with pipe nails and distance pieces or holderbats (cutting and pinning holderbats measured separately)	Ft. run	3" With holder-bats 6/2½	4" With nails 4/11	With holder-bats 7/8	With nails 6/3½
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technical section

EXTERNAL PLUMBER AND COPPERSMITH AND ZINC WORKER—(continued)

		3"	4"
		With holder bats	With holder bats
		24 G.	20 G.
Pressed steel R.W. pipes and ditto	Ft. run	4/1	5/10
Asbestos cement R.W. pipes and ditto	"	3/1	3/11
Cast iron half round eaves gutter and jointed and fixed with brackets to fascia	"	3/6½	5/1½
Ditto O.G. ditto	"	2/11	5/7
18 Gauge pressed steel half round ditto	"	3/1	4/2
Ditto O.G. ditto	"	3/7½	4/11
Asbestos cement half round ditto	"	2/9	4/1

Soil and Ventilating Pipes

		3"	4"
		Heavy	Med.
		ium	ium
Lead soil, waste and ventilating pipes (15 lb. per yard for 3" and 19 lb. per yard for 4" diameter) fixed to walls with lead tacks and brass screws	Ft. run	14/5	20/-
Medium or heavy section cast iron soil, waste and ventilating pipes with caulked joints, fixed to walls, with pipe nails and distance pieces	"	6/7	8/6

INTERNAL PLUMBER

Lead Pipes

Prices are based upon the following weights per yard.

		1"	1½"	2"	2½"
		lb.	lb.	lb.	lb.
Supply		7	11	16	28
Distributing		4	5	7	9
Flushing and overflow		—	4	5	6
Waste and ventilating		—	—	—	6
Supply pipe in trench (measured separately)	Ft. run	4/5	6/8	9/5½	16/6
Ditto fixed to walls and ceilings	"	5/-	7/5	10/6½	18/-
Distributing pipe fixed to walls and ceilings	"	3/8	4/4	5/9	7/-
Flushing and overflow pipe ditto	"	—	3/6	4/-	5/6
Waste and ventilating pipe ditto	"	—	—	—	6/8
Joints to fittings	Each	6/2½	6/10	7/4	8/2
Bends	"	—	—	—	2/5½
Branch joints	"	7/5	8/9	9/2	10/9

Steel Tubes and Fittings

Galvanized steel tubes to B.S. 1387 Class C with screwed joints in red lead as supply pipe laid in trench (measured separately)	Ft. run	2/5	2/8½	2/11	3/7
Ditto Class B ditto fixed to walls and ceilings as supply, distributing, waste pipe, etc.	"	2/4½	2/8	2/10½	3/5
Joints to fittings	Each	4/6½	5/5	6/2½	7/4
Bends	"	—	—	4/6½	6/5
Tee, equal or reducing	"	2/6½	3/1	3/8	5/1

Copper Tubes and Fittings

Prices are based upon the following gauges :—

		1"	1½"	2"	2½"
		18	17	16	16
		19	19	18	18
Supply		18	17	16	16
Distributing, waste, etc.		19	19	18	18
Copper tubes to B.S. 1386, as supply pipe laid in trench (trench measured separately)	Ft. run	2/4	3/5	4/9	6/3
Ditto to B.S. 659 as distributing, waste pipes, etc., fixed to walls and ceilings	"	2/4	3/-	4/2	5/1½
Brass compression type couplings—copper to copper	Each	5/6	6/5	8/9	11/-
Ditto bends	"	7/2	8/3	11/11	14/11
Ditto tees	"	9/2	10/3	15/10	22/10

Sanitary Fittings

Fireclay sinks 24" × 18" × 10" including cutting and pinning brackets to tiled wall. P.C. 75/-	Each	£	s. d.
Combined metal sink and drainer 42" × 18" × 8½" to bearers (measured separately). P.C. 330/-	"	5	18 0
		19	3 0

INTERNAL PLUMBER—(continued)

Fireclay lavatory basin 25" × 18" with taps and towel rail bracket including screwing brackets to tiled wall. P.C. 138/6	Each	£	s. d.
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	0 0
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	10 0
Ditto with low level cistern P.C. 240/-	"	14	10 0

GLAZIER

		To wood	To metal
18 oz. Ordinary quality sheet glass and glazing with putty in squares	Ft. super	1/1½	1/2½
24 oz. Ditto and ditto	"	1/3½	1/4½
32 oz. Ditto and ditto	"	1/8½	2/0½
½" figured, rolled, and cathedral—untinted and ditto	"	1/5	1/6
½" rough cast and ditto	"	1/8	1/9
½" wired cast and ditto	"	1/10½	1/11½
½" Georgian wired cast and ditto	"	1/10½	1/11½
½" Georgian wired polished plate and ditto	"	7/3½	7/4
½" polished plate (glazing quality) and ditto (In squares 5-45 ft. super).	"	7/3	7/3½

PAINTER

Whitening, Distemper and Paint on Walls

Prepare and twice whiten plastered ceilings	Yd. super	1/4
Prepare and twice distemper with washable distemper on plastered walls and ceilings	"	1/10½
Ditto on brick or concrete	"	2/6
Prepare and paint two coats emulsion paint on plastered walls	"	2/9
Prepare, prime, and paint two coats oil colour on plastered walls and ceilings	"	5/1

Paint on Metal

		Basic price	Add for each additional coat
Prepare, prime, and paint one coat oil colour on general surfaces	Yd. super	3/3	1/6
Ditto metal casements	"	5/2	2/3
Ditto members of roof trusses	"	4/3	1/10½
Ditto balustrades one side	"	5/2	2/3
Ditto bars, etc., not exceeding 6" girth	Yd. run	-10½	-4½
Ditto small pipe	"	-10½	-4½
Ditto large pipe	"	1/9	-9

Paint on Wood

		Basic price	Add for each additional coat
Knot, prime, stop and paint one coat oil colour on general surfaces of woodwork	Yd. super	3/8	1/6
Ditto on skirtings, rails, frames, etc., not exceeding 3" girth	Yd. run	-6	-2½
Ditto ditto for each additional 3" in girth	"	-5	-2
Ditto on sash squares one side	Dozen	4/11	1/11
Ditto on large sash squares one side	"	8/10	3/5

Stain and Varnish on Wood

Prepare, size, stain and twice varnish on general surfaces of woodwork	Yd. super	4/1
Ditto on skirtings, rails, frames, etc., not exceeding 3" girth	Yd. run	-6½
Ditto ditto for each additional 3" in girth	"	-6

J. A. Davis

F.R.I.C.S., F.I.Arb.

building illustrated

OFFICES

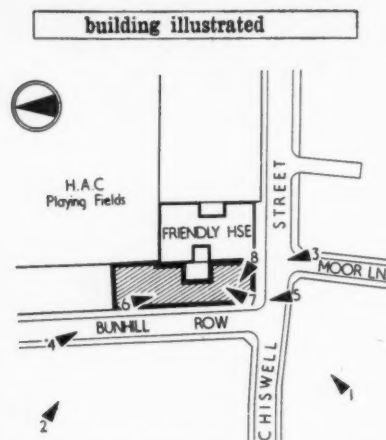
in CHISWELL STREET, LONDON, E.C.1

designed by HANDISYDE and TAYLOR in association with HAMMETT and NORTON
assistant architects, ERIC MAYNE and B. P. WARD
consultants, structural, CLARKE, NICHOLLS and MARCEL
quantity surveyors, SELBY and SANDERS

It has been hard to discover any office building erected in or near the City of London since the war which has merited close examination. The building described here deserves attention because it is one of the first to show signs of a serious appreciation of present requirements of office use, and the first in which those requirements have been answered in terms of rational constructional techniques.

Viewpoint 1: the offices from the south-west.





Key plan showing photographic viewpoints.

Below, viewpoint 2: the need for flexibility of partition arrangements has long been recognized in office buildings, particularly where, as in this instance, tenants' requirements in this respect may not be known until the building is otherwise complete. From this it follows that window mullions should occur at close and regular intervals and be capable of receiving the ends of partitions wherever necessary. Yet it must be doubted if the same logic justifies the extension of mullions above and below the windows, since between sill and head an uninterrupted unmullioned band of wall would be equally effective, there being little need to vary sill heights. However, a study of the following illustrations will show that in this instance a case can be made on townscape ground for the use of a cliché which is rapidly becoming tiresome. And the architects point out that although the mullions could be omitted between window sill and head from a purely structural point of view, they do hold the framing to the coloured glass-facing panels. At the sketch design stage continuous horizontal bands of Portland stone were considered, but the result, when seen against the existing building, shown in viewpoint 3, would have been unsatisfactory. (It would also have been less economical).



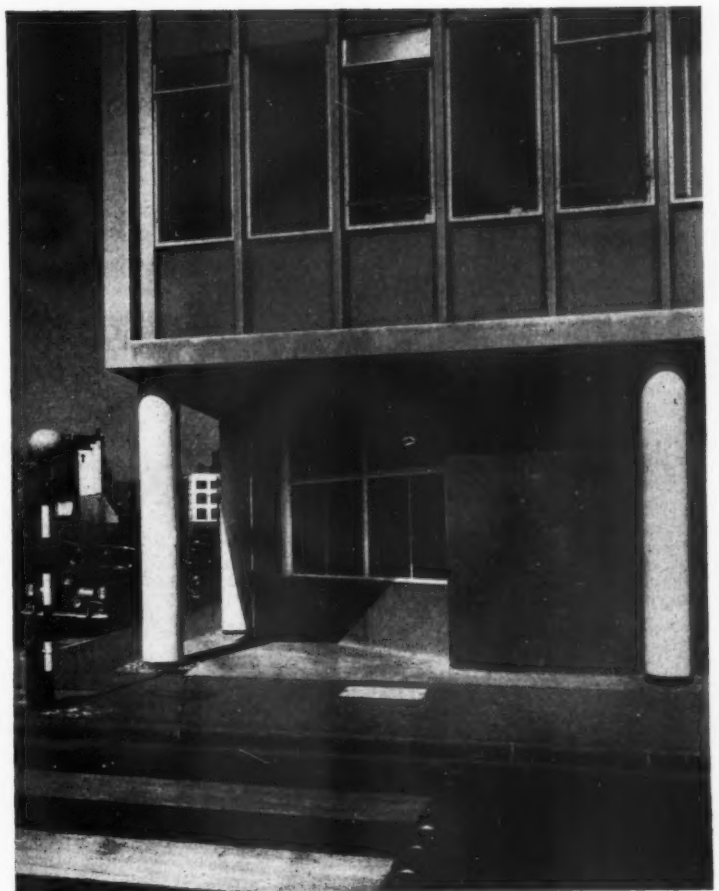
building illustrated



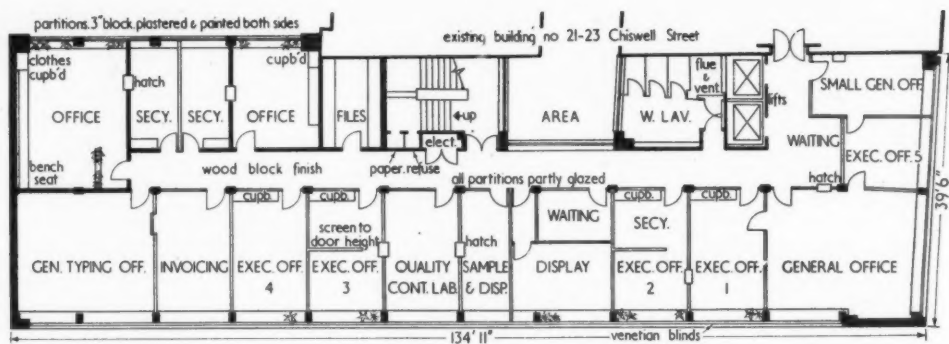
OFFICES

in CHISWELL STREET, E.C.1
designed by HANDISYDE and TAYLOR

Above, viewpoint 3: This is the only full-face view which will be obtainable when the bomb-damaged surroundings have been built up. The new building is, in effect, an extension to an existing office block (Friendly House) seen to the right, which though crudely detailed has a certain rugged vigour complimenting and complimented by the restraint of the "curtain walls" which now adjoin it. The latter consist of pressed steel mullions with infilling panels of turquoise coloured glass. Facing to the solid walls is Portland stone, except on the ground floor where both terrazzo and Westmorland slate are used, and on the curved tank house wall (on the roof) which is rendered. Above right, viewpoint 4: the building will mostly be seen by pedestrians walking parallel with the facade, and in this fact can perhaps be found the greatest justification for the continuous mullion of the "curtain wall." Without it the long horizontal strips of alternating wall and window might have been gaunt and unarticulated. In addition the curtain wall provides a simple street background, contrasting effectively with the greater detail provided at eye level by the free-standing columns and the different finishes of the wall recessed behind them. Right, viewpoint 5: interest of detail is obtained by Westmorland slate, terrazzo and cobbles round the column bases. A deep gutter runs along the bottom of both curtain-walled facades to dispose of the rainwater which collects on the large areas of impervious material.



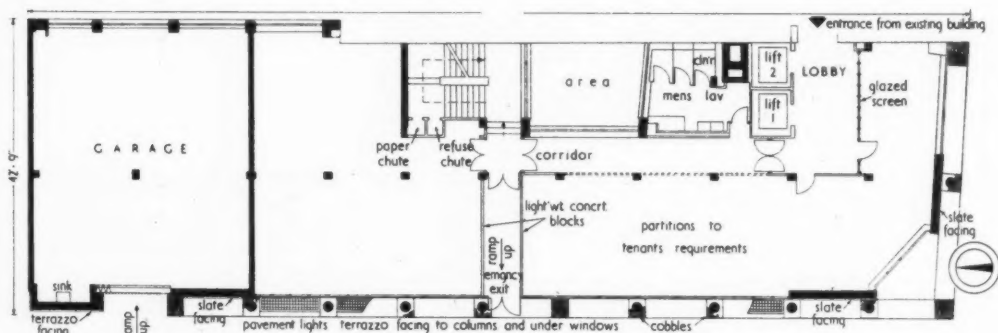
building illustrated



First floor plan

The detailed partitioning of all floors is, apart from the stair-lift-lavatory nucleus, carried out to tenants' requirements. The floor illustrated above represents only one of the many arrangements possible. It should be noted, however, that where there is more than one tenancy on a floor all corridor walls must be of solid incombustible material.

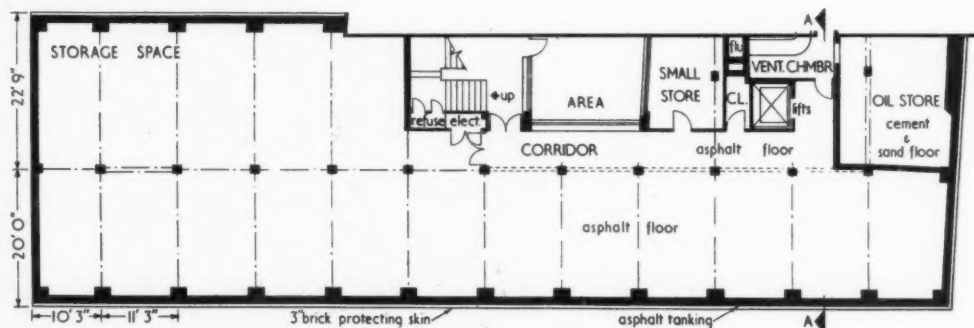
However, in the floor illustrated the fact that there is only one user enables the corridor partitions to be of the light demountable type. An exception is made in partitions surrounding executives' rooms, when a higher sound-reduction factor is required; here the partitions are of masonry construction.



Ground floor plan

As with other floors, the partitioning is to suit tenants requirements. The main entrance at the moment is by way of the existing entrance hall to the parent building (which, since a link is provided with it on every floor, affords the

alternative means of escape); but provision has been made for a separate entrance off the corner of Bunhill Row and Chiswell Street should this ever be required.

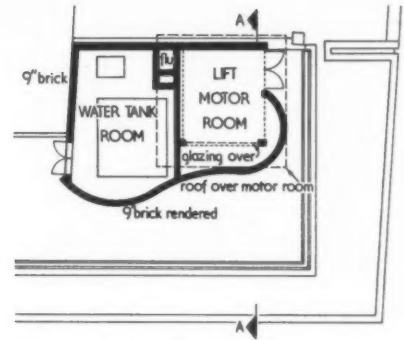


Basement plan [Scale: $\frac{1}{8}" = 1' 0"$]

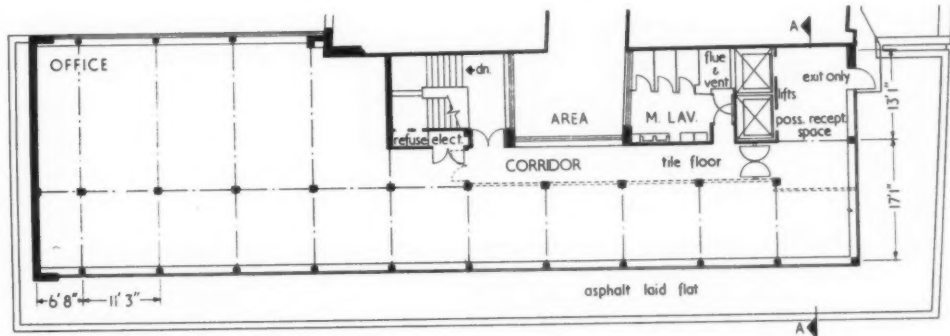
The free space in the basement is divided as required into storage space lettable to the tenants.

building illustrated

Below: the set-back required by town planning and daylight considerations means an awkward steelwork arrangement with sixth-floor stanchions resting on beams below. Bottom (viewpoint 6): close view of curtain wall on sixth floor.



Part roof plan

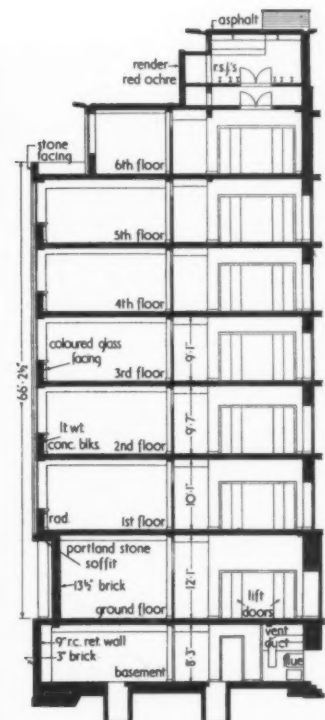


Sixth floor plan

Below right: floor heights match those of the parent building as it was a client's stipulation that the corridors of the two buildings should be linked without a change of level which would be awkward for wheeled trolleys, etc.

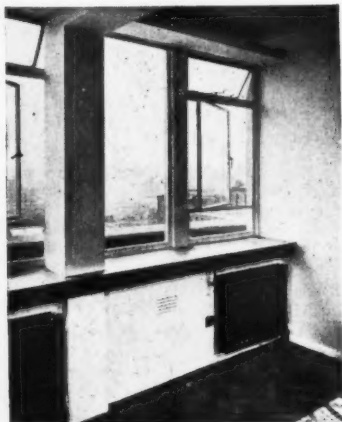
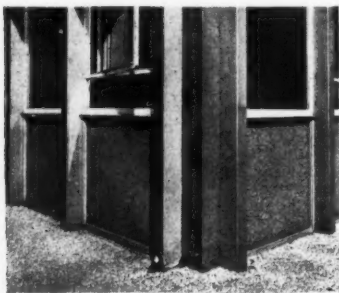
OFFICES

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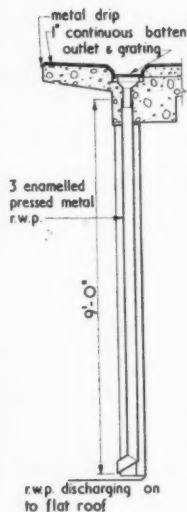


Section A-A [Scale: 1/4" = 1' 0"]

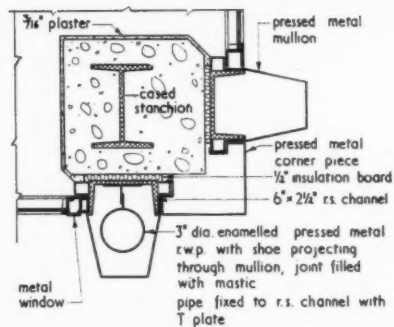
building illustrated



Top (viewpoint 7): south-west corner detail on sixth floor. Note how the pressed metal mullion conceals a rainwater pipe. Above centre (viewpoint 8): the south facade on the

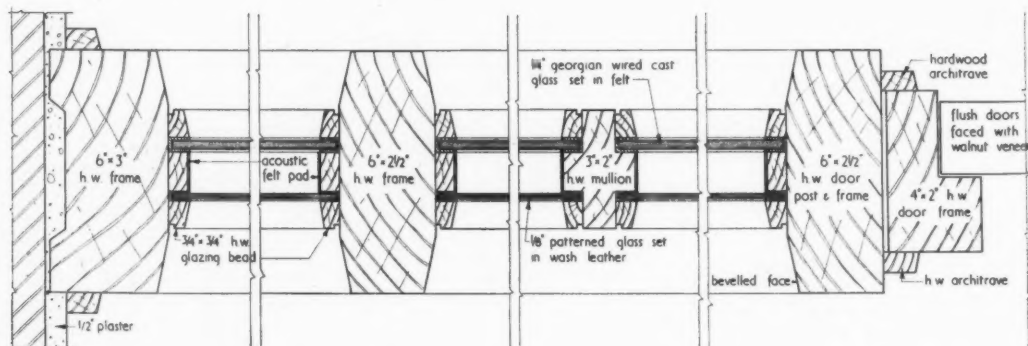
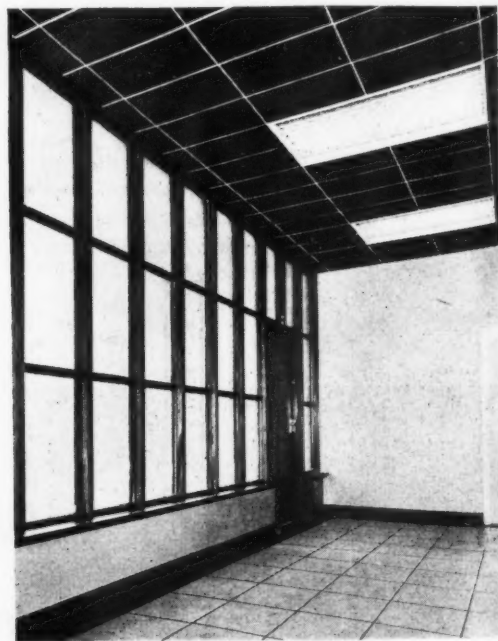


Detail of s.w. corner at 6th floor level section [Scale: $\frac{1}{4}'' = 1' 0''$]



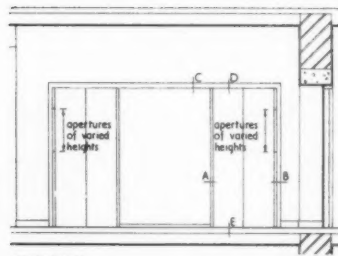
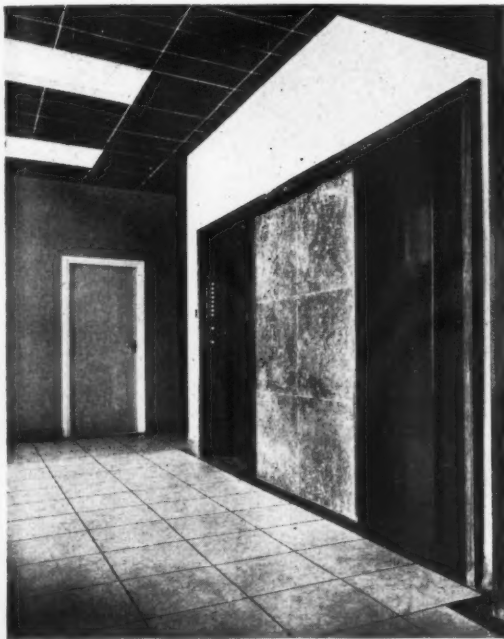
Detail plan of s.w. corner at 6th floor level [Scale: $1'' = 1' 0''$]

sixth floor. Below left: interior view of curtain wall. Fire regulations require a solid wall below windows. Permanent ventilation is by way of the cavity thus formed between inner and outer leaves of the wall. The pressed metal internal sill conceals circuit pipes to the radiators. Note how the mullion can accommodate a partition end. Below: the main vestibule on the ground floor is entered from the parent building. The glazed screen encloses a waiting room off the vestibule, on the right of which are the lifts.

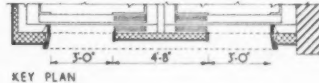


Detail plan of glazed screen in lift lobby [Scale: $3'' = 1' 0''$]

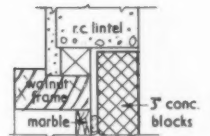
building illustrated



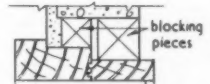
ELEVATION



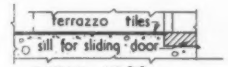
KEY PLAN



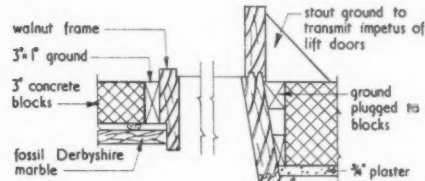
DETAIL AT 'C'



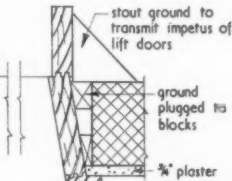
DETAIL AT 'D'



DETAIL AT 'E'



DETAIL AT 'A'



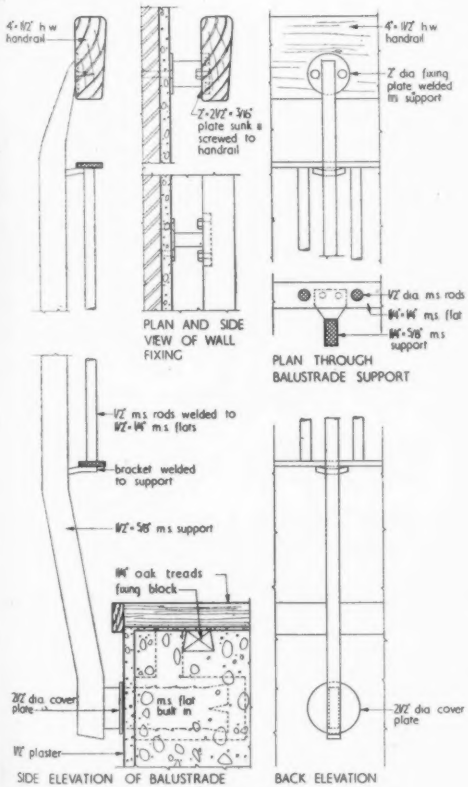
DETAIL AT 'B'

Key elevation and plan of lift doors and details [Scales: 1/4" = 1' 0"]

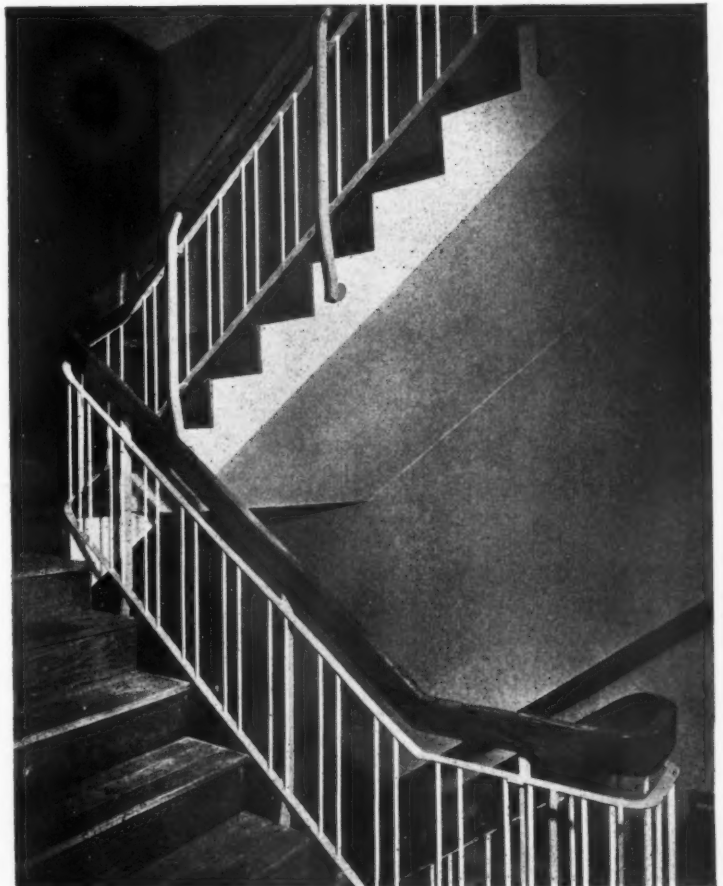
Above: the lift doors in the main vestibule. Below right: the balustrade, though light in appearance, is extremely sturdy due to the sensible railing and fixing of standards at intervals of one tread in three. Staircase walls are finished in extremely durable cold cement-glaze.

OFFICES

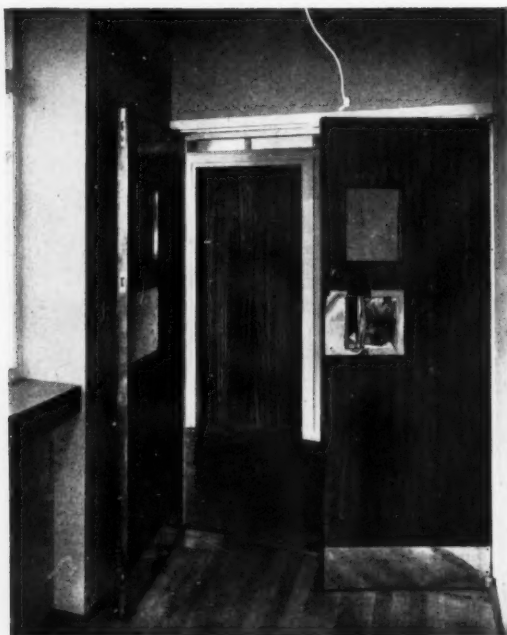
in CHISWELL STREET, LONDON, E.C.1
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Detail of staircase balustrade [Scale: 1 1/4" = 1' 0"]

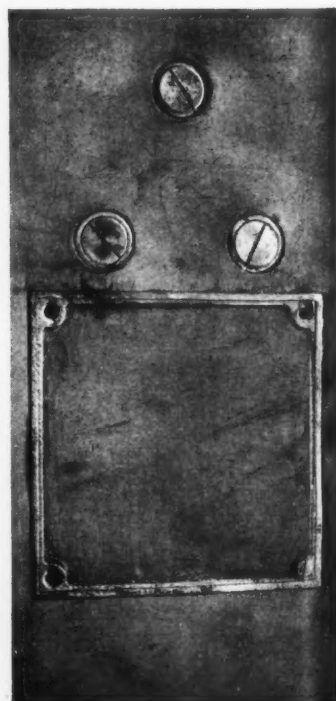


building illustrated

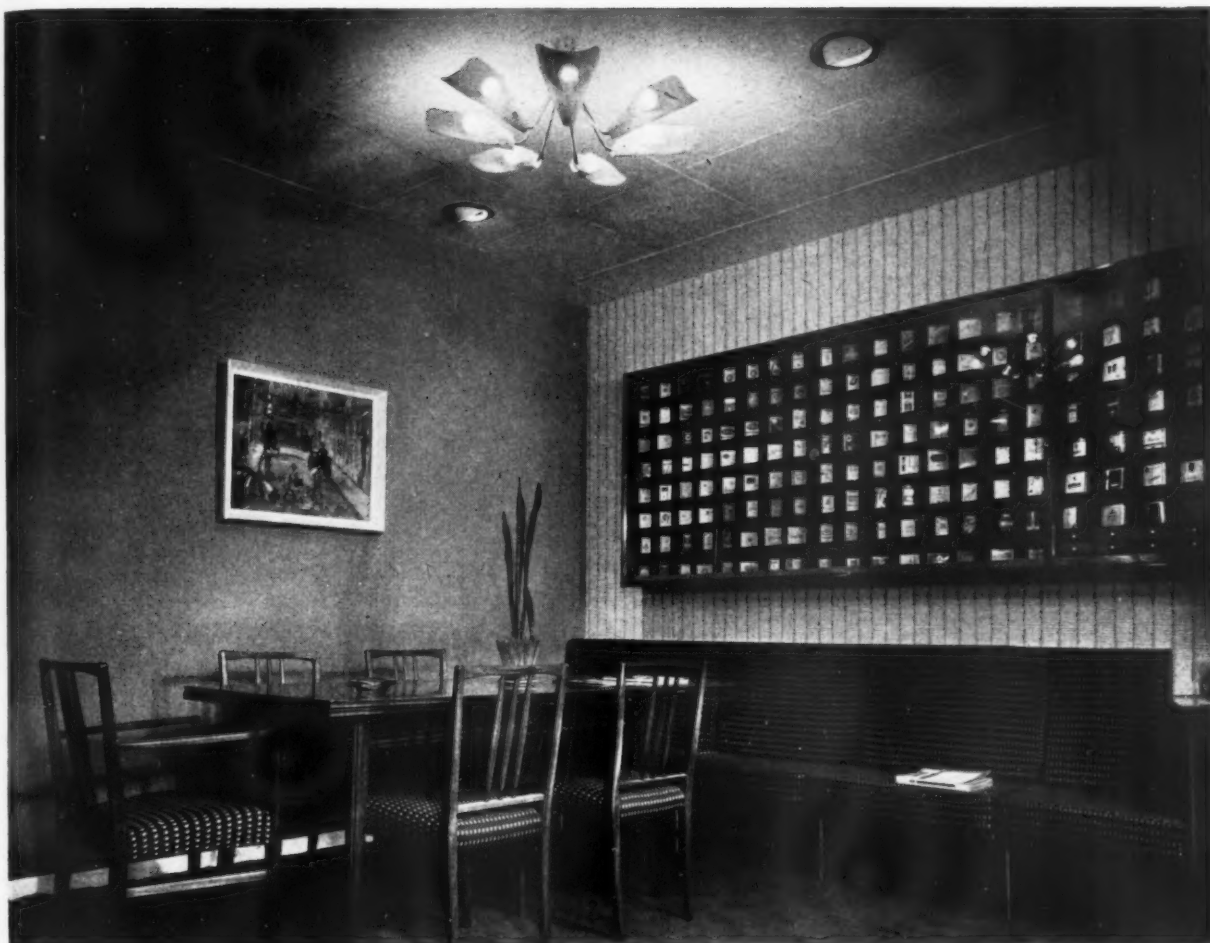


Above left: cut-off doors between vertical circulation and corridors must fold back hard against the flanking walls in order to afford the minimum acceptable clear width of opening, and consequently recessed door handles are specially detailed. Above right: corridor wall showing typical demountable partitions finished in stove enamel, with varying colours from bay to bay in an attempt to reduce apparent corridor length.

Below: a typical large office. Note the use made of the generously wide sills. The floor finish is linoleum, other surfaces are plaster. Floor points are provided throughout the building for intercom telephones. An access panel set in floor for junction box of telephone conduit is shown below right.



building illustrated



Above and below left: an executive's office. The ceiling is acoustic fibreboard and the floor is carpeted. All fittings were supplied by the occupants. Below right: the clients

insisted on adequate means of disposing of office waste and asked for paper to be kept separate from the remainder. Two chutes are shown here.



OFFICES

in CHISWELL STREET
LONDON E.C.1
designed by HANDISYDE and
TAYLOR

analysis

OFFICES

in CHISWELL STREET
LONDON, E.C.1



Site plan

CLIENT'S BRIEF: his stated requirements

A contemporary building to form an extension to existing premises, providing the maximum lettable floor area allowed by the limitations of the site. Within this general brief the client was willing to forgo a slight amount of floor space in order to accommodate the set-back of the ground floor which was felt necessary for architectural effect. No target cost was given and the architects were asked to effect reductions after their preliminary scheme and estimate had been submitted. Similarly no target was set for the completion date, this being mutually agreed between clients, architects and nominated

contractor. Office space was to be designed for letting in units of one floor at a time. As each floor was let, some tenants asked the architects to provide suitable partitioning. Others went direct to their own suppliers.

SITE: topography, surroundings, access, planting

Area of site 5,366 ft. super. Bombed site in built-up area just outside boundary of City of London. Site cleared down to former basement level except for vaults at north end. Existing building on east side of site to which new building had to be joined. Extensive playing fields to north-east.

PLAN: general appreciation and relation of units

The new offices are virtually an extension to an existing block on the east side. Consequently, only one stair was needed, since others in the parent building provide alternative means of escape. Strategic placing of the new stair and the need to provide a link with the existing south corridor determine the general plan form. The stair is placed so as to come within the maximum permissible distance from the farthest part of the offices and together with a light well and lavatories forms a core.

Town planning requirements included the provision of garage accommodation, which, because of difficulties in access to the basement had to displace office space on the ground floor. In view of this, a limited area of office space was allowed as a replacement in excess of the plot ratio of the original building, but the perimeter walls had to be set back because a 50° angle was required from the ground floor of the future building on the west side of Bunhill Row. The

basement, apart from an extension to the existing boilerhouse is entirely devoted to lettable storage space.

The depth of office was determined in effect by the remainder left over after the necessary space had been deducted for the stairs, lifts, etc. Daylight penetration was not a prime consideration, although, in fact, the ceiling heights permit satisfactory daylight levels throughout. Ceiling heights were determined by the clients stipulation that floors should run through from the parent building. Sill and head heights also run through—a town-planning requirement.

A module of half this width was used for the spacing of curtain wall mullions providing for office widths of 7 ft. 6 in., 11 ft. 3 in. and multiples of 3 ft. 9 in.

MAIN CONSTRUCTION
general appreciation

A simple bay structure of rolled steel members with bays generally 11 ft. 3 in. (3 modules) wide, with a line of central stanchions. The latter run through the basement but perimeter stanchions stop just below street level and are then carried down by reinforced concrete columns attached to the retaining wall and thence on to cantilevered foundation. A heavily reinforced basement slab thickened under stanchions forms the foundation for the whole building as foundations were not permitted to extend under pavements.

Total weight of structural steel, 170 tons; two centre rows of columns would have been more economical but were rejected for planning considerations. A beamless floor slab would have cost 50 per cent. more than the hollow pot floor spanning 11 ft. 3 in. between beams.

STRUCTURAL ELEMENTS

Work below ground floor level: foundation type	Location	Materials	Finish	Reasons and comments	cost per sq. ft.	s	d
Cantilever foundations and site slab	Basement	Concrete reinforced heavily with bars	Asphalt	Bearing pressure of soil: 2½ tons/sq. ft.	preliminaries and insurance	4	3
				contingencies	4	0	
				work below ground floor level		6	1
External walls and facings	Location	Materials	Finish	Reasons and comments			
Below ground floor	Basement	Concrete/asphalt/brick-on-edge	Fair finish				
Brickwork	Ground floor	Brickwork faced with slate and terrazzo	Plaster internally				
Special curtain wall and stone surround	Upper floors	Special "curtain wall" and Portland stone	Coloured glass panels. Pressed metal mullions: bituminous aluminium paint	Permits internal cross partitions to finish on mullions with 3 ft. 9 in. flexibility			
Brickwork	East facade	Brickwork with lightweight concrete block inner leaf	Plaster	A request of H.A.C. and for economy reasons			
				external walls and facings		4	8
Frame or load bearing element	Location	Materials	Beam spans	Column grid	Reasons and comments		
Conventional rolled steel frame cased in concrete	Throughout	Rolled steel sections	11 ft. 3 in. 18 ft. 6 in. 21 ft. 7 in. with exceptions dictated by plan	3 rows of columns at 11 ft. 3 in. c/c along building and spaced at 18 ft. 6 in. and 21 ft. 7 in. transversely	Architects and nominated Contractor agreed that steel saved time, even when cased in concrete owing to avoidance of slow process of placing reinforcement. Column spacing dictated by planning and by office dimensions; otherwise, two centre rows of columns would have been cheaper		
					frame or load-bearing element	9	1

analysis

<i>Upper floor construction</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
Floors spanning 11 ft. 3 in.	Offices	Hollow pot	Let to tenants screeded 3 in. total thickness of screed varies to suit finish	Linoleum laid by tenants. Under floor duct to be included in screed. Mesh over duct. Deep beams of frame project below slab. Flat ceiling without deep beams would have cost 50 per cent. more		
	Corridors		Wood block/Entrance terrazzo tile			
	Lavatories		Tessellated tile. Grey			
upper floor construction					7	11
<i>Staircases</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	On east side varies between 10 ft. and 11 ft. 4 in. to 6 ft. between rails in width	Reinforced concrete	Hardwood facing to treads and risers and hardwood strip on landings	One staircase sufficed owing to link with other building		
staircase					1	8
<i>Roof construction</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
As floors		Foam slag screed laid flat on hollow pot slab	Asphalt and white spar chippings			
roof					1	8
<i>Windows</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
External	Throughout	Mild steel purpose-made from universal sections	Zinc sprayed red oxide and painted			
windows					5	5
<i>External doors</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
On west side	Exit to Bunhill Row Garage	Metal casement doors. Sliding folding metal	As above			
external doors					0	1
<i>Glazing</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
Opening lights 3 ft. x 1 ft. 3 ft. x 4 ft.	Throughout	26 oz. g.g. 32 oz. g.g.				
Fixed lights 6 ft. x 3 ft.		3/16 in. drawn sheet				
glazing					1	3
PARTITIONING						
<i>Internal partitions</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
Demountable	Between offices	Aluminium extrusion and hardboard bands	Stoved enamel	The figure given for cost of partitions includes the 6th, 2nd and 1st floors only, as the partitioning on the remaining floors was carried out directly by the tenants. It is estimated that the figure would need to be raised to 6s. 4½d. to cover partitioning throughout the building pro rata.		
Fixed	Round lavatories and in all corridors where more than one tenant on each floor	3 in. lightweight concrete blocks	Plastered both sides	London Building Act.		
internal partitions					3	2
<i>Screens</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	Ground Floor	Walnut with glazing rough-cast on office side		To borrow light for entrance hall		
	Waiting Room	Festival glass other side				
	Corridor	Softwood. Glass	Painted			
screens					0	5
<i>W.c. doors and partitions</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	Throughout	1 in. fibreboard core with ½" hardboard face	Stove enamel			
w.c. doors and partitions					0	5
<i>Internal doors</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	Generally	Solid core flush with walnut veneered face	Polished			
	In hardboard partitions	As partitions	Stove enamel			
internal doors					1	4

analysis

<i>Ironmongery to internal doors</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>	<i>s</i>	<i>d</i>
	Generally	Lever handles	Polished bronze			
	Swing doors	Purpose made recessed	Polished bronze	To allow doors to open right back against walls		
	Escape doors	Espagnolette				
ironmongery to internal doors					1	0

FINISHINGS

<i>Floor finishes, location</i>	<i>Materials</i>	<i>Finish</i>	<i>Cost per sq. yd. of each type</i>		
			<i>s. d.</i>		
Basement	Mastic Asphalt		10 6		
Corridors	Muhuhu block	Polished	46 9		
Office areas mainly left screeded	Linoleum on screed		26 9		
Entrance hall	Terrazzo		48 8		
Lavatories	Vitreous tiles	Mottled grey and white	61 0		
Utility spaces and cupboards	Granolithic		10 9		
				floor finishes	1 9

<i>Wall finishes</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
Internally	On light-weight concrete blocks and brick	Plaster	Emulsion paint			
	On stairs and escape corridors	Cement glaze	Integral			
	Demountable partitions					
	Lavatories	Glazed tiles	Semi-smooth			
					wall finishes	1 8

<i>Ceiling finishes</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	Generally	Plaster on soffit of solid floors	Two coats emulsion paint			
	In important offices	Fibre board v-jointed on wood bearers	Two coats emulsion paint	v's picked out in white		
					ceiling finishes	0 11

<i>Decorations</i>	<i>Location</i>	<i>Paint types</i>	<i>Munsell or other ref.</i>	<i>Colour scheme and comments</i>		
Ceilings	Generally	Emulsion		White		
Acoustic tiles	Executive offices	Emulsion	7.5B 3/4	Dark blue		
Walls	Generally and entrance hall	Emulsion		Oyster		
Cement glaze	Corridors	Emulsion		Vellum and quaker grey		
Entrance hall	W. wall		7.5Y 8/10	Lemon yellow		
Staircase:	Back wall		7.5R 3/12	Dark red		
Windows and architraves	Sills		White. Dark grey			
					decorations	2 1

SERVICES

<i>Rain water disposal</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	In ducts in every corner of the building	4 in. C.I with copper at bends, except for 3 in. on roof		Duct also contains heat risers. Gutter at foot of curtain walling R.W.P. contained in curtain wall mullion on 6th floor		
					rainwater disposal	0 4

<i>Plumbing internal</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
Waste disposal: Two-Pipe system	For lavatories	Cast iron				
<i>Hot water storage</i>	<i>Location</i>	<i>Materials</i>	<i>Capacity</i>	<i>Reasons and comments</i>		
Calorifiers with pumps	Boilerhouse	Galvanized iron	200 gallons			
<i>Cold water storage</i>	<i>Location</i>	<i>Materials</i>	<i>Capacity</i>	<i>Reasons and comments</i>		
	On roof	Steel	2,500 gallons			
<i>Plumbing: sanitary fittings</i>	<i>Location</i>	<i>Materials</i>	<i>Finish</i>	<i>Reasons and comments</i>		
	Lavatories	Low-level WC suites. Slab urinals. Lavatory basin and incinerators				
					plumbing, internal	1 3

analysis

Heating installation: heat exchanger type	Location	Criteria temperature	Air change rate	Reasons and comments
Radiators	Generally	70° F.: Offices. 65° F.: Circulation. 60° F.: Lavatories and garage	4 per hour	Radiators in parent building
Boiler type and capacity	Location	Heat load and fuel type	Stoking method	Reasons and comments
3 boilers 1,000,000 B.Th. Units/hour	Basement (input 180° F.)	220 seconds viscosity oil		Serves new and existing buildings
Water heater type	Location	Fuel type	Stoking method	Reasons and comments
Calorifiers	Basement	On main heating system		

heating installation

6 7

Drainage: type of system	Location	Materials	Finish	Reasons and comments
Combined soil and rainwater	Through basement to Chiswell Street	Cast iron		

drainage

0 9

Gas installation	Location	Materials	Finish	Reasons and comments
Incinerators	Ladies' lavatories	2-in. main		Large main for possible use, e.g., laboratory benches

gas installation

0 2

Electrical installation: source and type of fitting	Location	Illumination level quality	Reasons and comments
Downward fittings	Corridors	Not measured 51 sq. ft.	
60 per cent. down/30 per cent. up	Generally	13 sq. ft.	
Decorative	Special offices and stairs		

Wiring and switching types	Location	Materials	Reasons and comments
V.I.R. in heavy gauge screwed conduit			

Power supply type	Location	How distributed	Reasons and comments
250 V. a.c. 3-phase for lifts and pumps		Distribution boards on every floor	

electrical installation

3 11

Lifts	Location	Capacity and speed	Motor room position	Reasons and comments
	South Corridor	2 lifts, 10 persons. 200 ft./ minute	On roof	Fully automatic client's brief

lifts 5 11

Paved areas	Location	Materials	Reasons and comments
Pavement lights	Chiswell Street Bunhill Row	Where no pavement lights granolithic	
Cobbles	Round stanchions		

paved areas 0 2

total net cost per sq. ft. of floor 77 11

THERMAL INSULATION

Type	Location	U-Value	Reasons and comments
Walls	Generally	0.2	Permanent ventilation in curtain wall cavity
Roof, lightweight vermiculite			

SPECIAL ACOUSTICAL TREATMENT

Sound absorption material	Location	Absorption coefficient	Reasons and comments
Fibreboard on hangers	Executive offices Ceilings	Not measured	

Sound insulation	Location	Insulation standard	Reasons and comments
Internal walls	Between offices	33 d.b.	
Internal walls	Office and corridor	40 d.b.	

analysis

REFUSE DISPOSAL

Method	Type of refuse	Waste recovery	Materials and installation
Chutes (2)	Paper other than office debris	Bins at base of chute	Patent chute

TIME SCHEDULE

Drawings	Contract signed	Work commenced	Work completed	Type of contract
Sketch plans started Feb., 1954 Contract drawings started June, 1954 Contract drawings completed Feb., 1955 Additional drawings for internal partitions etc., July-Oct., 1955—requirements not known earlier	August 6, 1954	September 6, 1954	Additional work makes it difficult to determine date on which contract was completed but main contract was substantially finished by December 31, 1955. Additional work incorporated in course of contract was completed in April, 1956	Bovis fixed-fee contract

RATIOS

Area of enclosing walls	2	Area of windows (incl. ext. doors)	1
Total floor area	3	Total floor area	3
Area of solid wall	1	Total roof area	1
Total floor area	3	Total floor area	7.5

COST ANALYSIS

	Square feet	Tender date	August 6, 1954
Total ground floor area of superstructure	4,340	Tender cost of superstructure	£83,000
Total floor area (excluding basement)	31,821	Installations and finishings	£46,800
Total floor area of basement	4,870	Tender cost of foundations and basement	£11,200
Storey heights of basement	9 ft.	Tender cost of ancillary buildings and external works	£2,000
Total depth of basement	13 ft.	Gross total cost	£143,000
		Cost per ft. super of floor area including basement	£3 17s. 11d.
		Cost per ft. cube including basement	6s. 7½d.

COST COMMENTS

This office block is the first of its kind to be published. Previous analyses for offices have been for two-storey blocks on less confined sites (offices at Poole, AJ March 10, 1955, and offices at Hendon, AJ July 28, 1955). Thus, more useful cost comments must await the publication of a second independent office block. The following points of interest should be borne in mind when considering the costs of the various elements:

Foundation: Costs were influenced by the limitation of the site, which restricted their proposed extension under adjoining pavement.

External Walls: Only a general picture of the distribution of costs is available due to the varied types of construction included in the element cost of 4s. 8d.

Frame: The account of the high flats symposium at the RIBA (AJ, March 10, 1955) indicated that concrete was likely to be more economical than steel except for very high buildings. Thus other considerations apart it would appear that this possible economy was more than offset by the speed of erection in using steel.

Roof: It should be noted that six storeys gives a low roof to total floor area ratio.

SITE ORGANISATION

SITE LABOUR AND EQUIPMENT: work on site was organised in the orthodox manner under the direction of a general foreman. Directly responsible to him were the trades foremen (bricklayer, carpenter and painter), an assistant general foreman (who controlled through gangers the general labourers and steel fixers) and the foremen of the sub-contractors.

Technical advice was provided by the clerk

of works and the consulting engineer who visited the site weekly. There was no resident engineer. A large volume of rubble and excavated material was removed from the old bombed out basement, which formed the site, using two belt conveyors which discharged direct into tipper lorries at street level. Sheet piling was installed on two sides of the site to hold up the earth banks supporting the pavements whilst new reinforced concrete retaining walls were being formed. Owing to the congested conditions hand barrows were used; the large-capacity Ant wheelbarrows were employed.

A crane was used to erect the steel to full height; builders materials were delivered to the upper floors by two high-speed platform hoists, one fitted with a concrete skip.

SUB-LETTING: the work of forming the hollow clay tile floors was sub-let to ensure that the fast contract speed would be realised.

JOB MANAGEMENT: the job was planned in the builder's head office in conjunction with the contract staff concerned. Order lists and time tables for materials, labour, plant and sub-contractors were prepared, for which the services of the buying, estimating, plant and labour departments were co-opted. The programme was prepared after discussions with known sub-contractors.

The contract manager, based on head office, visited the job twice a week and together with the foremen used the pre-plan charts to prepare monthly, then weekly, programmes of work. The architect held general site meetings once a fortnight and any policy changes arising from these were fed back immediately to the head office to enable them to make any necessary alterations to the master chart.

A direct financial, operator incentive scheme was used, bonus targets were based on previous work measurement results, modified where necessary by analytical estimating techniques.

CONTRACTORS

Clerk of works: M. Carding. **General contractor:** Bovis Ltd.

Sub-contractors (structure): Asphalt tanking: Limmer & Trinidad Lake Asphalte Co. Ltd. **Asphalt roofs:** H. V. Smith & Co. Ltd. **Leca blocks:** Lightweight Precast Concrete Co. Ltd. **Reinforced concrete:** Bovis Ltd.; Phillips Floors Ltd. **Stone and stonework:** J. Bysouth Ltd. **Slats panels:** Setchell & Sons. **Partitions:** Internal Constructions Ltd. **Lavatory partitions:** Compactum Ltd. **Glass fixer:** James Clark & Eaton Ltd. **Glass supplier:** Pilkington Bros. Ltd. **Wood block flooring:** Hollis Bros. Ltd. **Artificial stone:** Girlings' Ferro-concrete Co. Ltd. **Structural steel erectors:** Browns Erectors Ltd. **Structural steel supplier:** United Steel Structural Ltd. **Waterproofing material:** R. I. W. Products Ltd. **Sub-contractors (equipment):** Central heating: Regional Heating Co. **Gas fixtures:** William Sugg & Co. Ltd. **Gas fitting:** North Thames Gas Board. **Electric wiring and bells:** City Electrical Co. Ltd. **Electric light fixtures:** Courtney Pope (Elec.) Ltd.; Troughton & Young Ltd.; G.E.C.; Merchant Adventurers of London, Ltd.; Falk Stadelmann & Co. Ltd. **Boilers:** Ideal Boilers & Radiators Ltd. **Stairtreads:** R. Cattle Ltd. **Metal staircases:** Haskins Ltd. **Plumbing:** Subtrades Ltd.; F. Braby & Co. Ltd. **Lightning conductors:** J. W. Gray & Son Ltd. **Door furniture:** G. & S. Allgood. **Pavement lights:** Lenscrete Ltd. **Fire defence equipment:** Merryweather & Sons Ltd. **Telephones:** G.P.O. **Metal windows:** W. E. Coffey & Sons Ltd.

Contract
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Contractor:

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ENTRANCE DOORS: LONDON AIRPORT

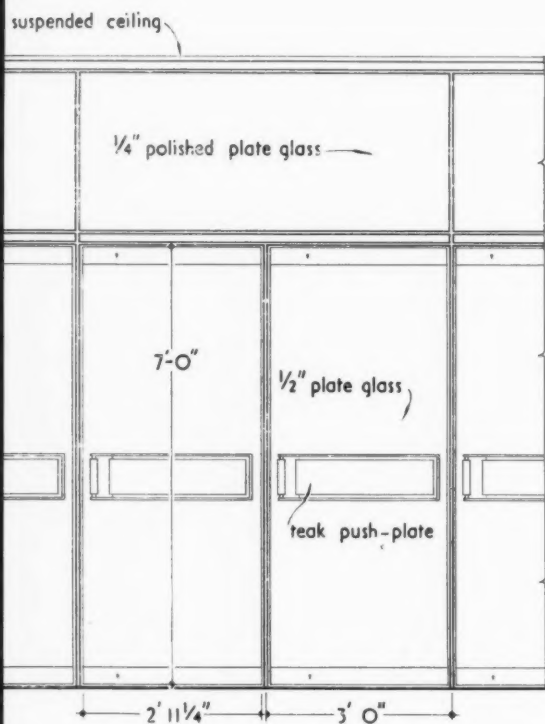
Frederick Gibberd, architect



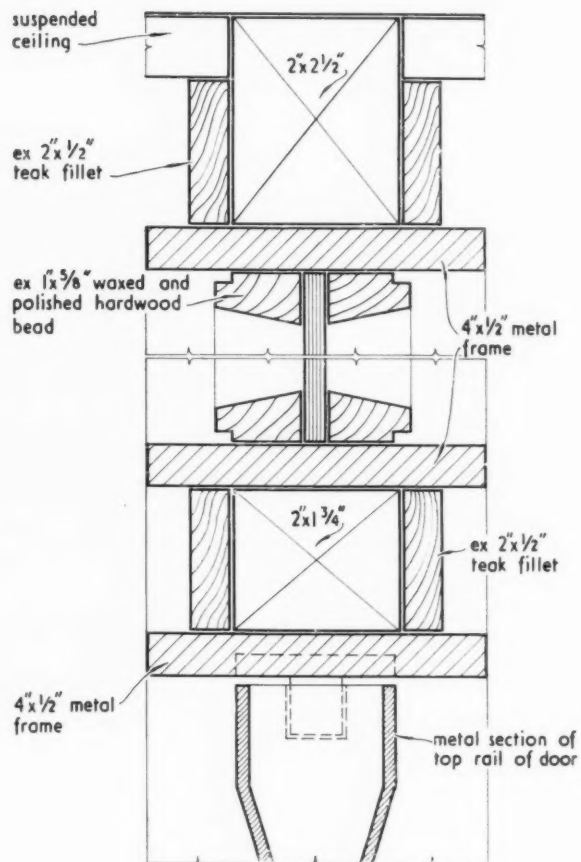
The 4-in. by 1/2-in. metal frame which surrounds the double range of swing doors and fixed fanlights is in anodised aluminium with teak fillets. There are fixed plate-glass panels at the ends of each range with formal acid-etched motifs at the same level as the teak push-plates on the doors.

ENTRANCE DOORS: LONDON AIRPORT

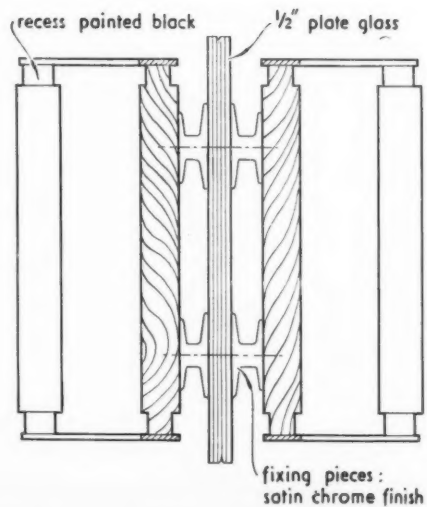
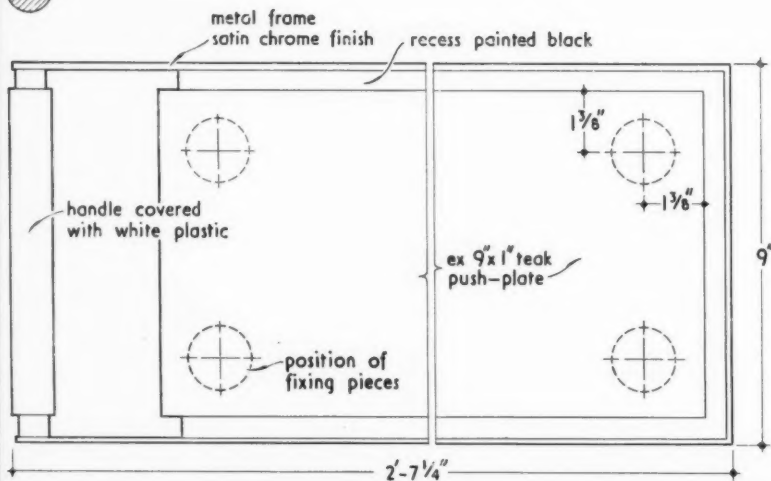
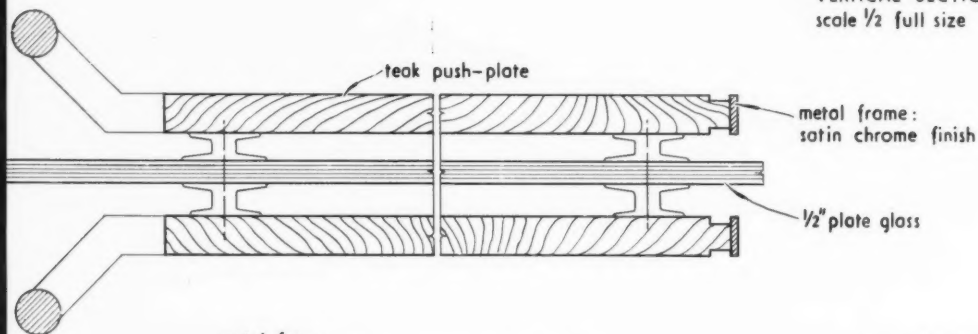
Frederick Gibberd, architect



PART ELEVATION OF ENTRANCE DOORS. scale 3/8"=1'-0"



VERTICAL SECTION THRO' FANLIGHT. scale 1/2" full size



VENTILATION DUCT: LONDON AIRPORT

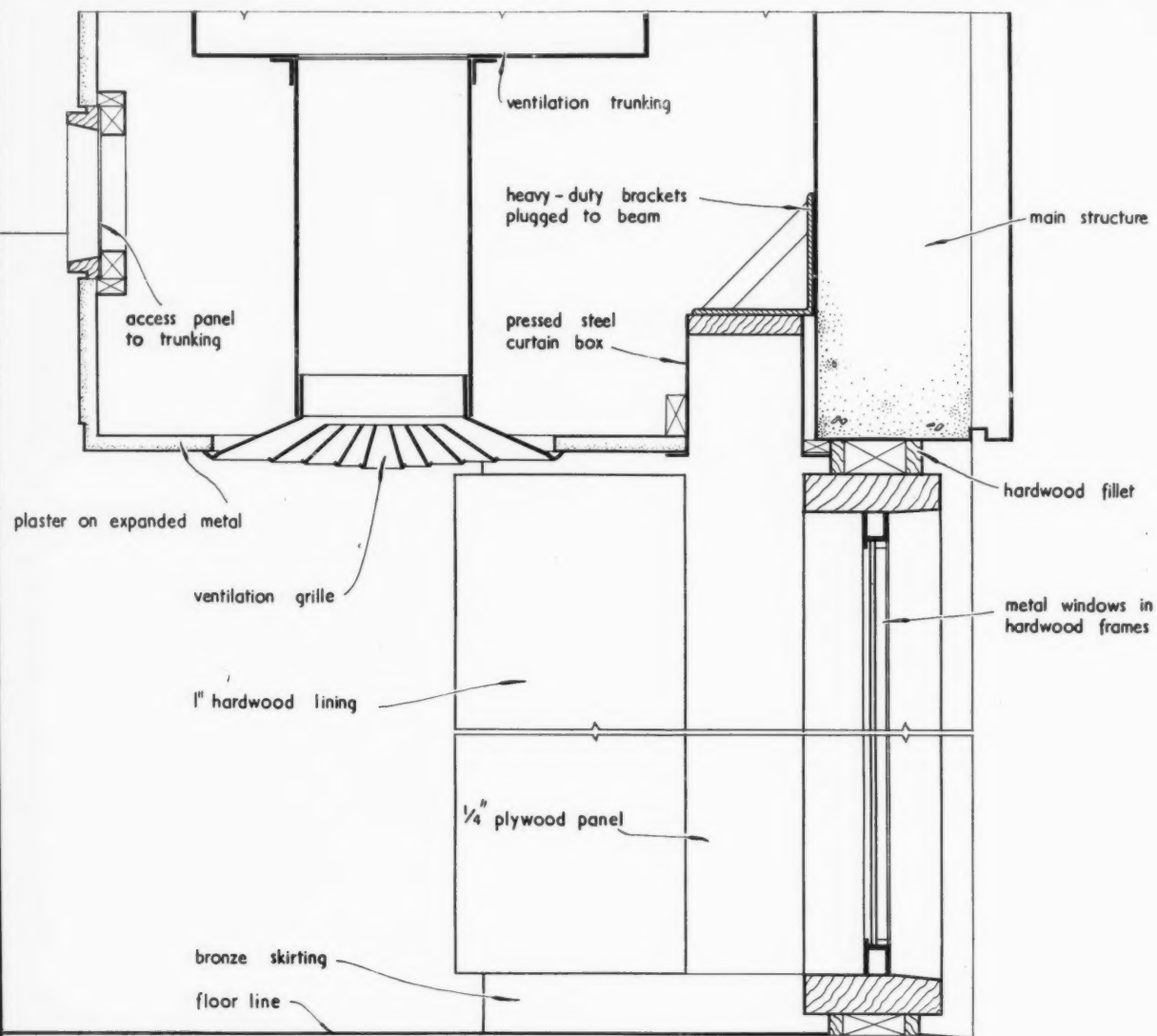
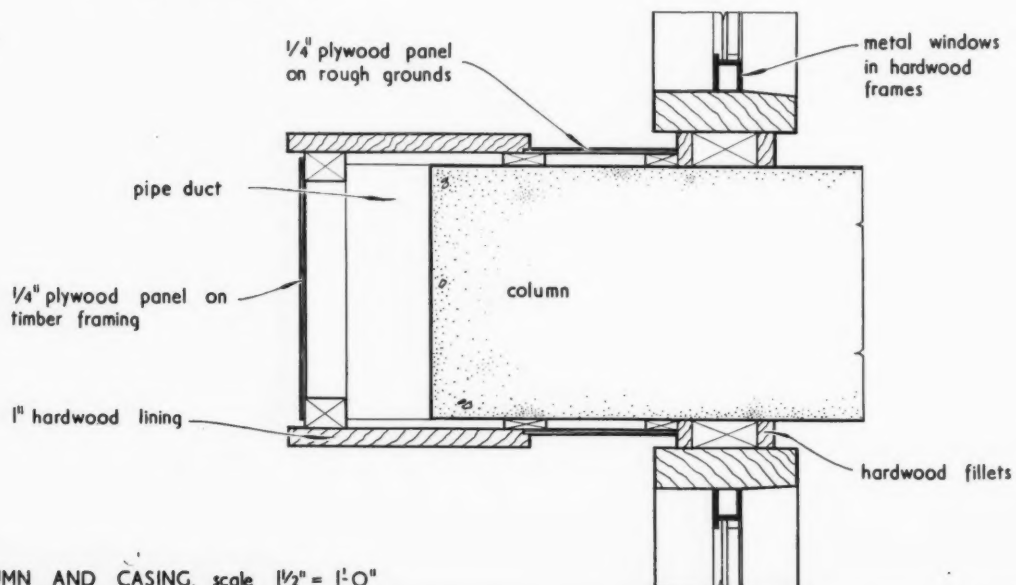
Frederick Gibberd, architect



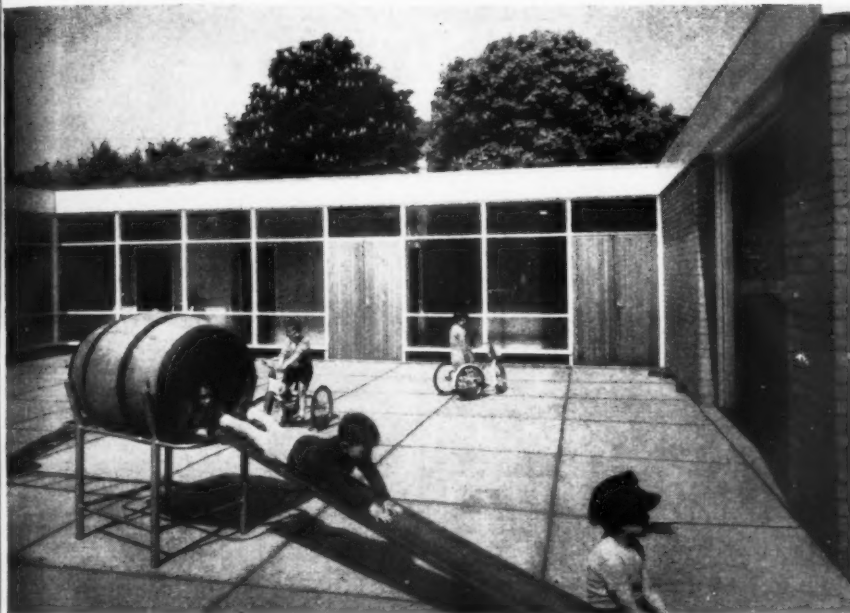
The metal trunking of the ventilation duct is masked by a casing of plaster on expanded metal, pierced by the grilles and access panels. The vertical pipe ducts lead into the void around the ventilation trunking.

VENTILATION DUCT: LONDON AIRPORT

Frederick Gibberd, architect

SECTION OF WINDOW AND DUCT. scale $1\frac{1}{2}" = 1'-0"$ PLAN OF COLUMN AND CASING. scale $1\frac{1}{2}" = 1'-0"$

BUILDING IN THE NEWS



**Nursery School at
North Islington**

This school has been remodelled and extended by Stillman and Eastwick-Field to provide for another 30 children. It has an open plan, with the lavatories and cloaks in the recess off the main playroom, without dividing walls or lobbies. It is one of the few independent nursery schools (direct grant). The cost of the extension was £5,274, which equals £3 17s. per sq. ft. It was opened by the Duchess of Gloucester on May 23.

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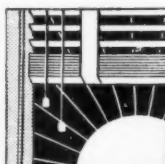
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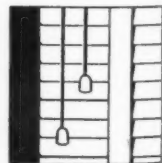


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BOOK REVIEW

Chinese Architecture

Like *The Art and Architecture of Japan*, the volume on China in the Pelican History of Art* is a two-man act: Laurence Sickman writing on art and Alexander Soper (who also wrote on the architecture of Japan) writing on architecture.

Though it is generally agreed that the sources of most Japanese art forms are to be found in China, it is difficult and in most cases impossible to tell whereabouts in China they are to be found or when. For Chinese art does not "develop" in the manner of western art: it is of its nature static; it is regenerated from dynasty to dynasty, but with differences which are not sufficiently striking to give the imagination anything to bite on. An illustration of what both historian and reader are up against is provided by the case of the Ming Tang. A Ming Tang is a type of ceremonial hall which was known to the Chou Emperors (BC 1027-256) and which was regarded by them as an essential attribute of kingship. Already by the Han dynasty (206 BC-AD 221) the specification for a Ming Tang was lost, though a considerable and conflicting literature has sprung up on the subject; and for close on two millenia architects and rulers were worried about it. In Chinese art history it is the principle of conservation which matters, and the more that is discovered of art forms, the further do their origins recede behind the veil of pre-history. It seems generally agreed among art historians that all branches of Chinese art reached their greatest refinement in the Sung dynasty (AD 960-1279). In architec-

ture, for instance, the roofs which had hitherto been built in one plane received their characteristic curved profile at the eaves ("Belcast" as we would call it in the west). Unfortunately the surviving monuments of this period are exceedingly rare and we can only study them through contemporary work in Japan (where they were copied), or through paintings, or in buildings of much later date. This is a greater inconvenience to scholars than to ordinary westerners interested in Chinese architecture, since for the latter the surviving imperial monuments in Peking are a sufficiently vivid and complete record, even though they only date from the last dynasty of all, the Ch'ing (1644-1912). For this reason it is a pity that Mr. Soper gives a sketchy account of these latter works, treating them as though they are merely the fruit of a "revival." In this, more than in the Japanese volume, the reader is made to feel the shortcomings of art history in bringing home the human significance of the subject. It is packed with information of an erudite kind, but it is surprising how little emerges of the Chinese attitude to life and art—or even to building technique. There are tantalising references to technical handbooks, as for instance that the Sung state architect Li Chia who had worked out (c. 1100 AD) "a rationalised method of calculating labour by unit of work"; but these references are insufficient to enable us to tell the degree of accomplishment to which it witnesses. Perhaps full enlightenment on a subject about which so little is known was not to be given within the terms of reference of the Pelican History of Art. In any case the reader will feel that here he has an utterly trustworthy framework which he can use to fill in his knowledge of the art and architecture of this sub-continent, now, alas, more inaccessible than ever.

* *The Art and Architecture of China* by Laurence Sickman and Alexander Soper. Penguin Books. 45s.

Announcements
PROFESSIONAL

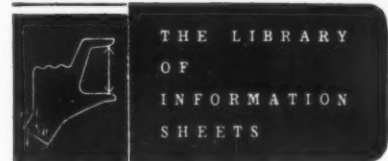
Yuen and Todd (A/A.R.I.B.A.) have moved to 184, Pudu Road, Kuala Lumpur, Malaya.

TRADE

Messrs. Davidson Brothers & Company (Builders & Civil Engineers), 32, Barcroft Road, Bolton, Lancs, would be glad to receive Trade Catalogues.

At the third Annual General Meeting of FIDOR (Fibre Building Board Development Organisation Ltd.) held at Amsterdam on May 31, Mr. E. R. T. Foad was elected chairman of the Governing Council, and Mr. E. P. Lawrence, vice-chairman.

Mr. John Llewellyn has been appointed by the Turriff Construction Corporation Ltd. as Group Development Executive to assist in developing the activities of the Corporation and its Subsidiary Companies. Mr. Llewellyn will be based in London and is at present operating from the Corporation's Croydon offices.



33.P2. REFERENCE BACK

Face of Sheet, under heading "Section through trap": the dimension line noted "1½ in. seal" has been incorrectly carried beyond the end of the dividing wall of the trap which determines the extent of the seal.

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G. W. I.



changeability

After weeks of ignoble existence, the lowly dragonfly nymph crawls, at dawn, from the mud and gloom of the pond and undergoes a great metamorphosis. Arching its back, it splits open its imprisoning case and there emerges what is to become a graceful dragonfly of brilliant iridescent hues, capable of darting speeds—'a living flash of light'.

The advantages of the dragonfly's ability to change are obvious, but ability to change can also benefit other than insects. In industry, where production is becoming increasingly linked with automation, it is essential that the layout of machines and departments should always be arranged to suit the needs of maximum production efficiency. For this reason, movable internal

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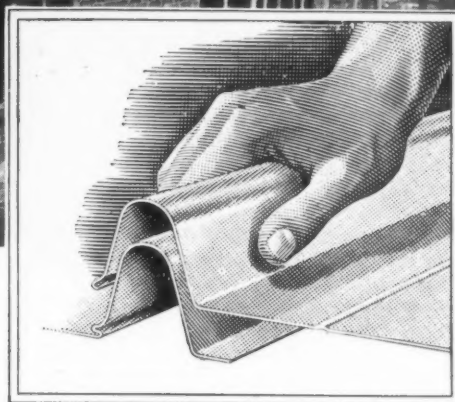
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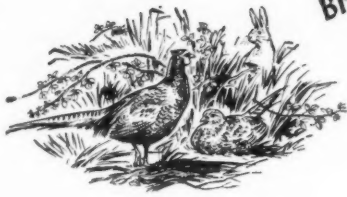
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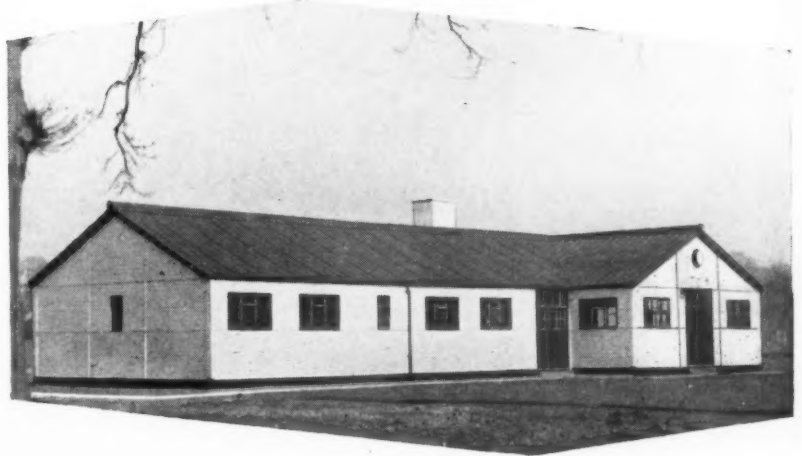


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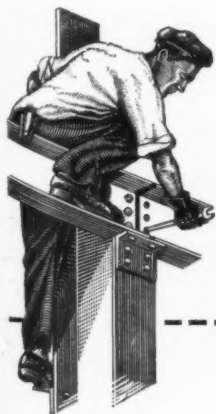
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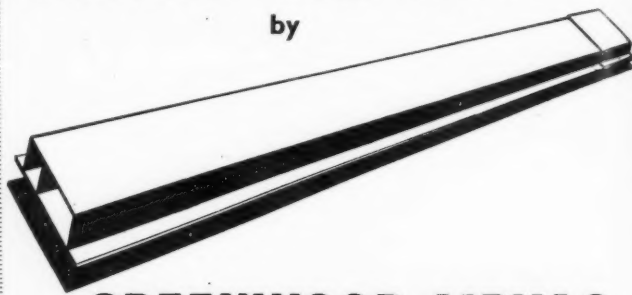
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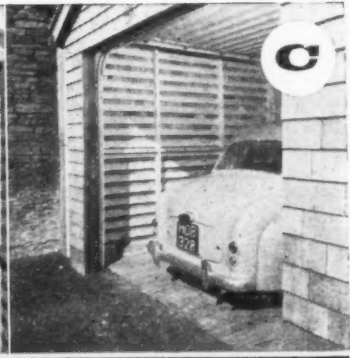
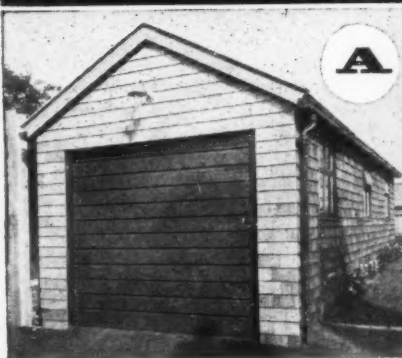
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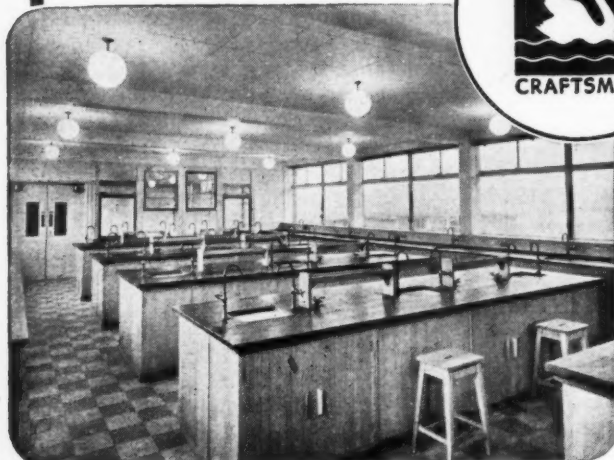
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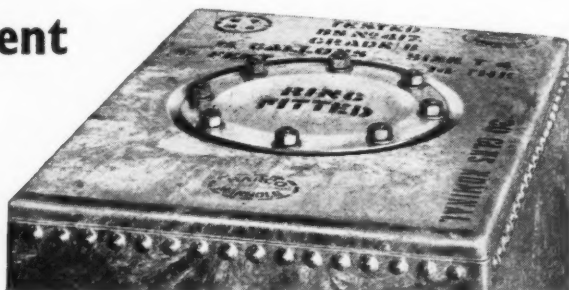
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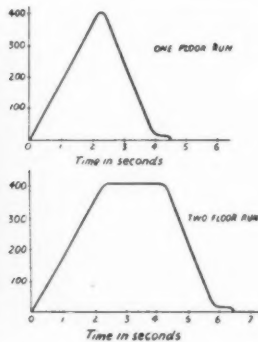
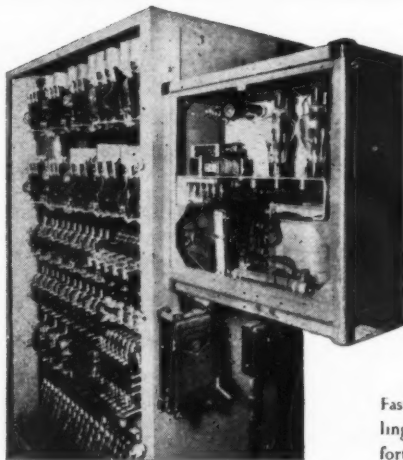
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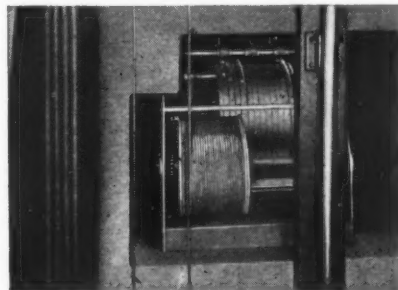


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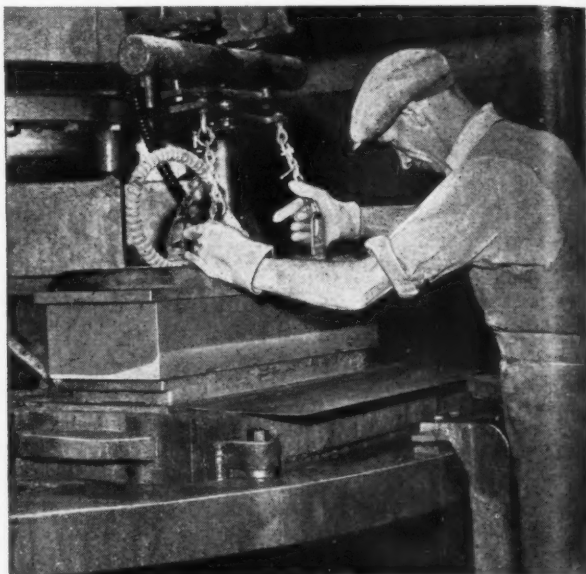
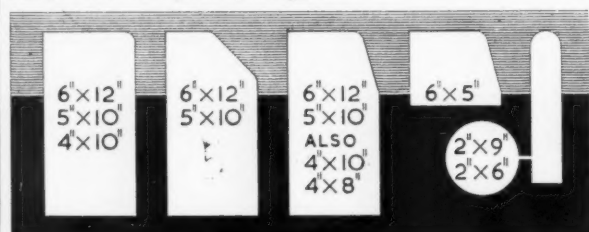
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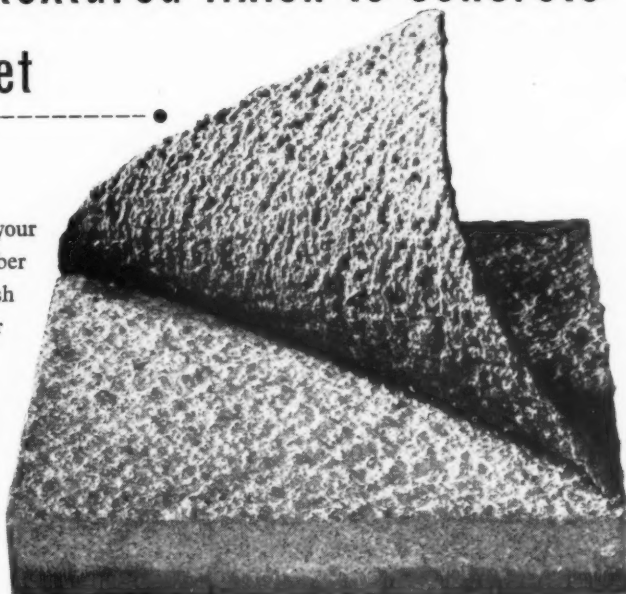
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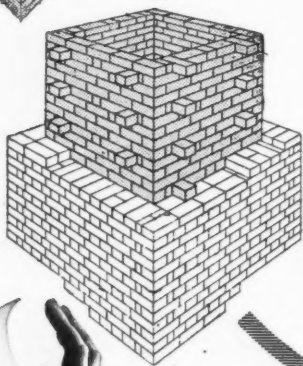
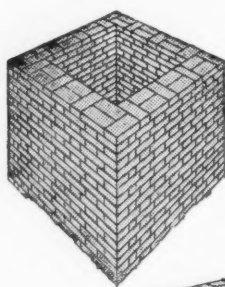


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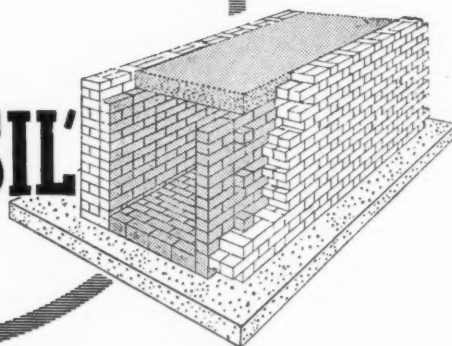
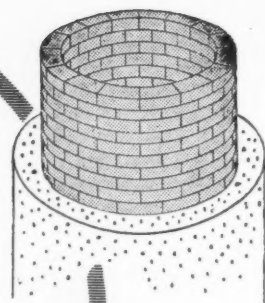
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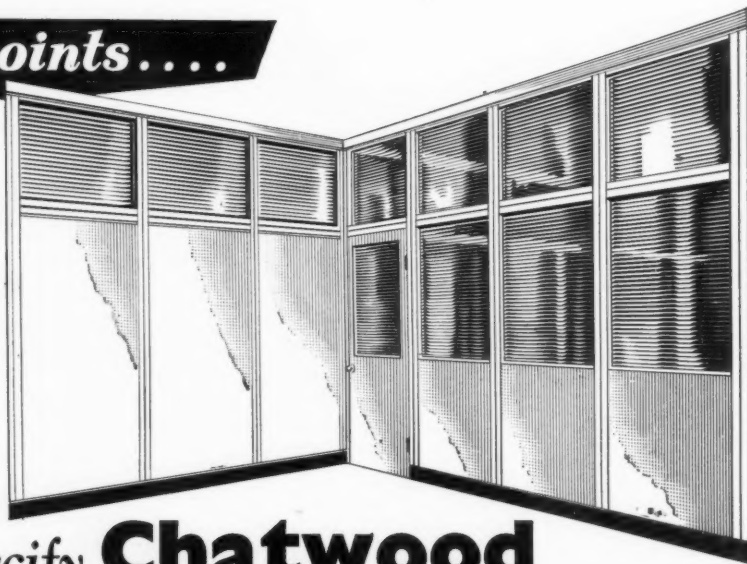
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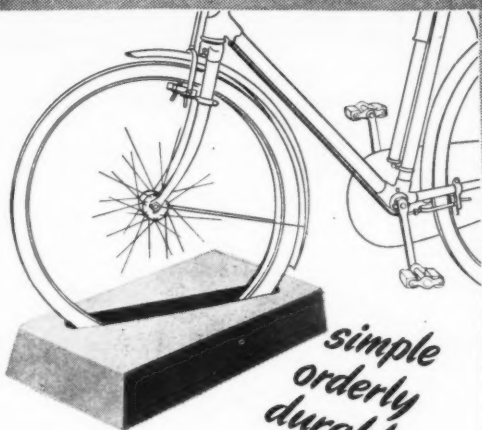
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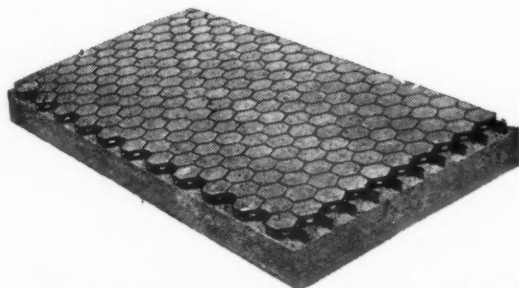
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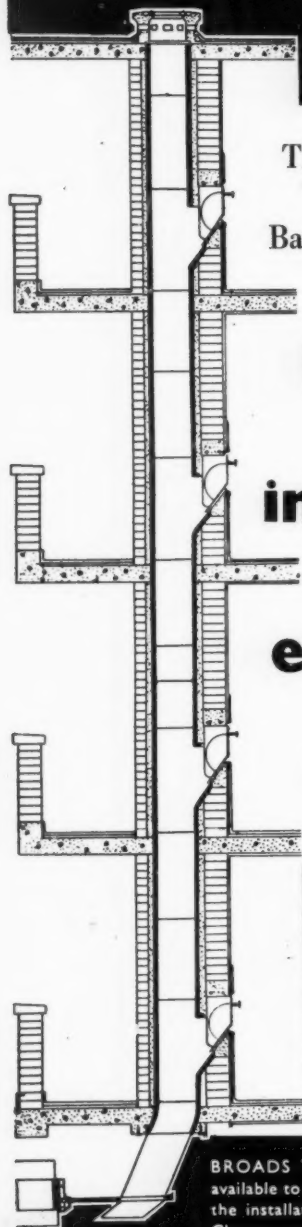
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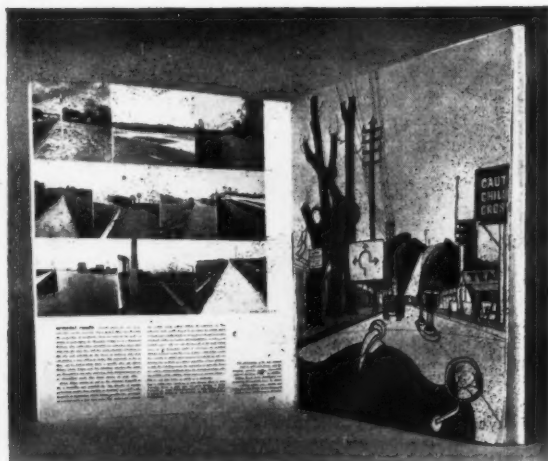
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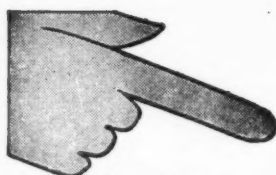
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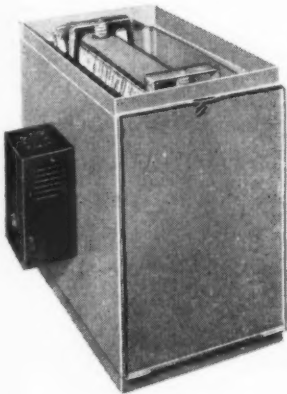
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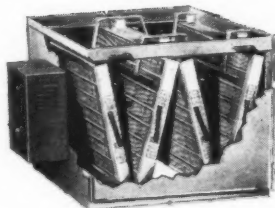
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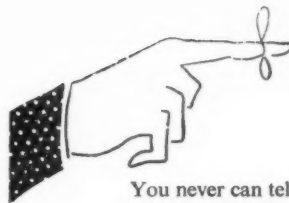
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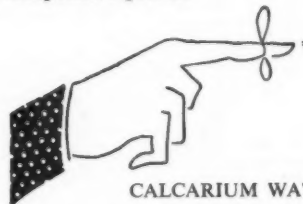
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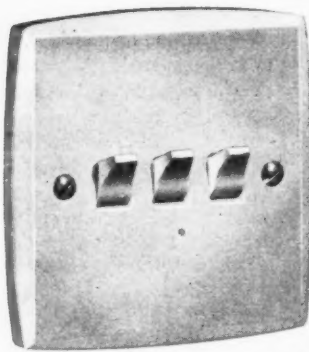
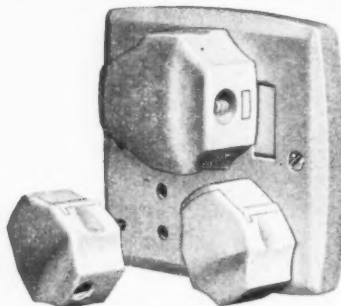
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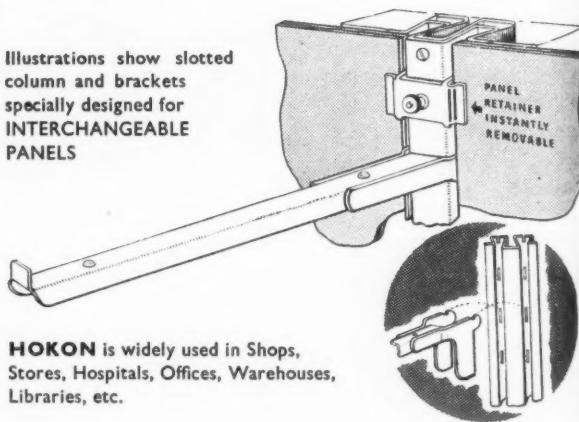
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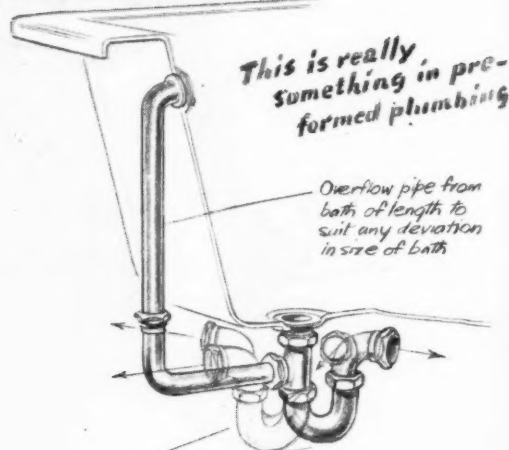


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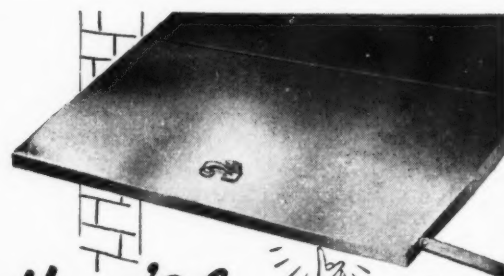
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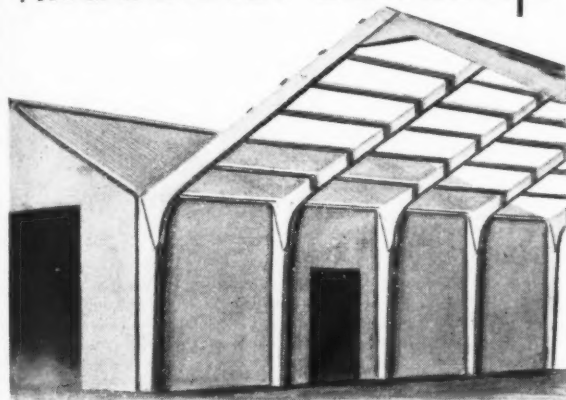
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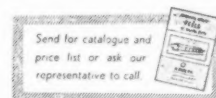


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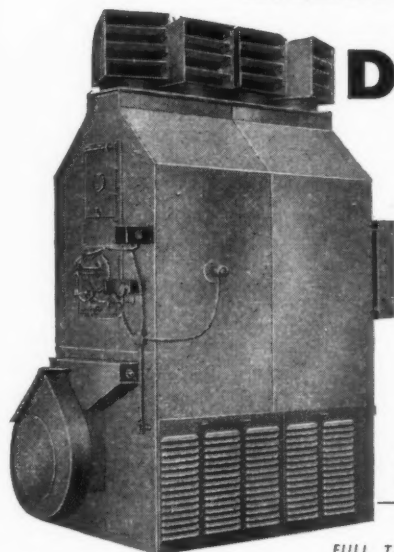


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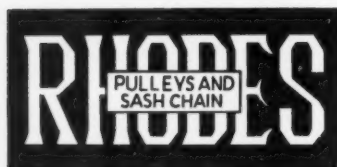
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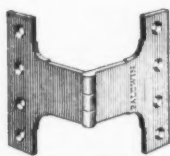


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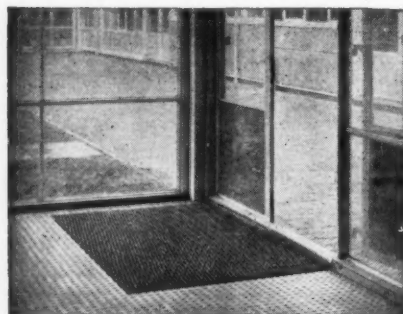


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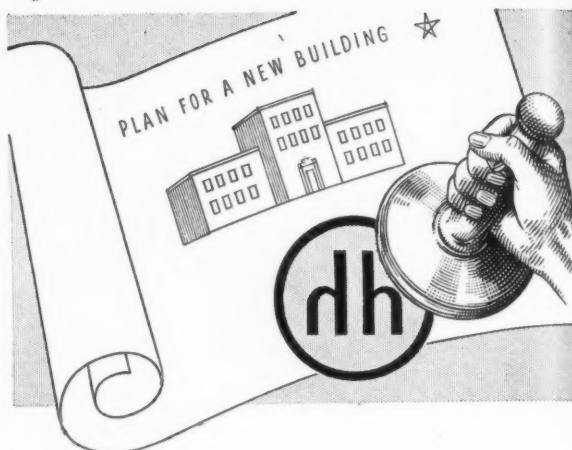
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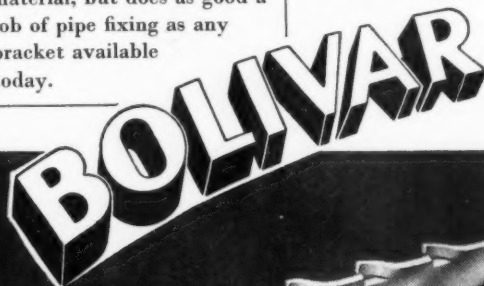
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Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

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GEORGE HOOPER,

Clerk and Solicitor.

Town Hall, Hayes, Middlesex. 1277

WARWICKSHIRE COUNTY COUNCIL ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:-

- SENIOR ASSISTANT ARCHITECTS, Grade A.P.T. V (£795-£970). Applicants must be competent designers having a knowledge of modern methods of construction and be capable of handling large building projects from sketch plan stage to completion.
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- ASSISTANT ARCHITECTS, Scale £690-£840. The successful applicants will work in teams on large projects but opportunity will be given to men with enthusiasm and ability to design and carry out smaller projects under the group architect.
- SENIOR HEATING ENGINEER, A.P.T. V (£795-£970). Applicants should be Associate Members of I.H.V.E. by examination or hold B.N.C. and have held a senior post of designer for several years with experience in the preparation of estimates, designs, specifications and bills of quantities and running of contracts for heating and allied services.
- ASSISTANT HEATING ENGINEER, Grade A.P.T. IV (£710-£885). Applicants should be Graduate Members of the I.H.V.E. or hold B.N.C. and have had some experience in the design of heating, ventilating and allied services, working under a senior engineer.
- ENGINEERING CLERK OF WORKS, Grade A.P.T. II (£595-£675). Applicants should have had several years' experience either on the site supervising the contracts for heating, water supplies and allied service, or as a contractor's foreman in charge of large contracts for similar work.
- CLERKS OF WORKS. Applications are invited for the appointment of clerks of works to supervise the erection of new school buildings in various parts of the County. Salary £14 per week.

The commencing salaries can be within the grades according to the ability and experience. The appointments except (g) are on the established staff and subject to the Scheme and Conditions of Service of the National Joint Council for Local Authorities. All appointments are subject to the Local Government Superannuation Act, 1937-1953. Successful candidates will be required to pass a medical examination.

The Council is unable to offer successful candidates housing accommodation.

Applications are to be on forms which can be obtained from G. R. BARNESLEY, F.R.I.B.A., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,

Clerk of the Council.

Shire Hall, Warwick. 1314

June, 1956.

TOWN PLANNING ASSISTANT required by HAYES & HARLINGTON U.D.C. Salary within A.P.T. I (£530-£610 per annum plus London weighting. Applicants should have experience with a local authority in carrying out delegated planning functions and ability to prepare reports and plans. Duties of appointed person include consideration of planning applications, preparation of plans, enforcement inspections and reports and planning surveys in connection with free preservation, etc. Application on forms available from the undersigned to be returned by 2nd July, 1956.

GEORGE HOOPER,
Clerk and Solicitor.

Town Hall, Hayes, Middlesex. 1309

DENBIGHSHIRE COUNTY COUNCIL COUNTY PLANNING DEPARTMENT

The above Council invite applications from suitably qualified persons for the following appointments to the Staff of the County Planning Department:-

- CHIEF TECHNICAL ADMINISTRATIVE ASSISTANT for the County Headquarters Office at Ruthin. Salary A.P.T. Grade VI, £880-£1,080 per annum. Applicants must have had considerable experience in the control of development and general planning administration and be Corporate Members of the Town Planning Institute. An additional qualification in either engineering, surveying or architecture will be an advantage.
- DEVELOPMENT SURVEYOR for the County Headquarters Office at Ruthin. Salary A.P.T. Grade IV, £710-£885 per annum. This appointment is for the enforcement of planning control and applicants must be fully competent to undertake this class of work.
- AREA PLANNING ASSISTANT for the East Area Planning Office at Wrexham. Salary A.P.T. Grade II, £595-£675 per annum. Applicants must be competent to undertake the preparation of planning proposals, to assist in the control of development and should have passed the Intermediate Examination of the Town Planning Institute or hold an equivalent qualification.

The foregoing appointments are subject to the terms and conditions of service applying to the administrative, technical and clerical officers of the County Council and will be terminable at the end of any month by one month's notice in writing on either side. The successful applicants will be required to pass a medical examination and will be subject to the Local Government Superannuation Act, 1937. In respect of each appointment the successful applicant must provide and maintain a motor car, for which a travelling allowance will be paid in accordance with the Council's scale.

Applications stating appointment applied for, age, whether married or single, qualifications, present position and salary, previous positions and full details of experience obtained, together with the names and addresses of two persons to whom reference may be made must be sent to the undersigned by not later than the 30th day of June, 1956.

W. E. BUFTON,

Clerk of the County Council.

County Offices, Ruthin. 1310

Denbighshire 4th June, 1956.

CITY OF WORCESTER APPOINTMENT OF SENIOR ASSISTANT ARCHITECT

Applications are invited from qualified architects for this appointment in the department of the City Engineer and Surveyor within A.P.T. Grade V (salary £795-£970 per annum).

Candidates must be Registered Architects and Associate Members of the R.I.B.A. and should have had experience in municipal work.

Accommodation in a Corporation house will be made available to the successful candidate if required and a casual user's car allowance will also be available.

Applications with the names of two referees are to be sent to the City Engineer and Surveyor, 22, Bridge Street, Worcester, by 30th June, 1956.

BERTRAM WEBSTER,

Town Clerk.

Guildhall, Worcester. 1313

CITY OF SHEFFIELD CITY ENGINEER AND SURVEYOR'S DEPARTMENT SENIOR PLANNING ASSISTANT, GRADE A.P.T. VI

Applications are invited for the position of Senior Planning Assistant, Grade A.P.T. VI (£880-£1,080), on the Staff of the City Engineer and Surveyor and Town Planning Officer (H. Foster, M.I.C.E., M.I.Mun.E.).

Qualifications: A.M.T.P.I. or A.R.I.B.A. or A.R.I.C.S.; preference will be given to candidates with Planning and Architectural experience.

Housing accommodation will be made available if required.

Superannuable post, N.J.C. conditions of service medical examination.

Applications, stating age, education and training, qualifications, experience, present and past appointments (with dates and salaries), and quoting the names of two referees, should be submitted to the undersigned by the 2nd July, 1956.

JOHN HEYS,

Town Clerk.

Town Hall, Sheffield, 1. 1383

NEWCASTLE REGIONAL HOSPITAL BOARD APPOINTMENT OF DEPUTY REGIONAL ARCHITECT

Applications are invited for the appointment of Deputy Regional Architect on the permanent establishment of the Board's Headquarters Staff at a salary of £1,195 x £50(4) x £30(1) - £1,425 per annum, subject to recently negotiated salaries increase.

Applicants must be Registered Architects and Associate Members of the Royal Institute of British Architects. Good administrative and architectural experience is an essential qualification as are also ability to supervise technical staff efficiently and possession of an intimate knowledge of the design and construction of all types of hospital buildings.

The successful applicant will be expected to deputise whenever necessary in respect of the whole range of the Regional Architect's duties and responsibilities.

The conditions of service will be as laid down by the Whitley Council, and the appointment will be subject to superannuation and be terminable by one month's notice from either side. The successful applicant, if not already employed in the National Health Service, will be required to pass a medical examination before the appointment is confirmed.

Applicants should furnish full details as to age, training, qualifications, past and present appointments, present salary and professional experience, together with the names and addresses of three referees, and should reach the Secretary to the Board not later than Saturday the 30th June, 1956.

Walker Gate Hospital,
Benfield Road,
Newcastle-upon-Tyne, 6. 1372

COUNTY BOROUGH OF WEST HARTLEPOOL APPOINTMENT OF CHIEF QUANTITY SURVEYOR

Applications are invited for the appointment of Chief Quantity Surveyor in the Borough Architect's Department at a salary in accordance with Grade A.P.T. V (£795-£970). The commencing salary will be fixed according to the qualifications and experience of the successful applicant.

Applications stating age, training, qualifications and details of experience, together with not more than three copies of recent testimonials, should be submitted to the Borough Architect, Municipal Buildings, West Hartlepool, not later than noon on Friday the 13th July, 1956.

The Council is prepared to provide housing accommodation for the successful applicant, if required.

ERIC J. WAGGOTT,

Town Clerk.

Municipal Buildings,
West Hartlepool.
13th June, 1956. 1450

OXFORDSHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for ARCHITECTURAL ASSISTANTS in A.P.T. Grades IV, III, II and I. N.J.C. Conditions of Service, Applications, giving age, education, qualifications and experience, a copy of a recent testimonial, and the names and addresses of two referees, to be sent in envelope endorsed "Staff," to County Architect, Park End Street Offices, Oxford, by the 4th July, 1956.

GERALD GALE BURKITT,

Clerk of the Council.

County Hall, Oxford. 1431

CITY OF WAKEFIELD CITY ENGINEER'S DEPARTMENT APPOINTMENT OF PRINCIPAL QUANTITY SURVEYOR

Applications are invited for the above superannuable post on Grade A.P.T. V (£795 x £35-£970).

Candidates must be Members by examination of the R.I.C.S. or the I.Q.S., and have had a wide experience in large scale Local Authority Housing, Schools, and other Municipal projects.

HOUSING ACCOMMODATION WILL BE PROVIDED IF NECESSARY.

Applications, stating age, qualifications and experience, together with the names of two referees, should be received by the City Engineer, Town Hall, Wakefield, not later than 9th July, 1956. 1402

METROPOLITAN BOROUGH OF FULHAM BOROUGH ARCHITECTS' AND HOUSING DEPARTMENT

(a) TWO ASSISTANT ARCHITECTS, A.P.T. III or IV (£670-£795 or £740-£915 p.a., including £30 p.a. London weighting).

(b) ARCHITECTURAL ASSISTANT, A.P.T. I or II (£530-£610 or £595-£675 p.a., plus London weighting of £20 or £30 p.a., according to age).

(c) SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. V (£825-£1,000 p.a., including London weighting).

Qualifications required: Posts (a) preference will be given to A.R.I.B.A. or equivalent, and with experience in the design and construction of multi-storey dwellings; (b) R.I.B.A. Intermediate standard, and at least two years' drawing office experience; (c) A.R.I.C.S. (Quantities) or equivalent, and experience in the preparation of bills of quantities, handling large contracts for multi-storey dwellings. Application forms from Town Clerk, Town Hall, S.W.6. Closing date: 2nd July. 1427

LEYTON COMMITTEE FOR EDUCATION

JUNIOR ARCHITECTURAL ASSISTANT
Applications are invited for the permanent appointment of a **JUNIOR ARCHITECTURAL ASSISTANT, A.P.T. GRADE I**, £560-£640 per annum including London Weighting (£30) which is reduced according to scale where area is less than 26.

The successful applicant will be employed by the Essex County Council and will work in the School Architect's Section of the Borough Engineer and Surveyor's Department, Town Hall, Leyton, London, E.10.

Alternate Saturday mornings free of duty and canteen facilities available.

Details and form of application from the Borough Education Officer, Kirkdale Road, Leytonstone, E.11, to whom they should be returned by Thursday, 5th July, 1956.

D. J. OSBORNE,

Town Clerk.

Town Hall,
Leyton, E.10.

1373

COUNTY COUNCIL OF THE COUNTY OF LANARK

HOUSING ARCHITECT AND ENGINEER'S DEPARTMENT

Applications are invited for the following appointments to the staff of the County Housing Architect and Engineer at Beckford Street, Hamilton.

ARCHITECTS—

(a) Senior Assistant Architects—Salary £1,100/£1,150. Applicants must be A.R.I.B.A., have extensive experience in design and construction of housing developments and able to assume a position of responsibility.

(b) Architectural Assistants—Salary scale A.P.T. I-VIII (£550/£980). Applicants should have good experience in design and construction of Housing Developments—Commencing salary and placing will depend on experience and/or qualifications.

CIVIL ENGINEERS—

(a) Senior Assistant Engineers—Salary £1,100/£1,150. Applicants must be A.M.I.C.E. or A.M.I.Mun.E., have extensive experience in design and construction of roadworks, etc., for housing developments and able to assume a position of responsibility.

(b) Engineering Assistants—Salary scale A.P.T. I-VIII (£550/£980). Applicants should have good experience of road works, surveying and levelling and preparation of plans and quantities. Commencing salary and placing will depend on experience and/or qualifications.

Medical examination. Superannuation. No canvassing.

Applications, stating age, particulars of experience and qualifications, and accompanied by the names and addresses of three referees to whom reference may be made, should be lodged with S. McColl, F.R.I.B.A., F.R.I.A.S., County Housing Architect and Engineer, 23, Beckford Street, Hamilton, not later than 7th July, 1956.

IAN V. PATERSON,
County Clerk.

Lanarkshire House,
191, Ingram Street,
Glasgow, C.1.

1453

BOROUGH OF SWINDON

SENIOR ASSISTANT PLANNING OFFICER

Applications are invited for the appointment, in the Department of the Borough Surveyor and Planning Officer, of a **SENIOR ASSISTANT PLANNING OFFICER, A.P.T. VI or VII** (£880-£1,080 or £975-£1,200 per annum), according to experience and qualifications.

Applicants must be well qualified, have had considerable experience, and be capable of taking control of a section of the Planning Department dealing with the re-development of the Central Area.

Housing accommodation will be provided if required.

Applications on forms obtainable from the Town Clerk, Civic Offices, Swindon, must be returned not later than the 4th July, 1956.

1389

UGANDA ELECTRICITY BOARD ARCHITECTURAL AND GENERAL BUILDING DRAUGHTSMAN

Applications are invited for the above appointment on the Board's permanent staff.

Applicants should be able to prepare sketch plans, finished drawings and details for housing, small offices, sub-station buildings, stores, workshops, etc., and have experience in site surveying, use of level, setting out works and site supervision.

Preference will be given to single applicants under 30 years of age. The successful applicant will normally work at the Head Office in Kampala, but may be required to work at any of the Board's offices in the Protectorate.

Salary range £990-£1,260 per annum. Free passages, partly furnished quarters, medical and dental treatment. Six months' vacation leave on full pay after 3 years' service. Local leave during tour.

Uganda has a pleasant climate; income tax is moderate and the salaries are reasonable in relation to the cost of living.

Application forms and further information may be obtained from the London Representative, Uganda Electricity Board, 27, Regent Street, London, S.W.1.

W. D. D. FENTON,

Chairman.

1390

GOVERNMENT OF QATAR—PERSIAN GULF

STATE ENGINEER'S OFFICE

Applications are invited for the following posts under the direction of the State Engineer, Government of Qatar, Doha:—
DESIGN ENGINEER:

Applicants for the post of Design Engineer should be qualified Civil Engineers (Associate Members of the Institution of Civil Engineers or other internationally recognized body) having particular experience of the layout and design of roads (bitumen macadam and reinforced concrete) and reinforced concrete structure, together with a sound working knowledge of the design of water supply, sewerage and sewage disposal schemes. Applicants should be rapid and competent draughtsmen.

The successful applicant will assist in the design of many of the Civil Engineering works associated with a rapidly expanding town.

ASSISTANT ARCHITECT:

Applicants for the post of Assistant Architect should be qualified Architects (Associates of Royal Institute of British Architects or other internationally recognized body) having good general experience of the design of private and public buildings. Applicants should be rapid and competent draughtsmen.

The successful applicant will assist the Government Architect in the design of the many architectural projects associated with a rapidly expanding town.

Salary: For both above appointments will be according to Scale E2. Each starting at Rs. 1,775 an Arabic month with annual increments of Rs. 75 a month up to Rs. 2,000, and then by annual increments of Rs. 100 per month to a maximum of Rs. 2,300 per month. (Rs. 1,775 an Arabic month is equivalent to £1,590 Sterling a Gregorian year.)

Gratuity: Payable on the basis of one month's pay for each completed year of service, on completion of contract only.

Probation: Probationary period of six months during which contract may be terminated at three months' notice by the Government, without stating its reason.

Contract: A five-year contract subject to successful completion of the probationary period. The employee may terminate the contract at three months' notice only after completing one year's service.

Accommodation: Free furnished bachelor accommodation, fuel, light and water. Married accommodation will be provided in accordance with the rules but in no case before successful completion of probationary period.

Leave: Will be earned at the rate of 5 days for each completed month of duty.

Free Travel: On first journey to Qatar, leave not exceeding one return 1st class Air passage in each year and termination for applicant, wife and children up to 18 years of age.

General: The climate is hot for about five months of the year but this is offset by air-conditioning in staff houses and offices. Good climate for the rest of the year.

No income tax. Duty car allowance. Free medical and dental treatment.

Applications endorsed "Design Engineer" or "Assistant Architect" as the case may be, giving full personal particulars, including age, nationality, religion, education, marital status, qualifications, training, past experience and employment, names and addresses of three referees and latest photograph should be sent in duplicate to:

The Adviser to the Government of Qatar,
P.O. Box No. 36,
Doha, Qatar.

A further copy with enclosures similarly endorsed should be sent to:

Messrs. C. Tennant, Sons & Co. Ltd.,
4, Copthall Avenue,
London, E.C.2.

1451

COUNTY BOROUGH OF EAST HAM THREE ARCHITECTURAL ASSISTANTS (A.P.T.V)

Applications are invited for the above appointments in the Housing Department at salaries in accordance with Grade A.P.T.V (£795-£935-£970) plus London Weighting.

The Department has an extensive and interesting programme of mixed development of houses, flats and shops, and the redevelopment of slums, including multi-storey flats.

Further details and forms of application (returnable by 11th July, 1956) from the Town Clerk, Town Hall, East Ham, E.6.

1446

METROPOLITAN BOROUGH OF FULHAM

ARCHITECTURAL TRAINEE, Borough Architect's Department. Excellent opportunity for boy, 16-17 years, to become articled pupil to Borough Architect. Commencing salary during training, £250-£275 p.a. Details from Town Clerk, Town Hall, S.W.5. Closing date: 2nd July.

1425

UNIVERSITY OF CAMBRIDGE require the services of a **CLERK OF WORKS** in connection with a large new building programme. The appointment will be pensionable and will carry a good and rising salary commensurate with the qualifications and experience of the man appointed. Detailed applications from persons with wide experience as Clerks of Works on large building contracts supported by three recent testimonials to Director, Department of Estate Management, 74, Trumpington Street, Cambridge.

1449

BUCKS COUNTY COUNCIL

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

- (a) ASSISTANT ARCHITECT, A.P.T., Grade V. Salary: £795-£835 (5)—£970 p.a.
- (b) ASSISTANT ARCHITECT, A.P.T., Grade IV. Salary: £710-£835 (5)—£885 p.a.
- (c) ASSISTANT ARCHITECT, Architects' Special Scale. Salary: £690-£830 (5)—£846 p.a.

The appointments are superannuable and subject to medical examination.

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

Applications on forms giving further particulars of the appointments are obtainable from F. B. Pooley, County Architect, County Offices, Aylesbury, and returnable by 30th June, 1956.

1419

CITY OF CAMBRIDGE

Applications are invited for the following appointment in the Architects' Section of the City Surveyor's Department.

ASSISTANT ARCHITECT. (Grade III. Salary: £640-£765, entry point in accordance with experience.)

Applicants should be A.R.I.B.A. or at Final stage, and must have had good office experience of Housing and if possible School projects. There is an interesting and varied programme of work in the Section.

The appointment is superannuable, subject to medical examination and terminable by one month's notice on either side.

Housing accommodation will be considered. Forms of application may be obtained from the City Surveyor, The Guildhall, Cambridge, to whom they should be returned not later than the 7th July, 1956.

ALAN H. I. SWIFT,

Town Clerk.

1420

BOROUGH OF GOSPORT

ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment from persons having passed Parts I and II of the R.I.B.A. Final Examination or its equivalent. Salary in accordance with the N.J.C. Special Grade for Architectural Assistants (£690-£830 per annum). The appointment will be subject to the following:—

(1) The National Scheme of Conditions of Service.

(2) Medical examination.

(3) The Local Government Superannuation Acts.

One month's notice on either side.

Applications, giving age, details of experience, and the names and addresses of two referees, should reach the undersigned not later than Saturday, 7th July, 1956.

EDWARD ADENBROOKE,

Town Clerk.

1413

Town Hall, Gosport, Hants.

ISLE OF ELY COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

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

(a) **TWO JUNIOR ARCHITECTURAL ASSISTANTS (A.P.T. I).** £530-£610.

(b) **QUANTITY SURVEYOR'S CLERK (Misc. II).** £395-£460.

All posts are permanent, subject to the National Scheme of Conditions of Service, the Local Government Superannuation Act, and to a medical examination.

Intending applicants are to apply for forms, stating for which post they wish to apply, to the County Architect, County Hall, March, Cambs., to whom they must be returned not later than 30th June, 1956.

R. F. G. THURLOW,

Clerk of the County Council.

1416

COVENTRY CORPORATION requires:—

(a) **SENIOR GROUP ARCHITECT** (Schools Division, N.J.C. Grade "A" (£1,050-£1,228 15s.—revised scale pending).

(b) **ARCHITECT** (Research Group), A.P.T. V (£795-£970).

(c) **ARCHITECTS**, Special Grade (£690-£840). Additional local award £26 on salaries up to £795 in approved circumstances. Housing accommodation may be available. Application forms and conditions from City Architect and Planning Officer, Bull Yard, Coventry, returnable within 10 days of publication.

1430

BOROUGH OF TOTENHAM

Applications are invited for the following established posts:—

SENIOR ARCHITECT, A.P.T. Grade V (£795 p.a. to £970 p.a.). Applicants must hold a Final professional qualification.

ARCHITECTURAL ASSISTANT, A.P.T. Grade II or I (£595 p.a. to £675 p.a. or £530 p.a. to £610 p.a.). Applicants must have passed R.I.B.A. Intermediate Examination or equivalent. Graduated according to experience.

Commencing salaries within grades, according to experience and ability.

London weighting allowance of £20 p.a. at 21 to 25 years or £30 p.a. at age 26 years and over payable in addition.

Application form and Conditions of Appointment from Borough Engineer (A.J.) Town Hall, Tottenham, N.15. Applications must be delivered not later than 2nd July, 1956.

1394

BOROUGH OF ACTON BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT, Grade II/III (£595-£765), plus London allowance of £10, £20 or £30, according to age.

The commencing salary will be fixed according to qualifications and experience.

Terms of appointment and forms of application may be obtained from the Borough Engineer, Town Hall, Acton, W.3, to whom applications must be returned by 2nd July, 1956. 1403

FEDERAL GOVERNMENT OF NIGERIA ARCHITECTS-PUBLIC WORKS DEPARTMENT

To prepare sketch plans, working drawings and detailed specifications for various types of buildings, and carry out general work of an Architectural Office.

Appointments on contract. Salary range £1,170 to £1,824 p.a. Gratuity £150 p.a.

Free passages for officer and wife, and refund of up to cost of two adult passages for children.

Allowance of £75 each for two children maintained outside the territory. Quarters, if available, at low rental. Generous home leave on full salary.

Candidates should be A.R.I.B.A., with wide general experience. Knowledge of Hospital planning would be an advantage.

Write Director of Recruitment, Colonial Office, London, S.W.1, giving age, qualifications and experience, quoting BCD 112/14/05. 1392

WORTLEY RURAL DISTRICT COUNCIL (Population 45,200)

Applications are invited for the following appointments in the Department of the Council's Engineer and Surveyor. Housing accommodation is available, and there is a programme of interesting work to be carried out.

(1) ASSISTANT ARCHITECT. Salary in accordance with the Special Grade of the National Scales (£690 x £30-£840).

(2) ASSISTANT QUANTITY SURVEYOR. Salary in accordance with the Special Grade of the National Scales (£690 x £30-£840).

(3) ASSISTANT ARCHITECT. Salary in accordance with Grades A.P.T. II and III of the National Scales.

Applications, giving full details of qualifications and experience, and names of two referees, should be delivered to me not later than 6th July, 1956.

ADRIAN M. KELLY, Clerk of the Council, Council Offices, Grenoside, Sheffield. 1404

BOROUGH OF CHELMSFORD BOROUGH ENGINEER, SURVEYOR AND ARCHITECTS' DEPARTMENT

ASSISTANT ENGINEERS, Grade A.P.T. IV (£710-£885).

ASSISTANT ARCHITECT, Grade A.P.T. IV-V (£710-£970).

Applications are invited for the above appointments. Housing accommodation can be offered.

Further particulars may be obtained from the Borough Engineer, Municipal Offices, Duke Street, Chelmsford. Closing date: 29th June, 1956.

B. A. FRANCIS, Town Clerk. 1391

METROPOLITAN BOROUGH OF BERMONDSEY BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

ARCHITECTURAL SECTION

Applications are invited for the appointment of ASSISTANT ARCHITECT, Grade III-V, £540-£970 (plus London Weighting), from suitably qualified persons with experience of contemporary styles of architecture.

Candidates must be Associates of the R.I.B.A., with subsequent office experience, preferably of housing projects, and must be competent designers capable of handling large building schemes from sketch design stage to completion.

Commencing salary will be within the grade stated according to ability and experience.

Application form and further details may be obtained from the undersigned. Closing date 29th June, 1956.

S. E. FREEMAN, Town Clerk. 1445

GOVERNMENT OF SARAWAK SENIOR ASSISTANT ARCHITECT, PUBLIC WORKS DEPARTMENT

To assist with the Development building programme, and to deputise for the Government Architect in his absence.

Appointment on contract for 36 months. Salary £1,918 p.a. Gratuity £37 10s. for each 3 months' resident service.

Furnished quarters at low rental. Free return passages for officer, his wife, and up to three children. 4 or 5 days' leave for each month of resident service.

Candidates, age 35-45, should be A.R.I.B.A., and have had considerable practical experience after qualifying. Should have a knowledge of the design of housing, hospitals, police, and other public buildings. Aptitude for reinforced concrete design would be an advantage.

Write to the Director of Recruitment, Colonial Office, London, S.W.1, giving age, qualifications and experience, quoting BCD 112/24/012. 1393

ANTRIM COUNTY EDUCATION COMMITTEE ASSISTANT ARCHITECT

Applications are invited by the above-named Committee for the post of ASSISTANT ARCHITECT, on a salary scale of £675-£1,000, plus pay supplement of £91-£160. Applicants should be Associates of the Royal Institute of British Architects.

The point of entry on the salary scale will be determined according to the qualifications and experience of the person appointed.

The successful applicant will be required to contribute to the Local Government Superannuation Scheme.

Ex-Service preference. It is the Committee's policy to give special consideration to candidates who have served in Her Majesty's Forces.

Interviews arranged at centres to be agreed, and reasonable travelling expenses will be paid.

Applications, on prescribed forms, which may be obtained from the undersigned on receipt of a stamped addressed envelope (foolscap size), must be forwarded to the Education Office, 475/477, Antrim Road, Belfast, N. Ireland, so as to be received not later than Friday, 13th July, 1956.

KENNETH A. MACCORMAC, Director of Education. 1432

LINDSEY COUNTY COUNCIL PLANNING DEPARTMENT

Applications are invited for the appointment of SENIOR ASSISTANT (ARCHITECTURAL), at Lincoln, Grade A.P.T. IV (£710-£885).

Successful candidate should be suitably qualified and have some experience in dealing with development schemes, housing layouts, and architectural control.

Superannuation and N.J.C. conditions of service as approved by the County Council. Post requires officer to provide own car for official journeys, for which allowance will be paid at essential user's rate for car not exceeding 10 h.p. or 1,199 c.c., subject to review according to Council's decision on application of new allowance scales.

Relationship to any member or senior officer of the Council to be disclosed in writing by applicants.

Applications, with particulars of age, training, experience, and names and addresses of two referees, to County Planning Officer, The Castle, Lincoln, not later than 30th June, 1956. 1381

COUNTY BOROUGH OF DERBY BOROUGH ARCHITECTS' DEPARTMENT ARCHITECTURAL STAFF:

(a) A.P.T. Grade V. (£795-£970 per annum)

(b) A.P.T. Grade IV. (£710-£885 per annum)

(c) A.P.T. Grade III. (£640-£795 per annum)

(d) A.P.T. Grade II. (£595-£675 per annum)

(e) A.P.T. Grade I. (£530-£610 per annum)

(f) Higher General Division. (£180-£500 per annum)

QUANTITY SURVEYING STAFF:

(a) A.P.T. Grade V. (£795-£970 per annum)

Commencing salary will be according to qualifications and experience.

Permanent superannuable appointments subject to one month's notice and to medical examination.

National Conditions of Service. Applicants must state for which post they are applying.

Further particulars and application forms obtainable from and to be returned to The Borough Architect, The Council House, Corporation Street, Derby, not later than Monday, 9th July, 1956.

G. H. EMLY JONES, Town Clerk. 1448

URBAN DISTRICT OF FELTHAM ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT on the Council's unestablished staff at a salary within the National Scales, according to qualifications and experience, up to the maximum of Grade A.P.T. IV (£885 per annum), plus London "weighting."

Forms of application, obtainable from the undersigned, must be returned accompanied by copies of two testimonials, not later than 7th July, 1956. Canvassing directly or indirectly will disqualify and applicants must disclose, in writing, whether to their knowledge they are related to any member of or the holder of any senior office under the Council.

M. W. COUPE, Clerk of the Council. 1452

Council Offices, Feltham, Middlesex.

LONDON COUNTY COUNCIL requires:—

(1) LANDSCAPE ARCHITECTURAL ASSISTANTS for preparation of schemes, working drawings, schedules and specifications, and supervision of contract work for laying out new parks and open spaces, playing fields and grounds to new schemes.

(2) ARCHITECTURAL ASSISTANT for preparation of working drawings, specifications, and supervision of contract work for sports pavilions, cafés, service, and other ancillary buildings in parks and open spaces.

Salaries up to £817 16s. a year, according to qualifications and experience.

Apply, giving brief particulars, to Chief Officer of the Parks Department, Old County Hall, Spring Gardens, S.W.1 (Whitehall 312, ext. 319). (1106) 1457

SLOUGH CORPORATION ARCHITECTURAL VACANCY

A vacancy occurs for an ASSISTANT ARCHITECT on the Staff of the Borough Engineer.

Slough being a rapidly developing town, the resulting expansion of public services affords the opportunity of experience on a variety of architectural design work.

The vacancy would prove an excellent opening to a young architect who has passed the Final examinations and is seeking a post in which he can quickly obtain wider experience and have the chance of taking responsibility for individual design work, and the supervision and administration of contract jobs of varying size and type.

The salary will be within the Special Grade of the National Scales, which commences at £690 and progresses to £840 per annum.

Those interested are invited to write, giving brief details of qualifications and experience, to the Borough Engineer, Town Hall, Slough, Bucks., with a view to meeting him at an early date for a discussion on the work of the Department and the prospects offered by the vacancy. 1415

The NIGERIAN RAILWAY CORPORATION invite applications for following appointments.

(a) ASSISTANT ARCHITECT (Capital Works). Salary: £875 x £50-£1,675 p.a., plus overseas pay £300 p.a.

Qualifications: Candidates should be Registered Architects, preference given to Associate Members of Royal Institute of British Architects. They should have had several years' experience, covering public buildings, factories, workshops, offices and housing, including layouts for same, also design and detailing of reinforced concrete structures, specifications, and supervision of junior staff.

(b) SENIOR DRAUGHTSMAN (STRUCTURAL) (Capital Works). Salary: £1,150 x £50-£1,450 p.a., plus overseas pay £300 p.a.

Qualifications: Candidates should have wide experience of reinforced concrete structural design, together with experience of steel and general structural design, preparation of working drawings and taking off of quantities. Experience of Railway work desirable, though not essential.

(c) SENIOR DRAUGHTSMAN (ARCHITECTURAL) (Capital Works). Salary: £1,150 x £50-£1,450 p.a., plus overseas pay £300 p.a.

Qualifications: Duties of post cover preparation of design and working drawings for railway stations, offices, quarters, two and three storey blocks of flats, and similar structures. Ability to prepare Bills of Materials and Specifications for such works would be an asset.

(d) ASSISTANT ESTATE AND VALUATION OFFICER (Open Lines). Salary: £875 x £50-£1,675 p.a., plus overseas pay £300 p.a.

Qualifications: Candidates must be age 22/30. They must be either (a) Corporate Members of Royal Institution of Chartered Surveyors or Chartered Auctioneers' and Estate Agents' Institute or Land Agents' Society, or (b) have passed a degree or other examinations necessary for obtaining Corporate Membership of one of the foregoing Institutions, or (c) have a degree in Estate Management-B.A. Cambridge or B.Sc. London. Candidates admitted under (b) and (c) will be required to qualify under (a) in due course.

Commencing salary in each case depends upon qualifications and experience. Terms of service provide for tours of 15 months each, 7 days full pay leave per month of service, free passages for officer and wife, and separate domicile allowance of £75 per annum for each in respect of a maximum of two children while in the U.K., or cost of their passages to and from Nigeria if under 18 years of age. Part furnished quarters provided at low rental. Outfit allowance £60 payable on first appointment.

Appointment under (a)-(c) will be on contract terms only, which provide for a gratuity of 20 per cent. of total salary, plus overseas pay, payable at the end of each tour or on final completion of service. Appointment under (d) may be either on pensionable or contract terms.

Applications, giving details of experience, qualifications and age, should be addressed to London Representative, Nigerian Railway Corporation, 7th 11, Manchester Square, W.1. Closing date: 7th July, 1956. 1462

NATIONAL COAL BOARD— NORTH EASTERN DIVISION

Applications are invited for the post of DIVISIONAL CHIEF ARCHITECT whose office will be located at Conisborough, nr. Doncaster. Salary range for the appointment £1,725 to £2,400.

Candidates should be Fellows or Associates of the Royal Institute of British Architects and Associates of the Institute of Landscape Architects; they should have had considerable experience of architectural design and construction.

The work of the Branch covers all colliery surface buildings (including Lamp Rooms, Wind- ing Engine Houses, Boiler Houses and Pithead Baths), Welfare Centres, Offices, etc.

Applications to the Staff Director, National Coal Board, North Eastern Division, Holmwood House, Ecclesall Road South, Sheffield 11, to arrive not later than the 2nd July, 1956.

Envelopes should be marked "Staff Vacancy." 1454

**COUNTY BOROUGH OF DEWSBURY
BOROUGH ARCHITECT AND BUILDINGS
SURVEYOR'S DEPARTMENT**

Applications are invited for the appointment of **PRINCIPAL ASSISTANT ARCHITECT** (Housing and General Section) at a salary in accordance with A.P.T. Grade IV (£795-£970 p.a.), the commencing salary to be fixed within the scope of this grade according to qualifications and experience.

Applicants should be Associates of the R.I.B.A., with good architectural experience and knowledge of local government procedure. Housing accommodation will be made available if required.

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

Applications, stating age, education, qualifications, full particulars of training and experience, together with copies of two recent testimonials, should be sent to the undersigned not later than Monday, 9th July, 1956, endorsed "Principal Assistant Architect."

A. NORMAN JAMES,

Town Clerk.

Town Hall, Dewsbury.
16th June, 1956. 1458

**COUNTY BOROUGH OF ROTHERHAM
ARCHITECTURAL ASSISTANTS**

Applications are invited for the following appointments:—

(a) Architectural Assistants (3 vacancies) at a salary in accordance with the Special Grade, £690-£840.

(b) Senior Architectural Assistant at a salary in accordance with Grade A.P.T. IV, £710-£885.

Candidates for (a) are required to have passed Parts I and II of the R.I.B.A. final examination and (b) to be Associate Members of the R.I.B.A. with good general experience in design and construction.

Applications to be endorsed "Architectural Assistants" stating age, qualifications and details of experience, together with the names of two referees, should be received by me not later than Monday, the 9th July, 1956.

Canvassing will disqualify.

JOHN S. WALL,
Town Clerk.

Municipal Offices,
Rotherham. 1455

**SOUTH CAMBRIDGESHIRE RURAL DISTRICT
COUNCIL**

**APPOINTMENT OF ARCHITECTURAL
ASSISTANT**

Applications are invited for the appointment of Architectural Assistant in the department of the Council's Architect. Salary within the range of A.P.T. III (£640-£765) or the Special Grade (£690-£840), according to qualifications and experience.

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

Forms of application can be obtained from the undersigned, to whom they must be returned not later than first post on Monday, the 9th July, 1956.

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

Canvassing, directly or indirectly, will disqualify.

B. G. CRAFT,

Clerk to the Council.

County Hall, Hobson Street, Cambridge. 1461
16th June, 1956.

**MIDDLESEX COUNTY COUNCIL—COUNTY
PLANNING DEPT.**

SENIOR PLANNING ASSISTANT, A.P.T. IV (£710-£885 p.a., plus London weighting). Appointments will be made at appropriate point on grade according to qualifications and experience in architecture or planning. Established, pensionable, subject to medical assessment and prescribed conditions. Application forms from County Planning Officer, 10, Gt. George Street, S.W.1, returnable by 9th July. (Quote T.64 A.J.)
Canvassing disqualifies. 1459

**METROPOLITAN BOROUGH OF
SHOREDITCH**

Applications are invited for the appointment of **TWO ASSISTANT ARCHITECTS**. Salary within Grades A.P.T. III and IV (£670 to £915), according to experience and qualifications. Subject to medical examination, Council's superannuation scheme, and N.A.C. conditions.

Applications to Borough Architect, Town Hall, Old Street, E.C.1, stating age, training and experience, giving names of two referees, to arrive by 7th July, 1956. 1401

THE UNIVERSITY OF MANCHESTER

Applications are invited for the post of **LECTURER IN TOWN AND COUNTRY PLANNING**. Applicants must be qualified Architects and Corporate Members of the Town Planning Institute. Salary on a scale rising to £1,350 per annum, with membership of the F.R.S.U. and Children's Allowance Scheme; initial salary according to qualifications and practical experience. Applications should be sent not later than 21st July to the Registrar, the University, Manchester, 13, from whom further particulars and forms of application may be obtained. 1456

**CITY ARCHITECT'S DEPARTMENT,
MANCHESTER**

SENIOR ASSISTANT ARCHITECT (Temporary) required. Salary: A.P.T. IV (£710-£885). Must be A.R.I.B.A. Particulars and form from City Architect, P.O. Box 488, Town Hall, Manchester, 2. Closing date: 2nd July. 1460

Tenders Invited

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

**GREATER EALING OLD PEOPLE'S HOMES
LIMITED**

**HOSTEL FOR AGED PEOPLE, NORTHOLT
PARK**

Greater Ealing Old People's Homes Ltd. propose to erect on the Northolt Park Estate a hostel for 47 aged people and contractors are invited to submit their names for this work. Those who have not carried out similar or substantial housing works should enclose with their application particulars of contracts and the type of work executed by them. The Society will then select contractors whom they consider most suitable for the work and their decision will be final. It is expected that the tender documents will be ready during August, 1956. Applications should be sent to me, at the Town Hall, Ealing, W.5. Closing date 30th June, 1956.

D. HERMAN,
Hon. Secretary.

**MANCHESTER REGIONAL HOSPITAL
BOARD**

**NOTICE TO ALL BUILDING AND
ENGINEERING CONTRACTORS**

The Manchester Regional Hospital Board propose to maintain an "Approved List of Contractors" for the execution of works of new building construction, adaptations of existing buildings and engineering works, and, unless in any particular case and for particular reasons the Board shall direct otherwise, tenders for the carrying out of such works at any of the hospitals and clinics administered by the Board will only be invited from firms or persons whose names are included in the Approved List. The Board's area covers parts of four counties—Lancashire, Derbyshire, Cheshire and Westmorland. Contractors who wish to be considered for inclusion in the List should apply to the Secretary of the Board, Cheetwood Road, Manchester, 8, not later than 14th July, 1956, for form of application and further details. 1447

Architectural Appointments Vacant

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

ARCHITECTURAL ASSISTANTS, Senior and Junior required, preferably with London practice experience, office and factory buildings. Write, giving particulars of experience, etc., to Messrs. Bates & Sinning, 89, Chancery Lane, W.C.2. 2509

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

Applications are invited for the following appointments:—

(a) **SENIOR ASSISTANT ARCHITECTS**, with experience of work on commercial and industrial projects.

(Salary range £820 to £975 per annum.)
(b) **ASSISTANT ARCHITECTS**, capable of preparing working drawings from preliminary details.

(Salary range £550 to £820 per annum.)
There is a five-day week in operation, and both appointments offer prospects of upgrading.

Applications, stating age, experience, qualifications and salary required, to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester, 4. 3871

ARCHITECTURAL ASSISTANT, Intermediate standard, required in busy South-West London office. Reply, stating age, salary, and experience, to Box 1354.

LONDON Consultants require immediately **ASSISTANTS** of both Inter. and Final R.I.B.A. standard for varied and interesting contemporary industrial projects. Responsibility given to applicants with good design sense and constructional ability. Apply, giving full particulars and salary required, to Box No. 401, Glovers Advertising Ltd., 351, Oxford Street, London, W.1. 9341

SENIOR ARCHITECT required for work in South Wales on the design and co-ordination of industrial projects. Candidates must be qualified A.R.I.B.A.—Please write, giving details of previous experience and salary required, to Box No. 417, Glovers Advertising, Ltd., 351, Oxford Street, London, W.1. 9693

RICHARD COSTAIN LTD.,
have vacancies in their Architects'

Department for **ARCHITECTURAL ASSISTANTS**, of Intermediate and up to Final R.I.B.A. standard.

Good salaries in proportion to age and experience. First-class canteen and social amenities. Application should be sent to:—

H. S. SMITH, R.I.B.A.,
111, Westminster Bridge Road, London, S.E.1. 1466

SEELY & PAGET have two vacancies in their City office, recently qualified or near final standard. The work is varied and covers ecclesiastical, colleges, schools, domestic and general work. Salary by agreement according to experience. Telephone CEN 0321. 1259

RONALD FIELDING, A.R.I.B.A., requires **SENIOR and JUNIOR ASSISTANTS**. Please apply with details of experience, age and salary required to Aldwych House, London, W.C.2. Chancery 3532/3. 1306

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ARCHITECT'S DEPARTMENT, BIRMINGHAM.**

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(b) **ASSISTANT ARCHITECTS**, capable of preparing working drawings and details from preliminary sketches.

(Salary range £550 to £820 per annum.)
Both appointments offer prospects of upgrading. Applications, stating age, experience, qualifications, and salary required, to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester, 4. 3871

"THE ARCHITECTS' JOURNAL" requires a full-time **DRAGHTSMAN** to assist in the preparation of Information Sheets and Working Details. First class draughtsmanship, knowledge of building construction and a keen interest in the compilation of technical information. Write to the Editor (Information Sheets), 9, Queen Anne's Gate, S.W.1, stating age, architectural training, and experience. 912

ARCHITECTURAL ASSISTANTS required for St. Albans office for work on School, Commercial and Housing projects. Should be good draughtsmen with contemporary outlook. Good Salaries. Write to Box 9579.

ARCHITECTURAL ASSISTANT required in busy London office with varied practice. Good salary and prospects for suitable applicant. 5-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 775, C/O 7, Coptic Street, W.C.1. 9313

CROYDON office. **ARCHITECTURAL ASSISTANT** required, with initiative, preferably qualified in building and interior work. Write stating experience, age and salary required to George Lowe & Partner, 4, High Street, Croydon, Surrey. 1106

ARCHITECTS' Co-partnership require **ASSISTANT** for working drawings and detailed design. Salary according to experience. Office doing work in U.K. and West Africa. Write 44, Charlotte Street, London, W.1. or telephone Langham 5791. 1215

QUALIFIED ASSISTANT required immediately. Apply in writing, stating age, details of practical experience and when available, to S. P. Jordan, A.R.I.B.A., M.S.I.A., Dip.T.P., 11, King's Road, Sloane Square, S.W.3. 114

ARCHITECTS' ASSISTANT, male or female required for domestic and commercial work from inter-standard upwards. Good draughtsmanship and office experience required. Salary £500 to £600 according to experience. 5-day week. Write stating experience to R. Jelinek-Ar, F.R.I.B.A., 22, Chancery Lane, W.C.2. 1220

SENIOR and JUNIOR ASSISTANTS required for large schemes of contemporary nature. Excellent opportunities to suitable applicants. Five-day week. Please write giving full particulars of experience and salary required to Johns, Slater & Haward, F.A.R.I.B.A., 31, Foundation Street, Ipswich. 1230

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ARCHITECTURAL ASSISTANT required in busy West End office. Salary up to £1,000 p.a., according to experience. 5-day week.—Apply in writing, with all details, to Mewes & Davis, 1, Old Burlington Street, W.1. 1381

W. H. WATKINS, GRAY & PARTNERS require **ASSISTANTS** of Intermediate standard for interesting work on hospitals and schools. Pension scheme in operation.—Write to 'phone 57, Catherine Place, S.W.1. Victoria 7761. 1359

ARCHITECTURAL ASSISTANTS required for small West End Office. Good salaries. Write to Box 9580.

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ASSISTANT ARCHITECTS, WORKER-UP. Applications are invited from suitably qualified persons. Salary on a scale £485-£945 inclusive of L.W., with placing according to age, qualifications and experience. The posts are superannuable, subject to medical examination. Five-day week in operation. 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. 2824

ARCHITECTURAL DRAFTSMEN required for leading firm of Consulting Civil Engineers, Westminster. 5-day week—bonus and pension schemes.—Phone Mr. Simmons, ABBey 1122, for appointment. 1361

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LADY ARCHITECTURAL ASSISTANT required, Intermediate to Final standard. Write, stating experience and salary, to Frederick Gibberd, 8, Percy Street, London, W.1. 1363

ARCHITECTURAL ASSISTANT required, up to Intermediate standard, Westminster. Pension and Bonus schemes. 5-day week.—Write, stating experience, age, and salary required, to Box 1359.

ARCHITECTURAL ASSISTANT required, of R.I.B.A. Intermediate or Final standard. Give details of qualifications, age, experience, and salary required, to Howells & Doherty, Architects and Quantity Surveyors, Masonic Buildings, Bangor, N. Wales. 1342

ARCHITECTURAL ASSISTANT required for small busy West London practice. Intermediate or R.I.B.A. Final standard, with office experience. No Saturdays; holiday bookings respected.—Shaw & Lloyd, Museum 9693. 1356

ARCHITECTURAL ASSISTANT, of Intermediate standard, required for offices, London, N.1. Some office experience and neat draughtsmanship essential. Permanent position with good prospects.—Full details and salary required to Box 1355.

CO-OPERATIVE WHOLESALE SOCIETY, LTD., ARCHITECT'S DEPARTMENT, London: (a) **TAKER-OFF;** (b) **WORKER-UP.** Applicants are invited from suitably qualified persons. Salary on the scales: (a) £650-£1,005; (b) £580-£950, both inclusive of L.W., with placing according to age, qualifications and experience. The posts are superannuable, subject to medical examinations. 5-day week in operation.—Applicants, 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. 1325

ARCHITECT'S ASSISTANT required immediately for medium sized office, preferably with Intermediate Examination, having contemporary outlook. Salary £11 per week.—Write, with details, giving age and experience, J. Boland Sidwell, A.R.I.B.A., 27, Union Street, Coventry. Tel. 2393 (3 lines). 1276

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ARCHITECTURAL ASSISTANT required in Architect's Department of London Brewery Company. Must be good draughtsman.—Write, stating age, experience, salary required, Box 1428.

ARCHITECT'S ASSISTANT, Final standard, required, West London office.—Hammond Harvey. RIV. 3108. 1435

SOUTH-WESTERN REGIONAL HOSPITAL BOARD

APPLICATIONS are invited for (a) **ASSISTANT ARCHITECT** (£4640-£930) and (b) **ARCHITECTURAL ASSISTANT** (£4800-£670), commencing salary dependent upon age and experience; instructions to implement improved salary scales awaited.

Applications for (a) must be Associate Members of the R.I.B.A. and for (b) must have Inter. R.I.B.A. The appointments are subject to the provision of the National Health Service Superannuation Regulations, 1952, and are terminable by one month's notice on either side. Applications, giving age, qualifications and experience, and names of two referees, must be submitted to the undersigned not later than the 7th July, 1956.

M. O. CARTER,

Secretary.

27, Tyndalls Park Road, Clifton, Bristol, 8. 1395

SENIOR ASSISTANT required in small West End private office. Good prospects; ability to use main qualification. Salary £800. Write in confidence; all letters answered.—Box 1396.

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JUNIOR ASSISTANT required. Hours 9-5.30, 10-12 Saturdays. Salary subject to experience and ability.—Write, giving full particulars, Meredith & Partners, Architects and Surveyors, 6, Victoria House, Goodmayes, Essex. 1406

STEPNEY M.B.C. require **ARCHITECTURAL ASSISTANTS** (unestablished). Salary up to £915 p.a., according to qualifications and experience.—Apply Borough Engineer, 227, Commercial Road, E.1. 1405

A SENIOR ASSISTANT ARCHITECT required for large practice in West Indies, to work under resident partner. First-class opportunity for capable man with initiative and tact. Applicants should be qualified, preferably school-trained, and be able to produce highest references as to ability and character. Previous tropical experience an advantage but not essential.—Apply in writing, giving age and experience, to W. H. Watkins, Gray, FF./R.I.B.A., & Partners, 57, Catherine Place, Palace Street, London, S.W.1. 1408

WEST INDIES.—Qualified **SURVEYOR** required for West Indies office. Site surveyor, contractor's account, etc. Must be able to prepare quantities. Good salary and prospects. Highest references as to ability and character required.—Apply, giving particulars of experience, age, etc., to W. H. Watkins, Gray, FF./R.I.B.A., & Partners, 57, Catherine Place, Palace Street, London, S.W.1. 1409

ARCHITECTURAL ASSISTANT and **DRAFTSMAN** required by Brewery Company in the Home Counties. Alterations and maintenance of properties. Permanent position, pension scheme. Apply, stating salary required, age, and experience. Junior considered. Box 1410.

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REQUIRED, early in July, an **ARCHITECTURAL ASSISTANT**, of Intermediate or Final standard, in busy practice in South Worcestershire country town. The work is of a varied nature, including schools, housing and industrial buildings. Applicants must be keen, and able to act on own initiative, with a sense of design. Travelling expenses will be paid for interviews. Either male or female assistants will be considered, or one just finishing at Architectural School.—Reply to Box 1426.

ASSISTANT required for small office. Final or Intermediate standard, with good office experience. Salary £600-£700 p.a., according to experience.—Write or telephone Alan S. Raimes, A.R.I.B.A., 6, Holborn Viaduct, E.C.1. City 4201. 1424

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CLERICAL ASSISTANT (S/T) part-time required in Architect's office South Kensington. Able to trace and keep records of costs, orders and general routine. Some experience in an Architect's or Builder's office preferable but not essential. Write in first instance giving age, sex and salary required to Mr. R. G. Smith, L.R.I.B.A., 19-23 Gloucester Road, S.W.7. 1247

CLERK OF WORKS required for a City building in Central London. Please apply in writing giving particulars of experience, etc., to Messrs. Bates & Sinning, 89, Chancery Lane, London, W.C.2. 1103

THE ARCHITECTURAL ASSOCIATION. SCHOOL OF ARCHITECTURE. FIRST YEAR MASTER. The Council of the A.A. invites applications for the post of First Year Master. Salary £1,100 per annum. Starting date September 24th, 1956. Applications must be submitted by July 23rd to the Secretary, A.A., 36, Bedford Square, London, W.C.1. from whom particulars of the appointment may be obtained. 1436

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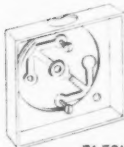
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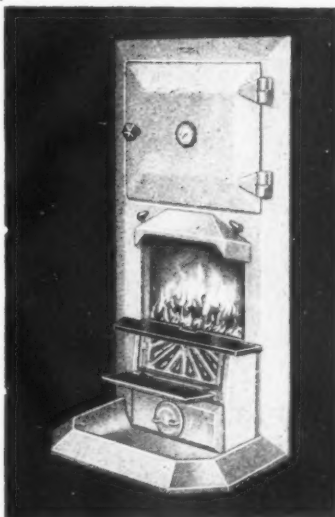
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