

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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No. 3123]

[Vol. 121

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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 I one week, I to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Reliance 7611, Ext. 1706
BCC	British Colour Council. 13, Portman Square, W.1.	Museum 5400
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Welbeck 4185
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Ealing 9621
BDA	British Door Association. 10, The Boltons, S.W.10.	Redditch 716
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Fremantle 8494
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Temple Bar 9434
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Euston 5385
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Chancery 7772
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Langham 2785
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Mansion House 9383
BSA	Building Societies Association. 14, Park Street, W.1.	Garston 2246
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 0515
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Mayfair 9000
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Holborn 8146/7
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Newport 5491
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Chichester 3001
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Sloane 5255
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Reliance 7611
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderstr. 7, Zurich, Switzerland.	Radlett 5616
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Reliance 7611
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1.	Whitehall 0540
EJMA	English Joinery Manufacturers' Association (Incorporated), 40, Piccadilly, W.1.	Trafalgar 8855
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	Sackville House, Regent 4448
FAS	Faculty of Architects and Surveyors. (Temporary address) 96, Madrid Road, S.W.13.	Riverside 6437
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organisation, Ltd., Melbourne House, Aldwych, W.C.2.	Temple Bar 4561
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

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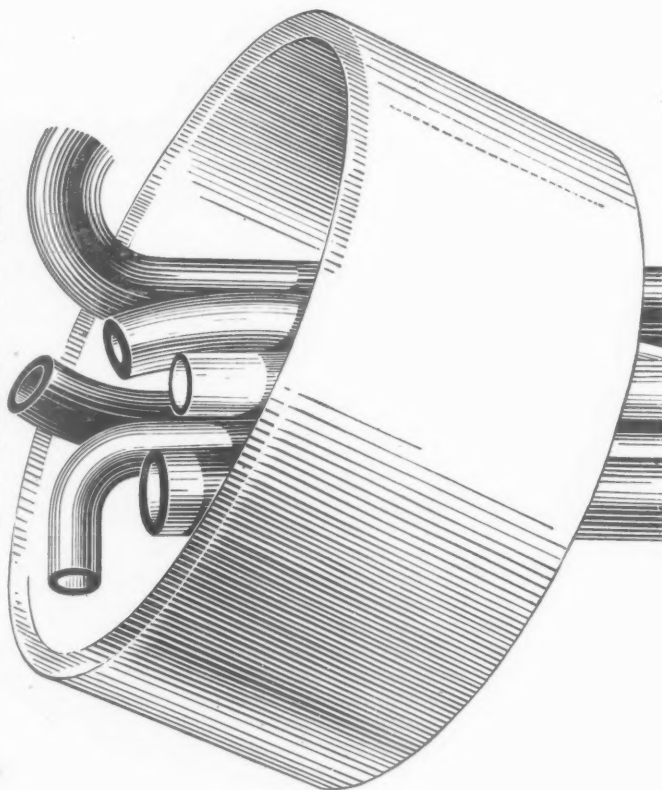
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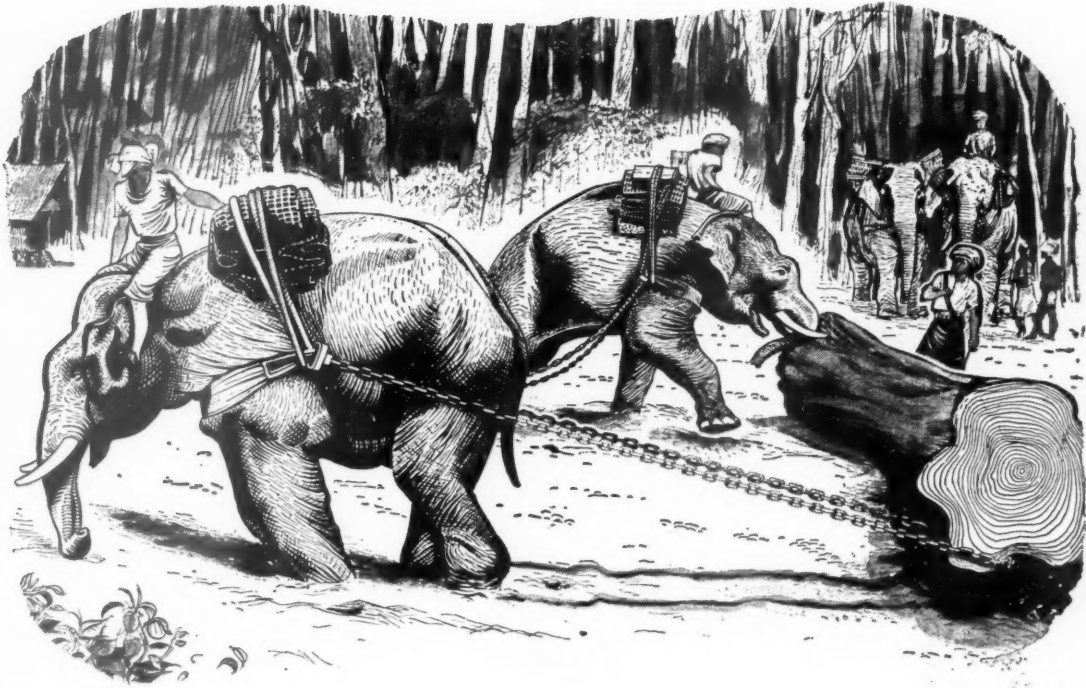
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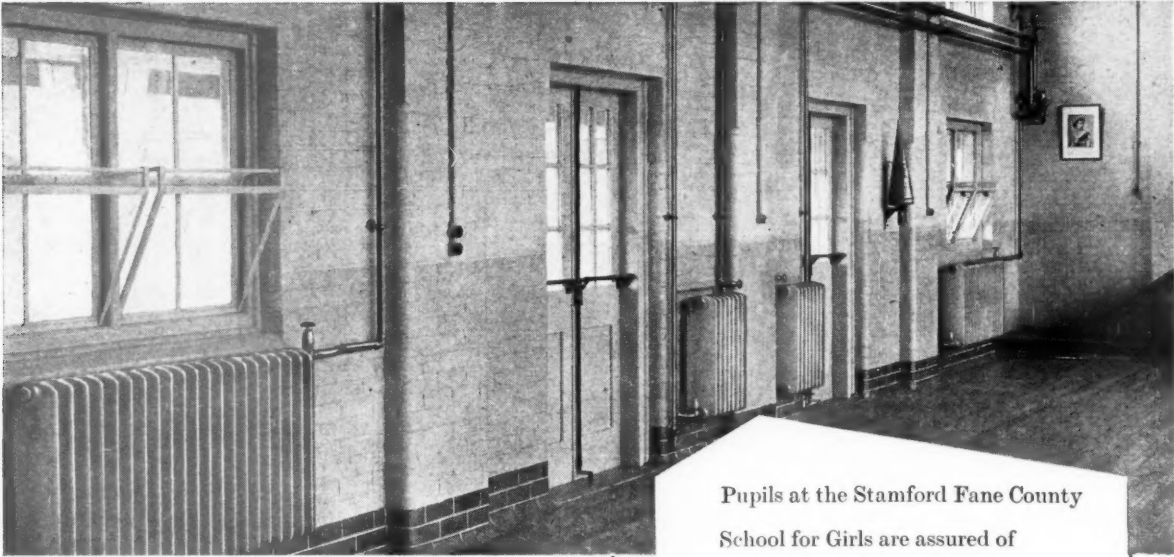
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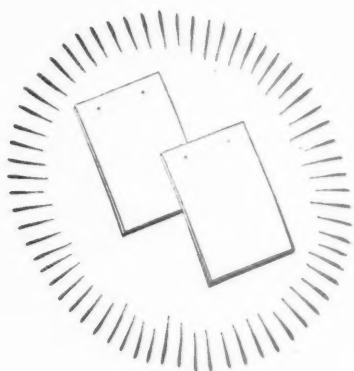
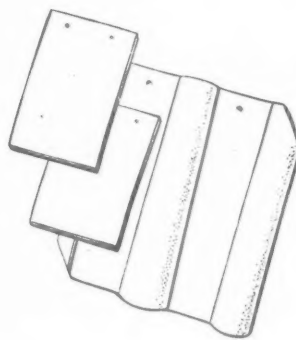
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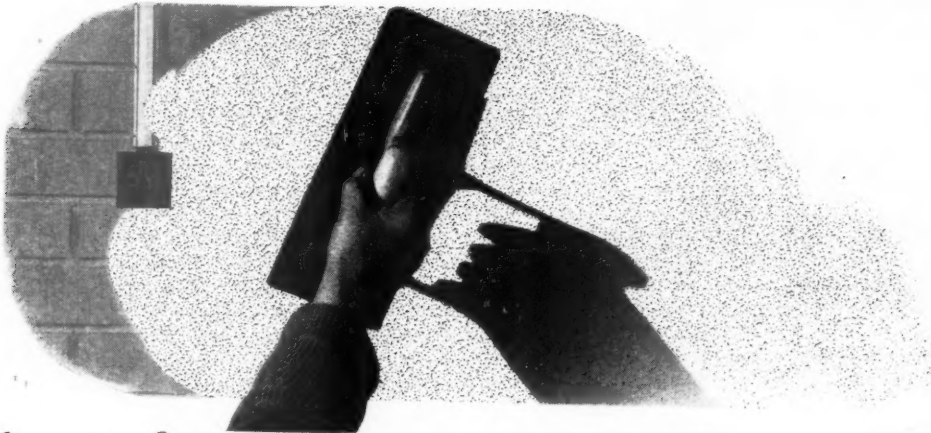
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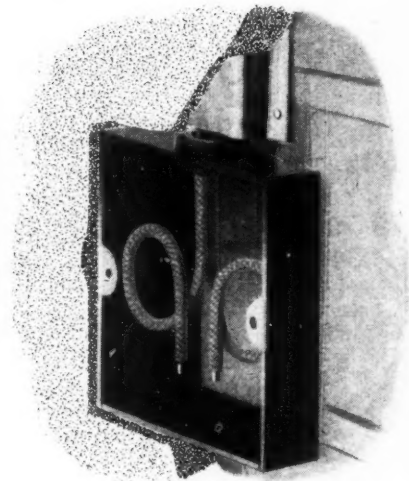
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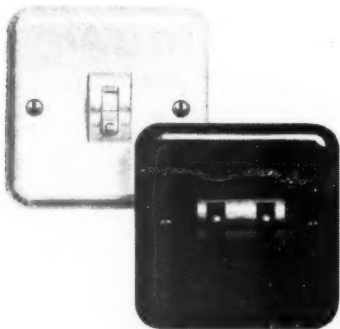


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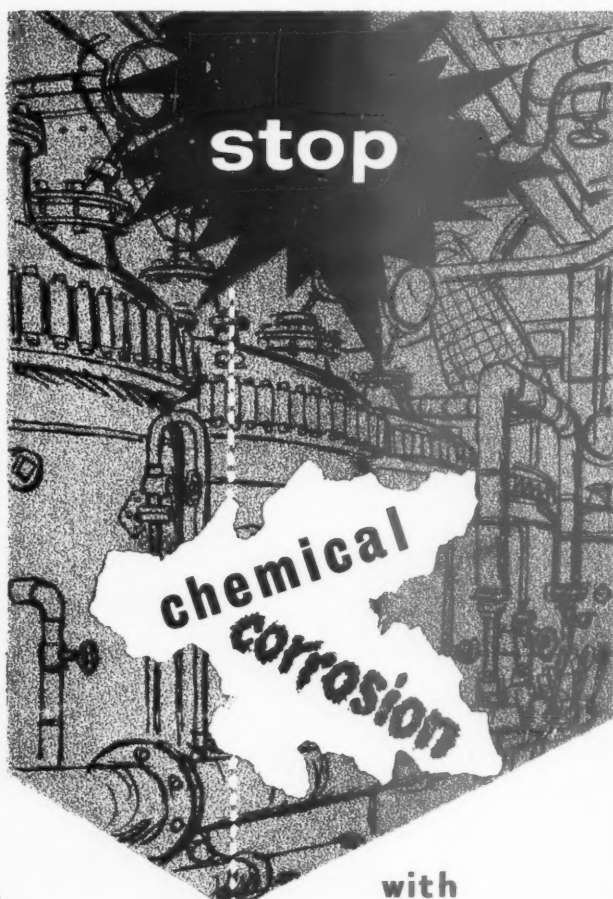


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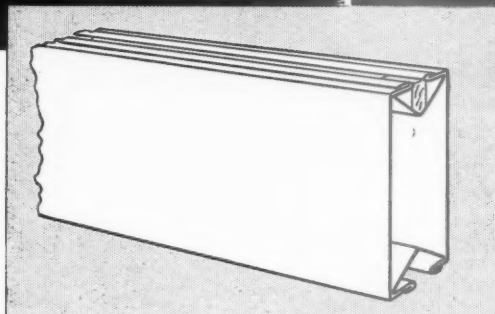
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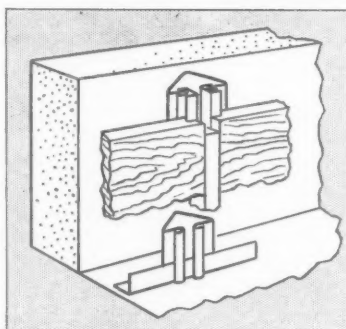
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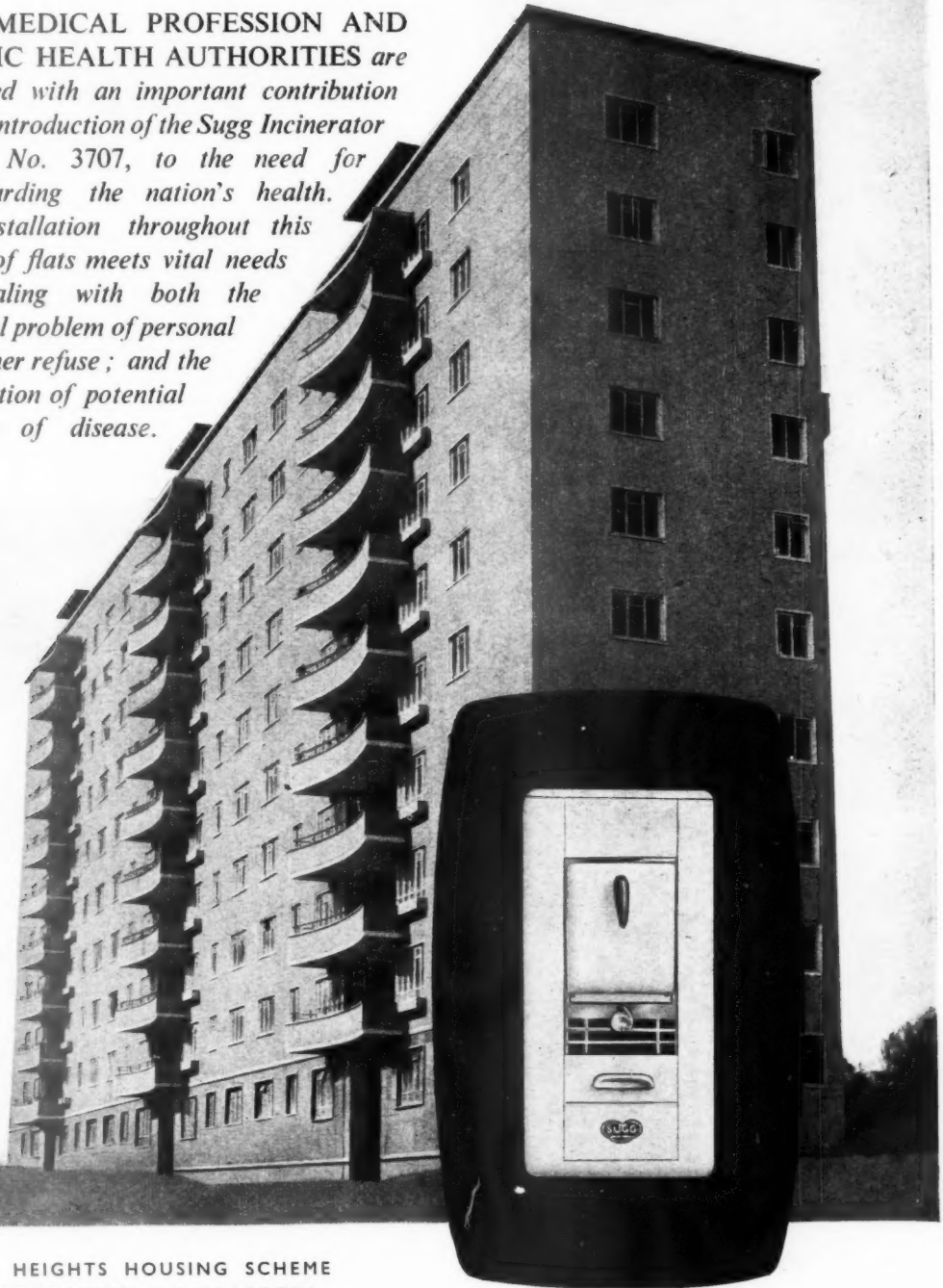
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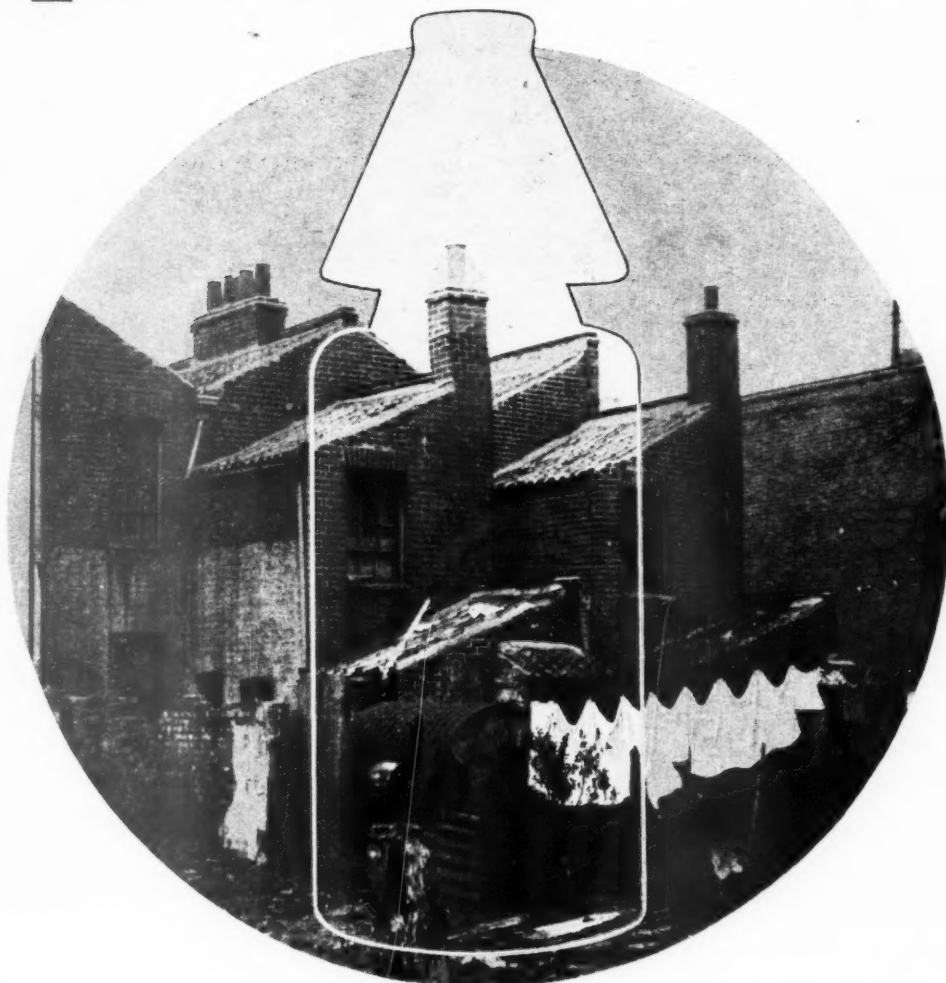


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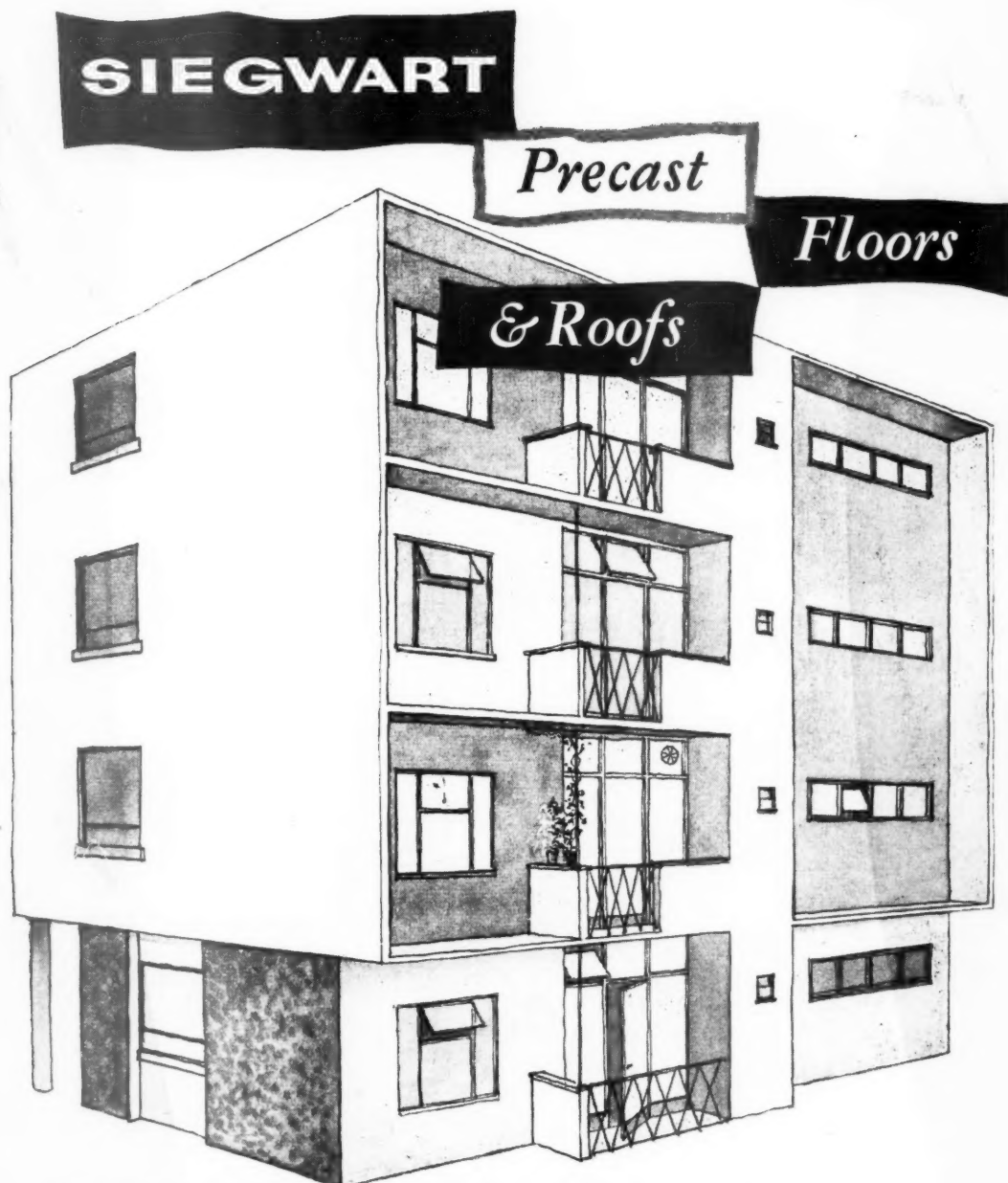
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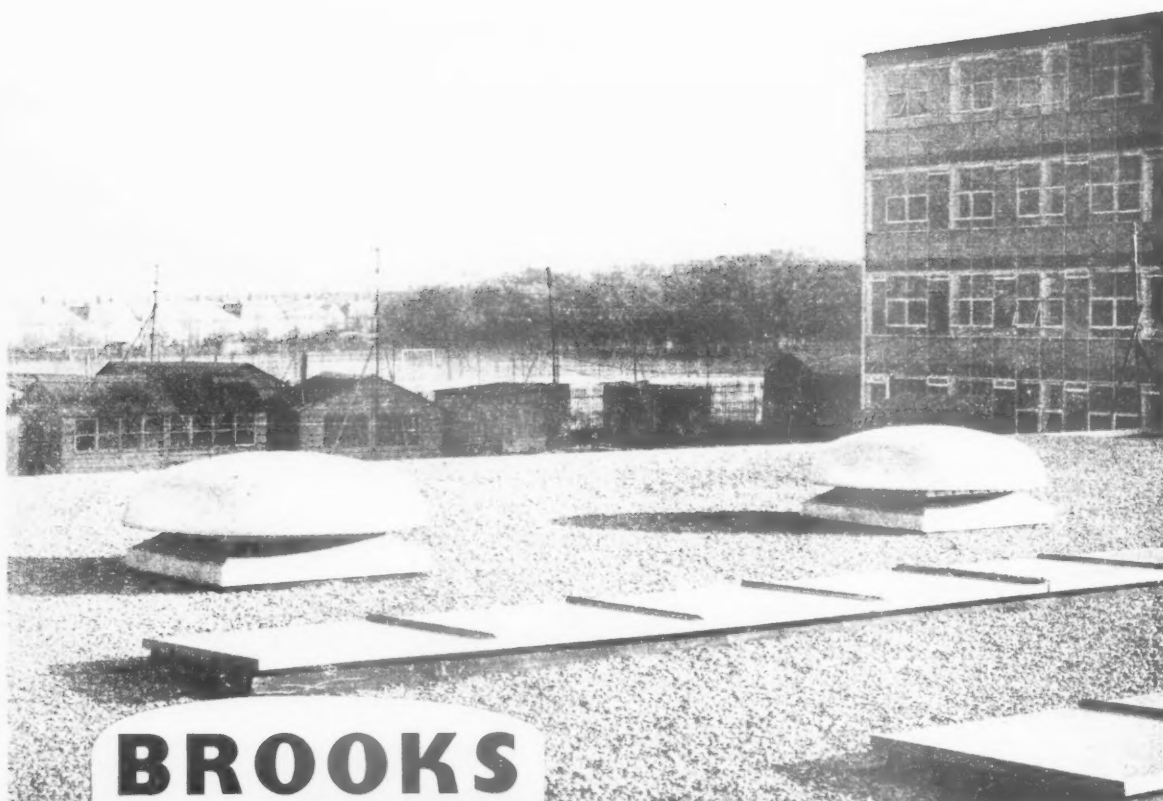
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—as typical installation shown above—form an important part of 'Brooks' Roof Unit design and service to industry. The many installations that have been completed include 'Brooks' Roof Units for the most modern roof constructions by Briggs — Robertson — Ruberoid — Turners — Universal, etc. Also for barrel vault and monitor roofs, skylights, northlight and vertical glazing, etc. 'Brooks' Roof Units are available in copper or with spun aluminium weather caps—sizes 30", 45", 60" and 68" diameter.

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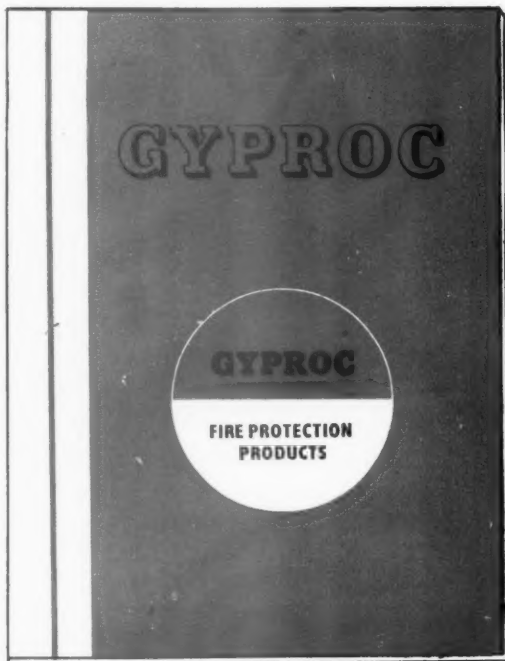
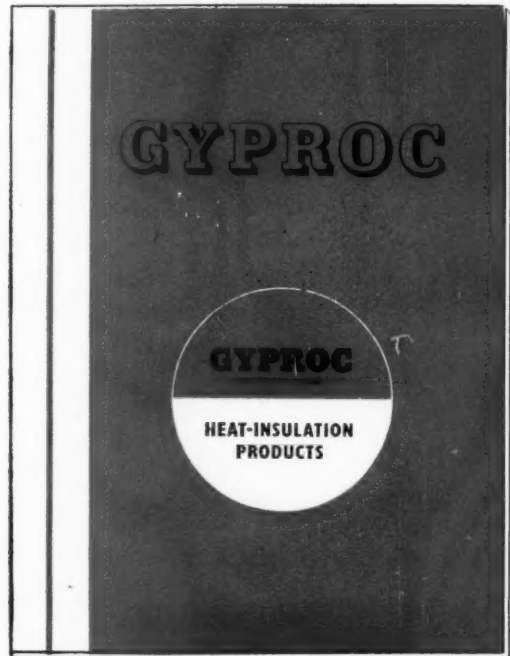
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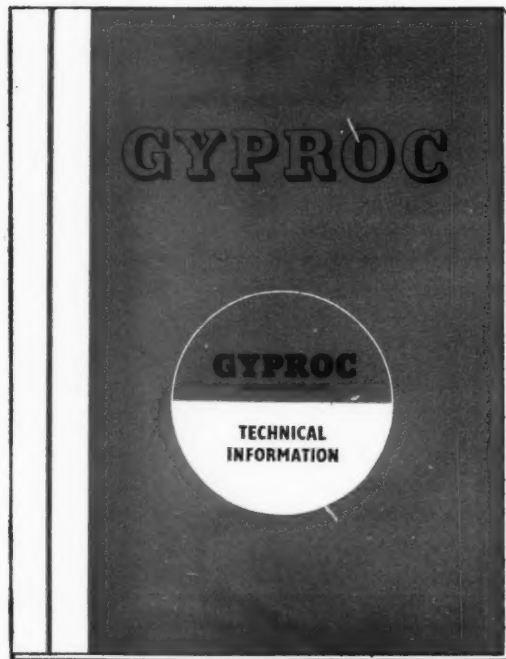


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The Glass Age Development Committee

A committee of architects and engineers, convened by Pilkington Brothers Limited, is making proposals for the development of the Soho Area, which are being published in these advertisements.

This Glass Age Development Committee consists of:

G. A. Jellicoe, F.R.I.B.A., Edward D. Mills, F.R.I.B.A., Ove Arup & Partners.

THE SOHO PROJECT—3

The three main development proposals are:

- i To create a great weather-protected and air-conditioned shopping and office precinct, free of traffic but accessible for goods, private cars, helicopters, and existing public communications.
- ii To create six 24-storey blocks of good-class residential flats.
- iii To create a spacious open-air entertainment centre, as a supplement to the existing indoor entertainment.







All the proposals made for this project are practical possibilities. The techniques and materials to execute them exist now. A preliminary survey of the project and details of the Sub-Basement have already appeared. Further details are given on these two pages—others will be published in a future report.

GROUND FLOOR OR STREET LEVEL

The whole of the existing area is shown as an air-conditioned shopping and office precinct. The ends of existing roads have been enclosed with glass and the whole area has been covered in by water gardens. The pattern of the existing streets has been maintained, but certain blocks have been cleared to form agreeable pedestrian squares. The human scale of Soho, as it now exists, is retained.



KEY TO GROUND FLOOR PLAN

- | | | | |
|---|---|---|---|
|  | Theatres and Cinemas. |  | Grass. |
|  | Restaurants, Shops, Offices, Pubs, Clubs, Houses etc. |  | 24-storey blocks of flats. |
|  | Lift to gardens and lower basement. |  | Pedestrian entrances to air-conditioned area. |

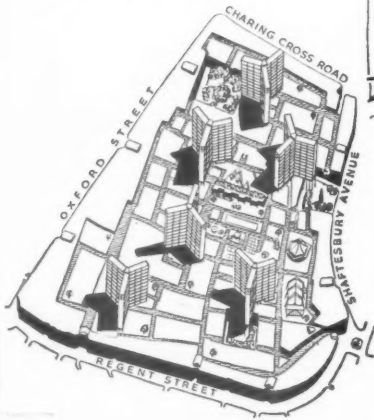


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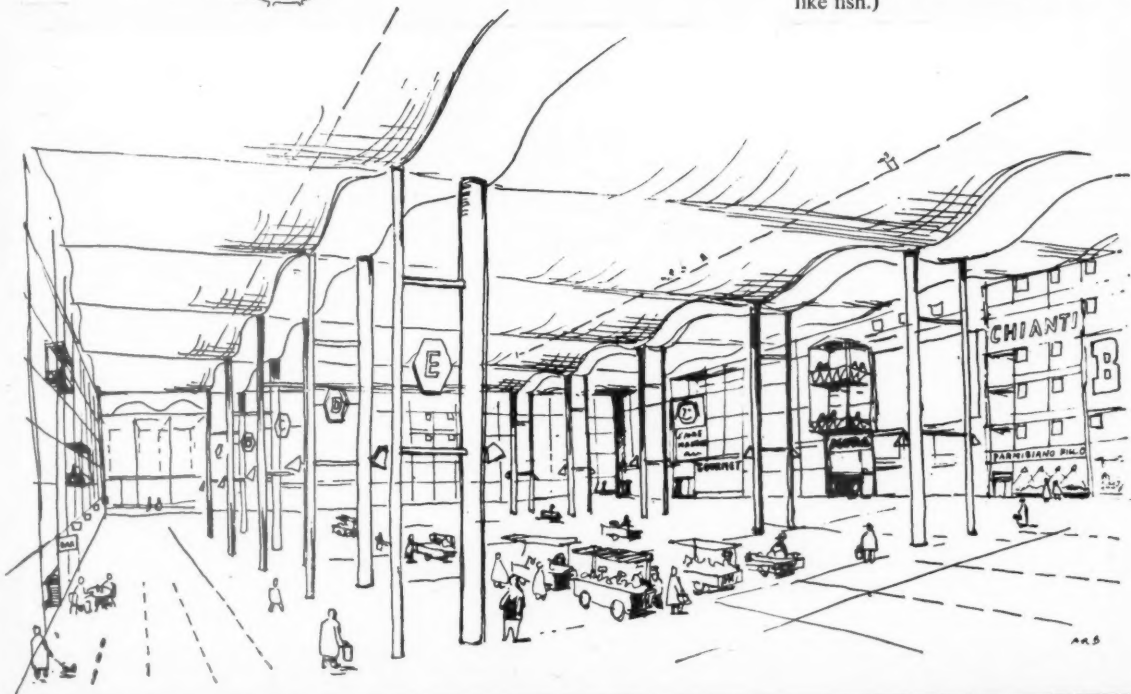
PILKINGTON BROTHERS

View of St. Anne's, Soho, seen from Shaftesbury Avenue. Certain buildings have been removed to disclose this view. At each corner the entrances to the precinct can be seen. The three open spaces in this scheme have not been excavated, so that tall trees may be retained.

General view of project.



This shows the central market, surrounded by shops, cafes, restaurants, and offices. The roof is formed by the glass underside of the bathing pool, which is shaped in the form of waves. (From below the bathers will appear like fish.)



LIMITED, ST. HELENS, LANCs.

Flooring 'Standards' by HOLLIS

WOOD BLOCK • HARDWOOD STRIP • PARQUET FLOORS

SEASONING

2

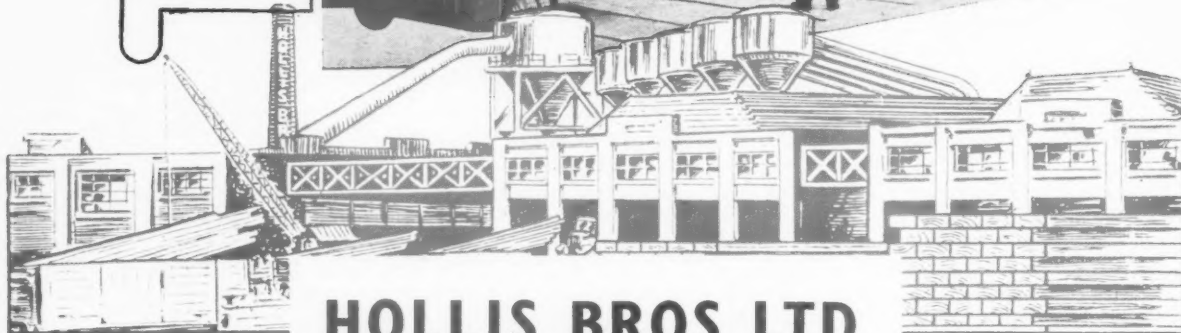
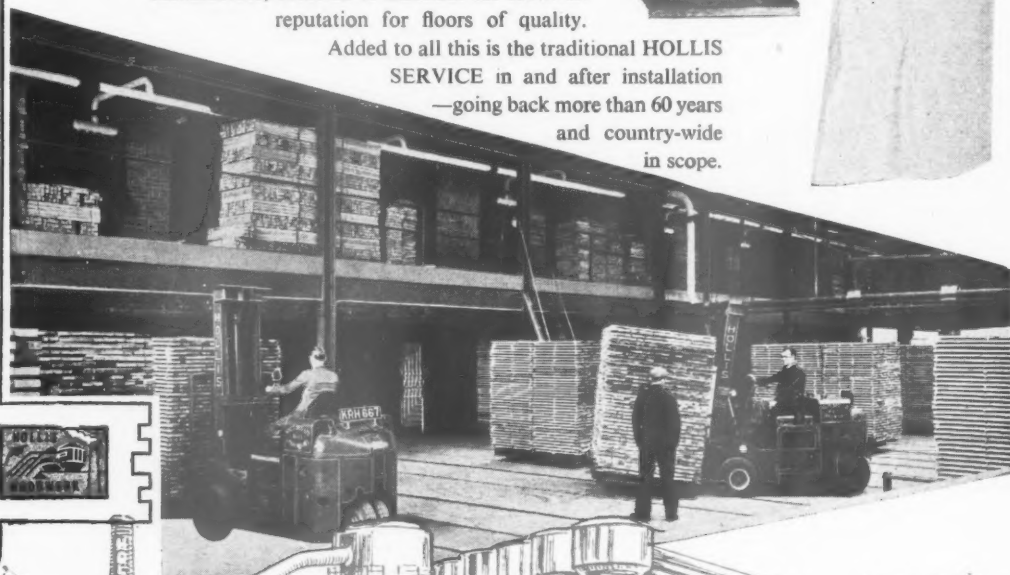
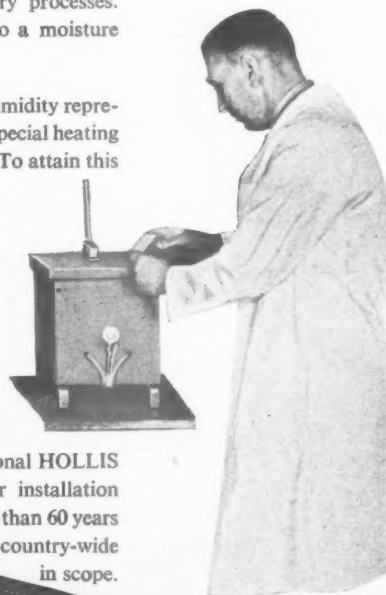
—the key to stability in timber

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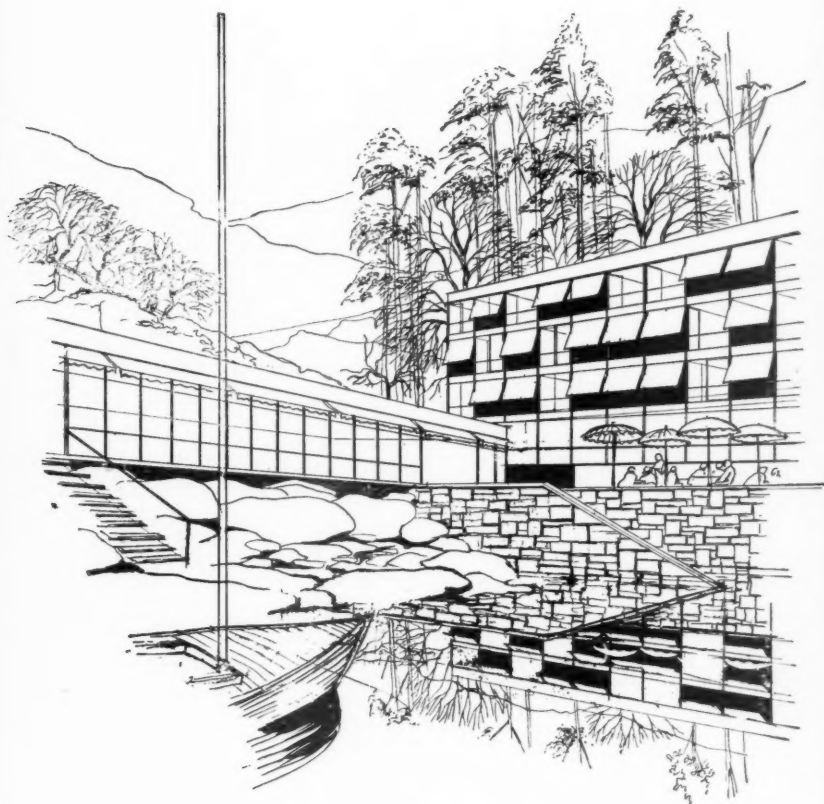
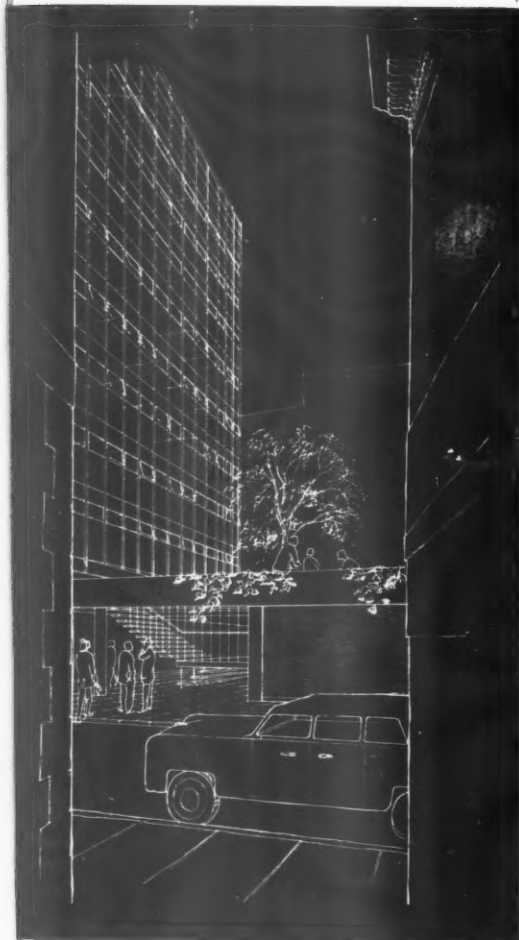
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
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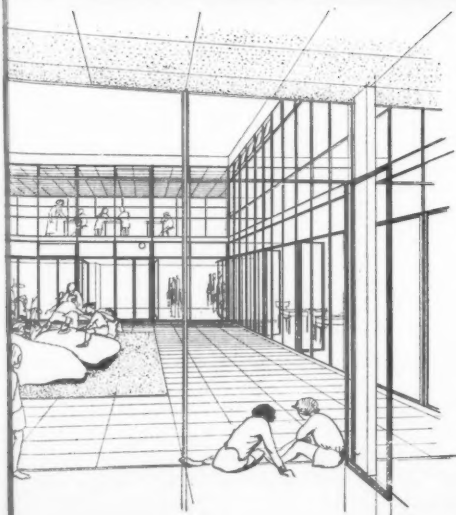


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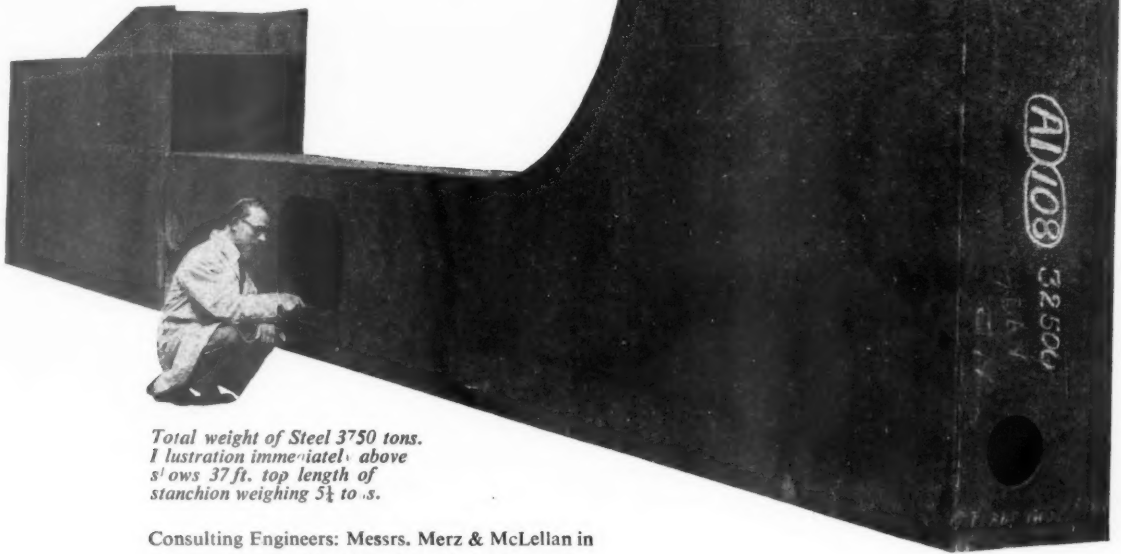
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Total weight of Steel 3750 tons.
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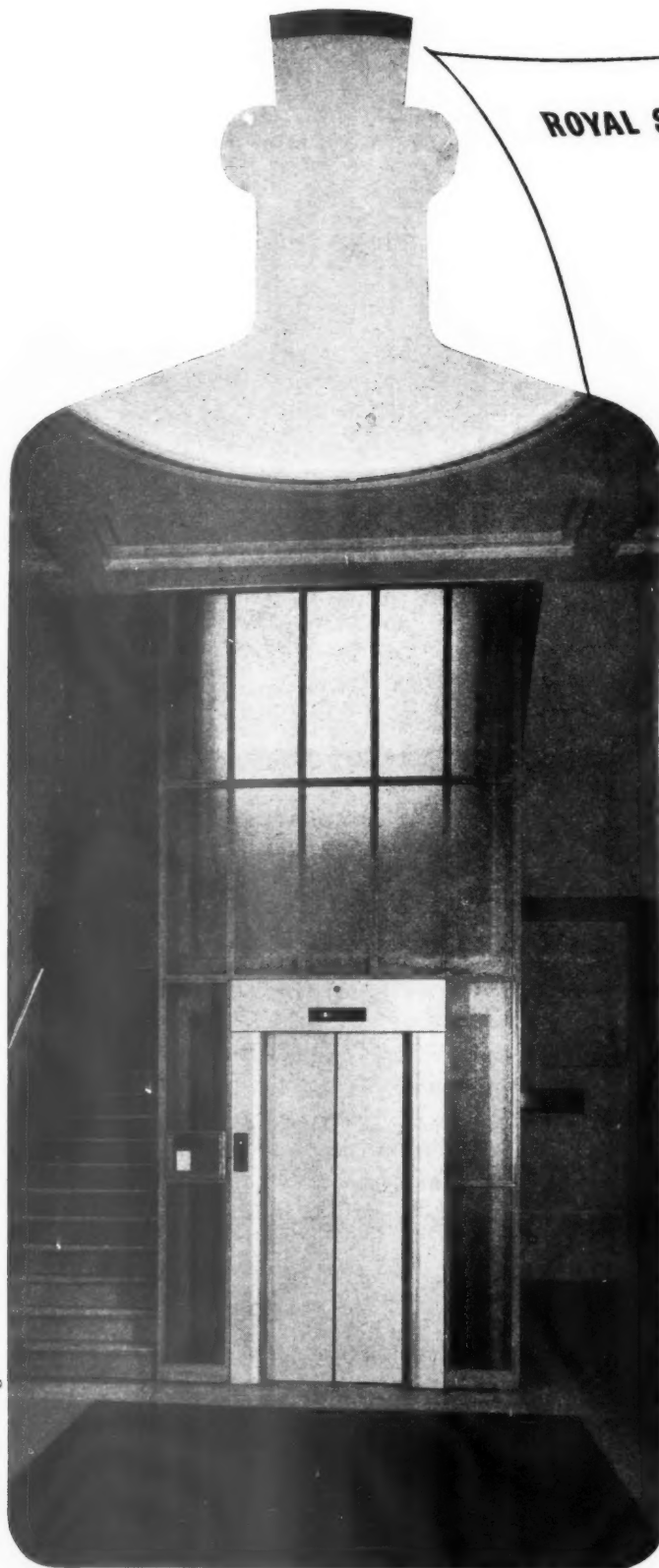
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5-PART

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(Rib-Lath) (Ribmet)
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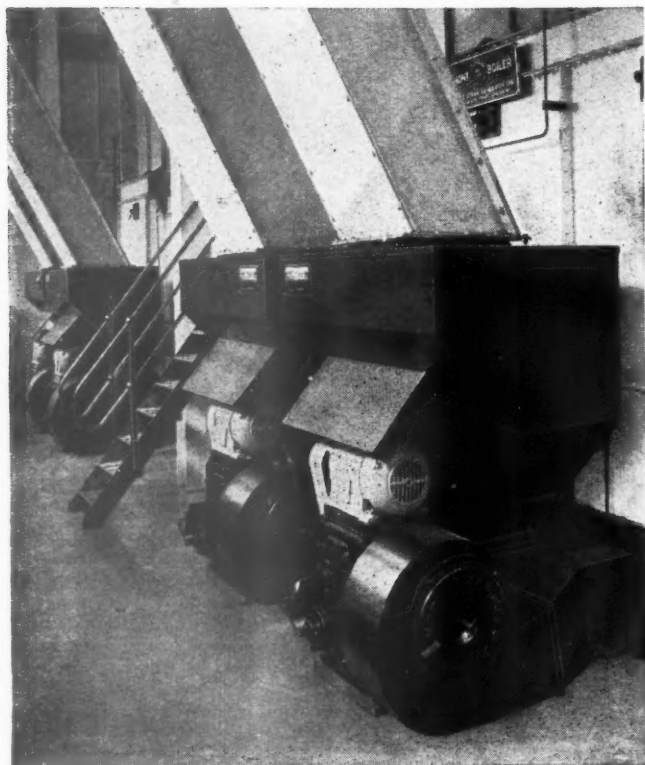
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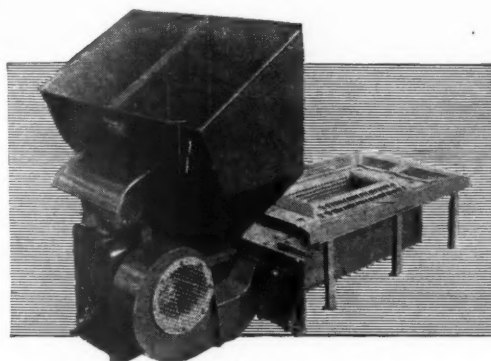
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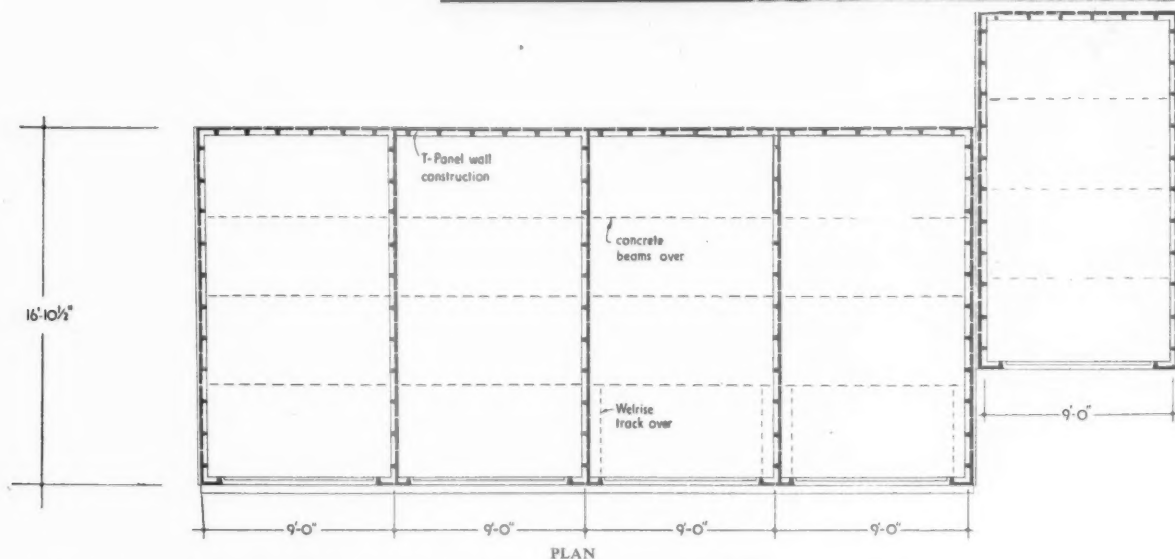
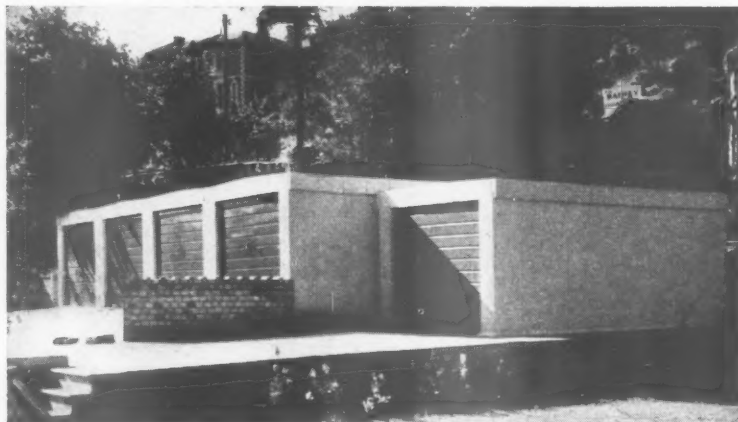
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T-PANEL LIGHTWEIGHT CONCRETE UNIT CONSTRUCTION OF BATTERY GARAGES

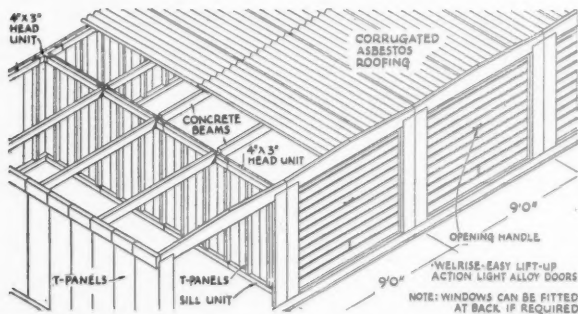
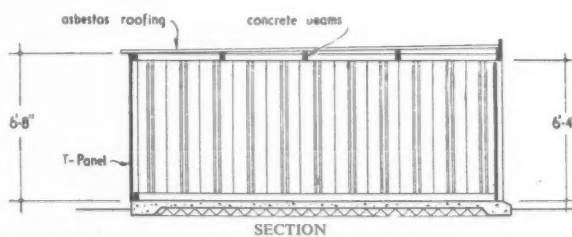
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RESIDENTIAL FLATS LTD.

Architects: Fry, Paterson & Jones.



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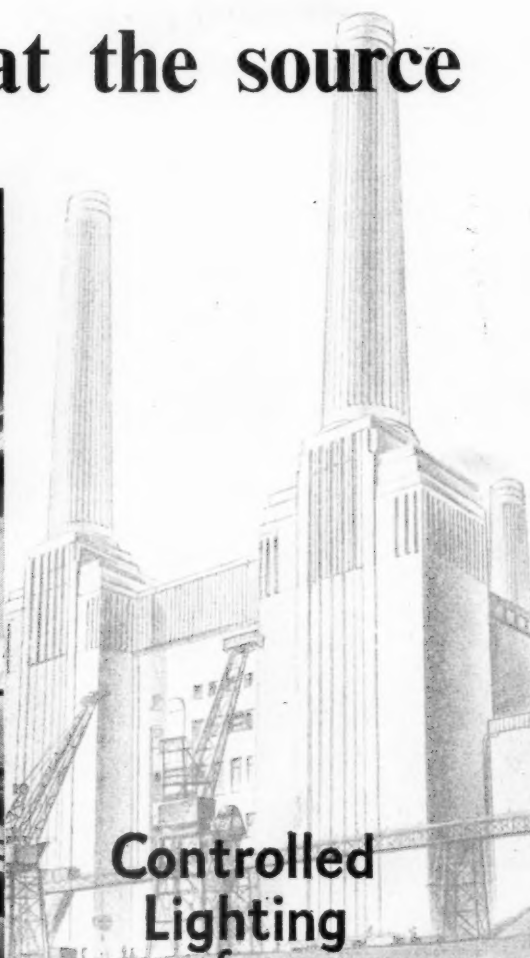
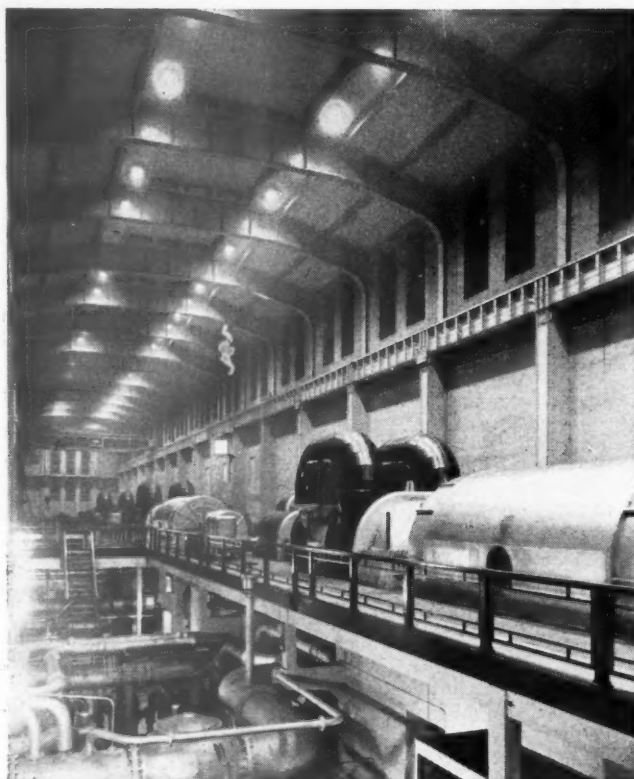
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Works at Bridport, Dorset and Pontyclun, Glam.

W.7

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*Recent Holophane installations
in this country include:-*

Battersea 'A' and 'B' Power Stations,
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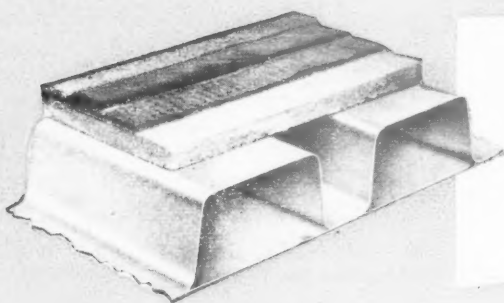
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ROBERTSON

Q DECK



ROBERTSON THAIN LTD.

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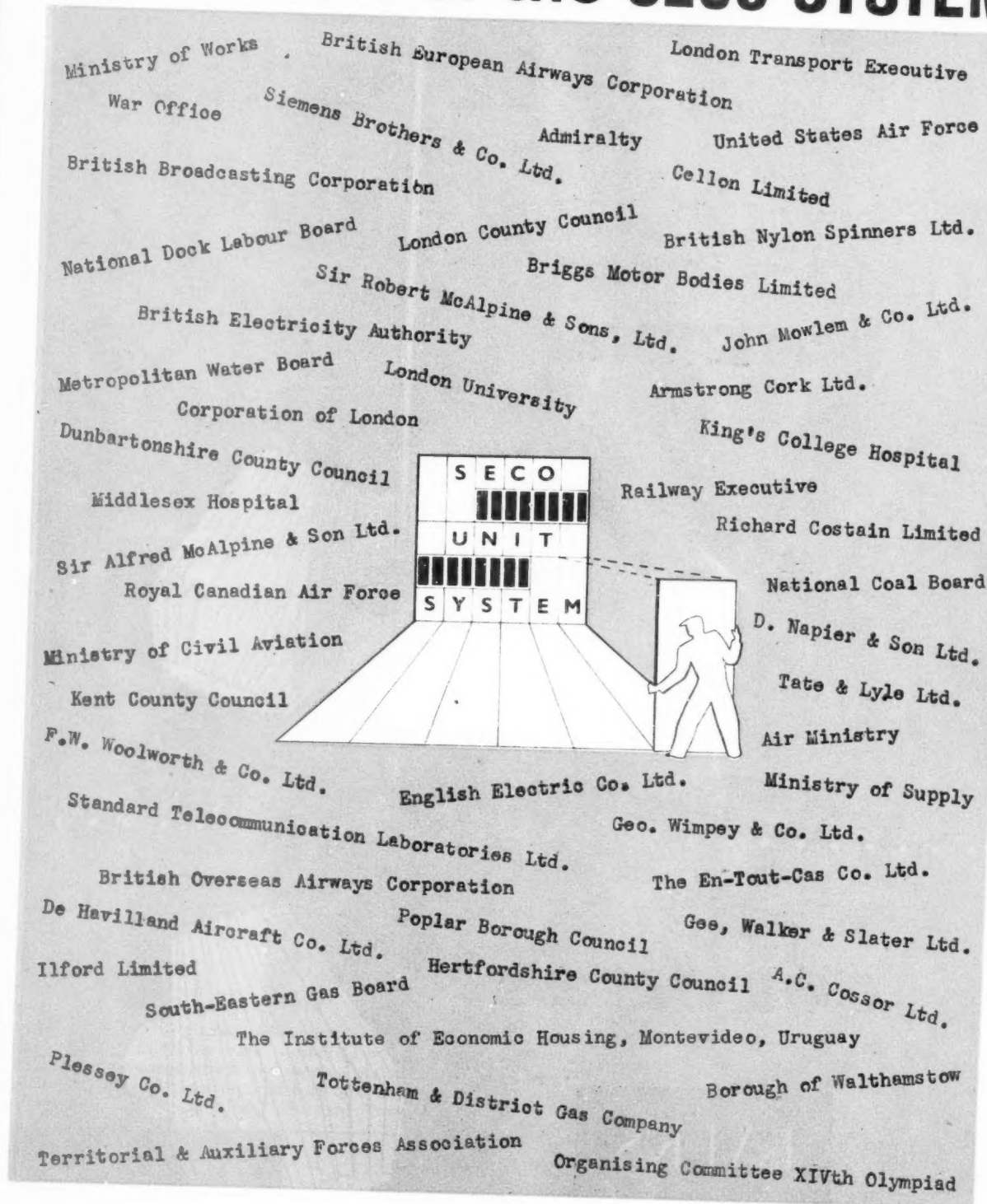
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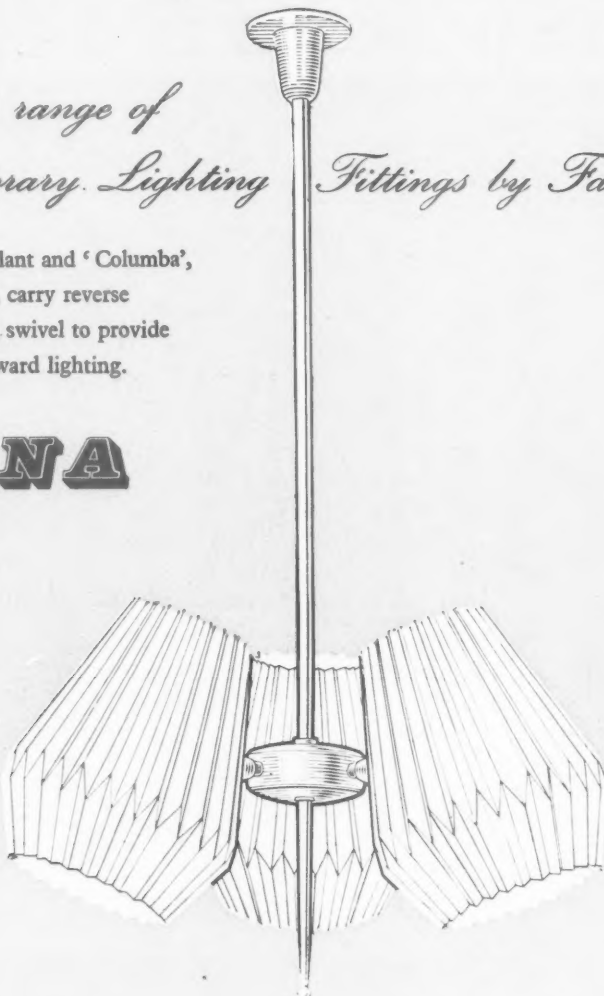
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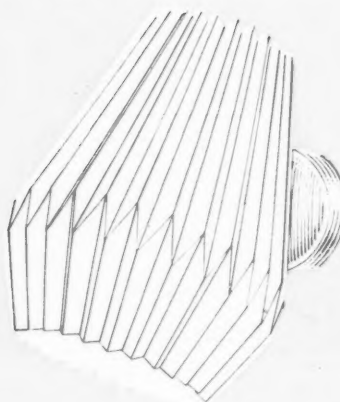
2 of a wide range of
Contemporary Lighting Fittings by Falks

'Carina', a simple 3 light pendant and 'Columba',
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pleated plastic shades which swivel to provide
either upward or downward lighting.

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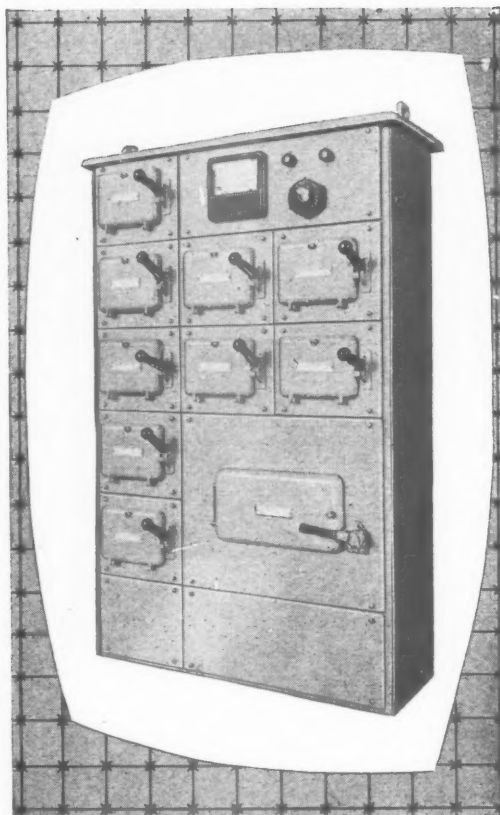
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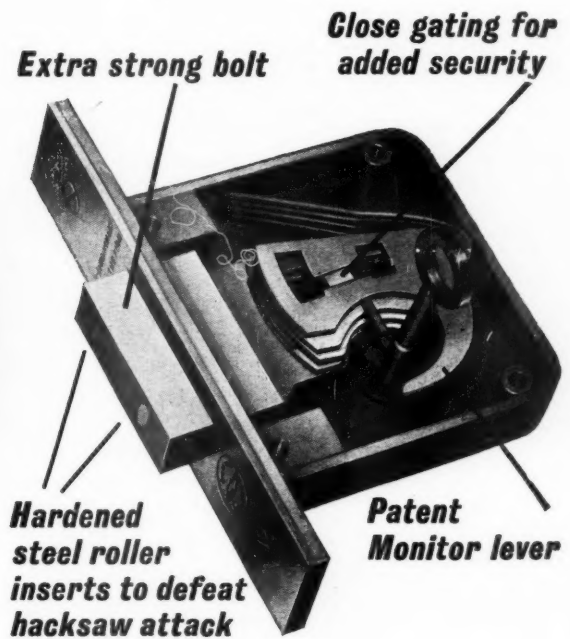
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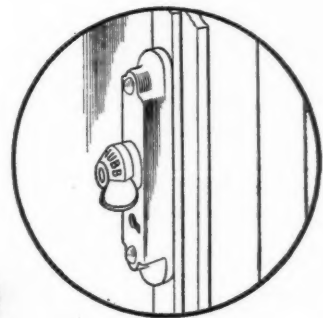
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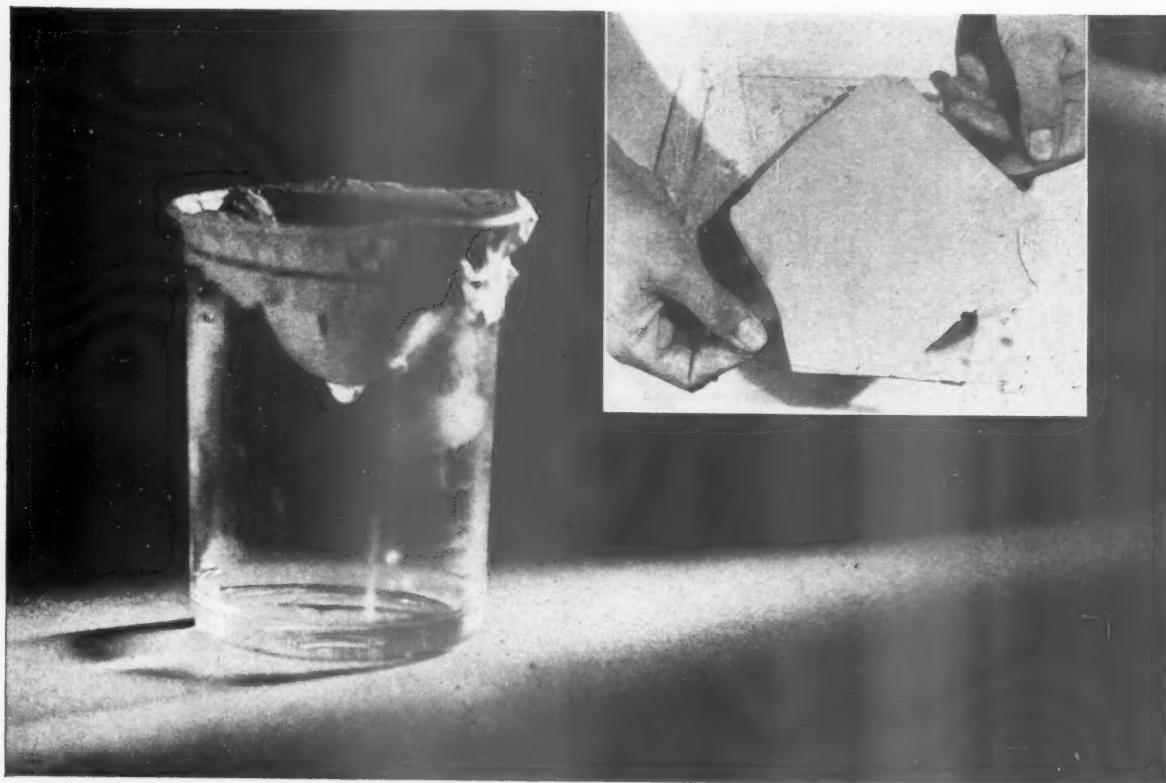
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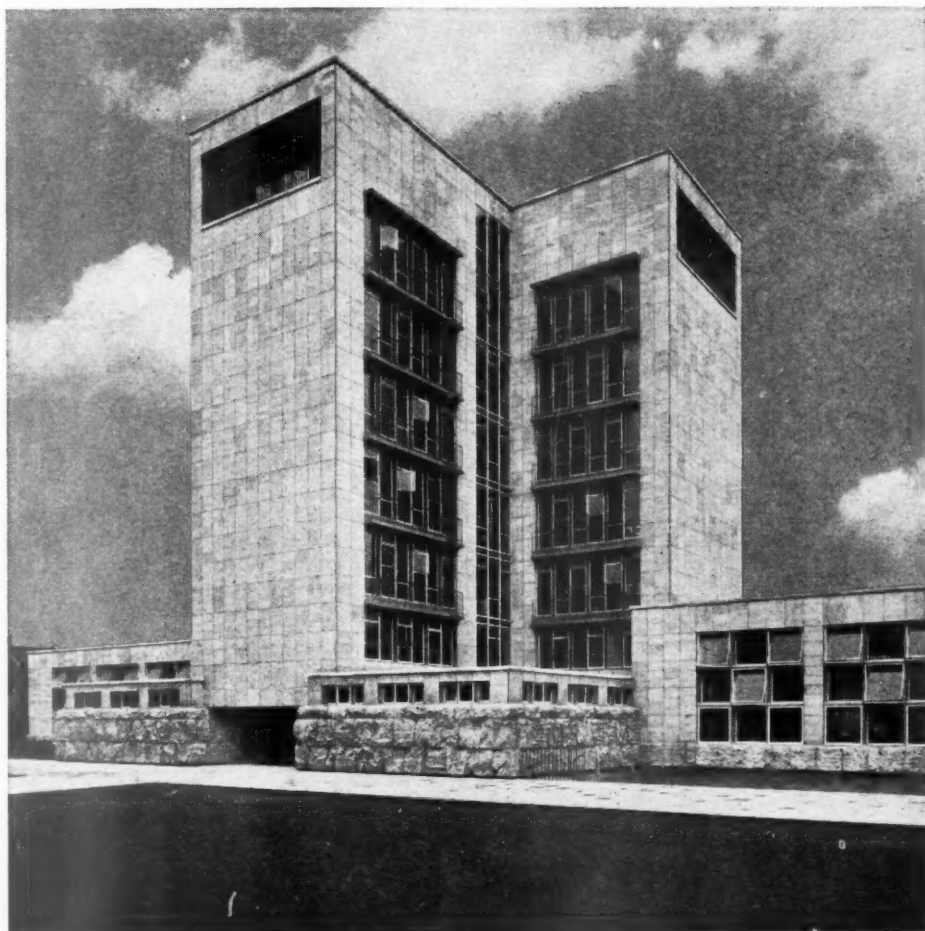
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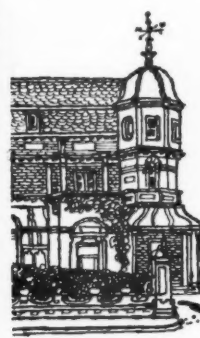
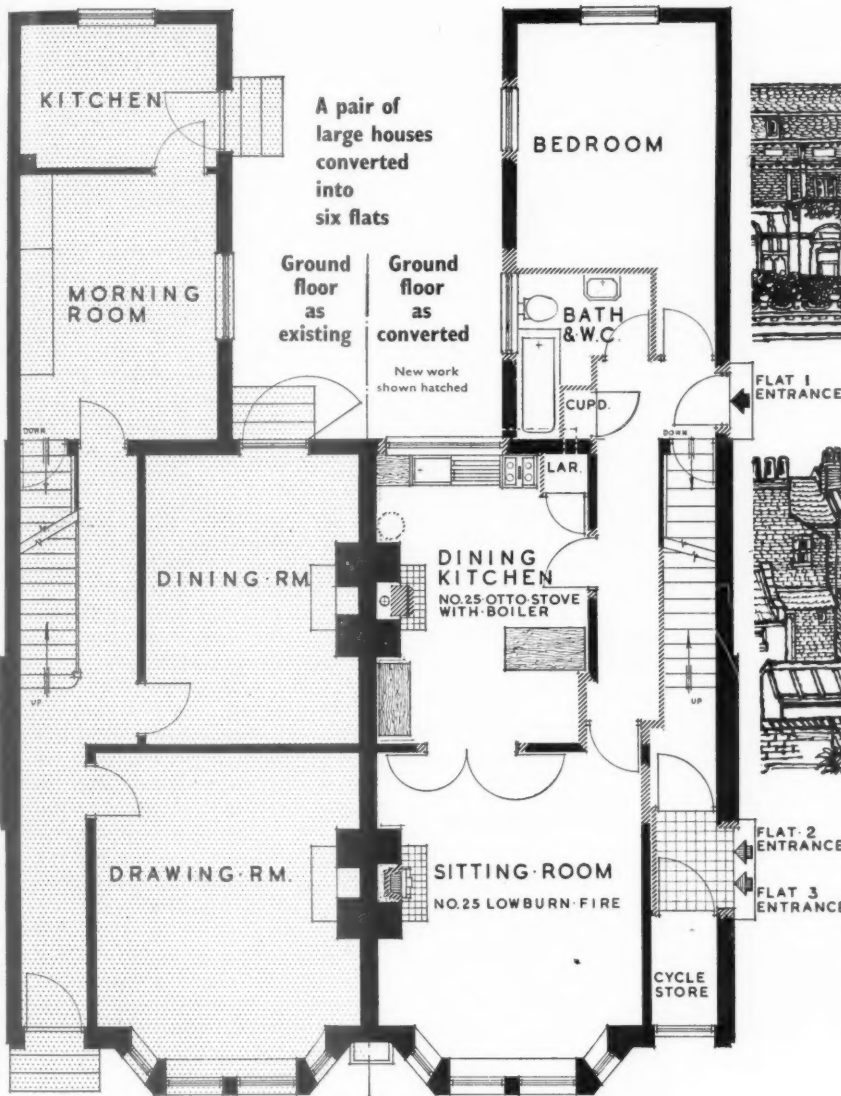
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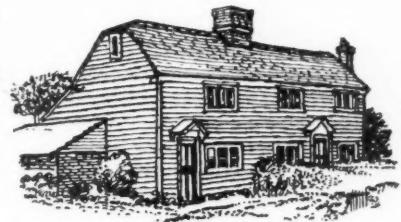


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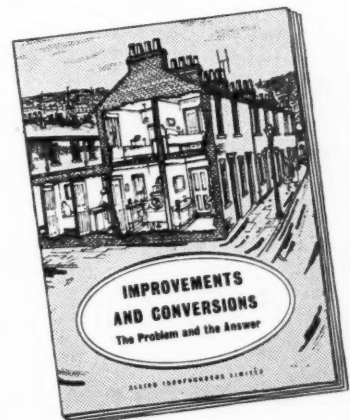
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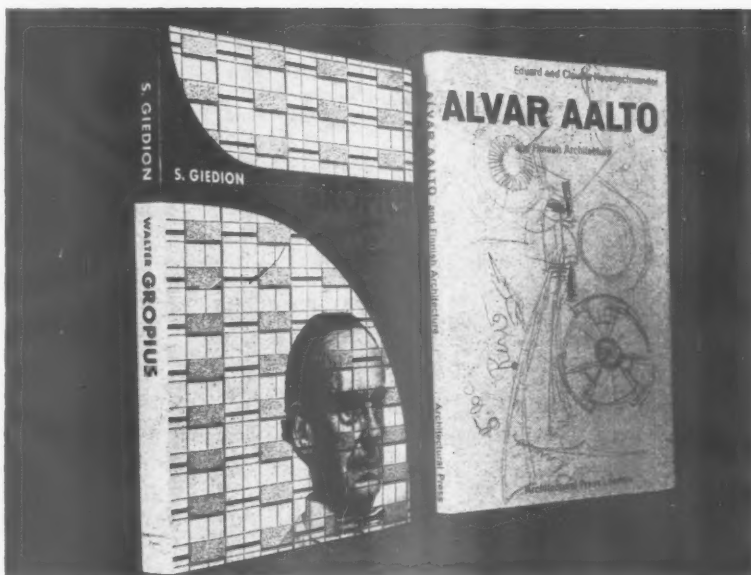


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Eduard Neuenschwander worked in Alvar Aalto's office for three decisive years, decisive because during these years Aalto became absorbed with the design of large-scale projects. Aalto had, of course, worked on large-scale projects before: but now realization immediately followed the drafting stage. Aalto almost deliberately destroyed his sketches and plans. Even photographs of his major works are extremely rare. This book—possible only because Neuenschwander, in daily working contact with Aalto, succeeded in collecting and preserving original material—shows the great works and projects completed from 1950 to 1952 as well as numerous earlier buildings, and is thus a unique document and a standard work for every architect. Text and captions are printed in English, French and German simultaneously. Size 10½ ins. by 7½ ins., 192 pages with approximately 300 photographs, plans and detailed layouts. Price 50s. net, postage 1s. 3d.

**ALVAR AALTO
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ELECTRIC LIGHTING

THE LIGHTING OF DOMESTIC INTERIORS

The proper lighting of domestic interiors is still hampered, in many cases, by the convention which would confine lighting outlets to the ceiling, where they are often found solitary and awkward, and placed regardless of the usage of the room or its appearance when furnished, lighted and lived-in. It remains a mystery, for example, how the tradition arose of placing a ceiling pendant in front of the bedroom window, and why the practice is allowed to continue.

Lighting Fittings and Luminous Features

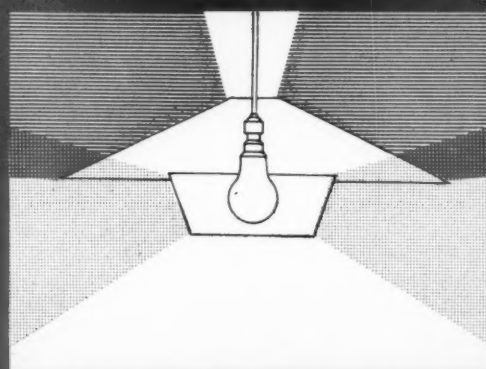
Two important rules may be suggested. The first, grimly obvious but far too often neglected, is that light fittings should be designed and placed so as to provide enough good quality light at the right places and from the right directions. There are no conventional or standardised positions which will suit these requirements in every room. Secondly, care must be taken to distinguish between lighting fittings and what may be called luminous features, in order to obtain the most satisfactory results.

The function of a light fitting (see L.1 and L.2) is to release the maximum amount of light for comfort in the manner described in the first rule just quoted. A luminous feature, on the other hand, is not provided to give a high proportion of useful working light, but to produce an interesting effect by virtue of its appearance when illuminated, and the manner in which the light it emits gives point and life to selected areas or objects in an already adequately lighted interior. There is no firm dividing line between a light fitting and a luminous feature: many contemporary light fittings hover between the two; but as long as this is understood, and a high functional performance is not expected from the "luminous feature" type of fitting, all will be well.

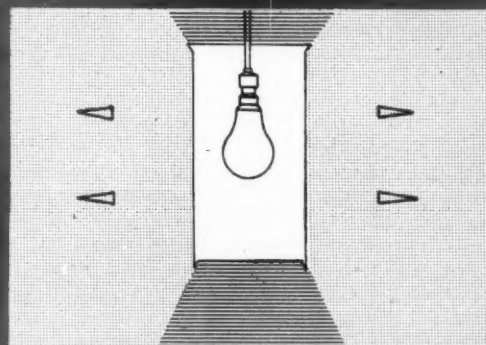
Lighting efficiency, in the sense understood by the illuminating engineer designing a commercial installation, has really no place in the home. Electric lighting is extremely cheap and can be manipulated in an endless variety of ways: the true measure of its efficiency here is rather the extent to which the light is provided where and how it is wanted, which is rarely a matter of the photometric efficiency of the fitting. It is the personal satisfaction of the user that is of primary importance, provided always that the illumination of any particular task, such as reading, writing or sewing, does not fall below the levels recommended in L.1.

Overhead Light Fittings

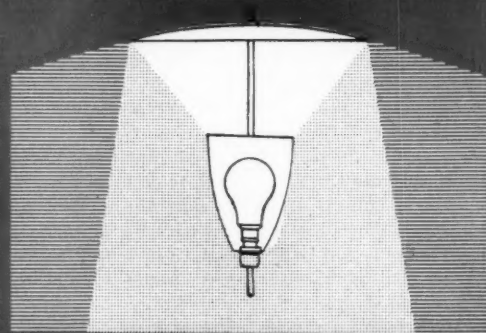
Though generally satisfactory where the functional aspect is dominant as in kitchens, bathrooms, on staircases, over dining tables and sometimes in tall rooms, overhead lighting has little to recommend it in living rooms and bedrooms where the resultant illumination lacks interest, is most unflattering to the occupants of the room, and is quite unsuitable for reading in comfort. In practice, stand and table lamps are invariably added in living rooms, and table and bedside lamps in bedrooms. Ceiling lights may be dispensed with in both cases by arranging for at least one standard or table lamp to be switched from the door, unless special requirements have to be satisfied. A counterbalanced fitting is probably the most satisfactory type for use over a dining table as it can be lowered to the right height when required. Being used at low level, the shade must be sufficiently diffusing to light gently the faces of people sitting at the table (Fig. 1a): unpleasant facial shadows should be avoided. While there must be no risk of glare directly from the lamp or reflected from a polished table top, the lamp should not be totally screened, or the gentle glitter from silver and glass will be lost. For tall rooms, passages, staircases and halls, tall diffusing shades, from which the major distribution of light is horizontal, are most successful (Fig. 1b). Many variants of this type of fitting are possible which obviate the "well" effect often produced when most of the light is directed upwards and downwards. Spherical opal glass diffusing fittings frequently cause glare and should be used with caution (see L.1 and L.2). It is important that only fittings of the very lightest weight should be supported by their flexible cords: all others should have adequate chain or tube suspension.



a. A suspended light fitting: the diffusing shade is lined with white material and the lamp screened in a similar way.



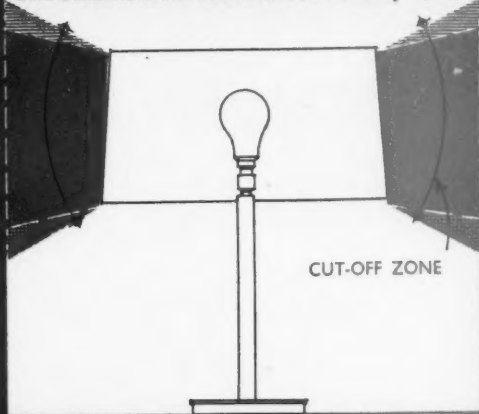
b. A suspended fitting for tall rooms or passages: the shade is translucent with upper and lower screens of more opaque material.



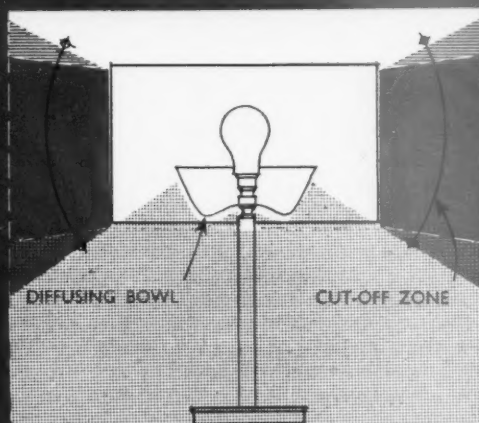
c. An indirect fitting with the lamp set in an enveloping metal shade beneath a concave reflector.

Fig. 1 Performance of lighting fittings

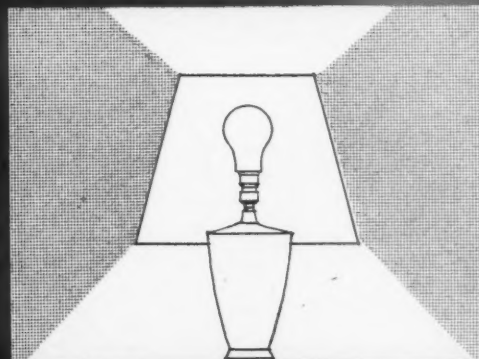
L.3



a. general lighting by means of a table lamp with large diameter opaque shade lined with white material.



b. a table lamp with large opaque white-lined shade for general lighting and a diffusing bowl for reading and writing.



c. The familiar conical type of diffusing shade with wide distribution of light for general illumination.

Fig. 2 Performance of table lamps

Wall Fittings

Lighting from the walls of a room produces a more pleasant effect than ceiling lighting in most cases, but its use is limited. As the fittings are prominently in view, the light intensity must be kept low to avoid discomfort, with the result that horizontal illumination falls off rapidly only a few feet from the wall. There is also a tendency for some rooms to look smaller when lighted mainly in this way. Wall lighting is more successful in large rooms or where a directional fitting is hung on a wall, for example above a desk or sideboard; otherwise wall fittings are best considered in the luminous feature class.

Portable Lamps

Portable lamps are especially suitable for living-room and bedroom lighting: they control and direct the light from the lamp in various ways, and should be chosen for their lighting characteristics as well as appearance and cost. If the former turn out to be inadequate in use, it is no solution to use a more powerful lamp than the fitting is designed to take: the result will be doubly unsatisfactory.

Standard or table lamps which emit a generous proportion of upward light are quite satisfactory for general room lighting, either to supplement or replace ceiling fittings (Fig. 2a, b, c). This method has much to recommend it if an ample number of socket outlets has been installed (see D.I.1 and 2), owing to the flexibility possible and the attractive lighting effects so easily achieved. The most important requirements for lamps used in this way are:

- (i) Floor standard: minimum height from floor to top of shade, 5 ft. 6 in. Table lamp: a good average height from table to bottom of shade is 1 ft. 2 in.
- (ii) The shade must be capable of accommodating and adequately screening a 150 watt lamp on a floor standard, and at least a 100 watt lamp on a table fitting.
- (iii) Approximately half the light emitted from the lamp must escape upwards.
- (iv) The shade should be of the largest reasonable diameter in order to let most of the light out.
- (v) The shade should have a white or light coloured interior or lining to give freedom of choice for treatment of the outside.

If a diffusing bowl or skirt (Fig. 2b) is not provided, a silica-coated lamp may be used to obtain the required lighting characteristics from an otherwise suitable floor standard or table lamp.

Opaque Shades

Opaque or nearly opaque shades can be used most successfully for table lamps, and may often be preferred to translucent shades, especially when near to the face as on a writing desk. They can also be used for general lighting if their diameter is considerably greater than their height (Fig. 2a and b), and the cut-off angle thus formed keeps the lamps screened from people sitting or standing. Rich and interesting colour effects can be obtained with this type of table lamp in decorative schemes of any period or character.

Some light fittings with narrow enveloping metal shades come into the luminous feature category owing to the high proportion of light they trap, even when pierced with the traditional tiny stars or holes. Although often most attractive, they cannot be recommended for reading or writing, as the small patch of bright light projected onto book or paper will produce glare unless the brightness of the immediate surroundings has been brought up to a comparable level (see L.1) by light from other fittings. When reversed and used in conjunction with a reflector, as in Fig. 1c, a soft pleasant light is obtained, but of low intensity unless several such units are combined in a cluster. Then the quantity of light obtained may be adequate, but the efficiency remains poor, as in other forms of indirect lighting, of which this is a special case (see L.2).

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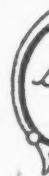
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PROGRESS REPORT

Max Fry's discourse upon Chandigarh at the RIBA contained some salutary statements, which should be borne in mind whenever one feels smugness setting in. This one for instance: "... starting from blank paper and an empty site in January, 1951, we had housed over twenty-thousand people in permanent houses by July, 1954." This in itself is quite good going for any new town organization, but when it is remembered that this was achieved alongside a stiffish programme of road building and service laying for the whole town, not just the residential parts; the building of schools and social facilities, which our new towns are only just beginning

to get; and all achieved practically without mechanical equipment, on a build-as-you-sell budget, then the size of what has been done at Chandigarh begins to come home to you.

*

Max Fry paid particular tribute to the engineer and the administrator, both Punjabis, who worked with the architects on the project, and they must clearly be remarkable characters to get so much done in so little time. The special contribution of Le Corbusier also came in for discussion and praise, and ASTRAGAL's appetite to see that Government quarter fully completed is now greater than ever. The only people who came in for a real knocking were the Indian public works department, and Fry's complaints of administrative *rigor mortis* must have struck a reassuringly homely note in the minds of many who found the rest of the talk about something as remote, improbable and otherworldly as Xanadu.

BALLON D'ESSAI

It was like the old days of the Festival of Britain to see pink balloons floating over the South Bank last week, though there was, in fact, only one pink balloon, and it was only up for three-quarters of an hour on Thursday morning. The idea was the LCC's, to help the members of the Royal Fine Art Commission who were discussing Sir Howard Robertson's design for the new Shell offices.

*

The Commission met, I am told, in a room in the Board of Trade offices, overlooking the site across the river. The balloon was intended to mark the height of the tower block that forms

part of the Shell building (though a strong wind prevented it going up straight enough to do so effectively) and men with flags marked the building lines, including those of the National Theatre, which will stand between County Hall and the broad pedestrian piazza at the end of which the Shell tower will rise.

*

I hope the Commission will press for a boldly conceived tower that really is a tower. The LCC's brilliantly imaginative lay-out plan has created an opportunity that London is not likely to have again, and no half-measures must be allowed to spoil it.

*

I hope, too, the LCC will give us more trial balloons: a cloud of balloons marking the top corners of all the new buildings proposed for the City would be an impressive and instructive sight—but perhaps a balloon barrage would have unfortunate associations there, reminding us of the blitz that created the replanning opportunity that is now (not through the fault of the LCC) being frittered away.

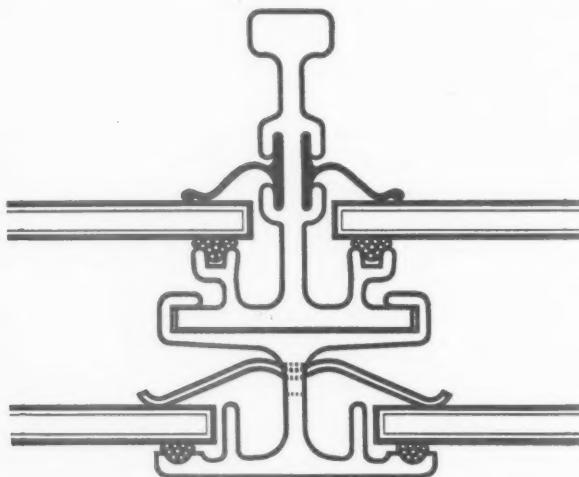
HOUSING BY QUESTIONS

The National Council of Women is celebrating its sixty-up, which falls in 1955, by building a Diamond Jubilee house, to serve as a place of retirement for women of distinction. The idea strikes ASTRAGAL as being one of the better ways of dealing with a group-birthday, and salutes the project as another sign—like Hugh Casson's *Housewife* house, and the recent correspondence on *Woman's Hour*—of an organized interest in domestic architecture from the distaff side.

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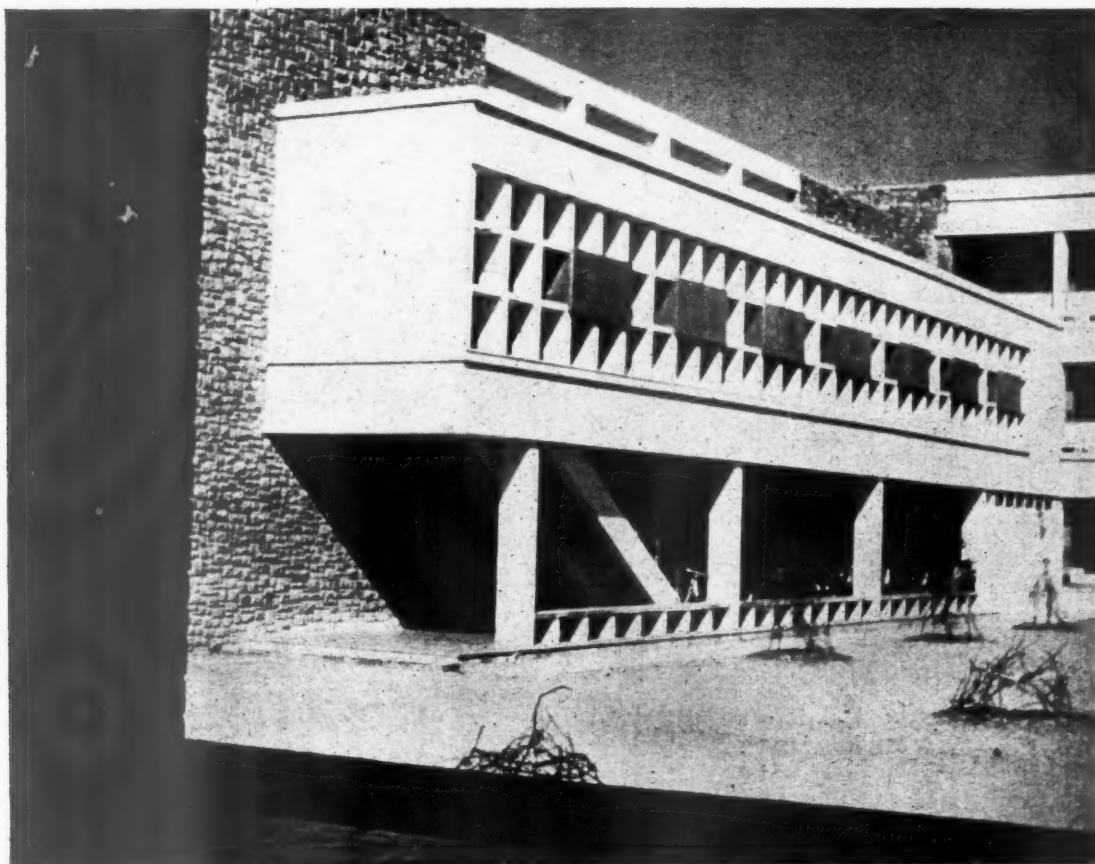
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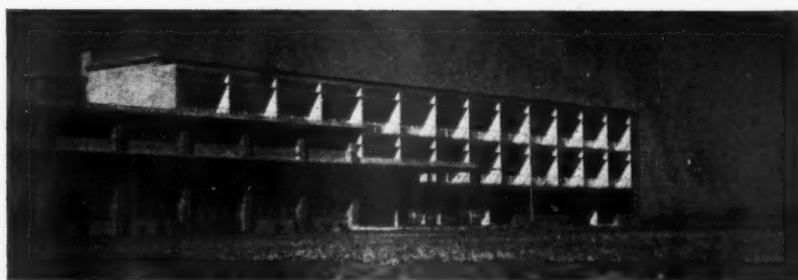
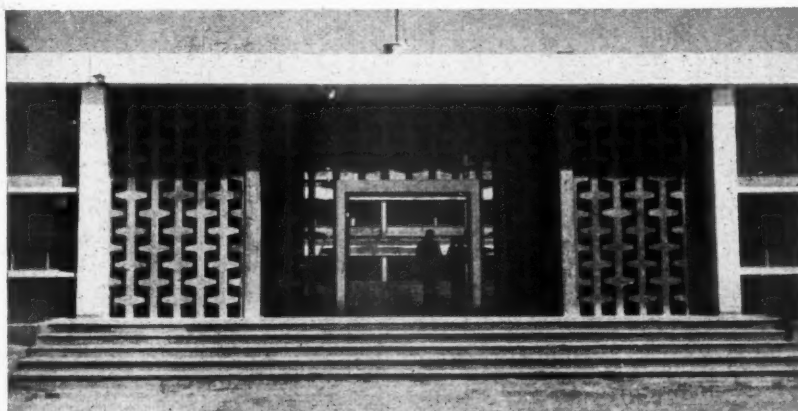
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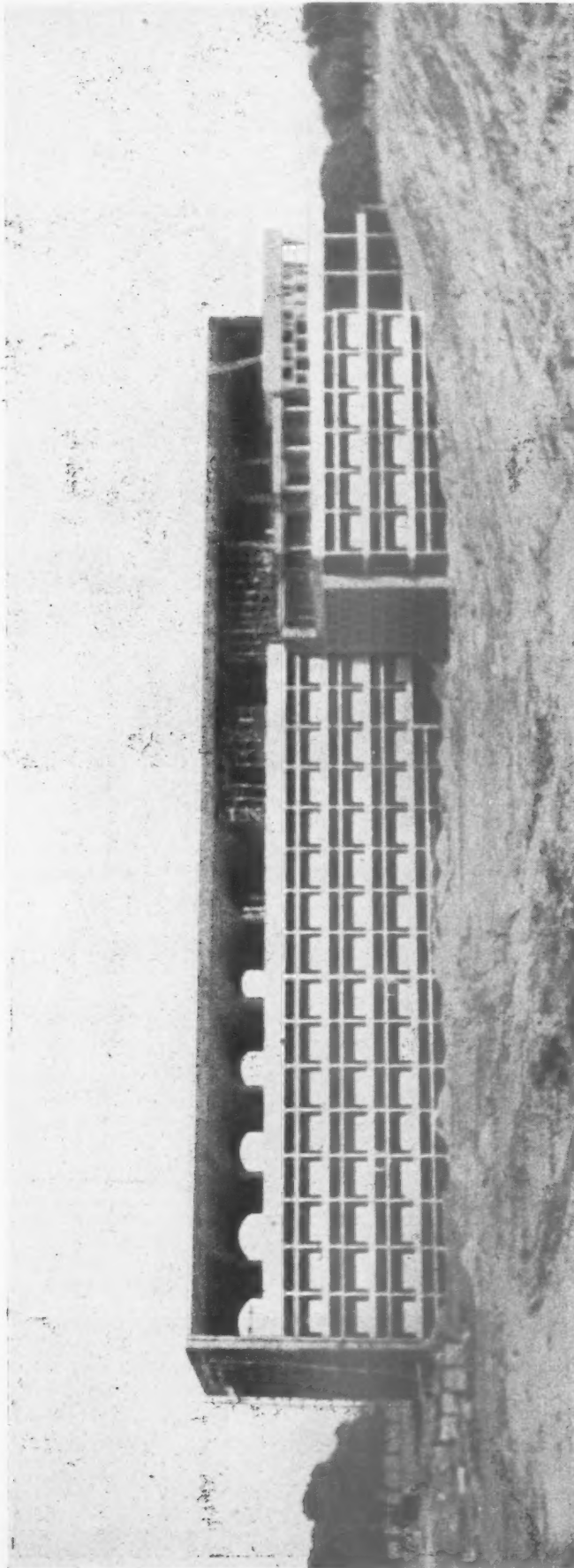


NCW's Diamond Jubilee House, though a kind of monument, will have quite modest dimensions—fifteen-hundred super—and is intended to be manageable by its inhabitant with little or no domestic help. Howard Lobb, who is to be the architect, will be supported by a consultative panel, on which appear, inevitably, the familiar names of Bossom, Bennett, and so forth. But he is also to have the support, if that is the right word, of the results of a questionnaire which NCW are circulating to their branches and affiliated societies. ASTRAGAL is never quite happy about firing questions on window-frames, roofing materials and lighting points at large numbers of people, and then expecting the architect to do something about the tabulated results.

Supposing the voting on walling materials was fifty-eight per cent. for brick, twenty-three for local stone, nine for weather-boarding, six for random rubble, three-and-a-half don't know, and the odd half for patent glazing (an architect's wife), what is Howard Lobb to do? Treat the walls *pro rata*, and fill in the don't-know with AA Dotted

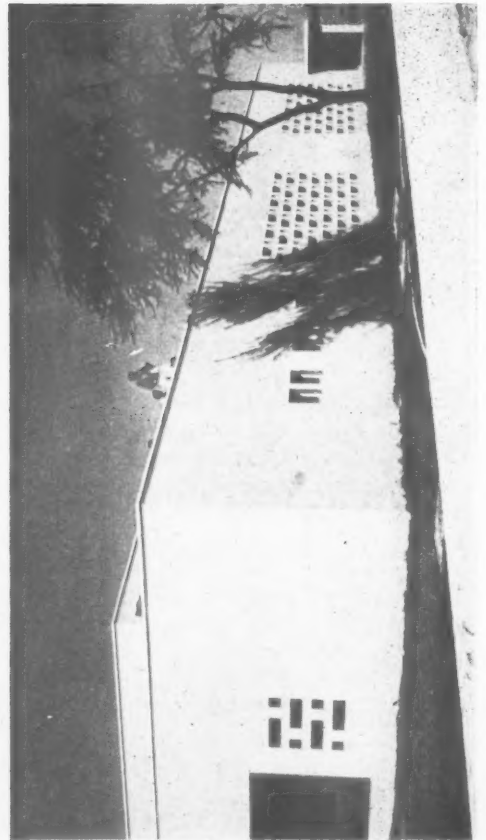
Above, the assembly hall, and below, the entrance, of the High School by Jane Drew at Chandigarh. The sunbreakers are of precast concrete, parts of the gallery wall in the picture above being picked out in red. Walls are of roughly squared random stonework. Bottom, a hotel at Chandigarh by Maxwell Fry. ASTRAGAL comments on page 1 on Fry's paper on Chandigarh, read at the RIBA last Tuesday. See also page 4.





Le Corbusier's High Court, Chandigarh

"The High Court building, which, when I last saw it, gave every sign of becoming a noble monument, owes its particular form to Corbusier's reading of the problem of the tropical roof," said Maxwell Fry at the RIBA last Tuesday, when he gave a paper on "Chandigarh: the Capital of the Punjab," the city with which he, Jane Drew, Pierre Jeanneret and Le Corbusier are all associated. Maxwell Fry continued: "First produce shade temperature and then protect the interior, as a definition of the problem, at once suggested the image of a parasol held over a building, and this lively image he translated into architecture in the form of a giant roof" (see above) "cantilevering over the Courtrooms and offices below in a series of vaults, resolutely contained by a massive wall at each end, from which great gargoyles spill the monsoon rains on to a tumble of rock in the lagoon sixty feet below. I have little doubt that the result will justify the means, for within the frame of roof canopy and end walls, and despite a regular disposition of the Courtrooms and offices, there is a wealth of significant detail, responding to the conditions of climate and the uses of the building and controlled by the 'Modulor' systems of proportion, with its creator behind it." Later on, referring to social and educational buildings which have been completed in the city, Maxwell Fry stated: "In my eyes the nicest, and by far the best finished of these buildings is the health centre . . . (by Jane Drew, shown left) built very simply of bricks plastered, in solid and boldly pierced walls, with but one *jeu d'esprit* in the curved and cantilevered entrance canopy." For further illustrations, and comment by ASTRAGAL, see pages 1, 3 and 5.



POINTS FROM THIS ISSUE

New Year Honours List	pages 5 and 6
RIBA Awards and Prizes	page 6
New Zealand house construction competition	page 7

The Editors

PROPOSAL FOR THE NEW YEAR

AS we go to press the RIBA Council's decision on an architects trade union is being posted to members. We will comment upon it next week. However, as most of the profession already know, or guess, the decision taken by the Council is not a very momentous one. After much hard work on committee and subcommittee, after calling in experts, canvassing the members, rolling drums, and generally beating up excitement, the council has done a neat little skip and a jump, opened a tiny loophole and remained where it was, breathing, if anything, slower than ever.

Could one expect otherwise? We must admit that at the start we had hoped, no doubt naively, for more positive action, although the use of the suspect words "trade union" so blatantly did not encourage hope. The subject (to all intents and purposes) now rests.

Close on its heels, however, comes the popular subject of architectural education. The RIBA council are now discussing the McMorran report. Quick action is likely on this, as no doubt the new chairman of the Education Committee does not want to follow his predecessor and spend yet another hot five minutes at the next AGM in May explaining why this McMorran Committee (appointed in April, 1952) progresses so slowly.

Again, however, one can hazard a guess that nothing very fundamental will emerge from this committee report—save, possibly, by oversight or accident. This is not to criticize the members either of the McMorran Committee or of the Council, all of whom—we feel sure—are sincere and well-meaning. Decisions on educational problems, like problems of salaried employment, will limp and fall flat because the RIBA is at a loss for a policy to pursue. A constantly changing council in the constantly changing world of today will never be able to forge a policy with the ease of the RIBA councils in the relatively static and simple days of the 'twenties and 'thirties, when the main task was the registration of the profession, plus relatively trivial details of professional conduct. What are the issues on which the RIBA should be making up its mind?

For instance: should architecture be taught at universities or at local authority art schools? How much longer can those fundamentally different systems, the pupillage system, part-time training, the art school, and the university degree course exist side-by-side? Can and does the assistant architect command the respect, authority and salary due to a professional man? How much longer should a minority (of prin-



Housing for clerks at Chandigarh, designed by E. Maxwell Fry.

Material? ASTRAGAL's view has always been that people who call in experts should let them get on with the job.

NEW YEAR HONOURS

Architects, do not, perhaps, figure quite so prominently in this New Year Honours list as they have in the recent past, and many a casual reader might miss the few named. So ASTRAGAL draws readers' attention to, and himself congratulates for their C.B.E.'s, W. H. Ansell, who was President of the RIBA during the difficult early years of the war and whose sterling work on the War Damage Commission and the NBR has now been recognised and Goodhart-Rendel, also a past president, a renowned historian and brilliant speaker, who is described rather palely in the list as "writer on architectural subjects." Congratulations also to architect Michael Ventris, who has received an O.B.E. for his work, often referred to in this column, deciphering Mycenaean script.

*

Lastly, congratulations to Gordon Russell, who receives a knighthood. Though not an architect, Gordon Russell, nevertheless, in ASTRAGAL's opinion, stands as high as any member of the profession for all he has done to raise the standards of design in this country. For seven years he has been a director of the COID and in that time it has greatly strengthened its position with industry, as this honour may be judged to confirm.

ASTRAGAL

cipals in private practice) have a majority on Council over salaried members. (There is only *one* assistant architect, and he a very senior one, on the RIBA council). And, very much more fundamental: Is the RIBA truly fulfilling its functions as a *learned society*? Is it doing enough to encourage research? Or to ensure that the architect is serving society as fully as he might as leader of the building team and arbiter of living and working standards?

The questions are endless and obviously too difficult for a part-time Council to solve. From where, then, can a policy emerge? We suggest from a small team—a short-term commission—composed mainly of architects (but including a member of any other profession—such as lawyer or economist—necessary)—who, employed whole-time, would thrash out these issues and report to, and be directly responsible to, the RIBA Council.

The first job such a team should tackle would be to discover of what the architectural profession, and its dependants, consist. Then would follow the job of relating the profession's capabilities to the nation's need for building.

How, might one ask, could this expensive (and it *should* be expensive) team be paid for? By a compulsory levy, according to income, on all members of the profession (a principle adopted, we believe, by the NFBTE). Such a small individual outlay could, we feel sure, pay great dividends both in money and prestige within a few years.

NEWS

NEW YEAR HONOURS

Knighthood for Gordon Russell

The New Year Honours list includes awards as follows to those connected with the arts and the building industry:—

Privy Councillor: Nigel Birch, Minister of Works.

Knight Bachelor: Gordon Russell, designer and artist.

C.B.E.: W. H. Ansell, F.R.I.B.A., Deputy Commissioner, War Damage Commission, Vice-Chairman, National Buildings Record. A. V. Bridgland, Chairman, Legeland Property Co., for service in the preservation of the Temple of Mithras. N. C. Macnamara, Chairman and Managing Director of Trollope & Colls. H. S. Goodhart-Rendel, F.R.I.B.A., writer on architectural subjects. G. S. Wells, Chief Mechanical & Electrical Engineer, MOHLG.

K.C.V.O.: Sir Gerald Kelly.

Colonial List:

O.B.E.: D. B. Mills, Superintending Engineer, Buildings Branch, Public Works Dept., Kenya.

M.B.E.: A. L. Brown, Chief Draughtsman, Department of Surveys & Land, N. Rhodesia. F. T. Ephraums, Architect and Building Surveyor, Rural Board, Singapore. *Prime Minister's List:*

O.B.E.: A. D. R. Cowley, A.R.I.B.A., Principal Regional Architect, Birmingham, MOHLG. G. A. Hill, Director, Higgs & Hill. J. A. F. Morrison, Chief Quantity Surveyor, Dundee. P. N. Piggott, Assistant Director for Wales, Ministry of Works. C. A. Richards, A.R.I.B.A., Superintending

Architect, War Office. E. L. Ripley, Principal Scientific Officer, Structures Dept., Ministry of Supply. J. L. Sharratt, Borough Engineer and Surveyor, Shoreditch. M. G. F. Ventris, A.R.I.B.A., for services to Mycenaean paleography. Laurance Whistler, Designer and Writer.

M.B.E.: D. S. Blaikie, Technical Assistant and Clerk of Works, MOW, serving at HM Embassy, Washington. W. E. Gott, Architect, Motor Traction Co. J. H. Sockett, Surveyor and Engineer, Atcham UDC. C. P. Spencer, Chairman, Nottingham Branch, NFBTO.

RIBA

Prizes and Studentships

At a general meeting of the RIBA on January 4, the Council's Deed of Award, giving the results of the Annual Prizes and Studentships, was read. The results are as follows:—

THE RIBA INTERMEDIATE DESIGN PRIZE: A certificate and £100 for the study of contemporary architecture in Europe.—398 candidates took part in the Preliminary Competition and of these 15 were allowed to proceed with their final drawings. The Council have awarded the prize, and subject to the specified conditions, the sum of £100 to A. R. Gilmour, of Peebles, Scotland, the author of the design submitted under the motto "IDLER."

THE VICTORY SCHOLARSHIP and £150 for the advancement of architectural education.—In the year 1954-55 the sum of \$100 has been added to the value of the scholarship by the generosity of Mrs. Margaret Chadwell, of the USA. 165 candidates took part in the preliminary competition and of these 12 were allowed to proceed with their final drawings. The Council have awarded

the scholarship and, subject to the specified conditions, the sum of £150 and \$100 to J. V. Gibberd (Student RIBA), of Radlett, Herts., the author of the drawings submitted under the motto "CARYATID."

THE RIBA SILVER MEDAL and £75 for measured drawings.—Nine sets of drawings were submitted. The Council have awarded the medal and, subject to the specified conditions, the sum of £75, to Neville Whitaker (Student RIBA), of Barnsley, the author of the drawings submitted under the motto "PROSPERO." The Council have also awarded a certificate of honourable mention to Ian Curry (Student RIBA), of East Herrington, Nr. Sunderland, the author of the drawings submitted under the motto "WYNCHECOMBE."

THE ARTHUR CATES PRIZE: A certificate and £115, for the promotion of architecture in relation to the application of geometry to vaulting, stability of edifice and design.—No applications were received.

THE HUNT BURSARY: A certificate and £95, for the study of housing and town planning.—Five applications were received and the Council have awarded the bursary and, subject to the specified conditions, the sum of £95 to A. H. Bannerman (A), of Aberdeen.

THE NEALE BURSARY: A certificate and £125, for the measurement of old buildings.—Seven applications were received and the Council have awarded the bursary and, subject to the specified conditions, the sum of £125 to D. W. Insall (A), of Bristol.

THE OWEN JONES STUDENTSHIP: A certificate and £250, for the improvement and cultivation of knowledge of the successful application of colour as a means of architectural expression.—Two applications were received. The Council have not awarded the Studentship. The Council have awarded a certificate of honourable mention and £10 10s. to A. F. Sealey (A), of Redditch, Worcs., the author of the drawings submitted under the motto "VALERIAN."

THE RIBA SILVER MEDAL, and £50 for an essay.—Seven essays were submitted, but the Council have not awarded the Medal. The Council have awarded a certificate of honourable mention and £25 to Maurice J. Brown (A), of London, the author of the essay submitted under the motto "THIBETANUS."

THE RIBA ROSE SHIPMAN STUDENTSHIP TRUST, for the study of architecture.—Eight applications were received. The Council have awarded the Studentship of £450 to Alan Reed (A), of Hampstead.

THE BANISTER FLETCHER SILVER MEDAL FOR AN ESSAY and £26 5s., for the study of history of architecture.—The subject set for this year's competition was "Prefabrication Before 1830." Three essays were submitted. The Council have not awarded the Medal.

THE RIBA ALFRED BOSSOM RESEARCH FELLOWSHIPS, for post graduate research.—Five applications were received and the Council have awarded a Research Fellowship of £250 to H. W. Rosenthal (A), of Leicester.

THE ATHENS BURSARY: £125 for study at the British School at Athens.—The Council, on the recommendation of the President, in consultation with the officers of the Board of Architectural Education, have awarded the Athens Bursary to R. R. Meadows (A), School of Architecture, The Polytechnic, Regent Street, London.

THE ASHPITEL PRIZE, 1954. The Council report that no recommendation can yet be made in respect of the award for this Prize for 1954 as full examination results are not available.

Continued on page 10

HOUSE

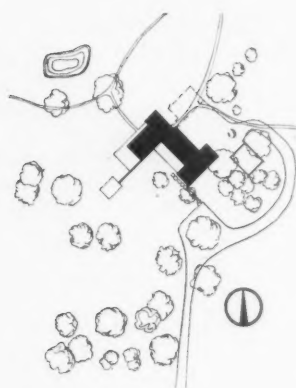
near IVER HEATH, BUCKS

designed by LIONEL BRETT

The client for Taidswood, a house near Iver Heath, is the owner of a mature and beautiful arboretum and flowering shrub garden, in which he wished to build a studio and bedroom for himself, combined with a flat for his gardener and housekeeper. The client, who was a bachelor when he first approached the architect, married later, and in consequence required modifications in the internal layout of the house. Other accommodation was found for the gardener. The site is the steep bank of a wooded ravine, facing north-west. The studio and bedroom (now living room and study) were designed to face the ravine, and the flat (now bedrooms) to face the sun.

From the south, with the bedroom wing on the right.





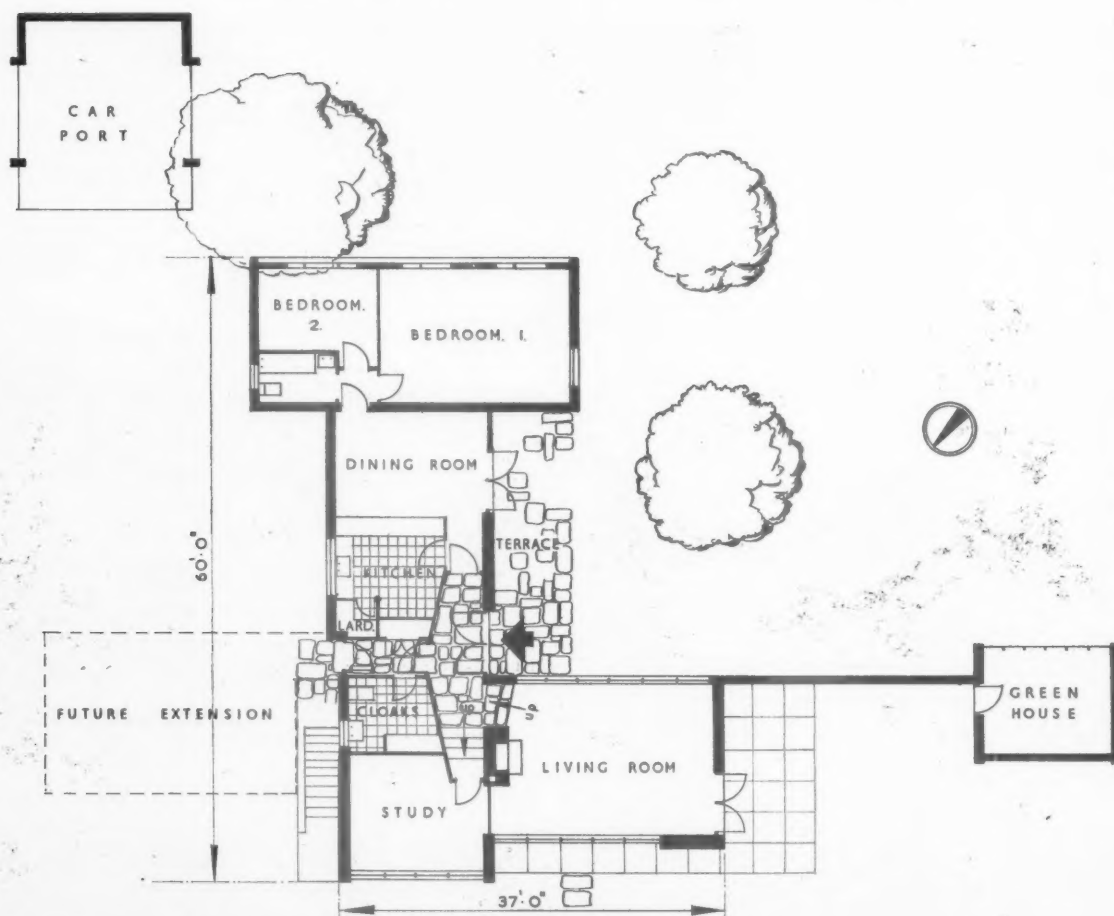
Site plan

Right, the living room and study from the west.



PLAN.—The use of floor panel heating throughout suggested a one-storey building, with the boiler room only at a lower level. It also made possible the omission of doors in the living area. Due to the slope of the site, floor levels vary and meet at the central chimney like steps at a newel-post. The dining-kitchen area acts as a sound barrier between the living space and the bedrooms.

CONSTRUCTION.—The structure is part masonry and part timber framed. The client's own oak and fir was used as far as possible for roof framing and wall panels. Rafters are of oak, covered with fibreboard, fir boarding and felt. Masonry walls are either of two skins of lightweight concrete blocks or cavity brickwork. The car port roof is cantilevered from four brick piers.



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

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Left, from the south showing the greenhouse on the left, the main entrance, centre and the terrace. Below extreme left, the living room with the study, at a higher level, behind the chimney stack. Left, the living room fireplace, which is faced with stock bricks, with an artificial stone frame to the opening. Below, the living room from the west. Windows and trim are painted white, doors are Prussian blue and plinths are tarred black.

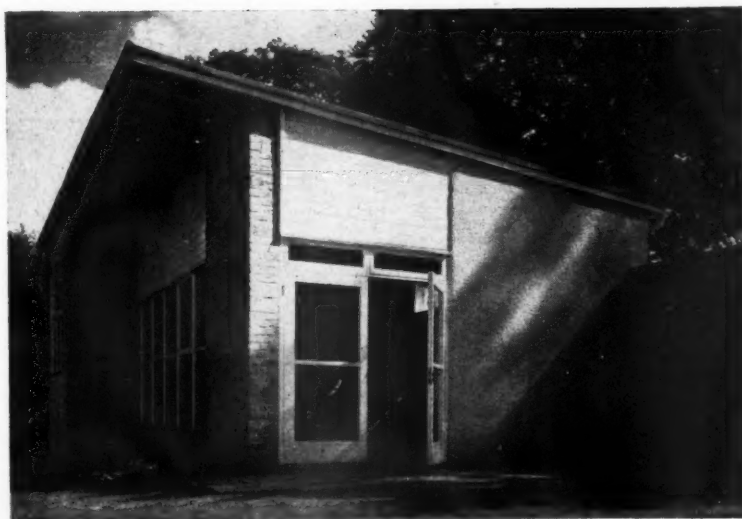


FINISHES.—External finishes include London stock bricks, white stone paint, vertical timber boarding painted grey-green or horizontal boarding painted white. The York stone terrace runs through hall and lobby as far as the dining room and service door. The chimney above is encased in horizontal pine boarding. The same type of wood is used for the screen between dining room and kitchen. Oak joists over hall, living room, study and dining area are exposed.

SERVICES.—Heating throughout the house is by galvanized steel pipe coils embedded in the floor slab. Hot water for these coils and for domestic purposes is supplied by a thermostatically-controlled solid fuel boiler in the basement. Tanks are above the low cloakroom ceiling. The total area of the house is 1,470 sq. ft. and the contract price £5,026, excluding car port and greenhouse. The general contractors were John Deverill, Ltd. For sub-contractors, see next week.

HOUSE

near IVER HEATH, BUCKS
designed by LIONEL BRETT



News—(continued from page 6)

THE RIBA SILVER MEDAL and £10 in books for students of schools of architecture recognized for exemption from the final examination. The Council have awarded Silver Medals and £3 6s. 8d. in books to G. F. Polson (Student RIBA) of the Glasgow School of Architecture; Neville Whittaker (Student RIBA) of the School of Architecture, King's College, Newcastle-upon-Tyne; and W. G. Jones (Student RIBA) of the Welsh School of Architecture, The Technical College, Cardiff.

THE RIBA BRONZE MEDAL and £10 in books for students of schools of architecture recognized for exemption from the intermediate examination. The Council have awarded the Bronze Medal and £10 to George Christie (Student RIBA) of the Glasgow School of Architecture.

THE ARCHIBALD DAWNAY SCHOLARSHIP TRUST PRIZES: three scholarships of the value of £60 each: for the advanced study of construction. The Council have awarded Archibald Dawnay Scholarships to: C. E. Hanley (Student RIBA) of the Birmingham School of Architecture; Peter Willis (Student RIBA) of the School of Architecture, King's College, Newcastle-upon-Tyne; and A. J. Tomlinson of the School of Architecture, Nottingham College of Art.

THE RIBA PRIZE FOR ART SCHOOLS AND TECHNICAL INSTITUTIONS with facilities for the instruction of intending architects. Eight sets of drawings were submitted. The Council have awarded the Prize, being books to the value of £10, to J. C. Smith, of the Kingston School of Art.

COMPETITION

New Zealand House Construction

This competition (announced in the JOURNAL of September 23, 1954) was held with a view to exploring methods of construction not previously in general use in New Zealand. There were 25 entries in all.

The winners were as follows:—

Tied for first prize (£200): H. W. T. Eggers and D. B. Brown of Wellington, N.Z.; L. R. Gordon of Levin, N.Z.; New Zealand Pottery and Ceramic Research Association of Wellington.

Tied for second prize (£100): G. Rosenberg and Norman Dick of London; J. Bruce Wilson assisted by G. W. Agar; J. T. Craig; B. W. Johns, all of Johnsonville, N.Z.

DIARY

Exhibition of Prize Drawings. At the RIBA, 66, Portland Place. Monday to Fridays 10 a.m.—7 p.m. Saturdays 10 a.m.—5 p.m. UNTIL FEBRUARY 1

Library Group Meeting. H. V. Molesworth Roberts, Cataloguer of the Institute Library, will give a talk on "Historical Research in Architecture" with special references to the RIBA Library. At the RIBA, 66, Portland Place, W.1. 6 p.m. JANUARY 10

Early International Exhibitions. Talk by K. W. Luckhurst, Secretary of the RSA. At the V and A Museum Lecture Theatre. 6.15 p.m. JANUARY 12

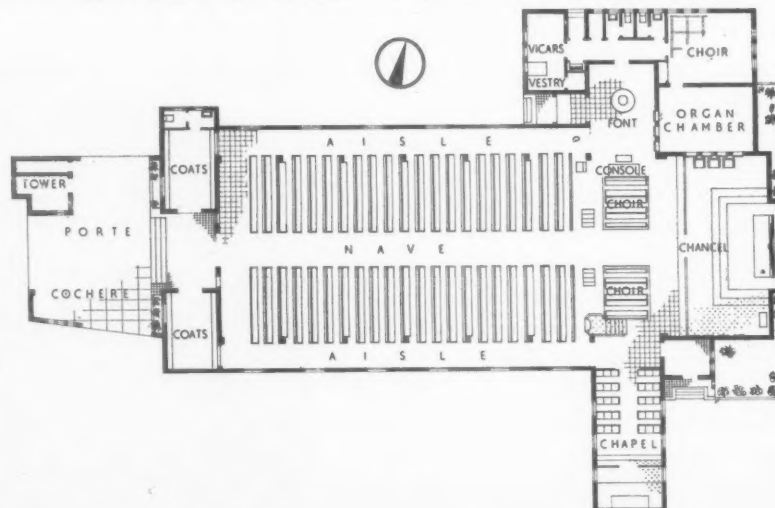
Moving Earth, Concrete. Two films by John Laing & Son Ltd. At the BC, 26, Store Street, W.C.1. 12.14 p.m. JANUARY 12

Development Plans: Objects and Objections. Talk by Michael Rowe, q.c. At RICS, 12, Great George Street, S.W.1. 5.30 p.m. JANUARY 13

CHURCH OF ST. JAMES,



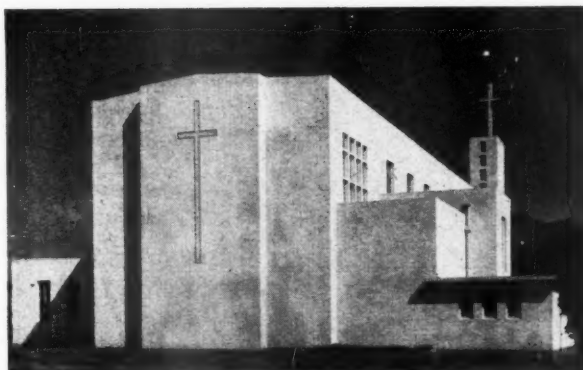
This church in New Zealand, illustrated on this page and opposite, was designed by the Struction Group Architects (William E. Lavelle, Ronald C. Muston, Cyril J. Whitmore and Kenard R. C. Rowe). The photograph above, from the west, shows the bell tower, which is 12 ft. by 8 ft. by 56 ft. high and contains a chime of eight bells cast in England. The tower is linked to the body of the church by a wide porte cochere. On the opposite page the photographs show, top, the east facade, centre, the steps and

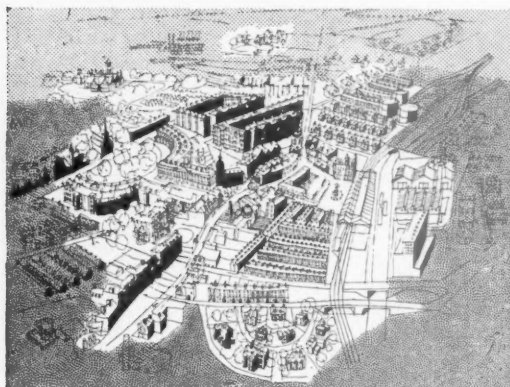


Ground floor plan [Scale: $\frac{1}{8}$ " = 1' 0"]

LOWER HUTT, NEW ZEALAND

entrance doors to the nave seen from the porte cochere, bottom left, the nave seen from the chancel, bottom right, the bell tower and part of the south facade. The new church, which replaces an old structure burned down in 1946, is planned to seat 450 worshippers in the nave pews, 30 in the lady chapel, 36 choristers, 2 clergy and an organist in the choir. The church is divided into three main component parts, firstly the nave, choir sanctuary, lady chapel, baptistry, and vestries, secondly the large porte cochere and thirdly the tower, surmounted by an 18-ft. high cross. The porch and porte cochere are lit by circular glass domes and the ceiling is coloured pale duck egg green. The construction is of reinforced concrete on pile foundations and the exterior is plastered and coloured off white. The main doors opening into the nave are steel and are decorated with gold studs on a pale blue ground. The floor in the nave is finished with cork tiles on hard board. In the sanctuary there is a blue carpet and on the wall behind the altar there are royal blue velour curtains. Under the pews and choir stalls are fixed low temperature electric heating tubes. The ceiling is finished with acoustic tiles coloured pale blue, golden yellow and white. Fluorescent tubes are inset in the ceiling behind plastic egg-crate fittings. The chapel and sanctuary are mainly heated by electric wall panels. The church cost approximately £70,000. The general contractors were W. M. Angus, Ltd.





Guest Editor Felix Walter asked Ernest Watkins to contribute the following article on miscellaneous legal points which may confront the architect engaged in conversion work. Mr. Watkins deals with problems connected with long leases, landlord's consent to alterations and improvements, compensation for improvement, restrictive covenants and damage by subsidence. This article is followed, on page 20, by a description, by John Ratcliffe, of American practice in connection with the conversion and rehabilitation of old property.

CONVERSIONS: SOME GUIDANCE ON

LEGAL ISSUES

Long leases

Those contemplating conversions are more likely to encounter long leases in the capacity of owners of property subject to them than as holders of the ultimate residue of a long term of years. By the Landlord and Tenant Act, 1954, (and the earlier temporary Acts which it replaces) a long lease of residential property is defined as a lease for a term of more than 21 years and at a "low rent," a rent, that is, which is of an amount less than two-thirds of the rateable value of the property. The commonest form of long lease was, and is, the 99-year building lease, a frequently used method of land development in many areas in the last century, under which land was leased for building purposes at a yearly rent, the ground rent, corresponding approximately to the annual value of the land as undeveloped. The Landlord and Tenant Act, 1954, is intended to give the holders of the residues of these terms of years who are actual residents in the property itself a protected tenancy at the end of their term, the protection given being equivalent to that given under the Rent Acts. Consequently, the Acts only apply where there is residence, and where the Rent Acts would themselves apply had it not been for the fact that tenancies at "low rents" were specifically excluded from the protection of those Acts when they were first passed. Equally, the owner of a reversion to the lease, as landlord, can claim possession from a lessee holding over after the end of his lease on any of the grounds available to a landlord of a normal Rent Act protected house. In addition, the landlord can claim possession at the end of the term if he can show the Court (the Court having jurisdiction is the local County Court) that he intends to

demolish or reconstruct the whole premises. This provision is important to those who contemplate reconversion schemes for property which is subject to a shortly-expiring long lease.

If a resident holder of such a lease obtains the protection of the Act, he must pay a fair rent for the property based on current values, and if the rent is not agreed the County Court has power to fix it. With regard to the lessee's liability for repairs under his lease, the landlord may enforce immediately the repairing covenants only to the extent of initial essential repairs, and although he may recover the cost of these from the lessee, the lessee—now the protected tenant—may apply to the Court for an order that they shall be payable by instalments and the Court may fix the instalments. If the tenant leaves with instalments still unpaid, the full balance outstanding becomes payable at once. If the landlord fails to carry out these initial repairs, the tenant may apply to the Court for a lowering of the new rent agreed or fixed, but this rent may not be reduced below the figure originally payable under the lease itself.

Landlord's consent to alterations or improvements

Many leases of property provide that no alterations shall be made to the premises, and that the lease itself shall not be assigned or disposed of, without the prior consent of the landlord, and that covenant frequently contains the words "which consent shall not be unreasonably withheld." The defining of the unreasonable withholding of consent is an involved matter and it would probably be more confusing than helpful to attempt to summarise the various

decisions on these points in this section. It is important to remember that the Courts have power to decide whether a consent has, in any particular case, been unreasonably withheld, where the consent required is consent to an assignment or underletting of the lease, to the making of improvements, or to a proposed change of use, and, if the Court does decide that the withholding was unreasonable, the tenant is free to act very much as though the consent had been given. Under Section 51 of the Landlord and Tenant Act, 1954, the County Court for the district has equivalent jurisdiction with the High Court in the hearing of the applications.

Compensation for improvements

A limited class of tenants of residential property is entitled to compensation for improvements to the property made by them during their tenancy, by virtue of the Landlord and Tenant Act, 1927, as amended by the Landlord and Tenant Act, 1954. To be in a position to claim compensation, the tenant must be occupying property which is outside the scope of the Rent Restriction Acts and he must give his notice claiming compensation.

(a) Where his tenancy is determined by notice, within two months after the service of the notice on him, or (b) in other cases, not more than six nor less than four months before the termination of the tenancy. In any case the compensation may not exceed the net value added to the premises by the work he has carried out, and in determining the amount of the net addition to the value the Court must have regard to the future use that is to be made of the property and to the intentions of the landlord, to demolish it or to make structural alterations to it.

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Under the 1927 Act, no compensation was payable in respect of improvements made during the three years before the termination of the tenancy and a landlord might defeat such a claim by offering the tenant a new tenancy to continue from the end of his old one. Under the 1954 Act, the provisions that improvements must be made before the final three years of the tenancy and that the landlord may offer a new tenancy in lieu of payment for them, cease to apply after the commencement of the Act. A tenant is not entitled to compensation for any improvements he chooses to make. If he wishes to make improvements which he intends shall be the subject of a claim, he must give notice beforehand to the landlord and submit plans of the proposed work. The landlord may offer to do the work at his own cost, and may, if he does so, increase the rent by a "reasonable" amount, based on the cost of the improvements. He may object to the work being done. In that case, if the tenant wishes to do the work and claim compensation, he may apply to the Court. The Court has power to allow the improvements to be carried on, on the basis that compensation will be payable under the Act, if it is satisfied that the improvements are reasonable, that they will add to the letting value of the premises, and that they will not diminish the value of any adjoining premises in the ownership of the landlord. The rights of a tenant under the Landlord and Tenant Acts are complicated, and hedged around by formalities that must be observed if the tenant's claims are not to be defeated on these grounds alone. Both tenant and landlord would be well advised to take professional advice before taking any action intended to give rise to, or to defeat, a claim under the Acts.

Restrictive covenants

Land, and, of course, the buildings on it, may be subject to restrictive covenants intended to control its future use. If these covenants are imposed on freehold land they may, in theory, run for ever. If they are imposed by a lease, they are effective, in the sense that they bind the tenant under the lease for the full term granted. The covenants may operate to interfere with a plan for conversion; e.g., they may provide that any building on the land shall be used as a single dwellinghouse only. What are the methods by which these covenants may be discharged, or varied?

The answer to that question can be considered under three heads:

1. The covenants may have become unenforceable in law and if they are no longer enforceable they are no longer effective and can safely be ignored. There are three ways in which this may happen. The person entitled to enforce them may have acquiesced in earlier breaches of the covenant, or, knowing that they are being broken, may have failed to take action to enforce them. It is impossible usefully to summarize what events would be sufficient to establish sufficient acquiescence or delay, sufficient, that is, to prove a bar to legal proceedings for enforcement—a great deal must depend on the circumstances of each case—but a

reasonably safe guide is a comparison between the character of the neighbourhood when the covenants were imposed and its character at the time when the question of enforcement arises. The second defence to proceedings for enforcement turns on very much the same point, change in the character of the neighbourhood, for a covenant can no longer be enforced by action when the object for which it was imposed can no longer be secured. In short, changes in neighbourhood characters, accepted, or unopposed, by those who are entitled to enforce covenants intended to maintain the *status quo*, are usually an answer to what is in effect a belated attempt to put back the clock.

The third possible defect in a restrictive covenant is technical. All restrictive covenants made after 1925 are required to be registered in the Land Charges Registry under an Act of that year. If not so registered, and if the deeds of the property do not give a subsequent purchaser of the land notice of what the restrictive covenants are, the subsequent purchaser is not bound by the covenant.

2. Covenants which prevent conversion may be varied by the County Court under powers contained in the Housing Acts.

Section 163 of the Housing Act, 1936, gave the county court power to vary the terms of any lease or restrictive covenant which prohibits or restricts the conversion of a single tenement into two or more separate tenements where the owner of the building intending to make the conversion (or the local authority) can show that changes in the character of the neighbourhood prevent the house from being readily let as a whole on a single tenancy. The power of the court was extended by Section II of the Housing Act, 1949, which made it exercisable where planning permission had been granted under Part III of the Town and Country Planning Act, 1947, for the use of the house as two or more separate dwelling houses.

3. Covenants may also be discharged or modified by order of the Lands Tribunal.

Under Section 84 of the Law of Property Act, 1925 (as varied by the Act which set up the Lands Tribunal) the Tribunal may discharge or modify a covenant restricting the use of land or building if: (a) by reason of changes in the character of the neighbourhood the restriction ought to be deemed obsolete, or if its continued existence would impede the reasonable use of the land for public or private purposes without securing any practical benefits to others, or (b) those entitled to enforce the restriction have agreed, expressly or by implication, to the discharge or modification, or (c) the proposed discharge or modification will not injure the persons entitled to the benefit of the restriction. Again, the basic element in all these grounds is change in the character of the neighbourhood.

This procedure is available both in respect of covenants imposed on freehold land and those contained in leases, provided the lease imposing them was originally for a term of more than forty years and has not less than twenty-five years of its term unexpired at the date of application.

Applications are made to the Tribunal.



Subsidence scenes in Nottingham

There may be a public hearing and the Tribunal has power to order the applicant, if a restriction is discharged or modified, to pay compensation to any adjoining owner who suffers actual loss in consequence.

The Tribunal has now power to modify a covenant imposed for naval, military or air force (including civil aviation) purposes, for the protection of a Royal park or garden, for forestry dedication purposes, or where the covenant was made on a voluntary disposition of land for the use of the public, including a disposition to the National Trust.

So far as conversions are concerned, it is clear that the machinery provided by the Housing Acts of 1936 and 1949 is, in most cases, likely to be the most convenient to use. It was specifically designed for that purpose. The tribunal having authority is the local county court, where the procedure is at least as speedy and as economical as that of the Lands Tribunal, and there is no question of having to pay compensation to any adjoining owner if a modification is ordered.

Damage by subsidence

An owner of land is entitled to a right of support for his land and buildings, both from adjoining owners (lateral support) and from underneath. If he is the absolute owner of the land, and of the minerals under it, he can claim compensation in common law if his land or buildings are damaged by subsidence resulting from mining operations and if he can prove who caused the damage. But in areas where minerals, particularly

coal, have been known to exist, surface land was frequently conveyed with a reservation to the seller of the right to mine for the minerals under it. In such a case, the owner of the surface thereafter is not an absolute owner of all the interest in the land, and those who own the minerals (now, in the case of coal, the National Coal Board) are entitled to extract the minerals even though damage through subsidence results to the surface buildings. This situation was remedied in part—but only in part—by the Coal

Mining (Subsidence) Act, 1950.

This Act imposes on the National Coal Board liability to pay the reasonable cost of repairs to houses damaged by subsidence where the damage occurred after January 1, 1947, provided the following conditions are met:

(a) the damaged property must be used solely as a dwellinghouse; (b) its rateable value must not exceed £32 p.a.; (c) written notice of the damage must be given to the National Coal Board (only urgent first-aid

repairs may be put in hand before the notice of damage is given).

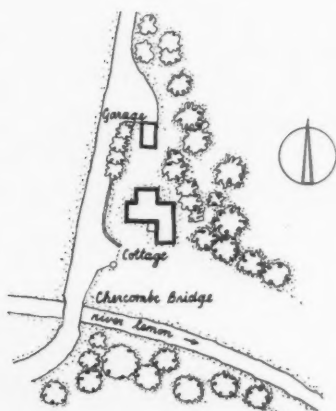
If the cost of the repairs exceeds the depreciation to the value of the house caused by the subsidence and its consequent damage, the Board may pay a sum equal to the actual depreciation in lieu of meeting the cost of the repairs themselves.

The Act is curiously arbitrary in the kind of property to which it awards the right to claim for subsidence losses, but it has not, as yet, been amended.

Cottagelat Chercombe Bridge, Devon

Architects : Dawes Dingle and
C. Talbot Larrington

THE SCHEME: *This derelict stone-built farm cottage, standing on the banks of the river Lemon in South Devon, was little more than a shell when taken over; apart from the rafters themselves, the remainder of the roof had disappeared. Since the unit of accommodation remains unaltered this could be considered an improvement scheme, but it is also a conversion because of the somewhat changed use and purpose of the cottage.*



Site plan

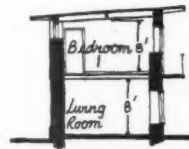


The cottage seen from the south, across the river Lemon

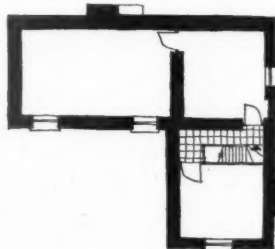
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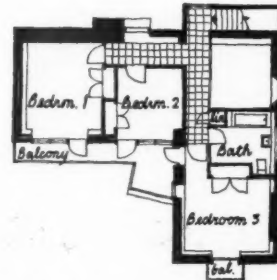
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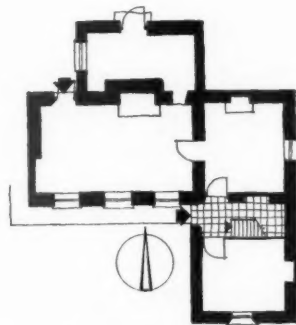
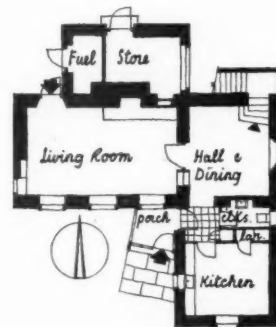
Section after



First floor before



First floor after

Ground floor before
[Scale: $\frac{3}{4}$ " = 1' 0"]

Ground floor after

PLANNING DETAIL: On the ground floor there is little alteration to the subdivision of floor space, although finishes have received considerable attention and a new concrete floor slab has been laid. The original staircase has been replaced by another outside the area of the house; new windows and doors have been inserted in the old openings and a new entrance porch added. A cloakroom has been planned in the space previously occupied by the staircase. Above on the first floor, the entire area has been reorganized. The dilapidated pitched roof, with a 7 ft. 0 in. ceiling height beneath, has given way to a new monopitch roof providing an average floor to ceiling height of 8 ft. 0 in. To support the new roof, external walls were raised in cavity brickwork with an external cladding of timber which provides an interesting contrast of new and old materials.

It could be argued, perhaps, that all this work was scarcely an economic proposition and it is possible that it was not; but in this field of conversion there are other equally important aspects for the individual to consider apart from pounds, shillings and pence. There is the value of the site and its appeal to the owner, the use to which it is to be

put, the character and condition of the existing buildings and the extent to which they can contribute in meeting the particular needs of the owner. The cost of the majority of conversions have to be strictly related to the investment value of the proposition but there is no reason why one should lose sight of the human aspect of this work; in fact, the individual job is essentially a personal problem for the architect who must know his clients' need and habits sufficiently well if he is to provide the best solution. The lack of contact with the tenants of, say, converted urban flats increases the architects' problems and responsibility, for he has to assume their needs rather than know them. It is then, in this latter case, all the more essential that he should study the average preferences of the particular type of tenant for whom he is planning accommodation.

COSTS: This work was carried out by direct labour and no costs are available.

RATEABLE VALUES: When occupied as a farm cottage, the gross value was £6 and the rateable value £4. The present figures are £39 and £29 respectively.



The cottage from the west



Left, Lashbrooke Cottage from the north-west before conversion. Right, after conversion

Lashbrooke Cottage, Shiplake, Oxon

Architect : G. E. P. Day

THE SCHEME : Practically all examples illustrated in this section provide additional housing units after alteration, but in this case the accommodation was reduced from two cottages to one. Disregarding the ramshackle lean-to outbuildings, the floor area of each cottage was less than 500 sq. ft.; without new extensions the cottages were too small to improve with any degree of success. Although the majority of conversions discussed illustrate urban problems, the rural picture is similar yet perhaps more complex in some respects; the isolated locations of these cottages and lack of nearby services tend to increase costs for works comparable with urban cases without any rise in standards. But this rural problem is all too real and deserves far more attention than it has received.

(The cottage from the south)



PLANNING DETAIL : As in the case of the cottage at Chercombe Bridge (see page 15), this conversion was carried out for the individual—the client and future occupier. The scope of the work was hampered by the control of building operations during the early years after the last war. The house when initially surveyed was typical of so many; there was no D.P.C., ground floor timber joists were laid directly on the soil; elsewhere, there was unevenly worn brick paving. The large central chimney stack, which to some considerable degree stabilizes the structure, contained enormous flues from the fireplaces and brick ovens. Services were primitive. A small area of dry rot was found in one cottage, many tiles were missing from the roof which was formerly insulated with hay between tiles and battens. The hips were in a particularly poor state. Demolition of the outbuildings revealed a large fracture in the east wall almost on the centre line of the building. Although only two down pipes disposed of all rainwater quite effectively, the constantly overflowing rainwater butt (there was no proper overflow) contributed to the settlement of the building near the south-east corner.

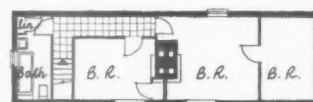
The replanning of the accommodation relied upon the minimum of structural alteration; apart from the removal of the second staircase and the partition between the two ground floor rooms in the south cottage and also the introduction of a partition between the first floor corridor and smaller bedroom there has been little change.

SERVICES : Domestic hot water is from a back boiler in the living room; an immersion heater is also provided. Drainage is to a septic tank, lighting and power are by electricity.

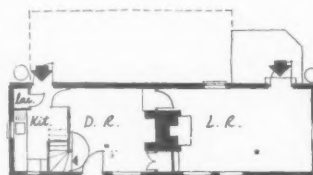
COSTS : The house was purchased with vacant possession for £1,600 and the cost of conversion,

exclusive of architect's fees and the garden layout, was £1,035.

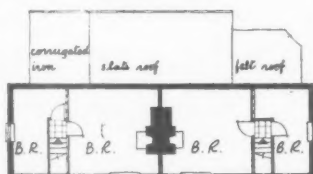
RATEABLE VALUES : The two cottages were previously rated at £6 each; the present rateable value is £20.



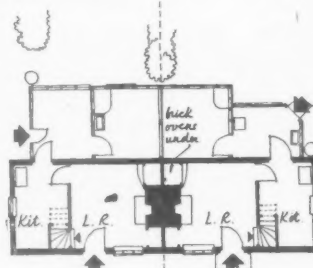
First floor after



Ground floor after



First floor before



Ground floor before [Scale: 1/4" = 1' 0"]



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7 Albert Terrace, Edinburgh

Architect : Alan Reiach

THE SCHEME : This is one of a terrace of nine mid-19th century stone-built houses with the back garden at basement level. The house has been converted into two maisonettes with the lower unit having the benefit of the garden; some advantage is gained in this case by the retention of the two-storey rear extension which increases seclusion on the terrace used as an outside room and provides a small roof garden for the upper maisonette.



The ground and first floor
from Albert Terrace

PLANNING DETAIL : To provide a combined living room and dining recess for the lower maisonette was the main task. The reorganization called for an amount of structural steelwork all of which is concealed beneath the basement ceiling plaster with the exception of the beam spanning the dining recess which has a false ceiling. A large window and glazed door leading on to the terrace provide ample daylighting in the recessed area. On the north side of the house, the formation of an enlarged sunken area between the house and road enables the old windowless store to be converted into a bathroom, with improved lighting conditions for the study. The stone flags from the basement have been used to pave the terrace area.



Top, the rear before and above, after conversion

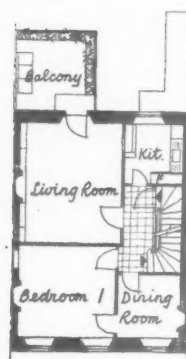


The lower ground floor before and after conversion

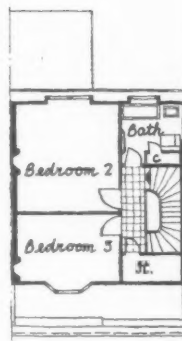
SERVICES : Domestic hot water is supplied by gas circulator with an immersion heater as a standby. In the lower maisonette, the living area is heated by an open fire at one end and a slow combustion stove at the other.

COSTS AND RENTS : The greater proportion of the £1,500 conversion cost was absorbed by the lower maisonette due to the structural work. Initially, the upper unit was let unfurnished, but owing to the uneconomic return imposed by rent restriction, this unit had to be sold.

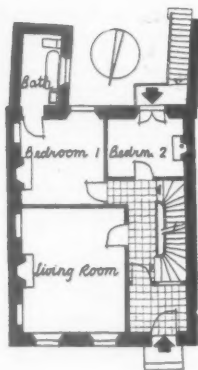
Lower ground floor living room



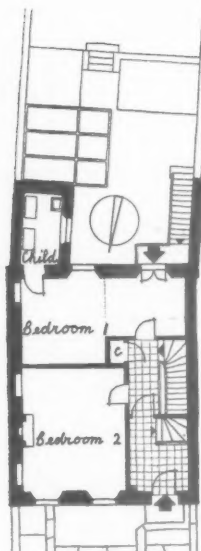
First floor after



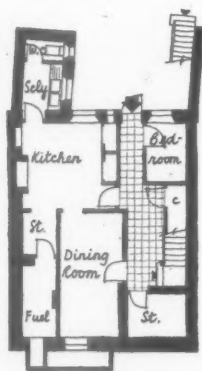
Second floor after



Ground floor before



Ground floor after



Lower ground floor before (Scale: $\frac{1}{8}'' = 1'0''$)



Lower ground floor after

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An Abandoned Scheme

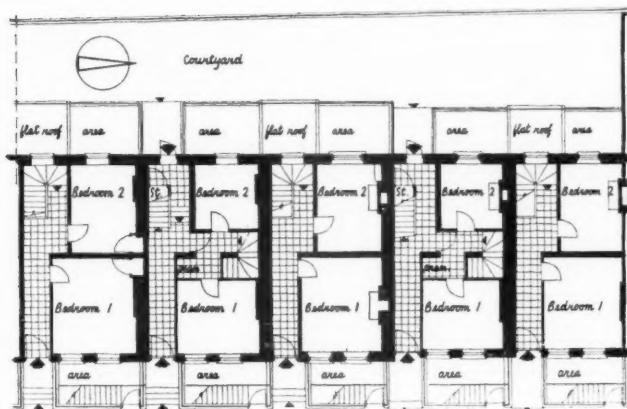
Architect: Anonymous

THE SCHEME: It was intended that these five houses should be converted horizontally on all floors above the ground, with maisonettes on the two lower floors. But not all schemes materialize and this example illustrates such a case where the extent of capital expenditure was prohibitive. As will be seen, the conversion provides a number of well planned units offering individual accommodation comparable with new work.

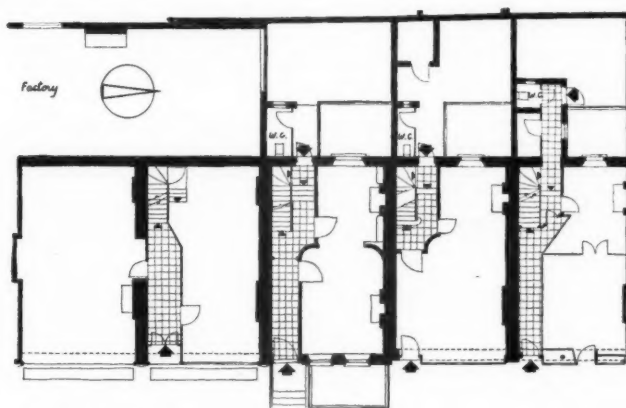
PLANNING DETAIL: In addition to problems normal to conversion, the ground floor was occupied by a series of shops, the large windows of which were to have been replaced by windows and entrance doors of domestic scale. In addition, apart from existing party walls, practically all partitioning, external walls and windows in the basement, were to have been new, as was the case at ground level. On the upper floors, most of the existing internal partitioning was scheduled for removal and for replacement by new work; and furthermore, two new r.c. staircases were included. In general terms, therefore, with the exception of party and external walls, floors and roof, the whole of the interior was in most respects similar to a new job.

SERVICES AND FITTINGS: Although practically no bedroom cupboards were included, kitchens were well equipped. Both gas and electric water heating points were included, as were gas and electric power points adjoining each living room open fireplace.

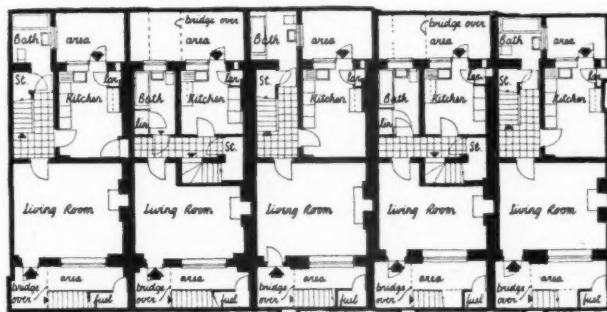
COSTS: An interesting point arising from an analysis of the budgeted capital outlay was that the cost per square foot worked out at 57s. 1d., whereas for a new scheme of comparable scale



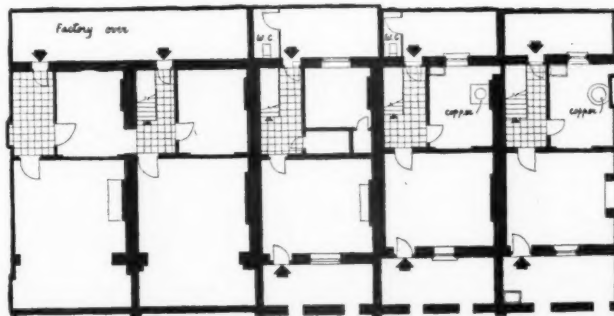
Ground floor after



Ground floor before



Lower ground floor after



Lower ground floor before [Scale: $\frac{1}{8}'' = 1' 0''$]

landlords benefit," etc.—that we are in danger of accepting the existence of the slums as a natural phenomenon.

The second difference is that, whereas in this country we read of owners of decayed house properties trying to "disappear" and bequeath them to a reluctant Local Authority, in the U.S.A. we read of the profit motive being hitched up in reverse to the ownership of slum property. For it appears that taxes are lowered as the buildings deteriorate, expenses are lowest where no maintenance is carried out, and the income is highest where the overcrowding is highest. Evidently in one respect we are fortunate that our Rating assessments are not reduced if we cannot afford to carry out proper maintenance!

The third difference is that our Local Authorities appear to be more geared up for action than theirs. In the U.S.A. they are thinking in terms of the reform of housing law enforcement, occupancy control, of land acquisition, excessive building codes, sanitary services to ensure proper garbage collection, etc. On the other hand, we suffer, if anything, from too much organization—the difficulty, for instance, until recently, of rescinding demolition orders made before the war on houses which, in today's circumstances, should be brought back into temporary use. Whereas, too, our government machinery may be better developed, our Local Authorities tend to be too self-sufficient and reluctant to make use of commercial enterprise as an agency within a broad legal framework.

There are points of similarity in their approach to the problem and ours. They believe that neighbourhoods decay faster than individual houses, and that it is therefore important to help owners of not-so-old houses to keep them in good repair as well as to force the owners of older houses to rehabilitate them. They believe, too, that the fight against blight is a local responsibility, but with a difference: for Americans feel strongly that blight can only be reserved by team-work of government and business—in other words, unless there is a reasonable and honest profit in rehabilitation, the job will not be done. Surely we have something to learn from this.

Their thesis is, of course, consistent with their attitude towards subsidies. For they consider that the cost of improvements should be borne by the owners or landlords, who should not get something for nothing at the taxpayers expense. Their financial problems are, therefore, conditions of mortgages. For instance, it is felt that the "open-end" mortgage is the best instrument as it would encourage owners to keep their properties in good repair to maintain the security; they look for lower interest rates in the loans which the Federal Housing Administration is prepared to offer, and for greater responsibility by the banker in helping people inexperienced in building to get the best value out of the money he lends them.

One of the most attractive financial

* An open-end mortgage is one in which several persons act as mortgagors—if one should wish to redeem his share, he can do so without invalidating the whole loan.



Before and after scenes of a Quaker project for rehabilitation by USA architect Oskar Stonorov in Philadelphia. Where possible individual features, such as overhanging bay windows, were saved. This is the first project in which tenants substituted their own labour for down payments



Before and after scenes of another conversion scheme in Philadelphia. This scheme was carried out by David Williams, who acts as builder, broker and designer. This type of development, carried out by a small speculator relies on three basic rules. First, the properties must be near some desirable feature, such as a park, or church, or form part of a cul-de-sac. Second, they must be structurally sound as regards external walls. He reckons to remedy internal faults economically. Third, the cost must be below \$5,000. Purchase price, improvement and profit must not bring the price over \$15,000-\$18,000—the top figure for quick sales

methods is called "Trade-ins." Under this system, builders will accept used houses as part payments for new ones—like motor-cars! The builders then remodel the old houses and re-sell them. This has the advantage that builders should avoid the mistakes in conversions made by the inexperienced, and that they can buy up whole blocks of property for conversion on more economic lines. There are two problems. Can builders

make as much building five new houses together with converting five old ones as they can building ten new houses? Secondly, in the U.S.A., the capital a buyer has to find under a F.H.A.-insured mortgage is only 5 per cent. for a new house as against 10 per cent. for an old one; clearly, if mortgages for old houses could be put on the same basis, a great deal of the financial risk would be taken out of conversions. Even so,

under the F.H.A. "dual-commitment" feature, the builder knows what his financial commitment will be for houses "as is," and what it will be when modernized. Thus before he embarks on the conversion he knows that he can get a loan on at least 90 per cent. of the cost of modernization and he is protected even if he cannot find a buyer. Another interesting financial method has been used by the Quakers, who in Philadelphia have been converting old houses at three quarters of the cost and a quarter larger in area than they can achieve in new houses. Under this system, the existing occupants of the old houses contribute their "down-payments" towards the conversion-loan in the form of direct labour, organized on a co-operative basis—in much the same way as self-help organizations are building new houses in this country. This method is called by the picturesque title of "sweat-equity," and a brief account of their experience in organizing this operation is illuminating.

Before the co-operative organization could function, it was necessary for the families to sign up, and it needed a good deal of persuasion to get them to sign up for an imaginary apartment. Then explaining the operation was difficult—discussing details took time, and many meetings had to be held. People were told the monetary value of the job they were to do, priced at union rates, and the rate per hour they were credited with depended on the total time they took to carry out that amount of work. They had to be taught how to do many of the simplest operations, but in time specialists developed—for instance, one girl did nothing but finish doors. Both skilled and unskilled works were credited with the same pay, and after complaints at this were discussed at a meeting of the co-operative, it was agreed that there was no other equitable solution of the problem. Needless to say, most of the work was done at weekends, and this made organization of specialist sub-contractors very difficult.

But for all the difficulties, this form of self-help achieved the aim of the Quakers in rehabilitating people as well as houses; for they believe that helping people to help themselves bolsters human dignity, whilst charity tends to destroy it. "You won't find any coal stored in baths"—they say. Could we not make use of this principle a little more over here? One could imagine such enterprises being initiated and organized by non-profit-making housing associations, which could draw on the experience learnt the hard way by the self-help organizations already building new houses. For instance, one way of discouraging absentees would be by making them loose points on the co-operative's housing priority list if they didn't turn up for work.

As regards the techniques of maintenance and conversion, it would not seem that they have very much in U.S.A. to offer us over here so far, but they have only just begun to scratch at the problem. For, if there is one point that stands out equally on both sides of the Atlantic, it is this—that the public simply do not appreciate the need to take more care of their existing stock of houses, and what a big and worth-while job there is to be done in this field.

TECHNICAL SECTION

A lecture* entitled "On the function of the middle ear—evolution and degradation" might not, on the face of it, be expected to be of great interest to architects. Apart from rather intriguing descriptions of animals which had evolved a hearing mechanism which was sensitive only to vibrations conducted from the ground up through their fore legs, this lecturer had one very pertinent theory, however. This is that man is subjecting himself to noise levels in ordinary life (not the extraordinary conditions prevailing in close proximity to jet aircraft engines or in boiler-making shops) which will in the long run produce permanent damage to, or degradation of, his hearing abilities. It is commonly accepted that the so-called "threshold of pain," a noise level of about 130 db, represents the point up to which the ear is safe from danger. The author suggests that the evidence of industrial maladies such as boiler maker's deafness proves that the safe limit is very much lower than this. He gives the maximum level to which it is quite safe to expose the ear for long periods at about 70 db. If this is so, most of us are in process of having our hearing sense blunted—a process which may become congenital. In these circumstances, an architect's responsibility to provide as much noise control as he can in his buildings could hardly be overstressed.

* By A. Tumarkin, given to the Acoustics Group of the Physical Society, November 16, 1954.

10 DESIGN: BUILDING TYPES the rehabilitation of rural schools

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

On November 30 the Minister of Education announced a big drive for the re-organization of rural schools. At the suggestion of MOE we are publishing a short series of articles dealing with the practical aspect of the subject as it affects an architect who has an old school to bring up to date. This week Cecil Handisyde, who has had considerable experience with this class of work, begins the series by discussing the administrative hurdles the architect must surmount before he can safely begin.

The building of new Secondary Schools, or indeed any new school, is a fairly straightforward matter if the various excellent publications of the Ministry are studied. The problems of organisation should be made clear if an architect is called in by

a local education authority to re-condition a school, whether Primary or Secondary. There are, however, over 7,000 Primary Schools with Church Managers, and a very large number of these need to be improved to bring them into line with Ministry

requirements. Private architects will be called in to do this work, and this and following articles will therefore be concerned mainly with this aspect of Rural school re-organisation. This first article deals with the organisation of such work, while later articles will discuss some of the design and technical problems.

The Minister's statement referred to an extension of the cost limit for work of a "minor" character. The position now is that capital work up to £10,000 in cost may be started without being included in the Local Education Authority programme of work which has to be approved by the Ministry for a starting date. Moreover there is no longer any limit to the number of such minor works permissible within a particular L.E.A. area. This relaxation should make it much easier for the Church Schools to get on with the rehabilitation of their buildings.

EDUCATION ACTS AND REGULATIONS

School buildings are covered by the Education Act of 1944 and subsequent amending Acts, which at present are the Education Act, 1946, Education (Miscellaneous Provisions) Act, 1948, and the Education (Miscellaneous Provisions) Act, 1953.

In practice the Architect will seldom need to refer to these Acts as the accommodation requirements for school buildings are laid down in Statutory Instruments, 1954, No. 473 "Education, England and Wales, The Standards for School Premises Regulations, 1954" which came into operation on 26th April, 1954, and superseded an earlier version. A full understanding of these regulations is essential before any useful work can be done by the architect, and it is as well to be reasonably familiar with the main requirements before even a first visit to a job or discussion with a client.

So far as the Acts are concerned, architects will not often wish to try to interpret them, though it is necessary to know the provisions made for paying for new schools and alterations, additions and repairs to old buildings. The main provisions are given in the diagram below which illustrates the various types of schools. For a fuller explanation, in a form easier to understand than the Acts, reference might well be made to *County and Voluntary Schools* by W. P. Alexander and F. Barraclough (Second Edition). Also, MOE Circular 283 (December 3, 1954) can be referred to for the latest

policy statement. MOE Administrative Memorandum No. 456 (October 1, 1953) is also a most useful document explaining the various steps which have to be taken in obtaining approvals.

Special note should be made of a provision in Section 7 of the 1946 Act which gives the Minister power to waive some of the requirements laid down in the School Premises Regulations. This provision may be important in some cases, especially in small rural schools where the conditions of site or buildings, or the needs of a very small community, may be such that to adhere strictly to the regulations would involve unnecessary expense. Also, of course, work which could be done within the £10,000 limit would not be sufficient to bring some schools fully into line with the regulations, but would nevertheless be likely to be approved as a valuable move in the right direction.

TYPE OF SCHOOL

The majority of old rural schools were founded by some body other than the State Education Authority, more often than not by the Church. Terms such as County, Independent, Voluntary, Controlled, Aided and Special Agreement are all used and are apt to be confusing. The chief differences between them are in the degree of independence from control by the State Education Authority, the constitution of governing bodies, and the method of financing the schools, both for capital and running expenses. The diagram given below shows the various types of school and illustrates the differences between them which affect the architect.

In connection with the diagram a few special points should be noted:—

(a) The Local Education Authorities prepared their Development Plans in about 1945 and 1946. It may well be that future requirements will vary, either because of new housing or perhaps because of plans for other schools in the vicinity. The LEA should be in a position to give information on this, and anyway it is always wise to ensure that the LEA and the local managers are in full agreement about the accommodation required even before first sketch plans are prepared, because managers of local schools are not always aware of the latest position and may inadvertently start

an architect off with a programme which is not in accord with up-to-date requirements as to number of classes and number of children.

(b) The term "School Buildings" usually excludes the playground, any buildings used in connection with the playing fields, any buildings used for medical and catering for school milk or meals service. Houses for teachers and caretakers are usually excluded from the "school" buildings.

(c) If an Aided School has to be replaced by a new school, the Ministry contribution to building cost must not exceed 50 per cent, of the total after taking into consideration the value of the old buildings upon disposal.

(d) The divisions of responsibility for buildings carry with them a divided responsibility for insurances, and architects might well advise Managers on this. Incidentally, Managers of Aided or Special Agreement Schools may be well advised to carry an insurance against defects in premises, though whether architects will always feel it is tactful for them to suggest this to their clients is open to question!

(e) Architects' fees are normally paid by the School Managers, but the Ministry will reimburse the Managers for the appropriate proportion of fees relative to the Ministry proportion of costs.

PROCEDURE

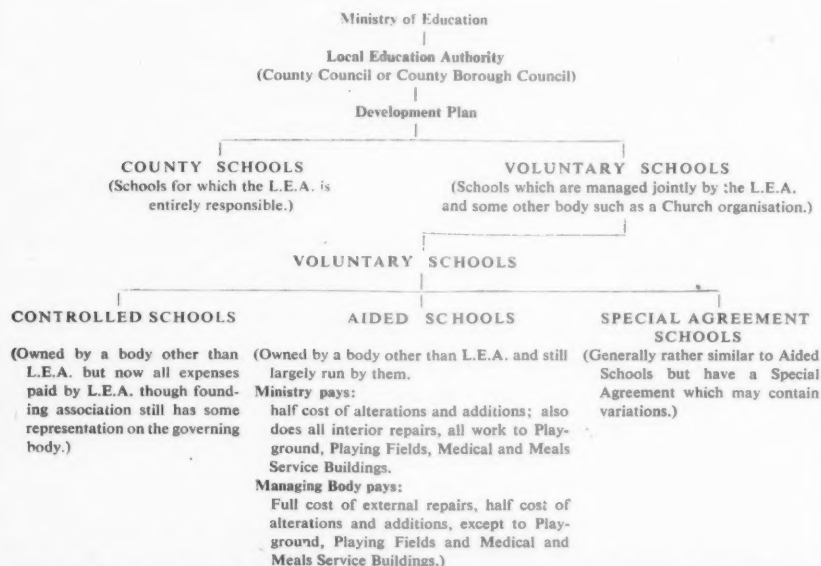
The normal procedure to be adopted for minor projects on Aided Schools is given below. For more detailed information reference should also be made to Memorandum No. 456 (Oct. 1, 1953).

1. Agree programme in terms of number of children and number of classes for infants, juniors or secondary ages, and confirm that it is a school for both boys and girls. Ensure that this programme is agreed by both Managers and L.E.A. Unlike work on new schools, where no real "Client" exists until after the job is complete, in the case of alteration and additions to old school's a school staff is already there. Usually the head teacher is brought in by the Managers, but if this does not occur the architect should endeavour to see that the views of the teaching staff are obtained, as often they are most valuable.

2. Agree fee arrangement with School Managers, including, if necessary, special fee for survey. Plans of the old building are usually non-existent or out of date or inaccurate.

3. Prepare sketch plan and approximate estimate for submission to Managers. As this type of work seems quite often to be halted for a considerable time at sketch plan stage, it is wise to keep the work at this stage to the minimum consistent with being able to give a reasonable estimate. If the problem is a difficult one it may be better to go to the Managers with a bare outline plan to get agreement in principle before completing the sketch drawings far enough for provisional estimating. Circumstances vary, but often it will be wise to have an informal discussion either with the L.E.A. or the Ministry to get their views on the sketch proposals before they are submitted to the School Managers.

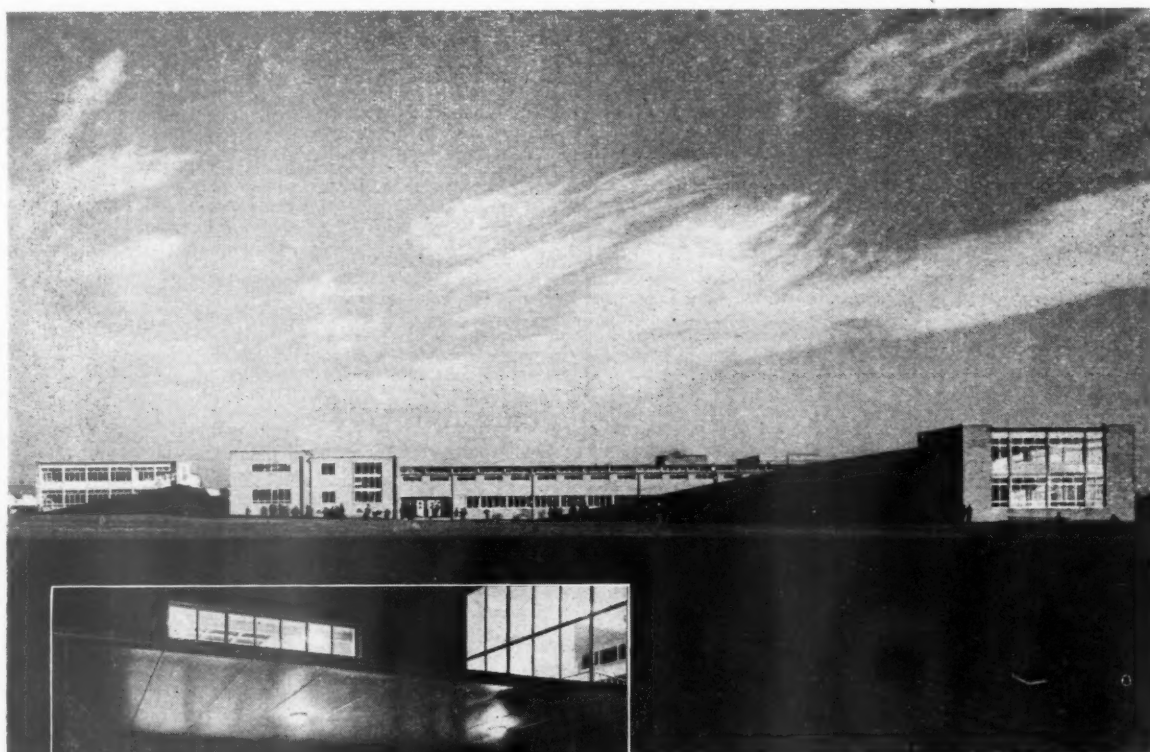
4. If approved by School Managers, sketch plans and estimate will often have to be agreed by the organization which the Managers represent. This, in most cases, will be a Church organization, such as the Diocese, which will probably have an Education official or Committee whose job it is to agree the proposals. Usually in the case of Church Schools part of the cost is paid by the Local Managers, e.g., through local village efforts, and part by the Diocese. In some cases it may be preferable to get approval in principle at this level before submitting to the School Managers for their approval. Enquiries on the usual method adopted in the particular district should be made.



NOTE: There are also INDEPENDENT schools. These scarcely come within the L.E.A. Development Plan. Most are without grants from public funds, though there are a few, known as Direct Grant Grammar Schools, which have grants direct from the Ministry. Some Independent schools are inspected by the Ministry, although at present there is no power to enforce such inspection.

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Schools Architect, County Borough of Great Yarmouth
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5. Since the Ministry will be responsible for paying part of the cost, the proposals approved by the Managers must be submitted. This is normally done through the L.E.A. on Form S.B.22, together with an outline specification. (In the case of new schools there are, of course, the normal Ministry limitations on cost.) How the Ministry decides the correct cost for an alteration or extension job is something of a mystery to the outsider, though presumably it depends upon an accumulation of data from experience of many jobs.

6. If the cost of the work is less than £10,000, then, provided the above approvals are obtained and instructions given by the Managers, work can go ahead at any time. If there is any danger of the cost exceeding £10,000 the architect would be well advised to see whether it is included in the L.E.A. programme for major works before involving the Managers in any costs.

7. School buildings, whether County or Voluntary Schools, are exempt from by-law control, but Independent Schools come within the bylaws. Nevertheless, it is ordinary practice to adhere to Byelaw requirements, though not necessary to submit drawings for approval. In some cases where connection is to be made to Local Authority sewers it is wise to discuss with

them the drainage proposals.

Although it does not affect Rural schools, it should perhaps be noted here that in London compliance with the London Building Act is required.

8. An Aided school is not exempt from town planning approval, nor is such approval automatically cleared by the L.E.A. L.E.A. projects are in a different category because the L.E.A. is a Committee of the same Authority as the Planning Committee.

9. It is wise to submit final plans and key working drawings to the Managers for approval and to confirm or amend the provisional estimate of cost.

10. Tenders are obtained almost invariably by invitation to selected firms. Some difficulty may be experienced in outlying districts, especially for small jobs, and a nice balance has to be kept between using only firms with a high reputation and failing to get a reasonable price. Beware of accepting, without a check, the advice of the Managers or head teacher: the firm that painted their house so well last year, may not be quite what is needed for a more involved undertaking.

11. Formal approval to commence must, of course, be given by the Managers after the tenders have been reported on. Formal approval of tenders need not be obtained

from the Ministry if competitive tenders have been obtained, if the lowest tender is accepted, and if the net cost and total cost of the work is still within the estimated cost already approved by the Ministry, but a statement of the cost on tender should nevertheless be sent to the Ministry on Form S.B.27.

12. It is important in obtaining tenders to keep separate work for which the L.E.A. pays only a proportion and work for which they pay the whole cost. Unless this is done at tender stage it can lead to considerable difficulty when final accounts come to be approved.

13. Final accounts will have to be audited by the L.E.A. in all cases where a proportion of the cost is borne by them. Provided the work has not been varied and the cost comes out at the tender figure, no difficulty arises, but if variations occur the Architect will probably have to explain just how the valuation on these has been arrived at. In jobs which justify a Bill of Quantities this is simple, but in other cases it means careful checking by the architect.

14. When the contractor has completed the work, Form S.B.23 must be sent in.

15. In the case of Aided Schools, Form S.B.17 must be completed when the final account has been approved.

INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.

16.113 materials: brick BRICKWORK

Modern Practical Brickwork. William Frost & R. V. Boughton. (Batsford, 1954. 50s. Od.).

This large and expensive book with over 1,000 illustrations contains comparatively little that has not been included in previous books on brickwork. Its claim to be "modern" is perhaps that it includes references to and reproductions of current Byelaws and regulations, a small section on reinforced brickwork and some slight treatment of the subject of building in post-war type fires and stoves. On the technique of brick-laying it gives much information with the usual full and illustrated descriptions of bonds, but on recent ideas about mortars, brick handling, methods of speeding up work and such items there is a disappointing lack of information.

Descriptions of brick types are curious and rather unfair to sandlime bricks, while the types of London Stock are described in a way of little help to architects, as descriptions of first hard, second hard and mild are not given.

There are some coloured illustrations of bricks which do not appear to reproduce very faithfully actual appearance. Other illustrations include photographs of a number of fireplaces of the kind of design which archi-

tecs have for years been hoping to find obsolete and which, with the recent improvement shown by a number of makers, one had really thought were being given up as too hideous. It is most unfortunate that they should be included in a major book of this kind.

There is a considerable number of illustrations showing construction details. A few of these have some questionable points and it is a pity that more explanation with dimensioned details is not given to the really tricky subject of the fireplace throat and lintel. The B.R.S. recommendation for flue liners to slow combustion appliances seems to be ignored.

18.158 construction: theory SOIL MECHANICS

Soil Mechanics related to Building. King & Creswell. (Sir Isaac Pitman & Sons Ltd. 1954. 16s.).

Booklet on soil mechanics for the Architect and Builder.

This work comprises a chapter on geology, five chapters on soil mechanics theory, laboratory work and application, and two chapters on general foundations.

The last two chapters will probably be of most interest to the architect as they deal with the choice of foundation and depth and point out some of the ways in which failures occur. Many references are given for further reading and there are both an author index and a subject index. The basic principles are explained in a very clear and easily understandable way throughout and a suitable warning is given on calling in the expert wherever there is the slightest doubt about the mechanical properties of the soil. Unfortunately a certain amount of experience is required before one becomes aware that there is perhaps some doubt.

24.178 lighting THE TECHNIQUE OF COLOUR AND FORM IN ARTIFICIAL LIGHTING

Lighting for Colour and Form—Principles, Equipment and Application. Rollo Gillespie Williams. (Sir Isaac Pitman & Sons, Ltd. (London). 45s. Od. net).

This book contains a great deal of information on the use of artificial lighting with especial emphasis on colour lighting for dis-

play purposes and the theatre. The author has addressed his book to a wide circle of readers including the architect, but much of the information is only likely to be of direct concern to the lighting specialist.

The book is divided into four sections: Light, Colour Perception and Rendition; Production and Control of Coloured Light; Psychological and Aesthetic Factors; Lighting Application Techniques. The chapters dealing with vision and colour and additive colour blending will be of interest to those wanting a straightforward account of the principles involved, but the chapter on architectural lighting is disappointing as the emphasis is on novelty and display. Most of the examples shown in this chapter are of theatre auditoria.

ENQUIRY FORM

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

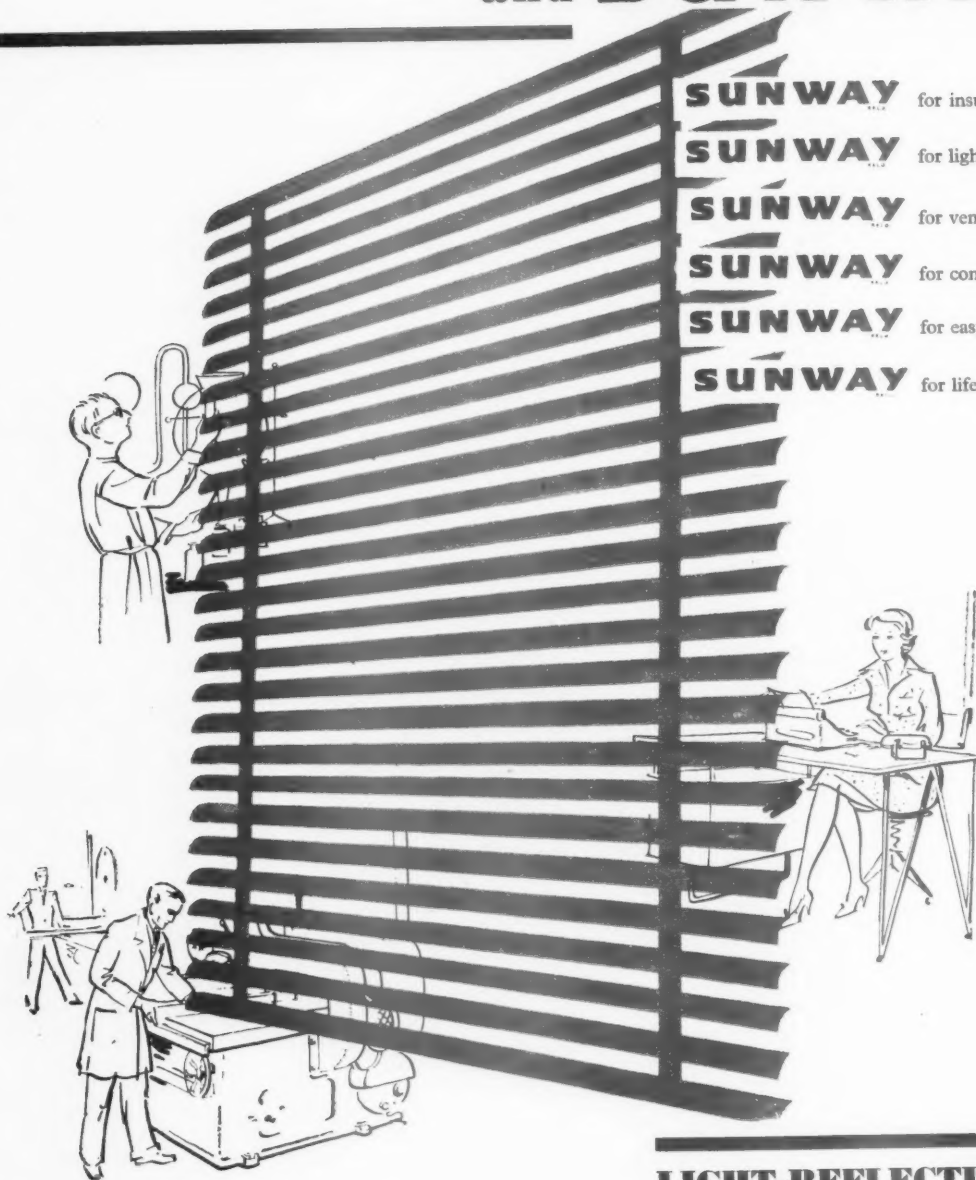
Please ask manufacturers to send further particulars to:—

NAME

PROFESSION or TRADE

ADDRESS

BROADGATE HOUSE and **SUNWAY** REGD



SUNWAY for insulating and fuel saving
SUNWAY for light conditioning
SUNWAY for ventilation
SUNWAY for comfort
SUNWAY for easy operation
SUNWAY for lifetime service

specify

SUNWAY

VENETIAN BLINDS



**VENETIAN VOGUE LIMITED,
 408, MONTROSE AVENUE,
 SLOUGH, BUCKS.**

LIGHT-REFLECTING BLINDS FOR COVENTRY.

Sunway Blinds were supplied to the City of Coventry Architectural and Planning Department, and have been fitted in Broadgate House.

By reflecting artificial light, Sunway's Aluminium slats will enhance the cheerfulness of every room. At the same time they will help to keep rooms warm in winter by conserving up to 35% of indoor heat, and cool in summer. By simple adjustment of the slats, Sunways admit air without causing draughts and without sacrificing privacy.

A Company of the Bell's Asbestos & Engineering Group.



THE LIBRARY OF INFORMATION SHEETS

This week part of the Technical Section is devoted to the customary annual review of the Library.

From time to time, and regularly each December, all Sheets are examined and checked, and where a manufacturer's products form the subject of a Sheet the manufacturer in question is asked to certify that the data are still current. Where a Sheet is found to require considerable modification, it is cancelled and readers should remove such Sheets from their collections. Where only small variations are involved, revision notes enable the Sheet to be corrected.

The Sheet 46.Z (A-F) published in the issue of 23.12.54 and the two Sheets 46.Z (G-P) and (R-Z) published in this issue give an up-to-date index cancelling all previous indexes.

On the following pages will be found a list of the revisions and cancellations which have become necessary during the year, and a statement of the contents of the Library with all Sheets current at this date in correct sequence. For the benefit of new subscribers, we also give information on the method of filing Sheets.

REPRINTS

To enable new subscribers to complete their Library all Sheets published since the inception of the new series in October, 1947, have been checked and reprinted. Readers requiring sets or individual Sheets should fill in the form printed in the adjoining column. Sets are available as follows:

Oct., 1947-Dec. 23, 1954 inclusive £4 10s. od.

Specially designed binding cases to hold approximately 100 Sheets may be obtained at the price of 5s. od. (postage 6d.) each. Individual Sheets may be ordered at the price of 3d. each, and the publishers will quote for sets not detailed above.

ORDER FORM

Please send me.....

.....

Name.....
(Block letters)

Address.....

.....

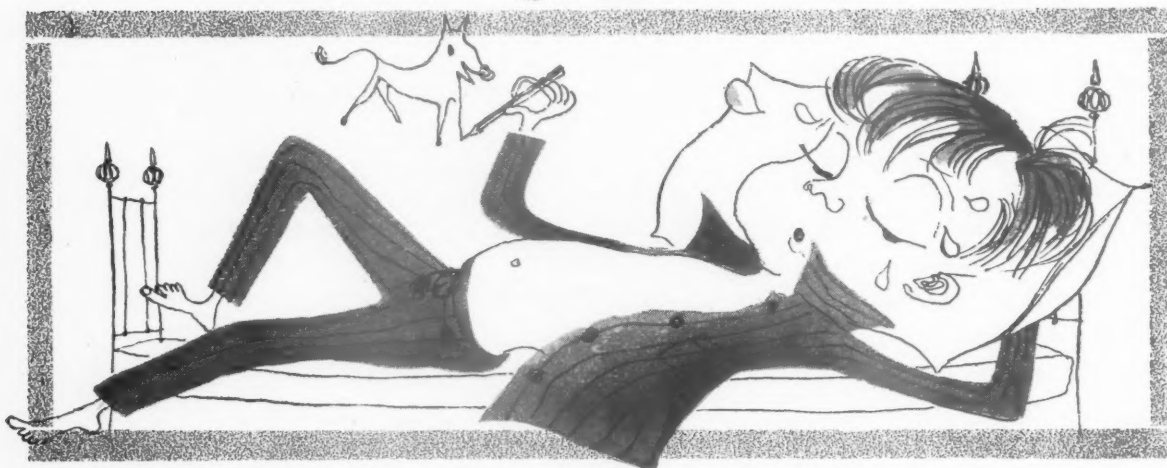
Meet Timothy Percival Augustus

after his bath and about to be embedded.
From a steaming hot bathroom he is crossing
an Alaskan landing to enter an Arctic bedroom.

No wonder he's always catching cold — he
lives in a sieve! Yes, a house that leaks heat
in all directions, especially through the roof.

The architect who designed it should be
made to wash all Tim's hankies . . .

What's to do about it? *



Meet Timothy Percival Augustus.

drawing rude horses on the wall, because he's too hot to sleep,
because there's no roof insulation to keep the house cool,
because the architect didn't know, didn't care, or forgot to . . . *

* *wrap him in*

FIBREGLASS
TRADE MARK

House-warming, fuel-saving in winter, cool-keeping in summer, peace
and quiet-making all the year round — that's Fibreglass . . . rot-proof,
everlasting, inexpensive, easily-installed Fibreglass insulation.

FIBREGLASS LIMITED, RAVENHEAD, ST. HELENS, LANCs. (ST. HELENS 4224) FACTORIES AT ST. HELENS, LANCs. AND POSSILPARK, GLASGOW

FILING INSTRUCTIONS

Every Information Sheet is perforated so that it may be readily removed from the JOURNAL and has a classification symbol printed in the top corner, for example, 32.C20. The key to the classification system is contained in Sheet 1.A1, reference to which should make filing a simple matter.

The first number of the symbol, 32, refers to one of the 46 main subjects into which the Library has been divided (in this case, water heating): the letter that follows refers to the section, C (in this case, units: gas), under subject 32: the final number indicates the position in which the Sheet is to be placed in the appropriate section.

Every December a check list of the contents of the Library is issued showing the correct sequence of all Sheets published to date. Throughout the year, any revisions to or cancellations of Sheets are noted in the JOURNAL and the Editor will always be pleased to assist if any difficulty is encountered in keeping the Library in order.

CORRECT SEQUENCE OF COMPLETE LIBRARY AT DECEMBER 23, 1954

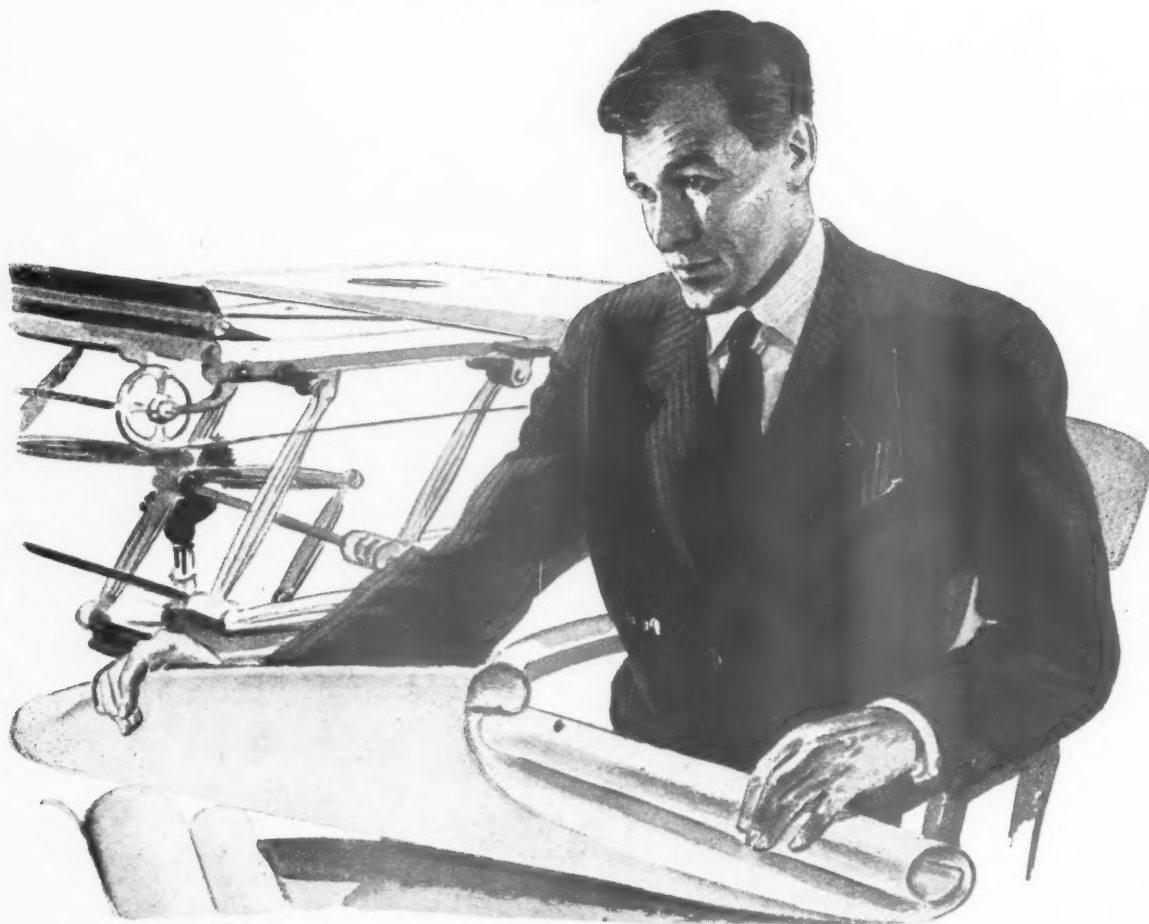
1.A1	1.A2	1.A3	1.B1	1.B2	1.B3	14.N6 (R'49)	14.N7 (R'49)	14.N8 (R'49)	14.N9 (R'49)	15.B4	15.C1 (R'54)	28.B1	28.E2 (R'54)	28.E20 (R'53)	29.A1 (R'53)	29.C1 (R'50)	29.C2 (R'52)
1.B4	1.B5	1.B5a	1.B6	1.B7	1.B8	15.C2 (R'54)	15.C3	15.C4 (R'53)	15.C11	15.R1 (R'54)	15.S2	29.C3	29.C10 (R'52)	29.F1	29.G1	29.H1 (CR'53)	29.H2
1.B9	1.B10	1.B11	1.B12	1.B13	1.B14	15.S6 (CR'54)	15.S7	15.S8	15.T6	15.T7	15.T8	29.J1	29.J3	29.J4 (R'51)	29.J5 (R'51)	29.J6	29.J10
1.B15	1.B16	1.B18 (R'51)	1.B19	1.B20	1.B21	15.T9	15.Z1 (CR'51)	15.Z2	16.B1	16.C1	16.J1	29.J11	30.A1	30.B1	30.B2 (R'54)	30.B3	30.B4
1.B22	1.B23	1.B24	1.B25	1.B26	1.B27	17.B1	17.B2	17.D1 (R'54)	17.D2 (R'54)	17.H1	18.E1	30.B5	30.C1 (R'49)	30.C2	30.C3 (R'54)	30.D10	30.D11
1.B28	1.B29	1.B30	1.B31	1.B32 (R'51)	1.B33	18.F1 (R'51)	18.F2	18.G1 (R'53)	18.H1	19.F1	19.F2	30.D12 (R'52)	30.D21 (R'54)	30.E1	31.C2	32.B1 (R'54)	32.C3 (R'52)
1.B34	1.B35	1.B36	1.B37	1.B38	1.B39	19.F3	19.F11	19.G1 (CR'54)	19.G2 (CR'54)	19.G3 (CR'54)	19.G4 (CR'54)	32.C10	32.C11	32.C20 (CR'53)	32.C21 (R'53)	32.C22 (R'53)	32.C23 (R'53)
1.B40	1.B41	1.B48	1.B49	1.B55	1.B56	19.J2 (R'54)	19.Z1	19.Z10 (R'54)	20.C1	20.C2	20.C3	32.C24 (R'53)	32.C25 (R'53)	32.C26 (R'53)	32.C27 (R'53)	32.C28 (R'53)	32.C29 (R'53)
1.B57	1.B60 (R'54)	2.A1 (R'49)	2.A2	2.A3	2.A4	20.C4	20.C10 (CR'54)	20.C12	20.C13	20.D1 (R'54)	20.Z1	32.C30 (R'53)	32.C31 (R'53)	32.C32 (R'53)	32.D7 (R'52)	32.D8	33.B1
2.A5	2.B1	2.B2	2.B3	2.B4 (R'50)	2.B5	20.Z2 (R'52)	20.Z5	20.Z6	21.C1	21.E2	21.G1 (R'51)	33.B2	33.B3 (R'54)	33.C1 (R'54)	33.C2 (R'54)	33.C3 (R'54)	33.C4 (R'54)
2.H1	2.H2	4.A1	4.A10	4.A11	4.A12	21.G2	22.D1 (CR'54)	22.D2 (CR'54)	22.D3 (CR'54)	22.D12	22.D13 (R'50)	33.C5 (R'54)	33.C6 (R'54)	33.C7 (R'54)	33.C8 (R'54)	33.C9 (R'54)	33.C10 (R'54)
4.A13	4.A14	4.A20	4.E1 (CR'53)	4.E2	4.L1	22.D16 (R'53)	22.E1 (R'51)	22.E2 (R'51)	22.F1 (R'51)	22.F2	23.B1 (R'52)	33.C11 (R'54)	33.C12 (R'54)	33.D1	33.K1 (R'54)	33.P1 (CR'53)	33.Q1 (CR'53)
4.L2	4.L3	4.L4 (R'54)	4.L5	4.L10	4.L11	23.B2	23.C1 (R'53)	23.C2 (R'53)	23.C3 (R'53)	23.E1	23.H1	33.Q2 (R'50)	33.Q3 (R'53)	33.Q4 (R'54)	33.Q5	33.U1	33.U4
4.N1	4.N2	5.B1	6.A1 (R'53)	6.A10	6.A11	23.H2	23.H3	23.H4	23.H5	23.H6	23.Z1	33.U5	35.B2	36.A1	36.B1 (R'54)	36.D1 (CR'50)	36.D2
6.A20	6.A21	6.B1	6.Z1 (R'53)	6.Z2	6.Z3	23.Z2	24.C1 (R'54)	24.C2 (R'54)	24.C3 (R'54)	24.D1 (R'53)	24.D2 (R'53)	37.C1 (R'50)	37.D1 (R'54)	37.D2 (R'54)	37.D3	37.D4	37.H1
6.Z5	7.C1 (R'51)	7.C2 (R'51)	8.E1 (CR'53)	8.F1	9.C1	24.D3 (R'53)	24.D4 (R'53)	24.D8 (R'53)	24.J1	24.J2 (R'53)	24.M1	S37.H1	37.H2	37.H3	37.H4	37.H10	38.A1
10.B1 (CR'52)	10.B2 (R'53)	10.B3 (R'52)	10.B4	10.F1 (R'54)	10.G1 (R'54)	24.M2	24.M3 (R'53)	24.N1	24.N2	24.N3 (R'53)	24.S1	38.B1	38.C1	38.C2	38.C3	38.D1	38.D2
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10.G11 (R'54)	10.G12 (R'54)	10.G13 (R'54)	10.G14 (R'54)	10.G15 (R'54)	10.G20 (R'54)	25.A4	25.A5	25.A6	26.A1 (R'54)	26.C1 (R'50)	26.C2	42.C1	42.C2	42.C3	42.C4	42.C5	42.D1
10.G21 (R'54)	10.G22 (R'54)	10.J1	10.J2	10.J3 (R'53)	10.J4	26.D1	26.D2	26.D6	26.E1 (R'54)	26.E2 (R'53)	26.F1 (R'54)	42.E1	42.K1 (R'53)	42.L1	43.E1 (R'54)	43.E2 (R'54)	43.F12 (R'53)
11.C1 (R'52)	12.F1 (R'52)	12.N1	13.C10	13.C11 (R'51)	13.C12 (R'51)	26.F2 (R'54)	26.F3 (R'54)	26.F4 (R'54)	26.J3 (R'51)	26.J6	26.J20	43.E15 (R'53)	43.E16 (R'51)	43.Z2 (CR'49)	43.Z3	43.Z4	44.D1 (R'53)
13.H1 (R'54)	14.B1 (CR'54)	14.B2 (CR'54)	14.B3 (CR'54)	14.L4 (R'51)	14.L11	26.M1	26.M2	26.M3	27.B9 (R'51)	27.B10 (R'54)	27.B11 (CR'54)	44.D2 (R'51)	44.E1	44.E2	44.J1	45.A1 (R'54)	
14.M1 (R'49)	14.N1 (R'49)	14.N2 (R'49)	14.N3 (R'49)	14.N4	14.N5 (R'49)	27.C1 (R'54)	27.F1 (R'54)	27.Z1	28.A1 (R'53)	28.A2 (R'53)	28.A3 (R'53)	46.Z (Three Sheets)					

The letter R after the number of the Information Sheet indicates that the Sheet has been revised and is followed by the year in which the latest revision was made. The letters CR indicate that the Sheet has been cancelled and republished and are followed by the year of re-issue.

Think of a number

No, not just any number but a very special one. "3.75" in fact.

It represents the thickness in millimetres of our rubber flooring between the standard $\frac{1}{8}$ " gauge (inadequate for many jobs) and $\frac{3}{16}$ "—hitherto the only (and more costly!) alternative. "3.75" has the answer for practically every flooring job, the *right* answer in weight and cost. Of course, we're happy to supply rubber flooring of any thickness but we think "3.75" gauge is pretty good . . . thought you'd like to know about it. If you'd like to learn more about the wide range of sizes and colours available in "3.75", our representative has all the answers. Incidentally, that's another number you should note. CITY 2471 . . . the telephone number of 'the man from Runnymede'.



RUNNYMEDE RUBBER CO. LTD. 6 OLD BAILEY, LONDON.

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REVISIONS 1954

1.B60—The range of sizes has been extended and the manufacturer should be consulted for details.

4.I4—Reverse of Sheet—Under heading "Bibliography," the publishers of "Theatres and Auditoriums" by Meyer and Cole, was incorrectly given as Reinhardt, instead of Reinhold.

10.F1, 10.G1-6, 10.G10-15, 10.G20-22, 26.A1 and 33.C1-12—The organization supplying the information for these Sheets is now known as the Lead Sheet and Pipe Council.

10.G1-6, 10.G10-15, 10.G20-22, see 10.F1.

15.C1—Reverse of Sheet—Under heading "Jointing Generally," delete sentence "In addition to the examples . . . weatherboard effect." Under heading "Working," revise end of paragraph to "24 to 48 hours before use." Under heading "Applied Finishes," subheading "Distemper," add to end of sentence "or special fibreboard sealer." Delete all references to building board on the Sheet except under "Jointing Generally," 3rd line, where it should be amended to "insulation board."

15.C2—Reverse of Sheet—Under heading "Conditioning of Boards before Use," sentence should read "Hardboards should be moistened on the matt surface and stacked 24 to 48 hours before use."

15.R1—Reverse of Sheet—Under heading "Standard Sheets," in the last column of the table, first two entries should read 2½ lb. instead of 2¼ lb. Under heading "Finish," subheading "Galvanised," sentence should read "Standard finish for general use." Under heading "Fire Resistance," third sentence should begin "This removes any danger . . ." It should also be noticed that a further test was carried out in December, 1948, and that in both this and the previous one temperatures of approximately 1000° C. were reached.

17.D1-2—The manufacturer's telephone number is now Westerham 3206-9.

19.J2—Reverse of Sheet—heading "Fixing," 2nd paragraph, 2nd sentence, delete "preferably by means of a sandwich membrane laid in the concrete."

19.Z10—Sections No. 11 and T.B.S.5 are no longer obtainable.

20.D1—Face of Sheet—The design of the soil vent block has been changed: the hole for the vent pipe has been enlarged and moved from the centre, so that one side is now open, to be closed by the adjacent block. The overall dimensions of the block remain unchanged.

23.C1-3—The London address of Williams and Williams Ltd. is now 142, Sloane Street, S.W.1. Telephone: Sloane 0323 and that of Frederick Braby & Co. Ltd. is London Works, Thames Road, Crayford, Kent. Telephone: Bexleyheath 7777.

26.A1, see 10.F1.

26.E1—The address of the Glasgow office is now 169, Hamilton Road, Glasgow, E.2. Telephone: Shettleston 2927.

26.F1-4—Reverse of Sheet—Heading "Construction," subheading "Ladder," delete paragraph in heavy type, "At the time of publication . . ." Delete paragraph headed "Prices."

27.B10—Tiles 24 in. by 24 in. by 1½ in. or 1¼ in. are now available. In addition to the sizes given, the aluminium-alloy channels are now available 2½ in. by 1½ in. for use with 24-in. by 24-in. tiles. A spring locknut which also allows for levelling is obtainable for securing the channels to the hangers.

27.C1—Reverse of Sheet—heading "Material," ". . . the whole tile face having small perforations to a depth of ⅛ in." The telephone number of the Head Office is now Washington 3333, and offices at Western Bank Buildings, 200, Agnes Street, Belfast (telephone: Belfast 29561), and Windsor Street, Birmingham, 7 (telephone: Aston Cross 2266), should be added to the list.

27.F1—Reverse of Sheet—heading "Sound Absorption and Insulation," delete 1st sentence.

28.E2—Face of Sheet—Heading "Material," omit Grade No. 6 from table. Heading "Roof and Floor Screeds," subheading "Roof Screed—Specification Notes," 3rd line should read ". . . five 15-lb. bags of vermiculite." Omit all references to ready-mixed screeds as these are no longer available.

Reverse of Sheet—6th line from end of 1st paragraph should read ". . . 2½ lb. of vermiculite will be required per yd."

29.C1—Reverse of Sheet—Under heading "Components," subheading "Burner," "There are five alternative burners . . . covering the range of gas quality according to the Wobbe Index scale." Subheading "Taps," delete type 3, which is no longer available. Heading "Fixing," subheading "Brackets," add "An alternative fixing arrangement, the cradle bar, is now available for use with any form of surround (flat wall, tiled surround, etc.)."

29.C2—Reverse of Sheet—last sentence of 1st paragraph should read "The standard nozzle is supplied unless otherwise specified."

30.B2—Revisions to British Standards: BS.717 is now dated 1950 and "burning town gas" is added at end of title. BS.476 is now dated 1953 and entitled "Fire tests on building materials and structures." BS.65 is now dated 1952 and the title should read ". . . junctions and half section channels, tapers, bends and junctions." BS.715 is now dated 1951.

30.D21—Reverse of Sheet, under heading "General Design," 1st sentence, delete "or plastic." Heading "Construction," sub-heading "Louvers," 1st sentence, delete "plastic"; subheading "Gutters" paragraph should end ". . . to carry away rainwater." Heading "Finish" should begin "All the structural framework . . ." The address of the manufacturer's London office is now Chapone Place, Dean Street, London, W.1. Telephone: Gerrard 0526-9.

32.B1—Reverse of Sheet.—The figures in the table for the last three models should read as follows:—

55 M	51,000	102	51	65-70	22,440	153
65 M	55,000	110	55	75-85	24,200	165
80 M	65,000	130	65	90-100	28,600	195

33.B3—All references to D-D manipulative compression fittings should be deleted.

33.C1-12—see 10.F1.

33.K1—Face of Sheet—Floor Type, No. 3700: note on drawing should read "4½ in. i/d spigot for flue pipe."

Reverse of Sheet:—Address of William Sugg & Co. Ltd. is now Vincent Works, Regency Street, Westminster, S.W.1. Under heading "Flues," 1st sentence should be deleted.

33.Q4—The manufacturer's London address is now 75, Victoria Street, S.W.1. Telephone: Abbey 5846-8.

36.B1.—Face of Sheet—Isometric view of Everyway Hose-reel: the handle operating the shut-off nozzle cock should be in the "down" position, not up as shown. Front elevation: dimension shown as 1 ft. 4 in. is now 1 ft. 5 in., 11 in. is now 9 in., and 1 ft. 0 in. is now 9½ in.

Reverse of Sheet, under heading "Other Types of Soda-Acid Fire Extinguisher," last item, Model C.15 is now Model C.50.

37.D1.—Reverse of Sheet, under heading "British Standards for Service Pipes and Fittings" add BS.1740:1951 "Wrought pipe fittings, iron and steel, screwed B.S.P. thread" and amend the date of BS.143 to 1952. Delete BS.—"Steel fittings" and BS.—"Wrought iron fittings" and also "(Class A or B)" after the title to BS.534 : 1934.

37.D2.—Revisions to British Standards: BS.864 is now dated 1953 with "complying with BS.659 and BS.1386" added to title. BS.602 is now dated 1949 and BS.143, 1952. BS.1260, BS.1261, BS.617, BS.1043, BS.—"Steel Fittings" and BS.—"Wrought iron fittings" to be deleted from list and following added: BS.1737 : 1951 *Jointing materials and compounds for water, town gas and low-pressure steam installations*; BS.1250 : 1952 *Malleable cast iron (whiteheart process) and cast copper alloy pipe fittings for steam, air, water, gas and oil*; BS.1740 : 1951 *Wrought pipe fittings, iron and steel, screwed B.S.P. thread*; BS.1710 : 1951 *Colour identification of pipe lines*.

B.S.534, delete "(Class A and B)" at end of title. Under subheading "Further Information" add CP.3 : Chapter VII. 1950, *Engineering and utility services*.

42.B2.—Face of Sheet, table headed "Dimensions of Cylinders" add B.S. size number YS.5; inside diameter, 1 ft. 6 in.; height over dome, 3 ft. 0 in.; capacity, 30 gal.

43.E1.—Face of Sheet—drawing headed "Standard Work Top" : note should read "overhang 1 in. at front" deleting "½ in. at ends." Drawing headed "Type 2" : vertical division should be omitted.

Reverse of Sheet—under heading "Construction" : add at end of first paragraph "Plywood backs are supplied at the manufacturer's discretion." Sub-heading, "Work Tops," end of paragraph: delete "½ in." before "ply top" and delete also "and approximately ½ in. over each end." Under heading "Fittings," subheading "Handles" : delete sizes and add "and are supplied loose" after "hardwood."

43.E2.—Face of Sheet—Drawings headed types 9, 11, 13: vertical divisions should be omitted.

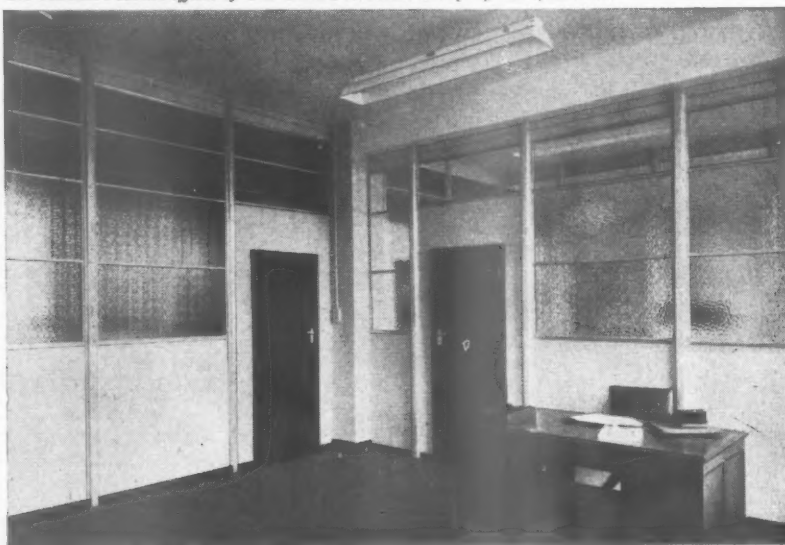
45.A1.—The colour ranges have been slightly revised and the manufacturer should be consulted for details.

46.Z (A-F).—Face of Sheet, under "Acoustics, mineral wool" 27.F2 should read 28.B1.

CANCELLATIONS

Sheets 15.S6, 19.G1, 19.G2, 19.G3, 19.G4, 22.D1, 22.D2, 22.D3 and 27.B11 were cancelled and republished this year. Sheet 14.B1 was cancelled and replaced by 14.B1, 14.B2 and 14.B3 published this year. Sheets 10.E1, 15.B1, 20.B1, 24.C2, 24.C3, 24.D8, 28.D1, 28.E10, 30.D1, 33.U10 and 35.B1 are being revised and will be republished. Sheets 14.L1, 14.L2, 14.L3, 15.B3, 20.C11, 24.E1, 26.J4, 26.J5, 31.B1, 31.B2, 31.C3, 32.D9 have been cancelled and should be withdrawn from the Library.

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BOSTON (Lines)	Calders Ltd., London Road (Boston 3247/8)
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* CASTLEFORD	Hickson's Timber Impregnation Co. (G.B.) Ltd. (Castleford 2607/9)
CRAWLEY	W. C. Youngman Ltd., Manor Royal, Surrey (Crawley 1234)
DOUGLAS (I.O.M.)	Quiggin & Co. Ltd., Lake Timber Yard, Douglas
DUBLIN	Dinan Dowdall & Co. Ltd., East Road (Dublin 41535)
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* KING'S LYNN	J. T. Stanton & Co. Ltd., St. Ann's Fort (King's Lynn 2605)
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LONDON	Burt, Boulton & Haywood Ltd., Brettenham House, Strand, W.C.2. (TEN 5801/8). (Plant at Belvedere)
LONDON	Calders Ltd., 29-31 Regent Street, S.W.1. (REG 7471) (Plant at Rotherhithe)
* LONDON	London Plywood & Timber Co. Ltd., Wharf Road, Ponders End, Middlesex (HOW 2424). (Plant at Ponders End)
* MANCHESTER (3)	J. Gerrard & Sons Ltd., Swinton (Swinton 2261)
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* PORTSMOUTH	Ballay & Whites Ltd., 451 Commercial Road (Portsmouth 2107)
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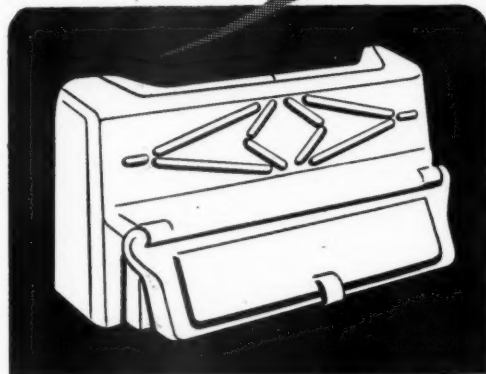
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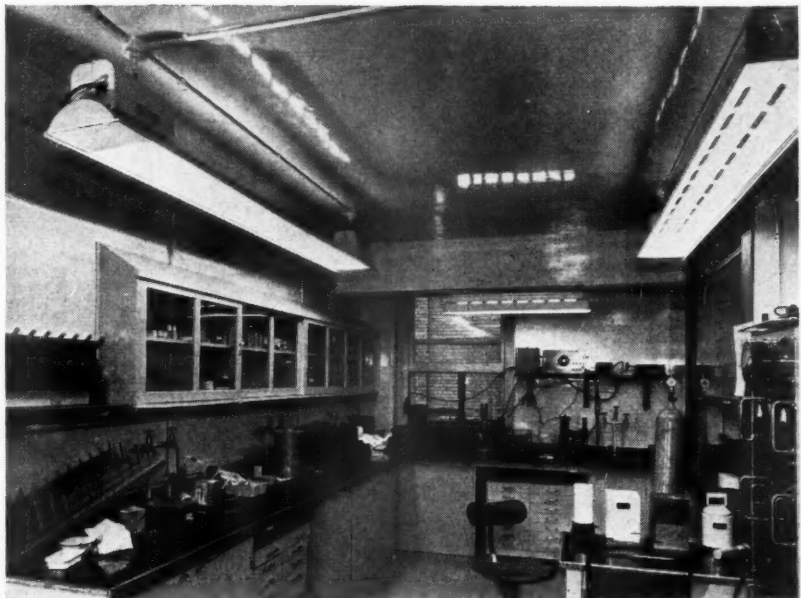
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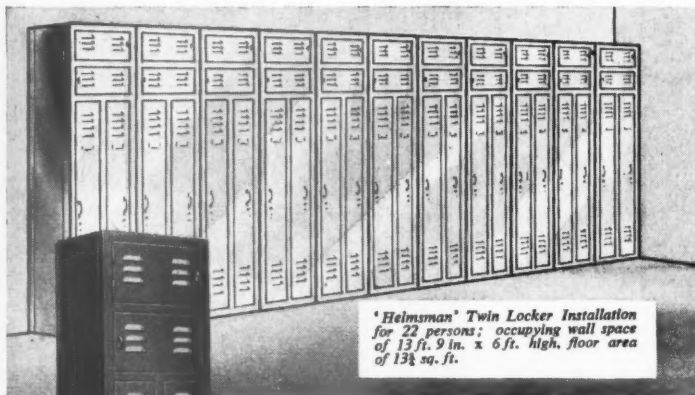
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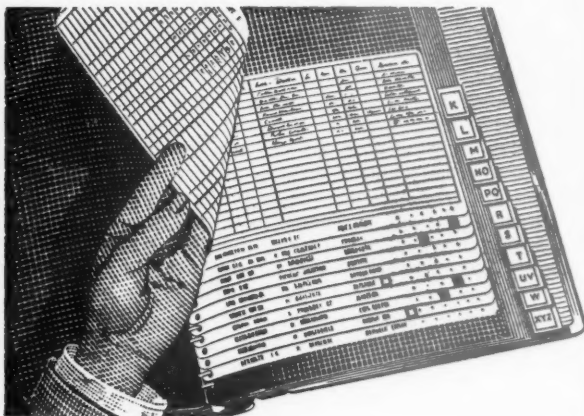
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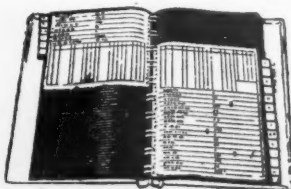
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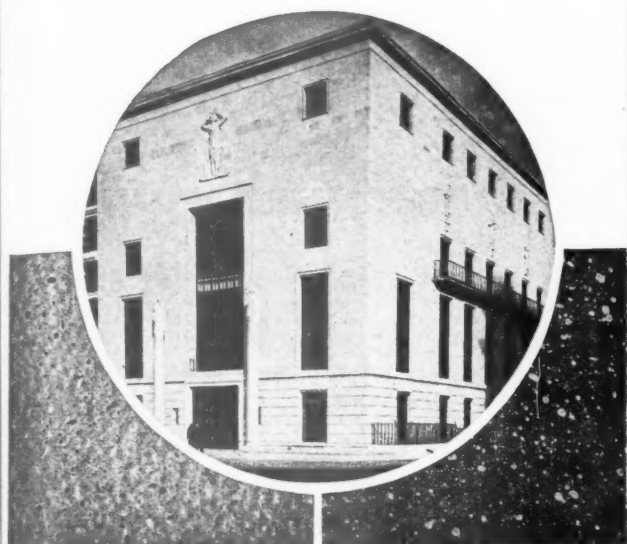
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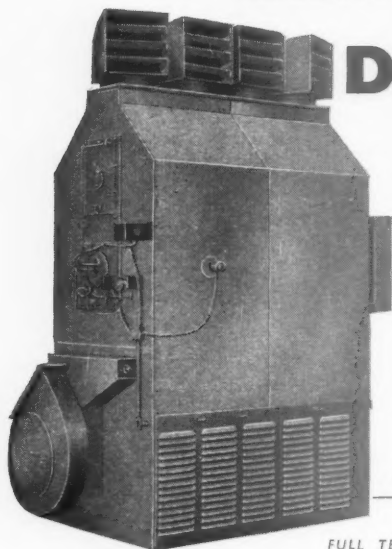
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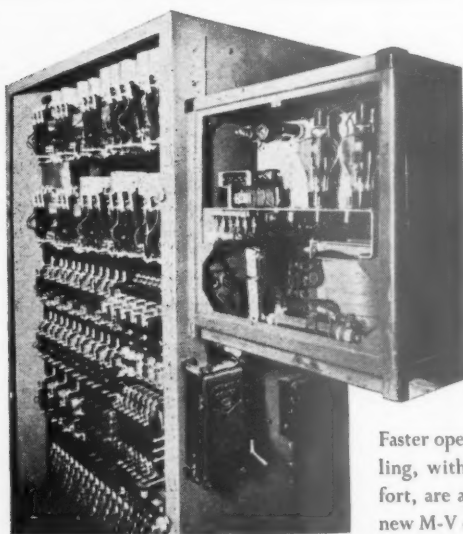
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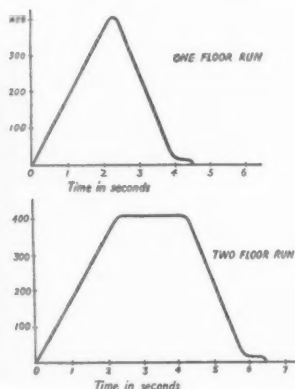
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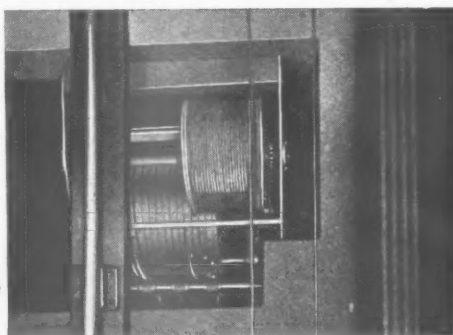
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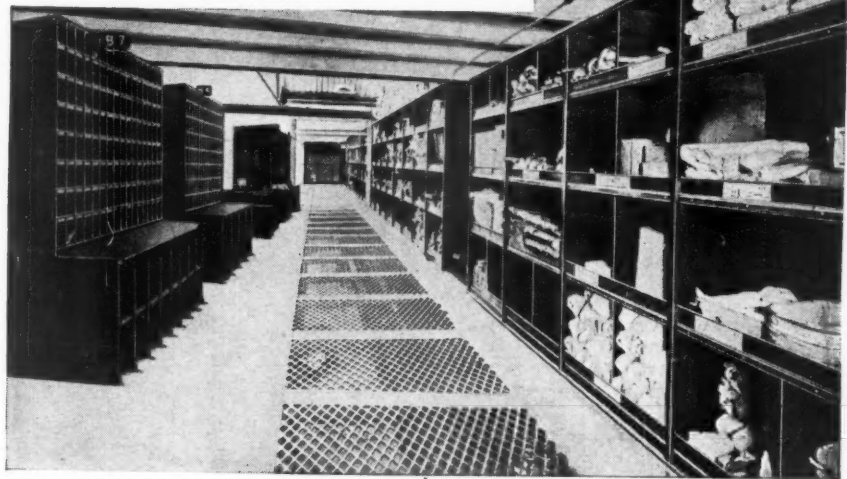
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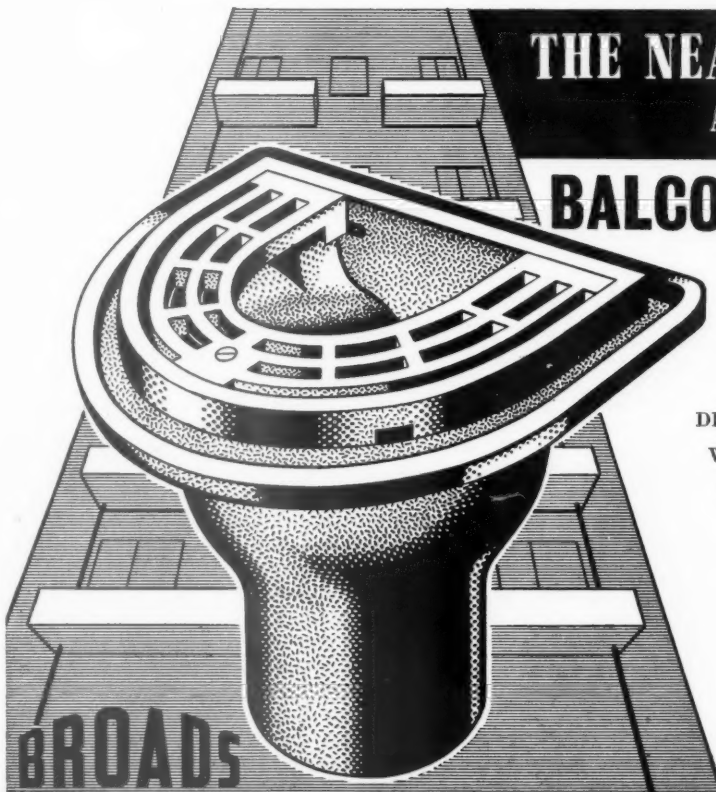
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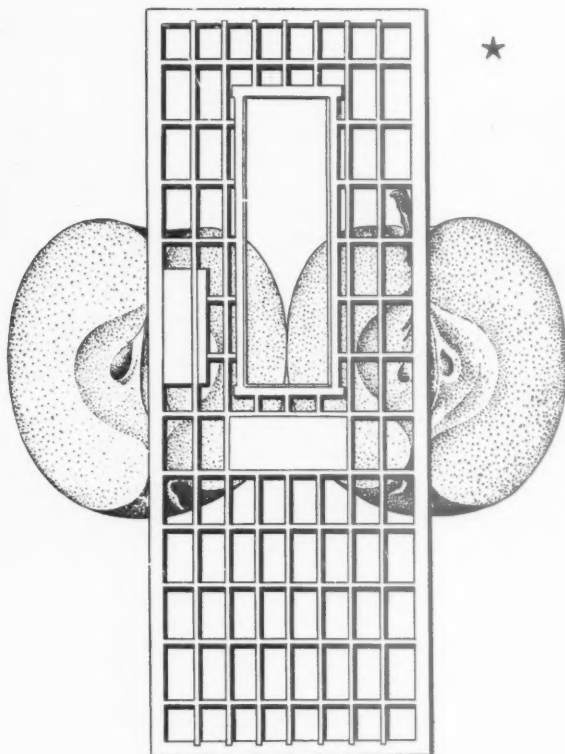
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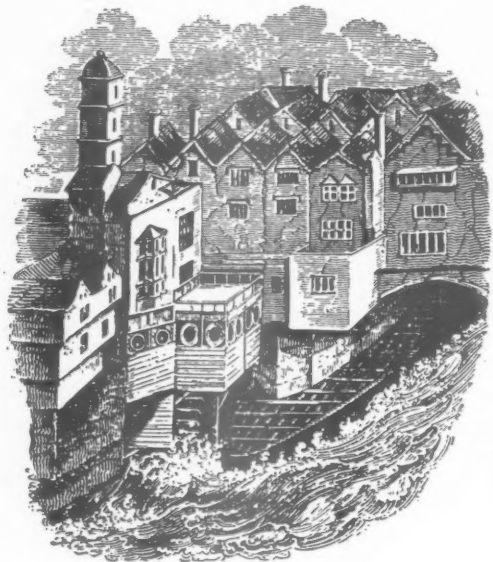
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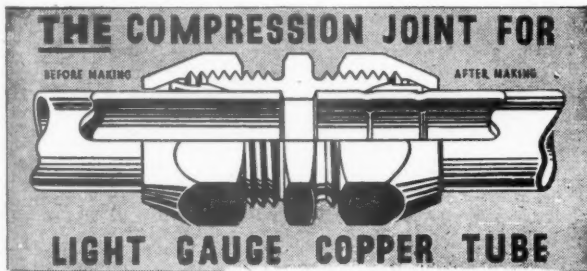
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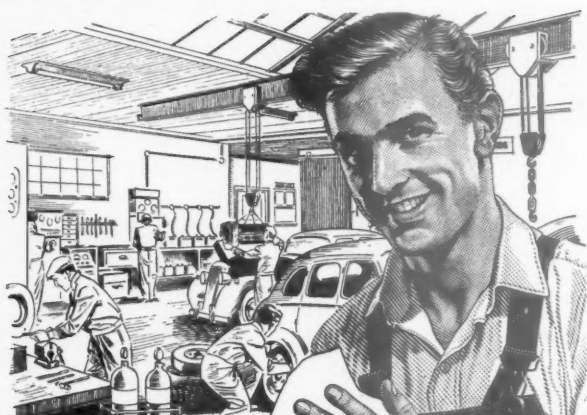
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Edited by D. A. C. A. Boyne, executive editor of
'The Architects' Journal'.

THE IMMEDIATE SUCCESS of *Architects' Working Details Volume 1* and the enthusiastic welcome it received (it is already in its second impression) encouraged editor and publisher to follow up swiftly with the preparation and publication of this new volume, number two in the series.

The purpose of this important series is two-fold: first, to provide architects and students with easily accessible solutions to innumerable everyday design problems; and second, to record the latest stages that the study of those problems has reached, and thus provide the architect with a time-saving starting point from which he can develop his own improvements and adaptations.

The contents of this second volume are classified under the same headings as those in Volume 1 (WINDOWS, DOORS, STAIRCASES, WALLS AND PARTITIONS, ROOFS AND CEILINGS, BALCONIES, COVERED WAYS AND CANOPIES, HEATING AND FURNITURE AND FITTINGS) and a new heading, LIGHTING, has been added. The details appearing under those headings have, as in the case of Volume 1, been selected from the series of Working Details now-regularly appearing in the *Architects' Journal*; they all represent recent work of leading architects and show the actual details used in the solution of a wide variety of contemporary design problems.

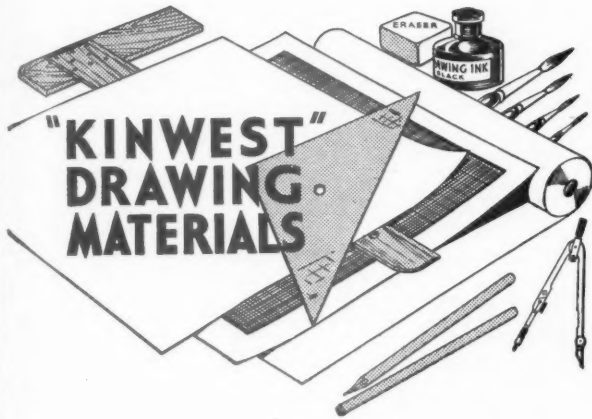
Future volumes will contain further examples under each of the present headings, and from time to time additional subjects will be introduced, so that the architect will be provided with a gradually accumulating and always up-to-date reference library of useful



details. The series is thus a continuous one, but, at the same time, each individual volume is self-contained and is offered for sale separately.

The presentation of the volumes is simple; each Detail is illustrated by a large photograph immediately facing its relevant detailed working drawing. The volumes are specially bound so that they may be opened at any point and laid flat on desk or drawing board. Size 11½" x 8¼", with 160 pages; price per volume, 21s. net. Postage: Single volume, 1s. 3d. Both volumes, 1s. 8d.

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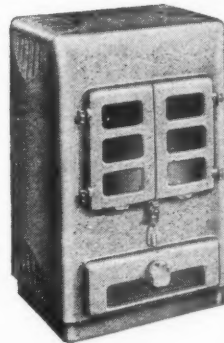
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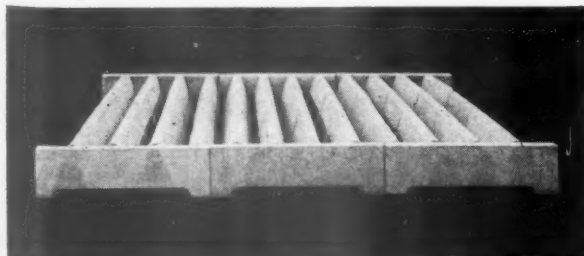
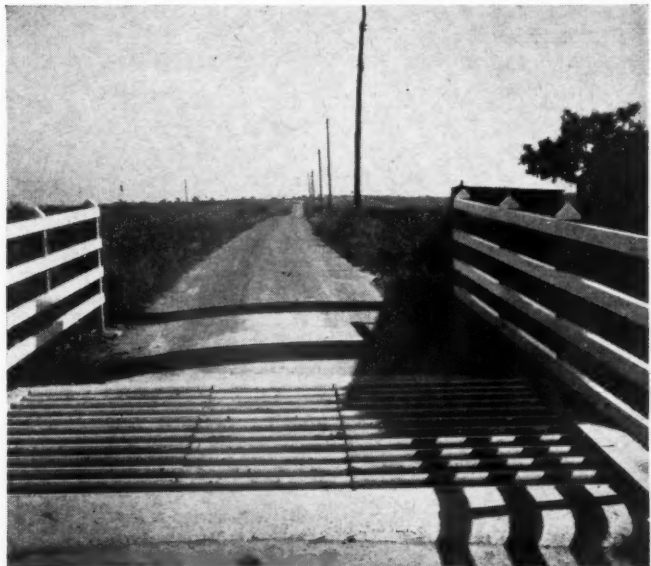
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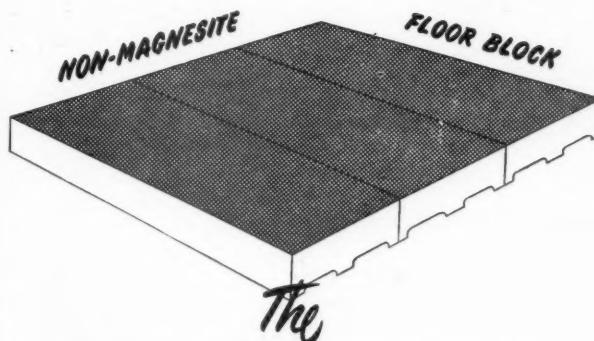
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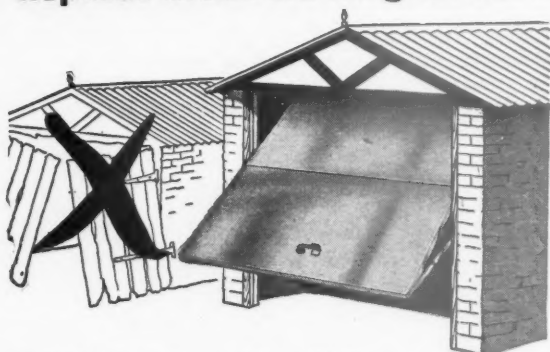
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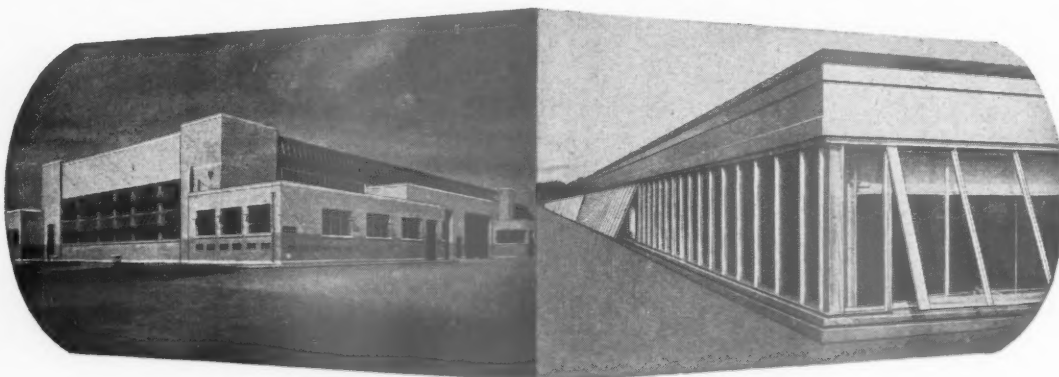
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CLASSIFIED ADVERTISEMENTS

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

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

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

LONDON COUNTY COUNCIL.
Grade III ENGINEERS (salary up to £892 10s.) and SURVEYING ASSISTANTS (up to £739 10s.) required in District Surveyor's Service. Qualifications A.R.I.B.A., A.M.I.Str.E., or A.R.I.C.S.; structural knowledge essential. Particulars and application forms from Architect (AR/EK/DS/2), County Hall, S.E.1. (1025) 3511

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Architects and surveyors required for safety regulations of theatres and special buildings, and for general building regulation work. Salaries up to £892 10s., according to experience. A.R.I.B.A. or A.R.I.C.S. essential. Particulars and application forms from Architect (AR/EK/TBR/3), The County Hall, S.E.1. (848) 3487

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MINISTRY OF WORKS.
LEADING ARCHITECTURAL ASSISTANTS required for drawing offices in the Chief Architect's Division in London, Edinburgh and various provincial offices.

Candidates must have had at least three years architectural training, good experience in an architect's office, and be of Intermediate R.I.B.A. standard. London salary £710-£834 per annum. Rates elsewhere slightly less. Starting pay according to experience. Prospects of promotion and establishment.

State age, full details of training and experience, and office desired, to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/C.A.10(F), Abell House, John Islip Street, London, S.W.1. 4732

LONDON ELECTRICITY BOARD.
ARCHITECTURAL DRAUGHTSMEN.

Applications are invited for the above positions in the Architect's Section of the Chief Engineer's Department in Central London.

Applicants should be neat draughtsmen and preferably have had several year's experience in an Architect's office.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 6-£535 10s.-£661 10s. per annum, inclusive of London Allowance.

Application forms obtainable from the Personnel Officer, 46, New Broad Street, E.C.2, to be returned by 22nd January 1955. Please enclose addressed envelope and quote ref.: V/1785/A on envelope and all correspondence. 7046

COUNTY BOROUGH OF SOUTHEAST-ON-SEA.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following established posts:—

ASSISTANT ARCHITECTS:
Senior Assistant Architect, Grade A.P.T., VIII.
Senior Assistant Architect, Grade A.P.T., VII.
Assistant Architect, Grade A.P.T., V.
Assistant Architect (Female), Grade A.P.T., IV.
(Applicants should be Associate Members of the Royal Institute of British Architects.)

ASSISTANT QUANTITY SURVEYORS:
Senior Assistant Quantity Surveyor, Grade A.P.T., IX (with possible promotion in due course to Chief Quantity Surveyor, A.P.T., X).
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Assistant Quantity Surveyor, Grade A.P.T., V.
(Applicants should be Associate Members of the Royal Institute of Chartered Surveyors.)
The above refer to the old grades of salaries, and are subject to revision and increase from the 1st January, 1955.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the J.I.C. Scheme of Conditions of Service. In each case the successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and experience, with the names of two persons to whom reference can be made, should be submitted to the Borough Architect, 30, Alexandra Street, Southend-on-Sea, not later than the 14th January, 1955.

ARCHIBALD GLEN, Town Clerk. 6054

METROPOLITAN BOROUGH OF WOOLWICH.
BOROUGH ENGINEER'S DEPARTMENT.

The Council requires:—

(a) SENIOR ARCHITECTURAL ASSISTANT, Grade V, commencing £750 rising to £900, plus London Weighting. A.R.I.B.A. or equivalent essential. Superannuation Scheme. Medical Examination.

Application forms from Borough Engineer, Town Hall, Woolwich, S.E. 18.

(b) ARCHITECTURAL ASSISTANT, Grade III-V. Unestablished Post. Commencing £500 rising to £900, plus London Weighting. Applicants should be qualified and state their age, qualifications and experience and give two referees.

Applications for both vacancies to be submitted to the Town Clerk by 15th January, 1955. Canvassing disqualifies. 6084

MINISTRY OF WORKS.

ARCHITECTURAL ASSISTANTS required for drawing offices in London, Edinburgh and various provincial offices, including Aldermaston, Berks; Harwell, Berks; Nancukke, Cornwall; Ranskill, Notts; and Bishopston, Renfrew.

Candidates must have had at least three years architectural training, some experience in an architect's office, and be of Intermediate R.I.B.A. standard.

London salary £442-£695 per annum. Rates elsewhere slightly less. Starting pay according to age and experience. Prospects of promotion and establishment.

State age, full details of training and experience and office desired, to E. Bedford, Esq., C.V.O., A.R.I.B.A., Chief Architect, Ministry of Works, W.G.10/C.A.10(F), Abell House, John Islip Street, London, S.W.1. 4731

NORFOLK COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following posts:—

CHIEF ASSISTANT ARCHITECT, A.P.T., Grade V (£750 × £30-£900). Candidates must be qualified, with good general experience in design, construction, and all aspects of handling building contracts.

ARCHITECTURAL ASSISTANT, A.P.T., Grade II (£560 × £20-£640). Candidates should be of Intermediate R.I.B.A. standard, with general office experience.

Both appointments are permanent and are subject to Local Government Superannuation Acts and National Joint Council Service Conditions.

Applications, stating age, full details of training, experience, qualifications, past and present appointments, and names of three referees, to Mr. C. H. Thurston, County Architect, 27, Thorpe Road, Norwich, by 17th January. 6097

THE CORPORATION OF GLASGOW.
ARCHITECTURAL AND PLANNING DEPARTMENT.

DEPUTY PLANNING OFFICER.

Applications are invited for the appointment of Deputy Planning Officer in the above Department under the direction of the City Architect and Planning Officer, at a salary within the scale of £1,300 × £40-£1,500 per annum. The point of entry on the scale will be according to experience and qualifications.

Candidates should have good experience with a local planning authority in connection with development plan and development control, as well as all-round post-war experience in the field of positive planning and redevelopment. Applicants should possess an appropriate professional qualification and, in addition, should be corporate members of the Town Planning Institute.

The appointment will be subject to the provisions of the Corporation's Superannuation Scheme and to the passing of a medical examination and will be terminable by one month's notice in writing by either party.

Applications, stating age, full particulars of experience and qualifications, accompanied by copies of not more than two recent testimonials together with the names and addresses of two referees, should be sent to the undersigned within 14 days of the publication of this advertisement.

WILLIAM KERR, Town Clerk.

City Chambers, Glasgow, C.2. 7037

BOROUGH OF ILFORD.

BOROUGH ENGINEER'S DEPARTMENT.
(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T., IV/VI.

(b) ASSISTANT ARCHITECT, Grade A.P.T., IV.

Salary for post (a) £675-£1,000 per annum, plus London weighting. Commencing salary (not exceeding £840 p.a., excluding London weighting) commensurate with qualifications and experience. Salary for post (b) £675-£825 per annum, plus London weighting.

Candidates for both appointments must be Associate Members of the R.I.B.A., and have thorough knowledge of architectural works, particularly in regard to the design and development of public buildings of all types. For appointment (a) candidates should have had a minimum period of six years' practical experience as above-mentioned. Posts permanent, superannuable, and subject to medical examination.

THE COUNCIL IS PREPARED TO CONSIDER, IF NECESSARY, THE PROVISION OF HOUSING ACCOMMODATION IN CONNECTION WITH BOTH THESE APPOINTMENTS.

Applications on forms obtainable from the Town Clerk, Town Hall, Ilford, on receipt of stamped, addressed envelope, to be returned by 15th January, 1955. 7069

COUNTY BOROUGH OF SMETHWICK.
BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications from candidates, appropriately qualified, are invited for the following appointments:—

(1) PRINCIPAL ARCHITECTURAL ASSISTANT, salary (new A.P.T. V) £750-£900 per annum.

(2) ARCHITECTURAL ASSISTANT, salary (new A.P.T. III) £600-£725 per annum.

The work of this section of the department includes housing, housing redevelopment, new schools and general municipal building.

(3) SENIOR ENGINEERING ASSISTANT, salary (new A.P.T. V) £750-£900 per annum.

(4) ENGINEERING ASSISTANT, salary (new A.P.T. IV) £675-£825 per annum.

Previous experience in housing redevelopment, road and sewerage works will be an advantage.

(5) Two TOWN PLANNING ASSISTANTS, salary (new A.P.T. IV) £675-£825 per annum. Applicants should have had experience in Town Survey and Schemes of Redevelopment.

(6) PRINCIPAL QUANTITY SURVEYING ASSISTANT, salary (new A.P.T. V) £750-£900 per annum.

(7) Two QUANTITY SURVEYING ASSISTANTS, salary (new A.P.T. IV) £675-£825 per annum.

The work to be undertaken comprises Building and Civil Engineering quantities and the preparation of estimates.

(8) BUILDING SURVEYOR, salary (new A.P.T. V) £750-£900 per annum.

The successful applicant will be required to carry out periodic inspection of municipal buildings, prepare dilapidation reports and valuations.

The above posts are subject to the provisions of the National Scheme of Conditions of Service, the Local Government Superannuation Acts 1937-53, to the passing of a medical examination and to termination by one month's notice on either side.

Forms of application can be obtained from the Borough Engineer & Surveyor, Council House, Smethwick, and should be returned, suitably endorsed, together with copies of two recent testimonials, not later than 24th January, 1955.

E. L. TWYCCROSS, Town Clerk.

Council House, Smethwick, 40. 7079

THE URBAN DISTRICT COUNCIL OF FELLING.

CHIEF HOUSING OFFICER'S DEPARTMENT.

Applications are invited for the following appointments in the Department of the Chief Housing Officer, Mr. R. Morton, A.R.I.C.S.:—
(a) ARCHITECTURAL ASSISTANT, Salary Amended Grade A.P.T. IV. Applicants should have passed the Final Examination of the Royal Institute of British Architects.

(b) ENGINEERING ASSISTANT — Salary Amended Grade A.P.T. IV. Applicants should have passed the Final Examination of the Institution of Municipal Engineers or Sections A and B of the Examination of the Institute of Civil Engineers.

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

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

Forms of application together with particulars and conditions of employment can be obtained from the undersigned, to whom they should be returned not later than Monday, the 17th January, 1955.

Housing accommodation will be provided if required.

JOHN DONKIN, Clerk of the Council.

Council Buildings, Felling, Gateshead, 10. 7063

UNIVERSITY OF PENNSYLVANIA.
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FELLOWSHIPS IN LANDSCAPE ARCHITECTURE.

Two Fellowships, to the value of \$1,250 each, are available for post graduate study in Landscape Architecture. The Fellowships have the duration of one year, but can be extended beyond the initial period. The cost of tuition is \$700 per annum. To be eligible, candidates must have completed an undergraduate curriculum in either landscape architecture or architecture.

Applications should be made, not later than 1st March, to The Dean, The School of Fine Arts, University of Pennsylvania, Philadelphia 4, Pennsylvania, U.S.A. 7040

LANCASHIRE COUNTY COUNCIL—
PLANNING DEPARTMENT.

SENIOR PLANNING ASSISTANT (ARCHITECTURAL) amended A.P.T. Grades III-IV (£600-£825) required at Preston. Candidates should be qualified architects, knowledge of civic design an advantage. Salary within grades according to qualifications and experience. Duties include the preparation of layouts for housing estates and redevelopment schemes and constructional drawings for houses and ancillary buildings. Applications giving age, qualifications, experience, salary, and two referees to County Planning Officer, East Cliff County Offices, Preston, by the 21st January, 1955. 7008

BOROUGH OF KETTERING.
APPOINTMENT OF JUNIOR ARCHITECTURAL ASSISTANT.
Applications are invited for the above appointment at a salary in accordance with Grade A.P.T. I (£500 × £20-£580). Applications with the names of three referees to be sent not later than 15th January, 1955, to the Town Clerk, Town Clerk's Office, Kettering. 7050

BOROUGH OF WIDNES.
BOROUGH ARCHITECT'S DEPARTMENT.
Applications are invited for the appointment of:

ARCHITECTURAL ASSISTANTS, Grade A.P.T. IV (£675-£825).
Applicants must be registered architects, preferably Associate Members of the R.I.B.A. Experience with a Local Authority will be an advantage. Housing Accommodation will be provided if needed.

The appointments will be subject to the National Scheme of Conditions of Service as adopted by the Council to the Local Government Superannuation Acts, and to the successful candidates passing a medical examination. Applications, stating full particulars of age, experience and qualifications, present and previous employment (with dates) together with the names and addresses of two referees, to be sent to the Borough Architect, Brendan House, Widnes Road, Widnes, not later than 10 a.m. Monday, 24th January, 1955. Canvassing directly or indirectly will disqualify.

FRANK HOWARTH,
Town Clerk. 7049

Town Hall,
Widnes.
28th December, 1954.

THURROCK URBAN DISTRICT COUNCIL.
ARCHITECTURAL ASSISTANTS.

Applications are invited for the appointment of two ARCHITECTURAL ASSISTANTS at salaries within the new Grade II of the A.P.T. Division of the National Scale of Salaries, i.e., £560 rising to £640 per annum.

General Architectural experience is necessary. Applicants must be capable of preparing detailed plans and specifications and supervising housing schemes. Candidates should have passed the intermediate examination of the Royal Institute of British Architects.

Housing accommodation, if necessary, may be provided for the successful applicants if they live more than 20 miles from the Thurrock Urban District.

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

Applications, endorsed "Architectural Assistant Grade II," stating age, qualifications and experience, with copies of three recent testimonials, should reach the undersigned not later than Wednesday, 12th January, 1955.

Canvassing will disqualify, and applicants must disclose in writing any relationship to any member or senior officer of the Council.

A. E. POOLE,
Clerk of the Council. 7047

Council Offices,
Whitehall Lane,
Grays, Essex.

URBAN DISTRICT COUNCIL OF CORBY.
ENGINEER AND SURVEYOR'S DEPARTMENT.

Applications are invited for the undermentioned appointments in the department of the Engineer and Surveyor:-

(1) SENIOR ARCHITECTURAL ASSISTANT. Salary in accordance with new Grade A.P.T. IV (£675-£825), commencing at £675 per annum.

Applicants must be Registered Architects, and should have considerable experience in design, construction and contract administration.

(2) SENIOR QUANTITY SURVEYOR. Salary in accordance with new Grade A.P.T. IV (£675-£825), commencing at £675 per annum.

Applicants must have passed Final R.I.C.S. (Quantities Section), and be thoroughly experienced in the preparation of Bills of Quantities, adjustment of variations, and settlement of final accounts. Previous experience of substantial contracts for local authority housing is desirable.

The provisions of the Local Government Superannuation Acts, 1937-1953, will apply in respect of each appointment. Housing accommodation will be made available to successful candidates, if married.

Forms of application may be obtained from the undersigned, and requests therefor should indicate the position for which application is being made. Completed forms must be received not later than 9 a.m. on Saturday, the 22nd January, 1955.

G. B. BLACKALL,
Clerk of the Council.

Council Offices, Corby, Northants.
23rd December, 1954. 7057

COUNTY BOROUGH OF CROYDON.
ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of an ARCHITECTURAL ASSISTANT with experience of local authority housing schemes. Salary A.P.T. I £500 × £20-£580 per annum plus London Weighting. Applications (on forms from the Borough Engineer, Town Hall, Croydon) must be submitted to him by the 19th January, 1955.

E. TABERNER,
Town Clerk. 7054

BURGH OF MOTHERWELL AND WISHAW.
ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments in the Architect's Department, viz.:-

(a) CHIEF ARCHITECTURAL ASSISTANT—salary scale, £745-£820 per annum.

(b) Temporary ARCHITECTURAL ASSISTANT—salary, £700 per annum.

The successful applicants shall form the main part of a section of the Department to be engaged over a period of three years on the design of a new Civic Centre comprising municipal offices.

Applicants for appointment (a), which is a permanent one, shall be Associates of the R.I.B.A., and this appointment shall be subject to the Town Council's Superannuation Scheme and Conditions of Service and the successful applicant shall submit himself for and shall pass the prescribed medical examination. Applicants for appointment (b) shall have passed the Intermediate Examination of the R.I.B.A. or shall have special experience in the design of large public buildings. Experience in contemporary design will be an advantage.

Applications, stating age, qualifications and experience, should be lodged with the Architect, Motherwell House, Motherwell, within ten days from the date of appearance of this advertisement.

ALEXANDER MCINTOSH,
Town Clerk. 7052

Town Hall,
Motherwell.
23rd December, 1954.

BOROUGH OF GUILDFORD.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above-mentioned appointment in accordance with the National Scheme of Conditions of Service, New Grade A.P.T. II (£560-£640).

Applicants should have had a good training in design and construction in relation to public buildings and housing schemes, and, other factors being equal, preference will be given to those having passed the intermediate examination of the R.I.B.A.

The appointment will be subject to the Local Government Superannuation Acts.

Applications, stating full particulars as to age, qualifications, experience, together with the names of two referees, must be delivered to the undersigned not later than Thursday, the 20th January, 1955.

HERBERT C. WELLER,
Town Clerk. 7051

Municipal Offices,
High Street,
Guildford.
28th December, 1954.

BOROUGH OF WREXHAM.
(a) PLANNING ASSISTANT.

(b) ARCHITECTURAL ASSISTANT. Applications are invited for the following appointments:-

(a) PLANNING ASSISTANT—Salary A.P.T. Amended Grade IV (£675-£825 per annum, according to experience).

(b) ARCHITECTURAL ASSISTANT—Salary (£625-£675 per annum). (Subject to award for specialist classes.)

Applicants for appointment (a) should be A.M.T.P.I. or have taken a University Course in Town Planning. Preferably they should be Associates of the R.I.B.A.

Applicants for appointment (b) should be Associates of the R.I.B.A.

Housing accommodation available (if married).

Form of application, particulars and conditions of Service may be obtained from the Borough Engineer and Surveyor, 31, Chester Street, Wrexham.

Applications with the names of two referees to be delivered to the undersigned in an envelope appropriately endorsed not later than the 24th January, 1955.

PHILIP J. WALTERS,
Town Clerk. 7038

Guildhall,
Wrexham.
December, 1954.

CITY OF SHEFFIELD.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited from appropriately qualified persons for the following appointment on the staff of the City Architect, Mr. J. L. Womersley, A.R.I.B.A., A.M.T.P.I.

SENIOR ASSISTANT ARCHITECT (Housing) Grade A.P.T. IV (£675-£825 p.a.).

This post is in the Housing Design Section, which is responsible for a large housing programme consisting of estates in the outer and inner areas. It offers considerable scope to progressive architects to gain experience on a variety of house types and flats, including a substantial proportion of high flats, garages, shopping centres, and other buildings incidental to estate development.

The post is superannuable and subject to medical examination.

Applicants stating age, education and training qualifications, present and past appointments (with dates and salaries), experience, and the names and addresses of two referees should reach me by Tuesday, 25th January, 1955.

JOHN HEYS,
Town Clerk. 7078

Town Hall,
Sheffield, 1.

BRITISH ELECTRICITY AUTHORITY.
EASTERN DIVISION.

Applications are invited for the following Superannuable post in the Generation (Construction) Department at Divisional Headquarters in North London:-

SENIOR DRAUGHTSMAN (Architectural). Grade 4, £750 × £20-£850 per annum, plus London weighting.

The commencing salary will depend upon experience and qualifications. Candidates should have had experience in the design, construction and detailing of industrial type buildings.

Applicants giving age, details of qualifications and experience to the Controller, British Electricity Authority, Eastern Division, Northmet House, Southgate, N.14, to arrive by 15th January, 1955.

W. N. C. CLINCH,
Controller. 7010

RURAL DISTRICT COUNCIL OF HATFIELD.
ARCHITECT'S DEPARTMENT.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of ARCHITECTURAL ASSISTANT at a salary in accordance with Grade A.P.T. II (£560-£640). Preference will be given to candidates who have studied at a Recognised School of Architecture and who have passed the Intermediate Examination of the R.I.B.A. Apply with full particulars and copies of two testimonials to Mr. J. H. Parker, A.R.I.B.A. Architect to the Council, 82, Great North Road, Hatfield, not later than 21st January, 1955.

E. F. CULL,
Clerk to the Council. 7042

16, St. Albans Road,
Hatfield.
29th December, 1954.

BOROUGH OF WESTON-SUPER-MARE.
ASSISTANT ARCHITECT (PUBLIC BUILDINGS), GRADE A.P.T. II (£560-£640).

Applications are invited for the above appointment from Architectural Assistants who possess the Intermediate Examination of the R.I.B.A., and have worked for a minimum period of one year in an Architect's office.

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

Applications, stating age, qualifications, present and previous appointments (with salaries), together with details of experience and the names of two persons to whom reference can be made, should reach the Borough Engineer and Surveyor, Town Hall, Weston-super-Mare, not later than Thursday, 20th January, 1955.

R. G. LICKFOLD,
Town Clerk. 7083

Town Hall, Weston-super-Mare.
29th December, 1954.

BOROUGH OF LUTON.
BOROUGH ENGINEER'S DEPARTMENT.

Applications invited for:-
(a) SENIOR ARCHITECTURAL ASSISTANT. Salary £675 (Grade A.P.T. IV). The appointment is in connection with the Corporation's Educational Programme. Knowledge of the design and planning of new schools essential. Final Examination of the R.I.B.A. or equivalent architectural qualifications essential. Applicants must be able to prepare full contract drawings, working details and specifications, and be accustomed to site supervision.

(b) MAINTENANCE CLERK OF WORKS. Salary £560 (Grade A.P.T. II). Good practical knowledge essential of all aspects of the building trade, particularly maintenance of public buildings, schools and housing. Duties include preparation of estimates, specifications and supervision, and inspection of works in progress.

Both appointments subject to N.J.C. Service Conditions.

Application forms obtainable from the Borough Engineer, Town Hall, Luton, returnable by 24th January, 1955.

CITY OF LANCASTER.
ARCHITECTURAL ASSISTANT required.

Salary New Grade A.P.T. III (£600-£725 per annum) with starting salary on third or fourth step according to qualifications and experience. Candidates should have Intermediate R.I.B.A. Examination or equivalent qualification.

Applicants, with names of two persons to whom reference may be made, to be sent to Mr. L. Lyons, B.Sc., A.M.I.C.E., City Engineer, Town Hall, Lancaster, not later than 10 a.m. on Monday, 17th January, 1955.

R. M. MIDDLETON,
Town Clerk. 7039

Town Hall,
Lancaster.
21st December, 1954.

Westminster City Council requires ARCHITECTURAL ASSISTANT, A.P.T. III (£600-£725 plus London Weighting max. £30 per annum). Applicants should be Registered Architects (A.R.I.B.A.) capable designers, able to prepare sketch schemes, working drawings and approximate estimates and to advise on use of colour. Duties include supervision of alterations to buildings (knowledge of structural design and L.B.A. procedure desirable).

Written applications detailing experience, qualifications, age, etc., with two copy testimonials to Town Clerk, City Hall, W.C.2, by 17th January, 1955.

SWYDDFA MARE.
16th D.

COUNTY BOROUGH OF SOUTHAMPTON.
BOROUGH ARCHITECT'S DEPARTMENT.
Applications are invited for the following appointments:—

- ARCHITECTURAL SECTION:**
(a) SENIOR ASSISTANT ARCHITECT, A.P.T., Grade IV (€675-€900), according to experience.
(b) SENIOR ASSISTANT ARCHITECT, A.P.T., Grade IV (€675-€825). Applicants should be Registered Architects. Housing accommodation may be available.
(c) ASSISTANT ARCHITECT, A.P.T., Grade II (€560-€640).
(d) ARCHITECTURAL ASSISTANTS (TWO), A.P.T., Grade I (€500-€580).
(e) JUNIOR ARCHITECTURAL ASSISTANT, Higher General Division.

TOWN PLANNING SECTION:
(f) PLANNING ASSISTANT, A.P.T., Grade II (€560-€640).
(g) PLANNING ASSISTANTS (TWO), A.P.T., Grade I (€500-€580).
(h) JUNIOR PLANNING ASSISTANT, Higher General Division.
Application forms from the Borough Architect, Civic Centre, Southampton, to be returned by Wednesday, 12th January, 1955. 7044

LONDON ELECTRICITY BOARD.
JUNIOR QUANTITY SURVEYOR.
Applications are invited for the above position in the Chief Engineer's Department in Central London.
Applicants should have had experience in working-up in all trades, and the successful candidate will work under the direction of a Chartered Quantity Surveyor.

The post is graded under Schedule "C" of the National Joint Board agreement as Grade 7—€500 per annum rising to €640 10s. per annum, inclusive of London Allowance.

Application forms obtainable from Personnel Officer, 46, New Broad Street, E.C.2, to be returned completed by 19th January, 1955. Please enclose addressed envelope and quote ref.: V/1845/A on envelope and all correspondence. 7077

HAMPSHIRE.
Applications are invited for the appointment of a DEPUTY AREA PLANNING OFFICER, Grade IV of the National Planning (€675-€825), to work under the Area Planning Officer at Lyndhurst.

The qualifications required are Corporate Membership of the Town Planning Institute and preferably also Corporate Membership of the Royal Institute of British Architects, the Institution of Civil Engineers, or the Royal Institution of Chartered Surveyors. Previous experience in a similar capacity in a Government or Local Government Planning Department would be an advantage.

The appointment is pensionable and subject to a satisfactory medical report. The officer appointed will be required to keep a car and will receive travelling allowance on the County scale for the time being in force.

Applications, stating age, education, qualifications, previous experience and present position, together with a copy of one testimonial and the names of two referees, must reach the County Planning Officer, Litton Lodge, Clifton Road, Winchester, by the 14th January, 1955. 7081

LONDON ELECTRICITY BOARD.
SENIOR DRAUGHTSMAN.
Applications are invited for the above position in the Design & Planning Branch of the Northern Sub-Area at Aldersgate, London, E.C.1.

Applicants should have had training and experience in building construction and the design of steelwork and reinforced concrete structures, and be capable of preparing drawings and making calculations for the alteration of existing premises and the conversion of basements into sub-stations and transformer chambers. Experience in the lay-out of electrical equipment up to 11kV, whilst not essential, would be an advantage.

The post is graded under Schedule "D" of the National Joint Board agreement as Grade 5, commencing salary within range €672 to €777 per annum, inclusive of London Allowance.

Application forms obtainable from Personnel Officer, 46, New Broad Street, E.C.2, to be returned completed within ten days of the publication of this advertisement. Please enclose addressed envelope and quote ref.: V/1692/A on envelope and all correspondence. 7021

CARDIGANSHIRE COUNTY COUNCIL.
APPOINTMENT OF ASSISTANT ARCHITECTS.
Applications are invited for the following appointments:—

- (1) Two ASSISTANT ARCHITECTS on A.P.T. IV (€675-€825). Applicants should be members of the R.I.B.A.
(2) Two ARCHITECTURAL ASSISTANTS on A.P.T. I-II (€500-€640). Applicants should preferably be Students R.I.B.A.
Commencing salary will be according to qualifications and experience.

The appointments are in the County Architect's Department, County Hall, Aberavon.
Application forms can be obtained from the County Architect and these must be returned to the undersigned not later than 24th January, 1955.

J. E. R. CARSON,
Clerk of the County Council.
Swyddfa'r Sir,
Marine Terrace,
Aberystwyth,
16th December, 1954. 7056

WORCESTERSHIRE COUNTY COUNCIL.
A vacancy exists for a Junior ARCHITECTURAL ASSISTANT on the new Grade I at an appropriate point within the salary scale €500 × £20 to £580. Forms of application may be obtained from L. C. Lomas, F.R.I.B.A., County Architect, 14, Castle Street, Worcester. (U.72). 7055

Borough of Hampstead require ARCHITECTURAL ASSISTANT (temporary). Salary within the interim scale £600-£640 per annum plus London weighting. Appropriate qualifications required. No housing provided. Applications suitably endorsed giving three references to the Town Clerk, Town Hall, Haverstock Hill, N.W.3. Closing date, 24th January, 1955. 7013

NATIONAL COAL BOARD—WEST MIDLANDS DIVISION.
Applications are invited for the post of ARCHITECT Grade II at Himley Hall (Salary range £600-£900).

Applicants must be A.R.I.B.A.
Applications in writing to the Divisional Establishment Officer, Himley Hall, Dudley, Worcs. 7003

SOUTH AUSTRALIAN SCHOOL OF MINES AND INDUSTRIES, ADELAIDE.
LECTURER IN THE DEPARTMENT OF ARCHITECTURE.

Salary range £A1,184 per annum to £A1,399, according to qualifications. Applicants should hold a degree or diploma in Architecture and be a Corporate Member of an appropriate professional body.

Applications close on 25th January, 1955.
Further particulars can be obtained from:—
THE AGENT-GENERAL AND TRADE COMMISSIONER FOR

SOUTH AUSTRALIA,
South Australia House,
Marble Arch, London, W.1. 7020

BOROUGH OF BATLEY.
ARCHITECT

Applications are invited for the appointment of an ARCHITECT in the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. Grade IV (€675, rising by annual increments of £30 to £825).

Candidates should be Registered Architects with experience in the design of Municipal Houses and Estate development, and should be Associate Members of the Royal Institute of British Architects.

The appointment is subject to the Local Government Superannuation Act, 1953, to one month's notice on either side, and to the successful candidate passing a Medical Examination.

Applications on forms which may be obtained from the undersigned, and endorsed "Architect," should be forwarded to me not later than the 14th January, 1955.

L. O. BOTTOMLEY,
Town Clerk. 7043

OFFICE OF THE RECEIVER FOR THE METROPOLITAN POLICE DISTRICT.

Applications are invited for unestablished appointments as LEADING ARCHITECTURAL ASSISTANTS in the Architect and Surveyor's Department. The work is concerned with the design and construction of police dwellings and buildings, and candidates will be required to work in the Westminster area.

Rates of Pay* (Men).—€665 × £20-€725 × £25-€780.

Women.—€580 × £20-€640 × £25-€665.

*The scales quoted are subject to an increase of approximately 3 per cent., while a 45-hour week is being worked and also to the addition of a Pay Supplement of £25 or £30 per annum, according to the point reached on the scale.

Conditioned hours.—44 per week.
Annual Leave.—24 days.

Application forms from the Chief Architect, Architect and Surveyor's Department, New Scotland Yard, London, S.W.1, marking the envelope "Architectural Assistants." 6005

SURREY COUNTY COUNCIL.

Applications invited for following appointments:—

1. PRINCIPAL ASSISTANT ARCHITECT, Grade VI, salary €825 × £35-€1,000 p.a., plus London Weighting. Must be Members of R.I.B.A. and experienced organisation of work.

2. ARCHITECTURAL ASSISTANT, Grade II, Salary €560 × £20-€640 p.a., plus London Weighting. Must be of good general training and preference given those who have passed Inter. R.I.B.A.

Applications giving full details and present salary, accompanied by copies of three recent testimonials, to County Architect, County Hall, Kingston, by 15th January, 1955. 7015

SOUTH-EASTERN REGIONAL HOSPITAL BOARD, SCOTLAND.

Applications are invited for the following appointments in the Office of the Architect to the Board, Mr. John Holt, F.R.I.B.A., A.M.T.P.I.

(a) Temporary ASSISTANT ARCHITECTS at a salary of £700 per annum. Applicants must be Associate Members of the R.I.B.A. The posts offer an excellent opportunity for the selected candidates to work on large scale Hospital projects.

Applications giving details of age, qualifications and experience, together with the names of two referees should be delivered to the Regional Architect's Department, 8, Drumshugh Gardens, Edinburgh, 3, within ten days of this advertisement. 7005

WEST SUFFOLK COUNTY COUNCIL.
JUNIOR ARCHITECTURAL ASSISTANT.
N.J.C. service conditions. Salary £500-£580 (A.P.T. Grade I). Post pensionable; medical examination. Applicants should be Probationers of the Royal Institute of British Architects with not less than two years office experience.

Application forms, obtainable from the Clerk of the County Council, Shire Hall, Bury St. Edmunds, to be returned by 25th January, 1955. 7045

ARCHITECTURAL DRAUGHTSMAN required. Applicants must have had suitable training including three years technical experience in architectural drawing. Salary £360 (age 21 and over) × £20 (4) × £25 (1) × £20 (4)—£545 plus London Weighting, £20-£30. Commencing salary at minimum of scale. Apply giving age, qualifications and experience, with names of two referees to Secretary, North West Metropolitan Regional Hospital Board, 11a, Portland Place, W.1, by 31st January. 7012

Tenders Invited

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

COUNTY BOROUGH OF BIRKENHEAD.
EXTENSION TO POLICE HEADQUARTERS.

TENDERS are to be invited from Registered Building Contractors for the extension to the Birkenhead Police Headquarters. Applicants wishing to tender, who must be firms of standing, should submit their names in writing to the Architects, Messrs. Willink & Dod, F./R.I.B.A., Cunard Building, Liverpool, not later than 17th January, 1955.

Selected Contractors will be advised and will be required to deposit three guineas, on receipt of which Specifications, Bills of Quantities and Forms of Tender will be sent to them. Deposits returnable on receipt of a bona fide tender.
Drawings may be inspected at the Architects' office on or after 10th January, 1955.

Closing date for Tenders—14th February, 1955.
DONALD P. HEATH, Town Clerk.
Town Hall, Birkenhead. 7024

Architectural Appointments Vacant

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

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

REQUIRED for Architects' office (Central London area, young qualified ASSISTANTS interested in design and construction. Write, stating experience and salary required. Box 3325

BUILDING SURVEYING ASSISTANT (about R.I.C.S. Final Standard) with at least two years' practical experience required by City firm of Chartered Surveyors & Architects. 7025

ARCHITECTURAL ASSISTANT, intermediate standard required as a personal assistant to a principal in a large general practice in the Home Counties. The appointment will offer opportunity for works in all stages of architecture and in the administration of a private practice. Enthusiasm and ability essential. Box 5063.

SENIOR ASSISTANT ARCHITECTS required with experience of work on commercial and industrial buildings. Salaries up to £915 per annum for suitably qualified applicants.

ASSISTANT ARCHITECTS also required, capable of preparing working drawings and details from preliminary sketches. Salaries up to £745 per annum.

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, Ballion Street, Manchester. 4919

ASSISTANTS required Manchester District—one qualified or of final standard, one intermediate standard. State salary required. Box 4858.

EXPERIENCED Senior and also Intermediate to Final standard ASSISTANTS required. Applicants to have knowledge of commercial work, including offices and stores, etc. London experience is essential. Box 4890.

PROBATIONER OR STUDENT R.I.B.A. required in the Architectural Department of a large engineering company near Nottingham. Wide variety of work. 5-day week. All facilities for part-time training, including a day off per week with pay to attend College. Applications in writing, stating age, details of education, and previous experience, if any, to Box 6099.

ARCHITECTURAL ASSISTANTS.
Applications are invited from
QUALIFIED AND SEMI-QUALIFIED
ARCHITECTS

for the positions of
SENIOR AND INTERMEDIATE ARCHITECTS with our organisation—one of the major offices in New Zealand—offering generous remuneration, wide experience, congenial conditions, and scope for advancement.

Applications will be treated confidentially, should be fully informative, and addressed to:—

STRUCTURAL GROUP ARCHITECTS,
Registered Architects and Structural Engineers,
39, Johnston Street,
Wellington, New Zealand. 7064

ARCHITECTURAL ASSISTANT: Intermediate approximating final. Commercial and industrial work; large-scale contracts. Watson, Johnson, Stokes, Victoria Square, Birmingham. 4995

W. H. WATKINS, GRAY, F.F.R.I.B.A., & PARTNERS, require **ARCHITECTURAL ASSISTANTS**, of intermediate standard, for Bristol office. Applicants should preferably have passed R.I.B.A. Intermediate, and be studying for final. Must be good draughtsmen and have good practical experience. Contributory pension scheme in operation. Apply in writing, giving age, experience, and salary required, to 1, Clare Street, Bristol, 1. 6034

ASSISTANT required in busy practice in West End, in early twenties, about intermediate R.I.B.A. standard. Excellent opportunities for gaining all-round experience. 3954

CO-OPERATIVE WHOLESALE SOCIETY, LTD. ARCHITECTS' DEPARTMENT, LONDON.

APPOINTMENTS are invited for the following

- (a) **ASSISTANT ARCHITECTS**, of Intermediate R.I.B.A. standard.
- (b) **SHOPFITTING DRAUGHTSMAN**, with wide experience in store planning and design.
- (c) **WORKER-UP**, with experience of commercial/industrial buildings.

The salary range offered for the above appointments is up to £145 per annum, according to age and experience, with prospects of up-grading.

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, Leaman Street, London, E.1. 6015

ARCHITECTURAL ASSISTANT required for interesting and varied work. Intermediate standard. Salary approximately £550 p.a., or by arrangement. Write, giving full details of age and experience, to T. H. Johnson & Son, F.R.I.B.A., 20, Priory Place, Doncaster. 6022

ASSISTANT ARCHITECT, qualified, required for interesting and varied work. Salary approximately £620 p.a. Write, with details of age and experience, to T. H. Johnson & Son, F.R.I.B.A., 20, Priory Place, Doncaster. 6023

ARCHITECTURAL STAFF, all grades wanted, interesting and varied work of contemporary character; light and airy offices. Apply to Seymour Harris & Partners, 4, Greenfield Crescent, Edgbaston, Birmingham, 15. 6086

BUILDING AND ARCHITECTURAL ASSISTANT wanted in City Architects and Surveyors' office; good draughtsman, Inter. standard. Apply by letter, Vigers & Co., 4, Frederick's Place, E.C.2. 6088

SENIOR AND JUNIOR ASSISTANTS required in busy Architect's Office on countrywide work of all types. Applicants for Senior posts should be Associates of the R.I.B.A. or qualified. Applicants for Junior posts should be at or near intermediate standard. Apply J. G. L. Poulson, L.R.I.B.A., 29, Ropergate, Pontefract. 6089

ARCHITECTURAL ASSISTANT required for private practice in Boston, Linco. Write stating experience and salary required—Box 6091.

ARCHITECTURAL ASSISTANT required in estate developers and contractor's office. Able to prepare designs, working drawings and details from sketches and on own initiative. Phone Tate Gallery 8301. 6095

JUNIOR ARCHITECTURAL ASSISTANT required by Architects' Department. Should have some office experience. Male or Female. Write giving full particulars to Architects' Department, Mac Fisheries Ltd., 10/12, Little Trinity Lane, E.C.4, reference MG/BD/T. 6066

W. DOBSON CHAPMAN & PARTNERS, Chartered Architects & Planning Consultants, have staff vacancies at their Macclesfield and Manchester Offices: At Macclesfield for a recently qualified **ASSISTANT ARCHITECT**, preferably of Final R.I.B.A. standard, and for a **JUNIOR QUANTITY SURVEYING ASSISTANT**. At Manchester and Macclesfield, for Intermediate **ARCHITECTURAL ASSISTANTS**, preferably of Inter R.I.B.A. standard. Applicants should be interested in all aspects of contemporary design, and some opportunity is offered for gaining experience in town planning. Applications giving details and salary required to Jordangate House, Macclesfield, Cheshire. 6068

ARCHITECTURAL ASSISTANT required, capable of running schemes from start to finish for busy medium sized practice in London with varied work. Commencing salary £700-£900 according to experience. Good prospects for the right person. Reply, stating salary and experience to Box 6071.

ARCHITECTURAL ASSISTANT urgently required, experienced in preparation of working drawings, details, specifications and supervision, for South West London Office. Apply in writing, giving full particulars of experience, age and salary required to Box 6066.

TWO ARCHITECTURAL ASSISTANTS required for West End Office. Intermediate Standard with experience of Industrial and Commercial Buildings. Salary about £500 to £600 p.a., depending on Experience and Qualification. Box 6065.

ARCHITECTURAL ASSISTANT required by London Brewery. Progressive post for suitable applicant. State age, experience and salary required. Also, neat **TRACER** wanted. Box 7086.

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, have had good experience and be able to produce highest references as to ability and character. Apply in writing giving age and experience to W. H. Watkins, Gray, F.R.I.B.A., & Partners, 57, Catherine Place, Palace Street, London, S.W.1. 6051

SENIOR ASSISTANT required for permanent position in recently extended offices at Leicester branch. Apply in writing to C. Edmund Whitford, A.R.I.B.A., 2, Hastings Street, Leicester. 6053

JUNIOR ASSISTANT required, preferably passed Intermediate R.I.B.A. and studying for Finals. Write, stating experience and salary required, to Waterhouse & Ripley, P.F.R.I.B.A., Staple Inn Buildings, High Holborn, W.C.1. 7035

ARCHITECTURAL ASSISTANT or BUILDING DRAUGHTSMAN, age up to 35, required for work on industrial buildings. Preference given to candidates with Inter. R.I.B.A., but this not essential, although O.N.C. in building is the minimum acceptable qualification. Applicants should have experience in foundation work, drainage and factory buildings. Permanent position and attractive salary. Assistance with housing given if necessary. Write in confidence to Personnel Manager, Michelin Tyre Co., Ltd., Stoke-on-Trent, Staffs., giving all relevant information. 7041

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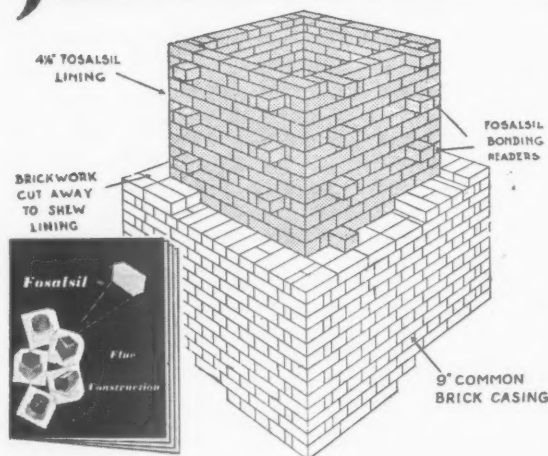
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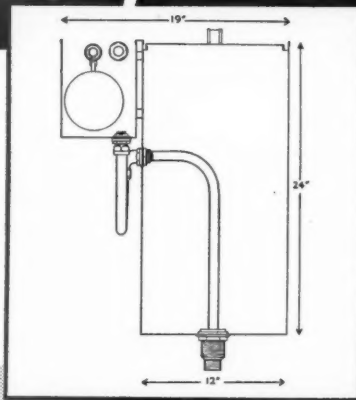
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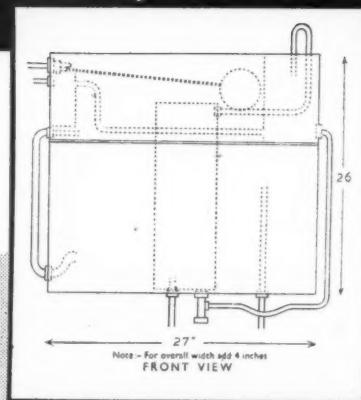
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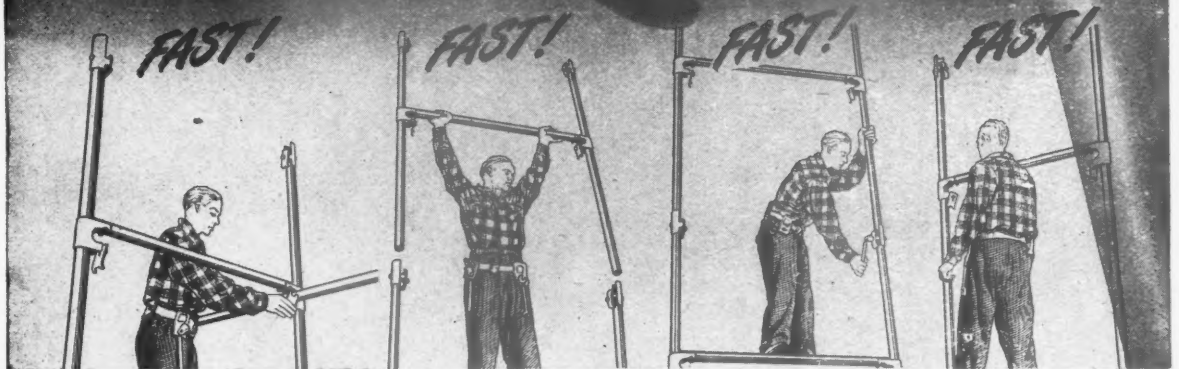


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NEWCASTLE · NORWICH · PLYMOUTH · PORTSMOUTH · READING · SHIPLEY · SOUTHAMPTON · SWANSEA · YARMOUTH

