THE ARCHITECTS' JOURNAL

standard contents

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

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THE ARCHITECTURAL PRESS
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Registered as a Newspaper.

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Flaxman 7766
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Newport 3111
CAS	County Architects Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns, S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub-Contractors, 5, Arundel Street, Strand.	Temple Bar 6633
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	Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. Buckingham Palace Gdns., S.W.1.	Sloane 2837
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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PLIMBERITE

FOR

PARTITIONING

PANELLING

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SUSPENDED FLOORING

ROOF DECKING

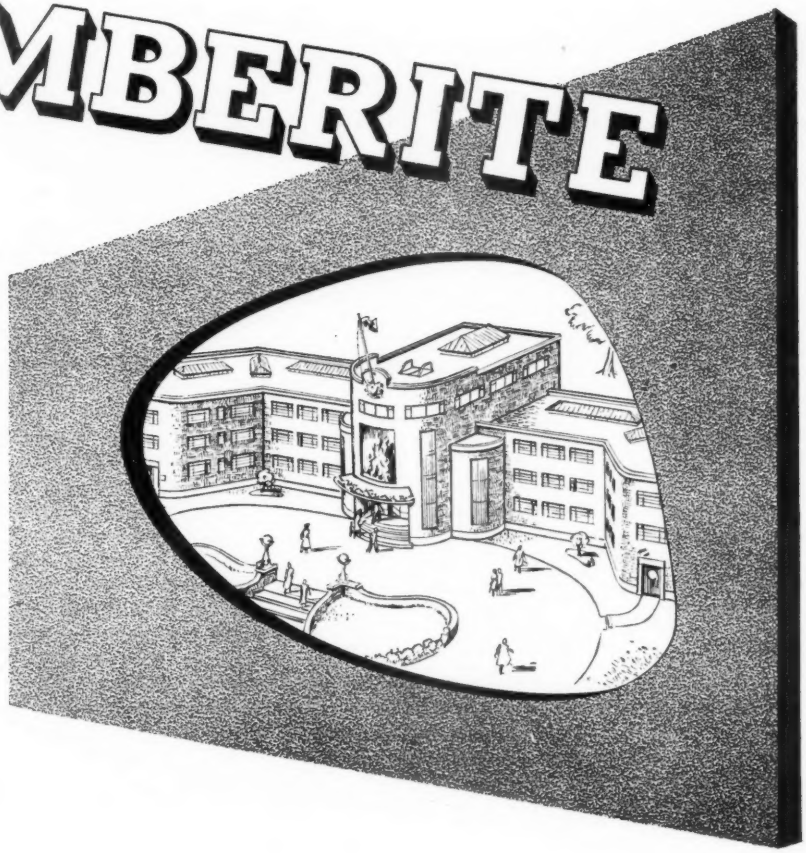
PANEL DOORS

SHELVING

SKIRTING

BUILT-IN FURNITURE

VENEER CORE



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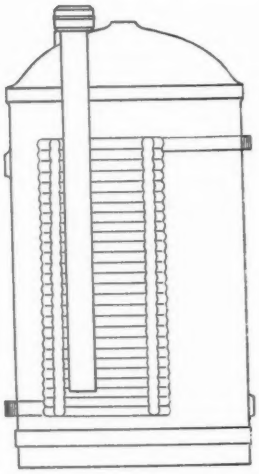

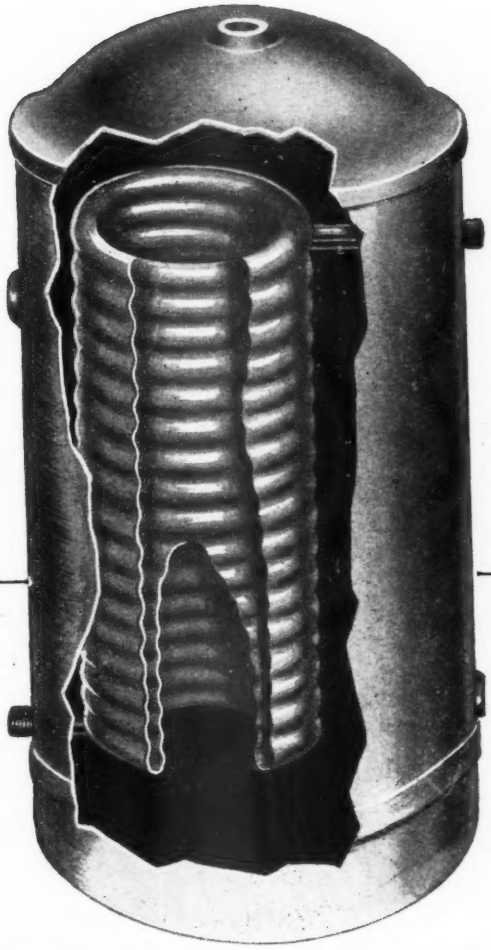

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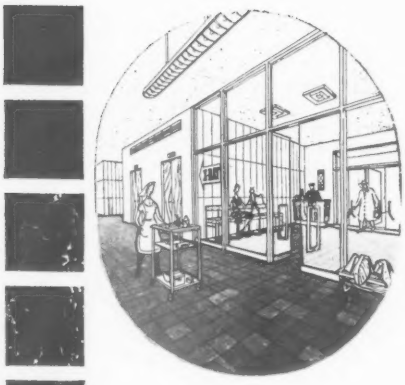

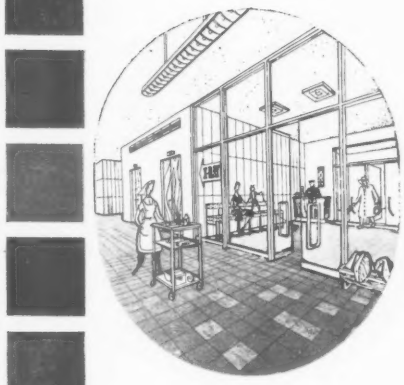

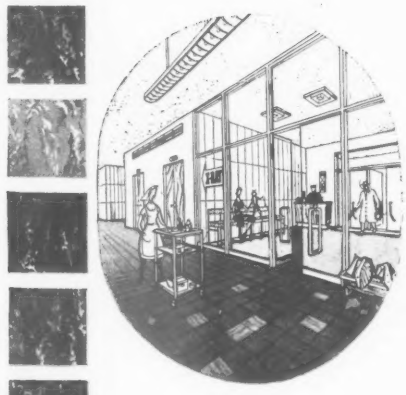

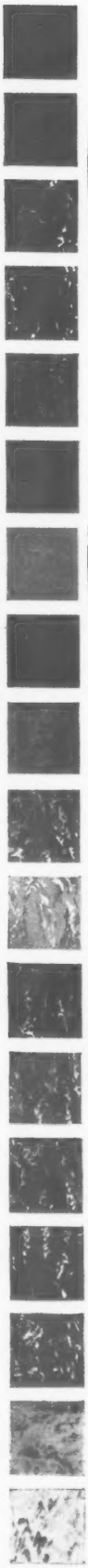

More and more, floor finishes are coming to be looked upon as an integral part of any building structure. One outcome of this is the added importance of the floor from the point of view of interior design, which now takes the floor as a focal point and works upwards and outwards. Semastic Decorative Tiles are well suited to this method of working. Most interior designers find, in fact, that in starting from this point the range of colours in which the tiles are available extends the scope for effective overall treatment. Serviceability, of course, is being demonstrated on a great number and variety of successful installations.

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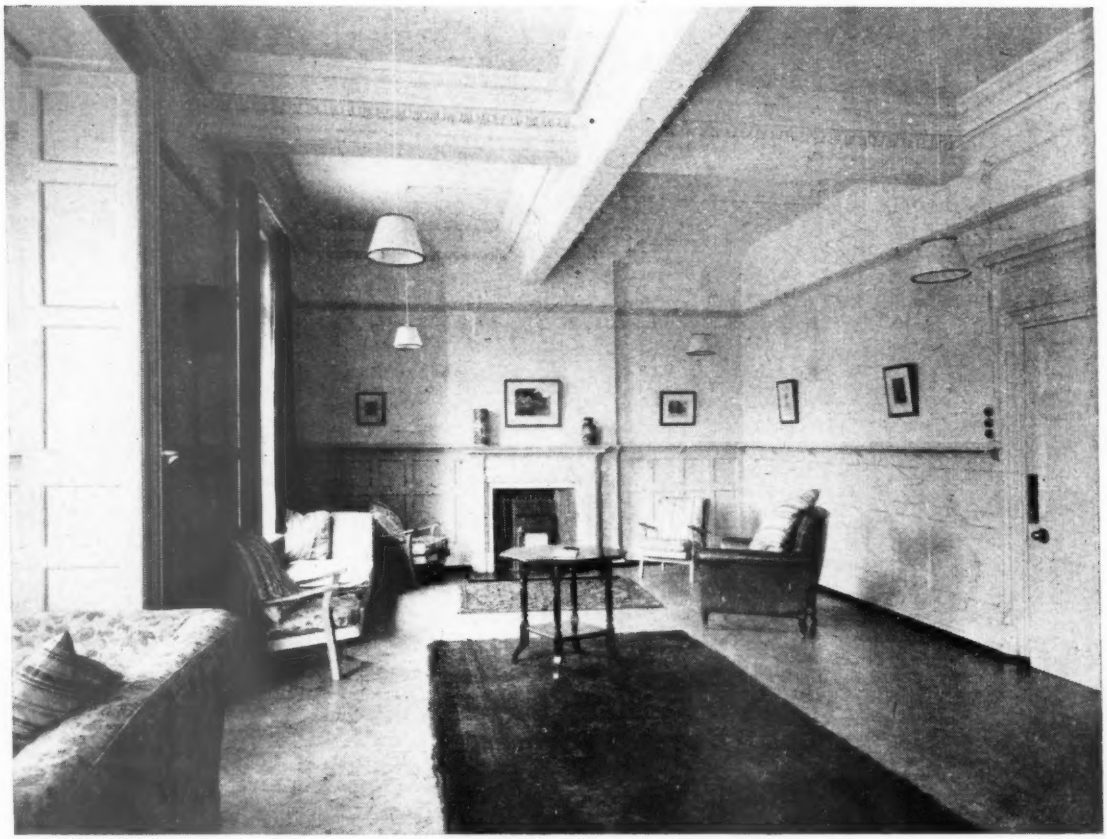

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★**EASY AND QUICK TO HANG.** Adhesive is applied to the wall, the fabric back of the Wallcovering gives a perfect bond and imperceptible butt joints. Lancaster Wallcovering is the equivalent of several coats of paint applied in one simple and quick operation.

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The Marbolith Flooring Company Ltd.

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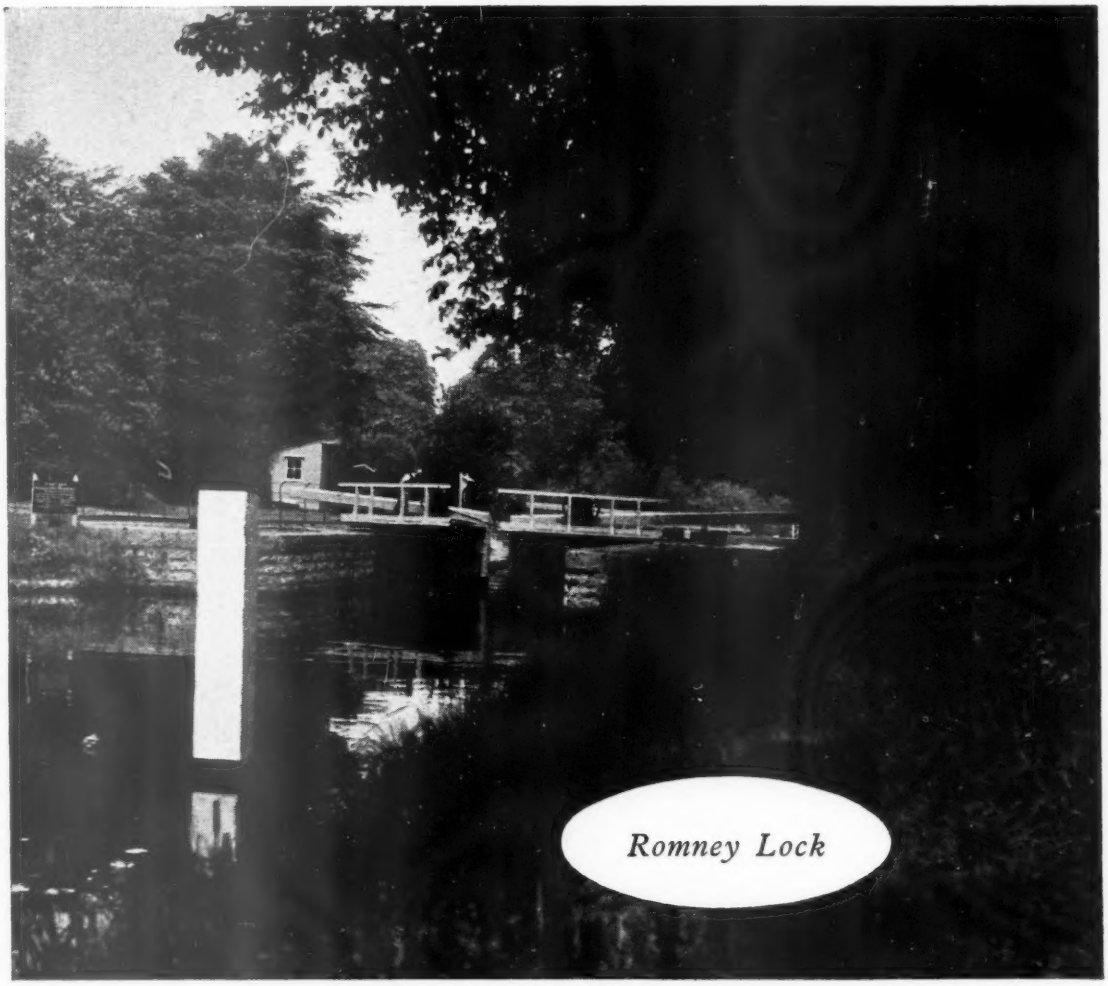

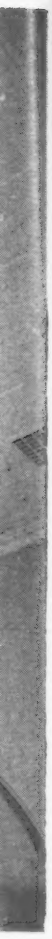

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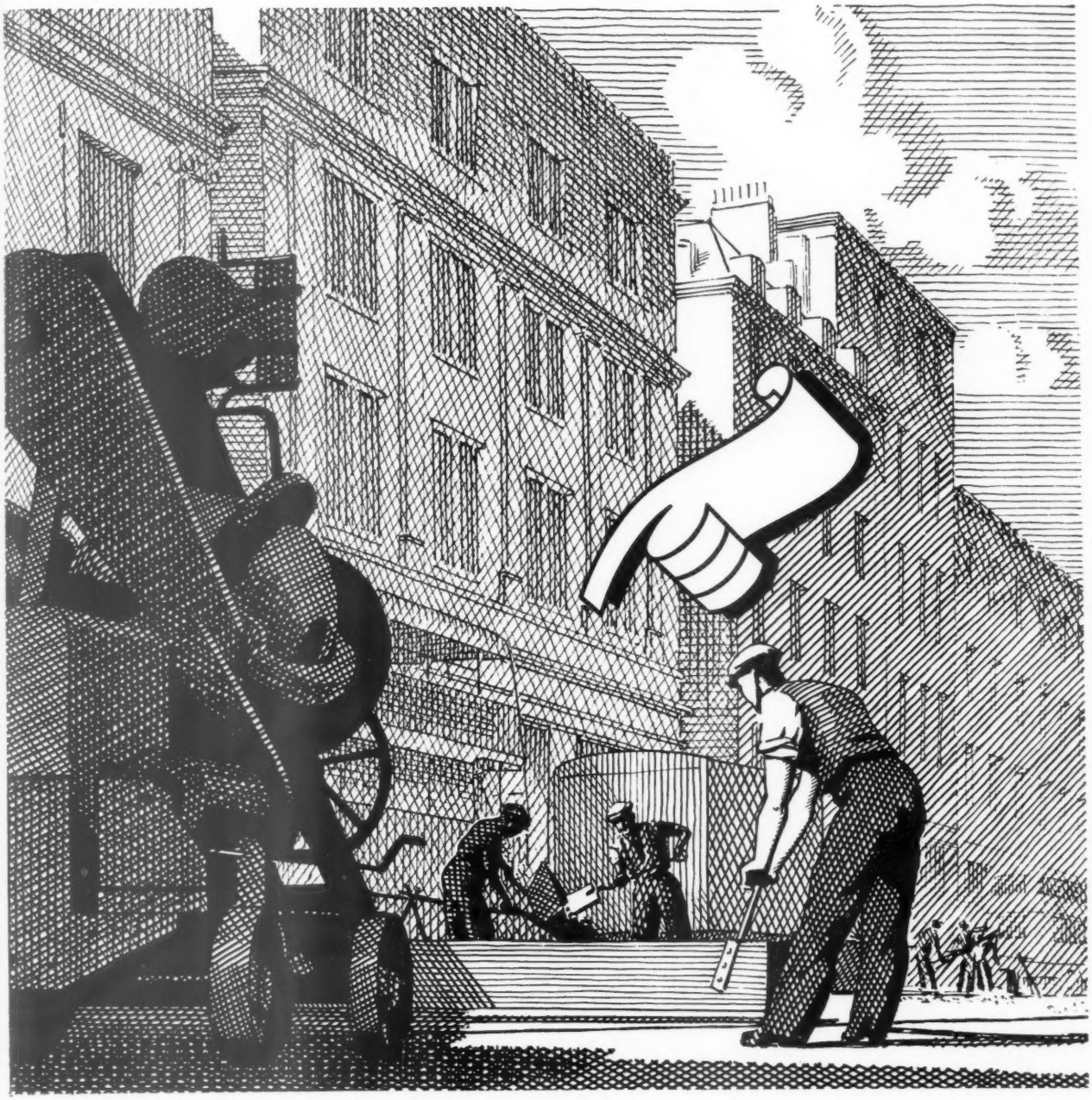

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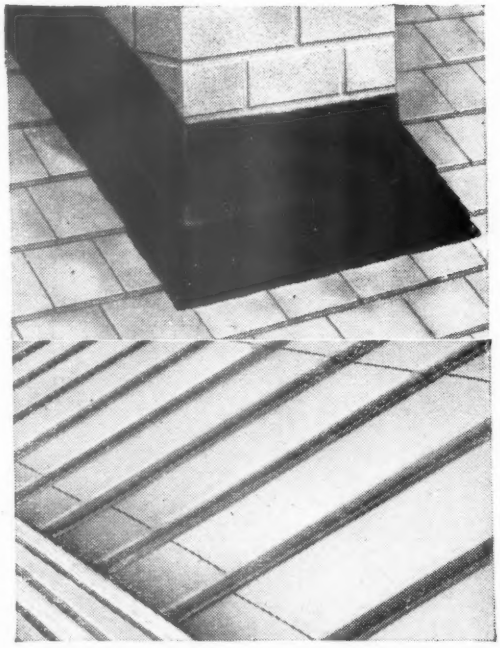

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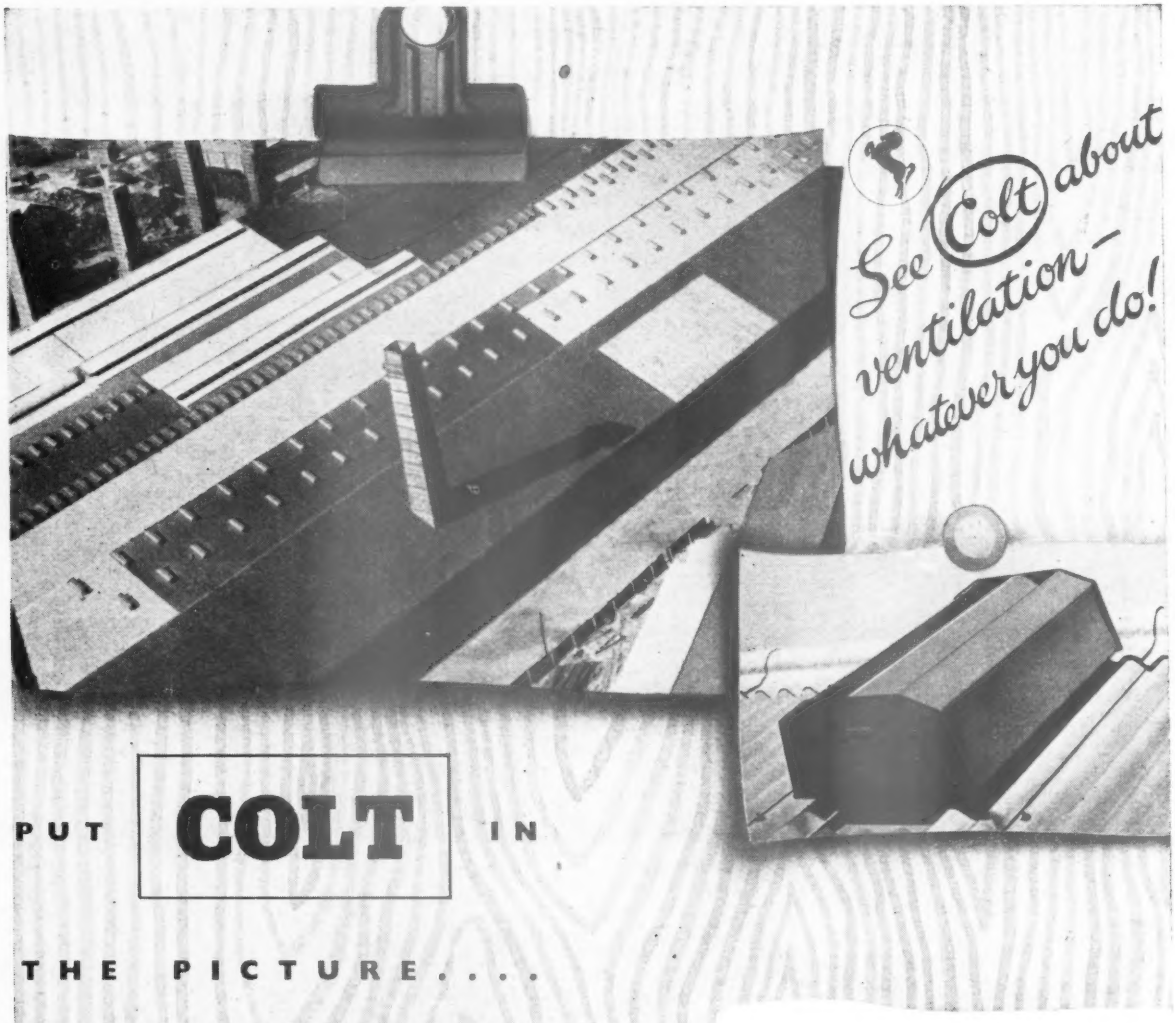

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THE PICTURE....

at the drawing-board stage

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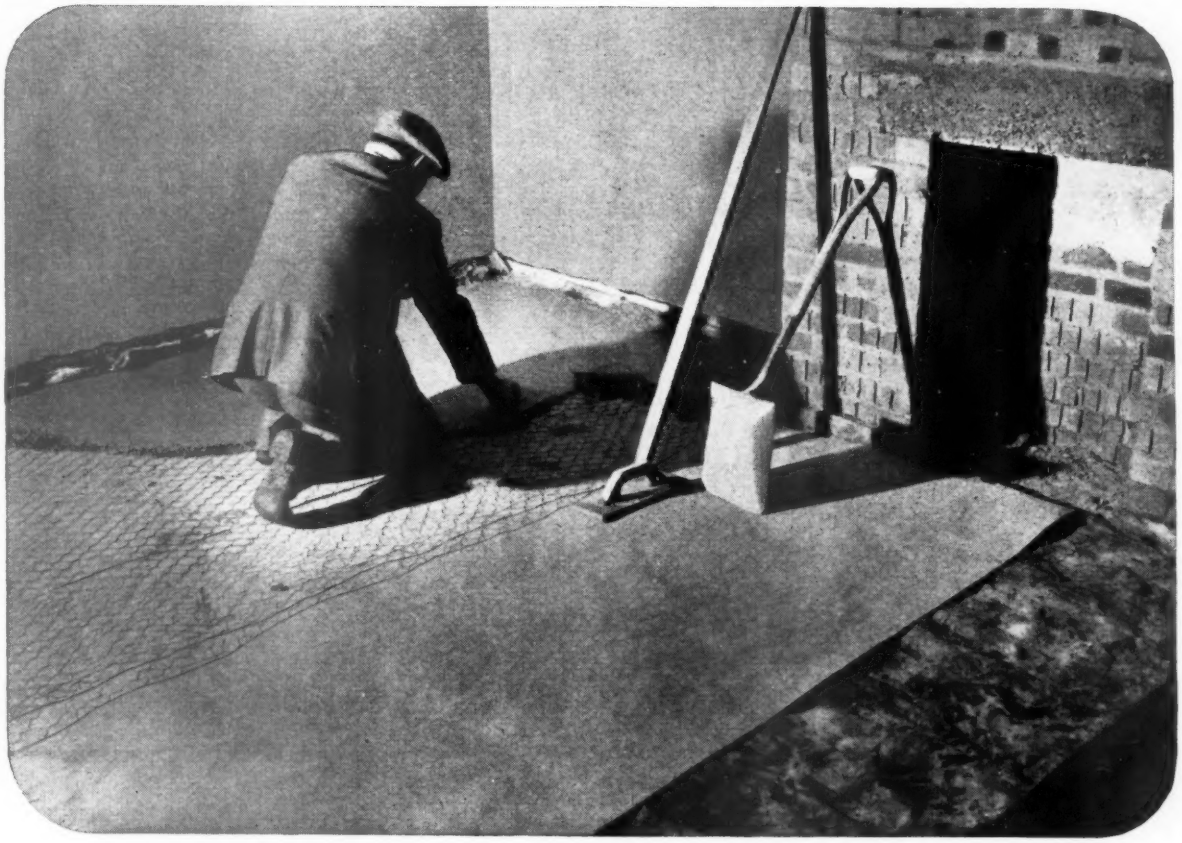

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The illustration shows the "floating" (acoustically insulated) floors being laid in three-storey flats by the Aldershot Borough Council on the Denmark Street Housing Estate.

The floors comprise 1½ in. screed surface with thermal plastic tiling and reinforced with one layer of 1½ in. mesh wire netting laid on SISALKRAFT Reinforced Waterproof Building Paper, the whole being laid over a 1 in. thick bitumen-bonded glass wool insulating blanket. The insulating blanket is turned up 4 in. against all walls, thus entirely separating the flooring from the supporting precast floor beams.

This method of construction was adopted to reduce acoustic troubles to a minimum. (See Building Research Station Digest No. 15—Sound Insulation in Traditional Construction.)

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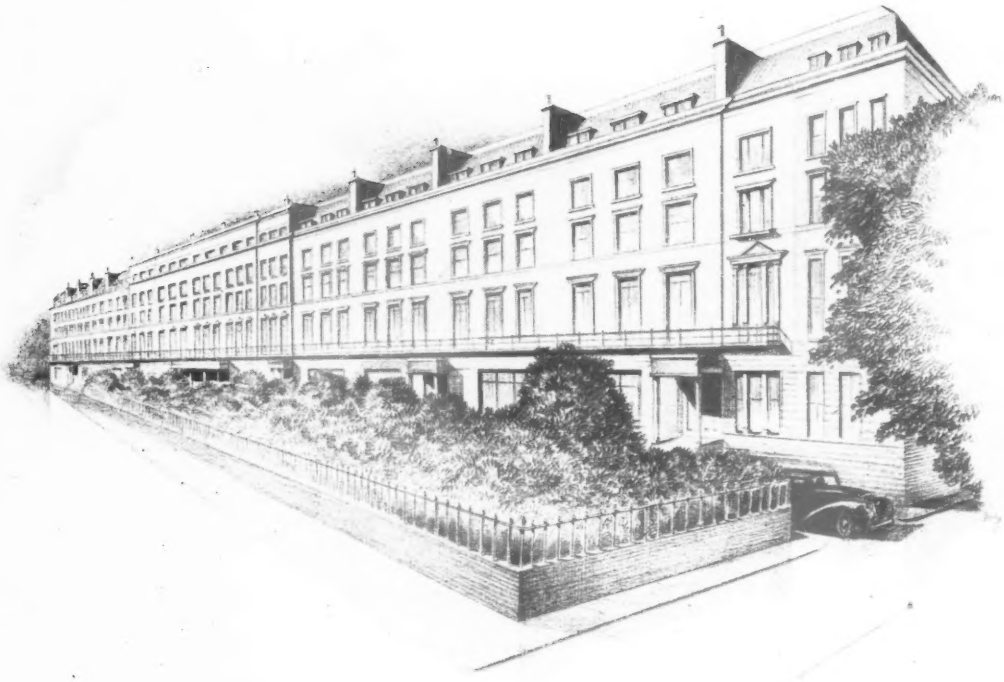

Architects : Clyde Young & Bernard Engle, F/F.R.I.B.A., New Square, W.C.2

Contractors : R. Parr Builders) Ltd., Finchley Road, N.W.3

In one of the largest flat conversion contracts undertaken in this Country, Hyde Park Gardens contains many interesting and unique features. Not the least of these is the installation of 15 service lifts serving over 80 self-contained flats.

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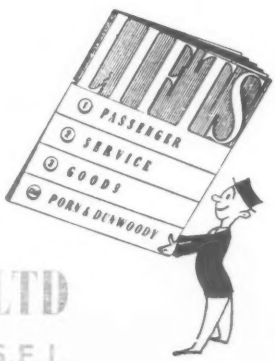

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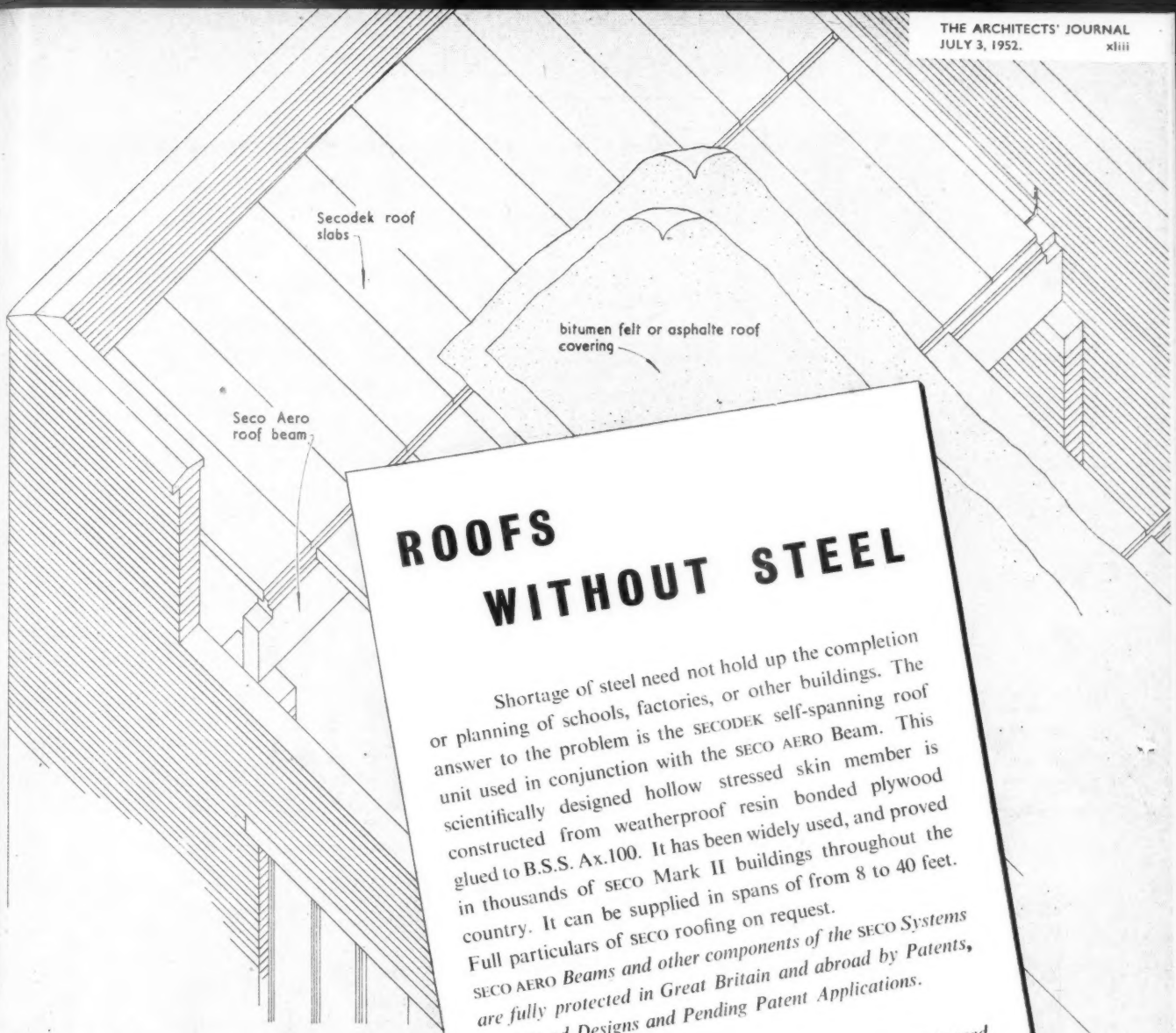
TELEPHONE: WATERLOO 7107 (4 lines) TELEGRAPH: INGRORNMA, SEDIST, LONDON



AXONOMETRIC SKETCH SHOWING TYPICAL CONSTRUC

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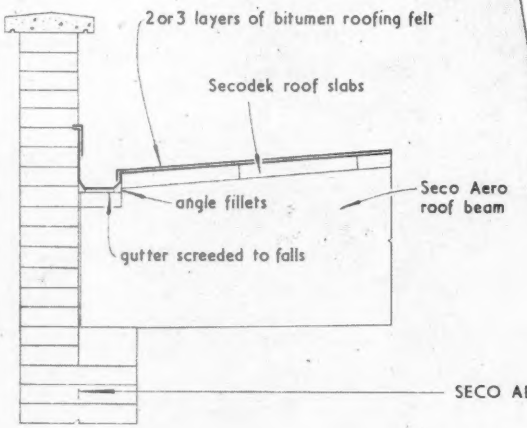
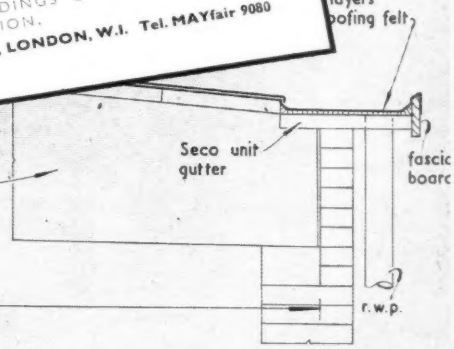


DETAIL AT PARAPET WALL



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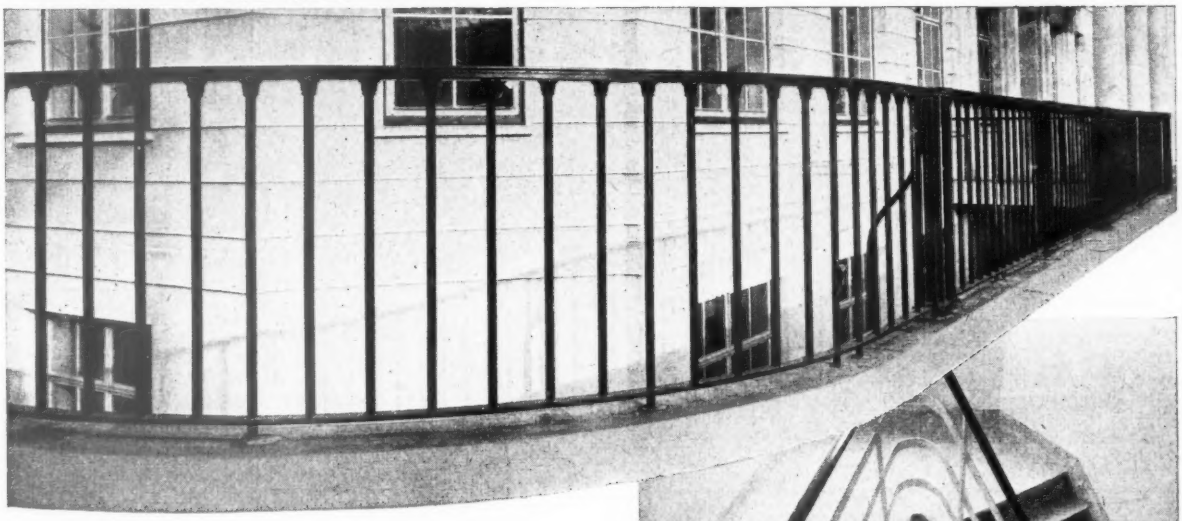

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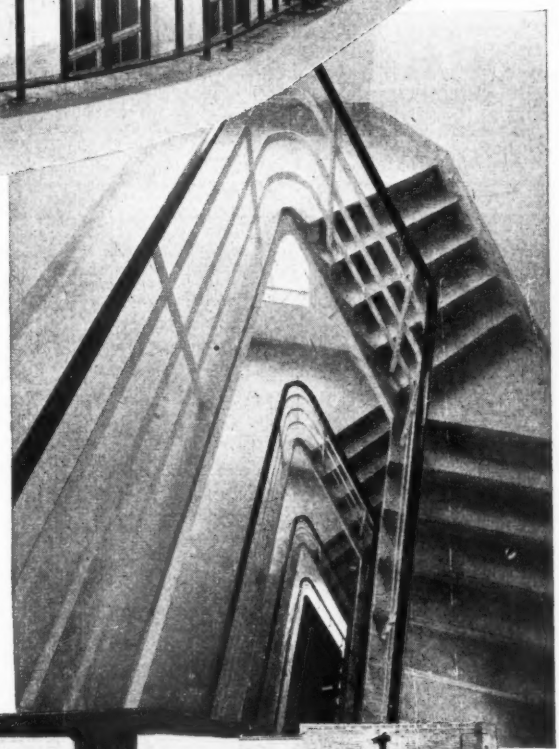

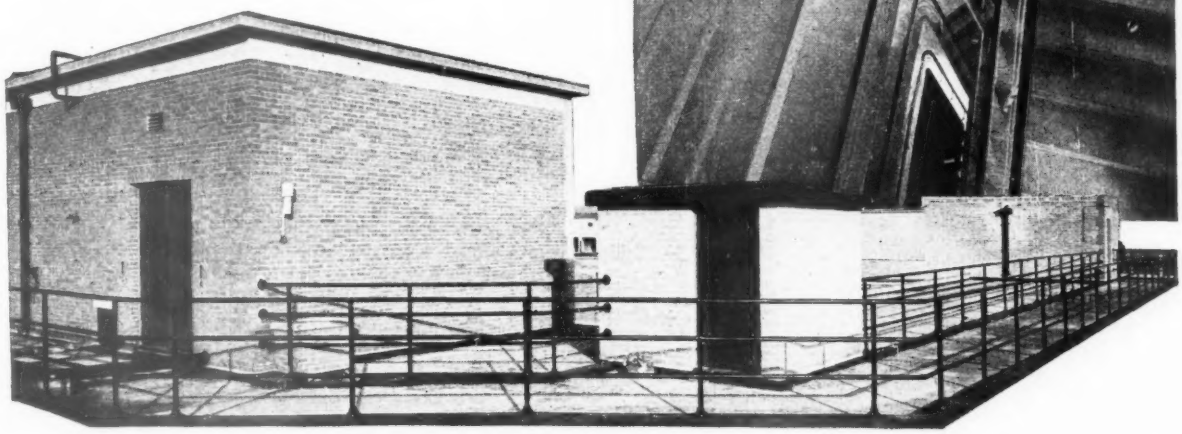

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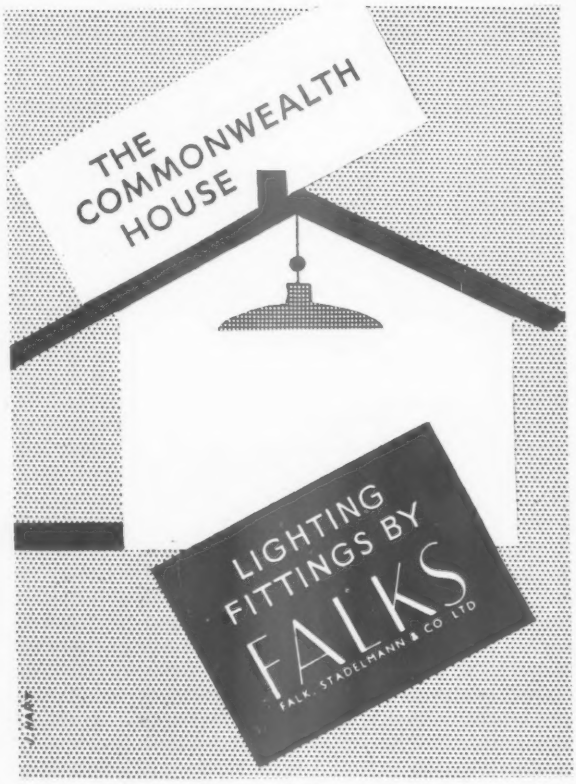
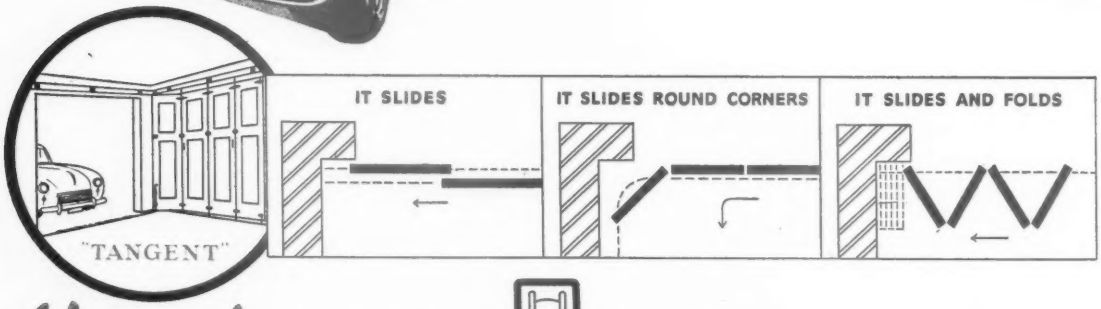


"Look Daddy —
only two fingers!"



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AJ

THE ARCHITECTS' JOURNAL

9, 11 & 13 Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

No. 2992 July 3, 1952 VOL 116

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HANG OUT THE FLAGS

After more than two years of thinking about the matter, the RIBA has decided that the Board of Architectural Education shall investigate cases of hardship among students. My congratulations to the Institute for having the courage to change its mind.

*

But what, one wonders, *is* a hardship case? Surely every student affected by the ruling about post-graduate experience is, in effect, a hardship case—not always financially, but certainly morally, unless, of course, the Associateship has ceased to have any value. Perhaps, after all, the simplest solution would have been the postponement of the new regulation for five years, so that every student who began a five-year course with the hope of qualifying at the end of it could have been very fairly treated.

*

And now, will architects stop making irrelevant remarks about the value of office work. *Of course* it is valuable. That was never the point. All the students will work in offices anyway—if they can get jobs! The point at issue was whether they did so as Students or as Associates—in public offices an important salary matter. Tied up with this was the honour of the RIBA; hence all the fuss ASTRAGAL has been making.

*

One last point. The Institute has virtually had to be publicly pushed into doing the right thing. The professional Press, the columns of *The Times*, the annual meeting *and* the threat of legal action, have all had to be thrown into the struggle. Certain stalwarts—who had better be nameless—but who come from several schools on both sides of the Border, must be congratulated upon sticking to their guns.

MORE FLAGS

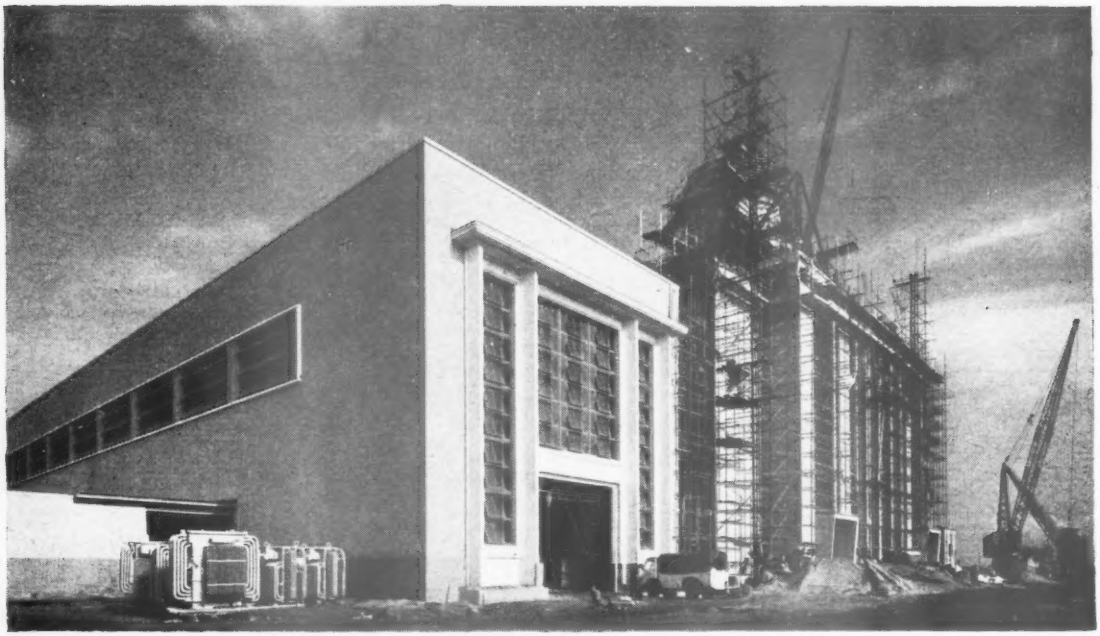
Last week Westminster City Council approved the appointment of Sir Hugh Casson—one of the two architects, incidentally, in the current Critics' Team at the BBC—as consultant for their area for coronation decorations. (The area is roughly from Hyde Park to the Strand, and from Oxford Street to the river.) ASTRAGAL can take no credit for this decision which was made two days before his own published plea, made in last week's JOURNAL, that it was time some such consultancy appointments were made. However, he hastens to send Sir Hugh his congratulations (tinged with a melancholy respect for what faces him and his colleagues), together with his good wishes for that essential ingredient for all such jobs—a sound digestion.

*

Anybody who has had anything to do with a problem of this kind will know how appalling the difficulties can be. Even to dig a hole in a London street is a major administrative job involving files of correspondence with the local authorities, statutory undertakers, ministries, and the police. The City of Westminster, whose own experience is very considerable, is fortunate in having acquired a consultant who survived, without noticeable fracture or decay, similar difficulties in the Festival year. Let's hope the City of London Corporation—and some of the West End street associations as well—are considering similar steps, so that the *Architectural Review* can prepare a really bumper number on "Coronationscape."

THE LICENCE LIMIT

It was fairly safe to guess that the licence-free limit would be raised, but although the figure for private houses has been doubled, the £500 for factories and agricultural buildings remains as before. Both figures may be raised in the autumn, but the trouble seems to be that the load on the building industry varies a great deal between one part of the country and another, and until the overloaded areas catch up on arrears no general relaxation will be possible. The £100 has now been in force since 1948 and during that time labour and material costs have increased so much that about half the extra amount is needed to cover higher costs. My guess is that the free figure will go up again in the



USKMOUTH POWER STATION, SOUTH WALES

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One of many illustrations from the new Casement Catalogue just published by

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autumn, but I can't see licensing as a whole going whatever the builders may want, and however industriously rumours may be spread.

H-R H, PRINCE OF AMBASSADORS

As some of you know, Henry-Russell Hitchcock arrived here last week, heralded by showers of cables and letters. Professor Hitchcock is paying us a brief visit before going to Amsterdam to speak at the International Congress of Art Historians. As he has not been here since 1947 we shall be sorry to see and hear so little of him. We may be sure, all the same, that while he is with us H-R H will see all his friends and get more done than half-a-dozen lesser mortals could do in the time. He has already given an excellent lecture on "Style in the Nineteenth Century" to AA students, and he is going to visit numerous nineteenth century Scottish castles to collect photographs for his long overdue book on Victorian architecture, now expected early next year. (It is to be published in the States: shame on us!) He also intends to visit Le Corbusier's Unité d'Habitation, which is only right and fitting since it was the book he wrote with Philip Johnson on international style that first opened English and American eyes to what was going on in Europe in the '20's.

*

At present, Henry-Russell Hitchcock is Professor of Art and Rector to the Art Museum at the Smith College, Northampton, Mass. English architecture has no better friend, and if it were un-American to be Anglophile, Professor Hitchcock would long ago have been before the Senate Investigation Committee. Rumour has it he may be back among us at Christmas. If this is true, he should be asked to address the RIBA, if for no other reason—and there are many reasons—that he can always tell us more about our own architecture than we ever knew before, and makes us feel it is important.

CONFERENCE GHOSTS?

The COID has just published a booklet* based on information selected at last September's Design Congress. There are plenty of quotations from papers read by top executives. Most of their opinions are remarkably enlightened, but not always consistent with their products, so one wonders if some of them were "ghosted" by repressed design staff. (One must except, of course, people like the Wedgwoods, and Sir Colin Anderson of the Orient Line, for they were only preaching what they have practised for many years.)

*

In the illustrations there are one or two surprises—an interior of RMS *Oronsay*, with no mention of Brian O'Rorke; and if KLM's architect is worth acknowledgment, why no mention of the architect to BOAC? All the same the booklet *does* show that this country has slowly built up a reasonable amount of properly designed goods which are in quantity production, and that a few of the men at the top have some idea what it is all about. The next thing is to make the smaller man say his piece at these conferences and explain what he, too, does about designers.

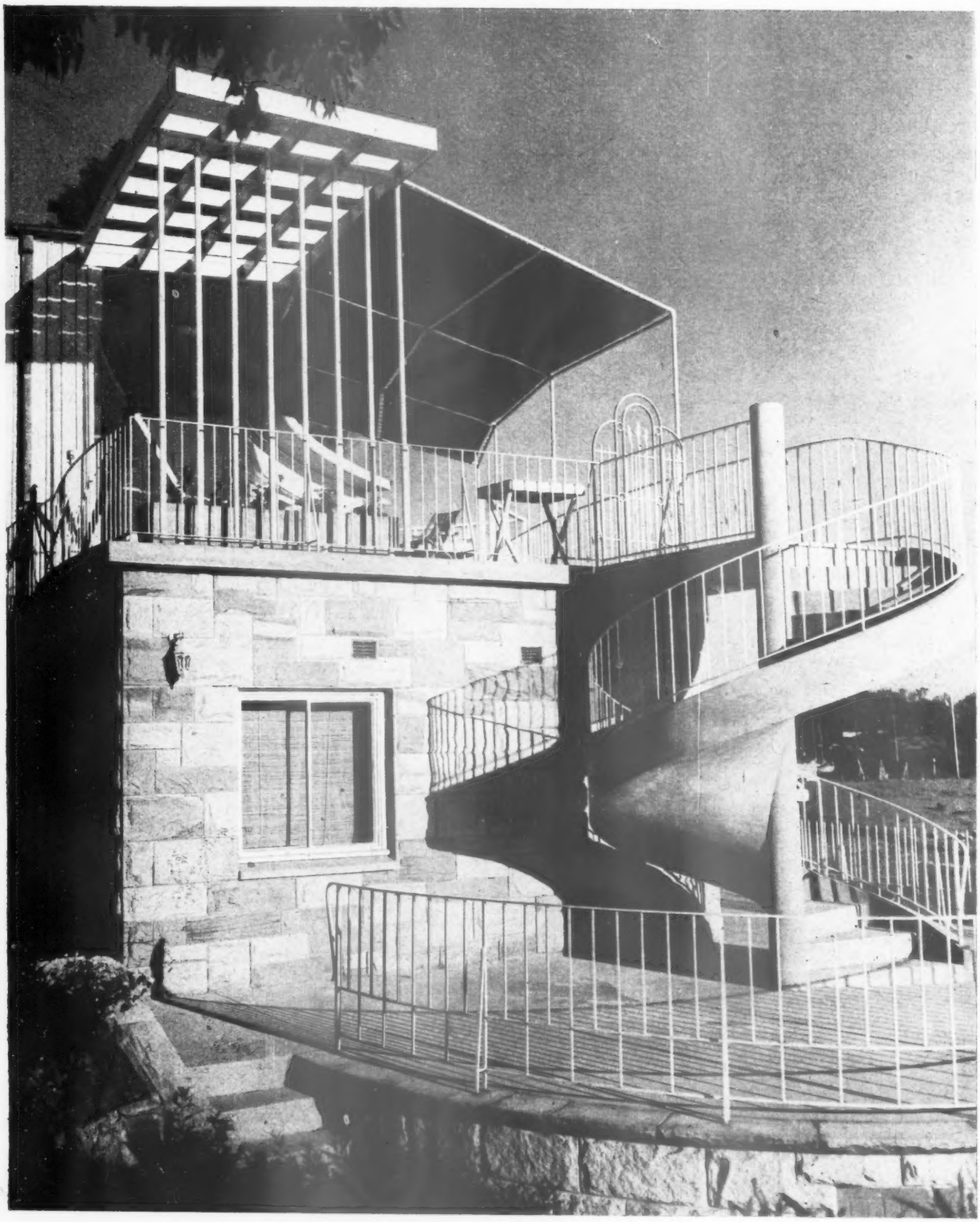
* Design Policy in Industry. 3s. 6d.

House at Newport, Sydney, designed by Bunning and Madden. Bedrooms are on the lower level, living rooms above. See comment on page 4.

HAVE *you* A MARBLE PIANO?

This year the Victoria and Albert Museum celebrates the centenary of its original ancestor—the Museum of

David Eccles, Minister of Works—whose raising of the licence-free limit is commented on by ASTRAGAL on page 1 —photographed when he lunched recently in the Journal's *private pub, "The Bride of Denmark."*



Architecture Down Under

It is twenty-five years since an American architect, Walter Burley Griffin—a disciple of Frank Lloyd Wright—settled in New South Wales and began to demonstrate the value of designing buildings to suit the country's climate. But it was not until quite recently that architects in this part of Australia began to follow his example in a fairly big way. This year, for the first time in its history, the exhibition arranged by the New South Wales Chapter of the Royal Australian Institute of Architects was not dominated by traditional buildings. It is apparent that the advanced Australian architects are strongly influenced by contemporary work in Europe and the United States. There are signs, however, that among the international styles they are borrowing, a new style, with its own local idiom, is developing. The above house, near Sydney, designed by Bunning and Madden, is also shown on page 3.

Ornamental Art. It rightly intends to mark the occasion by a search for the masterpieces of Victorian and Edwardian decorative art; the results of the search will be shown in a large autumn exhibition.

*

The search has in fact been in progress for a year and has failed to produce examples of the work of many of the best known pioneer designers. The Museum has therefore appealed to the public to help it in the fascinating game. Items still needed include many of the fabric designs by Lewis F. Day, Heywood Sumner, C. F. A. Voysey, and M. H. Baillie-Scott; furniture by Bruce Talbert; jewellery by Matthew Digby Wyatt; silver by C. R. Ashbee. And apparently the marble piano of Alma-Tadema, the painted one by Ford Madox Brown and the round one by Lutyens, have also all disappeared.

*

No doubt quite a lot of these objects are still in those decaying, disappearing country houses. Architects, who sometimes notice their immediate surroundings, may remember seeing some of them.

MAN OF THE (ONE-EYED) YEAR

From well-informed advertising circles—*i.e.*, those buzzing with policy decisions over sponsored TV—(I've got it Tony! Push a few extra desks into the copywriters' office, and caption the picture "A corner of our TV Research Department")—comes the news that David Ogilvie, inventor of the one-eyed shirt-ad. campaign, has been voted Man of the Advertising Year in the United States. In addition, the shirts—and maybe the black eye-patches too—are selling like mad.

*

ASTRAGAL, always a push-over for Men of the Year, sends his congratulations to Mr. Ogilvie, but is still against the idea that gave him the distinction. Doubtless the professional photographer will be equally against the idea if the fashion spreads and his waiting room begins to look like the out-patients' department of a Central European Clinic. Stimulating purchases through pity is all right for War Bonds and Flag Days—but not for shirts or building board. These must stand on their own—repeat own—feet.

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

SUCCESS OF STUDENTS APPEAL TO RIBA

THIS week we return to the subject of the RIBA's treatment of students. (Readers will remember this matter, which was discussed on this page on June 5. Briefly, many students have been righteously indignant because, although they began a five-year course with every hope of qualifying at the end of it, they now have to put in a year's practical work before getting the RIBA's associateship.) It is good to see that the Institute is trying to do something to mend matters.

Recently, a letter about the RIBA's behaviour in this affair, written by James Callaghan, M.P., appeared in *The Times*. Ten days later the Institute replied. The Council, it said, had empowered the Board of Architectural Education to deal with cases of hardship caused by the new ruling. It might have been more honest to say that the Council had *now* empowered the Board, for the decision was made during the ten days between the two letters appearing.

Nevertheless, the important thing is that the decision *was* made. The RIBA is to be congratulated on making it. It is now up to the Board to do generously and efficiently what it has been insisting could not be done at all.

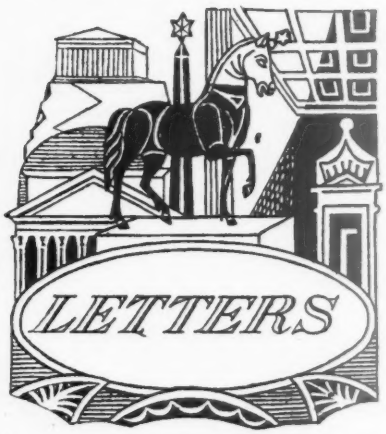
No. 4 : Technical Editor

THE SWINGS AND THE ROUNDABOUTS

A new type of small house—the "Linear House"—is described in an article on pages 9 to 14 of this issue. It is possible that the author, I. de Wolfe, may be criticized for having designed a house that is no cheaper than other small houses. But it is time it was generally realized that the architect has little influence on the total cost of housing, which includes fees, land, road services, loan charges, rates and repairs. A reduction of building costs by, say, ten per cent., would be only two per cent. of the total cost.

Why should the architect be asked to reduce the cost of houses when everyone else is putting the cost up? While he tries to get costs lower by cutting areas and fittings and economizing on construction, other costs are rocketing. For example, the £100 or so saved by authorities who use the MOHLG house plans now has to be spent on the increase in public works loan charges from three and a half to four per cent.

There is a limit to the architect's ability to reduce the cost of a house and yet to produce "architecture." Has that limit not been reached?



P. Evans Palmer, A.R.I.B.A.
J. E. Barlow, A.R.I.B.A., M.T.P.I.
A. J. McDonough, F.R.I.C.S.
R. E. W. Vanderplank
G. W. Alderson, A.R.I.B.A.

What's Wrong with Astragal?

SIR,—Is there something wrong with the Bride of Denmark? A cheap little crack at the Georgian Group quite unworthy of a periodical supposedly interested in the study of good manners in architecture, a snivel at Frank Lloyd Wright, great worship of official and public architects and a gloating hope that all others are doomed to early extinction. What sort of a public do you think we are? Once upon a time ASTRAGAL was a jolly cove, even able to laugh at himself now and again. He has grown into a peevish and testy old man, looking out on the world through spectacles of sour grape skins, and far too serious to be taken seriously.

P. EVANS PALMER

Horsham.

Go North, Miss Westwater!

SIR,—No Place in the Sun for Linda Westwater (AJ: May 22). Please tell her there is land north of the Tay—a great deal, in fact—and that a short walk in Edinburgh, a visit to Glasgow, with a sidelong glance at East Kilbride, does not mean she has seen Scotland.

A bargain with her—her return fare (third class) from Edinburgh to Aberdeen for a real symposium of Scotland, including, if she pleases, at least some reference to development and progress in the latter City.

J. E. BARLOW.

Aberdeen.

[This was the first but not, we hope, the last of a series of news letters from Scotland. In future issues Miss Westwater will describe places further afield and willingly accepts the offer of a return fare.—ED.]

Maintenance : Tax Relief

SIR,—I have read with interest your contributor's article on building conversion in relation to maintenance relief under Schedule A. (AJ: May 29.)

Whilst agreeing wholeheartedly with the principles involved, we have found that in this part of the country it has been virtually impossible to claim any substantial relief on the lines described. This has been primarily due to two factors:—(*a*) Planning Permission and Building Bye Law approval will not be granted by the local authority unless, in fact, the conversion includes for making each flat completely self-contained, which includes solid dividing walls between each flat, and a secondary means of access, both to comply with the fire regulations. (*b*) In this area, as no doubt in others, there are many restrictive covenants enforced by the ground landlords, for which an express licence for converting the property is the most essential, and this licence in fact varies the original covenants, and permits the use of the building as separate living accommodation.

In our experience, therefore, we have found it impossible to obtain the various approvals required under present-day regulations and restrictions, without making each dwelling unit entirely individual and self-contained, and the identity of the original building cannot, therefore, be retained.

This is implicit in the Town Planning approval granted for a "change of use" under the Town and Country Planning Act, 1947.

On the question of re-assessment after completion of the work, your contributor will know that all building licences granted for conversion work are issued with a maximum freehold selling price, and a maximum letting price, and these figures reflect the original value of the property and the total cost of the work.

It is, therefore, extremely difficult, if not impossible, to preserve the identity of the original building in view of the above facts; and also bearing in mind that the work always includes additional sanitary accommodation in the provision of bathrooms and kitchens, this must inevitably be reflected in the re-assessment.

It will, therefore, be of interest to know whether other parts of the country are affected in the same way by work of this nature.

A. J. MCDONOUGH.

Eastbourne.

Do as Rome Did?

SIR,—Mr. Kelly's letter (AJ: May 1) almost drives one to despair! That an associate of the RIBA should express such an incredibly confined attitude to architectural teaching in this century is quite beyond reason.

The idea of architectural students helping their masters to build is not new. It is probably as old as the earliest civilization. We know that Palladio was at school at the Villa Circoli under his master Trissino and worked under him whilst training.

If the Italians realized the truth of Aristotle's maxim that "experience created art," is it too much to hope that Mr. Kelly may leave the "deep end" of his swimming pool and broaden his outlook by accepting the logical view of the Italian architects?

R. E. W. VANDERPLANK.

Birmingham.

Group Architecture

SIR,—May I be permitted to simplify your editorial of May 15. You are suggesting the Mars Group and its allied members now assemble the whole of the architects in this country, sub-divide the territory, each to one of its main brain centres, and put us all to work on the group basis.

If this is the idea, then the first step is to send all the architects for a tour of Denmark and Sweden, which is the modern Bannister Fletcher, and this will reduce the building to the following simple issues:—(1) Structure, based on Graphic Statics with a bending moment modelling. (2) Materials, asbestos, corrugated iron, ornamental weather boarding to produce line effect. Stone—wall board rendering to produce space effect. Tubes and props. Nature location—Cactii, rubber plants, silver birch, this to act as a frame to the building. (3) Lighting, see Mr. Reid. (4) Colour, white, blue, yellow, Indian red and elephant grey. (5) Lettering, Victorian, Fanny by gaslight. (6) Drains, good old 4 in. × 6 in. glazed sockets.

Now all the little fellows at 6 per cent. will have the open door to this great new world.

G. W. ALDERSON.

Scarborough.

MOW

Free Limit Increased

The licence-free limit for building work has been increased to £200 for the 12-month period which commenced July 1. The old limit of £500 for industrial and agricultural buildings remains unchanged.

In reply to questions in parliament the Minister of Works, the Rt. Hon. David Eccles, said on June 24: "I have examined carefully the possibility of increasing the free limits for building work. The potential demand for building and repair work is so great, and the load on the building industry differs so much from district to district, that it has been found impossible to make a general relaxation of the licensing system at this time."

N. IRELAND

Licence-free Limit Raised

The licence-free limit for building in Northern Ireland has been raised to £250 for the 12-month period which commenced on July 1. The figure for "designated buildings" (*i.e.*, industrial buildings and farm buildings other than dwelling houses) remains £500.

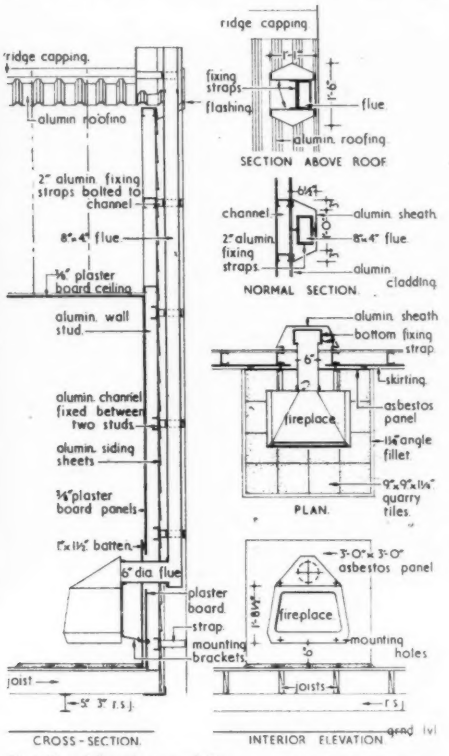
Local Authorities and public utility undertakings must still obtain an authorisation for building work, other than maintenance work, where the total cost of the work amounts in any one case to more than £500.

CORONATION

Sir Hugh Casson to Advise Westminster C C

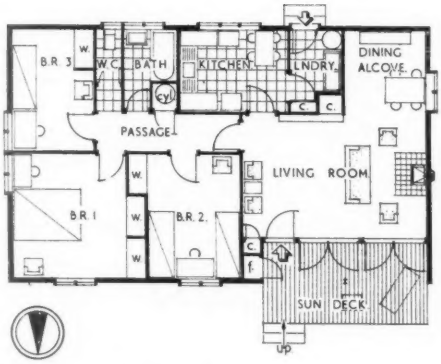
Westminster City Council last week approved the appointment of Sir Hugh Casson as consultant to advise it on its decorations

PROTOTYPE ALUMINIUM PREFABRICATED HOUSE

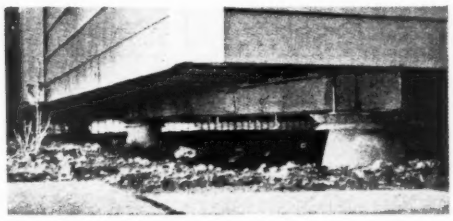


Details of fireplace and flue [Scale : ½" = 1'0"]

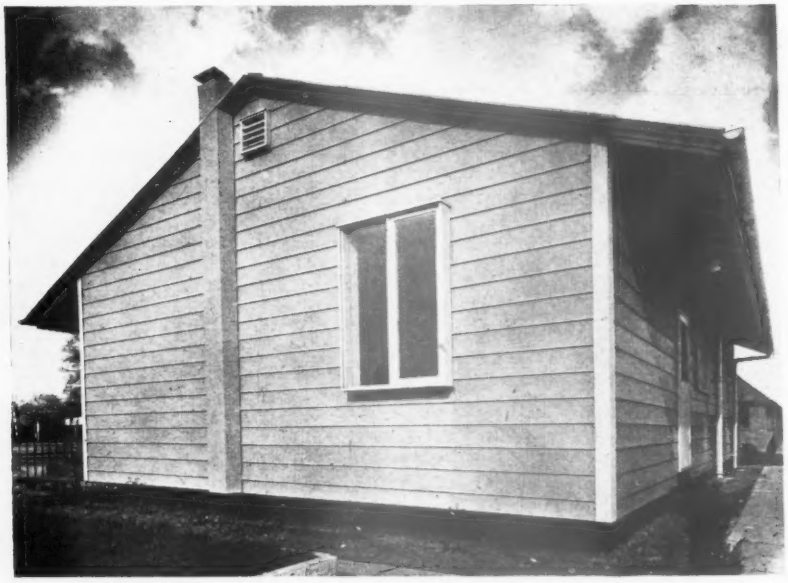
Commonwealth House, Kew Bridge, which was illustrated briefly in the JOURNAL *for June 5 in connection with the opening ceremony by Hugh Molson, M.P., Parliamentary Secretary to the MOW, is designed by C. A. V. Smith (Barnard and Smith) in collaboration with J. P. Mockridge, an Australian architect. The interior decoration is by Mrs. J. M. Pattrick in association with the COID. The fireplace, which can be seen in the two photographs of the living room (above and bottom left), is designed by the American architect Karl Koch, with a flue specially designed by the architects. It will burn any type of fuel and being entirely within the room avoids heat loss. Below, right, is bedroom 1. Above, the foundations, showing the saucer-shaped ant traps which can be filled with hot or cold water. The design*



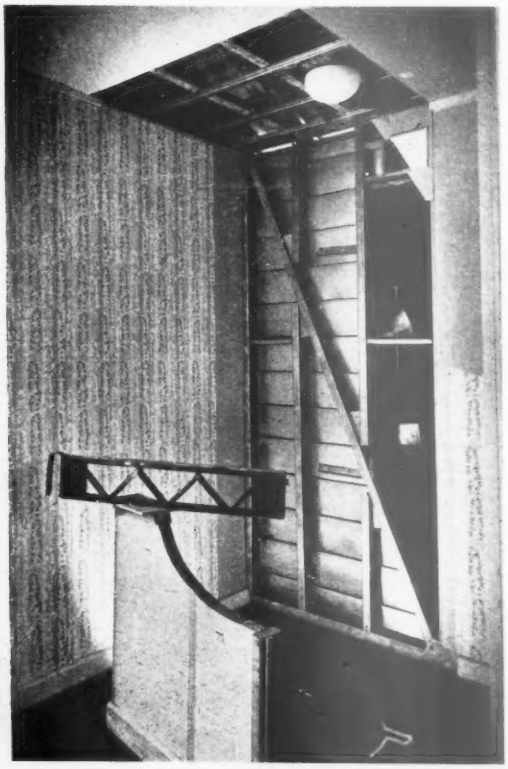
Plan [Scale : 1/16" = 1'0"]



ALUMINIUM PREFAB (continued)



of this aluminium, prefabricated, factory-made house was decided upon after a series of plans had been submitted for criticism by experts and laymen in Australia, and other countries to which it is hoped to export the house. There is a shortage of skilled building labour in the colonies, and hence a house capable of quick erection by average handymen and also one occupying minimum shipping space, is required. The house, it is hoped, can be produced eventually at the rate of 20,000 per year. The total floor area of the prototype is 905 sq. ft. and the floor to ceiling height 9 ft. On this page: top, view looking north-east; centre is the kitchen sink and cupboards under. Valves and waste fittings are designed in accordance with Australian standards and supplied as complete units. There is a galvanized double compartment wash tub in the laundry. Left, is a cut-away portion of wall and ceiling showing framing, diagonal wind bracing, fibreglass insulation, etc. The estimated cost for a minimum of 10 houses is £1,650 each F.O.B. The general contractors for the prototype were Simms, Sons & Cooke, Ltd. Sub-contractors, page 30.



for the coronation. The area concerned is a most important one, stretching from Hyde Park to the Strand and from Oxford Street to the Thames. (ASTRAGAL comments on page 1.)

RIBA

Representation of Salaried Architects

A sub-committee to consider and advise on measures to provide effective representation of salaried architects and assistants in negotiations affecting salaries and conditions of employment has been set up by the RIBA Salaried and Official Architects Committee. The sub-committee is expected to make its report before the end of the year but its recommendations will, of course, be subject to approval by the RIBA Council.

Golf: Builders Beat RIBA Team

The LMBA Golfing Society beat the RIBA team by 14 matches to 7, when their annual match was held recently at West Hill Golf Club. The RIBA produced a team of 23, one member of which was "lent" to the builders, but several of their best players were unable to play.

MOHLG

New Towns' Corporations: One Resignation

Harold Macmillan has re-appointed for a period of one year the chairman and five members of the Development Corporations for the New Towns of Welwyn Garden City and Hatfield. He has accepted with regret the resignation of P. E. Longmore, who was formerly Clerk of the Hertfordshire County Council and has been a member of the two Corporations since July, 1948.

The two Corporations, each of which has the same membership, are now constituted as follows: R. G. Gosling (Chairman), C. G. Maynard (Deputy Chairman), G. R. Lowe, R. L. Reiss, H. L. R. Matthews, W. H. Playle.

SCOTLAND

Insufficient Building Sites

There is evidence that in some areas of Scotland the rate of building is overtaking the rate of acquiring and preparing sites. A Department of Health for Scotland circular states that building work may be held up where the construction of roads and other services has not been completed in advance and that sites needed for building in 1953 should be prepared in good time. Wherever possible, the circular continues, the types of houses to be built should be determined now; otherwise it may be impossible to obtain the most economical layout of services.

COVENTRY

No-Fines Houses

Rapid progress is reported from Tile Hill Estate, Coventry, where 1,050 no-fines houses similar to those described in the JOURNAL for March 27 are being built for the local council. Work on the site commenced just over a year ago, and the con-

tract provides for completion in 36 months. But the contractors estimate that they will be finished about 9 months early.

Nine different types of house are being built and already over 100 houses have been handed over for occupation. All the roads have been completed and in one month alone 150 concrete shells were poured.

FINLAND

Town Planning Competition

Entries are invited by the Town Council of Turku (Aabo) in Finland for a layout plan for the island of Ruissalo and the neighbouring islands belonging to the town. Details of the competition, which has been approved by the International Union of Architects, can be obtained from the Town Council of Turku.

TURKEY

Smyrna Competition Results

The results of the international competition for the town planning of Izmir (Smyrna) have been announced. The first prize was awarded to Professor Kemal Ahmet Arii and his assistants, Gunduz Ozdes and Emin Canpulat, of Instanbul. The second prize was awarded to Alexander Freiherr von Branca and his assistant, Reinhold Wierl, of Munich, and the third prize to Rauf Beyra of Ankara.

FRANCE

Holiday Exchange

A French student of architecture, Claude Pittoors, of 10 rue Michael Winburn, Courbevoie (Seine), France, wishes to exchange with an English student his home and job for the period from July 15 to October 10.

M. Pittoors has completed over five years of architectural training. The job he offers in exchange for one here, is that of an architectural assistant at the Airport of Paris (Orly) at a salary of between 250 and 450 francs per hour,* according to the experience of the English student taking his place. A thorough knowledge of French is *not* necessary.

Anyone able to provide similar employment and accommodation for the same period in this country and interested in an exchange should write direct to M. Pittoors.

* 100 francs = approximately 2s.

DIARY

Students' Exhibition. At Polytechnic School of Architecture, Little Titchfield Street, Great Portland Street, W.1. 10 a.m. to 8 p.m.

JULY 8-10

Annual Prize-Giving. At Canterbury College of Art School of Architecture. Address by H. V. Lobb. 3 p.m. (Exhibition: July 11 and 12, 10 a.m. to 6 p.m.)

JULY 9

Annual Prize-Giving and Exhibition. AA, 36, Bedford Square, W.C.1. Presentation by Howard Robertson. 2.30 p.m. (Exhibition: 10 a.m. to 6 p.m. [until 2 p.m., Saturday] until July 31.)

JULY 11

For Bill and Betty—Or Setting Up Home. At the Whitechapel Art Gallery, High Street, E.1. (Sponsors: Oxford House in Bethnal Green and the Whitechapel Art Gallery.) Weekdays (excluding Mondays) 11 a.m. to 6 p.m.; Sundays 2 p.m. to 6 p.m.

UNTIL JULY 24

The problem of small house design has degenerated into a struggle for minimum areas and least costs. "Architecture" no longer seems to enter into the problem at all. In the article below, I. de Wolfe (a contributor to the ARCHITECTURAL REVIEW*) makes a plea for getting "Architecture" back into small house design. This he couples with a plea for the "Linear House," arguing that it is distance, not area, that the eye best appreciates. The "Linear House" is but one proposal. Fertile architectural brains should be able to produce numerous alternative proposals. For there is no one solution to the problem of small house design. There are numerous problems and numerous solutions are required—each district, each type of family, each income level has different requirements. At a time when speculative building is re-commencing and, as a result, less housing work will remain under architects' control, what is, in fact, needed is a completely new approach to the problem,* by architects, *untrammelled by an arbitrary set of principles or preconceptions.*

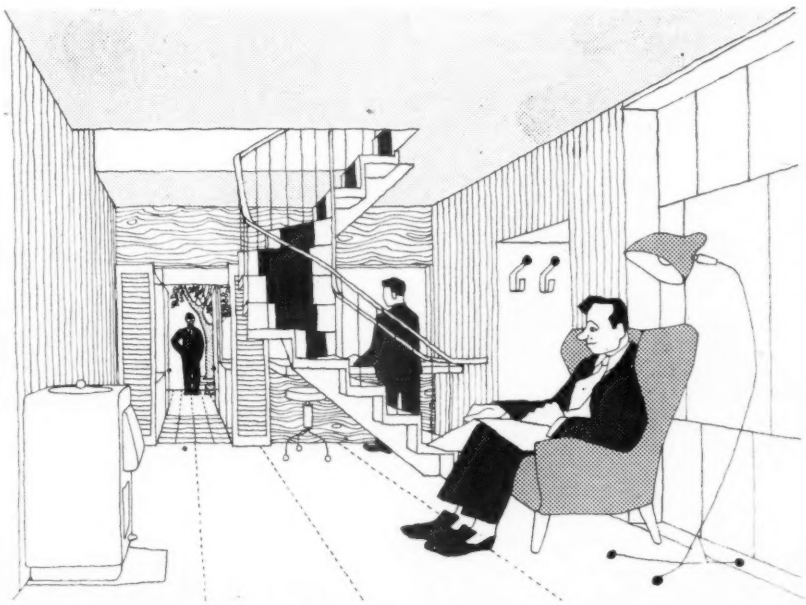
A PLEA FOR

THE LINEAR HOUSE

By I. DE WOLFE

HOUSING standards belong to the shadow world, the shadow politics, of restrictive planning. A necessary world, but one which is under constant pressure to take the shadow for the substance. Standards are necessary to restrain unscrupulous or stupid people from victimizing the public; they were never meant to be, nor could be, substitutes for live planning, which demands the architect's positive and peculiar gifts—demands them most of all when the product in question invites or is liable to mass-production.

Mass-production in housing has not worked—nor alas has live planning—



Above, a sketch by Gordon Cullen illustrating the principle of the Linear House; the interior, at ground floor level, looking from the sitting area, through the dining and kitchen areas, to the garden beyond.

Gordon Cullen's conception of how (left) the front and (above) the rear of a terrace of Linear Houses might be treated.

and one of the explanations is, ironically enough, the existence of those same restrictive standards which the architect was largely responsible for creating. Somehow they have succeeded in making the architect—the live architect—bored with the whole business of housing as a live problem.

This, under today's circumstances, is a near-tragedy. Housing is the one architectural activity of critical national importance, a "first priority" in the mind of public and government. Why then is the architectural profession not leaning over backwards to find the solution that will produce three or more hundred thousand houses a year, in fulfilment of its obvious responsibilities towards the public, to whom, in this department anyway, the architect stands in relation as shepherd to flock?

A rhetorical question to which we all know the answer; the fact remains that the architect should fulfil these responsibilities. The plans on the following four pages suggest a new approach to the problem of small-house-planning, which, whatever its faults, should at least demonstrate that all the possibilities of the subject have not yet been exhausted. The idea of the linear city has had the sanction of public debate—I now beg to propose the "Linear House."

TWO FALLACIES

Allowing myself the exaggeration I deplore in others, I would say that there are two fallacies in the minimum-standard battle as now practised. Fallacy No. 1 is that the house-owner wants the biggest house his money will buy; fallacy No. 2, that space—the sense of space—*spaciousness*—depends on the number of cubic feet that can be pumped into the space enclosed; depends, that is, like a child's balloon, on the extent to which you can blow out all four walls and ceiling.

SPACE AND SPACIOUSNESS

To take the second fallacy first, it is high time that architects made it clear to the housing authorities—who are, after all, laymen—that mathematical and psychological space have little in common but the word "space." About four feet square of free floor is needed to free the living cadaver from any real constriction of movement (as most of us can demonstrate in our bathrooms); the rest is mostly a visual—in other words, a psychological—problem. Now, the psychology of sight has never had a first rate architectural analysis, but there are certain things we all know about the eye and its lusts, and one of them is its passion for perspective—for seeing through, or over, or out of, or into—its passion, that is, for seeing at a distance. This characteristic is implicit in its nature as the organ of "touch-at-a-distance"; seeing the sun being, in fact, an act of touching an object 93 million miles away. When the sun looks in through the window, you are, in a sense, inhabiting a house 93 million miles long, but, alas, how often do we see the sun? However, there are other ways of satisfying the eye's passion for space; one of them being the classic technique of the vista, which is another way of saying the eye is more sensitive to linear than to cubic effects.

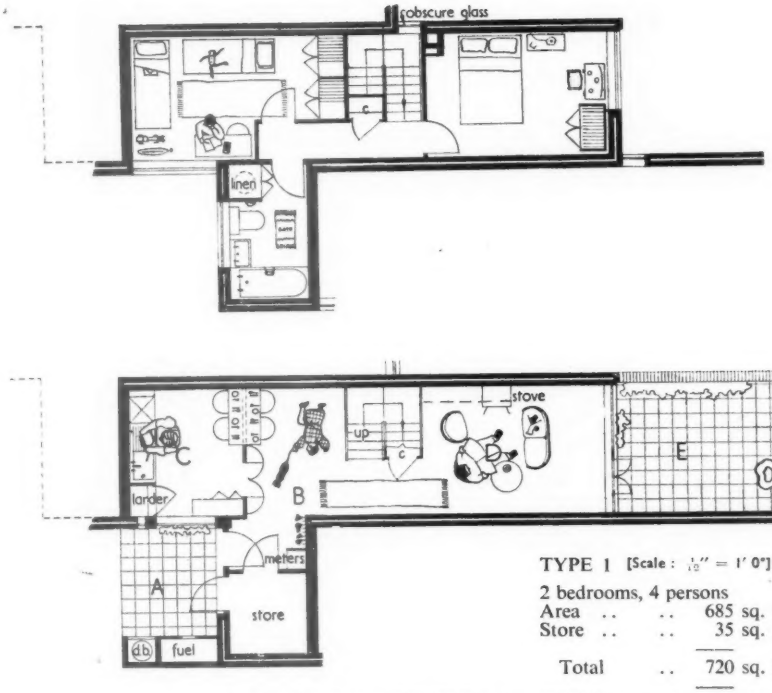
A HUMAN PROBLEM

Now the problem of the small house is a humanist problem; it is the problem of fitting a very sensitive spirit—Man—with one ultra-sensitive organ—the eye—into something in the nature of a large packing-case, and making him like it. It may keep him warm and house his gods and goddesses; he may find it necessary to convince himself that he likes it. But, in fact, unless it can provide him with certain freedoms and releases from restraint, it will not like *him*; that is, it will injure him in subtle ways for which there is no name in medical dictionaries and, through him, it will injure society as a whole.

SOCIAL EFFECT OF SMALL HOUSES

In the long run, perhaps, the most dangerous social thing about the small house is its inhibiting effects upon the mind, the emotions, and the imagination—effects which disclose themselves in loss of vitality, pessimism, mental flatulence, smallness of vision, long sufferingness, banality, and many more of the less well-known diseases of what is quaintly called civilization. The loss of visual freedom is, of course, not the only inhibiting factor in the small house, but it is one which architects are taking increasing notice of today, now that the basic needs of heat, light, sanitation and sound insulation *can* be met. In fact, the contemporary planning battle largely resolves itself into the struggle to rescue the small house from its smallness.

A lost cause? Yes, if approached in the conventional way, as, for example, by the latest MOHLG plans. For these plans, in spite of their good points, still fail to win the battle against claustrophobia. They achieve one big or biggish room, then relinquish suddenly the unequal visual struggle. This is the point where the Linear House takes over.



TYPE 1 [Scale : $\frac{1}{16}$" = 1' 0"]

2 bedrooms, 4 persons

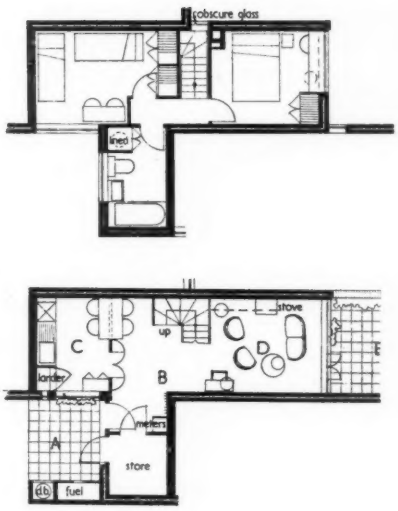
Area	.. ..	685 sq. ft.
Store	.. ..	35 sq. ft.
Total	..	720 sq. ft.

(Area of equivalent MOHLG house: 757-846 sq. ft. inc. store)

TYPE 1a [Scale : $\frac{1}{16}$" = 1' 0"]

2 bedrooms, 4 persons

Area	.. ..	573 sq. ft.
Store	.. ..	30 sq. ft.
Total	..	603 sq. ft.



Type 1. *A* 2*-bedroom house,* 37 *sq. ft.. smaller than the smallest MOHLG house. Kitchen overlooks entrance. Store is good shape. Entrance is not constricted. Provision made for meters and hat and coats. Staircase has no winders. Sitting space is screened from sight and draughts. Cupboards under stairs and on first floor landing and large linen cupboard. Large bathroom. Neither front nor rear garden overlooked by neighbours. Type* 1a, 117 *sq. ft. smaller. Similar, but winders required in staircase and built-in furniture needed in principal bedroom. Otherwise all same amenities, except for cupboards under and over staircase. Space saved by reducing principal bedroom from* 115 *sq. ft. to* 95 *sq. ft. and other bedroom from* 115 *sq. ft. to* 105 *sq. ft. and by modifying staircase.*

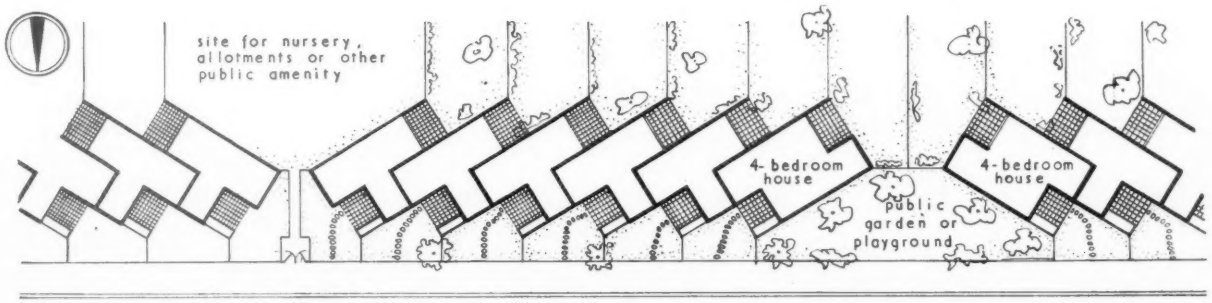
If the eye is sensitive to linear rather than to cubic quantities would it not be worth while to consider how the Cubic might be made, in the literal sense, to surrender ground to the Linear? Working on this hypothesis one produces a plan which boldly challenges the current "square-room" policy. Wherever it is humanly possible it is proposed to steal breadth in order to add length. In the bedroom this policy can be dangerous (though not necessarily so); on the ground-floor of the house it can, by techniques of interior landscape, yield astonishing visual dividends.

ONE EXAMPLE

Consider exhibit No. 5 (on page 14). Here, in a three-bedroom house no larger than the average MOHLG three-bedroom house (and 16 sq. ft. smaller than the largest), besides the usual amenities, the tenant is provided with an interior vista of just on 32 ft. Open the French windows so as to include the garden room which is entirely private and there is a 40-ft. vista, composed, as suggested in Gordon Cullen's sketches, of a number of exciting incidents: the visual hazard of the staircase, the bar opening, two pairs of French windows and the foliage of the garden—a degree of homescape not always available in a large country house.

And what have we sacrificed? That space in the centre of rooms and behind armchairs which is nice space to have,

Below, suggested site plan (scale $\frac{1}{64}$ *in. = 1 ft. 0 in.) for Linear Houses with living room at rear (i.e. types* 1, 2 *and* 5*). Living rooms in alternate terraces face S.E. and S.W. respectively. Types* 3 *and* 4 *(with living room at front) would be on the opposite side of the road, thereby retaining same aspects for living rooms. The* 4*-bedroom houses would be specially designed.*



TYPE 2 [Scale : $\frac{1}{2}$" = 1' 0"]

2 bedrooms, 4 persons

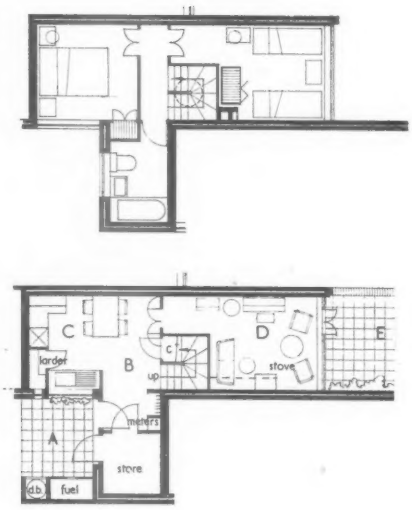
Area	.. ..	685 sq. ft.
Store	.. ..	35 sq. ft.
Total	..	720 sq. ft.

(MOHLG, 757-846 sq. ft.)

TYPE 2a [Scale : $\frac{1}{8}$" = 1' 0"]

2 bedrooms, 4 persons

Area	.. ..	573 sq. ft.
Store	.. ..	30 sq. ft.
Total	..	603 sq. ft.



Type 2. A 2-bedroom house similar to and same area as Type 1 Kitchen arranged differently. B and C combined to form dining kitchen, with ordinary dining-cum-work table. Sitting room-parlour can be cut off from remainder of ground floor by pair of doors when desired. Staircase fully enclosed with cupboard under; no winders. First floor planned so that with bedroom doors open interior vista of 34 ft. obtained. Type 2a, same area as 1a. Winders required in staircase. Cupboard under retained. No linen cupboard. Built-in wardrobe required for principal bedroom. Otherwise similar. Bedroom areas as 1a.

TYPE 3 [Scale : $\frac{1}{2}$" = 1' 0"]

3 bedrooms, 4 persons

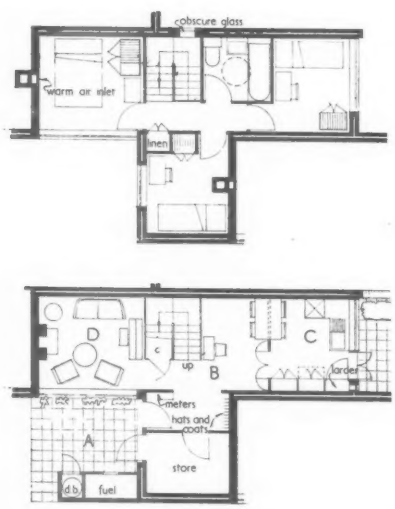
Area	.. ..	752 sq. ft.
Store	.. ..	48 sq. ft.
Total	..	800 sq. ft.

(MOHLG, 798 sq. ft.)

TYPE 3a [Scale : $\frac{1}{8}$" = 1' 0"]

3 bedrooms, 4 persons

Area	.. ..	648 sq. ft.
Store	.. ..	45 sq. ft.
Total	..	693 sq. ft.



Type 3. A 3-bedroom house for 4 persons. There is only one MOHLG plan of this type. Area approximately the same as the MOHLG plan. Large store. Sitting area at front of house, with view past staircase through 2 pairs of glazed doors to garden at rear. Staircase enclosed on one side only; no winders; cupboard under. Play space separate from entrance space. Large kitchen. Linen cupboard. Large bathroom, could have window or top light and ventilation, to avoid overlooking neighbouring garden. One small bedroom needs built-in cupboard. Type 3a, 107 sq. ft. smaller but no facilities omitted. No winders required. Bedrooms re-arranged. Principal bedroom reduced from 105 sq. ft. to 90 sq. ft. and 2nd bedroom from 105 sq. ft. to 70 sq. ft.

TYPE 4a [Scale : $\frac{1}{8}$" = 1'0"]
3 bedrooms, 5½ persons

Area	.. ..	794 sq. ft.
Store	.. ..	64 sq. ft.
Total	..	858 sq. ft.

TYPE 4 [Scale : $\frac{1}{8}$" = 1'0"]
3 bedrooms, 5½ persons

Area	.. ..	835 sq. ft.
Store	.. ..	65 sq. ft.
Total	..	900 sq. ft.

(MOHLG, (5 persons) 882-926 sq. ft.)

Type 4. A 3-bedroom house, same size as average MOHLG 3-bedroom type. Third bedroom large enough for cot, in addition to ordinary bed. Sitting space at front of house. Store enlarged to serve also as laundry. Staircase (no winders) can be open or enclosed, depending on degree of privacy desired in sitting space. Part of living room behind staircase can extend 2 storeys in height, with top-lighting. Bar seats six. Type 4a, 42 sq. ft. smaller. Otherwise similar. Winders could be omitted. Space saved by reducing principal bedroom from 110 sq. ft. to 100 sq. ft. and 2nd bedroom from 125 sq. ft. to 115 sq. ft.

other things being equal, but which is neither *useful* nor *visual* space.

THE PLANS

The house plans accompanying this article are not put forward as solutions to the housing problem, nor is it suggested that they represent the Linear House in its final form. They have been drawn up simply to illustrate the type of plan which the "linear" principle makes possible. Two- and three-bedroom examples are included. The areas of the three-bedroom types are approximately equal to the average areas of the equivalent MOHLG "People's Houses" although it is not necessarily accepted that these areas are sufficient (whatever the shape of the house) to provide the degree of amenity which one might expect in 20th-Century Western Europe. The two-bedroom types are somewhat smaller than MOHLG two-bedroom houses. In order to show that on the linear principle extremely small houses are feasible, each plan is accompanied by a similar plan of considerably reduced dimensions. These "Minimum" Linear Houses are between 12 and 25 per cent. smaller than the MOHLG houses. Of course, plans this size (again, whatever their shape) cannot be expected to provide adequately for the full range of domestic activity, but neither do the MOHLG plans (as was pointed out at some length in the JOURNAL for December 13, 1951).

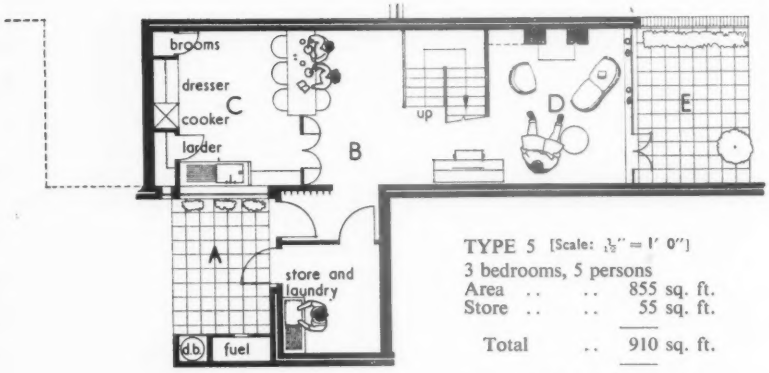
THE PLAN ELEMENTS

Basically, the ground floor of each house divides itself into five elements: "A"—the private front garden, or paved area, not overlooked except from the road; a fuel store; the dustbin enclosure; the main store and laundry; meters; hat and coat space. "B"—the "Town Square"—a multi-purpose space for receiving visitors and callers, dining, circulating and children playing. The staircase acts as a "buffer," preserving a certain degree of privacy in the sitting space but not interfering with the view through the house. "C"—the kitchen, with its dual-purpose bar serving as working space and dining table. "D"—the main living space including the "cosy corner" for sitting. "E"—the patio—an outdoor extension of the living room, with equal privacy, extending the visual dimension and leading to the garden proper.

Upstairs, the Linear House is planned on fairly conventional lines. In one case, however (2), an attempt has been made to introduce the linear principle on to the first floor. When the two pairs of double doors are open, a homescape of 34 ft. relieves the eye from the construction of the first-floor landing.

VARIATIONS

The extent of open planning on the ground floor can be varied, partly by the degree to which the staircase is enclosed and partly by the way in which the various elements are separated by pairs of doors. On the other hand, by



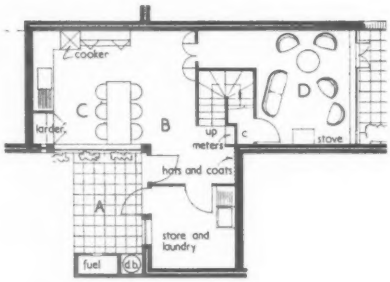
TYPE 5 [Scale: $\frac{1}{16}$" = 1' 0"]

3 bedrooms, 5 persons		
Area	.. ..	855 sq. ft.
Store	.. ..	55 sq. ft.
Total	..	910 sq. ft.

(MOHLG, 882-926 sq. ft.)

TYPE 5a [Scale: $\frac{1}{16}$" = 1' 0"]

3 bedrooms, 5½ persons		
Area	.. ..	794 sq. ft.
Store	.. ..	64 sq. ft.
Total	..	858 sq. ft.



Type 5. A 3-bedroom house, slightly larger than Type 4, with sitting space at rear—the preferred arrangement. Kitchen, therefore, near entrance. Staircase, screening sitting space, has half landing; could have cupboard under, as in 5a. Bathroom must be top lit and ventilated. Built-in furniture not essential. Ground floor easily converted to dining-kitchen and parlour arrangement, as in 5a. Type 5a, same size as 4a, 52 sq. ft. smaller than 5. B and C reduced in area and combined, with ordinary table. Winders used in staircase and space saved used for W.C. and closet. Store and laundry and bedroom above enlarged, making room for extra cot as in Type 4. Principal bedroom reduced from 110 sq. ft. (in 5) to 100 sq. ft. (in 5a) and 2nd bedroom from 130 sq. ft. to 110 sq. ft.

Above, a typical kitchen and dual-purpose bar (dining table and work top) in a Linear House. Beyond is the staircase, partly screening the sitting space at the rear.

substituting an ordinary table for the bar, and having just one pair of doors by the staircase (as in 2), the house can be divided into the two traditional elements still widely popular—the living-kitchen and the parlour—an arrangement which has much to commend it for families that cannot afford whole-house heating.

COST

The Linear House is by no means the cheapest house ever. With its increased perimeter, staggered layout and dispersed plumbing (although with front and back access staggering would not be essential) it is likely to cost more than the conventional square house. Improvements cannot be obtained for nothing and one way of counteracting the increased cost would be to reduce the areas as shown in the supplementary plans—1a, 2a, etc. However, the reduction of housing costs depends more than anything else on efficient building and organization, on the exploitation of modern techniques and the use of mechanical aids. The introduction of incentive schemes alone can save nearly £50 per house. Architects have always stood for more efficient building rather than for reduced standards, and there is a limit to the degree of quality it is justifiable to sacrifice in the interest of quantity.

Several points have been raised by readers of Mr. Sophian's article on the Taxation Aspects of Building Conversion (May 29). He discusses them here.

T. J. SOPHIAN

Building Conversion and Tax Relief

As I wrote on May 29, relief in any particular year is calculated on the basis of the average expenditure for the five preceding years; relief will be granted, in substance, in respect of the excess of that average expenditure over the statutory repairs allowance. Thus, if the statutory repairs allowance in respect of property for the financial year 1951-52 was £200 and the *average* expenditure, which will include expenditure on *maintenance, insurance and management*, in addition to *expenditure on repairs*, for the preceding five years has amounted to £1,500, the amount of the excess maintenance relief will be the difference: £1,500 – £200 = £1,300.

These calculations have to be made year by year, and for the subsequent year 1952-53, the amount of the relief is not likely to be the same as in the previous year, since now one must include the five-year average, the amount of the expenditure in 1951-52, and exclude the expenditure for the earliest of the five years taken into account for the purpose of determining the average in relation to 1951-52, and so on.

But suppose that the property has been sold, and that it has a new owner. What does the new owner do about claiming relief ? It is true that what was previously s. 67 of the Income Tax Act, 1945, provides that expenditure which has been met by any person other than the claimant must be left out of account, but expenditure by a previous owner is not excluded by this provision. The relief attaches to the property itself and is irrespective of the ownership. A new owner is entitled to bring into the average calculation expenditure incurred during the previous five years, even though it may have been incurred by a previous owner. But he may not, of course, have details of such expenditure. It is, presumably, for this reason that a concession is granted to the new owner (by extra statutory Concession 5(b)) whereby he is permitted to make his claim for relief on the basis of *his actual expenditure in the year of claim*, (provided that the expenditure is not exceptionally heavy), until a five years average is available. There is, however, a condition to this concession; if it is granted, the claimant must undertake to accept the " actual year " basis for five complete years. Thus, if a new owner incurs expenditure on repairs of £100 in the first year of his purchase, the excess maintenance relief will be calculated for the first year on the basis that it amounts to £100, and in every subsequent year of claim, for the next four years, the actual expenditure for such year will be taken, until in the sixth year, a five year average based on the expenditure of the previous five years will be available.

When a building is converted, obsolete services, which were in a state of disrepair, may not, in fact, be repaired, but replaced by something more modern. For example, gas piping which needed repairing, may be replaced by electric wiring. Or again, old types of baths and water closets, which in any case required renewing, may be replaced by modern appliances.

On the assumption that the conversion has not caused any loss of identity of the original building, a concession (Concession 5(c)) may be claimed. Under this the estimated cost of repairs obviated by the alterations will be allowed so long, of course, as the alterations have not created a new subject of assessment; *i.e.* by an alteration of the identity of the building. In the examples given the cost of renewing the gas piping, and of replacing the old baths and water closets by baths and water closets of a similar kind would be allowed. In making a claim where the conversion *has not changed the identity of the building*, it is essential to separate repair work from conversion work, *e.g.* the bricking-up of openings, the erection of partitions, or the construction of new bathrooms and lavatories.

I have been asked what would constitute a destruction of the identity of the building as the result of the conversion. I cannot give any better definition than appears from the judgment of Lord Radcliffe in the case quoted in the article. The less structural alteration there is, the more chance there is of convincing the inspector or the court—if an appeal is necessary—that the identity of the building has not been lost or destroyed. Where parts of the building have been rendered self-contained, then the nature and the amount of the work exclusively attributable to achieving that object will be important factors for consideration, but assuming that there has been no loss of identity, the fact of conversion in itself will not prevent the owner from taking into account expenditure on items of repairs pure and simple. For example, if a room required repapering and repainting, and in the process of conversion a lathe and plaster partition was put up in the room, the cost of putting up the partition would be excluded but the cost of repapering and repainting could be claimed as expenditure on repairs for the purpose of the relief.

This week Mr. Watkins discusses a court case which illustrates "the element of chance" in the Planning Act.

ERNEST WATKINS

An Unsound Act

A recent Court case, that of *Hanily v. Minister of Local Government*, illustrates once again the element of chance there still is in the operation of the Town and Country Planning Act. A Miss W. A. Hanily owned a freehold site in South London on which stood, or had stood, some cottages. A firm of metal workers wished to buy the site for the erection of a factory. The existing use value of the land—so the proposed purchasers were advised—was £450. Miss Hanily wanted more than £2,000 for it and refused, in the negotiations, to come below £2,100. But the metal workers, before they began the negotiations, had prudently obtained the planning permission they needed from the LCC (although at that time they had no legal interest in the land), so that, when negotiations made no progress, they were in a position to ask the Central Land Board to buy it compulsorily at its existing use value. While the District Valuer, on behalf of the Board, was negotiating with Miss Hanily, she received an offer from a third party of £1,750, and she accepted it.

Notwithstanding this, the Board made the Order and Miss Hanily was faced with a compulsory sale at £450. She appealed to the Court to set the Order aside. The Court could not help. The Order, it said, had been properly made. The Board was performing its proper function of seeing that sales of land took place at their existing use value, no more.

There are, of course, two possible views of Miss Hanily's position. One is that an officious tyranny has stepped in to prevent her from selling her property at a price a willing purchaser was prepared to pay and has compelled her to accept a quarter of its market value judged on that basis. The other view is that a vigilant public authority has used the powers given it by Parliament to prevent a landowner from flouting an Act by selling her land for more than it is worth. Whichever view is preferred, the thing that is unfair about the Hanily case is that it is one in a thousand, either way. For every proposed sale at a price above existing use value that the Central Land Board steps in to stop, there must be nine hundred and ninety-nine which go through without let or hindrance, or public knowledge. Miss Hanily's real complaint is " Why pick on me? " Laws which pick and choose in their operation are not usually considered to be sound.

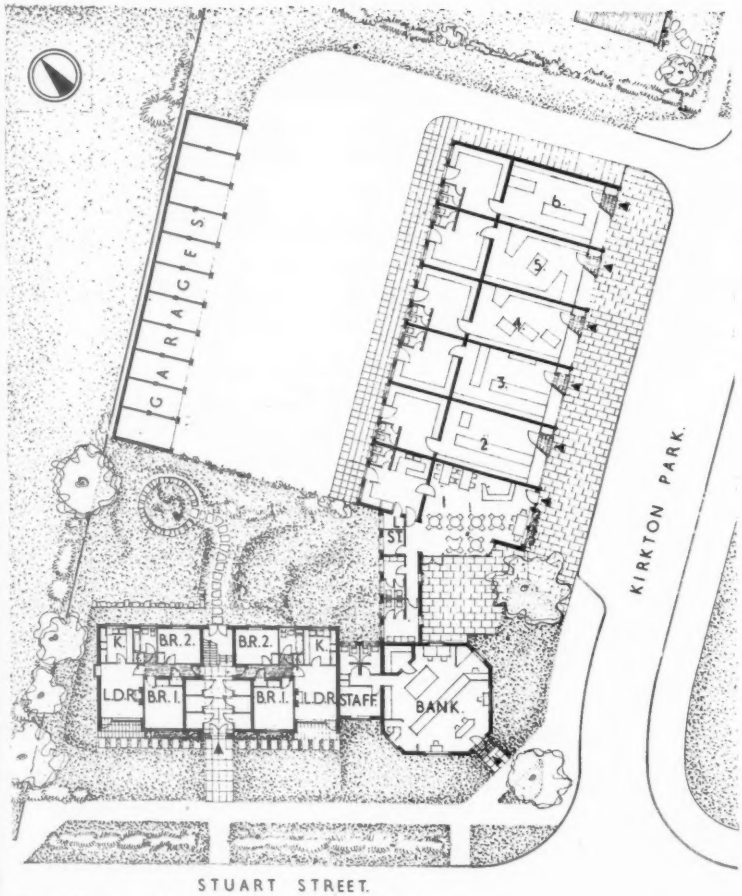
SHOPS AND FLATS

at WHITEMOSS, EAST KILBRIDE, LANARKSHIRE
designed by A. REIACH and R. COWAN
assistant architect T. R. SPAVEN

As a result of the expansion of the Whitemoss area at East Kilbride New Town, there was an urgent need for a local shopping centre until the main town centre had been built. In addition to the shops, a small block of flats for key workers in various industrial enterprises in the district and a range of lock-up garages are provided. The site is level and lies at the junction of a major and a minor road.

Looking north at the row of six shops.

View looking north, with the bank on the corner, linking the flats on the left to the row of shops which are out of the picture on the right.



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

SITE.—The shops were planned to face the minor road to the south-east of the site to avoid traffic congestion due to parked vehicles. The flats face the main road, but are amply set back and have pedestrian access behind an existing hedge. Immediately to the south a major traffic link branches off to the new town centre, which makes the site a strategic point in the area.

PLAN.—There are six shops in all, of which the first is a café, which opens on to a small terrace between the shops and the octagonal bank on the corner. The bank forms the link between the row of shops and the flats. The flats comprise two three-room flats and stores for each flat on the ground floor, and two four-room flats on each of the two upper floors. There is a wide entrance hall leading through to a drying area at the rear.

CONSTRUCTION.—Walls are of cavity brickwork, ground floors *in situ* concrete, upper floors precast hollow concrete beams. Pitched roofs have timber trusses and flat roofs are of precast hollow concrete units.

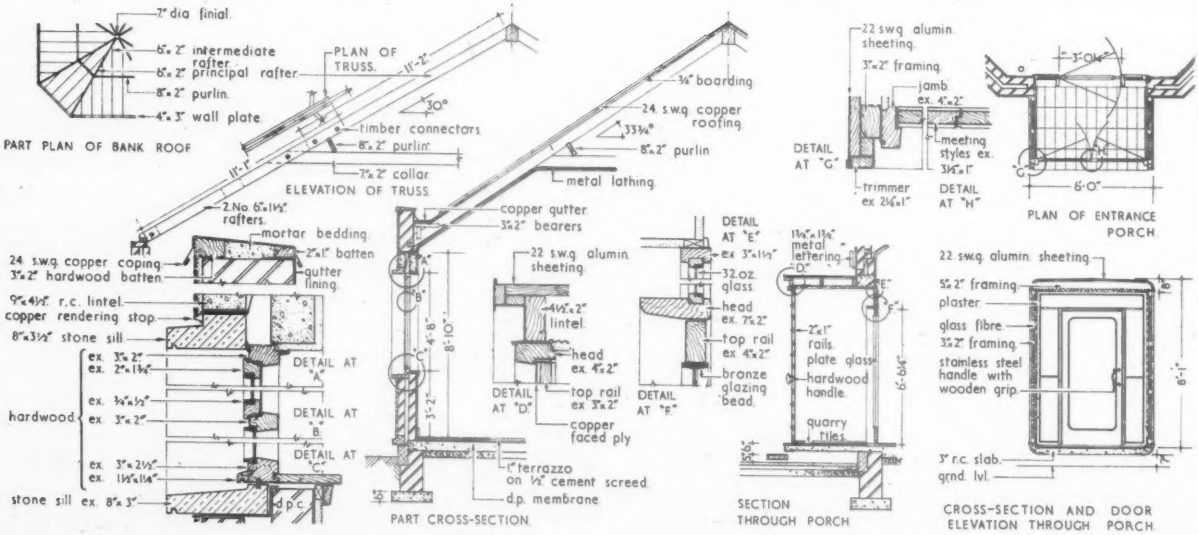
The main entrance of the savings bank with the flats behind.

SHOPS AND FLATS

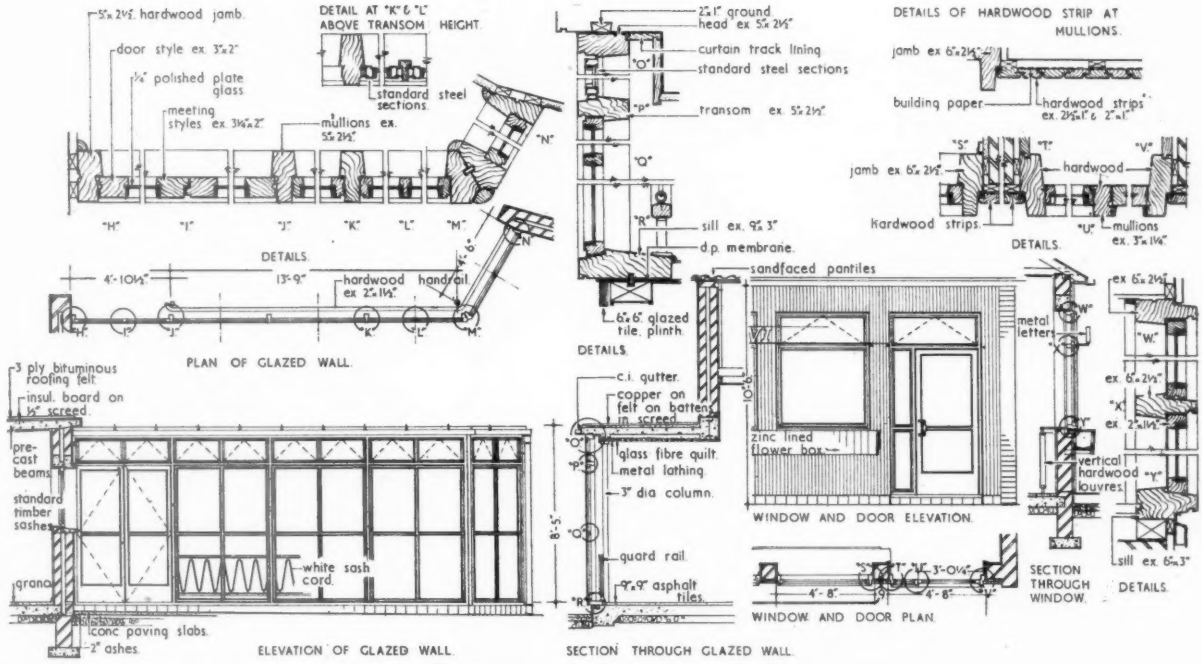
at EAST KILBRIDE, LANARKSHIRE

designed by A. REIACH and R. COWAN

FINISHES.—Floors in flats are of softwood fixed to battens on glass-wool quilt and thermoplastic tiles in kitchen and bathrooms. Similar tiles are used in all the shops with the exception of the fishmonger's, where quarry tiles are used. Roof finishes are dark red-brown pantiles on the flats and shops and copper on the bank. Flats have softwood casement windows in cast stone



Details of octagonal bank [Scales : $\frac{1}{32}$", $\frac{3}{8}$" and $\frac{3}{4}$" = 1' 0"]

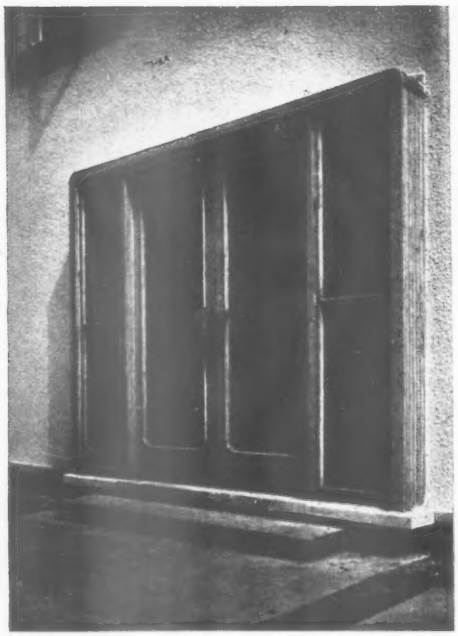


Details of shop 1 (café) [Scales : ⅛" and ¼" = 1'0"]

Two views of the café at the south-west end of the row of shops. Right, the main entrance. Below right, the terrace.

surrounds, balcony windows and doors in hardwood with an external wall lining of oak strip. Bank windows are framed in Aframosia with natural stone surrounds. This wood, which is similar to teak, is used for shop front framing. Stall risers and fascias are in 2½-in. by 1-in. varnished oak strip with a black tile plinth below. The sunblinds are green and white striped. The bank porch has oak strip sides, a varnished copper roof and flush teak plywood doors with polished brass studs. The lettering is in polished cast bronze on the bank and in enamelled sheet steel, supported on aluminium angles on the shops. Shop doors are of oak with teak glazing beads and handles. Down pipes are in copper. Walls to the flats are rendered externally with white, machine-cast, lime-cement finish. Eaves and balcony soffits are sky blue, windows and balcony balusters are white, the soffit of the stairs is lemon yellow, internal entrance doors to flats are blue, yellow or red according to the floor. External walls to the shops are white, the eaves soffit lemon yellow, windows and garage doors are sky blue, lettering has sky blue return surfaces and white on the face.

SERVICES.—The whole scheme is served by district heating installations from a central boiler elsewhere on the site. The hot water mains are carried in a duct which forms a plinth to the rear of



Above, the south-west facade of the flats, which face Stuart Street. Above right, main entrance to the flats.

SHOPS AND FLATS

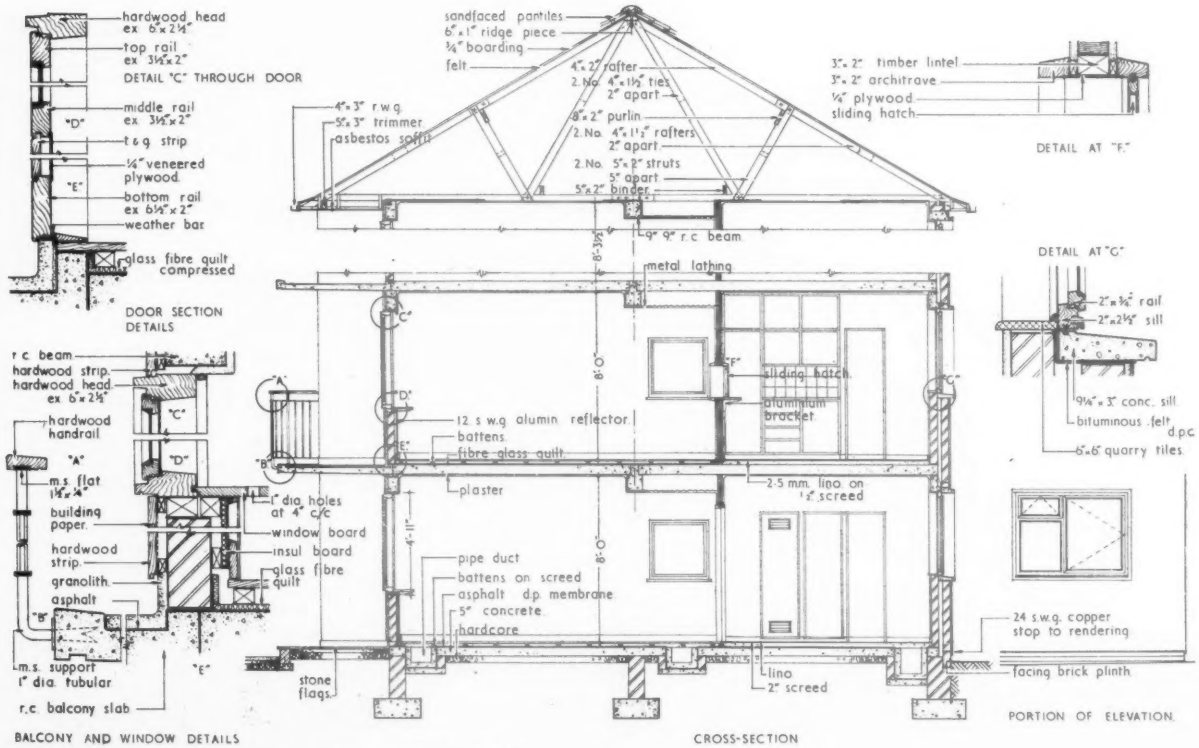
at EAST KILBRIDE, LANARKSHIRE

designed by A. REIACH and A. COWAN

the shops. Special consideration has been given to plumbing unit prefabrication and a copper pipe assembly has been made for flat bathrooms.

The contract prices were £9,754 for the flats, and £16,396 for the shops, bank and garages. The costs per foot square are 30s. 10d. for flats, 39s. for shops, 42s. for the bank and 20s. for garages.

The general contractors were George Wilson Ltd. For sub-contractors see page 30.



Cross section and details of flats [Scales : ½" and ¼" = 1 0"]

TECHNICAL SECTION

Artificial lighting is becoming more an integral part of the design and fabric of buildings ; in important buildings, and particularly in offices and schools, the disposition, sizes and types of light source and fitting are now seldom left to chance or decided arbitrarily at the last moment.

This is an excellent thing, but it represents an extension of the architect's responsibilities and, therefore, adds another subject to the already formidable list of subjects of which conscientious architects must have more than a superficial knowledge.

Text books on lighting are not usually written for the architect, but for the illuminating engineer, so the JOURNAL is publishing a series of short surveys on lighting, the first of which, dealing with types of light *source*, commences below. This article is followed by short reports of four recent talks on lighting and some illustrations and descriptions of lighting fittings specially designed for the Ridgeway Hotel, Lusaka, Northern Rhodesia, which were exhibited at COID last year. The second survey in the series will deal with the design of lighting fittings.

This week's survey

24 LIGHTING (ARTIFICIAL)
recent developments in light sources

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.

The responsibility for lighting now falls more upon architects than it did in the past. The following survey, by John Bickerdike, an architect who has specialized in lighting, deals with the various types of lighting source now available, their respective properties, advantages, disadvantages and cost, and should help the architect to make his choice.

Technical terms are not readily assimilated without day to day use, but one cannot discuss lighting without knowing what is meant by the Lumen, the Lumen per Watt, and the Lumen per square foot.

The Lumen* (L) is a unit of light output. Thus a 300-Watt lamp may produce 4,400 Lumens of light compared with 1,100 Lumens for a 100-Watt lamp. Hence, of the two lamps in this example, the one with the higher wattage is more efficient, because it gives nearly 15 Lumens for each Watt of current, whereas the 100-Watt lamp gives only 11½ Lumens for each Watt. Thus we derive our second unit, the Lumen per Watt (L/W), with which we compare the efficiency of different lamps.

The third term, Lumen per square foot (L/ft.²) or Foot-candle, is the unit in which illumination is measured. A

* A Lumen is the amount of light falling on one square foot of the surface of a sphere of one foot radius when a "standard candle" is placed at the centre of the sphere. (Inversely, one candle is equivalent to 12.5 Lumens.)

light meter records in L/ft.² or Foot-candles.

DEVELOPMENT OF LAMPS

The first practical electric lamp appeared about 1880. It had a carbon filament and a low light output of about 3 Lumens per Watt. In 1905 metal filaments were developed allowing higher burning temperatures and much higher efficiencies (about 9 L/W). These were vacuum type lamps. The gas filled lamp came in 1918, enabling still higher filament temperatures to be used, and efficiency went up to about 12 L/W. Finally the coiled filament was itself coiled and light output increased 15 to 20 per cent.

As the operating temperature of the filament is now close to the melting point of tungsten, the coiled-coil lamp probably represents the peak of the development of filament lamps.

GAS-DISCHARGE LAMPS

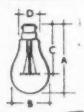
A new, very efficient, source of light is the gas-discharge lamp. In this, light is produced by the passage of electrical energy through certain vapours. Efficiency is high—3 to 4 times that of filament lamps—but, unfortunately, the light is not white. Mercury vapour gives a bluish-white light and sodium vapour a pronounced chrome-yellow: consequently, neither are suitable for interiors. In spite of this, they are occasionally used in factories because of their high efficiency, but the results are seldom satisfactory.

The mercury-vapour lamp can be used fairly successfully when blended with tungsten filament lighting. This has led

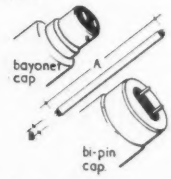
TABLE I

Properties and Dimensions of Filament, Fluorescent, Sodium-Vapour and Mercury-Vapour Lamps

TUNGSTEN FILAMENT

Type	Description	Dimensions A in.	Dimensions B in.	Dimensions C in.	Dimensions D in.	Life hrs.	Average lumens per watt throughout life
Tungsten filament  Standard bayonet cap (BC)	15 W BC or ES	3⅝	2 3/16	2½	1 3/16	1,000 nominal	7·5
	25 W " " "	2 1/16	2⅜	2¾	1 5/16		8·2
	40 W " " "	4 5/16	2⅝	3⅛	1 5/16		8·2 (10 coiled coil)
	60 W " " "	4⅝	2 9/16	3 5/16	1⅜		10·0 (11 " "
	75 W " " "	4⅞	2¾	3½	1½		10·0 (12 " "
	100 W " " "	5⅜	2 11/16	3 11/16	1½		11·6 (13 " "
 Edison screw cap (ES) or Goliath ES (GES)	150 W BC or ES	6¼	3⅛	4¾	1½		13·0
	200 W " " "	7	3½	5½	1½		13·5
	300 W ES	9⅛	4 5/16	7	1 15/16		14·8
	500 W ES	10½	5⅛	7 15/16	2		16·0
	750 W ES	11¾	5⅞	8⅞	2 3/16		17·0
	1,000 W ES	11¾	5⅞	8⅞	2 3/16		17·8
	1,500 W ES	13¼	6 11/16	9 13/16	2⅜		19·0

FLUORESCENT, MERCURY-VAPOUR AND SODIUM-VAPOUR

Type	Description	Dimensions A ft.	Dimensions B in.	Life hrs.	Average lumens Daylight	Average lumens Warm-white	Average lumens Natural
Fluorescent tubes (mains-voltage, hot-cathode type)  End caps all bi-pin except 80 W and 125 W	15 W	1	1	2,500	—	28	25
	20 W	2	1½	2,500	—	31	28
	30 W	1½	1	2,500	—	40	36
	30 W	3	1	2,500	—	40	36
	40 W	2	1½	2,500	—	29	26
	40 W	4	1½	3,000	45	45	38
	80 W	5	1½	3,000	40	40	36
	125 W	8	1½	3,000	—	—	39
Fluorescent tubes, high-voltage, cold-cathode type. Special end caps	250 W	8½	¾	10,000	31 L/W for "daylight," "intermediate white," or "warm white" colours		
Mercury-vapour discharge lamp	80 W			2,500	31		
	125 W			2,500	34		
	250 W			3,000	32		
	400 W			3,000	36		
Sodium-vapour discharge lamp	45 W			3,000	49		
	60 W			3,000	57		
	85 W			3,000	64		
	140 W			3,000	64		

to the development of the "mercury-tungsten" lamp, which has a mercury discharge tube and a tungsten filament within a common outer bulb. Its efficiency lies between that of mercury and tungsten lamps of comparable power.

FLUORESCENT LAMPS

The latest development in light sources is the fluorescent lamp. This is a mercury discharge lamp, usually tubular in shape, the inside of which is coated with a powder which becomes luminous when exposed to the ultra-violet radiation of the discharge. As the discharge itself is practically invisible, the colour of the light is determined wholly by the nature of the fluorescent powder. A very close approximation to daylight can be obtained. Moreover, by using suitable powders, a full range of coloured tubes can be made, some of which are even more efficient than the "daylight" tubes. Whereas, to get coloured light from filament lamps, colour filters are necessary which seriously reduce light output.

A COMPARISON OF LAMPS

In Table I the properties, dimensions, output, etc., of filament and gas-discharge lamps are compared. Tabulated below, for direct comparison, are the principal qualities and limitations of filament and fluorescent lamps.

FILAMENT	FLUORESCENT
A. *Efficiency:* Low—7 to 19 Lumens per Watt, depending on wattage of lamp. High-wattage lamps more efficient than low ones. No increase in efficiency likely in the future because the filament is burnt close to its melting point.	A. *Efficiency:* High—25 to 45 Lumens per Watt. Variation of efficiency between lamps is dependent on factors other than wattage—e.g., the 40 W., 4-ft. tube is more efficient than the 80 W., 5-ft. tube (45 L/W. compared with 40 L/W.). Efficiency likely to increase in the future.
B. *Life:* Short—1,000 hours. Normally gas-filled lamps should be burned with the cap upwards otherwise the life is reduced; above 150 W. the effect is serious. Vacuum lamps are not affected by burning position.	B. *Life:* Long, 2,500—5,000 hrs. Manufacturers usually say 3,000 hrs., but at least one is offering 5,000-hr. tubes. Life is not affected by the burning position.
C. *Cost:* Low. 100 W. = 1s. 9d. ex. p.t. 100 W. coiled coil = 2s. ex. p.t. 300 W. = 7s. 6d. no p.t. As life of lamp is short and its efficiency low, there is little to choose between cost of filament and fluorescent lamps. Filament lamps do not require expensive operating gear and, therefore, installation cost is much lower than for fluorescent lighting. Running costs are higher as current consumption is higher.	C. *Cost:* High—80 W. = 13s. ex. p.t.; 40 W. = 11s. 9d. ex. p.t. Life is at least 3 times that of filament lamps and light output double or treble; so, for a true comparison with tungsten lamps, the cost of a fluorescent lamp should be divided by a factor of between 6 and 9. Expensive operating gear is needed for fluorescent lamps; for an 80 W., 5-ft. lamp it costs over £3, and the capital outlay is, therefore, greater. Low running cost due to high efficiency, giving lower current consumption.

RELATIVE COSTS

The relative economy of tungsten and fluorescent lamps depends on the hours of operation and the cost of the electricity. For comparative purposes, running cost is calculated on a Lumen-hour basis, a convenient formula being,

$$C = \frac{1000}{F}\left[\frac{C_1}{h} + (C_c \times P)\right]$$

where C = total running cost in pence per million Lumen-hours; C_1 = cost of lamps, in pence; C_c = cost of current, in pence per unit; F = Lumen output of lamp; h = life of lamp, in thousands of hours; P = wattage of lamp.

When calculating C_c allowance must be made for any kW or maximum demand charges, divided by the estimated annual burning hours.

Fittings for filament lamps are generally cheaper. This affects installation costs.	Fittings tend to be more expensive than those for filament lamps.
D. *Brightness:* Very high, because area of source is small. Lamp must be well screened to avoid severe glare.	D. *Brightness:* Low, because area of source is large, but not low enough to do without good screening. More likely to cause disability than discomfort in viewing.
E. *Colour:* Acceptable for most situations. Spectrum is continuous, i.e., no colours are missing, but it is biased toward the red end. Therefore, it accentuates reds and colours with a red content. Colours are not greatly displaced relative to each other. The red bias makes it unsuitable for colour matching without a blue filter. Does not mix well with daylight. Most people seem to be satisfied with less illumination from filament than they are from fluorescent sources. The reason for this is not certain but it is probably due to the "coldness" of fluorescent light.	E. *Colour:* Acceptable in most situations but has not reached a stage of development where it can be used with confidence in, for example, restaurants, where slight distortion can have unpleasant effects. Spectrum is discontinuous, *i.e.*, there is a tendency for certain colours coinciding with the most pronounced spectrum "lines" to be enhanced, while the other colours are depressed. Various colours of lamps are available depending on the fluorescent powders used. The three commonest are "daylight," "natural" and "warm white." The daylight and natural lamps approximate closely to daylight and can supplement and mix with it well. Both have a slight blue bias. The warm white employs powders to give more red light—an attempt to create a more pleasant light, but its effect is not altogether satisfactory. The natural tube is proving most popular, but the daylight tube is the most efficient.

MIXED SYSTEMS

An increasing practice is the use of a mixture of tungsten and fluorescent light. The red bias in the tungsten is balanced by the blue bias in the fluorescent and *vice versa*, and the smooth spectrum of the tungsten unifies the broken one of the fluorescent. Recent studies indicate that a ratio of 4:1 (fluorescent : tungsten) gives exceptionally good colour rendering.

It appears to be essential to have one or other of the two sources well out of view, or screened in some way, for, although their light mixes well, the great difference in the colours of the actual sources is very pronounced. The installation cost of a mixed system will generally be less than that of a completely fluorescent scheme.

FILAMENT (*continued*)

F. *Heat output:* High. Of the total energy given out, 92% is heat, 8% is light. Two thirds of the heat is in the form of radiation—a 75 W. lamp radiates about 45 W. of heat.

The high proportion of radiant energy from such a small source must be allowed for in the design of fittings. Materials with low softening temperatures or inflammable materials should be kept well clear of the lamp and provision made for ventilation.

G. *Stroboscopic Effect:* Very little. Trouble not normally experienced. In a combined system of fluorescent and filament lighting, the filament light helps to reduce this effect.

FLUORESCENT (*continued*)

F. *Heat output:* Low—Heat, 83·5%; light, 16·5%. Only one half of the heat emitted is radiant—about 33 W. for an 80 W. lamp—which may be of major importance in situations where temperature has to be kept low or accurately controlled. Radiant heat can be a nuisance where lamps are used at close quarters, e.g., over drawing boards. The lamp has a low surface temperature (about 120° F.) which allows the fitting to be made of practically any material even if the material is in contact with the lamp itself. However, this low operating temperature makes the lamp particularly susceptible to changes of temperature. If exposed to cold draughts the temperature of the lamp is lowered, and the light output drops.

Under cold conditions, special arrangements must be made in the control gear circuit. Conversely, if the tubes are allowed to become too hot, due to poor ventilation, they can " over-run " and light output and life are reduced. The operating gear, too, is easily affected by heat and might be ruined if located too near a source of heat, such as a heated ceiling. Special advice should be taken for situations like this.

G. *Stroboscopic effect:* Can be troublesome. The flicker is caused by the extinguishing of the vapour discharge twice per cycle, i.e., 100 times per second on a normal 50-cycle A.C. supply. An object rotating at a speed exactly proportional to the cycle frequency will appear to be stationary, or, at other speeds, will appear to be rotating slowly. The effect is partly reduced by the " after glow " of the fluorescent coating. By the use of several lamps mounted close together and connected in suitable phase relationship, flicker effects can be largely eliminated. It does, however, tend to exclude the use of single tube fittings for local lighting over moving machinery.

Tubes with bayonet cap ends (chiefly the 80 W. 5-ft.) should also have the first 2 in. of each end covered, to mask " end-flicker " caused by the electrodes. " End-flicker " is more noticeable because its frequency is 50 cycles per second. This precaution is unnecessary for tubes with bi-pin ends since the tube is adequately coated at the ends.

OPERATING GEAR FOR FLUORESCENT LAMPS

Every fluorescent lamp normally requires three pieces of control gear—a starter, a choke and a capacitor. Inside the lamp at each end is a small tungsten filament, coated with an alkaline compound, which, when heated for a few seconds, freely emits electrons. The heating circuit is then broken automatically by the starter and a high voltage impulse released from the choke. This starts the discharge in the lamp, which is maintained afterwards by the mains voltage and the powder continues to fluoresce. In passing through the choke the power factor is reduced and the capacitor is required to bring it back to approximately what it was before.

The gear is heavy and rather bulky. Fig. 1 shows a " slim " type of gear usually used for 80 W. 5-ft. fittings. Gear is now available which gives instantaneous starting. The normal starter switch is replaced by a transformer which is linked with the choke in a single unit. An earthed strip along the length of the tube is necessary for reliable starting—in some types it is

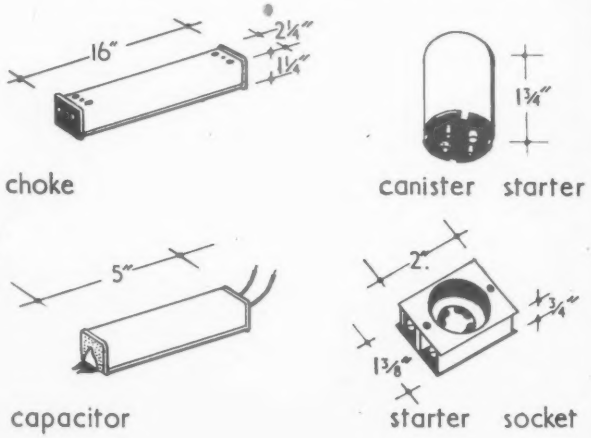


Fig. 1. " Slim " type of gear generally used for controlling 80 W. 5-ft. fluorescent fittings.

WORKING DETAIL

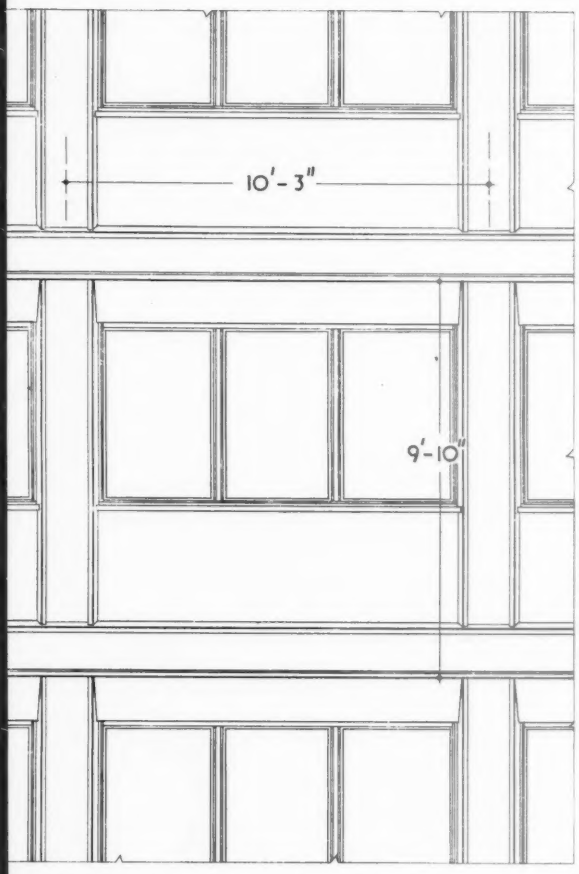
WINDOWS: FLATS IN GENEVA

Marc J. Saugey, architect

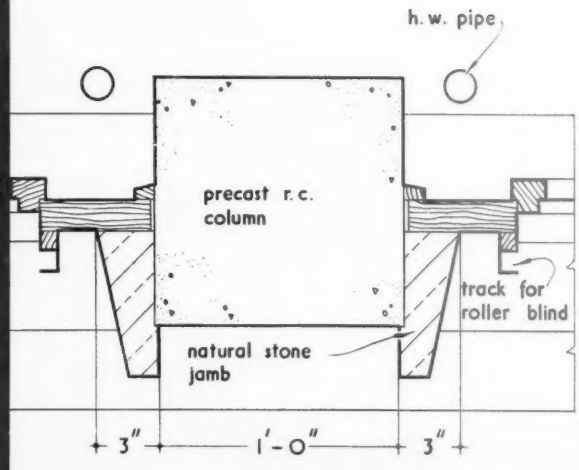
The infill panels under the windows are prefabricated from hollow terra cotta blocks faced with polished artificial stone.

WINDOWS: FLATS IN GENEVA

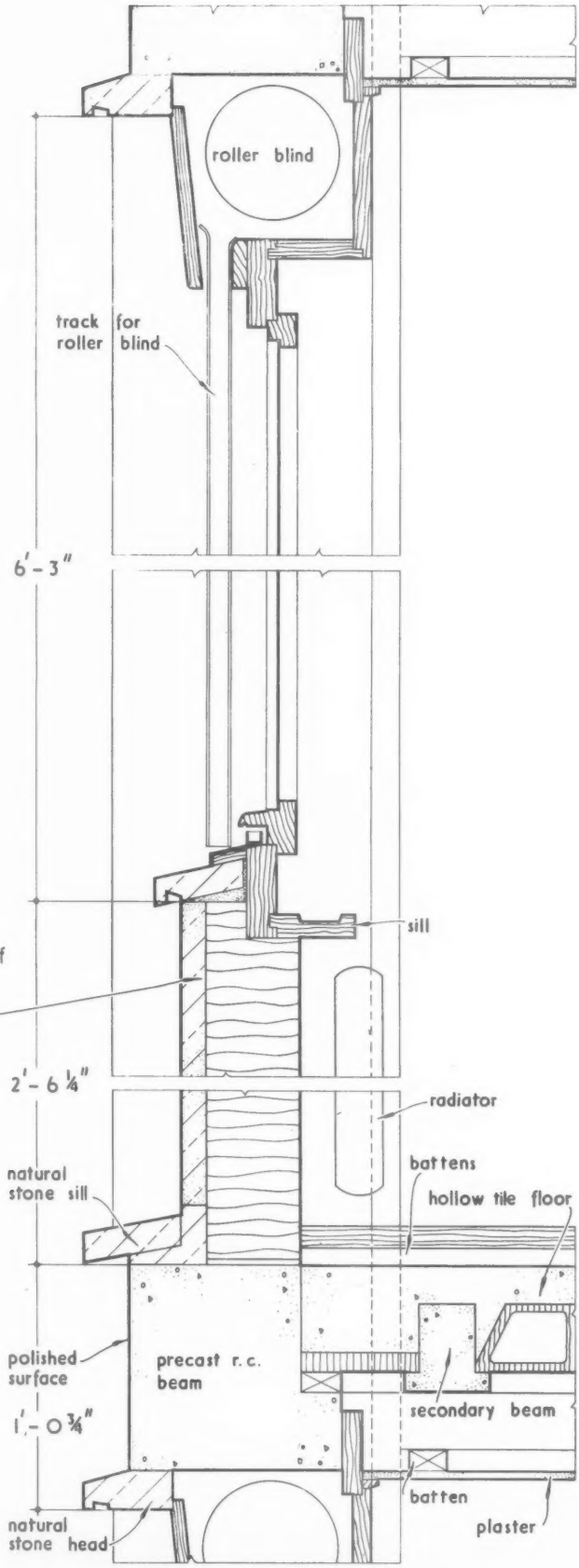
Marc J. Saugey, architect



PART ELEVATION. scale ¼" = 1'-0"



PART PLAN OF WINDOW. scale 1½" = 1'-0"



VERTICAL SECTION THRO' WINDOW. scale 1½" = 1'-0"

WORKING DETAIL

DOORWAY: MATERNITY HOSPITAL AT WIMBLEDON

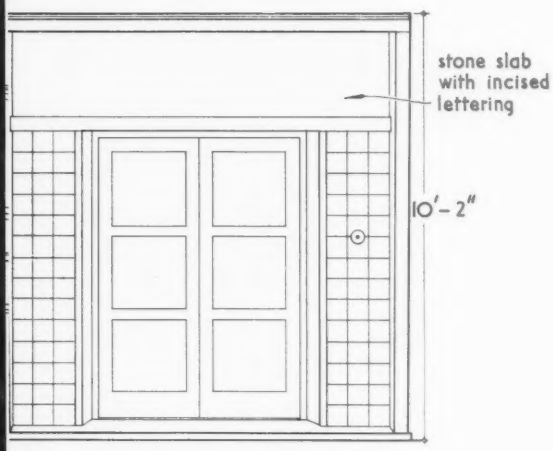
H. H. Clark, architect

The stone canopy has strip lighting in the head to illuminate the doorway with its tiled jambs and stone-faced lintel bearing the name of the hospital in incised letters.

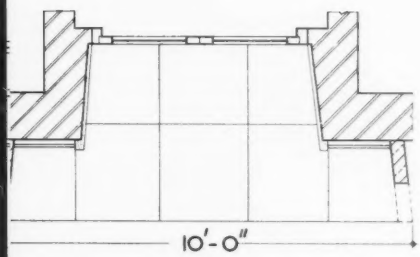
WORKING DETAIL

DOORWAY: MATERNITY HOSPITAL AT WIMBLEDON

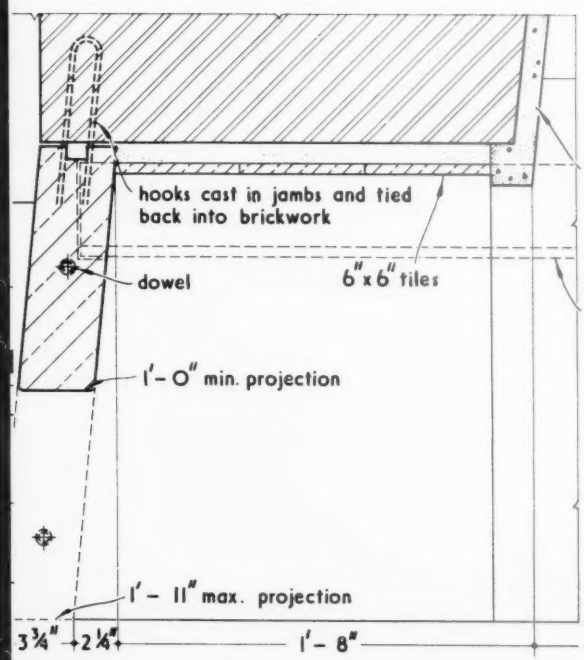
H. H. Clark, architect



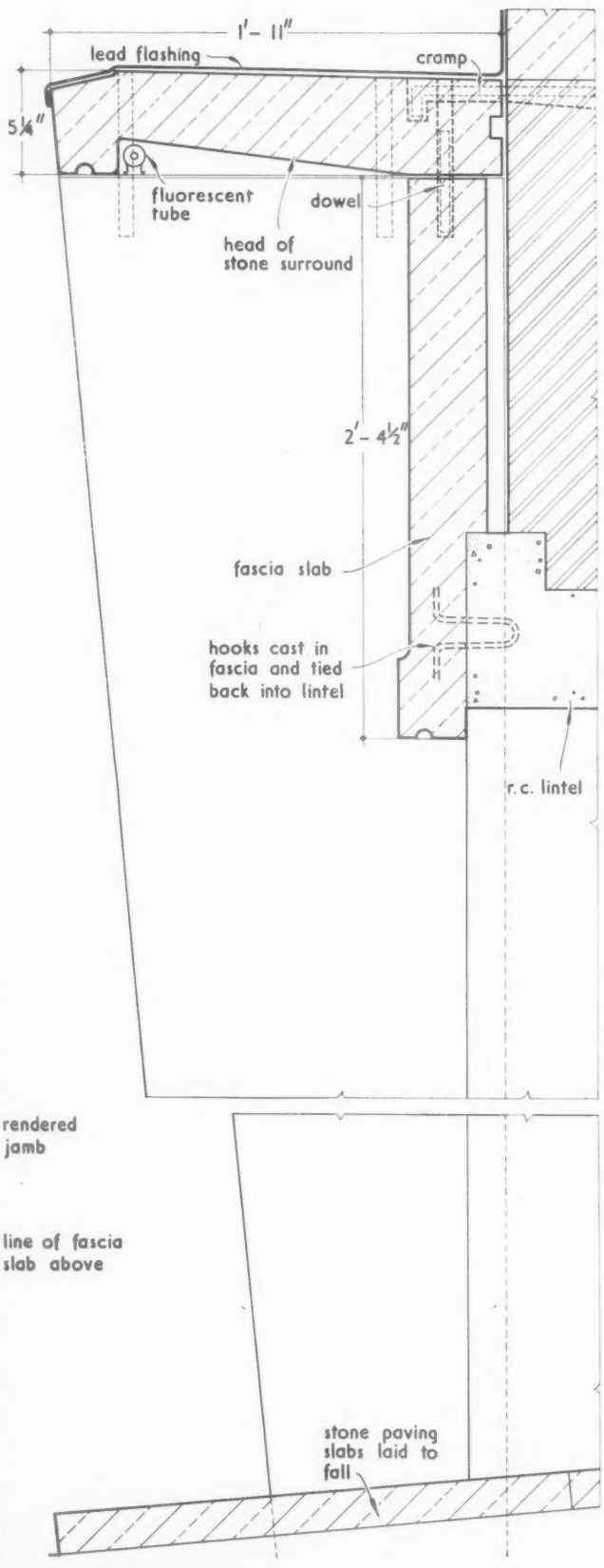
ELEVATION OF ENTRANCE.



PLAN. scale 1/4" = 1'-0"



PART PLAN OF ENTRANCE. scale 1½" = 1'-0"



VERTICAL SECTION SHOWING FIXING OF SURROUND.

This Specialized Age

The Aircraft Designer

This is the era of the jet propelled aircraft, the age when man has finally smashed through the sound barrier and aircraft have attained speeds which a few years ago were beyond conception. Chief Architect of the spectacular post-war advances in this field is the aircraft designer whose specialized training enables him to plan for still greater achievements.

This is the age of specialization. With the advance of modern knowledge, no one man is able to excel in everything and in the field of human endeavour the final product is inevitably the result of co-operation by specialists. So it is with architectural planning. Working under the captaincy of the architect, the team of specialists all play their part and take responsibility for different sections of the project.

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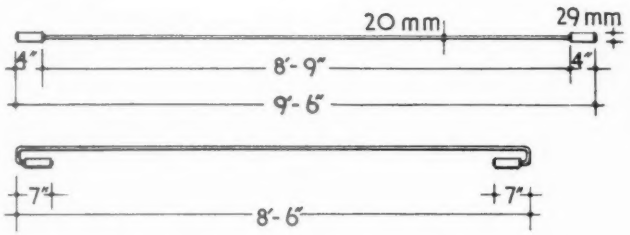
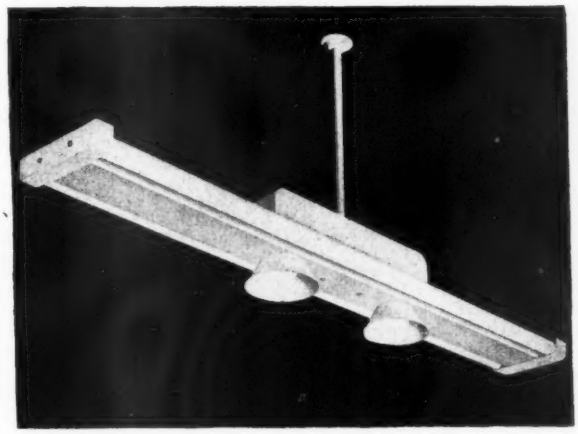




Right, Fig. 2, Mazda ballast-lamp fitting, for using tungsten lamps in conjunction with fluorescent tubes. Above, Fig. 3, typical dimensions for cold cathode tubes.

built-in. Light output is slightly reduced, but the lamp will remain alight if the supply voltage falls below normal. A modification of the "instant start" circuit allows lamps to be smoothly dimmed, for stage lighting, etc., to an output as small as 0·3 per cent.

As control gear is very expensive, circuits are now being developed whereby the current is controlled by filament lamps. These take the place of the normal choke and capacitor and add their light to that of the fluorescent lamp. Usually special "filament-ballast" lamps are required. The luminous efficiency for the combination is about 20 Lumens per Watt, *i.e.*, twice that of small filament lamps alone and about half that of fluorescent lamps alone. The fluorescent tube has special end caps with single contacts and an internal earth wire for instant starting. It costs about 17s. plus P.T. and the ballast lamp costs about 5s. plus P.T. The bottom half of the ballast lamp is usually silvered and the lamp mounted in a silvered reflector, but other arrangements are possible. (A typical fitting for combined fluorescent and tungsten lamps is shown in Fig. 2.)

COLD CATHODE FLUORESCENT LAMPS

Cold-cathode tubes are easily recognized on account of their great length —8 to 15 ft., their slimness—diameter $\frac{3}{4}$ in., and because they are usually seen in groups of three.

Compared with the normal hot cathode tube there is little difference in the quality of light, but cold-cathode tubes are slightly less efficient. Their great merit is a longer life—at least 10,000 hours, compared with 3,000 hours for hot-cathode tubes. This is achieved by dispensing with the coated electrodes and replacing them with metal cylinders about 2 in. long. These remain at the same temperature as the lamp and prolong its life.

The starting of cold-cathode lamps requires about 1,200 to 1,500 volts, obtained through a transformer, but no choke or starter switch is needed. The high voltage is a potential danger and this often limits the use of cold-cathode lighting to situations out of people's reach. Good efficiency is obtained only in long lengths of tube. 8-ft. 6-in. lengths, in batches of three served by one transformer, is the usual arrangement. The end cap housing and the transformer are bulky and typical dimensions are shown in Fig. 3.

The long life and reliability of cold-cathode tubes makes them useful for high positions where replacement and servicing is difficult and where they are well out of harm's way. There is not a large demand for them and only one or two firms now manufacture them. Two fittings now available are shown in Figs. 4 and 5.

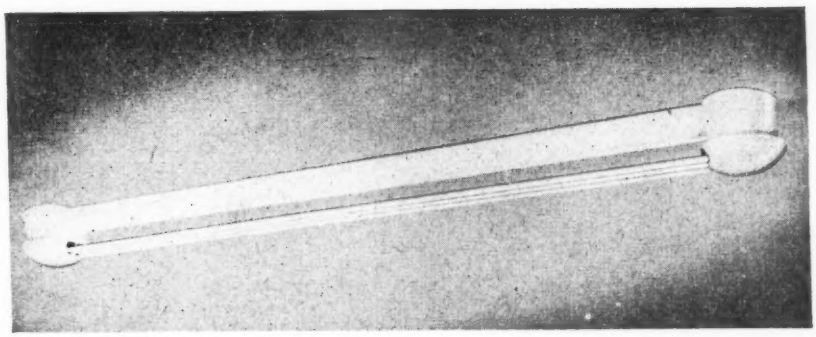


Fig. 4, G.E.C. fitting for three standard Osram cold cathode tubes. The unit is completely self-contained; the long capacitors being housed in the channel and the transformers in end boxes. The fitting is designed for mounting on a flat ceiling.

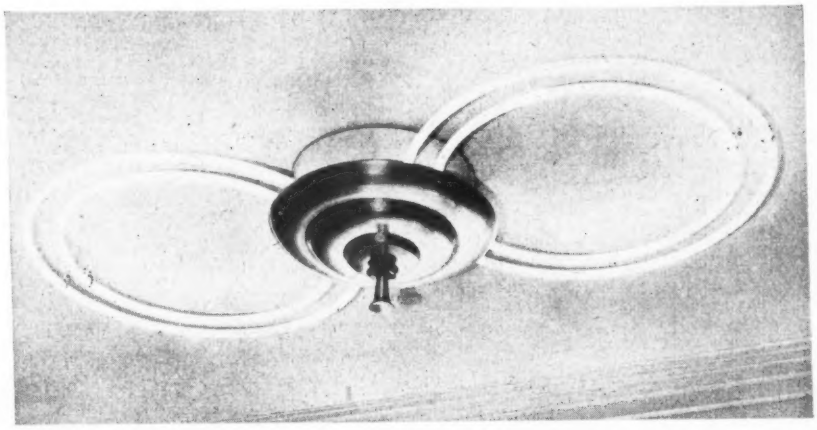


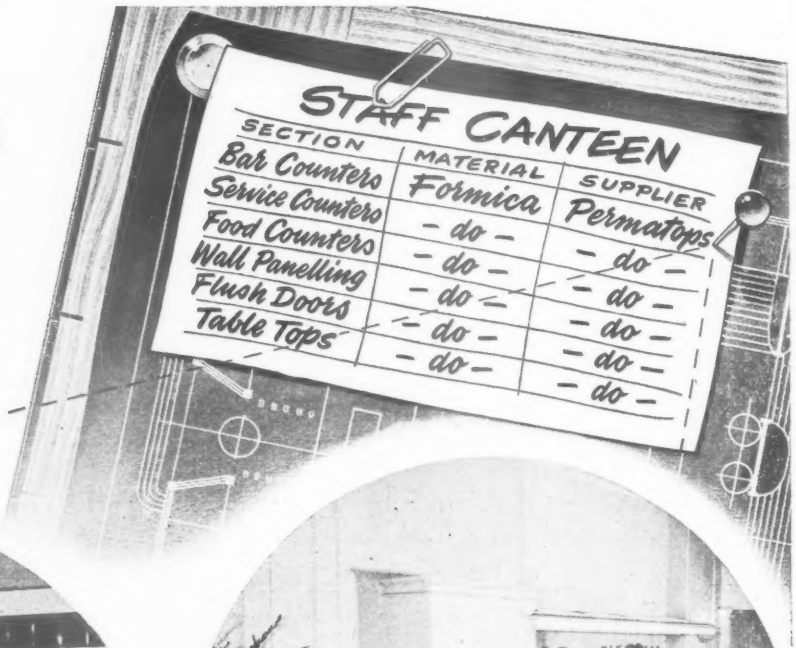
Fig. 5, specially designed G.E.C. fitting, supplied to order, for Osram cold cathode tubes totalling 30 ft. in length. All the gear is contained in the drum, which is cellulosed cream. The decorative spinning is satin silver, with a gilt finial. Consumption is 250 W.

RECENT INFORMATION CENTRE ITEMS ON ARTIFICIAL LIGHTING

Auditorium and stage lighting for schools ...	24.154: 8.11.51
Standby power plants ...	24.152: 11.10.51
Fluorescent lighting for offices: economics of ...	24.151: 12.7.51
Lighting research at BRS	24.150: 14.6.51
Downlighting ...	24.149: 17.5.51
History of illuminating engineering in Gt. Britain ...	24.148: 17.5.51

Whatever the application in old or new canteens PERMATOPS fabricate

FORMICA REGD



WALL PANELLING
This photograph depicts 1/16" Formica veneered to normal cement-rendered walls without the introduction of backing materials or grounds.

FOOD COUNTERS
This photograph shows a counter top constructed from 19mm. blockboard, surfaced and edged with Grey Linette Formica.

TABLE TOPS
Taken in the Staff Canteen of a large London newspaper, this photograph illustrates the application of decorative laminates to existing canteen tables

The modern trend in the use of harder, more hygienic, non-abrasive and lighter surfaces in canteens and restaurants, with particular emphasis on wall panelling, food counters and table tops, is evident in new construction work by Permatops Ltd. Their specialised experience in the fabrication of FORMICA, WARERITE, HOLOPLAST and similar materials, enables them to offer you immediate expert advice from the design stage.

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Strand

Summarized briefly below are points from three papers on lighting presented at the Technical Sessions of the IES Summer Meeting, held at Eastbourne, May, 1952, and a brief report of a talk given by Clifford Higgins on "Neon Sign and Display Lighting" to the Bath and Bristol Branch of IES.

LIGHTING IN THE DESIGN OF SCHOOLS

By Anthony Pott

(*Principal Architect, MOE*)

Schools are mainly naturally-lit and in the past little difficulty was encountered in obtaining sufficient light but it is becoming harder, because of certain trends in the design of schools, to provide good daylighting. This is leading to a search for fresh solutions. There is much scope for experiments on economical methods of controlling glare from bright skies.

The essentials in the artificial lighting of teaching spaces are (i) to provide enough light on the work, (ii) to limit the brightness of the light sources and (iii) to relate the brightness of all the surfaces in the visual field, so as to avoid excessive contrasts. Unduly restrictive limits of brightness-ratios are not necessary to avoid discomfort and may lead to lighting which is unsatisfactory for other reasons. There is a need for simple, cheap and efficient fittings for use especially where low ceilings demand more fittings than usual. The decoration and furnishing of rooms are essential factors in the "visual environment" and must be considered in relationship to the lighting.

THE EYE, BRIGHTNESS AND ILLUMINATING ENGINEERING

By Dr. W. S. Stiles

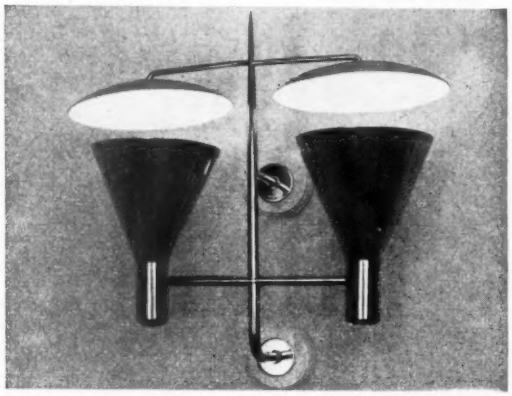
(*Head of the Photometry Section of the National Physical Laboratory*)

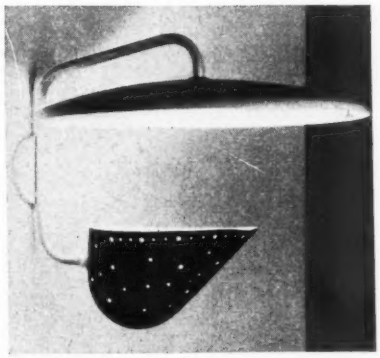
The great interest now being evinced in brightness engineering makes it desirable (i) to review the basic facts concerning the quantity of brightness and its role in vision, (ii) to enquire whether the properties of the eye suggest any desirable limitations on brightness or brightness ratios in the field of view, and (iii) to examine the suitability of brightness as a term with which to couch the specifications of illuminating engineering.

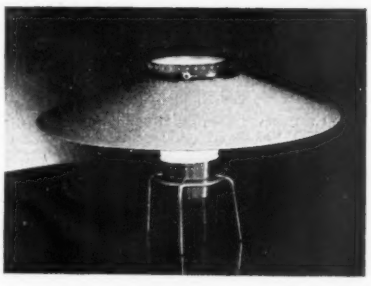
The importance of brightness in vision rests essentially on the fact that the illumination of the retina of the eye is proportional to the brightness of the object viewed. But a closer examination of the eye shows that the connection is not quite as simple as this. For example, the way in which radiations of different wavelength contribute to brightness under different eye conditions raises difficulties. Despite the considerable knowledge that exists of the response of the retina to light, it is by no means easy to deduce clear guiding principles to assist the illuminating engineer and, for some years, the latter has had resort to the results of *ad hoc* studies.

LIGHTING FITTINGS FOR HOTEL AT LUSAKA

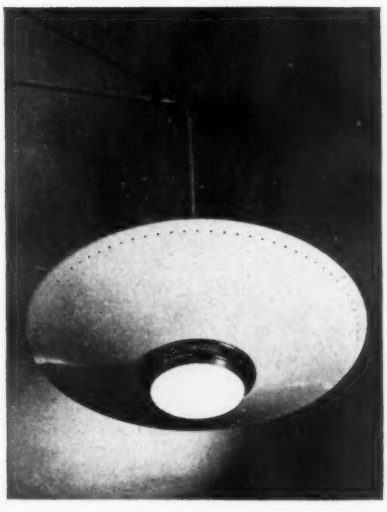
These light fittings for the Ridgeway Hotel, now under construction at Lusaka, Northern Rhodesia (architect, G. A. Jellicoe), were designed by Dennis Lennon, in association with A. B. Read. Mr. Lennon worked in close collaboration with the manufacturers, Troughton and Young, Ltd., and E. Hall, the manager designate. Right, above, double wall bracket of anodised aluminium, for the cocktail bar; right, double wall bracket of gilt metal, with pleated silk shades, for the restaurant; both fittings give indirect light.







Left, top, terrace wall bracket, with brightly painted, perforated metal bowl; centre, bedside lamp, which clamps on to the bed; bottom, brass table lamp, with anodised aluminium finish and metal shade, stove-enamelled lemon yellow or white. Below, pendant with similar shade to that of the table lamp. These fittings, together with furniture and furnishings which will be used in the hotel when completed, were on show last year at the COID's headquarters in London.



COMFORTABLE LIGHTING

By L. C. Kalff

(Dutch architect and lighting expert)

Fifteen years ago Ward Harrison asked "What is wrong with our 50 foot candle installations?" No one has yet given a complete and satisfactory answer to this problem, although it is now recognized as being associated with the achievement of "comfortable lighting." To attain "comfortable lighting" the problem must be approached at least as much from the artist's point of view as from the engineer's or physicist's. Every visual task presents a pattern of lines, colours and brightnesses and for "comfortable seeing" there are certain preferable arrangements of these three elements in relation to the three major divisions of the visual field—the visual task, the immediate surroundings and the background. With our present knowledge this theory cannot be scientifically proved but it can be illustrated by many examples and it should be tested extensively.

NEON SIGNS AND DISPLAY LIGHTING

By Clifford Higgins

(Chief engineer of a firm of neon lighting manufacturers)

Work on neon sign tubes played a very large part in the development of the now widely-used fluorescent mains voltage tubes. But neon signs are still very popular for external use and it is most desirable that there should be close collaboration between the architect and the sign engineer—if possible, at an early date in the conception of a building—so that the sign can be an integral part of the building, serving to emphasize the architect's ideas, instead of, as so often happens, being an accretion bearing no relation to the general design.

The design of the component part of a sign are controlled by BSS 559 and the installation by sections 8 and 9 of the 12th edition of the Regulations for the Electrical Equipment of Buildings issued by the Institution of Electrical Engineers. Providing the terms of these two documents are adhered to rigidly there need be no fear of fire.

There are five factors governing the legibility of signs:—

(*i*) the shape of the letters
(*ii*) the height of the letters
(*iii*) the spacing of the letters
(*iv*) the colour of the sign
(*v*) the intensity of light.

If the sign is to be legible from a great distance, block letters, of which the width is roughly two-thirds the height for letter H (with other letters in proportion), spaced at centres of at least five-sixths the height and with a light output per foot of tube not exceeding 33 lumens, give the best results for red light. With red light 1-ft. high letters are legible 525 ft. away; with blue or green letters about 300 or 350 ft.

It is most important to consider the effect of different coloured light on the colours of the fascia, painted signs and, most important, the faces of the people below. Green lighting has a terrible effect on people's faces, but this can be counteracted easily if green lettering is given a border of amber light.

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.

9.29 design: general
RESEARCH

Report for the Year 1950/51. *DSIR.* (HMSO. 1952. 7s. 6d.)

Report covering very wide field, of which Buildings, Roads, Fire, Forest Products and Physics are of chief importance to the building industry.

The reports of the individual research organizations are of more interest than this general report, but it is important to notice that the report emphasizes the fact that it has not been possible to fulfil the increased programme of work planned for the post-war years. One wonders whether the industry, through architects' and builders' organizations is taking note of this fact and, if so, whether any pressure is being brought to bear to improve the situation. It should be one of the duties of such organizations to ensure that everything possible is done to improve an industry which is so frequently accused of an inability to adapt itself to modern techniques.

10.95 design: building types
HOSPITALS

Hospital Organization and Management. Captain J. E. Stone. (Faber & Faber. 4th Edition. 1952. 8 guineas.)

A standard work of 1,720 pages. Some chapters on accommodation, planning and construction relate to architects' work.

This is a major work and the author is an authority on the subject of hospital management. It is, therefore, an important work of reference for those regularly engaged in hospital work. Whether or not the section on estimation of bed requirements is entirely in line with latest ideas is debatable, but the book contains much information on general and special hospitals. There is little in the section on hospital planning and construction which will be new to any hospital architect—it is full of items of information of the kind noticed by a layman described as though for the benefit of other laymen. Some of this semi-technical information is definitely misleading.

On the whole this is a book of value primarily to the hospital administrator, for whom it is presumably written. It does, however, contain a considerable amount of data which may sometimes be useful to hospital architects.

13.87 materials: timber
PAINTING

Painting Woodwork MOW Advisory Leaflet No. 25. (HMSO. 1952. 3d.)

Simple notes intended for craftsmen. Contains little that is new, but includes many points often overlooked. Table of painting defects and their causes.

16.87 materials: miscellaneous
ALUMINIUM

Aluminium and Aluminium Alloy Sections. Addendum No. 1 to BS 1161:1951. (British Standards Institution. 1952.)

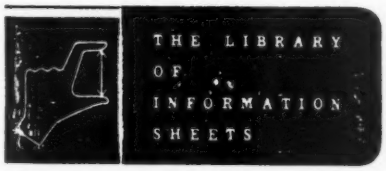
Notes on aluminium and aluminium alloy in the form of extruded sections intended to give guidance to users unfamiliar with the characteristics of the different alloys available in the form of extruded sections.

These notes recommend that in choosing an alloy for a particular purpose consideration be given not only to the mechanical and structural strength of the material but also to the ease with which it may be formed and then incorporated into a structure, and its durability under conditions of service. Notes on the working and heat-treatment of the various alloys and tables of torsion constants for the sections specified in BS 1161 are included.

23.159 heating and ventilation
HEAT PUMP

The Heat Pump. (Magazine of Building: House and Home. [USA] April, 1952.)

Two-page review of possibilities of new air-to-air domestic size heat pump. Heat pumps of other kinds apparently not economic, but this system seems to have a chance of success, at least in districts where summer cooling is required. Installation cost high, but running cost not unreasonable.



8.*E*1 *and* 20.*Z*2 *REFERENCE BACK*

Readers are asked to note the following amendments and to correct their copies of the Information Sheets in question:

8.*E*1.—*Additional addresses of Fibreglass Ltd. are:—Birmingham Office: Piccadilly Arcade, New Street, Birmingham,* 2. *Telephone: Midland* 0464-5. *Dublin Office:* 21, *Merrion Square North, Dublin. Telephone: Dublin* 66024.

20.*Z*2.—*Face of Sheet—Upper drawing: the effective width of the deck unit is now* 1 *ft. instead of* 1 *ft.* 2 *in.*

Reverse of Sheet—Under heading Steel Deck Units: amend covering width to 1 *ft. Units are now constructed from* 22 *g. sheet welded to* 20 *g. channel section. Supporting members at* 8 *ft. maximum centres are recommended for roof slopes of* 0 *to* 10 *degrees. For roof slopes greater than* 10 *degrees the supporting members should be at* 10 *ft. maximum centres. The table shown should be deleted.*

THE INDUSTRY

From the Industry this week Brian Grant reports on the progress of the LMBA Technical Information Service, the introduction of a new figured rolled glass, a new method of joining electric wire and an excellent catalogue issued by an old-established patent glazing firm.

ROLLED GLASSES

At last year's Building Exhibition, Chance Brothers showed five prototype patterns of figured rolled glass and invited comment. The response was overwhelmingly in favour of "Spotlyte," designed by Sadie Speight, a sample of which is illustrated on the right. The pattern consists of small hemispheres about $\frac{3}{16}$ in. in diameter which are slightly raised from the surface and give a pattern of bright flecks of light against a background of fine cross-reedings. Cleaning is simple, and the pattern of the small spots is so arranged that there is no need to match adjacent panes. The photograph gives some idea of the pattern, but glass is extremely difficult to photograph and, no doubt, most readers will prefer to have samples, which are available from the manufacturers. This glass is moderately obscure, being about the same in this respect as "Festival," the design by Beresford Evans, introduced last year. (*Chance Bros. Ltd.*, 28, *St. James's Square, London, S.W.*1.)

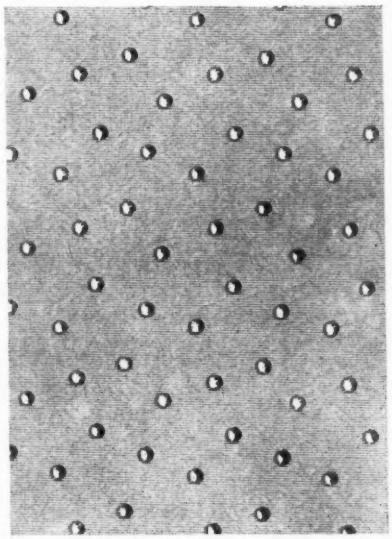
QUESTIONS AND ANSWERS

For some time the LMBA has been providing a technical information service which is available to its members free of charge. E. G. Dean, a technical officer of MOW, who looks after this service, has received many, varied inquiries. But there are some questions which crop up time and time again, and the LMBA has decided to publish a series of bulletins, based mainly on individual queries but with a certain amount of general information added.

Readers may remember that before the war BRS also used to issue monthly notes dealing with interesting questions; the new LMBA service is on much the same lines. The first bulletin to be issued deals with plastering and, unlike some publications written by scientists, it is in simple and intelligible language. The bulletins are to be circulated to all LMBA members and to the press. But, in addition, LMBA will be pleased to send copies to any architects who would find them useful. This is a most enlightened and generous gesture, but the LMBA has for a long time taken the view that the building industry, from architect to tea boy, is one and indivisible. (*The Secretary, LMBA*, 47, *Bedford Square, London, W.C.*1.)

MAKING STRAWBOARD

The monthly technical notes issued by Aero Research of Duxford have been referred to before on this page; they generally contain some useful information of interest to the industry. The May notes deal with the production of "Stramit" board. The process is Swedish in origin, and one of the main points in its favour is that it is possible to make use of the most suitable local material —in the Argentine, for instance, linseed straw is the main fibre used, but in the English factory, at Stowmarket, unpulped farmyard straw is used in considerable quantities.



"Spotlyte," Chance Brothers' figured glass, designed by Sadie Speight, exhibited at the Building Exhibition last year, now in production.

The straw, usually wheat or barley, is fed into a hopper, where it is grasped by mechanical fingers and rammed mechanically, by short thrusts of a pressure of about 150 lb./sq. in., down a tunnel consisting of two electrically heated platens 4 ft. wide and 2 in. apart. The platens are kept at a temperature of 300 deg. F. and by the time the straw emerges it has been virtually sterilized and given the consistency of a slab. After this comes the bonding of the thick paper liners to the faces and sides of the slab, the paper being coated with "Aerolite CB" glue and being bonded to the straw slab by passing through a further heated tunnel.

The paper is in 2,000 yd. rolls and the whole process is continuous. The completed board emerges as a continuous long slab and is cut to the standard lengths of 8 ft., 9 ft. and 10 ft. by a flying saw mounted on rollers so that it can travel with the moving slab and allow the production flow to be continuous. (*Aero Research Ltd., Duxford, Cambridge.*)

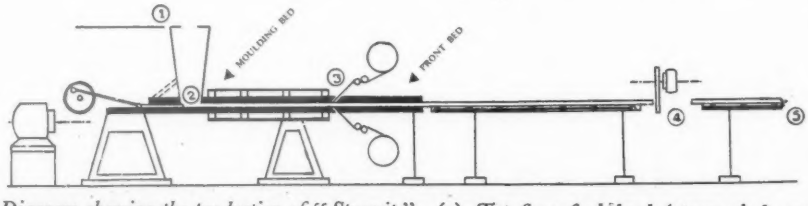
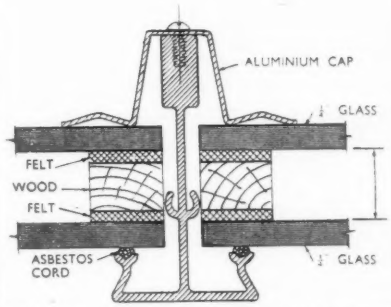


Diagram showing the production of "Stramit." (1) Top floor feed level (straw deck and hopper aperture). (2) Mechanical "fingers" that place the straw in front of the ram. (3) Liners are bonded to the core in the front bed. (4) The flying saw. (5) Conveyor to end-sealing and storage.



Light alloy glazing bar for double-glazed roof lights. (W. H. Heywood & Co. Ltd.)

PATENT GLAZING

Heywoods, of Huddersfield, have been producing patent roof glazing for 60 years or more, and since the end of the war they have been specializing also in thermal insulation. They have now produced a large loose leaf catalogue showing all their usual types of patent glazing and lantern lights, and describing also, with drawings and photographs, numerous buildings where they have supplied and fixed insulating materials and glazing. The drawing above shows an interesting application of double glazing to a sheeted and insulated roof in Stockport. The section shows a light alloy glazing bar, but the firm also does the same job with lead-covered steel bars.

This is an excellent catalogue; the drawings are clear and complete, the structural data are tabulated, and there are photographs to show what the finished job looks like. The very brief foreword is entirely factual and there is no shouting about how smart the firm is. How nice it would be if all manufacturers took an equally intelligent view of catalogue production. (*W. H. Heywood & Co. Ltd., Huddersfield.*)

JOINTS AND ELECTRIC WIRING

In the average wiring installation most of the joints are made by looping in at the back of sockets and ceiling fittings, and the number of end-to-end joints between individual wires is often comparatively small. End-to-end joints are easy to make, but there are too many electricians who take the lazy way of twisting the wires roughly together and covering the joint with tape—a method which gives neither proper contact nor good insulation.

A new method known as the "Wyre-Joint" has recently been introduced. This consists of a small ceramic tube, about $\frac{1}{4}$ in. long and $\frac{3}{16}$ in. dia., inside which is a lining of solder and resin. To make a joint all the electrician need do is bare the ends of the wire and insert them into the tube so that they overlap slightly. A lighted match is then held under the tube and allowed to burn out, the heat being enough to melt the solder and resin and make a good electrical joint from which the air is excluded. The method is comparatively new and tubes, so far, are only made for normal cable sizes up to a loading of 10 amps. (*Wirejoints, Ltd.*, 355, *Grand Buildings, Trafalgar Square, London, W.C.*2.)

BRIAN GRANT.

ENQUIRY FORM

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

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Please ask manufacturers to send further particulars to :—

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AJ 3.7.52

Buildings Illustrated

"Commonwealth House," Great West Road, Middlesex. (Pages 7 and 8.) Architects: C. A. V. Smith, A.R.I.B.A. (Barnard & Smith), in collaboration with J. P. Mockridge, A.R.I.B.A. (Mockridge, Staple & Mitchell). Interior decoration: Mrs. J. M. Pattrick, in association with the COID. General contractors: Simms, Sons & Cooke Ltd. Sub-contractors: aluminium frame, wall cladding and roofing, Aluminium Union Ltd.; foundations, main and lattice joists, Sommerfeld & Co. Ltd.; ceiling and wall linings, British Plaster Board Ltd.; hardware fittings, Comyn Ching & Co. (London) Ltd.; partitions, Stramit Boards Ltd.; dado panels to kitchen, laundry and bathroom, The Cape Asbestos Co. Ltd.; plumbing equipment, G. N. Haden & Sons Ltd.; washboiler, The Jackson Electric Stove Co. Ltd.; electric cable harness, fuse boxes and meter, Cableform; electric light fittings and shades, Falk Stadelmann & Co. Ltd.; electric cooking stove, Falco Electric Appliances Ltd.; adhesive cement for fixing wall linings, B. B. Chemical Co. Ltd.; plastic sealing compound, Expandite Ltd.; sanitary fittings, Edward Marshall & Co. Ltd.; hot and cold water supply taps, Supataps Ltd.; furniture and textiles, Story & Co. Ltd.; all components marshalled, checked and packed for despatch at the works of W. J. Simms, Sons & Cooke Ltd. of Nottingham.

Flats & Shops (including Bank and Garages) in Stuart Street, Whitemoss, East Kilbride, for the East Kilbride Development Corporation. (Pages 16 to 20.) Architects: A. Reiach and R. Gowan A./A.R.I.B.A., A./A.M.T.P.I. Assistant-in-charge: T. R. Spaven, A.R.I.B.A. Heating engineers: Donald Smith, Seymour & Rooley. Quantity surveyors: John Baxter, Dunn & Gray. General contractor: George Wilson Ltd. Clerk of works: H. Saunders. General foreman: J. Cooper. Sub-contractors: excavation, bricks, structural steel, partitions, George Wilson (Stonehouse) Ltd.; reinforced concrete, Concrete Ltd.; tiles (flats), W. Bannatyne Ltd., (shops), A. Rowatt & Co. Ltd.; special roofing (shops), J. Stevenson & Sons; roofing felt (shops), William Briggs & Co. Ltd.; decorative floors (flats), Korkoid Ltd.; plastic tiles & linoleum (shops), Semtex Ltd.; terrazzo, Toffolo, Jackson; central heating, Taylor & Fraser Ltd.; grates (flats), Alexander Dunn Ltd.; gas fittings (flats), J. Stevenson & Sons; electric wiring (shops), Alexander Robertson, (flats), Small & Macdonald Ltd.; plumbing, J. Stevenson & Sons; door furniture (flats), George Wilson (Stonehouse) Ltd., (shops), John Cochrane & Co. Ltd.; sunblinds (shops), James Meighan & Son Ltd.; plaster (flats), George Rome & Co., (shops), W. Bannatyne Ltd.; external rendering (flats), W. Bannatyne Ltd., (shops), A. Rowatt & Co. Ltd.; joinery (shops), John Cochrane & Co. Ltd.; tiling, Toffolo, Jackson; textiles (shop, cafe curtains), Findlater, Smith Ltd.; painter, Muir Decorations Ltd.; water supply, J. Stevenson & Sons.

Correction

Hawksley Constructions, of Gloucester, call our attention to a misprint in their advertisement in the JOURNAL for June 12. Their wall panel modules are 4 ft., 8 ft. and 12 ft. Full details of SGS houses and single-storey buildings will be supplied by the firm on request.

On page 699 of our issue for June 5 the first sentence of the text describing the abattoir at Slyfield Green should have read: "The new abattoir at Guildford is the first of two experimental units being built by the Ministry of Works for the Ministry of Food."

In a caption to a photograph on page 761, June 19, "the assistant secretary, J. Morris" (of the Student Architects' Group, Edinburgh) should have read "R. T. Fyfe, fifth year representative."

CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

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

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

COUNTY BOROUGH OF SWANSEA.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following established posts:—

(1) TWO SENIOR ASSISTANT QUANTITY SURVEYORS, Grade VII, £685-£760 per annum.
(2) ASSISTANT QUANTITY SURVEYOR, Grade V, £570-£620 per annum.
(3) TWO JUNIOR ASSISTANT QUANTITY SURVEYORS, Grade III, £500-£545 per annum.

For the post of Senior Assistant Quantity Surveyor, Grade VII, and Assistant Quantity Surveyor, Grade V, Associateship of the R.I.C.S. (Quantities) is required, and for the post of Junior Assistant Quantity Surveyor, Grade III, the Intermediate Examination of the R.I.C.S. must have been passed.

Candidates must be under 45 years of age unless in Local Government Service. The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

The appointment may be terminated by one month's notice on either side.

Forms of application may be obtained from the Borough Architect, Mr. H. T. Wykes, F.R.I.B.A., The Guildhall, Swansea, and are to be returned to the undersigned not later than Monday, 14th July, 1952.

Canvassing, directly or indirectly, will disqualify.

T. B. BOWEN,
Town Clerk.

The Guildhall, Swansea.
June, 1952. 7024

CAMBRIDGESHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.
PLANNING OFFICER (ENGINEERING).

Applications are invited for the appointment of a Planning Officer on Grade A.P.T., VII, of the National Joint Council's Scales (salary £685-£760 per annum).

The successful applicant will be concerned with the engineering aspects of the work of the Planning Department. Knowledge and experience of the design and layout of roads, of sewerage and water schemes, and of land drainage will be required.

The appointment is subject to the provisions of the Local Government Superannuation Act, 1937, the Council's Conditions of Service, and to the successful candidate satisfactorily passing a medical examination. Financial assistance, up to £2 weekly for a period not exceeding six months, may be given if the person appointed cannot obtain housing accommodation and has to maintain his own present residence in addition to the expense of lodgings in Cambridge.

Applications, stating age, past and present appointments (with dates), experience, qualifications, present salary, and the names of two referees, should be received by the undersigned not later than 7th July, 1952.

CHARLES PHYTHIAN,
Clerk of the County Council.

Shire Hall, Castle Hill, Cambridge. 7014

HER MAJESTY'S COLONIAL SERVICE.

Applications are invited for the following posts—

ARCHITECTS, PUBLIC WORKS DEPARTMENT (27301/19), FEDERATION OF MALAYA.

Vacancies exist for a number of Architects in Malaya. The appointments are pensionable on probation in the salary scale £742 to £1,652 p.a., the point of entry depending on experience and war service. In addition there is a substantial cost-of-living allowance, varying from £336 for a single officer to a maximum of £707 for married officers.

Free passages are provided on appointment and on leave for the officer, his wife, and up to three children under 10 years. Furnished quarters, if available, are provided at reasonable rents. Leave is granted at the rate of 4 days for each month of resident service.

Candidates must be between the ages 25-30 years and be A.R.I.B.A. or hold an equivalent approved qualification in any Dominion.

Intending candidates should apply in writing to the Director of Recruitment (Colonial Service), Colonial Office, Sanctuary Buildings, Great Smith Street, S.W.1, giving brief details of their age, qualifications and experience. They should mention this paper and quote the reference number (27301/19). 7037

CITY OF BIRMINGHAM EDUCATION COMMITTEE.
COLLEGE OF ART AND CRAFTS.
BIRMINGHAM SCHOOL OF ARCHITECTURE.

Principal: MEREDITH W. HAWES, A.R.C.A., N.R.D.
Director of the School of Architecture: A. DOUGLAS JONES, Dip.Arch.(L'pool), F.R.I.B.A.

Applications are invited for the appointment of a full-time year MASTER in Architecture, to begin duty on 1st September next or as soon after as possible.

Burnham (Further Education) salary scale (£900 × £25—£1,000 per annum). Breadth of vision, technical competence and enthusiasm are of the greatest importance.

Forms of application may be obtained from the Principal, College of Art and Crafts, Margaret Street, Birmingham, 3, on receipt of a stamped addressed foolscap envelope, and must be returned not later than ten days after the appearance of this advertisement.

E. L. RUSSELL,
Chief Education Officer.

7035

ROBERT GORDON'S TECHNICAL COLLEGE, ABERDEEN.
LECTURER AND STUDIO INSTRUCTOR (GRADE II) IN ARCHITECTURAL DESIGN AND CONSTRUCTIONAL SUBJECTS.

Applications are invited for the post of Lecturer and Studio Instructor in Architectural Design and Constructional Subjects.

The College is recognised for purposes of exemption from the R.I.B.A. Intermediate and Final Examinations.

Candidates must be Associates of the Royal Institute of British Architects, and should possess the Degree or Diploma of a recognised School of Architecture.

Salary scale: £500 × £30—£800, with initial placing on the scale according to qualifications and experience.

Further particulars and Forms of Application may be obtained from the undersigned, to whom completed applications should be returned on or before Friday, 25th July, 1952.

A. C. WEST,
Director.

7036

BOROUGH OF LUTON.

QUANTITY SURVEYING ASSISTANT required in Borough Engineer's Department (A.P.T., Grade V, £570-£620 per annum, dependent on appropriate qualifications and experience). N.J.C. service conditions; post pensionable; medical examination.

Write, giving age, full particulars and two referees, to Borough Engineer, Town Hall, Luton, by Monday, 7th July, 1952.

W. H. ROBINSON,
Town Clerk.

7038

THE SOUTH WALES ELECTRICITY BOARD.

Required an ARCHITECTURAL DRAUGHTSMAN, in the Civil Engineering Department, Head Office, St. Mellons, Cardiff.

Applicants will be required to undertake the layout and preparation of working drawings for showrooms, offices and sub-stations, including measuring up and alterations to existing buildings.

Salary in accordance with N.J.B. Schedule D, Grade 6 (£413/£547).

Applications, stating age, present position and salary, qualifications and experience, and giving three referees, to be addressed to the Manager, Employment Exchange, Cardiff, so as to reach him by 8th July, 1952. Previous applicants need not re-apply.

D. G. DODDS,
Secretary.

St. Mellons, Cardiff. 7039

MIDDLESEX COUNTY COUNCIL EDUCATION COMMITTEE.
TWICKENHAM TECHNICAL COLLEGE AND SCHOOL OF ART, EGERTON ROAD, TWICKENHAM, MIDDLESEX.

Applications are invited from suitably qualified persons for the post of part-time TEACHER OF MODELMAKING, for one morning, one afternoon, and one evening each week, to commence in September, 1952.

Applicants must be skilled modelmakers and qualified in all aspects of the craft, and particularly in regard to Architectural and Interior Design, with a good knowledge of architecture, furniture, metalwork, etc.; a practical knowledge of woodwork will be an additional qualification.

Application forms and further particulars may be obtained by sending a stamped, addressed, foolscap envelope to the Principal of the College, to whom they should be returned within 14 days from the appearance of this advertisement.

C. E. GURR,
Chief Education Officer.

7048

THE UNIVERSITY OF LIVERPOOL.

Applications are invited for the post of LECTURER AND STUDIO INSTRUCTOR in the School of Architecture, at a salary scale of £550/£50/£900/£50/£1,100.

Applications, accompanied if possible by drawings or photographs of work, two testimonials, and the names of two referees, should be received not later than 1st September, 1952, by the undersigned, from whom further particulars of the conditions of appointment may be obtained.

STANLEY DUMBELL,
Registrar.

June, 1952. 7049

COUNTY LONDONDERRY EDUCATION COMMITTEE.
ARCHITECT'S DEPARTMENT.

Applications are invited from qualified persons for the post of:—

SENIOR ARCHITECTURAL ASSISTANT.

Applicants must have passed the Intermediate Examination of the R.I.B.A. or be of equal standing, or have at least 5 years' experience in an Architect's office. Salary: £400 × £20—£600, the point of entry in the salary scale to be determined in accordance with the qualifications and experience of the successful applicant.

Application forms and Conditions of Appointment may be obtained from the undersigned, by whom completed application forms should be received not later than the 17th July, 1952.

R. B. HUNTER,
Director of Education.

Education Office, New Row, Coleraine. 7050

CITY OF LEEDS.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointment:—

ASSISTANT QUANTITY SURVEYOR, Grade A.P.T., V. Salary scale: £570-£620.

Candidates should be experienced in all branches of quantity surveying, and be experienced in large local authority contracts, and should preferably have passed the Final Examination of the Royal Institution of Chartered Surveyors.

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

The appointment is subject to the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned, together with copies of three recent testimonials, by 10 a.m., 11th July, 1951.

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

R. A. H. LIVETT, O.B.E., A.R.I.B.A.,
City Architect.

19th June, 1952. 7053

DERBYSHIRE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

ARCHITECTS. A.P.T., Grade VI, £645 × £20 (2) and £25 (1) to £710 per annum.

QUANTITY SURVEYORS. A.P.T., Grade VI, £645 × £20 (2) and £25 (1) to £710 per annum; A.P.T., Grade II, £470 × £15 to £515 per annum.

Particulars to be obtained from F. H. Crossley, County Architect, St. Mary's Gate, Derby, not later than 9th July, 1952.

3rd July, 1952. 7055

LONDON COUNTY COUNCIL.

L.C.C. BRIXTON SCHOOL OF BUILDING, Ferndale Road, S.W.4. Required, on 1st September, 1952, temporary full-time ASSISTANT (Grade A), to teach Building Construction and associated subjects. Applicants should be A.R.I.B.A. Salary, minimum of £411 to maximum of £792, according to qualifications and training. Application form from Secretary at School, returnable by 16th July, 1952. (673) 7056

EPPING RURAL DISTRICT COUNCIL.
APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited for the above appointment in the Surveyor's Department. Salary grading will be A.P.T., VA (£600-£660 per annum), and commencing salary will be assessed according to qualifications and experience. Candidates should be preferably, though not necessarily, Registered Architects, and should have a good general experience of house design and construction. The Council will provide modern housing accommodation and can provide transport, though if the successful candidate possesses a car the appropriate scale of travelling allowance will be paid if so desired.

The appointment will be subject to the National Scheme of Conditions of Service, to Local Government Superannuation Act, 1937, and to the passing of a medical examination.

Applications, endorsed "Architectural Assistant," stating age, qualifications and full details of experience, and accompanied by the names and addresses of two referees, are to be sent to Mr. A. W. R. Webb, A.M.Inst.C.E., Surveyor, at the address below, not later than 14 days from the publication of this advertisement.

G. BOWDEN,
Clerk of the Council.

Rural District Council Office,
209, High Street, Epping, Essex. 7057

CITY ARCHITECT'S DEPARTMENT, MANCHESTER. Applications are invited for the appointment of an ASSISTANT ARCHITECT, at a salary in accordance with Grade A.P.T., V, of the National Scheme of Service Conditions, i.e., £570 to £620 per annum. Candidates should be Registered Architects, preferably Associates of the Royal Institute of British Architects and/or hold a degree or diploma of a recognised school of architecture. Persons with these qualifications who are not yet registered are eligible to apply; the salary in such cases would be Grade A.P.T., IV, commencing at £530 per annum, until registered.

Forms of application may be obtained from the City Architect, Town Hall, Manchester, 2, and should be returned to the same address by 19th July, 1952. Canvassing is prohibited. 7051

BIRMINGHAM REGIONAL HOSPITAL BOARD invite applications for QUANTITY SURVEYING ASSISTANT. Salary, £480-£525 per annum (subject to review). Successful candidate will assist professional officers and be partly responsible for quantity surveying duties in settlement of final accounts. Appointment superannuable; one month's notice. Applications, with age, qualifications and experience, naming two referees, to Secretary, 10, Augustus Road, Birmingham, 15, by 21st July. 7058

BOROUGH OF ACTON.
BOROUGH ENGINEER'S DEPARTMENT.

Applications are invited for the following permanent appointments:—

ARCHITECTURAL ASSISTANT. A.P.T., Grade Va, of the National Scale (£600-£660 p.a.).

Applicants must be Registered Architects, experienced in the design, erection and maintenance of houses, flats and public buildings.

SURVEYING ASSISTANT. A.P.T., Grades III or IV, of the National Scale (£500-£545 p.a. or £530-£575 p.a.).

Applicants must have passed the Intermediate Examination of either the Institution of Municipal Engineers or the Royal Institution of Chartered Surveyors, and preferably have experience in surveying buildings, preparing plans, and dealing with means of escape in case of fire from industrial buildings

ENGINEERING ASSISTANT. A.P.T., Grade II, of the National Scale (£470-£515 p.a.).

Applicants must have completed professional training and be good draughtsmen, experienced in surveying and levelling.

Commencing salaries may be fixed within the Grades, according to the qualifications and experience of the persons appointed. London "weighting" will be added to the salaries.

Application forms and copies of the conditions of appointment may be obtained from the Borough Engineer, Town Hall, Acton, W.3, to whom applications must be delivered by 21st July, 1952.

Canvassing will disqualify.

H. C. LOCKYER,
Town Clerk.

Town Hall, Acton, W.3. 7061

DEPTFORD BOROUGH COUNCIL requires an experienced CLERK OF WORKS, at a salary of £11 11s. per week, to supervise the construction of a new Cleansing and Disinfecting Station, estimated to cost £20,500. The building period will be approximately twelve months. Applications, stating age, experience and qualifications, accompanied by names and addresses of not more than three referees, to the Town Clerk, Deptford Town Hall, New Cross, S.E.14, by 9 a.m. on Monday, 14th July, 1952. 7072

FIFE COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited from persons with suitable qualifications for appointment as ARCHITECTURAL ASSISTANT at the County Offices, Cupar. Candidates should be qualified Architects holding A.R.I.B.A. and Registered Architects. Previous local authority experience an advantage, also knowledge of works on new schools. Salary grade £650, rising by two increments of £25 and three of £30 to a maximum of £790 per annum. Consideration may be given to meeting the housing needs of the successful candidate, but no guarantee is given that housing accommodation will be immediately available. The appointment is superannuable, and the successful candidate, if under 45 years of age, will be admitted to the Council's superannuation scheme, subject to a satisfactory medical report being received. Applications, stating age, experience and qualifications, accompanied by copies of recent testimonials, to be lodged with the undersigned not later than 26th July, 1952. No canvassing.

J. M. MITCHELL,
County Clerk.

County Buildings, Cupar-Fife.
26th June, 1952. 7070

COUNTY BOROUGH OF DERBY.
BOROUGH ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments on the permanent staff in accordance with the National Scale of Salaries:—

(*a*) ONE SENIOR ASSISTANT ARCHITECT, Grade VII. Salary £685-£760. Commencing salary £685 per annum. Applicants must be Associate R.I.B.A., with a good knowledge of work undertaken by a Local Authority.

(*b*) ONE JUNIOR QUANTITY SURVEYOR, Grade III/IV/V. Salary £500-£620. Commencing salary £500 per annum. Applicants should be of R.I.C.S. Intermediate Examination standard, and be fully experienced in abstracting and billing, measuring on site, preparation of final accounts, and taking off quantities for small building works.

The appointments will be subject to one month's notice in writing on either side and to the terms of the National Joint Council's Scheme of Conditions of Service and the provisions of the Local Government Superannuation Act, 1937, and the successful applicants will be required to pass a medical examination.

Forms of application may be obtained from the Borough Architect, The Council House, Corporation Street, Derby, and should be returned when completed, together with a copy of one testimonial and the names of two persons to whom reference may be made, to arrive not later than Monday, 21st July, 1952.

Canvassing, directly or indirectly, will be a disqualification.

E. H. NICHOLS,
Town Clerk.
7059

COUNTY BOROUGH OF GATESHEAD.
APPOINTMENT OF TECHNICAL ASSISTANTS.

Applications are invited for the following appointments in the Borough Surveyor's Department:—

(*a*) ONE SENIOR TOWN PLANNING ASSISTANT, Grade VII (£685-£760), who must be qualified by examination in Town Planning, and preference will be given where a recognised qualification in Civil Engineering or Architecture is also held. Good experience in Town Planning and Redevelopment Work in built-up areas is necessary.

(*b*) ONE JUNIOR TOWN PLANNING ASSISTANT, Grade IV (£530-£575), who should have had experience in the application of Town Planning Regulations and development control. Preference will be given to candidates holding the Intermediate Examination of the Town Planning Institute or possessing an approved equivalent qualification.

The above appointments, which are terminable by one month's notice on either side, are subject to the Local Government Superannuation Acts, and the successful candidates will be required to pass a medical examination.

Applications, stating age, qualifications, training, experience, present and past appointments, and accompanied by copies of not more than three recent testimonials, must be sent to Mr. A. J. McGregor, Borough Surveyor, Municipal Buildings, Swinburne Street, Gateshead, 8, by Saturday, 19th July 1952.

Candidates must declare their relationship, if any, with any member or senior official of the Council.

J. W. PORTER,
Town Clerk.

Town Hall, Gateshead, 8.
26th June, 1952. 7060

BURGH OF PAISLEY.

Applications are invited from suitably qualified persons who have had extensive experience of Civil Engineering or Architectural Works for the following vacancies in the Burgh Engineer, Master of Works and Water Engineer's Department:—

ONE CIVIL ENGINEERING ASSISTANT. Grade A.P.T., V-Va (£600-£690).

ONE ASSISTANT ARCHITECT. Grade A.P.T., VI-VII (£675-£790).

ONE ARCHITECTURAL ASSISTANT. Grade A.P.T., V-Va (£600-£690).

TWO ARCHITECTURAL ASSISTANTS. Grade A.P.T., II (£490-£535).

The appointments will be made subject to a medical examination and to the provisions of the Scheme of Salaries and Conditions of Service for Administrative, Professional and Technical Staffs.

Applications, giving full details of qualifications and experience, and accompanied by names of two referees, should be submitted to the undersigned not later than Saturday, 19th July, 1952.

JOHN A. McGREGOR,
Burgh Engineer.

14, Gilmour Street, Paisley.
27th June, 1952. 7069

CLERK OF WORKS (Temporary) required by LONDON ELECTRICITY BOARD in Central London. Practical experience in building trade or civil engineering work and ability to supervise a large contract essential.

The post is graded under Schedule "C" of the National Joint Board agreement as Class AX, Grade 8, £506 p.a., rising to £649 19s. p.a., inclusive of London allowance.

Application forms obtainable from Establishments Officer, 46, New Broad Street, E.C.2, to be returned duly completed not later than 8th July, 1952. Please enclose addressed foolscap envelope and quote ref. EST/V/1483/A on all correspondence. 7067

APPOINTMENT OF ARCHITECT.

THE TYRONE COUNTY EDUCATION COMMITTEE invites applications for the post of ASSISTANT ARCHITECT, on a salary scale £650×£25 to £750 per annum. Applicants should be Registered Architects. The point of entry in the salary scale will be determined according to the qualifications and experience of the person appointed.

Application forms and conditions of appointment may be obtained from the undersigned, with whom applications should be lodged not later than Saturday, 19th July, 1952.

A. GIBSON,
Chief Education Officer.

Education Office, Omagh, Co. Tyrone.
24th June, 1952. 7054

Sale by Auction

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

WEETING HALL,
BRANDON,
Norfolk/Suffolk Border.

On the main King's Lynn-Brandon road. 24 miles from King's Lynn; 16 miles from Bury St. Edmunds; 19 miles from Newmarket; 36 miles from Norwich; 7 miles from Thetford; 32 miles from Cambridge, and 78 miles from London.

THE VALUABLE FIXTURES AND FITTINGS, including:—

A Very Large Quantity of Excellent Oak Flooring; Deal Flooring; Moulded Skirting; Fine Mahogany Doors and Architraves; Panelled Doors and Architraves; 2 Fine Adams Fireplaces; Staircases and Radiators.

105 Volt LIGHTING PLANT, with 45 h.p. BLACKSTONE DIESEL ENGINE; 28 k.w. BULL Dynamo and BULL Motor Driven Charging Dynamo, complete with Switchboard and Cooling Tanks.

Mercury Arch Rectifier, by Neveling Electric Company.

Rectifier Transformer.

ALSO
from
BROOKE HALL,
Near NORWICH
(Removed for convenience of Sale),
A Large Quantity of
BUILDING MATERIALS & TIMBER
and
A QUANTITY OF HUTMENT FITTINGS,
which
MESSRS. HENRY BOND & SON
have received instructions from P. C. H. JOHNSON, ESQ., to Sell by Auction,
ON WEDNESDAY and THURSDAY, 9th and 10th JULY, 1952.

Sale commencing at 11 o'clock each day.

Viewing: The Contents of Weeting Hall will be on view 7 days prior to the Sale from 10 a.m., and the Materials from Brooke Hall during the First Day's Sale.

Licensed Bar and Light Refreshments will be available.

CATALOGUES, price 6d., from the Auctioneers, UPWELL & WISBECH, Cambs ('phone Upwell 2207), and at DOWNHAM MARKET, Norfolk ('phone Downham Market 3201). 7040

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.

SPARE TIME ASSISTANCE required, evenings, weekends, etc., must be exceptionally neat draughtsmen. Good remuneration for right applicants. Box 7001A

CADBURY BROTHERS LIMITED require an Architectural Assistant with knowledge of industrial design, able to assist with a large new factory on which construction is now commencing. Write, stating age, experience and salary required to E.M.A., Cadbury Brothers Limited, Bournville, Birmingham. 6999

ARCHITECTURAL ASSISTANT required for office in London, W.1. Must be good draughtsman. Details and salary required to Box 6998.

TWO SENIOR ASSISTANT ARCHITECTS required. Varied projects (mainly industrial), with opportunity of contemporary development. Five-day week. Apply, stating age, experience, and salary required, to Farmer & Dark, Chartered Architects, Terminal House, Grosvenor Gardens, London, S.W.1. 7031

ARCHITECTURAL ASSISTANTS, preferably school trained, required for private Architectural practices in Norwich and Great Yarmouth. Applicants must have good all round experience in all forms of contemporary construction and design. Reply in writing, giving full particulars of experience and qualifications, and salary required. A. D. Cooke, A.R.I.B.A., 78, Prince of Wales Road, Norwich. 7022

OLD-ESTABLISHED Mutual Life Assurance House wants a few men of initiative and integrity to act as AGENTS. Architects and Surveyors have the necessary knowledge and contracts to make business most profitable to us and them. Further details from Box 6734.

ASSISTANT with good practical experience required for taking charge of detailing large scale contemporary factory. Ring L. Erdi, Central 3310. 7041

ARCHITECTURAL ASSISTANT required Intermediate Standard for busy architects' office in Ipswich. Reply stating experience and salary required. Box 7043.

GOOD ARCHITECTURAL DRAUGHTSMEN required urgently. Qualifications unnecessary. Write full particulars, salary required, etc., to Lanchester & Lodge, 10, Woburn Square, W.C.1. 7052

EXPERIENCED ARCHITECTURAL ASSISTANTS required for Works Engineers Department of large Midland Aero Engine Manufacturers. Capable of surveying, designing and detailing all types of industrial buildings and with experience of Factory Services. Only first class men need apply. Applications giving details to Reference HRH Box 7066.

SURVEYORS required for Service in West Africa. Only those experienced in Contour Survey and Route Surveys considered. Must be prepared to work whole time under field conditions. Good pay. Tours of 18 to 24 months with liberal leave on full pay. Applications giving fullest details invited from young, active, unmarried men. Box 7074.

ARCHITECTURAL ASSISTANT required immediately, temporary with opportunity of permanence, for work on exhibition design and general. Must have some experience of contemporary exhibition and interior design. Write, stating age, experience, etc., to S. P. Jordan, A.R.I.B.A., M.S.I.A., Dip. T.P., 11, King's Road, Sloane Square, S.W.3. 7073

Architectural Appointments Wanted

ARCHITECTURAL ASSISTANT seeks work in London. 3 years' full-time training, 12 months' office experience on varied work. Salary £6 p.w. Box 463.

ARCHITECTURAL REPRESENTATIVE desires contact with Brick and Tile manufacturers with view to representation in the London area. Thorough knowledge of the brick trade and constructional work. Box 478.

A. R.I.B.A. (Dip. Arch.), aged 36, seeks situation as SENIOR ASSISTANT. Box 480.

ARCHITECTURAL ASSISTANT, 4 years' day school, 3 years' office experience, seeks a part-time position in London office. Box 7033.

ARCHITECTURAL ASSISTANT (Lady), 5 years' varied experience, driver, also secretarial qualifications, requires position with Architect near Edinburgh. Box 485.

AFRICAN (East or Rhodesias). Post in progressive office sought by school-trained A.R.I.B.A. 3 years' office experience. Box 487.

ASSISTANT (34), student R.I.B.A., seeks position in London. 2 years' technical, 18 months' recognised school training, 6 months' post-war office. Small knowledge of acoustics, surveying. Studying for Final. Salary £375. Box 486.

SENIOR ASSISTANT A.R.I.B.A. (33) desires appointment in England or overseas leading to partnership. Willing to accept responsibility. Wide experience; principally in Industrial and Housing work. Box 482.

ENERGETIC DIPL.ARCH. A.R.I.B.A. (26); ex F/Lt. aircrew; with Exhibition; Display; Publicity; Admin.; School; and L.A. Housing experience seeks position; Northern Counties preferred. Box 7046.

ARCHITECTURAL ASSISTANT requires situation small London office. Box 483.

DIPL.ARCH., A.R.I.B.A., 5 years' office experience seeks post in London office with contemporary outlook. Box 484.

Other Appointments Vacant

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

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

MAINTENANCE SURVEYOR required by United Dairies Limited to operate in London area. Applicants to state age, experience in surveying properties and preparation of specifications. Apply in writing stating qualifications and salary required, to Chief Architect, 31, St. Petersburgh Place, London, W.2. 6976

EXPERIENCED SECRETARY required in September by Architect in Salisbury. Write, stating age, experience, and salary required. Box 7004.

MANUFACTURERS of Resilient Plastic Tile and *in situ* Flooring have opening for SALES AGENTS in various districts. Please write Box 7062.

SHOPFITTING DESIGNER. Coloured Perspective Work. Able to work on own initiative. State full particulars of experience, salary required, etc. Present staff notified. Opportunity for advancement. Write Box 7044.

Partnerships

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

CONSULTING STRUCTURAL ENGINEER with own staff and experienced in most modern methods of construction, requires partnership with Architect. Box 6975.

Services Offered

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

DUPLICATING AND TYPEWRITING, Bills of Quantities, Specifications, etc.; all grades of Office Staff supplied.—Trinity Bureau, 50, Bedford Street, Strand, W.C.2. TEM. 3002. 6983

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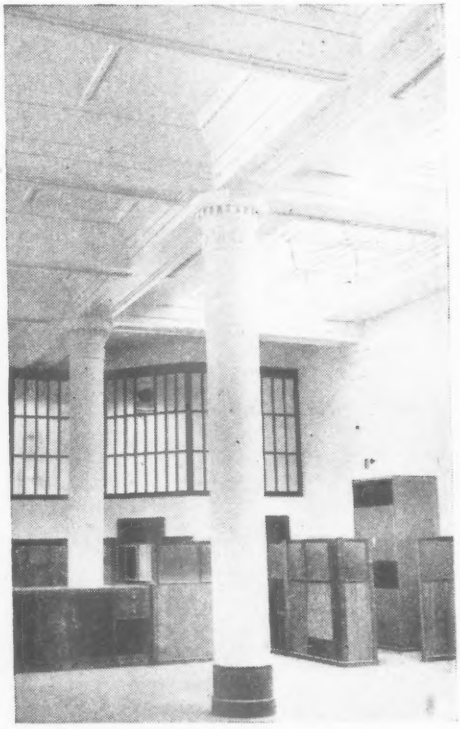

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