

THE ARCHITECTS' JOURNAL

FINE ARTS



Standard contents

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

NEWS and COMMENT

Tragal's Notes and Topics

Letters

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Working Details

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Prices

The Industry

CURRENT BUILDING

Major Buildings described:

Details of Planning, Construction,

Finishes and Costs

Buildings in the News

Building Costs Analysed

Architectural Appointments

Hired and Vacant

3408]

[Vol. 132

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

ILA	Institute of Landscape Architects. 1, Park Crescent, Portland Place, W.1. Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1. Welbeck 9966
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee). Fire Research Station, Boreham Wood, Herts. Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2. Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Hyde Park 7070
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council. 14, Howick Place, Victoria Street, S.W.1. Victoria 1600 & 6477
NAS	National Association of Shopfitters. 2, Caxton Street, S.W.1. Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers. 10, Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4459
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1. Whitehall 1631
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1. Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5533
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1. Whitehall 5322/9245
RFAC	Royal Fine Arts Commission. 5, Old Palace Yard, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1. Sloane 5134
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen. 55, Great Ormond Street, W.C.1. Holborn 2646
SPAB	Society for the Protection of Ancient Buildings. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TCPA	Town and Country Planning Association. 21, College Hill, E.C.4. City 4771
TDA	Timber Development Association. 18, Ashley Place, S.W.1. Victoria 8815
TPI	Town Planning Institute. 75, Cannon Street, E.C.4. City 5040
TTF	Timber Trades Federation. 6, Carlton House Terrace, S.W.1. Whitehall 4341
WDC	War Damage Commission. 34, Berkeley Square, W.1. Grosvenor 6636
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636

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Down in the valley, the town needs more power. The time's come to bring in a power line from the Grid. That means pylons, right across these fields, and on down into the valley.

There are perhaps a hundred paths the pylons could follow. *One* must be chosen. Not plotted arbitrarily across a map, but thoughtfully, carefully sited, so that pylons and cable strike the best possible balance with the landscape.

The Central Electricity Generating Board are just as concerned about this as they are about bringing in the

power. For the nation has charged the Board with a double duty. Not only to maintain an efficient, economical electricity supply, but also to preserve the amenities of the country as they go.

That's why the new line will be planned so that it follows the dark background of a wood here; skirts a village there; crosses skylines in the most inconspicuous way to be found; and eventually reaches the town through its industrial suburbs.



THE CENTRAL ELECTRICITY GENERATING BOARD

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DURABILITY

For permanent strength, good appearance and long lasting life bricklaying mortar must be able to withstand year after year the repeated cycles of freezing and thawing that occur throughout winter months. That mortar containing FEBMIX ADMIX Mortar Plasticiser has that property is confirmed by this test result.

COMPOSITION
OF MORTAR
CYLINDER
MARKED

A

1 part cement

6 parts sand

BY VOLUME

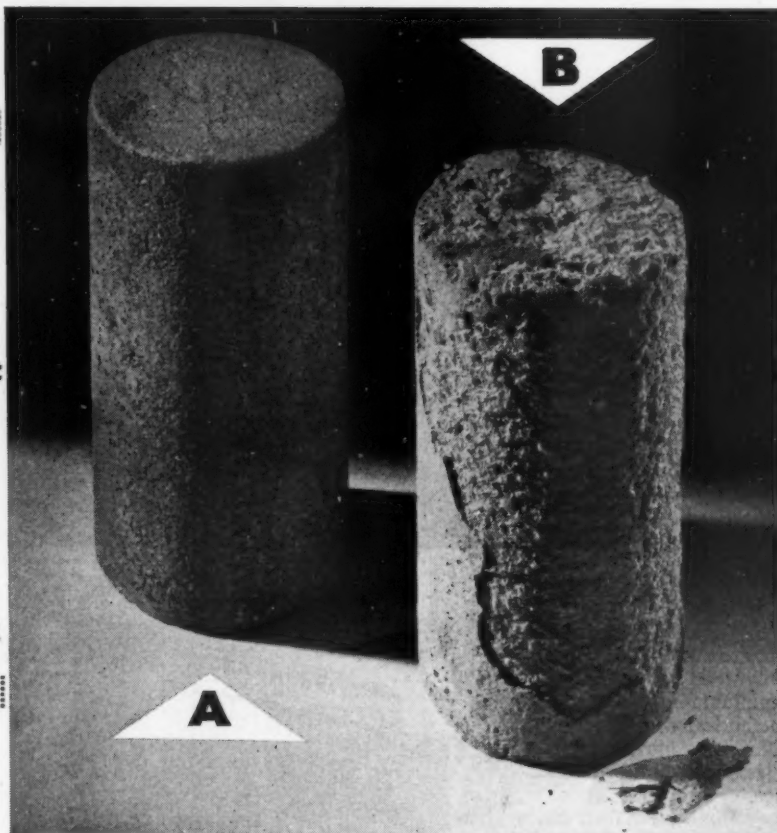
PLUS

FEBMIX

ADMIX

MORTAR

PLASTICISER



COMPOSITION
OF MORTAR
CYLINDER
MARKED

B

1 part cement

1 part lime

6 parts sand

BY VOLUME

To compare the durability of mortar containing FEBMIX ADMIX Mortar Plasticiser and ordinary cement, lime and sand mortar cylinders of each were made, allowed to cure for one month and were then subjected to 30 cycles of freezing and thawing when the above photograph was taken.

NOTE THE DIFFERENCE

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Alufloor

WARNING

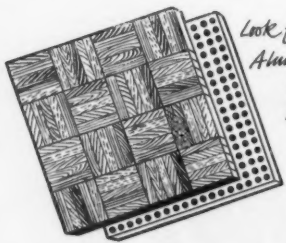
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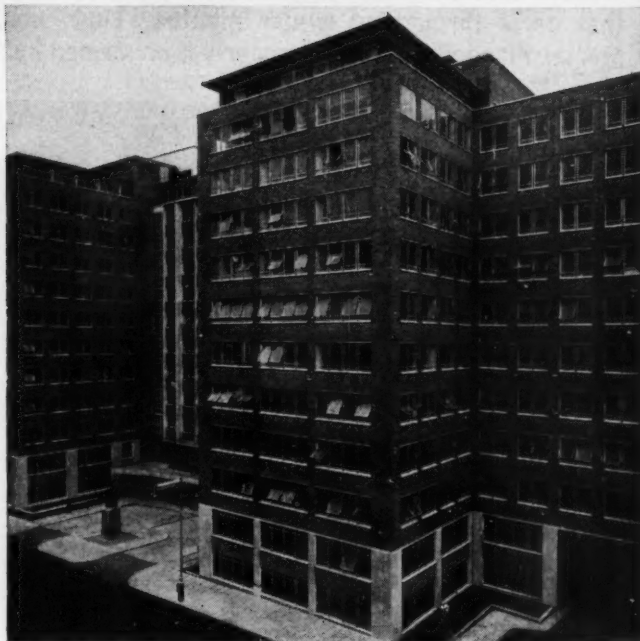
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Bowater House, Knightsbridge, in which 27,564 sq. yards of Alufloor have been laid. Architect: Guy Morgan, F.R.I.B.A., A.I.Struct.E.

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Grams : Byrdicom, Wesphone, London

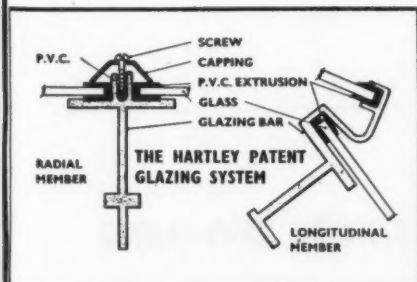
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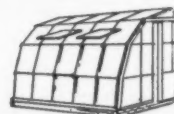


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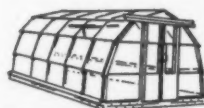
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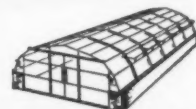
Hartley "10" 10'0" Wide, 7'1" High



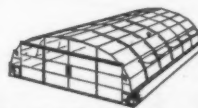
Palm House 38'6" Wide, 18'6" High



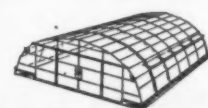
Hartley "14" 13'3" Wide, 8'6" High



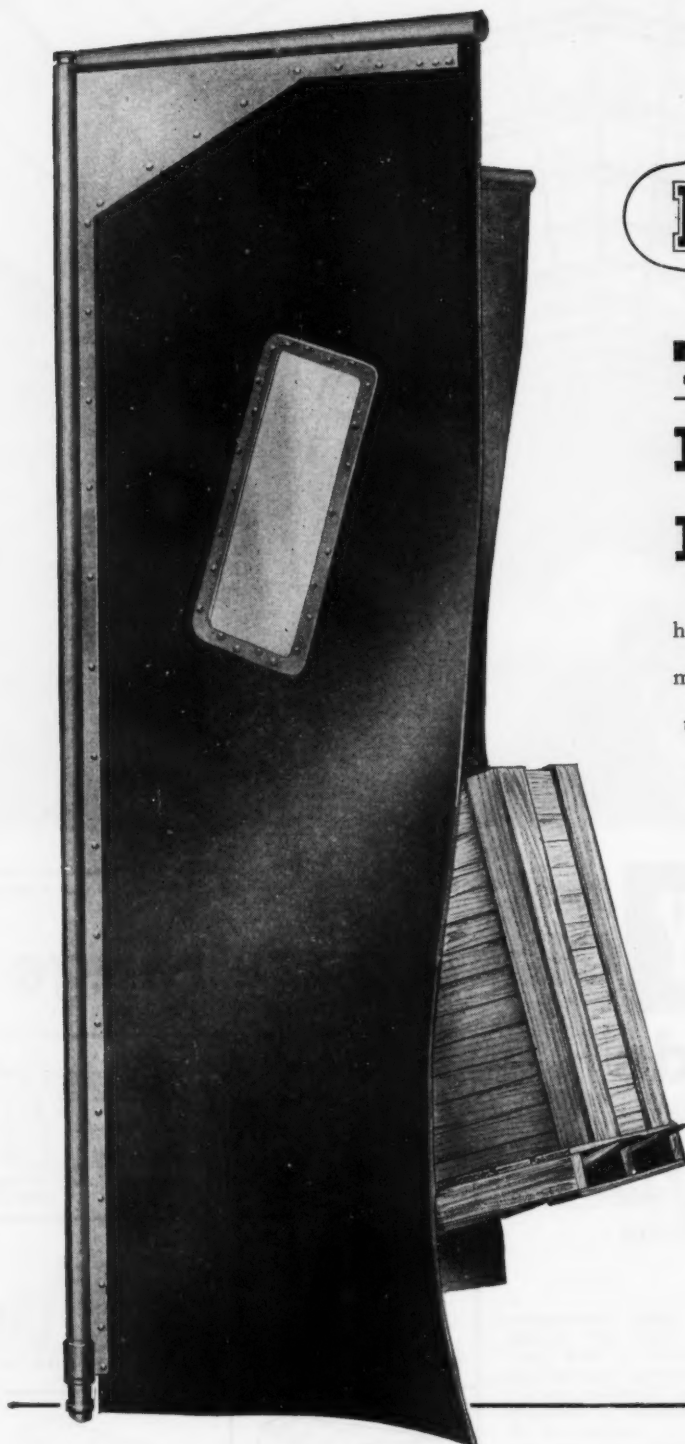
Hartley "18" 18'4" Wide, 9'0" High



Hartley "21" 21'2 1/2" Wide
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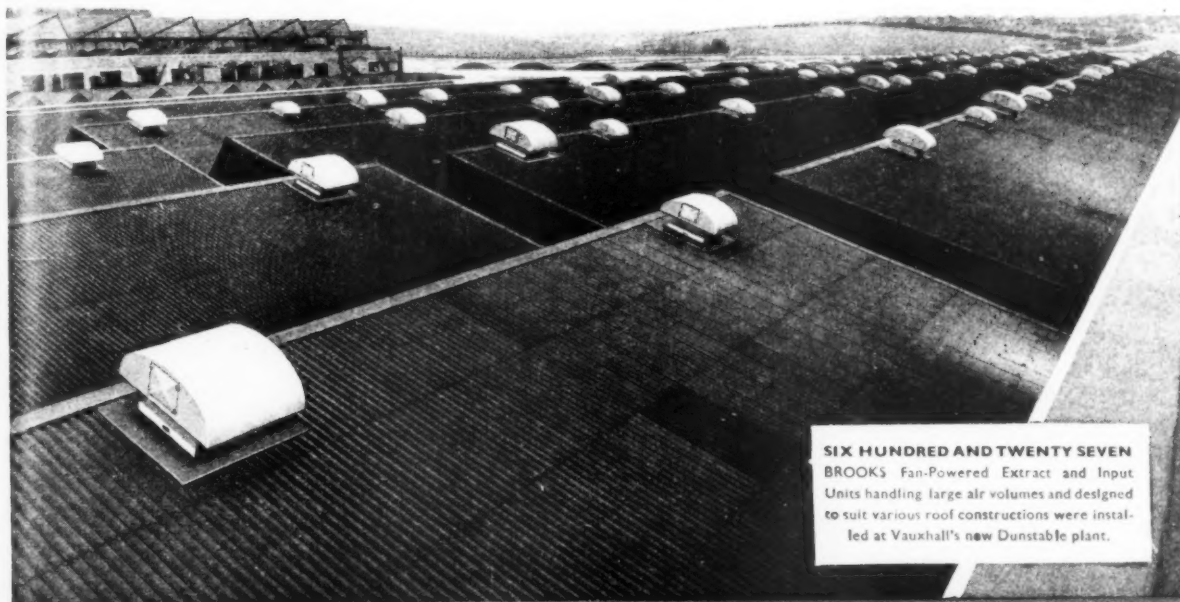
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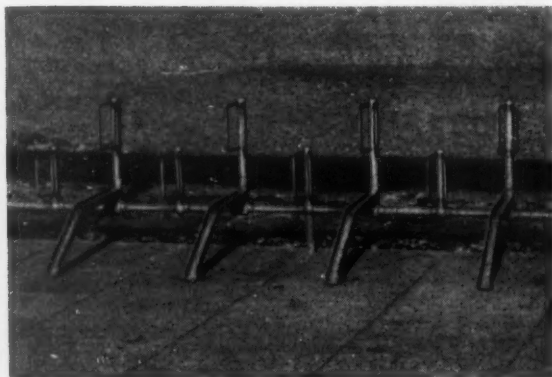
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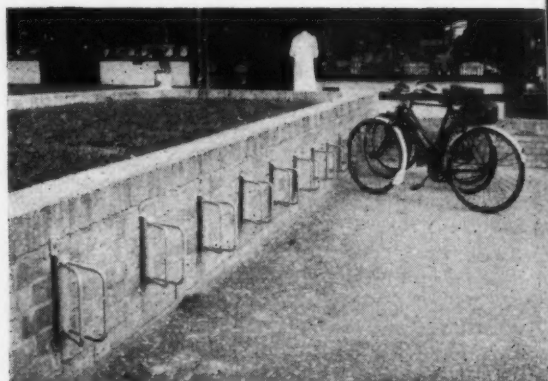
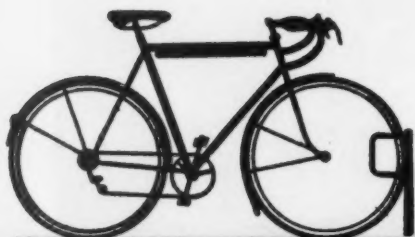
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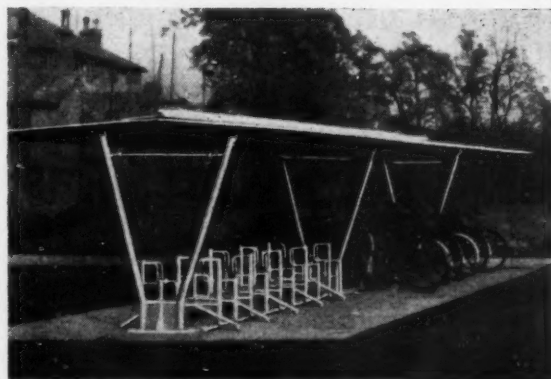
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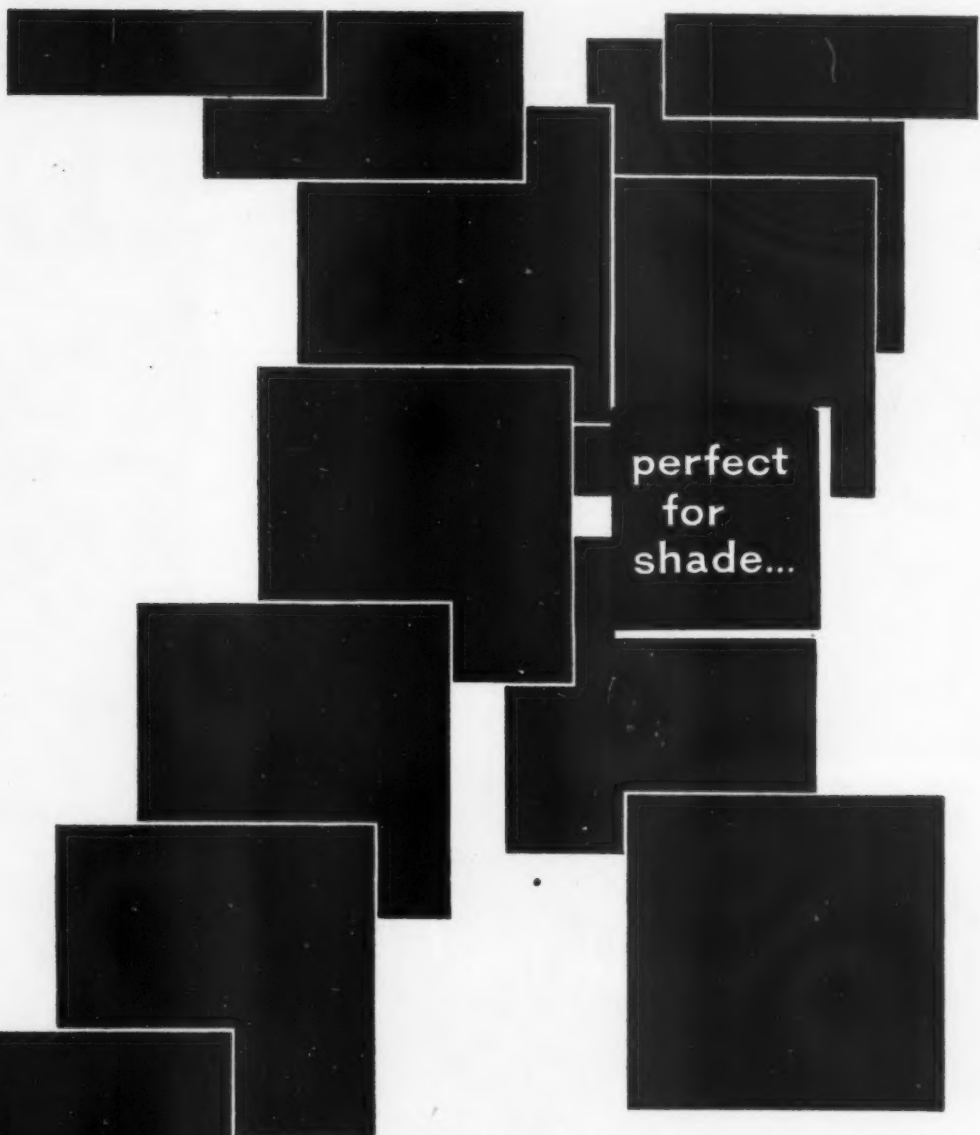
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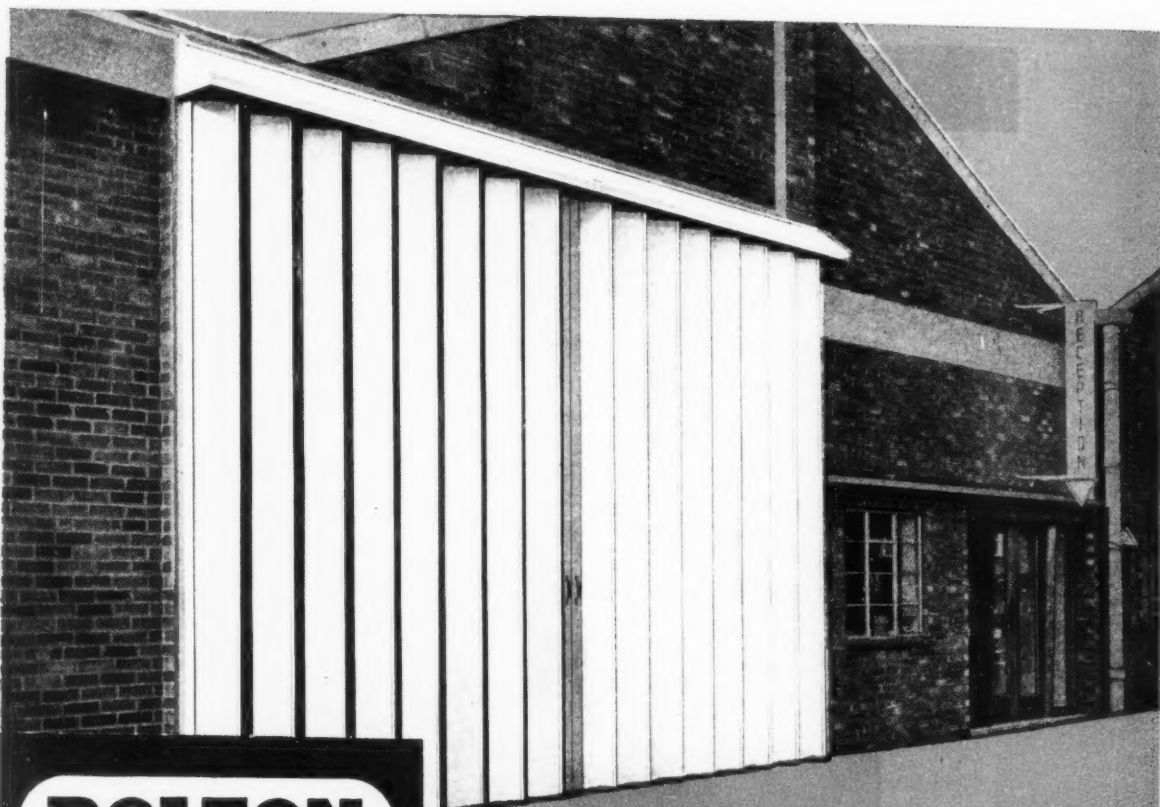
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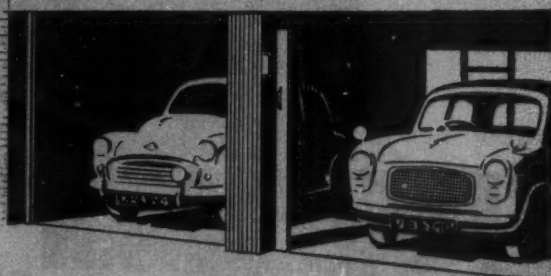


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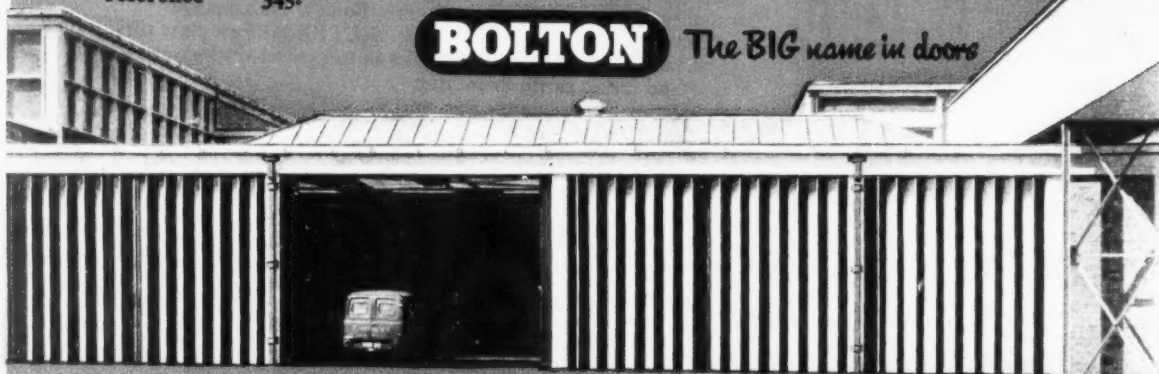
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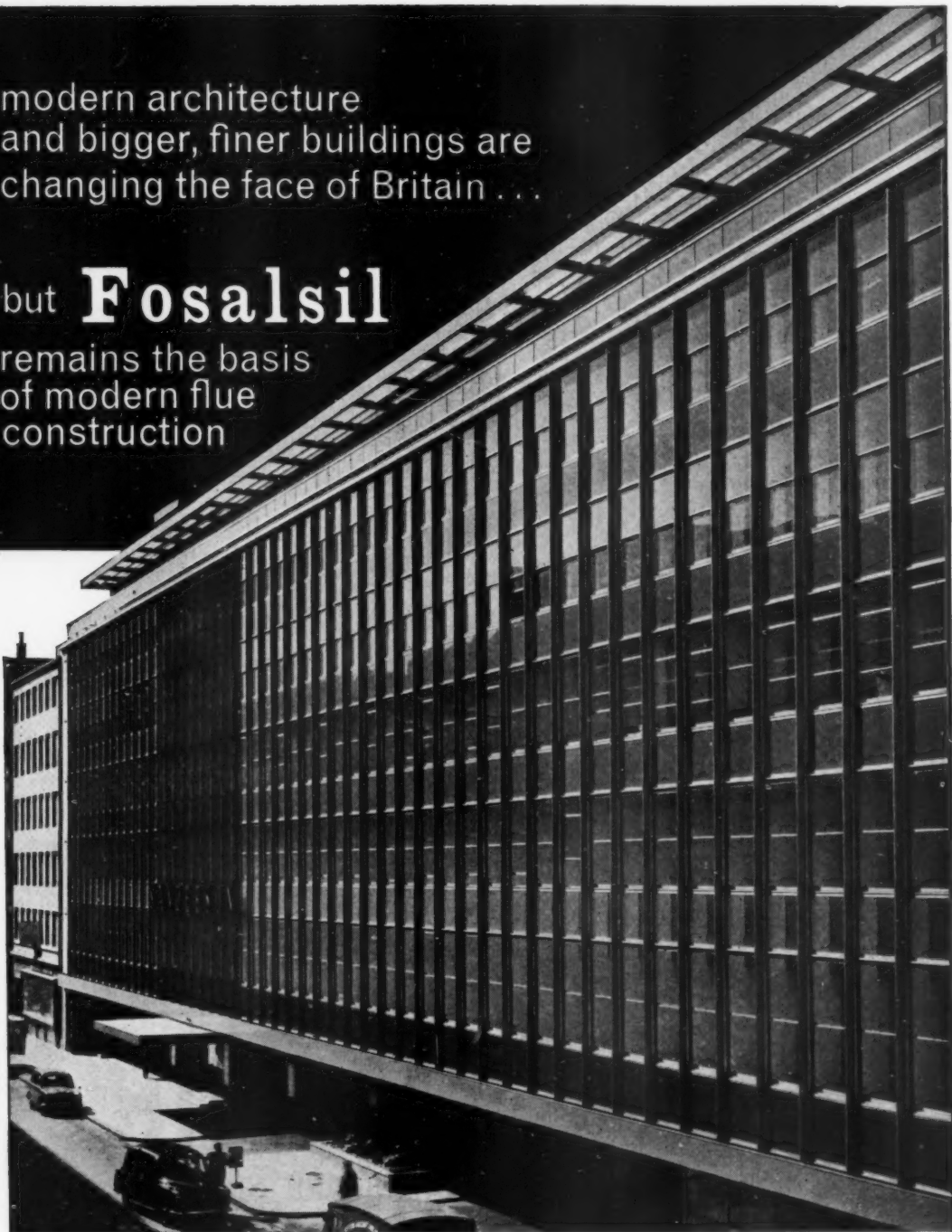


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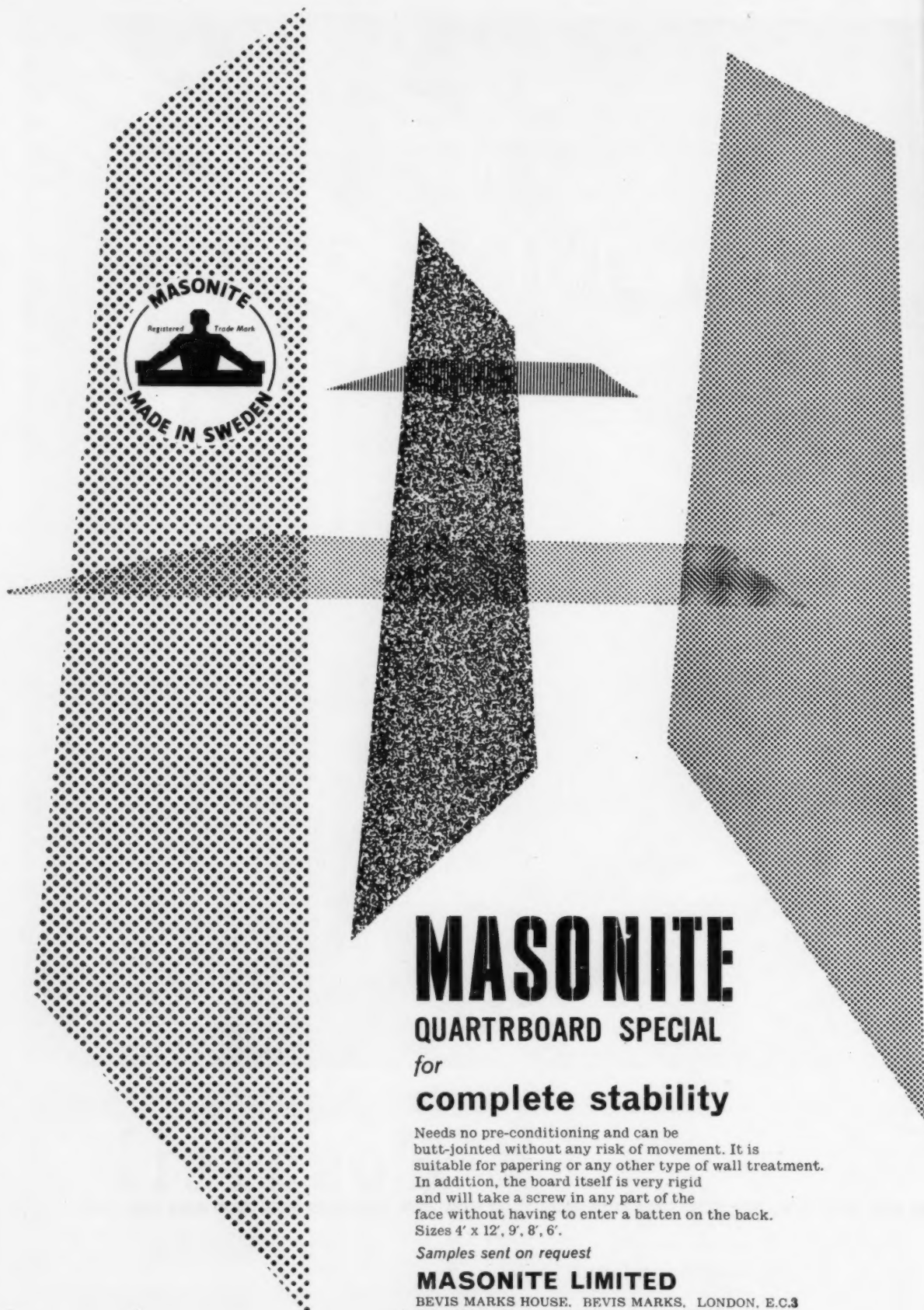
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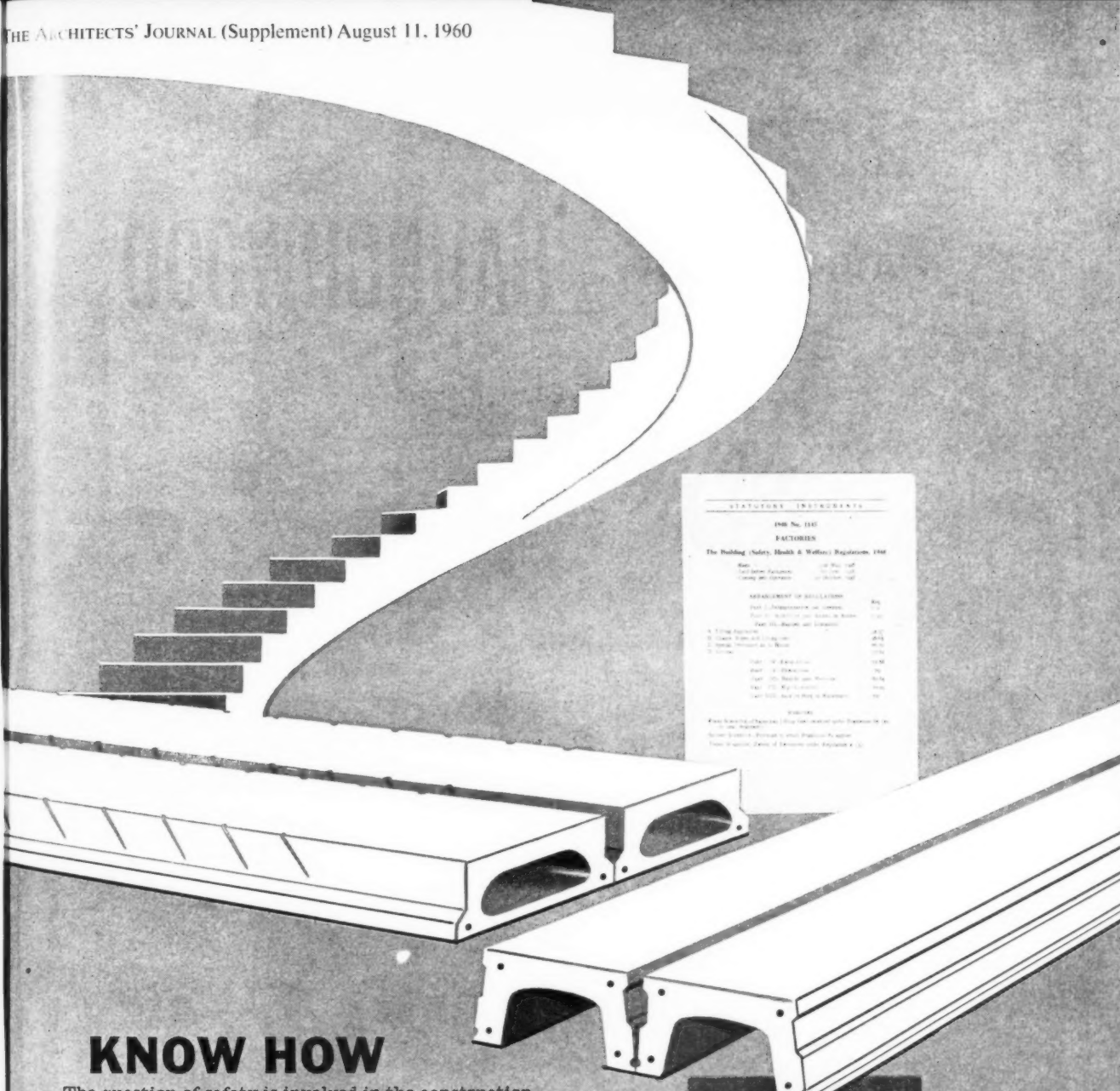
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1960 No. 1111	
FACTORIES	
The Building (Safety, Health & Welfare) Regulations, 1960	
Enactment	1960 No. 1111
Enactment	1960 No. 1111
Enactment	1960 No. 1111
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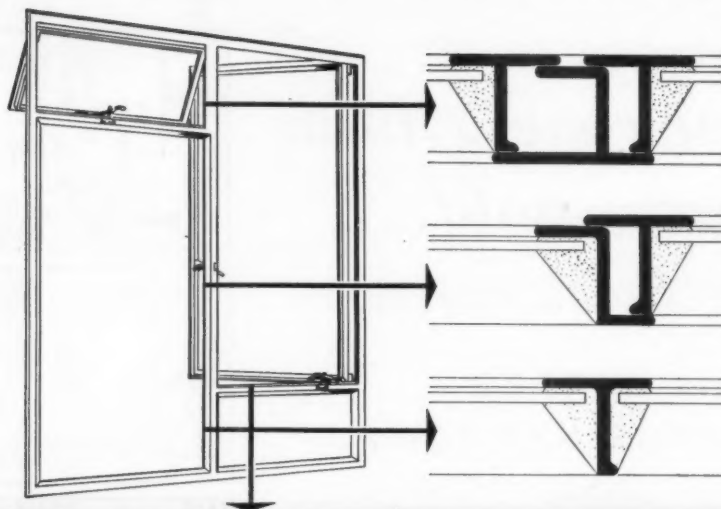


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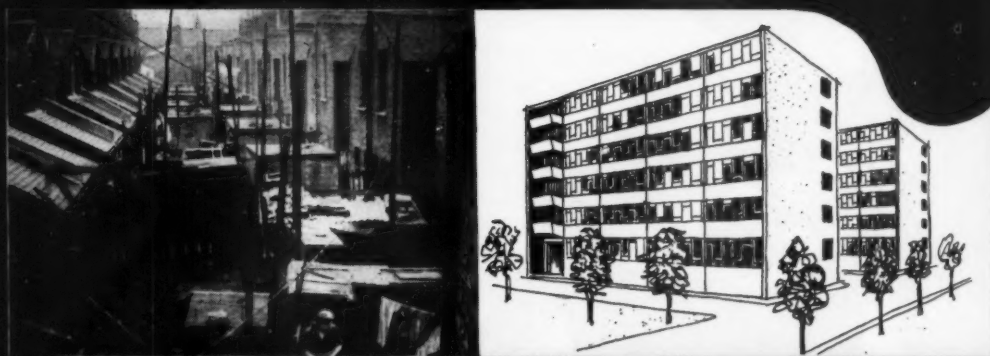
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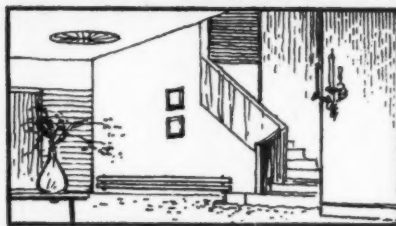
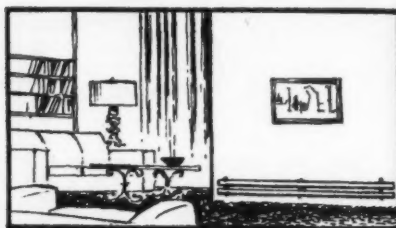
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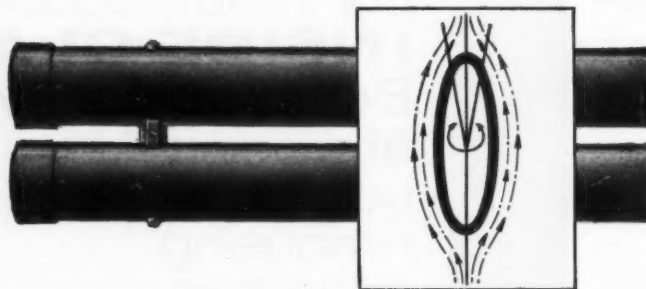
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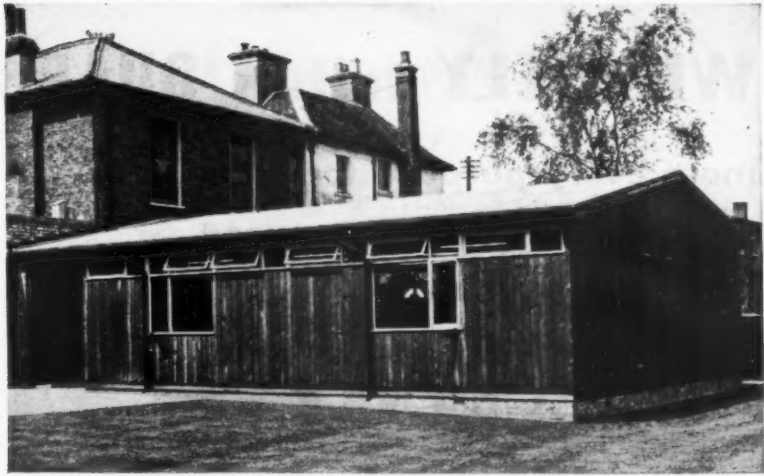
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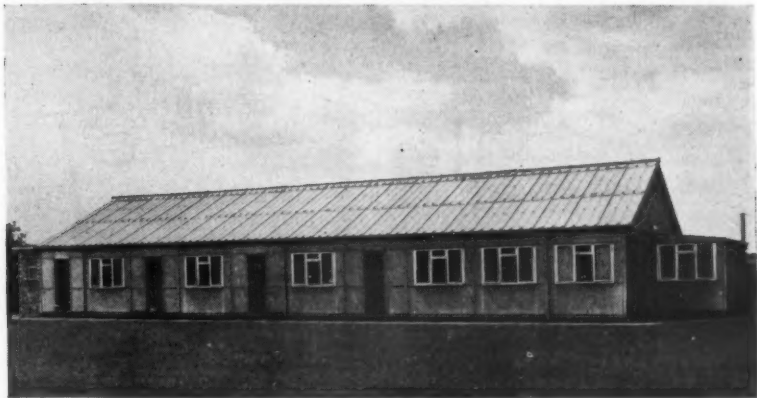
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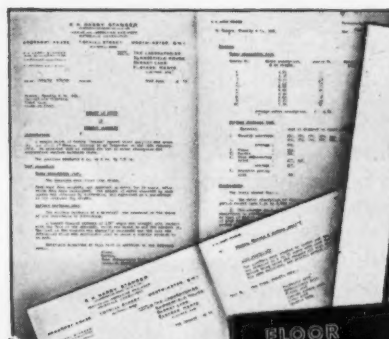
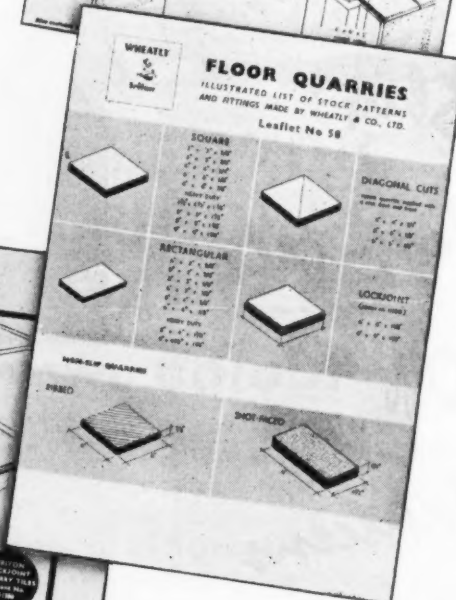
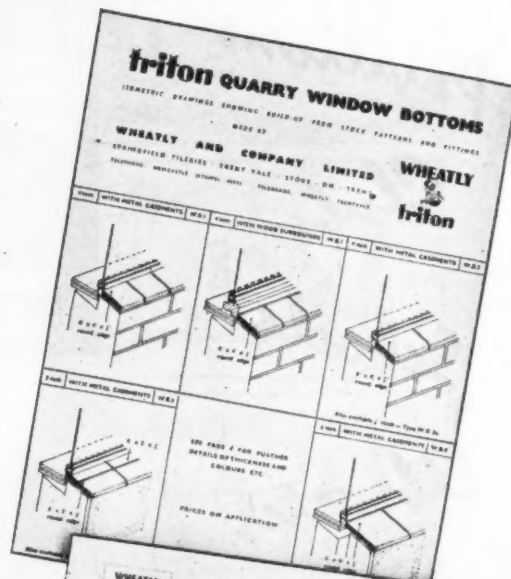
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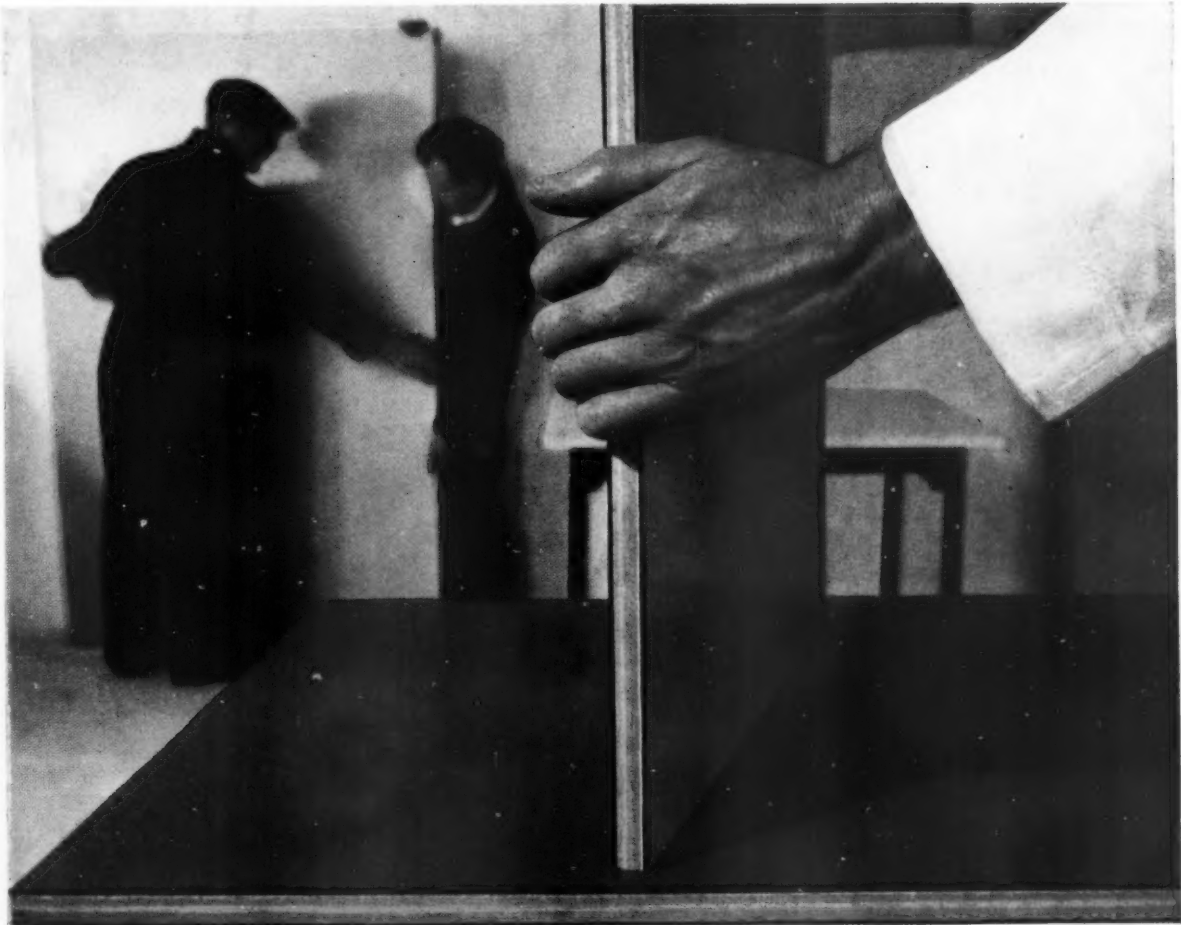
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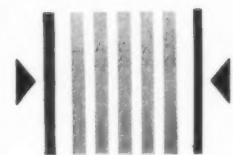
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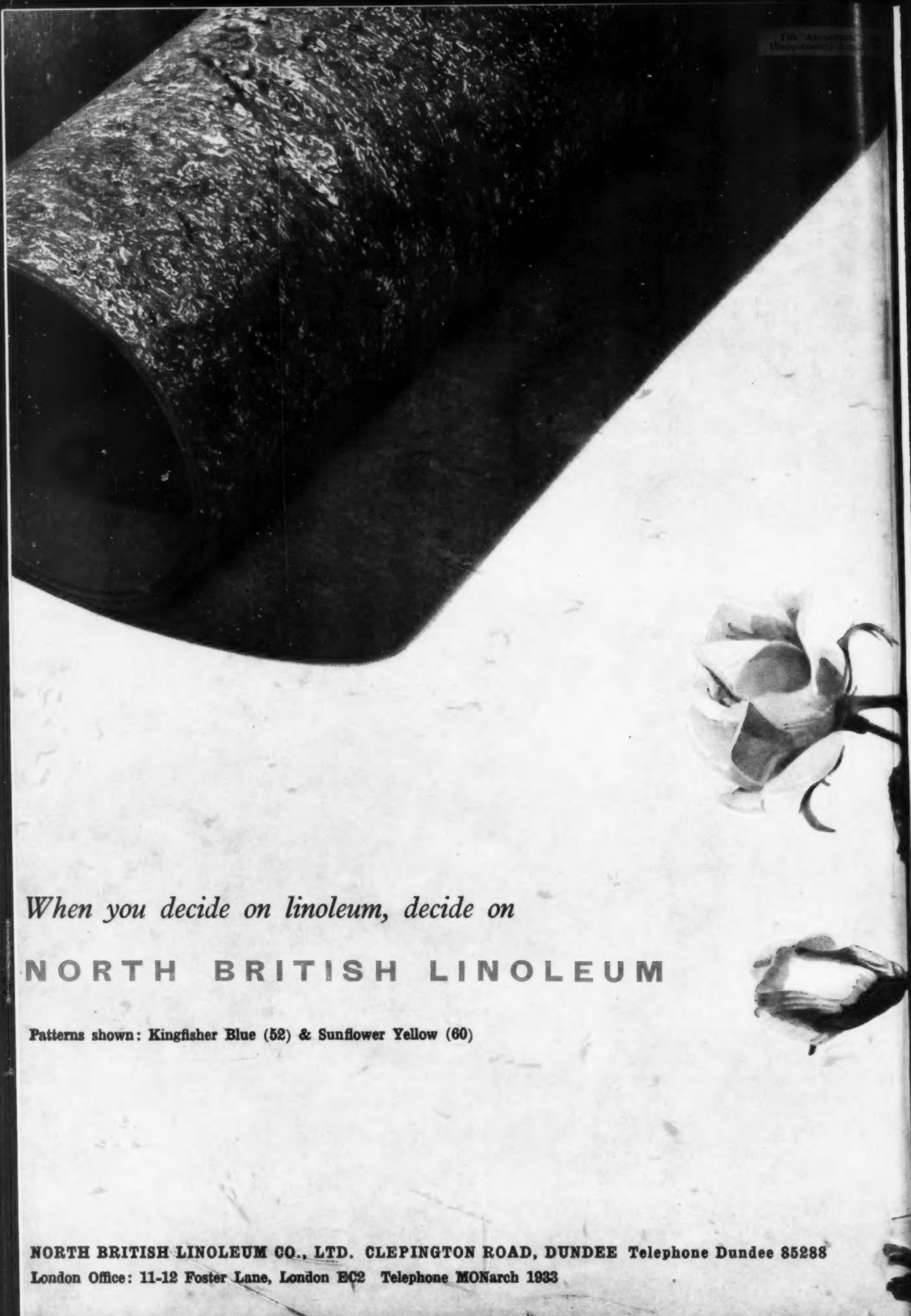
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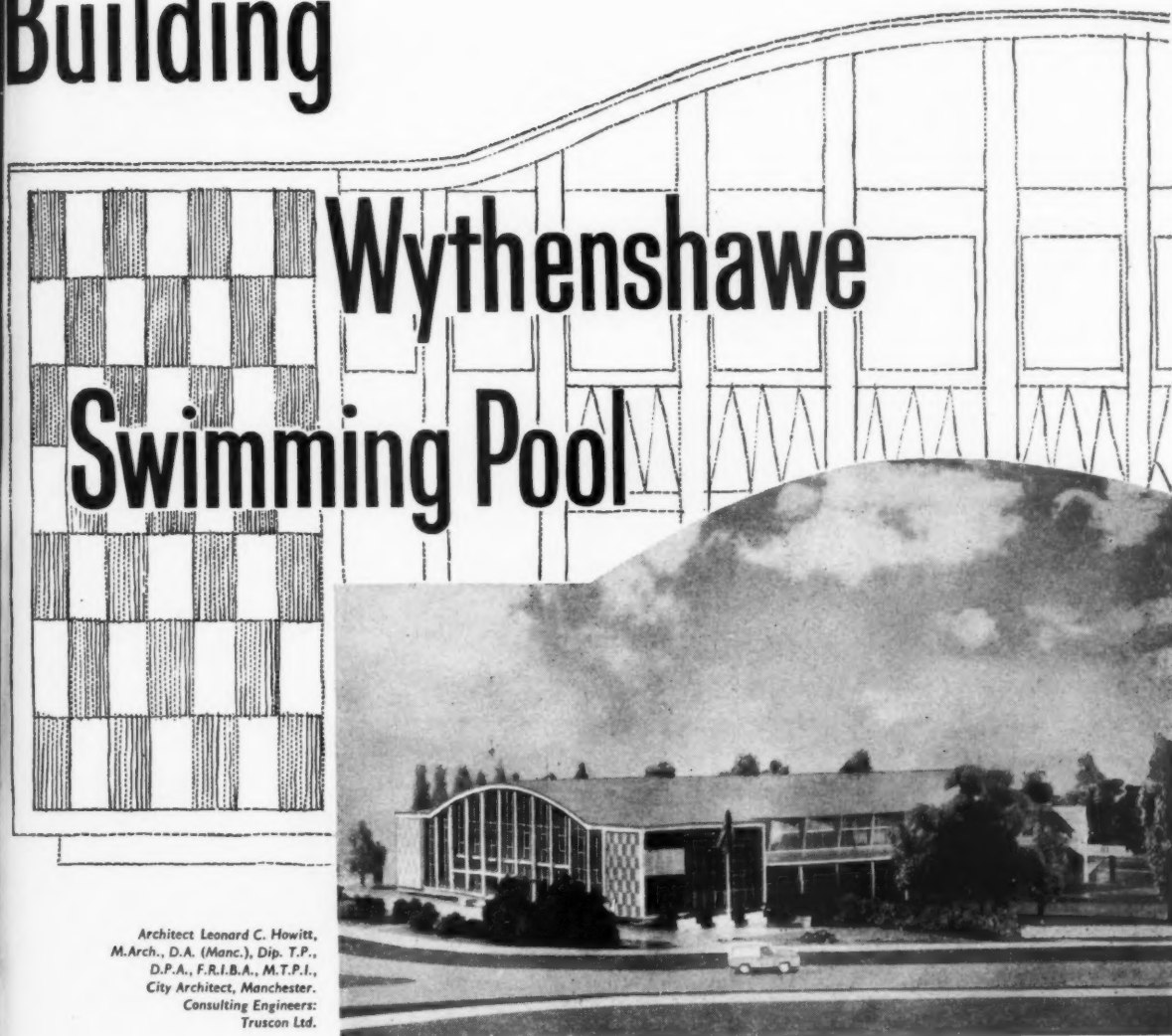
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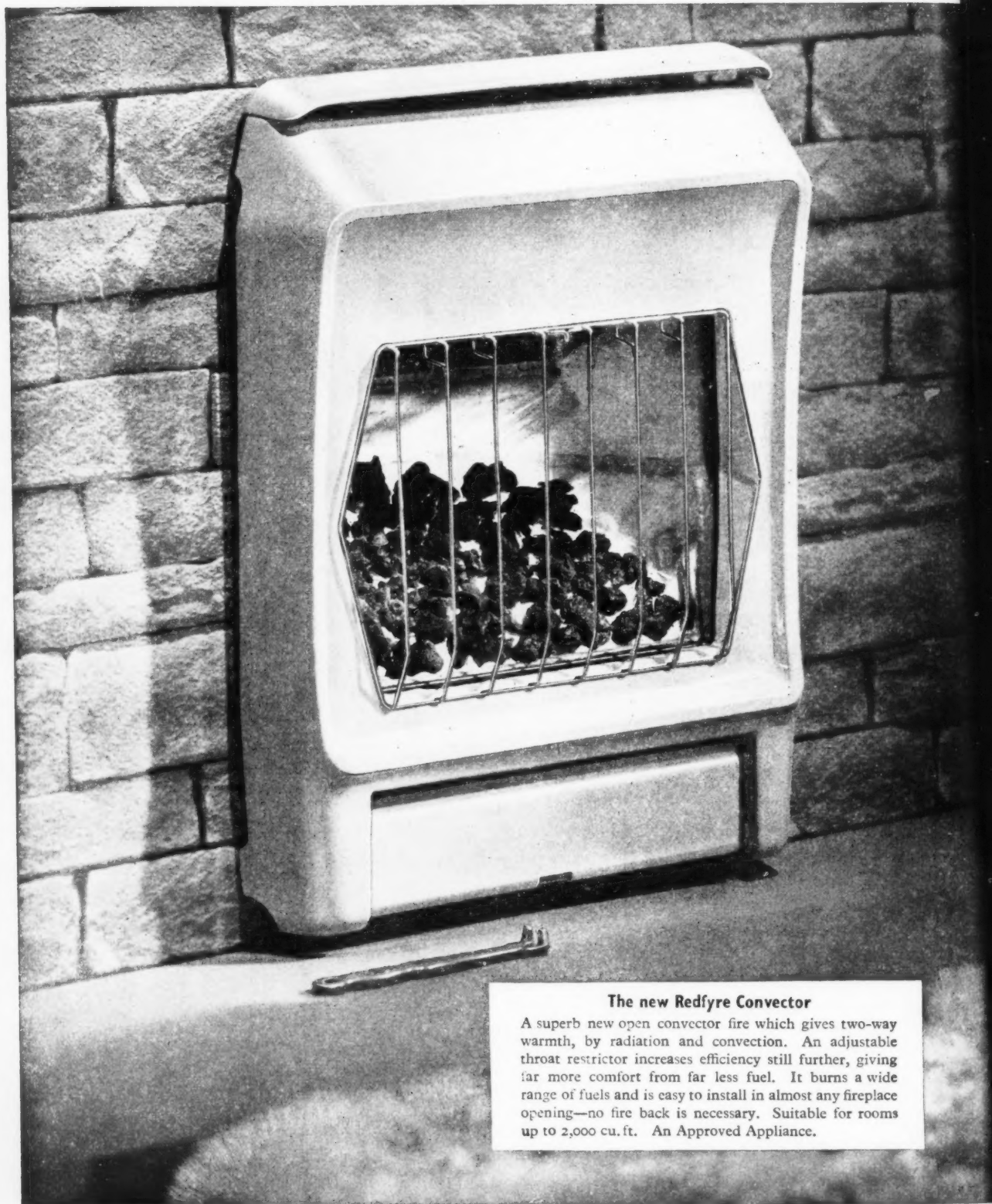
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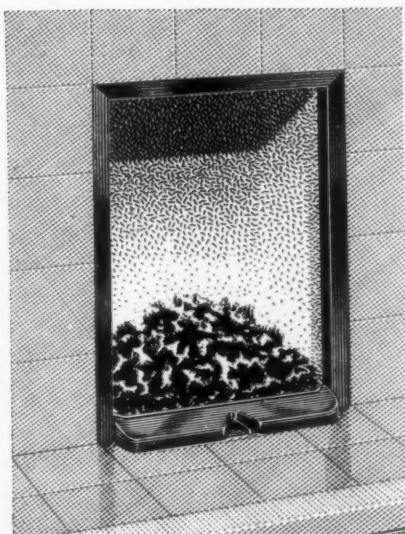
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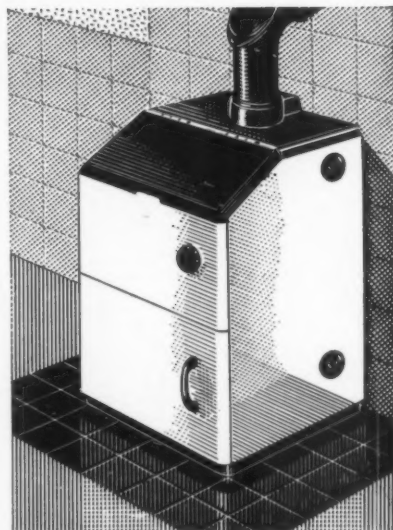
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Illustrated: the larger of two blocks of four-storey maisonettes for which the Rustless Iron Co. supplied TRICO VITREOUS ENAMEL Infilling Panels to a total area of 6896 sq. ft.

To the specification of the City Architect, Sheffield Corporation. Metal Windows by John Williams (Cardiff) Ltd.



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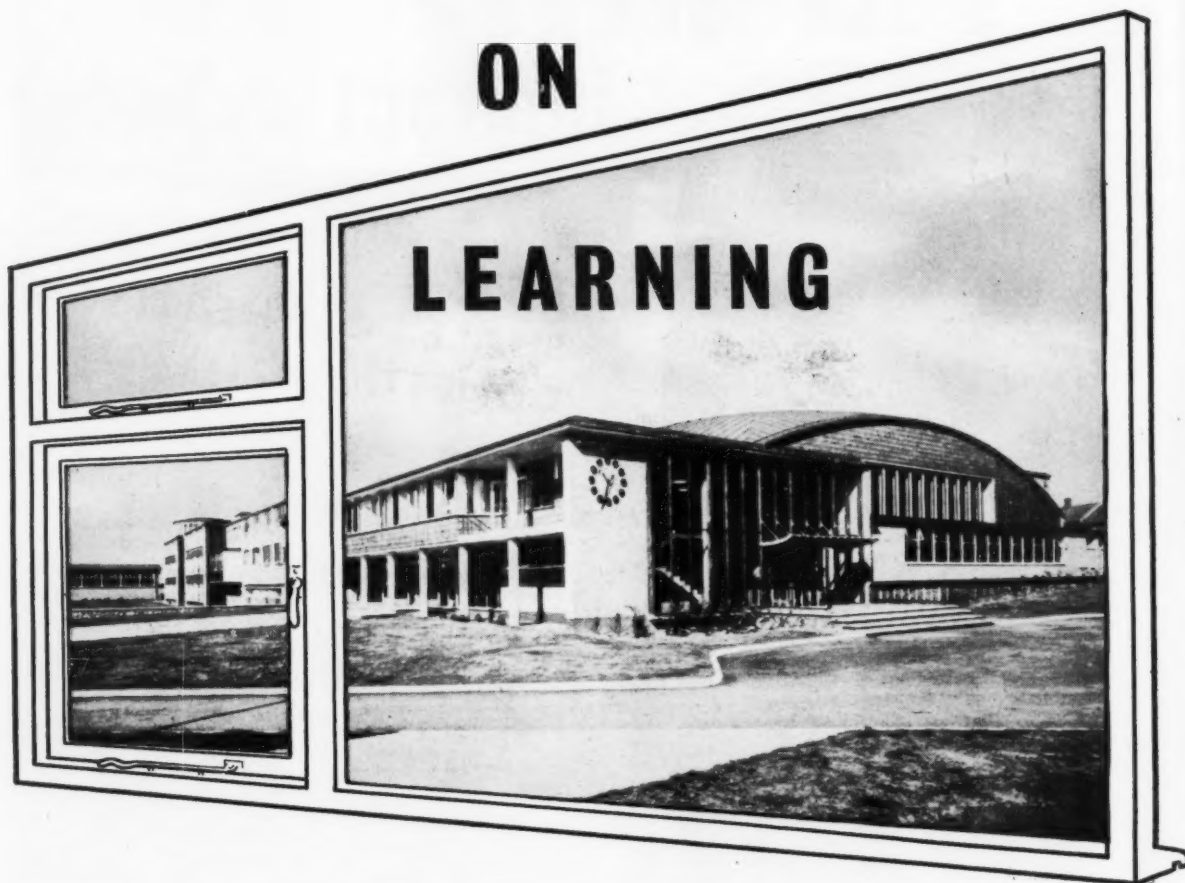
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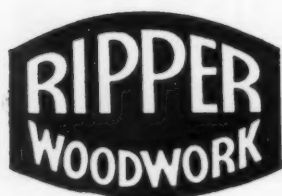
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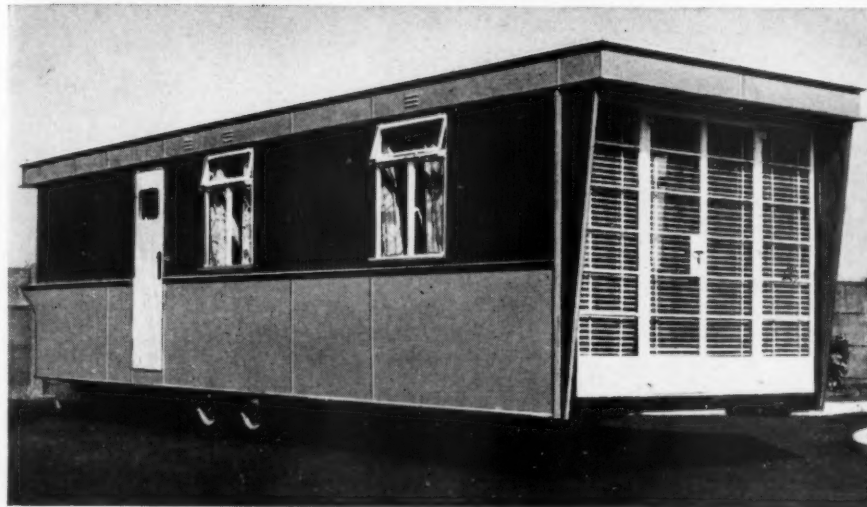


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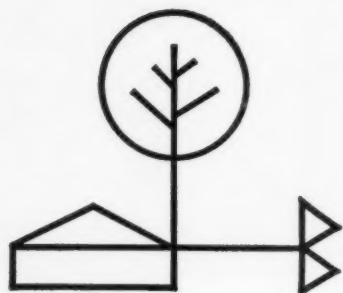
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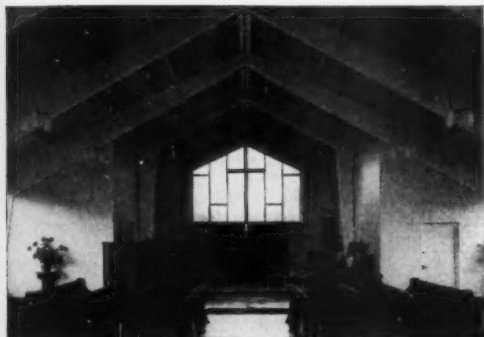
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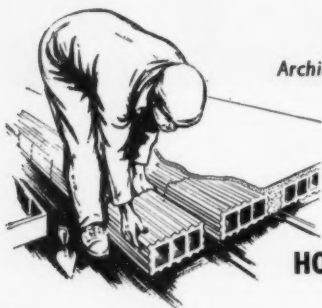
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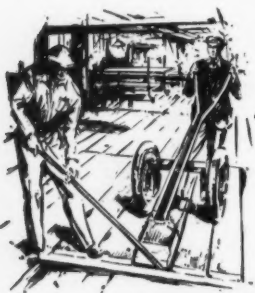
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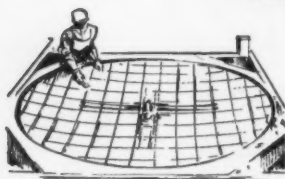
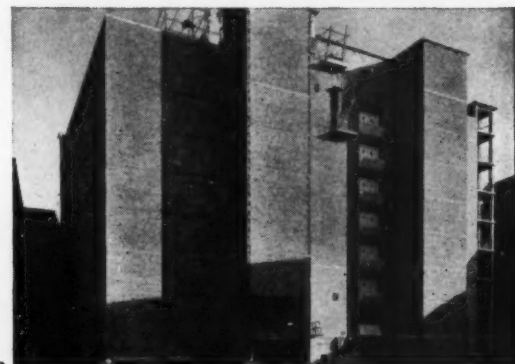
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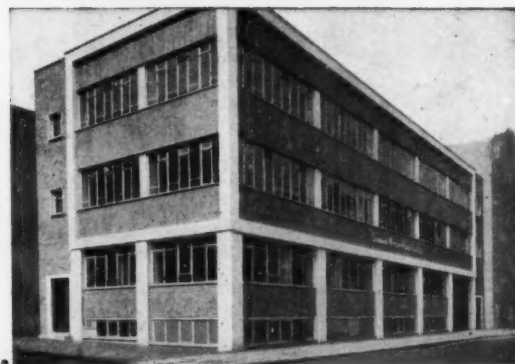
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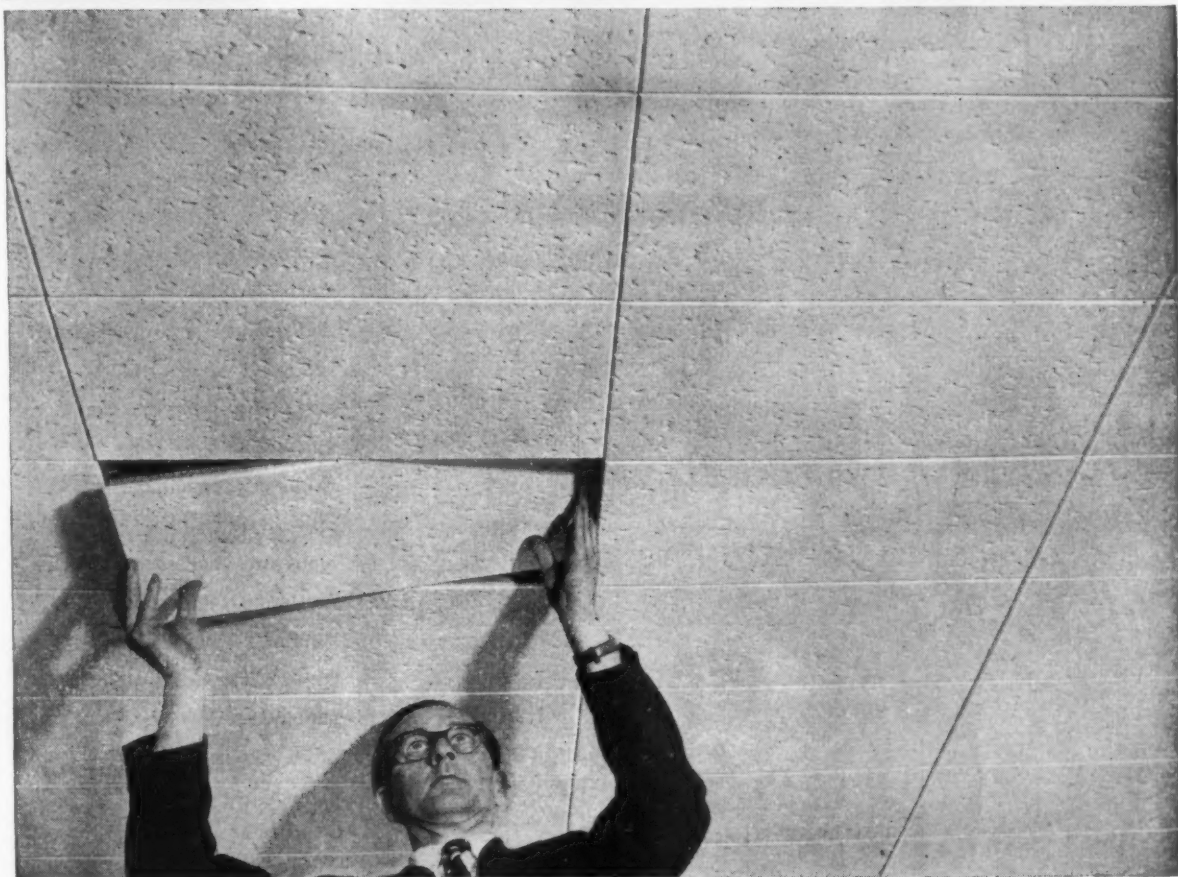
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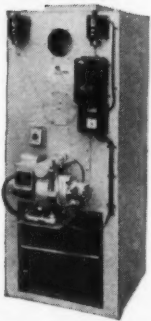
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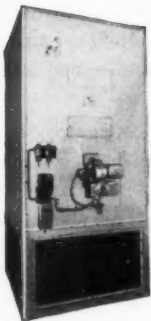
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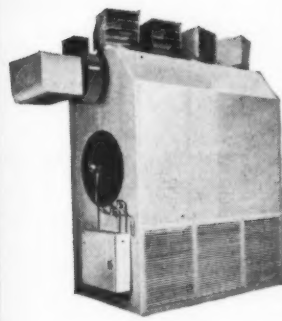
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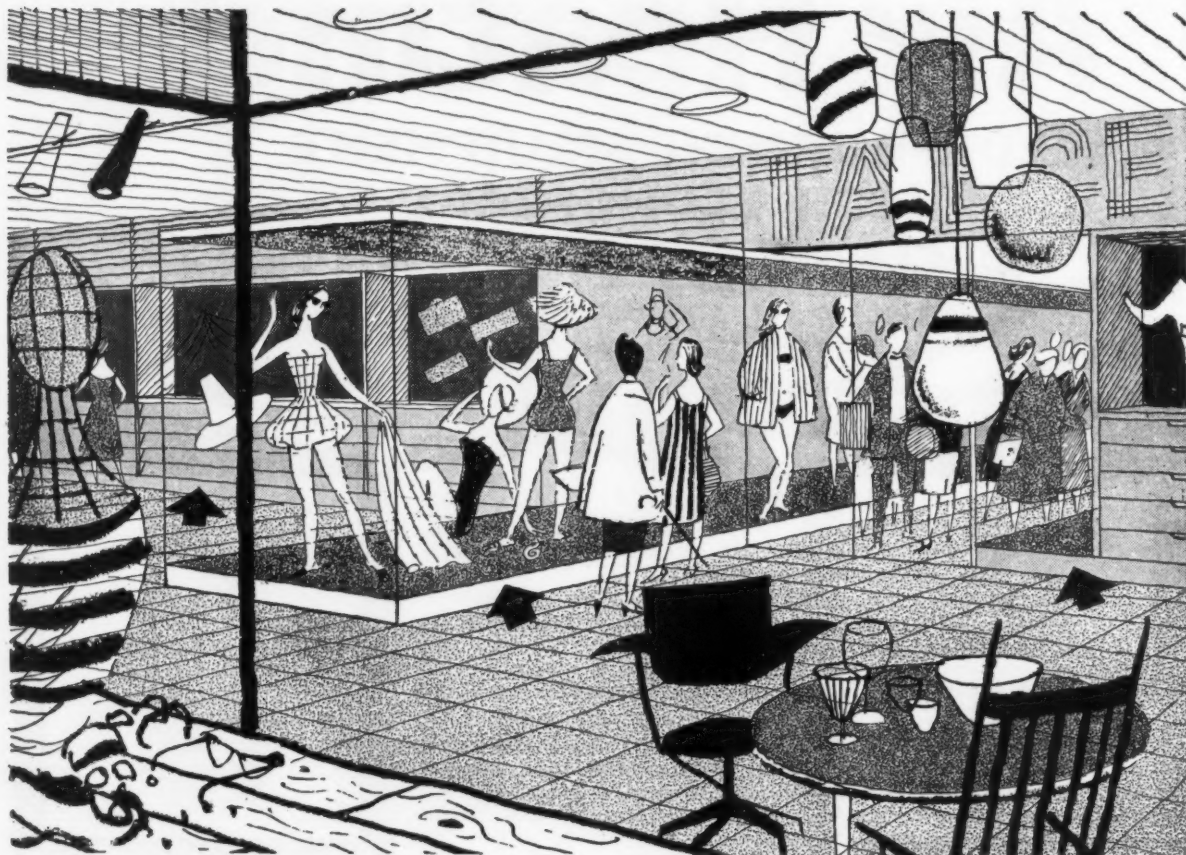
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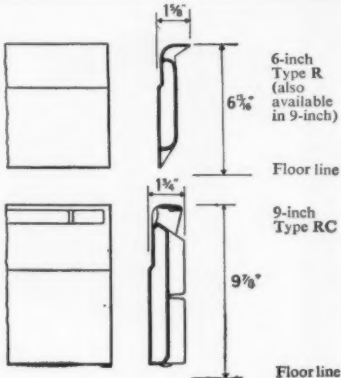
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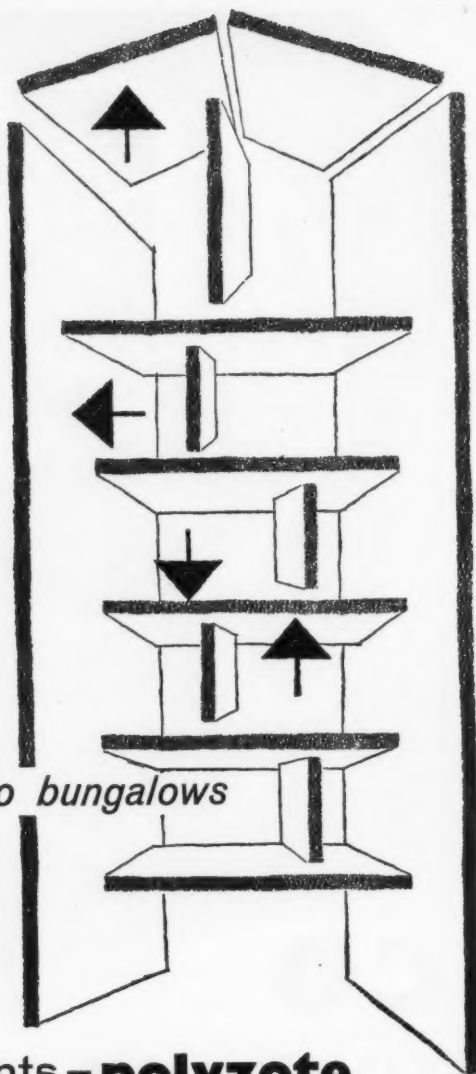
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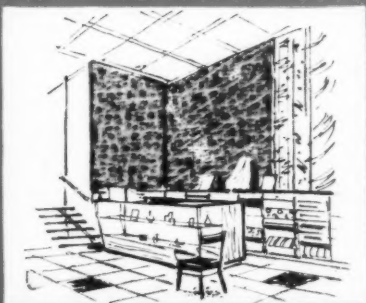
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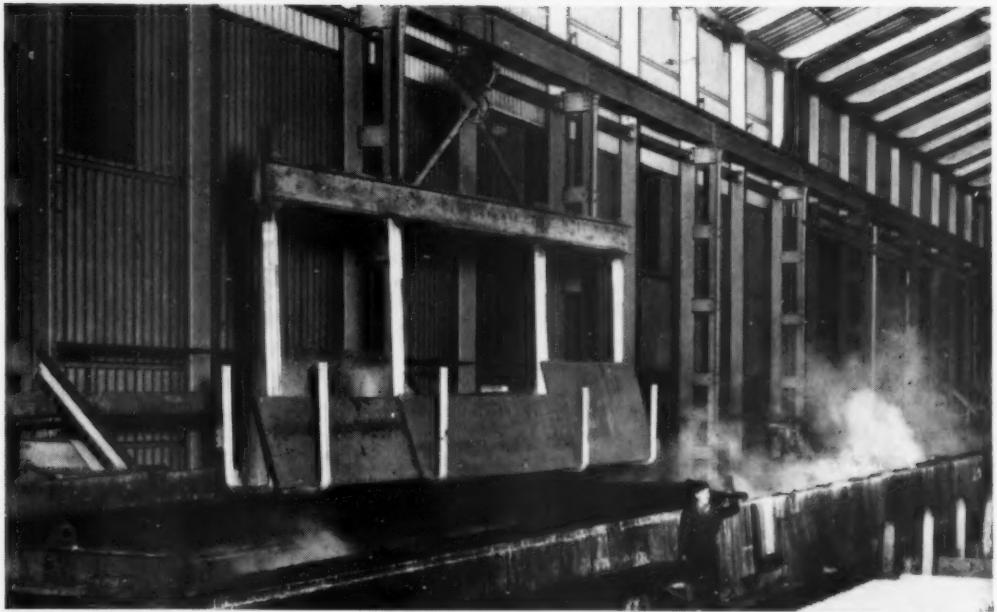
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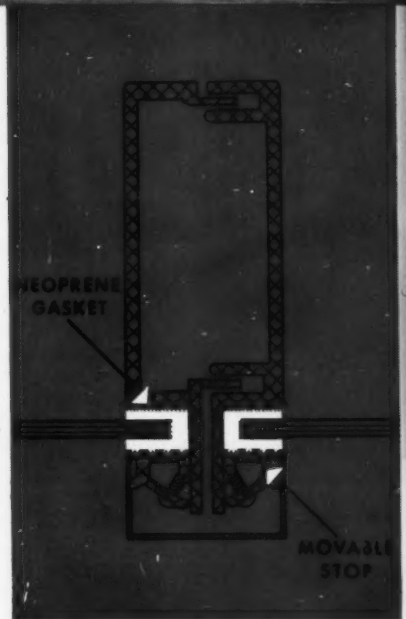
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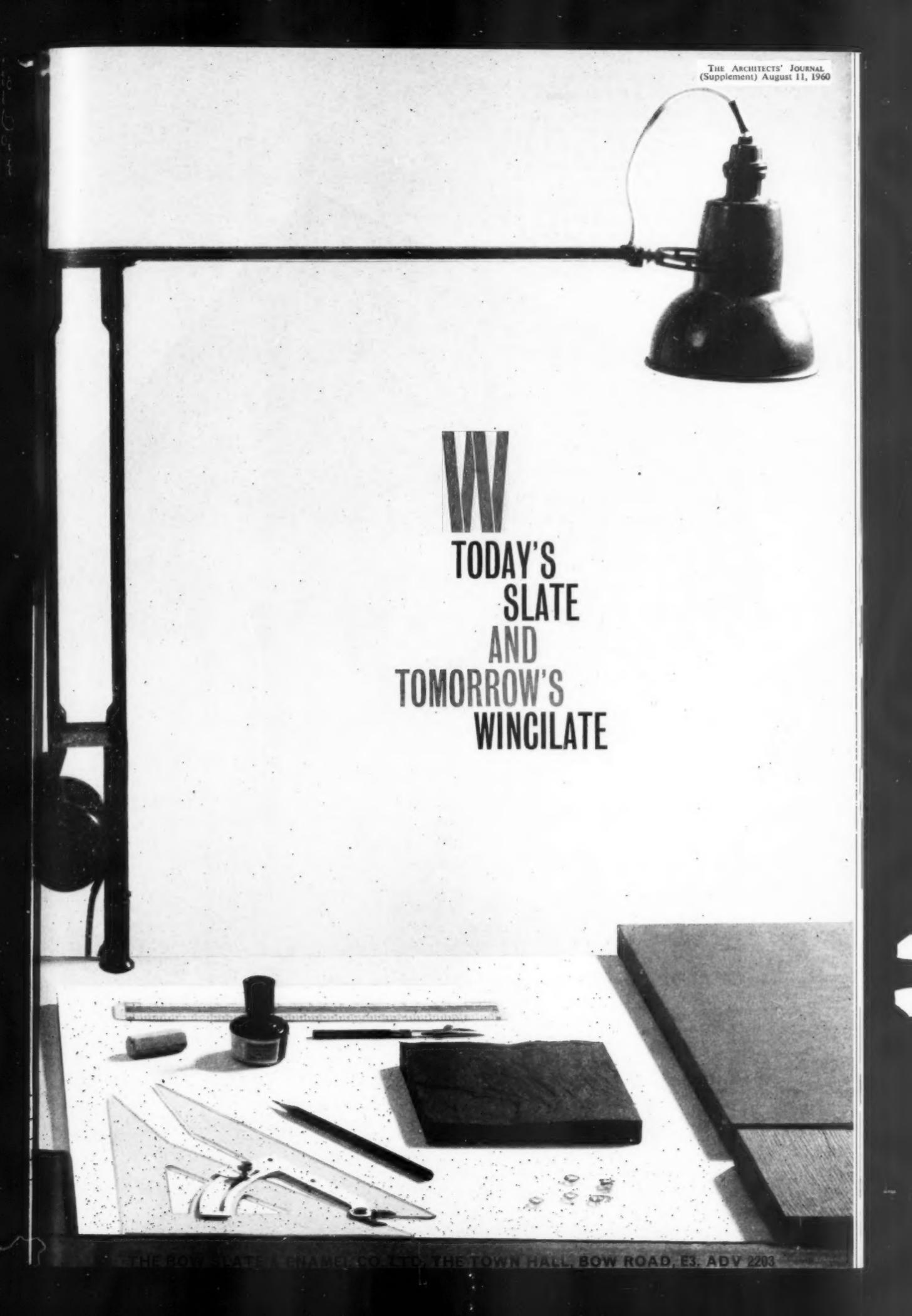
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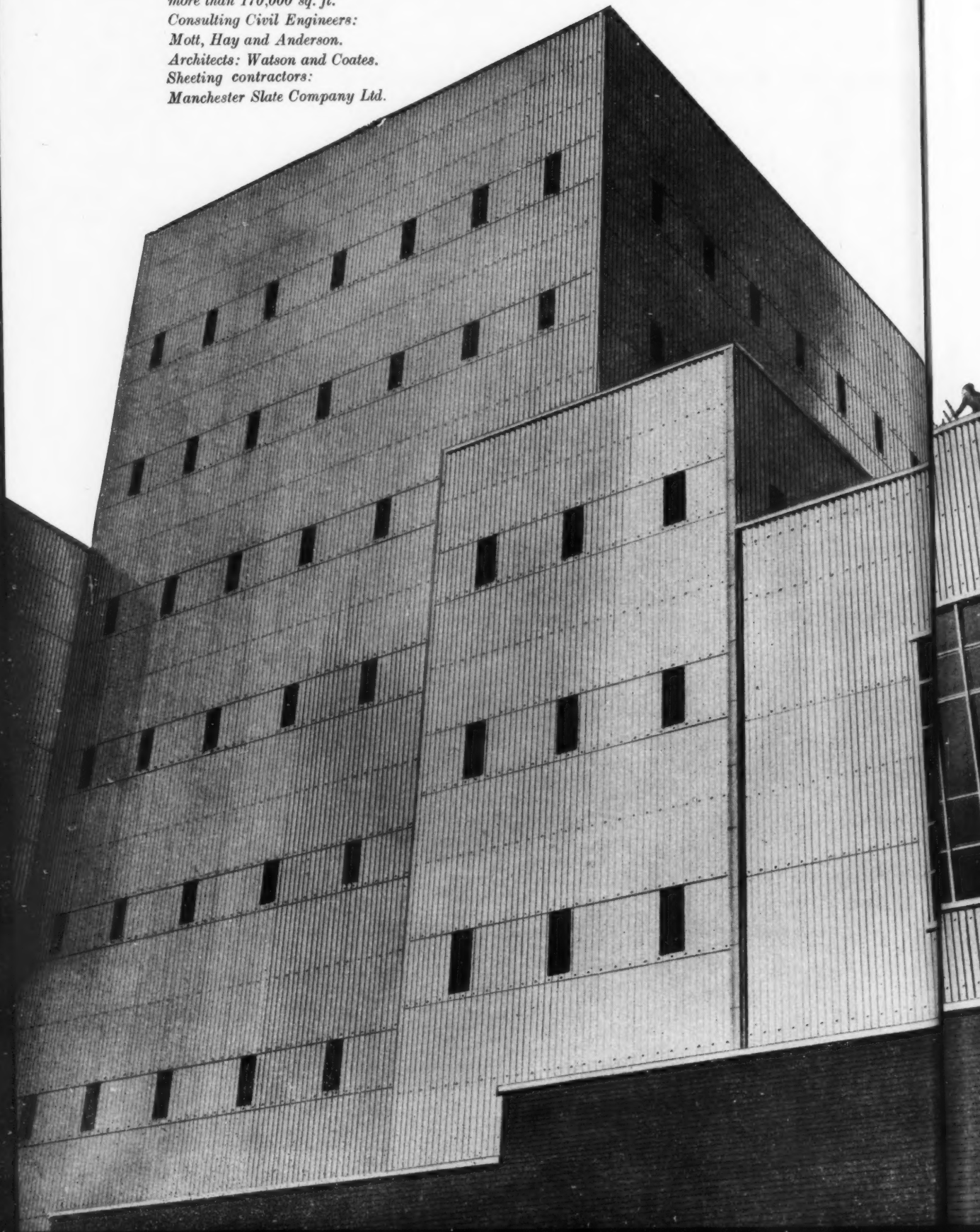
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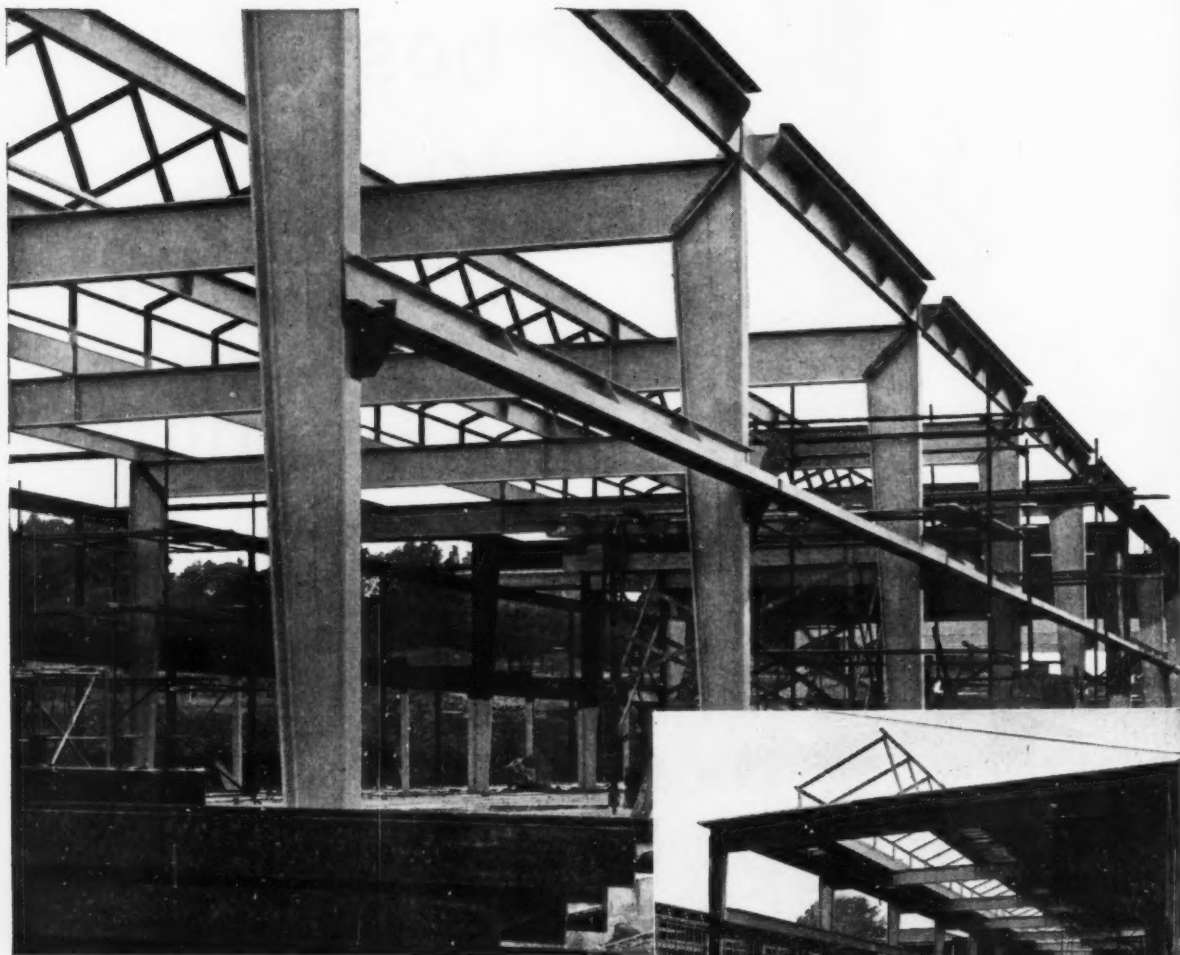
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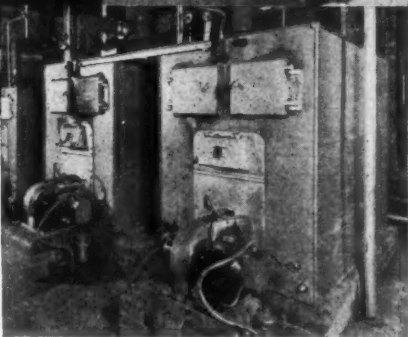
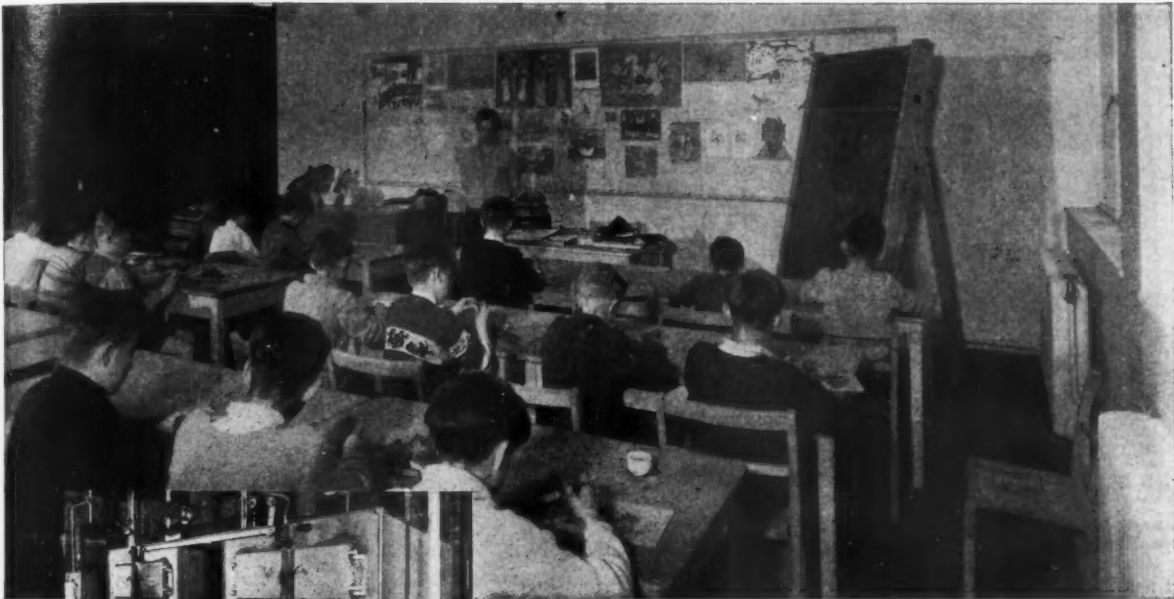
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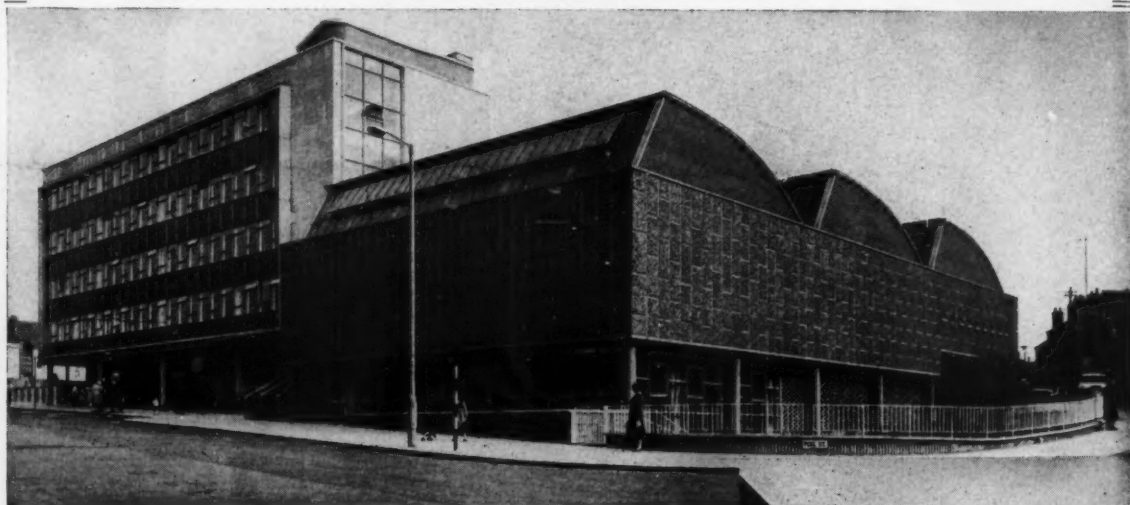
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A. G. E. CHAPMAN, A.R.I.B.A., A.M.T.P.I.

Chief Assistant Architect:

N. C. DOWELL, A.R.I.B.A.

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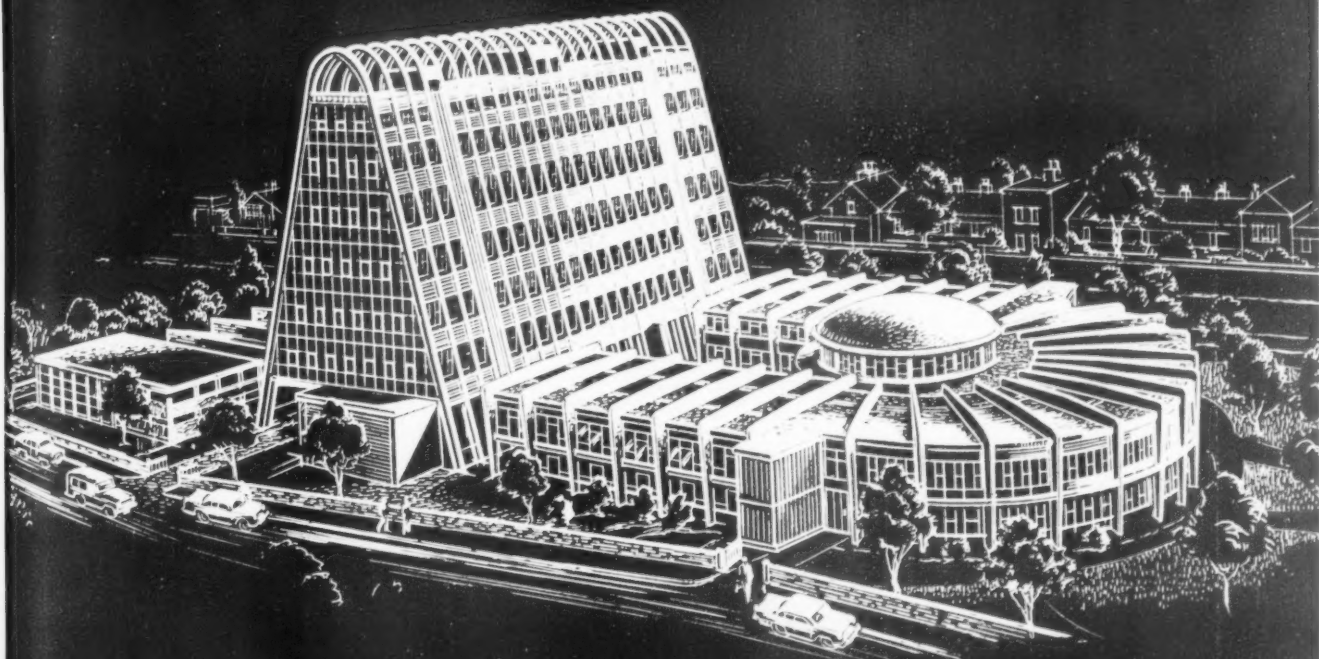
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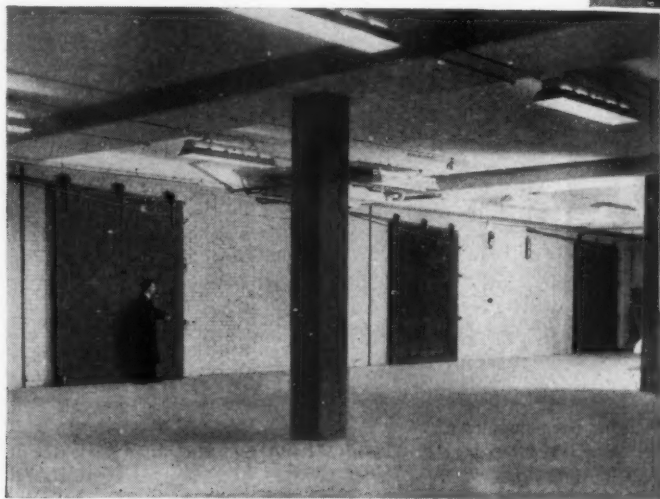
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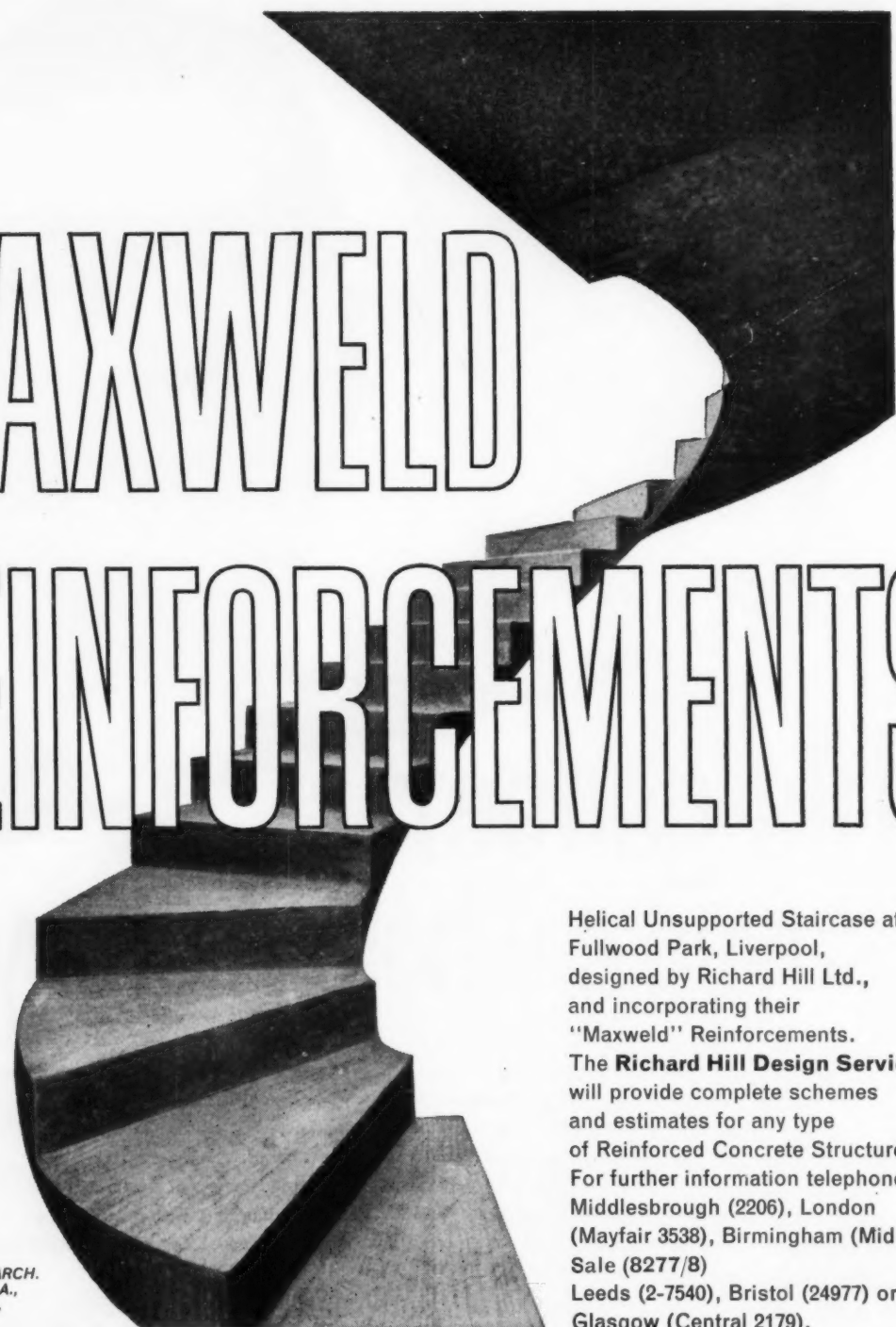
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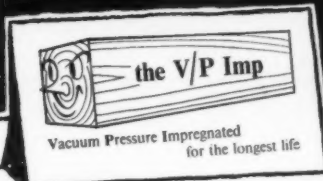
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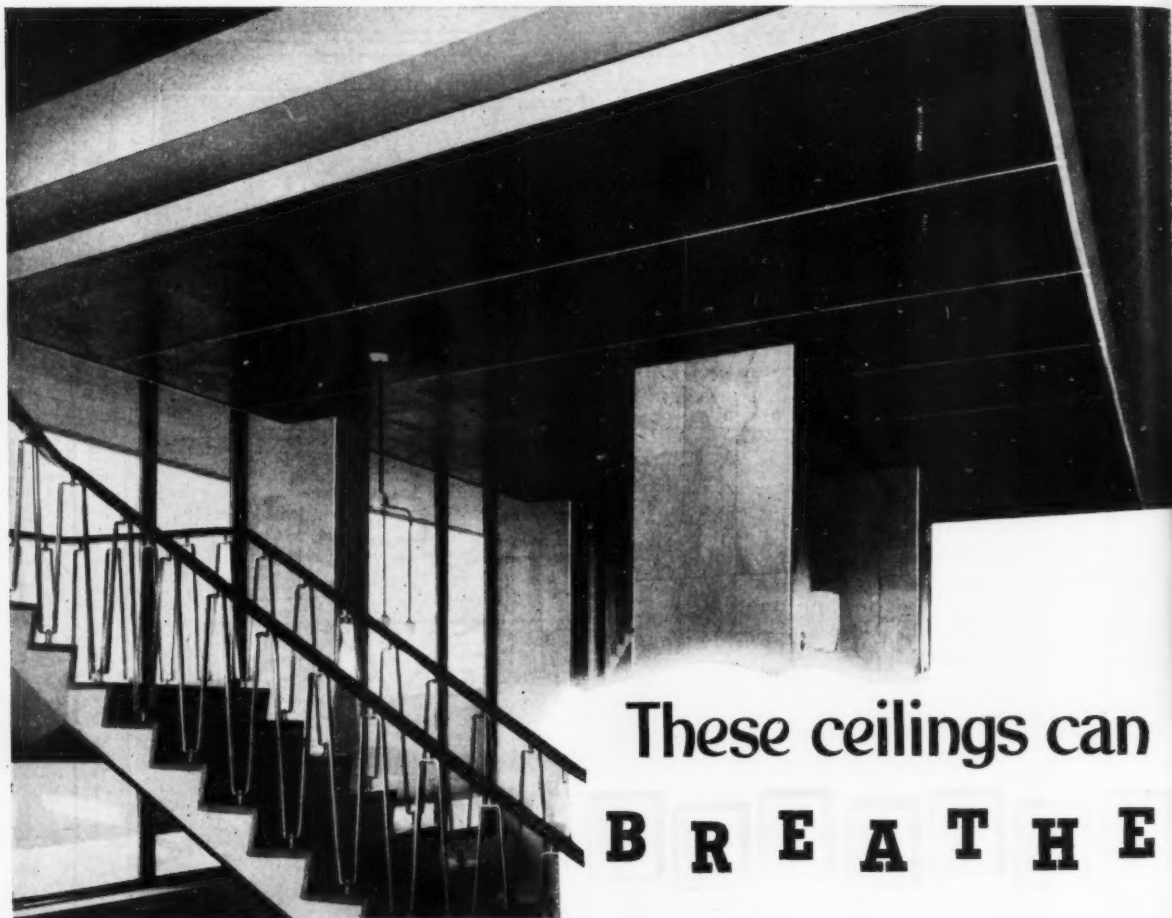
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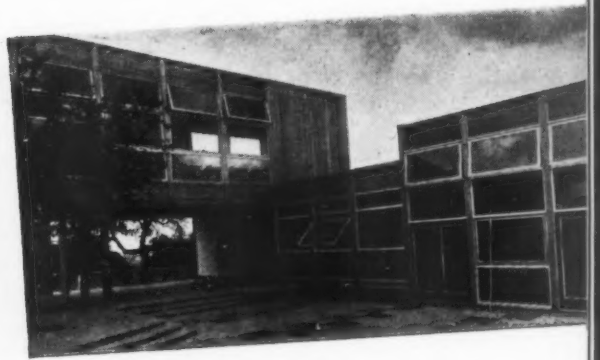
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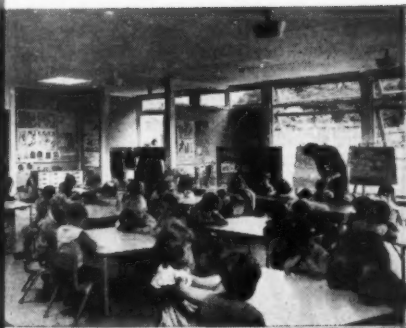
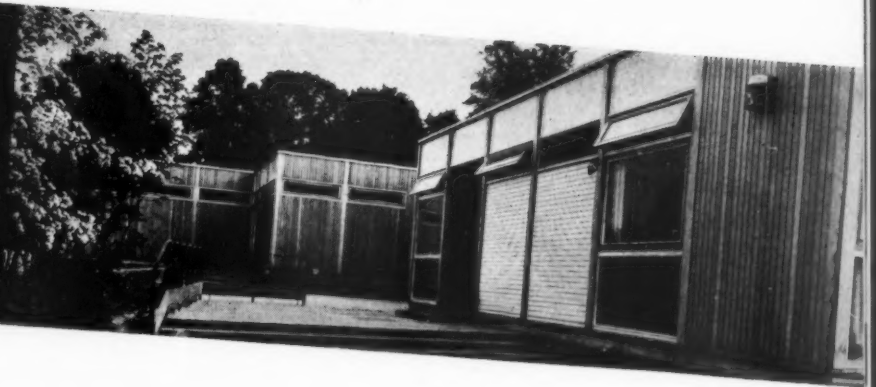
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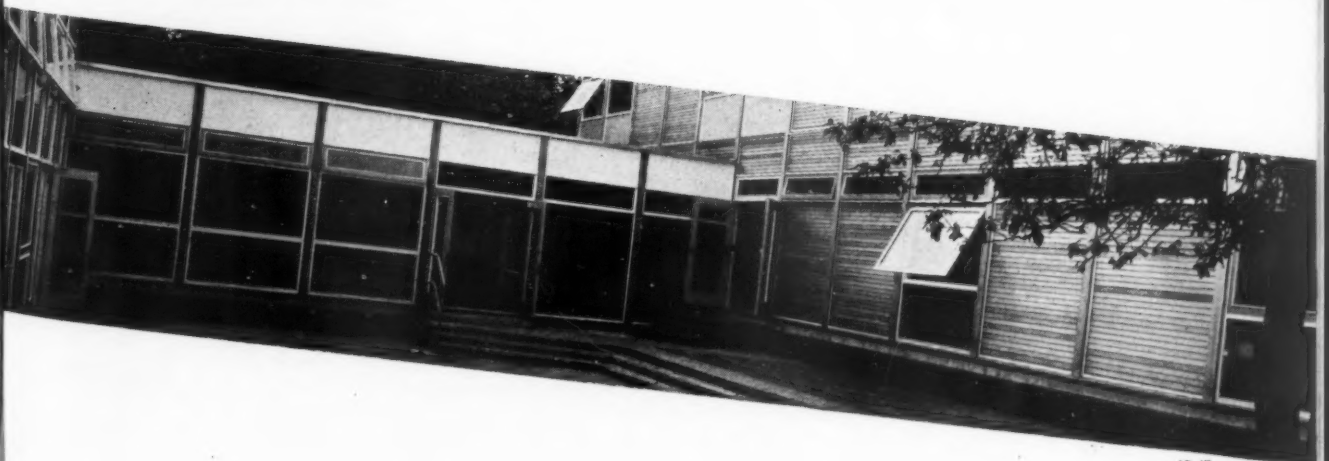
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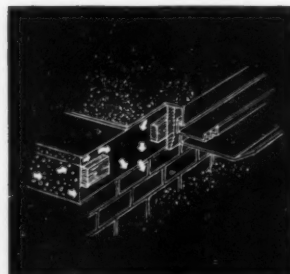
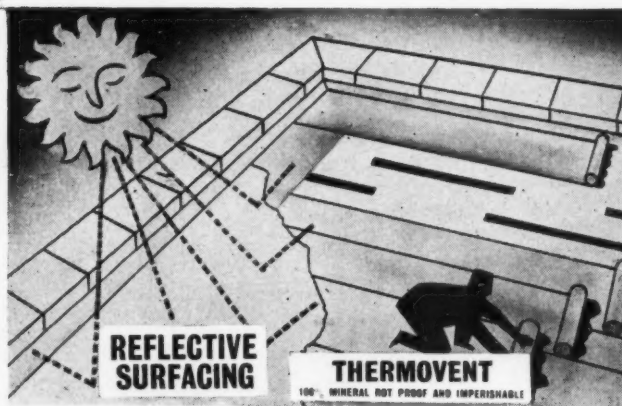
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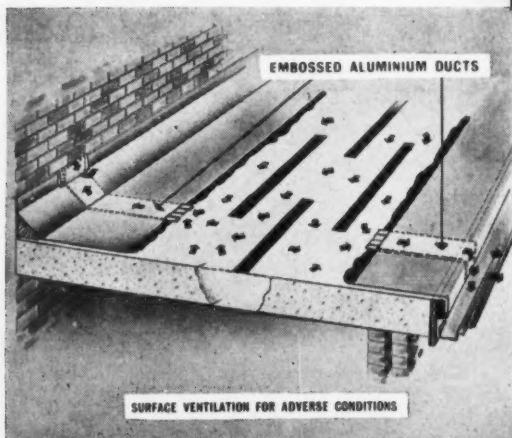
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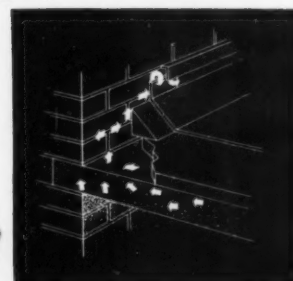
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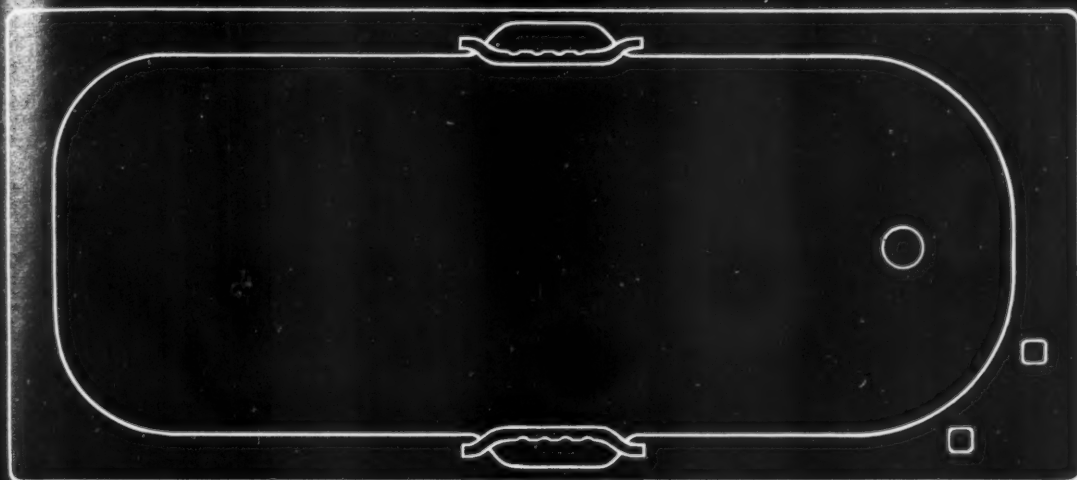
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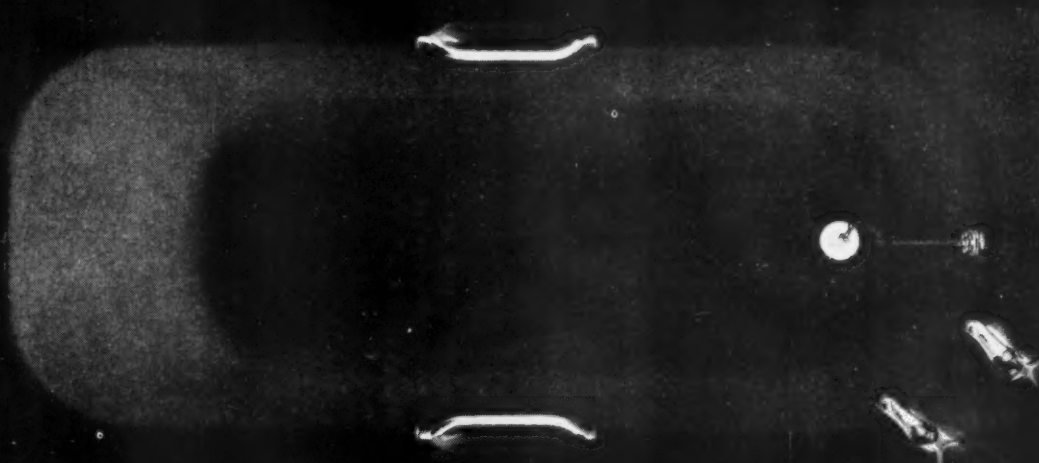
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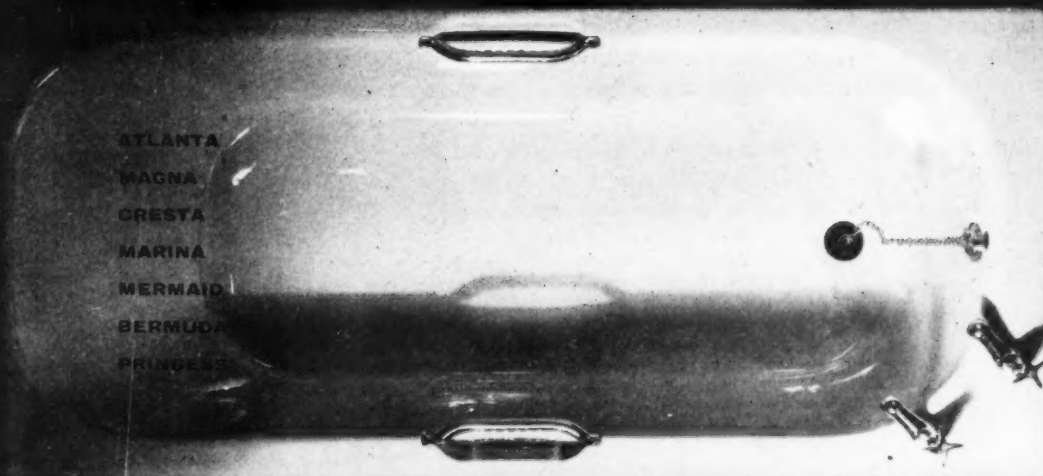
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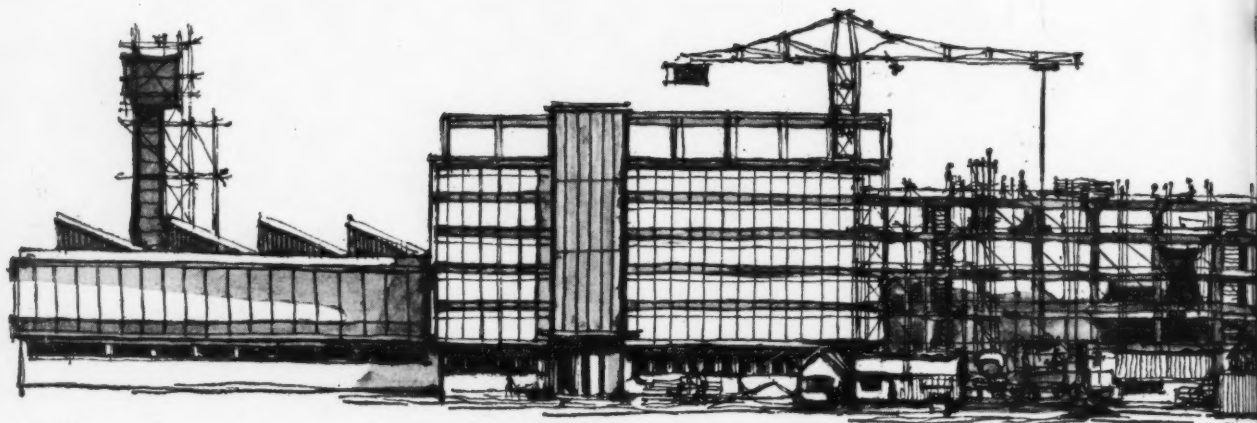
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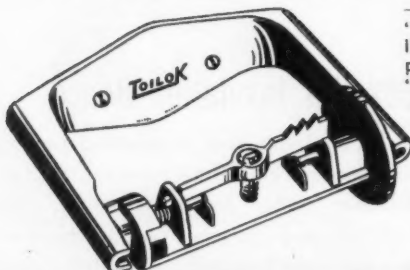


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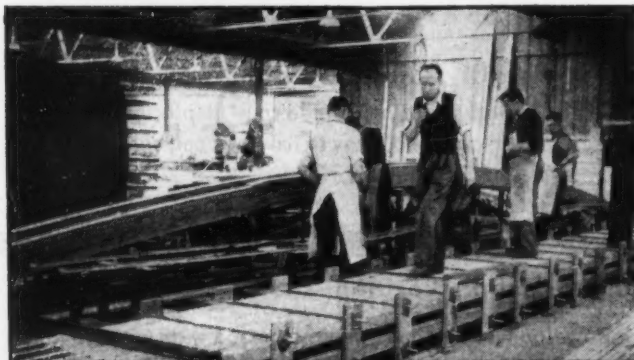
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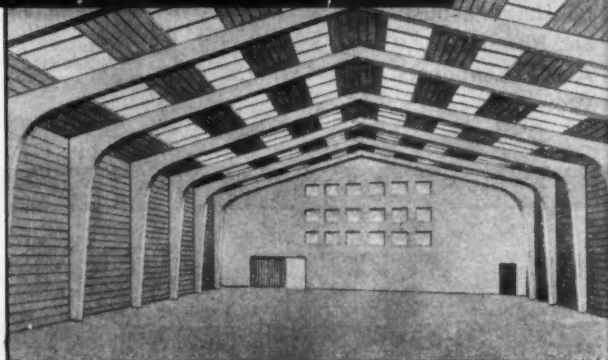


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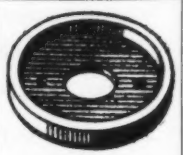


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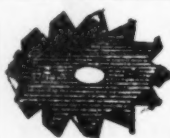
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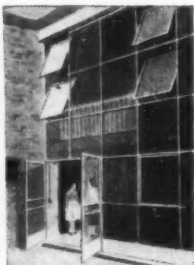
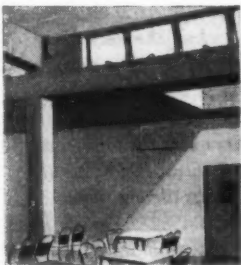


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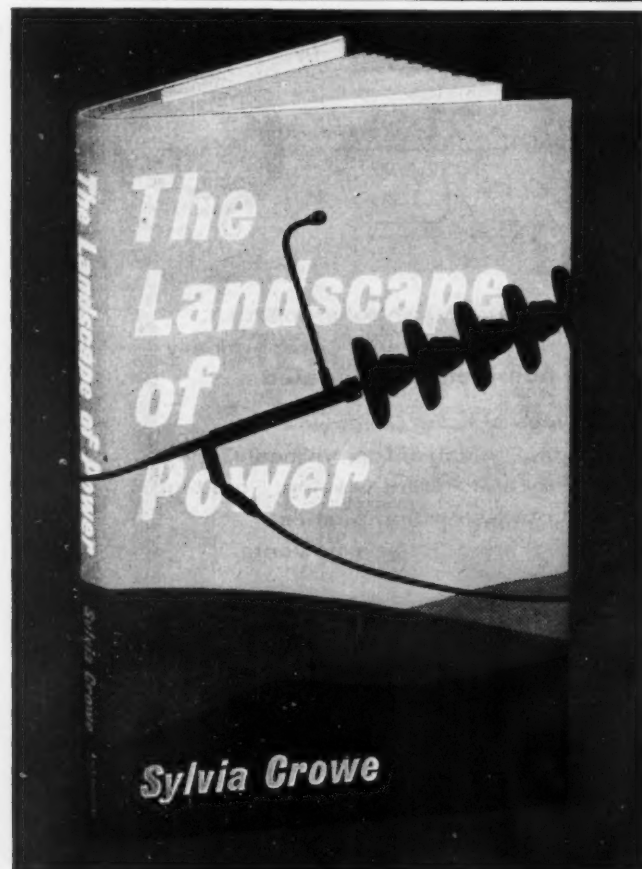
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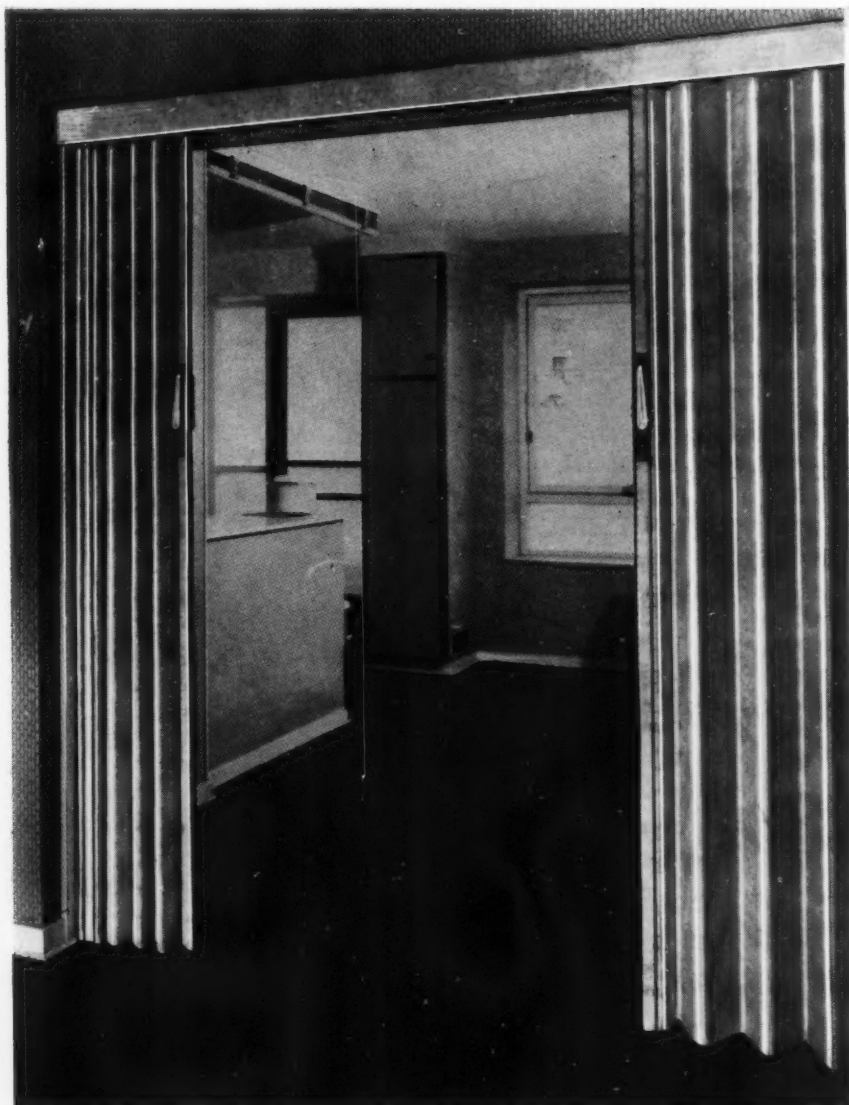
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The Architects' Journal

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NOT QUITE TECH. SECTION

S-VALUE AND pBI CALCULATIONS

1. Advanced practice now recognises that enjoyment of holidays is secondary to the conversational use that can be made of them afterwards.
2. The advisability of using a particular holiday in a particular conversation is no longer a matter of guesswork.
3. The method of calculation used in arriving at the tables below is a combination of the equations given in Carson, A., and Harcourt, P.d', *Suntan and Status: seasonal disturbances in the social hierarchy*, and the nomograms in the appendix to Atkinson, G., and Goolden, G., *Partners, Principals and Assistants: an architectural pecking-order*.
4. Due to a peculiarity of the Atkinson-Goolden nomograms which need not concern us here, the equations give three different classes of results, viz.: **Ultravacs**, or holidays of such overwhelming superiority that they should not be wasted on ordinary conversation, but reserved for lantern lectures; **Ordivacs**, suitable for conversational use, and susceptible of qualitative grading, and **Infravacs**, to which reference should never be made, except to non-architects.

ULTRAVACS

S-value	Location
In excess of 10 ⁶	Agadir
	Skomer
	Moscow
	Ahmedabad
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DOOR

gear ...

folding
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gear ...

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Half Alive"

Next week the RMS Windsor Castle, of the Union Castle line, sails on her maiden voyage to South Africa and, as the illustrations above show, contains within her not inelegant exterior the all too usual hodge-podge of styles for her public rooms ranging from the Tottenham Court Road "contemporary" of the first class lounge, above left (described in the Press handout as "a very modern room in feeling") via the pine-panelled first-class library with reproduction furniture to the first-class drawing room, above right, in pink and green, and "designed . . . in

country house style with fireplace and window seat." The latter is between deep reveals to give the passenger, along with Betjeman's "chintzy, chintzy cheerfulness," a reassuring sense of solidity. As usual, economy in the tourist class results in more restrained effects, nevertheless, their smoke room, top, by Michael Inchbald, would be better without chairs based, we are told, on the design of those used to watch cockfights and the telescope-shaped fantasy, to be seen in the centre, which has an imitation stove as its base. The ship's "decorative consultant" was Jean Monro.

ORDIVACS

S-value	Location
9-8	Abu Simbel
9-1	Mount Athos Rimini Malaga
7-4	Glasgow (art school) Barcelona (Gaudi)
6-8	Milan (Triennale) Ulm (Hochschule für Gestaltung)
6-7	Helsinki
6-5	Ischia Venice (Biennale) Salzburg
4-2	Aldeburgh
2-05	Copenhagen Lisbon Dubrovnik
1-3	Minos La Tourette
0-3	The Royal Show Oberammergau

How to use the table

1. The basic operation is simplicity itself. One compares the S-value of one's own holiday with that of one's interlocutor's, and notes the difference, which will be the log of the pBf (permitted boring factor). Example: if the difference is exactly 1 (one) your interlocutor has ten times as much right to bore you as you have to bore him.

2. It is, of course, just possible for two vacationers with the same pBf to meet. No hard and fast rules can be laid down for resolving this deadlock, but rapid reference may be made to the pocket edition of Smithson, P., and Banham, R., *Piers Ployman*, particularly the chapters on staying with Peggy Guggenheim, the correct use of picture-postcards, pre-1905 Baedekers, the local patois, and the air edition of *The Daily Telegraph*.

Appendix

For interest, we append the Infravacs revealed by our calculations for 1960.

INFRAVACS

S-value	Location
Below zero	Olympic Games Vallauris Beaulieu (Jazz Festival Riots) Ronchamp East Berlin Lascaux Oban

BILL PIERSON
PETER PRYS.

The Editors

ROCK N'ROLL ROUND THE WORLD

SIMULTANEOUSLY with the success of the C.L.A.S.P. school at the Milan Triennale—by far the best exhibit with the extra virtue of being finished on time—comes the exciting news that this enterprising consortium of local authorities is about to sell its know-how on “rock n’ roll” school construction to West Germany. A company is about to be set up there which will take over the consortium drawings and information sheets and eventually organise the production and sale of the components. It will be, apparently, a private enterprise counterpart abroad of the consortium at home. C.L.A.S.P. will advise the West German Company on the use of the system, and reciprocal arrangements have been made for the exchange of information about all future developments whether they originate here or over there. The British consortium will be paid a percentage of the gross income of the new company—to the benefit of both the taxpayer and the ratepayer.

At a moment when our export situation is causing some concern it is particularly heartening to find that British architectural skill is marketable in this way. But it will be a pity if the commercial promise of the new venture should obscure the fact that what is now winning international acclaim is more than one isolated technical achievement but an attitude of mind and an approach to design which started in the early days of Hertfordshire; not just a flashy gimmick enjoying a brief incandescence of publicity but a progression of steadily developing ideas contributed by a large number of people, some well known but many unheard of. Not only have they sought techniques which will get the building finished on time and within a predetermined budget, they have been equally devoted to the idea of putting the building user first and seeking always to give him improved standards of quality and spaciousness in a humane environment. We gather that the chief architect to the new company will be a German. Unless he shares this attitude of mind—and it is one that takes time to mature—half the virtues of the project will be lost.

Although the rock n’ roll system is now used for a wide range of buildings on normal sites, it was originally pioneered for Nottinghamshire schools in mining areas; and the idea was based on the architects’ views that where the ground was liable to subside it is best to divorce the structure from the ground movement as far as possible rather than attempt to resist the movement with heavy foundations. Pictures of massive reinforced concrete foundations being used at Agadir prompted us to ask if the C.L.A.S.P. system might not be the right answer for earthquake countries. Professor Coates of Nottingham University, who did much of the civil engineering research for the system, tells us that, as in the case of mining subsidence, the greatest disruptive effect of earthquakes is due to horizontal vibration. In effect, the lighter the building,

the less disruptive the sideways force. There are other factors, however, and among them, the critical frequency of the C.L.A.S.P. structures would require further investigation. But, Professor Coates concludes, "Superficially there appears to be no reason why such a structure could not be made suitable for use in earthquake areas."

Here is a great opportunity for supra-national organizations, such as U.N., to investigate its potentialities as a structural system for those large areas of the world subject to earthquakes.



WHAT, NO EGG-CRATES?

Something thrilling is always nearly happening to Ian Fleming, the thriller writer who is now touring "Europe's thrilling cities" for the *Sunday Times*. (In Berlin, for instance, he left a night-club only ten minutes before a home-made bomb went off.) To make up for the lack of incidents that accompany him on his tours he reports on the salacious side of life (which can, after all, be found in any city) and mixes tame generalisations with bits of gossip. In his report on Berlin, published this week, he decided to throw in a little architecture with the espionage and transvestism, and decided that the famous international area known as the Hansa Settlement was a depressing collection of variations on the "upturned-packet-of-fags motif." Most Berliners, he said, agreed with him that the buildings were hideous (*how* he must have

got around!) and apparently they had devised an "ungrateful" name for the Corbusier block. The name—you'll never guess—was "the Living Machine."

BRAVO, THE TRUST!

Before he had finished with Berlin Mr. Fleming decided that "all of the new world, independent of nationality, is getting more and more hideous every day." After a brief, thrilling tour of some of Britain's amenity societies I feel a little more cheerful than that. You can make the tour yourself in the middle pages of the Civic Trust's fifth *Bulletin*, which show how hard some of the civic societies and preservation bodies affiliated to the Trust are working—planting trees, preserving buildings, protecting the Green Belt and so on. For anyone who cares about the look of the countryside this publication is a threepenny eight-pager worth reading. But how curiously it is written—rather like a cross between a school magazine ("Well Done, Burslem!") and "Full marks for initiative all round") and a local rag. Incidentally, it is good to read in the bulletin that quite a few local rags are co-operating with local societies to spread the word about good design. I'm not sure, though, that Leatherhead and District Countryside Protection Society are on to a good thing with their decision about the cluster of unsightly advertisements at Headley post office. The Rural District Council, says the *Bulletin*, may ask for "these eyesores" to be "inoffensively grouped."

UNCLUTTERED HIGHWAY CODE

This odd business of inoffensively grouping eyesores is one of the most important recommendations of the "Code of Standards for Advertising on Business Premises."* It is a code for

* Consultative Committee Code of Standards for Advertising on Business Premises. 1 Belford, W.C.2. Price 1s.

voluntary adoption by traders and advertisers, and the picture that heads a review of it in the Civic Trust's bulletin makes me hope no one will adopt it. The picture shows one of those delightful *collages* that are brought up by the proud owners of the shop-on-the-corner—a jumble of news boards ("The Wickedest Women in London"), postcards, window stickers, wall posters and fascia lettering advertising rock, tobacco and cigarettes. This picture is an unusually good example of an unsophisticated art that looks its best on old and crumbling premises and doesn't seem to work nearly so well on newer shops—though even here its brash, ephemeral quality sometimes helps. But I seem to be a little out of step. No doubt this clutter code is really another case for full marks for initiative all round.

CRISPER CHURCHES

Some time ago the *JOURNAL* published photographs of a refaced church, a dreary little building that was hidden from the public by a smart timber-clad veil. On the opposite page is another version of the story: an austere little Methodist church refaced after fire damage. The stone has been covered with a smart black render and concrete lintels take the place of stone arches and give the correct, crisp, angular look of modern architecture. Capping it all is a deep-eaved slate roof to differentiate the building from its clipped-eaves neighbours in the town of Handsworth, and to mark it out as a tragic example of misapplied modern clichés.

HAVE FUN KEEPING DRY

As a small compensation for all the rain we've been having, one of the Sunday TV advertising magazines popped up with a feature on the design of umbrellas. Not that there's much to be said about umbrella design. Apparently the best manufacturers deplore gimmicks like oblong umbrellas, square ones, oval ones, or umbrellas with built-in windcreens. They've all been tried and rejected. And so, it seems, have other more spectacular ideas. I must be older than I think, because I'd quite forgotten—until the programme reminded me—the umbrella madness of the 'twenties, when dozens of ingenious handles were designed—to incorporate things you wouldn't really want in an umbrella. There was a handle



Astragal comments opposite on the unfortunate face-lift given to a church in Handsworth, Warwickshire

shaped like a bible, with a powder puff inside; another containing a scent spray, and—best of all—one tipped with an immovable lipstick, so you had to use the whole umbrella to put it on with.

*

I particularly liked a simple invention of the 'twenties that was demonstrated in the programme—a man's umbrella fitted with a small motor horn. The idea was to warn motorists (the new menace) that you were about to cross the road. The invention never caught on, but as the commentator pointed out, it would be quite useful today as a warning to other pedestrians, and would certainly cut down on the annual rate of spiked eyeballs.

GLOSSY CONFUSION

Talking of eyeballs; mine are getting more and more weary of having to do battle with luscious, glossy magazine layouts before they can get down to the poor overpowered words. But a friend has a worse problem. He reads the architectural journals only when they are circulated in the office, and they always reach him with a circulation list

pasted over the title. This used to be all right, but now that the *Architect and Building News* has joined the *Builder*, the *RIBA Journal* and others in having a face-lift, he says they all look so much like *Architectural Design* that he actually has to read them to tell which is which. Nevertheless, congratulations to these contemporaries.

HIGHER SERVICE

Remembering that the old car tax (one pound per horsepower) was laughingly called the "road fund" I'm delighted to hear that parking meter surplus profits may be spent on multi-storey garages. Westminster, which has a surplus of £50,000 a year from about 1,800 meters, has ideas about a 400-car garage in Mayfair. Most garages, unfortunately, seem mainly interested in getting ten shillings or more for all-day storage of cars that really ought not to be in the central area at all. The real need is for a couple of hour's storage for a couple of bob. We can't go on using Sanderson's and Selfridges' for ever; someone will get wise to the fact that we're not also using the stores.

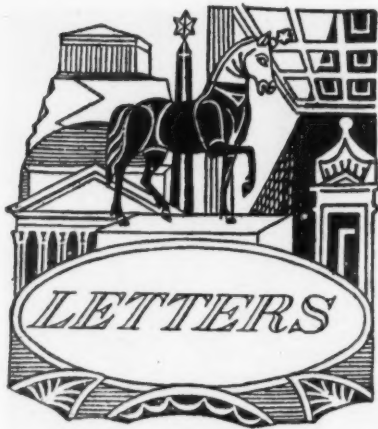
TWICE KNIGHTLY

The old-fashioned steam screen has a couple of good short films on design and architecture at the moment. One is called *Designed in Britain*. It was originally made as a government propaganda film for use overseas, but it has been successful enough to do the rounds with MGM's *Village of the Damned*. It's just the sort of thing for local amenity societies to use as a bait for membership (they can get it after February) because it doesn't preach; it is simply a lively sequence of coloured pictures of British industrial design and architecture.

*

The other film is in Rank's version of the "March of Time"—a series of documentaries called "Look at Life," and it deals with the rebuilding of Coventry and features Arthur Ling and Sir Basil. It is really picture-postcard stuff of the pedestrian precinct, the housing estates and the cathedral, but I suppose we can't yet expect planning problems to be discussed in a film of popular interest.

ASTRAGAL.



G. M. Hobbs, A.R.I.B.A.

R. E. Mansford, Metallisation Ltd.

The Cardiff Competition

SIR: One always looks to you to champion causes dear to the progressive, young-spirited, liberal-minded architect, and one is seldom disappointed, even in relatively minor matters like lopping trees. It must have taken more than the usual amount of robust breadth of outlook and public spirit, however, to decide to take such a firm and courageous line about the depressing results of the Cardiff Hospital Competition.

I think you are to be thanked and congratulated for saying what is in so many private thoughts, but has not yet appeared in any other public utterance. It may yet be possible to rescue the competition system from ignominy and with it the possibility of developing architectural solutions fit to meet the increasing demands of society. We cannot afford to stagnate.

G. M. HOBBS

London

Metallised Coatings

SIR: In the letter by Mr. D. P. Prosser, published in the JOURNAL for July 14 (page 58), there appear some comments on metallised coatings. I feel that some clarification of these comments may be of interest to your readers.

Mr. Prosser points out that, unlike a hot dip galvanised coating, a sprayed metal coating is inherently porous, and in this he is of course quite correct. He then goes on to say that it relies almost entirely for its effect on the sacrificial action of the coating. This is true in the main, with sprayed zinc coatings, as indeed it is with hot dip galvanised coatings, but does not hold for all sprayed metal coatings. Work by the British Iron and Steel Research Association has established that the life of a zinc coating is proportional to the weight of zinc per unit area, and is independent of the method of applying the metal; hot dip galvanised and sprayed zinc coatings of equal thicknesses have very similar lives in service.

A sprayed aluminium coating does not entirely rely on its sacrificial action, for protecting steel. In industrial atmosphere and under immersed conditions in sea water, the insoluble corrosion products block the pores and the sacrificial action is stifled. At this stage the coating is acting as a barrier coating and its sacrificial role only comes into play in the event of the base steel becoming exposed by accidental damage. Although aluminium coatings are applied by hot dipping the processes cannot yet be used on all types of steel. Metal spraying has no such limitation and can of course be applied to fabrications of any size.

I would fully endorse Mr. Prosser's statement that atmospheres can be very variable even within small areas, so that in an essentially rural area a degree of local industrial pollution may result in an atmosphere which is excessively aggressive to zinc. In such cases metal sprayers had the great advantage that they can offer aluminium as an alternative coating for such conditions.

Painting of sprayed metal coatings is rarely a necessity but may be desirable either from an aesthetic point of view, or because it is the most economical way of maintaining the metal coating. Advances in paint technology have resulted in coatings capable of giving good service over many years, but premature failure often occurs through underlying rusting of the base steel. Thick initial coats, plus maintenance coats at intervals of two to three years are necessary if the paint is applied directly to the bare steel, but a metallic coating eliminates underlying rusting and the paint film need then be only of sufficient thickness to cover the peaks in the metallic coating.

The period between the application of maintenance coats is greatly increased and the amount of cleaning down necessary before a repaint is greatly reduced. Seven to 10 years is not unusual as the time between repaints on steelwork protected by sprayed metal.

Calcium plumbate was mentioned in Mr. Prosser's letter as a suitable coating for hot dip galvanised steel. It is well known that wrought zinc and aluminium surfaces, and hot dipping coatings of these metals, need special etching treatments or special paints such as the one quoted, if adequate adhesion of the painting system is to be obtained. Sprayed metal coatings need no such preparation and form an excellent base for all paints. It is usual to use red oxide, zinc chromate or mixtures of these two pigments in priming paints for sprayed zinc and aluminium. Lead pigments are generally avoided.

The metal spraying of steel extrusions would undoubtedly be carried out most economically in automatic plants and a number of such plants already exist for straight lengths of steel tube of various diameters, and for structural sections. The application of sprayed metal coatings has not been limited to the protection of steel, light alloy extrusions in the stronger, but less corrosion resistant aluminium alloys

have also been successfully protected by a sprayed coating of pure aluminium, or zinc.

Mr. Prosser points out the importance in attention to detail at the design stage, if the best protection against corrosion is to be obtained. Everyone concerned with the application of protective coatings will support his remarks on this matter. Crevices can be very dangerous; especially in the corrosion of stainless steel.

Dudley

R. E. MANSFORD



CARDIFF HOSPITAL

Architect Replies to Criticism

The winners of the Cardiff Hospital competition, S. W. Milburn and Partners, in association with M. Harding and J. Surtees, are revising their design according to a report in *The Daily Telegraph*. Mr. Milburn answered the criticism of the poor outlook onto light wells of some of the wards by saying it would only affect a few. Regarding the siting of the boiler house so that the prevailing wind would blow smoke towards the ward block, Mr. Milburn is reported as saying that efficiency must be kept in mind, but the boilers can be moved to the north. This is a small matter, he said. The explanation of the hospital extension is that the whole ward block will be built to the eight-storey level and the extra space temporarily used as homes for doctors and students. The main ward block will not be a dull, cliff-like bulk, said Mr. Milburn. The details of the block, not shown in the competition drawings, will lighten and tremendously improve its appearance. He commented: "I welcome fair criticism."

POLLUTION

Procrastination over clean air

324 local authority areas in England and Wales might be regarded as black areas as far as smoke control is concerned. By March 31, 1960, 115 of these authorities had not submitted programmes for smoke control to the Ministry of Housing and

Local Government. The commonest reasons were that authorities either did not consider their districts black areas, or were concerned about the effect of smoke control on people entitled to cheap-price coal from the National Coal Board. The rest said they had not been able to prepare a programme or wanted to try a pilot scheme first.

TYNESIDE

Green Belt reduced

Henry Brooke, Minister of Housing and Local Government, is prepared to approve the Northumberland County Council development plan for the North Tyneside area and green belt, subject to several minor alterations. The amount of residential land available has been increased, mainly in the Denton area, and the green belt reduced slightly as the Ministry do not consider that it will be possible to withhold development in certain small areas beyond the 11 year period of the present plan. The scheme for a new town of North Killingworth has been approved by the Ministry, but the compulsory purchase order giving the right to acquire the land has not, as yet.

HOUSING

Award for Imagination

The monthly magazine *House Beautiful* has announced a national award (unspecified) for the most imaginative house built during 1960. The competition is open to all builders, whose houses have been accepted by the National House-Builders Registration Council, whether architect designed or not. Entries will be judged on existing standards and will take into account structural strength, appearance, siting, design and value for money. Builders are asked to send their names and addresses of themselves and the houses they want entered, together with $\frac{1}{2}$ in. or $\frac{1}{4}$ in. scale plans to: Housing Award Competition, *House Beautiful*, 13-17 New Burlington Place, W.1.

CANTERBURY

Architects for Church Training College

Robert Matthew and Johnson Marshall have been appointed architects for the new Church of England Teacher Training College to be built at Canterbury. There will be 400 students, with equal numbers of men and women. It is expected that sufficient buildings will be ready in time to allow a full year of students to be accepted in 1963 and that it will be completed by 1964.

IHVE

Domestic Central Heating

On July 27, the IHVE held a press conference to introduce a new booklet which they are publishing entitled "Central Heating in

Your Home." Leslie Rayner, the President of the IHVE, introducing this publication, explained that the booklet and the investigation which preceded it were in fulfilment of a debt which the Institution felt they owed to the domestic field as a recompense for the fact that Heating Consultants are not and do not wish to be employed on small domestic installations.

The booklet is intended primarily for the house owner and is designed to help him to make the fundamental decisions about his installation before he delivers himself into the hands of a heating contractor.

The most important section of the booklet comprises an account of six typical houses (and very typical they are) giving the room sizes, the number of B.t.u./hr. for full and for background heating and thence the size of boiler required. This is supported by tables printed at the back of the booklet which give cost comparisons for different sizes of installations (varying from 20,000 to 135,000 B.t.u./hr.) using five different systems of distribution and five different fuels.

This will be very useful not only to householders but also to architects, for the data given is not only helpful for making decisions but also in checking installation estimates.

There are one or two general points of interest in the document. For instance, full central heating is favoured in preference to partial central heating plus topping up (which as AJ readers may remember, was the BRS recommendation after the war). By implication, the writers of the booklet come down against warm air heating, not on the score that it provides something short of comfort, but on the score that it is really only suitable for partial heating.

It is very enlightened of the IHVE to put out such a usable reference: not every profession is prepared to spend so much trouble in telling the layman how to do it. "Central Heating in Your Home" is available from the IHVE, price 5s.

AA

Maldonado

The Annual Students' Committee lecture was held recently in the AA. This year's guest was Tomas Maldonado of the Hochschule für Gestaltung at Ulm.

His lecture was given in French, translated at intervals, and was followed by slides showing the school at Ulm and some of the products designed there.

He began by stressing that successful education of designers in the past had always rested on a guiding image of a unified man and that the Bauhaus had also sought to form a whole man gifted to resolve any design problem. When the Bauhaus had been taken to America, however, specialized training developed and the guiding idea was lost.

At Ulm, they wished to train neither a "universal man" nor a specialist and so had decided to train designers of means of communication and of products. But it has become clear over the years that the tech-

niques of communication are increasingly important for the designer of products, which suggests that alterations to this part of the teaching are needed.

Moving on to the design of products and the education of the architect, he thought the present situation pretty catastrophic. Architectural education remained largely based on visual problems and neglected the industrialization of building. The problem was how to integrate the idea of the architect with that of the industrial designer. Many thought industrialization of building unimportant, but he thought with Jean Prouvé the most convincing argument in its favour was the need to bring building into line with the rest of industry. It was now acting as a brake. The whole general development of society was being retarded by the backwardness of architecture and architectural education based on creative expression. The creative development of science since Galileo showed that rational thought is not inimical to creative liberty. On the contrary, the latter requires the former as a solid foundation.

URBAN RENEWAL

Course at York

SPUR has certainly lived up to its name and its declared object of propagating an interest in urban renewal: so much so in fact that the words are becoming rather hackneyed and the phrase springs all too easily to the lips of people who do not always understand the complex nature of the problems involved in carrying it out. These are very much under discussion at the present time, being the subject of the recent British Architects' Conference at Manchester, and of a new memorandum, issued by the Town Planning Institute, which in itself has been the subject of much editorial comment in professional journals and elsewhere. Urban renewal was also the subject of a course held recently at the Institute of Advanced Architectural Studies at York; special emphasis being placed on the problems of the town centre.

These courses are extremely well worth while, and the care with which they are organised and presented sets a very high standard appropriate to a city which hopes soon to be the founder of a new university. The complexity of the problem studied justified a wide range of expert lecturers as the following names bear witness:

D. L. Thomas, Brian Anstey, Dr. Chadwick, O. W. Roskill, Peter Chamberlin, Noel Tweddell, Arthur Ling, A. L. Margerison, W. L. Waide, and Lionel Brett.

It is a pity that no more than sixteen students attended, but they were all fairly senior people in their respective professions, some from local authorities, others from private practice and the academic sphere, and with those lecturers who stayed on to take part in the course themselves for a day or two, they were certainly able to produce interesting discussions which

continued in a conveniently nearby pub. What became clear from the frequently conflicting points of view which were put forward at the course was that town and city centres are in a continuing process of renewal; a natural state of affairs which has gone on over the centuries. Attention is focused on the problems facing those who care for towns by the pace of renewal to-day and the new forces acting on town centres which make it dangerous to allow the natural re-building process to go unchecked except for such control as may be exercised by local planning authorities over fairly general matters, such as the detailed design of the building, day-lighting factors, car-parking provision and so on. This sort of control is clearly not enough to save the hearts of towns and cities from being expensively spoiled; expensively, because the amount of capital investment in new buildings in central areas is large enough to ensure that within a proper plan new development could take place in such a way that town centres would become attractive places to live in and near as well as to visit for shopping and recreational jaunts. The sound commonsense of encouraging development to take place in this way becomes more apparent considered in relation to the policy of most county planning authorities in doing all they can to preserve green belts around expanding cities and to preserve the beauty of the English countryside. Increases in land values within towns as a result of this policy contribute to the rapid increase in the rate of capital investment in re-building projects. Another factor is the motor car which simultaneously makes it easy to get out of the town to live and easy to get into the town to work. The traffic congestion resulting from this has increased to a degree where a completely new approach to the use of the motor car is urgently needed. One is reminded of Thurber's essay on the motor car in which he examines the case of three hypothetical men who get in the way of an oncoming automobile. A dodges successfully, B stands still accepting the situation with calm and resignation, and C hesitates, wavers, jumps backwards and forwards and finally runs head on into the car. We clearly have to make up our minds as to which attitude we are to adopt towards the motor car. It would be possible to alter the design of vehicles, making them smaller and more compact, and either to discourage the use of cars in city centres by parking meters, and making not too extensive provision for off-street parking; or conversely, to engage in a large construction programme with multi-level systems of traffic movement and the separation of vehicles from pedestrian traffic. The great cost of this suggests that an early effort should be made to discourage the use of cars in cities and to provide a more worthy system of public transport.

The problems facing towns and cities are obviously more acute in the larger centre, although the administrative machinery is less cumbersome in county boroughs than

in county council areas. Many of the larger towns and cities which have been able to prepare quite detailed and often broadly conceived plans for their centres may well find that the basis of their plans do not now meet even to-day's problems, let alone tomorrow's, and much fresh thought should be given to them. The greater number of towns are those with a population of between 25,000 and 60,000 persons, and for these the planning authority is normally a county council, and a majority of these smaller towns have no overall plan for their town centres. Difficulties of delegation arrangements, two-tier administrative systems, shortage of qualified staff, create administrative difficulties which counter-balance the usually more straight forward technical problems, and yet the special character of many of the smaller towns, often market towns, is more easily destroyed by a few disconnected re-building projects which might not be of much significance in the larger town. As the Town Planning Institute's Memorandum says:—"What seems to be necessary is an expedited and simple procedure whereby the local planning authority could prepare an outline scheme and enlist public support for it, free from the rigid and time consuming provisions of a formal comprehensive development area scheme."

ANTHONY WALTON

TRAFFIC

A Symposium

Roads and Their Traffic. Editor: Ernest Davies. (Blackie & Son, 35s.)

On the dust-jacket of this new book we are told that: "The purpose of this book is to provide an introduction to traffic engineering and thereby arouse an appreciation of its importance. To this end 13 experts from different countries have made contributions. They write with authority and that practical experience which, while they write for the general reader, makes their work of value to the practitioner."

The book certainly provides a useful introduction to the subject, though its value to the practitioner is likely to be limited and, as is common in multi-author books, the contributions are of varying quality. There is, as one would expect, a certain amount of repetition, while on some points different authors take different views. The American contributor, for instance, refers with apparent approval to the system used in many U.S. cities (and often known as the "amble-scramble" system) in which pedestrians can cross diagonally if they wish at a signal-controlled intersection during an "all-red" phase for vehicles—and are prohibited from crossing at all during the other two phases. Sir Herbert Manzoni, on the other hand (who contributes a very inadequate chapter on "Urban Traffic Control"), while admitting that "if pedestrian traffic is sufficiently heavy pedestrian signals should be installed," states that such an "all-red" phase for pedestrian movement "is not recommended."

Sir Herbert's remark is typical of the blinkered dogmatism among officials in the country which is retarding progress in the field of traffic engineering. He makes no mention at all of linked signal systems, which, when used on arterial one-way streets, have proved extremely effective in U.S. cities. This omission is especially odd when he is talking about "paired radials," the use of which, he says, "is easier to achieve in cities laid out on the gridiron pattern as in America." Wherever American traffic engineers make two parallel streets one-way they invariably install linked signals—which enable them to achieve smooth traffic flow along these streets without eliminating cross traffic at intersections, and also enable pedestrians to cross safely. They would be most surprised by his assertion that "the true aim of a one-way system should be to eliminate cross traffic"; and equally by his statement that a disadvantage of a one-way system is that it "may be dangerous for pedestrians" (pedestrian casualties were halved after a one-way system was introduced in the central area of Portland, Oregon). Any architects will no doubt shudder at his assertion that a viaduct on central piers would appear to be a reasonable solution for congestion at intersections where the main street is wide enough.

The chapter by H. Hondemarcq, the Belgian Director-General of Roads, is interesting as an indication of the sort of things road engineers might like to do to European cities. They have of course already done a good deal in Brussels on the ring boulevard where a great width was available between building lines. However, the plan showing the road proposals for Brussels shows that, according to present plans, only a small proportion of the main roads inside the outer ring motorway will take the form of motorways. Yet he claims that a real improvement in traffic and safety can be obtained only by the transfer of all main traffic streams to urban motorways. No doubt he would like to carve many more motorways through Brussels.

In Hondemarcq's section on capacity a curious little table appears, giving figures for the number of passenger vehicles per hour for ordinary urban thoroughfares, ordinary rural roads and urban motorways, but without stating the number of lanes. The figure given for ordinary urban thoroughfares—1,250—is in fact a fairly typical figure for saturation flow per 10 ft width per hour of green time at a signal-controlled intersection. What the other figures represent it is hard to conjecture. Fortunately some figures for lane capacity, based on Californian experience, are given in the chapter by James Drake. These range from 800 v.p.h. for the outside lane (next to the shoulder) to 1,800 v.p.h. for the 3rd and 4th lanes. A 2-lane roadway forming half a motorway would, according to these figures, have a capacity of 1,900 vehicles per hour. In fact the saturation flow that could be attained on such a road would be much higher—possibly around 3,000 v.p.h. The 4-lane roadways on the Hollywood Freeway have carried peak volumes as high as 8,800 v.p.h.!

CARLTON MEWS: AN APPRECIATION OF NASH'S TOWNSCAPE RECORDED BY IAN NAIRN BEFORE ITS DISAPPEARANCE

Suppose that the only copy of Haydn's London Symphony, or the Rubens for which the National Gallery paid out so much cash recently, were to be destroyed. There might be a bit of an outcry: the destroyers might just possibly think that something of value was involved.

Well, the spatial and townscape equivalent of those two is about to be destroyed: a place that is quintessential London, within megaphone distance of the National Gallery. Carlton Mews brings out every townscape trick in the book, inside a hundred yards. It provides a splendidly humane living environment in the very centre of London; it provides, by contrast with Trafalgar Square, a bit of counterpoint as telling as the Art of Fugue. It will be either partly replaced by extra bedrooms for the United Service Club, or completely remodelled by the Crown Commissioners: it is difficult to find out which, for together with the LCC Press Office they make a splendidly impenetrable trio of non-information. The remodelling may be marvellous, with the new spatial relationships being better than the old. In Scandinavia or Switzerland, I would be happy to think so, and happy to see the perpetual renewal which a city has got to have. In England, in these circumstances I have my doubts.

So this is just a sober record—or as sober as I can be when talking about and photographing something as visually intoxicating as this. When what is to be done has been done, I will go back, and if it is better I will gladly say so. Odd as it may seem, I don't enjoy being rude about architecture and architects. It was designed, of course, by John Nash—who else?—the lowbrow genius who actually built masterpieces whilst other men simply talked about the possibility of achieving them. It was an appendage to Carlton House Terrace, providing multi-level housing, coaches at the bottom, equine on the first floor, hay and human above: it has entrances to both Carlton House Terrace and Cockspur Street, and hence, in a wayward semi-private fashion, it is a pedestrian link between the Mall and Trafalgar Square, via the Duke of York's steps. It is unobtrusive, and not well known, and hence not many people use it—just enough to make the space feel inhabited and alive: a nice example of a natural balance of use brought about largely through deliberate design.

It is this sequence of public-private-public, combined with the spatial complexity of the mews, that makes it so special, and the photographs simply trace and retrace it, from Trafalgar Square to the rear of Carlton House Terrace and back again. Always in the mind as another kind of counterpoint is the memory of the road journey between the Mall and Trafalgar Square—as it happens, as good in automobile terms as Carlton Mews is in pedestrian terms, with a long straight run, then the Admiralty Arch, and then, if the traffic lights are right, a great sweeping turn into the weaving traffic streams around the Square. That is all flow, this is all stop and start, surprise, shock, and ninety degree turns. From Trafalgar Square it starts demurely enough: 1, an alley, apparently blind, with a notice at the end announcing the mews. Within a few feet of it, the view suddenly becomes full of implications, 2, and there is no build-up: this is a shock view, for you see the surprising things,

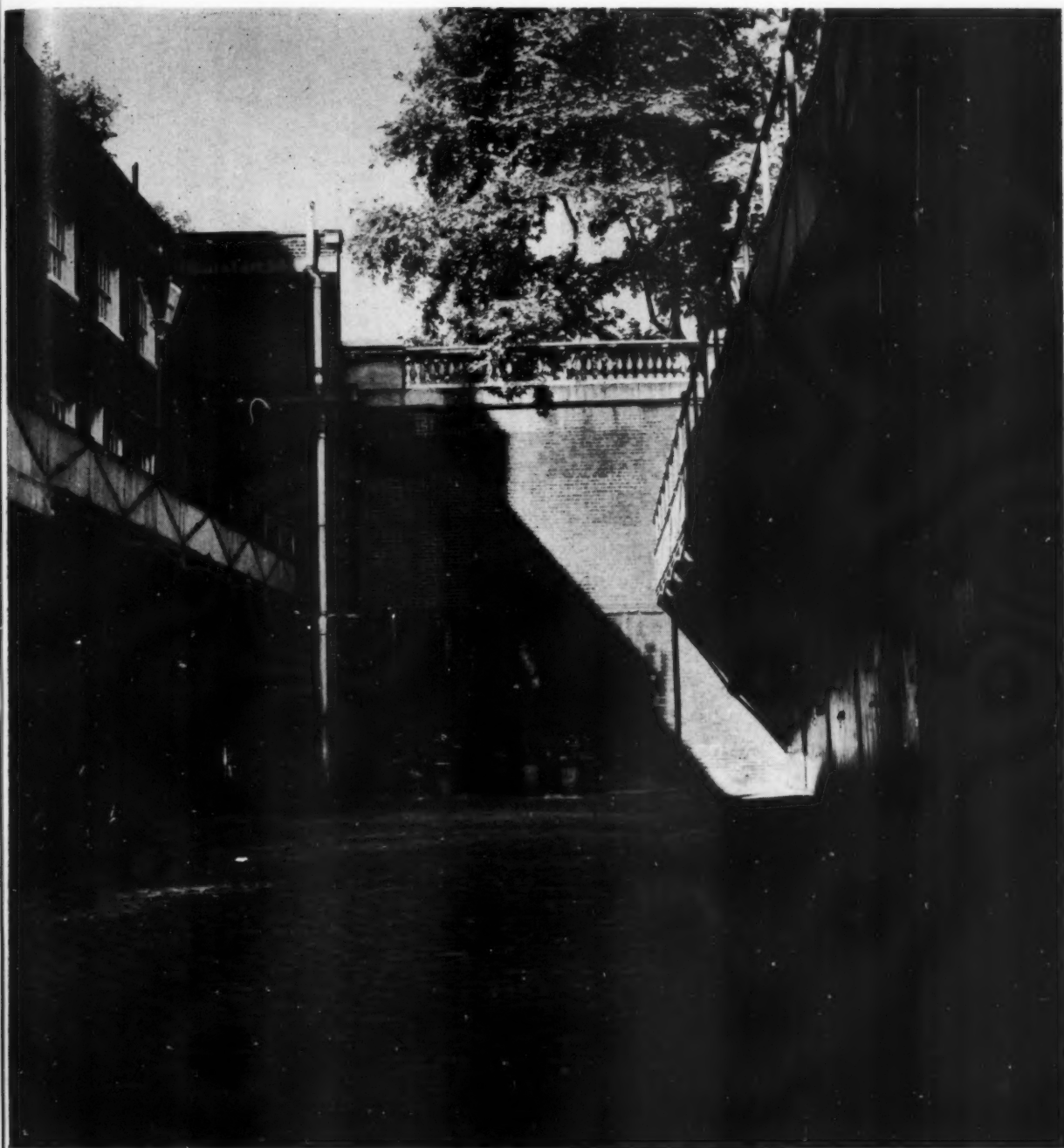




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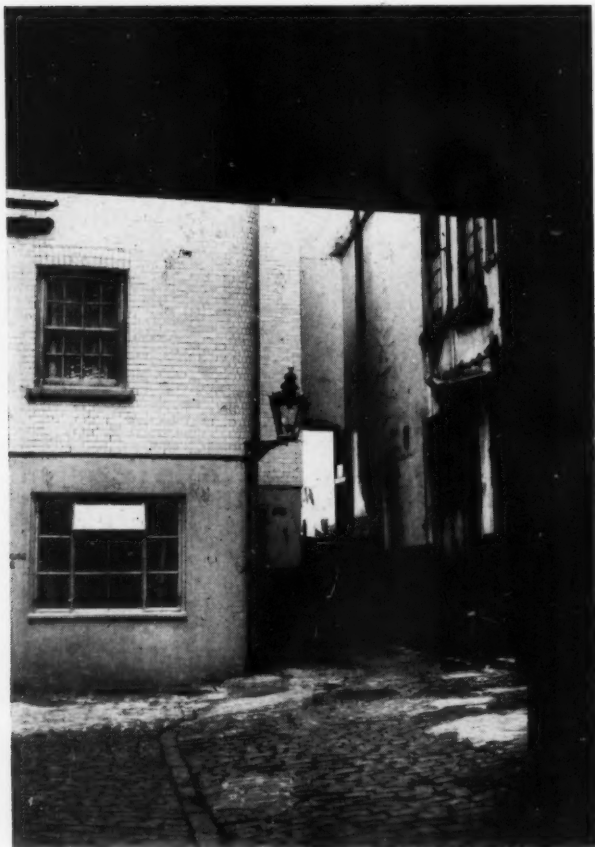
the ramp and the tree beyond, as soon as you see the mews entrance itself. Space here is implied, inferred and suggested—but then, as soon as you go under the arch to check your inferences a completely new set of possibilities opens up, 3, the eye darts to the end of the view, under the second arch, up the steps to the tiny rectangle of sunlit stucco quoinage which is the back of Carlton House Terrace. These two almost irreconcilable views, within a few yards, are as exciting as any townscape

MEWS continued



4

implied effect I know: it is like seeing a person whose left hand side is completely different from his right
 s a com Then, slowly, the space explains itself: the majestic main courtyard, 4, with garages below, flats
 e second above, and the miraculous large tree over the wall in this enclosed but not gloomy space the
 n House epitome of all trees over high garden walls with their hints of forbidden spaces beyond. This effect
 wnscape will go completely if the United Service Club get their extra bedrooms.



5



6

Then, through the second archway, another court, 5, but a complete contrast: tiny, close in, high walled, a lot of shiny white bricks giving place a long way above to improbable stucco and heavy cornices, stopping sharply as soon as they aren't needed (Nash, again). Yet this does not depress, because of the pull of the Mews's improbable axis: corner lamp, stairs and stucco are insistent now—the quoins, particularly, have pulled at you all the way like the drawstring of your pyjamas. Up the steps and out, 6, with the promise of grandeur fulfilled in one of England's great set-pieces, the dark Duke of York's column against the yellow stucco of the terrace, 7. And, looking the other way, that famous view, utterly London, 8, in which Nelson on his column seems to be standing erect in a very real sense.

MEWS

continued



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depress,
now—
Up the
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ng erect



9


Now, reverse it. Things are not as they were. Nash gives you two experiences in the space of one. The entrance is a complete charmer, 9, this elegant formal house with an inexplicable supernumerary door on its left-hand side—completely unsuspected by the traveller who has already come through the mews. Approach it, and what at first seems to be the entrance to a pub gents opens out into something which has the limpidity of a de Hooch or Vermeer, 10—again, a view completely unlike anything seen coming the other way. Space curls and coils as though it were a smoke ring, the pattern of light and shade on the floor infers the whole plan of the mews, the eye goes along to the end and sees not quoined stucco but the loading bay of a shop. Beyond, obviously, is commercial London, not the residential opulence you have just left behind; zoning has rarely been indicated

MEWS continued



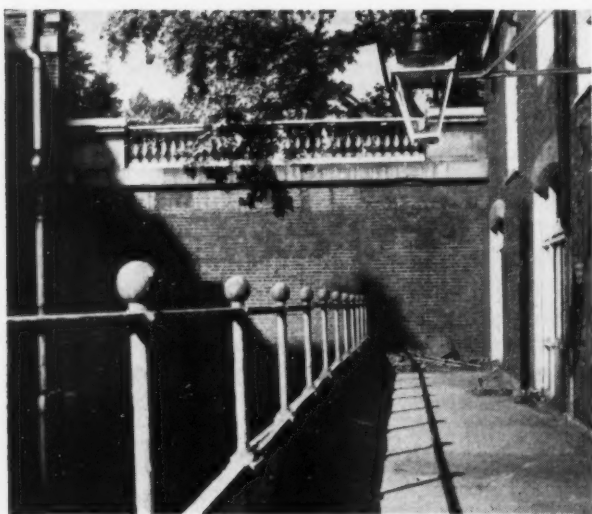
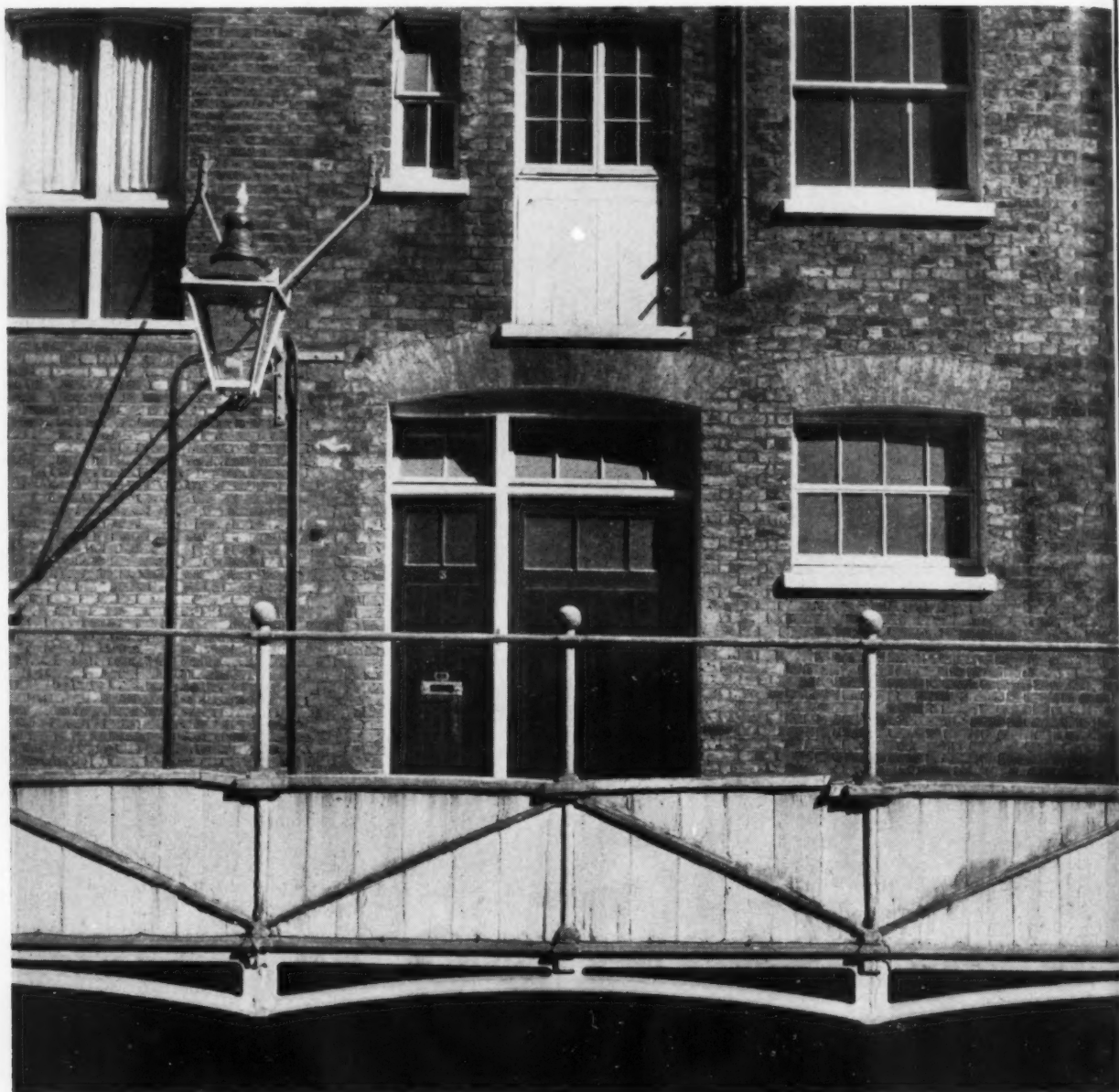
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so deftly and subtly. And if the end view is less exciting and inviting, it is the unknown dimensions

see over 

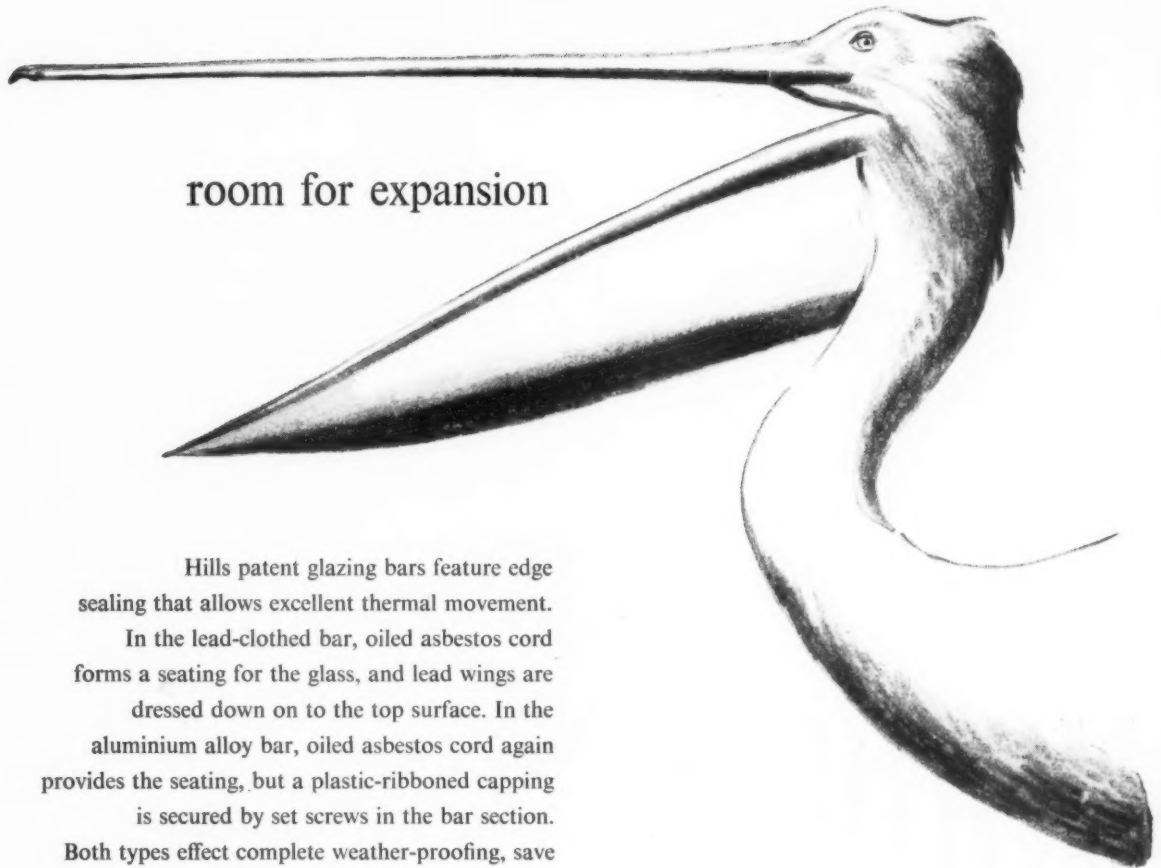
of the main court that pull the traveller along. This time, go through it to the ramp and see the space, simultaneously the same and different, from the upper level, 11. Then have a look at the details, 12-13, a walking handbook of the functional tradition. No affectation, no style-mongering, no worrying about content or expression—just a straightforward job and hence, of course, plenty of content and expression. They usually come, like happiness, when you don't chase them too hard. The new details, whatever they are, had better be as good as this. A glance at one more detail, the handrail to the ramp, 13, and you are out.

CARLTON MEWS concluded



12



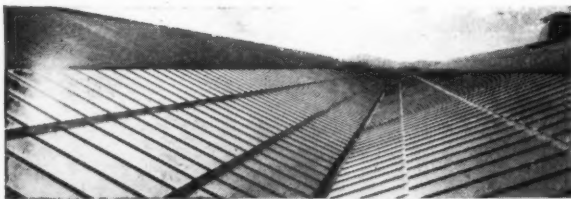


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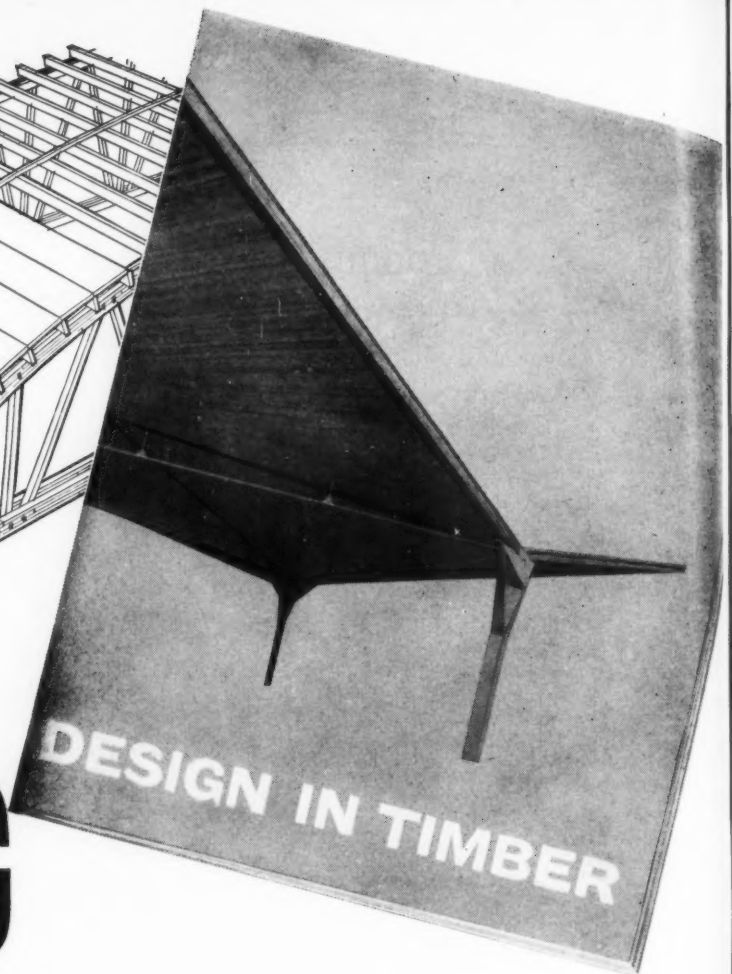
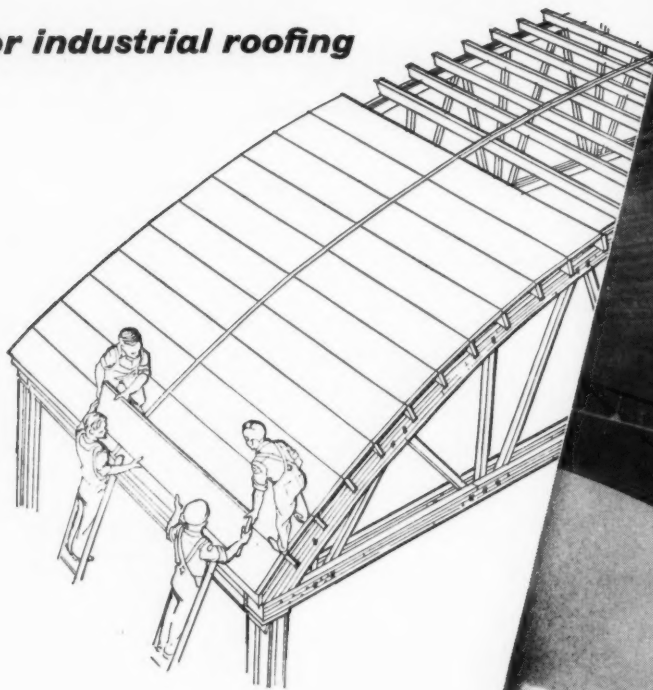


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THE INDUSTRY

This week Brian Grant describes an adjustable ventilator, an improved version of Snaprib sheeting, and a range of p.v.c. piping.

VENTILATORS

In the average factory the ventilation system is designed to deal with summer conditions, and a proportion of the ventilators will therefore remain permanently closed throughout most of the winter. Colt have just produced a new type known as the O/S.R., which can be fully opened by a cord control, with an increase of about 50 per cent in extract capacity, so that fewer ventilators should be required as there is a reserve of extract capacity to deal with hot summer conditions.

For normal ventilation the cover flaps rest on stops and give a completely weathered opening, as with the Colt S.R. type. The control cord can also lift the flaps to the position shown in the illustration, giving a completely clear opening. When the flaps



The Colt O/S.R. ventilator.

are dropped into the flat position the ventilators are sealed. (Colt Ventilation Ltd., Surbiton, Surrey.)

SEALED END SNAPRIB

Snaprib sheet was introduced about five years ago as a system of roofing and siding, and has since been steadily improved by minor amendments in design. It is now offered in a form known as Sealed End Snaprib, which incorporates an integral seal at eaves and ridge, or alternatively at eaves only. In each case the seal is produced by forming the end of the sheet, making the roof watertight without the need for separate ridge or eaves filler pieces. It is easier and quicker to install than standard Snaprib; once the roof sheets have been laid a simple eaves flashing is hooked up into the slot already formed in the folded end of the sheet and then secured to the face of the wall, and at the other end a two-part adjustable ridge assembly is clipped into place on the flanges of the sheets. The seal at the eaves helps to improve the line of the roof and also gives better resistance against lifting wind loads; it may also be preferred when the sheets are used for siding as the sealed end gives a neater finish to the base of the wall.

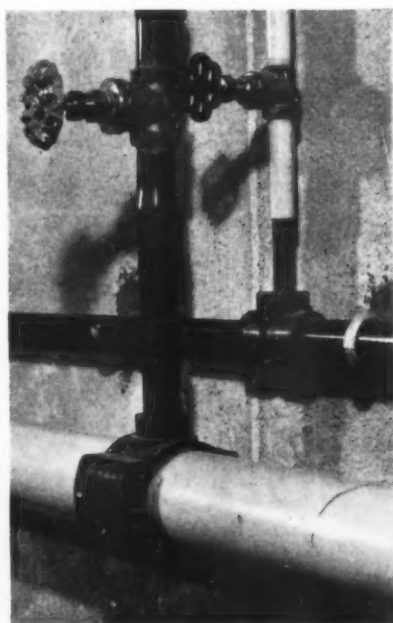
Snaprib is limited in length only by convenience in handling, and should cover most roofs in a single length. It is not yet available with an alocromed finish. (Northern Aluminium Co. Ltd., Banbury, Oxon.)



Sealed End Snaprib roofing.

PLASTICS PIPING

Wavin unplasticised p.v.c. pipes, after extensive use in Ireland, are now being marketed in this country, both for mains water supply and for service piping. The pipes are supplied in 15 ft. lengths, and in diameters from $\frac{1}{2}$ to $1\frac{1}{2}$ inches. Joints are made with a simple cemented spigot and socket, or by using heat and expanding one pipe with a mandrel, and it is claimed that the joints are as strong as the pipe itself, though the manufacturers recommend that they should be left for 24 hours before being submitted to pressure. Both pipes and fittings are suitable for working pressures up to 130 lb. Water mains are made in B, C and D grades for pressures of 87, 130 and 173 lb., and in diameters from 2 to 6 in., and because of their light weight up to 200 yards of pipe can be jointed at the side of the trench before being lowered into position. Prices vary from 27s. 9d. per 100 feet for $\frac{1}{2}$ in. service pipe to 48s. 6d. a yard for 6 in. class B water main. (Wavin Pipes Ltd., Cian Park, Drumcondra, Dublin.)



Wavin p.v.c. piping.

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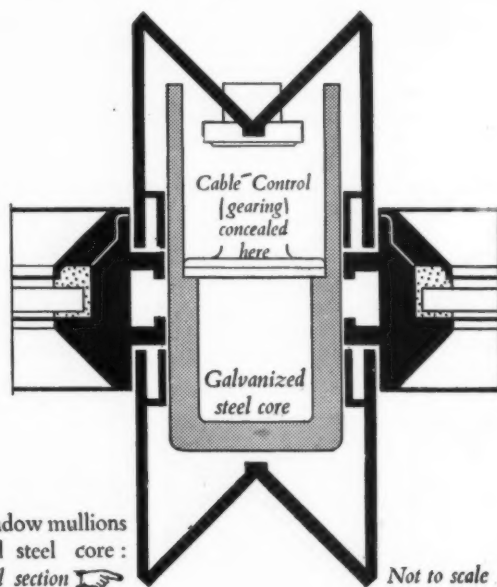


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COMMON BUILDING FAILURES

We publish this week the first of a short series of articles which summarise the experiences of a well-known firm of materials-testing engineers, R. H. Harry Stanger and Partners, on a number of building problems. These problems mostly concern the use of so-called "traditional" materials and have arisen because of changes in the composition of these materials and in the general context in which they are used. These articles are, therefore, a modest supplement to the excellent work already done in this field by the Building Research Station and should be read in conjunction with the appropriate BRS Digests.

COMMON BUILDING FAILURES, I:

Granolithic Paving

It is ten years since the Building Research Station published their Digest No. 24 on granolithic concrete floors. During this period practices have changed and the material, for all its qualities, still gives trouble. In this article, D. I. Watson, a partner in the firm of R. H. Harry Stanger and Partners, the materials-testing engineers, discusses the causes of failure and how they may be avoided.

There has always been a strong demand for some kind of floor finish which can be trowelled to a true level surface, which has good resistance to abrasion, which is reasonably dust-free and which wears evenly. Although it would be possible to design concrete or even floor screeds to meet most of these requirements, the fact is that flint gravels and silica sands are so much more resistant to abrasion than the cement matrix that stones and coarse sand particles soon become "proud" to the surfaces and give rise to unevenness and slipperiness.

It is for this reason that true granites are seldom used as aggregates for granolithic pavings. A markedly softer close textured grey stone which is known in the industry as "whinstone" is the material commonly employed.

The traditional paving usually consisted of 5 parts by measure of fine "granite" to 2 parts of cement and was laid to a thickness of 2 in. on concrete which had been hacked all over to provide a good "key."

Historical background

In the early days such pavings were laid by highly

skilled craftsmen who had so much experience that they could modify the laying technique to suit the circumstances of each job.

For instance, the degree to which the base concrete should be wetted down differs widely. The residual suction should be just enough to cause cement grout to be drawn into surface capillaries, but not enough to cause water to be drawn away from the grout and thus leave insufficient for the effective hydration of the thin layer of cement grout in contact with the base concrete. Although many current specifications call for thorough soaking of the base concrete it is, in fact, impossible to obtain good adhesion to saturated concrete.

The early craftsmen also applied a thin layer of the paving mix using a steel trowel tipped at an angle in order to provide what they called a "tight coat" to promote good adhesion. This was forced into the surface of the base concrete using considerable pressure. The remainder of the thickness was then placed in position at once and levelled off by means of a feather edged board positioned on the upper surfaces of the form work.

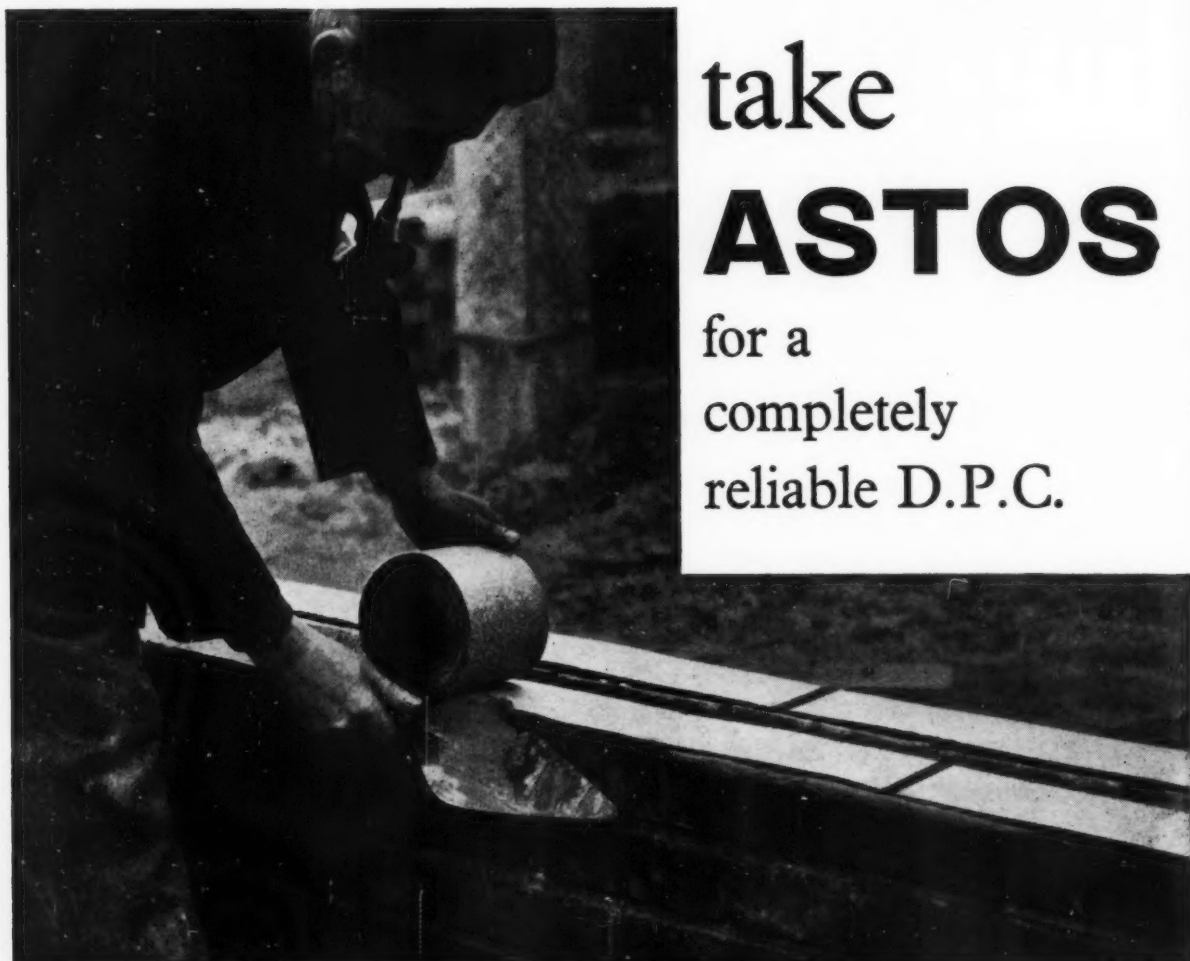
After an interval of several hours the surface was trowelled off level and smooth and again left.

The final operation was called black trowelling because it was carried out with high pressure after the surface had commenced to harden with the result that steel particles from the float became transferred to the surface of the paving and produced a dark discoloration.

The effect of this trowelling operation was to produce a surface skin which was very smooth, dense and highly compacted. Such a surface was very resistant to abrasion and therefore dust-free. It is clear, however, that an operation of this kind requires a high degree of skill both in the operation itself and in the selection of the right moment to commence.

The causes of today's failure

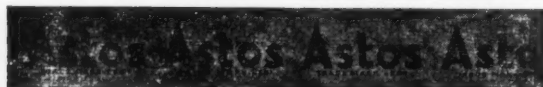
In the days of which we are speaking, say 30 to 40 years ago, the workmen used only materials with which they had become quite familiar, and failures



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technical section

were rare. Under present-day conditions it is the satisfactory granolithic floor which is the exception, and some degree of curling, hollowness, cracking and even crazing is regarded as inevitable. In fact, under modern conditions, a satisfactory result cannot be expected when a 2-in. thickness of a 2½ to 1 paving mix is placed in a single layer on mature concrete. The drying shrinkage of such a paving is much higher than that of the base concrete even when all has been done by choosing the best combination of aggregates and by keeping the water content as low as possible.

Furthermore, the exposed surface will shrink to a greater degree than the rest of the paving with the result that the layer tends to curl upwards. This effect cannot be overcome by prolonged curing because the forces which give rise to the curling movement will operate as soon as the floor is allowed to dry out, even though this is prevented for some weeks. Good curing conditions, however, do improve the strength of the bond between the layers and it is the strength of this bond which restrains movements consequent on shrinkage stresses. Concrete 8-in. thick, laid in 10 ft. by 10 ft. bays, with BRC mesh which spanned across all joints, has been seen to curl up ¼ in. at the corners. The mix used was 1:1½:3 and it could be shown that all the bays had become concave, rocking quite positively when small trucks passed over them—even rocking the adjacent bays. In this instance the heating system came into operation rather more suddenly than usual. It will be seen that the stress to which the bond is subjected by reason of this differential shrinkage can be very considerable particularly at the corners and near the construction joints.

Unfortunately it is at these very points that the hacking of the base concrete, and the degree of pressure used during laying are likely to be less effectively carried out than in the central portions of bays where it is easier to work. After wetting the surface of the base concrete it is usual to apply some kind of cement grout to enrich the actual bonding layer. This is an essential part of the operation but there is much misunderstanding about how it should be done. Quite frequently a thin film of cement/water paste is brushed over the base concrete and allowed to dry for so long before the paving is placed that it forms a plane of dusty weakness rather than of extra strength. Specifications sometimes lay down that the grout should be left for 24 hours to set. Under these conditions it will dry out long before effective hydration of the cement can take place.

Some specifications call for the use of sand in the grout with the mistaken idea that this will automatically ensure the use of a thick grout layer.

As it is still applied with a brush the sand really serves to increase the inherent weakness of the interface layer.

What is required is a stiff neat cement grout layer at least ¼ in. deep placed immediately before the paving is laid.

Preparation of base

The preparation of the surface of the base concrete is always a difficult matter. The only really satisfactory method is one in which the whole of the surface is removed. In most instances the irregularities in the surface have become so contaminated with extraneous dirt during building operations that brushing, even with wire brushes, is ineffective. The removal of dust left after the hacking operation also presents much difficulty. Brushing is not effective. The use of a powerful air blast is entirely effective so long as the surface is dry. Preparation is often carried out by cutting out holes a few inches deep at regular intervals and then brushing with soft brooms. The "key" effect of the newly exposed surfaces in the holes is entirely nullified by the fact that it is virtually impossible to brush out the dust film. Wetting the surface during the brushing operation makes it quite certain that a layer of mud is left in all the surface depressions. It is, of course, essential to remove all set mortar droppings, plaster residues and set cement left over from earlier mixing operations, and also dried cement grout which has run from under the formwork of the adjacent bay. In order to eliminate the last traces of dust, the surface should be washed in weak acid just before the grout is placed in position. A suitable proprietary liquid is available.

Placing

In order to reduce the overall shrinkage of the paving it is now usual for specialists to place in two layers. As they have usually quoted for a granolithic topping 2-in. thick most of them feel that they must use a "granite" type aggregate throughout. The bottom 1½ in. is laid semi-dry using a 3½ or 4 to 1 mix and consolidated by means of hand rammers or rollers. This is then covered monolithically with ½ in. of the normal 2½ to 1 wet-mixed topping.

As the sub-base is semi-dry it is somewhat open in texture, and effective adhesion to the base concrete will not be obtained unless the cement grout is at least ¼-in. deep because it is essential to fill up the interstices on the lower side of the sub-base.

Effective ramming of the sub-base is a prime necessity especially near the edges and at the corners of bays. The topping, which must be laid whilst the sub-base is still unset, is levelled off and then left until the surface has become dry enough for the first trowelling. This drying action is mainly due to the absorption of excess water by the concrete base. During this trowelling operation any laitence brought to the surface should be removed altogether and discarded—not spread over the surface. The final trowelling should take place just after setting has commenced. The aim should be to obtain surface consolidation without any displacement or lateral movement of the topping material.

Materials

If "granite" alone is used as the aggregate great



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technical section

care should be taken to ensure that it is uniformly graded from $\frac{1}{4}$ in. down. The proportion of $\frac{1}{4}$ in. to $\frac{1}{2}$ in. material should be as high as is compatible with satisfactory workability.

The proportion of fine dust passing B.S. No. 200 sieve should not exceed 3 per cent. As it is not easy to obtain "granite" complying with the above requirements there is a strong case for using pea shingle and silica sand for the sub-base and a mixture of clean $\frac{1}{4}$ in. to $\frac{1}{2}$ in. granite with the addition of a suitable proportion of silica sand for the topping. This also overcomes a difficulty always experienced when crushed stone is stored in the open. The fine dust tends to be washed down to the lower part of the stock pile with the result that material shovelled from the bottom may contain a very high proportion, even though the average percentage is reasonably low. The presence of a limited proportion of fine silica sand is in no way detrimental to the paving. It actually hardens it because its presence in the place of fine angular stone particles makes it possible to obtain adequate workability with a lower water/cement ratio.

In general additives for hardening or water-proofing should not be used but if any addition is made with the object of speeding up the setting in order to avoid operational difficulties, it should be recognised that bays laid at successive time intervals can no longer be relied upon to reach the trowelling stages in the order in which they were placed, and bays which have been trowelled too late are very liable to craze.

Bay design

When laying granolithic pavings on mature concrete it is usual to adopt what is known as the alternate bay or chessboard system. The whole area is divided up into bays 10 ft. square and the first operation is to lay every other bay and then to fill in the remaining areas. The object is to allow some of the shrinkage to take place before the bays are finally joined up. This process may reduce the width of the shrinkage gaps between bays, but does little to reduce the differential shrinkage which causes the curling. It is usual to place strips of bituminous felt between the bays and these do tend to keep the cracks between bays in rectilinear form. If the bays are joined up, these cracks still open and although not so wide, they tend to be irregular and therefore more unsightly. As all the curling and hollowness which develops originates at the joints it seems doubtful if the practice of using 10 ft. square bays is to be recommended. The use of much larger bays might result in the formation of occasional irregular cracks but the number of free edges likely to cause trouble would be greatly reduced. If small bays are desirable, the use of a hexagonal shape might eliminate much of the trouble now experienced where four right angles are formed at the junctions of bays.

Monolithic Toppings

Because of the difficulties associated with obtaining good adhesion to mature concrete it is becoming in-

creasingly common for pavings to be laid monolithically, the paving mix being applied to the concrete floor before the latter has commenced to set. This is sound practice but other difficulties are then introduced. In the first place a concrete floor 6-in. thick laid at the usual fluid consistency and tamped in the normal manner, is often too fluid to take the topping, and as there is now no dry concrete base to absorb excess water, the old idea of waiting until the paving is dry enough to trowel will not work.

Because of this it is usual for floors which are to be topped monolithically with a granolithic mix to be laid semi-dry. There is, however, a marked tendency to lay too dry, with the result that the concrete is not effectively compacted. Under these circumstances the paving layer still curls up but brings a layer of honeycombed concrete with it. When a monolithic topping is to be applied the concrete should be laid at a low water/cement ratio and effectively consolidated by vibration. The paving can then be finished, if desired, with a power float without any risk of it sinking in.

There still seems to be a tendency to specify a thickness of one inch for a granolithic paving even when laid monolithically. This is both unnecessary and undesirable.

If one could rely on the concrete being quite flat, a topping $\frac{1}{4}$ -in. thick would suffice. In general, however, it is better to specify an average thickness of $\frac{1}{2}$ in. with $\frac{1}{4}$ in. as the absolute minimum. The use of monolithic pavings has introduced a new problem to be faced when the surface has become too worn for further use.

When the paving has been laid on mature concrete it is an easy matter to take it up and replace it when its useful life is over.

In the case of a badly worn monolithic topping it is necessary to remove the top $\frac{1}{2}$ in. or so and replace it. This can only be done by contractors who specialise in this type of work. Although it is possible to lay a granolithic paving which is reasonably non-dusting, it should be recognised that none can be regarded as being really dust free.

Use of hardeners

Various types of surface treatment are available for hardening and preventing dust. These will generally improve a good paving but they cannot be expected to effect any improvement to a paving which is soft and dusty because of its inherent weakness.

When over-trowelling has resulted in the formation of a soft laitence layer on the surface of an otherwise satisfactory paving, the use of surface dressings will often minimise the inconvenience caused by dust during the early life of the floor before the soft layer has worn away.

It will often be found that a floor made up by laying hydraulically pressed paving flags in cement mortar will give more satisfactory results as a factory floor, in spite of the joints, than usually results from the use of a granolithic paving.

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HOUSING

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planner to Basildon Development
Corporation (in succession to
NOEL TWEDDELL)staff J. FARBER, senior architect,
housing

M. R. BOOL

W. H. DAVIES

quantity surveyors E. C. HARRIS & PARTNERS, who
prepared these cost analyses

consultants: landscape SYLVIA CROWE

structural engineer C. F. BATH

NETHER PRIORS,
BARSTABLE

designed by A. B. DAVIES

staff

J. FARBER

M. R. BOOL

N. ROBERTS

R. A. SHAW

E. GREENWOOD

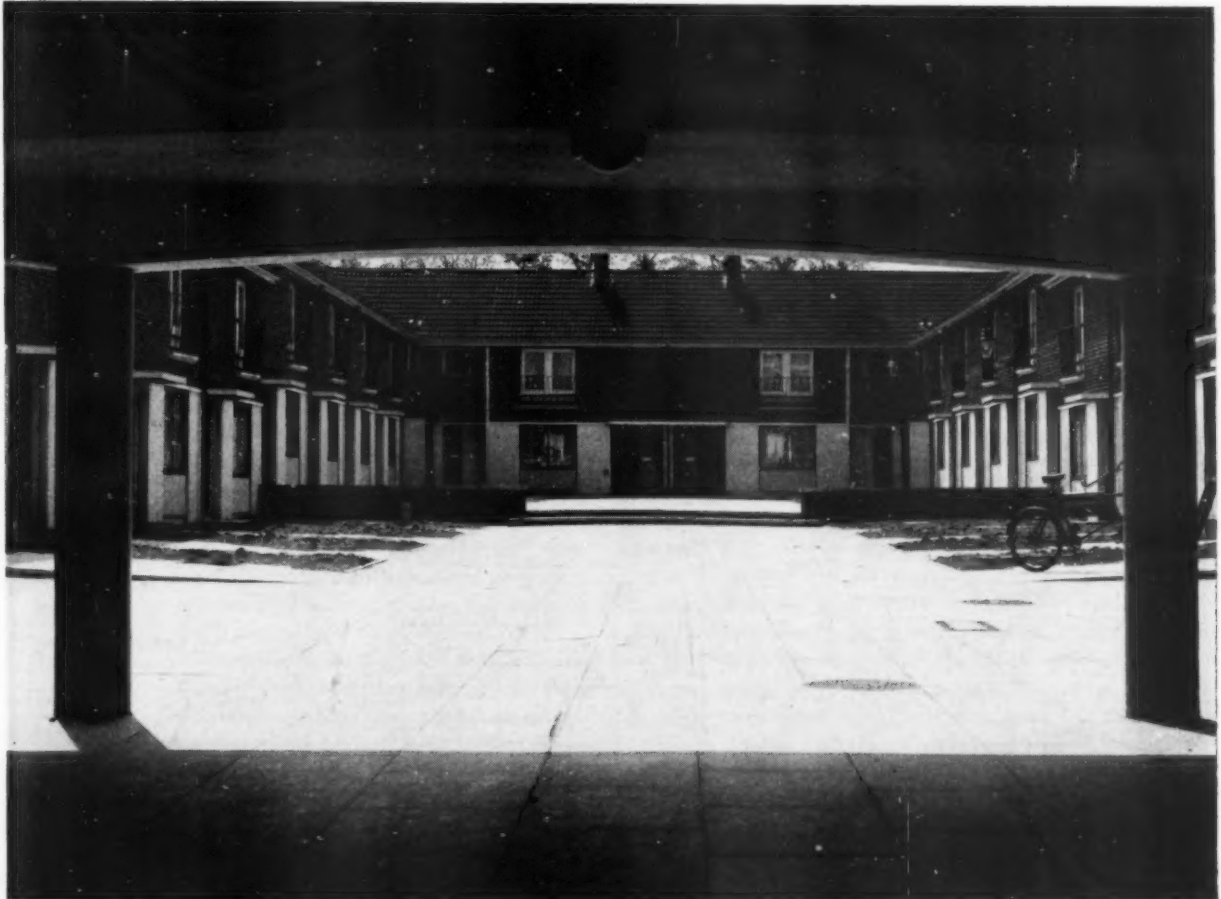
quantity surveyors E. C. HARRIS & PARTNERS

consultants: landscape SYLVIA CROWE

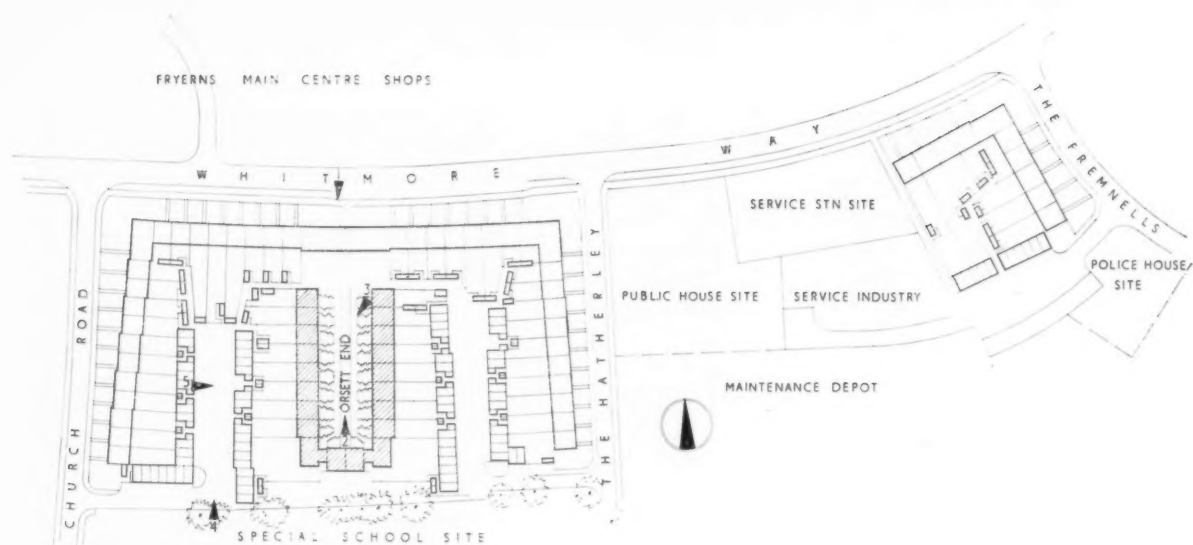
structural engineer S. M. CLEATOR

These small houses at Basildon have been designed to enclose two pedestrian precincts, a number of which are being planned as a characteristic form of housing in the new town, and each group has been cost analysed as a single unit. Note that the latest to be completed, Orsett End, is designed to provide garages for 19 out of the 20 dwellings, creating a new problem of planning low-cost houses on a restricted site.

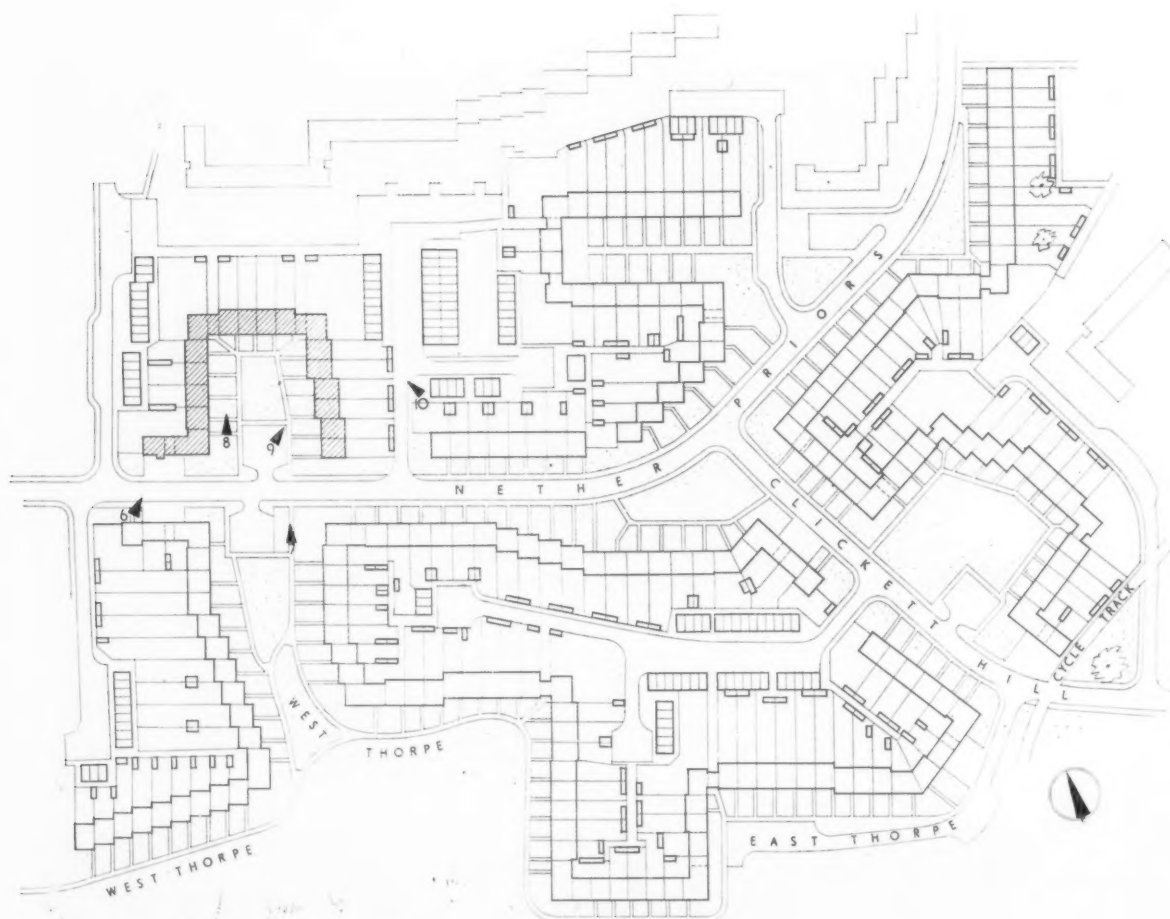
View 1: Orsett End seen from the entrance. The sense of enclosure is more complete than it is looking in the opposite direction.



building illustrated



Site plan of Orsett End, Fryerns neighbourhood, showing numbered viewpoints of subsequent illustrations



Site plan of the Close at Nether Priors, Barstable

APPRAISAL: The two housing areas known as Fryerns and Barstable lie north and south respectively of the new road which links the Basildon town centre with the London Southend road, the A13. Both areas consist largely of two-storey housing arranged in a number of courts and closes. The architects have separated pedestrian access to the houses from the service traffic, which is entirely confined to special service roads about which all garages and tenants' stores are grouped, and as one of the requirements was an extremely high percentage of garages—95 per cent on the Fryerns site and 50 per cent on the Barstable site—these service-cum-garage areas are of considerable size and importance.

Orsett End: This close consists of 20 houses on three sides of a courtyard. Access is from the fourth side, under a first floor bridge of flats, which arrangement effectively increases the feeling of enclosure in the courtyard. This is paved with pre-cast concrete slabs, except for small individual gardens in front of each house, which will, however, be planted and maintained by the Corporation. A natural ground slope has been slightly flattened by introducing a single step and this device contributes to the pleasant feeling in the courtyard and assists in breaking down the scale.

East and west sides of the court consist of two-bedroom houses of identical plan. Variation of aspect is rendered possible by the through dining-living rooms on the ground floor—which incidentally give each family a clear through-view of their opposite neighbour's living space.

Each internal corner of the courtyard is occupied by a four-bedroom house, having a kitchen, living-room and separate dining-room on the ground floor.

The frontages on to the courtyard are charming: individual iron guard rails outside inward opening bedroom windows and the use of flints as a wall facing help to establish the domestic scale. Small patches of bright colour are provided by the bright yellow asbestos panels under the windows. Unfortunately the back elevations are less satisfactory. Nevertheless the general impression, both inside the houses and in the courtyard, is of an architectural success, due in large part to very careful detailing.

Nether Priors: The 18 houses in this close form a more distended rectangle with the east limb staggered outwards towards the entrance. The courtyard is grassed and cut up by paths into somewhat arbitrary shapes, a treatment which, continued on the far side of the road, diminishes the intimacy of the close, almost as if it were being poured away.

The landscaping of this area however is not yet complete: the architect feels that a more urban character is desirable here, with buildings dominating the "soft" suburban landscape produced by large use of grass and trees, and the proportions of planting, grassing and paving have yet to be finally decided.

The four houses on the west side have a living-room and dining-kitchen facing their back gardens: the six houses on the east side and the four on the north having living-rooms looking into the courtyard and a separate dining-room facing the garden. Both types have three bedrooms on the first floor. Both internal angles of the courtyard are occupied by four-bedroom houses, in which a way through to the garage at the back is incorporated on the ground floor, with one bedroom forming a first floor bridge.

Two houses form a short leg to the west side. One has

three bedrooms and a kitchen-living-room and dining recess on the ground floor, the other, four bedrooms and a living-room on the first floor, with the kitchen and dining-room below. Both houses include a garage within the main structure, and this, together with the unusual concrete frame on the elevation, makes this type of house most conspicuous throughout the estate.

The elevations here are less interesting than those of Orsett End: stove enamelled asbestos under-window panels in pastel shades and, beside the front door, a concrete wall of moulded pre-cast 9-in. x 9-in. units create more pity than interest. Altogether the effect of these houses is less coherent than at Fryerns.

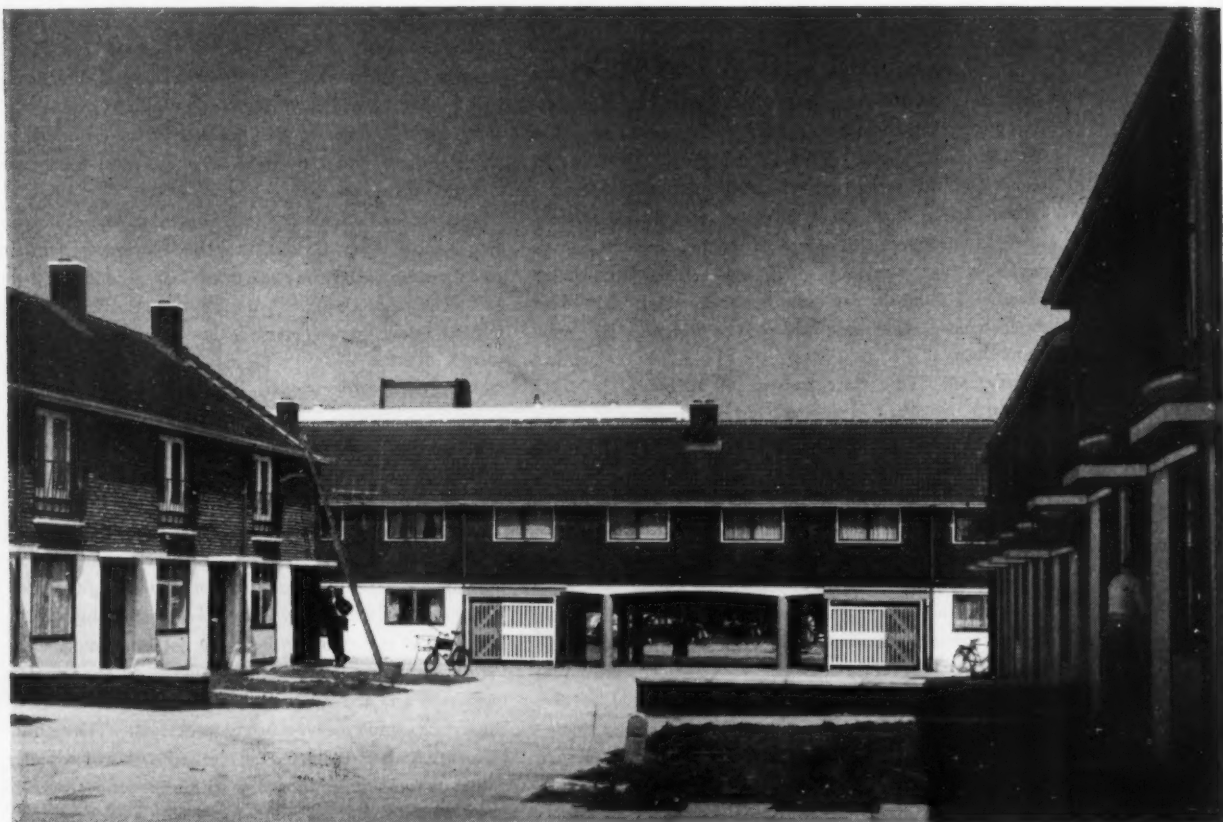
Garaging and service areas: Possibly the most important aspect of the design is the manner in which vehicular traffic has been directed, by means of service roads, to a large area behind the houses, where a complex jumble of garages, tenants' stores, paths and walls has been created.

The problem of "the backs" when, as at Orsett End, provision is to be made for 95 per cent. of the dwellings to have individual garages (a proportion which was originally set at 50 per cent and then nearly doubled) is unavoidably a difficult one, and as these service areas are not yet completed it is hardly surprising if they have a somewhat accidental and haphazard air, and the views from the back windows over the service complex leave much to be desired. The architects believe that when completed the rear approach will be pleasant within its function, and the view within the service yards will be of rows of simple garage frontages with a deep continuous fascia binding the groups together and screen walls to the same heights and trims enclosing any re-entrances or corners between blocks. It is their view that the back gardens will actually gain from being separated by the rear walls of the garages and linking screen walls, instead of being directly back to back, as is so often the case, so that the view from every back bedroom window takes in the neighbour's back garden. Here the view into the service yard is cut off by the mono-pitch of the garages, the walls of which can be made very pleasant by planting fruit trees or climbing plants.

Conclusion: The two closes described here were both experimental areas, in which the problems and advantages of building round courtyards were explored, but in spite of the pleasantness inside the courts, particularly at Orsett End, the total effect is one of lifelessness. The visitor to Basildon may wonder whether there is enough buzz and bustle in the town to provide courtyard development with its traditional purpose of excluding the excessive noises and smells of a busy city, although it is said that Fryerns neighbourhood is little short of pandemonium on Saturdays and when the children come out of school.

The two courts described here, however, do suffer from being each an end in itself, a dead end without any relationship to the other courtyards. This lesson seems to have been learnt, for in the new neighbourhood areas of the Town Centre now under construction a series of linked courts of differing shapes and levels is being planned, through which it will be possible to walk from one part of the area to another without crossing traffic roads. Such a development of the enclosed court idea should give a point and unity to the scheme, and at the same time prevent the dignified, urban peacefulness of the courts from becoming so cut off from the main stream as to become stuffily suburban and lifeless.

building illustrated



View 2: From the higher courtyard level looking back towards the entrance. The space seems to broaden before it reaches the bridge, thus diminishing the full effect of enclosure. The proportions and some details are almost naïvely simple (e.g. the chimney stacks).



View 3: A detail of the elevations at Orsett End. A combination of materials that appeal to most tenants has been used very successfully. The balcony doors open inwards.

ORSETT END

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To provide a small group of predominantly 2-bedroomed houses on a restricted site in conjunction with a Neighbourhood Centre and with 95 per cent garage provision.

PLANNING AIMS

To create an intimate pedestrian precinct completely surrounded by 2-storey housing, in a high density development area. A bridge with flats over it has been used to frame the view and to prevent vehicular access from the main road. Service access for vehicles is to the rear of all houses.

SCHEDULE OF ACCOMMODATION

House type	Description	No.	Gross area
2SW4	Back service access 2-bedroom dining/living-room type house with external stores.	18	712 sq. ft.
4CU1	Internal corner unit house with public access to rear. 4-bedroom type with living-room, dining-room and internal store.	2	Stores, 47 sq. ft. 1,097 sq. ft. (Internal store, 60 sq. ft.) Garden fuel store, 14 sq. ft.
	<i>Total gross floor area of block</i>		15,010 sq. ft.

This cost analysis is based on Final Contract Price.
Preliminaries and insurances

Contingencies

Work below ground floor level

Short bored concrete pile and beam foundations in sulphate-resisting cement concrete.

STRUCTURAL ELEMENTS

Frame

See external walls.

External Walls

11-in. cavity walls of 4½-in. brick outer skin and 4½-in. breeze inner skin.

Flint cobble facings on 9-in. solid brick.

$$\text{Ratio: } \frac{\text{solid wall}}{\text{floor area}} = \frac{0.538}{1}$$

Windows

Standard wood windows and purpose-made metal windows in wood subframes.

Wood casements to detail.

$$\text{Ratio: } \frac{\text{windows}}{\text{floor area}} = \frac{0.187}{1}$$

External doors

Standard plywood-faced flush doors and glazed doors.

$$\text{Ratio: } \frac{\text{doors}}{\text{floor area}} = \frac{0.083}{1}$$

SUMMARY

Ground floor area: 7,526 sq. ft.

Total floor area: 15,052 sq. ft.

Type of contract: RIBA.

Tender date: March 7, 1958.

Work began: June, 1958.

Work finished: July, 1959.

Tender price of foundations, superstructure, installations and finishes: £28,184 16s. 10d.

Final contract price: £27,248 9s. 8d.

Tender price of external works including drainage and ancillary buildings: £3,081.

Final contract price: £3,331 17s. 6d.

Total: £30,580 7s. 2d.

s d

Upper floors 1 5½

1 7½ Timber joists and boarding. Maximum span: 11 ft.

Area: 7,526 sq. ft.

3½ Superload: 40 lb. per sq. ft.

4 9 **Staircases**

Softwood stair in one straight flight.

Number: 1 per house, totalling 20.

Width: 2 ft. 10½ in.

Total rise: 8 ft. 5½ in.

Roof construction 2 5½

35 deg. TDA type timber truss and rafter, lined with building paper and covered with double roman concrete tiles.

Area (horizontal): 9,117 sq. ft.

Glazing 2½

Standard quality sheet glazing generally.

½-in. Georgian wired cast glass to entrances and sidelights.

Small Morocco obscured glass to w.c.s and bathrooms.

1 2½

Total of structural elements: 14s 5½d

PARTITIONS AND FITTINGS

Internal partitions

2½-in. breeze concrete blocks.

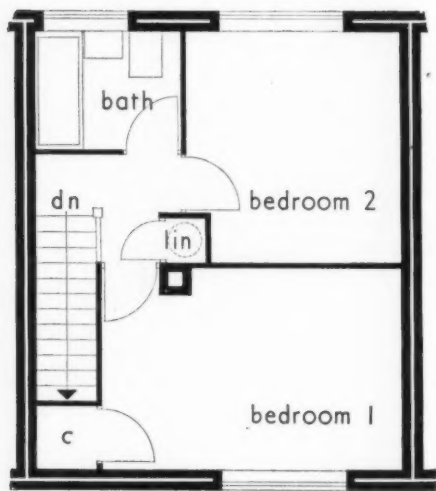
Area: 7,250 sq. ft.

Internal doors

232 standard single hardboard-faced flush doors and frames.

1 4

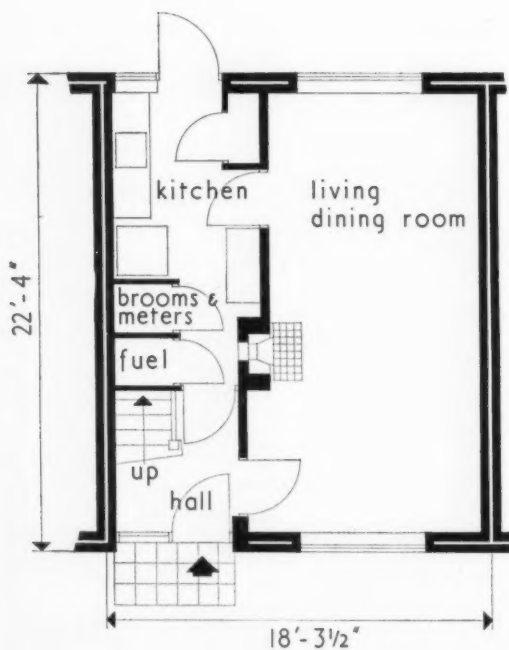
building illustrated



First floor plan



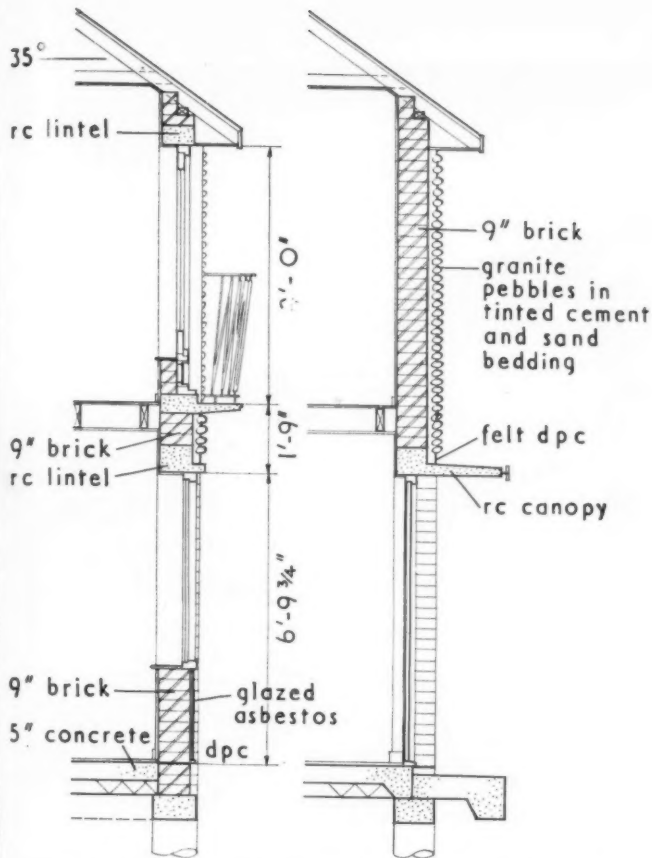
First floor plan



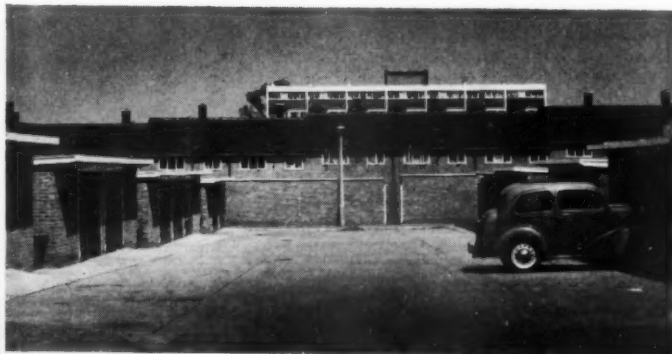
Ground floor plan of two-bedroom house, Orsett End [Scale: $\frac{1}{4}$ " = 1' 0"]



Ground floor plan of four-bedroom house, Orsett End [Scale: $\frac{1}{4}$ " = 1' 0"]



Sections through front elevation of Orsett End houses [Scale: $\frac{1}{4}" = 1' 0"$]



View 4: As soon as we move around the outside of Orsett End the design collapses. Everything about this view is unpleasant.



View 5: One of the odd corners in which the hinterland abounds. This and the previous view illustrate what is said elsewhere about the layout.

Ironmongery

Generally satin anodized aluminium alloy.

Fittings

Stainless steel sink/drainers units.
Standard kitchen cupboard units, and worktops to BS1195, part 3.

Total of partitions and fittings: 2s 9d.

FINISHES

Floor finishes

$\frac{1}{8}$ -in. thermoplastic tiles. Area: 6,275 sq. ft.
7s 11d per sq. yd.
 $\frac{7}{8}$ -in. Floor boards (first floor). 146s 7d per 100 sq. ft.

Wall finishes

Render and set in retarded hemihydrate gypsum plaster.

Ceiling finishes

$\frac{3}{8}$ -in. plasterboard and skim plaster.

Roof finishes

Under "Roof construction."

Decorations

Ceilings, distemper. Walls, generally, washable distemper.
Bathrooms and kitchens: emulsion paint.
Woodwork: oil paint. Concrete: cement paint.

Total of finishes: 3s 10d

SERVICES

External plumbing

Aluminium alloy gutters and rainwater pipes.

Hot and cold water installation

Hot water by open, solid fuel fire in living-room, with back boiler and indirect calorifier cylinder.
Cold water storage in roof space cistern to supply cylinder.
Mains supply to kitchens, bathrooms and lavatories.

Sanitary fittings

Type of fitting	Number of each type
Stainless steel sinks	20
Baths	20
Lavatory basins	20
Low level w.c. suites	2
High level w.c. suites	18

Heating and ventilation

Heating by solid fuel living-room fires with back heating panels to dining-room or kitchen. The back boiler operates two bedroom radiators in each house.
Ventilation: natural.

Gas installation

Points for cooker, sink water heater, wash boiler, fire ignition and refrigerator.
Total No. of points: 100.

Electrical installation

Type of point	No. of each type
Pendant light fittings	144
Batten light fittings	24
Socket outlets (including 20 cooker and 20 immersion heater points)	146

Total of services: 4s 8½d

building illustrated



View 6: An external corner showing the type CCU/1 house. Fortunately the other houses in the Close at Nether Priors are, whatever their defects, relatively unpretentious and pleasantly free from those heavily contrived forms which this house employs.



View 7: The view into the court is less satisfactory than at Orsett End due partly to the falling ground level, the break in roof line and the lack of decision regarding facing materials. A courtyard is an urban thing and probably needs hard surfaces on the ground before it reads satisfactorily.

Drainage

Surface water and soil drainage in salt-glazed stoneware and pitch fibre pipes to separate sewers.

Cost per sq. ft. of floor area:

$$\frac{\text{£}27,248 \text{ gs. } 8\text{d. (net cost excluding external works)}}{15,052 \text{ sq. ft. (measured inside external walls)}} = \underline{\underline{34 \text{ } 2\frac{1}{2}}}$$

CLOSE AT NETHER PRIORS**CLIENT'S REQUIREMENTS**

To provide an area of 2-storey housing at a density of 15 dwellings to the acre on a site adjacent to the Town Centre, with provision for garages for up to 50 per cent of the number of dwellings.

PLANNING AIMS

To provide a maximum of enclosure to a landscaped pedestrian area in front of the houses, having provision for parking cars off the adjacent spine road and all wheeled traffic directed to garage culs-de-sac at the rear of the houses. Access for all services to be by way of the back gardens.

SCHEDULE OF ACCOMMODATION

House type	Description	No.	Gross Area
3SW11	Rear access, 3-bedroom, dining-kitchen type house with external stores (planned for south-west aspect)	10	945 sq. ft.
3NE13	Ditto, planned for north-east aspect	4	958 sq. ft.
4CU4	Internal corner unit house incorporating public access passage to rear. 4-bedroom type with living-room, dining-room, kitchen and external stores.	2	1,111 sq. ft.
CCU1	External corner unit consisting of 2 houses incorporating 2 garages and an access passage to communal paved area at rear.		2,505 sq. ft.
	House Type A: 4 bedroom, dining-kitchen type with living-room at 1st floor.	1	
	House type B: 3 bedroom, dining-living-room, working kitchen type.	1	
	Total no. of houses	18	

Preliminaries and insurances

$$\frac{3 \text{ } 2}{2\frac{1}{2}} \text{ Ratio: } \frac{\text{doors}}{\text{floor area}} = \frac{0.054}{1}$$

Contingencies**Work below ground floor level**

Short bore pile and beam foundations in sulphate-resisting cement concrete.

Frame

See below.

External walls

11-in. cavity walls of 4½-in. brick or 4½-in. block faced with lightweight expanded clay aggregate outer skin and 4½-in. breeze inner skin.

$$\text{Ratio: } \frac{\text{solid wall}}{\text{floor area}} = \frac{0.558}{1}$$

Windows

Standard wood windows and purpose-made metal windows in wood frames.

$$\text{Ratio: } \frac{\text{windows}}{\text{floor area}} = \frac{0.1385}{1}$$

External doors

Standard plywood-faced flush doors and glazed doors.

SUMMARY

Ground floor area: 8,559 sq. ft.
 Total floor area: 17,119 sq. ft.
 Type of contract: RIBA
 Tender date: April 3, 1956.
 Work began: March 1957.
 Work finished: November 1958.
 Tender price of foundations, superstructure, installations and finishes: £28,444.
 Final contract price: £28,029.
 Tender price of external works, including drainage, and ancillary buildings: £6,081.
 Final contract price: £6,140.
 Total: £34,169.

4	3	Upper floors	1	8
		Timber joists and boarding. Maximum span: 12 ft. 7 in.		
		Area: 8,559 sq. ft.		
		Superload: 40 lb. per sq. ft.		
		Staircases		7
6	6	Softwood stairs in one straight flight: or with quarter landing.		
		No. of staircases: 18 (one per house).		
		Width: 2 ft. 10½ in.		
		Total rise: 8 ft. 5½ in.		
		Roof construction	2	5
		35 deg. pitch TDA truss and rafter, lined with building paper and covered with double roman concrete tiles.		
1	1½	Total area (horizontal): 9,458 sq. ft.		
		Glazing		2
		Standard quality sheet generally. ¼-in. Georgian wired cast glass to doors and sidelights and small Morocco obscured glass to w.c./bathroom windows.		
2½				
Total of structural elements: 12s 8½d.				

building illustrated

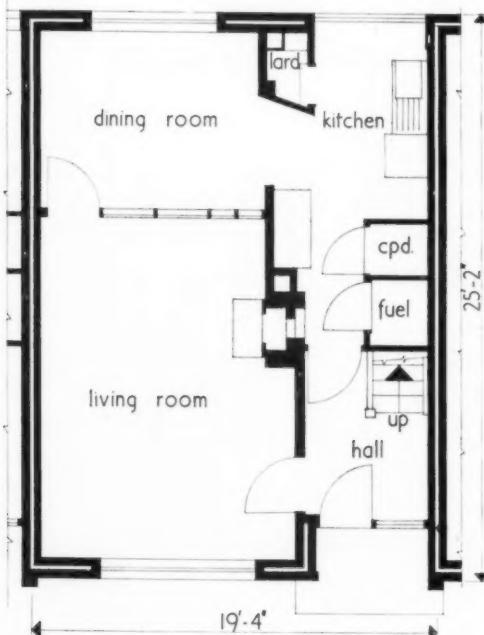


Views 8 (above) and 9 (below): Details of the elevations in the Close at Nether Priors. In the corners are the pedestrian ways through to the garages. It is believed that the small objects growing out of the scrub are trees. Plans of these houses are given on pages 227 and 228.





Fig. 10: A rear elevation of Nether Priors. Clearly there has been no attempt to achieve continuity of design.



First and ground floor plans of the houses on the north and east sides of Nether Priors (view 9). [Scale: $\frac{1}{8}$ " = 1' 0"]

PARTITIONS AND FITTINGS

Internal partitions 6½
2½-in. breeze concrete blocks.

Screens ½
3 SW.11 house type only, timber framed glazed partition in living/dining-room.

Internal doors 8½
Standard hardboard-faced flush doors.
No. of single: 227. Two pairs of double doors to cupboards.

Ironmongery 3½
Generally satin anodised aluminium alloy.

Fittings 7½
Stainless steel sink/drain unit.
Standard kitchen cupboard units and worktops to BS 1195 part 3.

Total of partitions and fittings: 2s 2½d.

FINISHES

Floor finishes 7
Type of finish Area in sq. ft. Cost per sq. yd.
¾-in. thermoplastic tiles 5,651 (ground floors) 7s 11d
¾-in. floor boards 8,270 (first floor) 166s 6d (per 100 sq. ft.)

Wall finishes 1 4
Render and set in retarded hemihydrate gypsum plaster.

Ceiling finishes 9½
¾-in. plaster board with plaster skim coat.

Roof finishes
Given above.

Decorations 1 4½
Ceilings: whitening.
Walls, generally: washable distemper.
Bathrooms and kitchens: emulsion paint.
Woodwork: oil paint.
Concrete: cement paint.

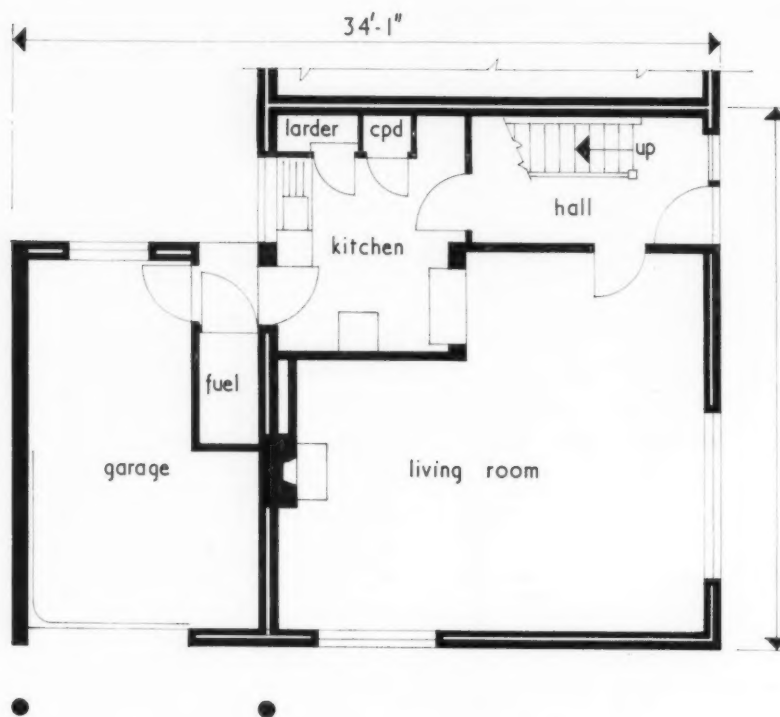
Total of finishes: 4s 1½d

SERVICES

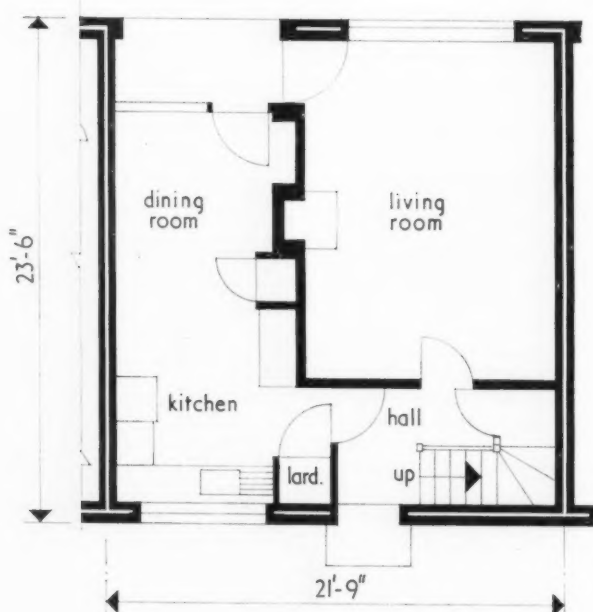
External plumbing 2½
Aluminium gutters and rainwater pipes.

Hot and cold water installation 1 5½
Open, solid fuel fire with back boiler with calorifier cylinder providing hot water to radiators on primary circuit and domestic hot water on secondary circuit. Feed to cylinder from cold storage tank in roof space.

Sanitary fittings 10½
Type of fitting No. of each type
Stainless steel sinks 18
Low level w.c. suites 6
High level w.c. suites 15
Baths 18
Lavatory basins 18



Ground floor plan of south-west corner house, Nether Priors, (view 6) [Scale: $\frac{1}{4}$ " = 1']



Ground and first floor plans of the houses on the west side of the Close at Nether Priors (view 8) [Scale: $\frac{1}{4}$ " = 1' 0"]

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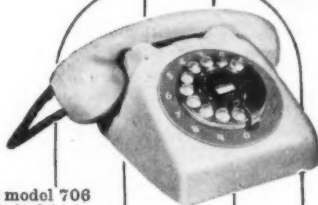
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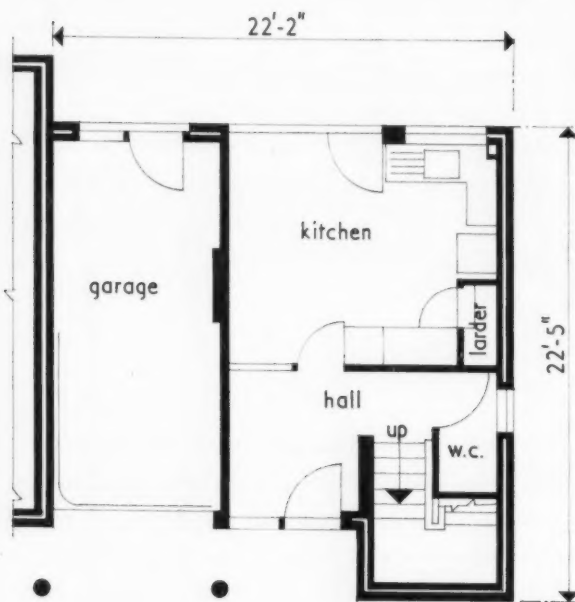
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Ground floor plan of south-west end house, Nether Priors, (view 6) [Scale: $\frac{1}{4}$ " = 1' 0"]

Heating and ventilation

Heating is by open solid fuel fire in living-room, with convector panel to dining-room or kitchen and 2 radiators in 1st and 2nd bedrooms, connected to primary circuit of calorifier. Ventilation: natural.

Gas installation

Points for cooker, hot water and refrigerator in kitchens.

Fire ignition in living-rooms.

Total No. of points: 72.

Electrical installation

Type of fitting	No. of each type
Pendant light fittings	117
Batten light fittings	36
Switched socket outlets	118
Cooker points	18
Immersion heater points	18

Total of services: 3s 11d

Drainage

Surface water and soil drainage in salt-glazed earthenware and pitch fibre pipes to separate sewers.

Cost per sq. ft. of floor area:

£28,029 (net cost excluding external works)
17,119 sq. ft. (measured inside external walls)

s d
6

1

9 1/2

2 1 1/2

= 32 9

COST COMMENTS

The value of this cost analysis is that, as far as AJ records show, it is a classic in economy. One senses that the cost advisers must have put in a good deal of overtime before the architect was permitted to ink in his final drawings. On seeing these figures, the eager experts at the Ministry must hastily have stamped their approval on them between two cups of tea and promptly used them as a whipping stick for the next client. There is no waste of public money here, nothing frittered away on architectural whims.

Allow £125 for each additional bedroom in the two four-bed houses at Orsett End and this leaves an average price of £1,337 complete for each two-bedroom dwelling.

How could one cut even a shilling from such figures? Even the short bored piles introduced on movable clay cost only £178 per dwelling. Foundations might have been some £40 cheaper in ground which permitted the traditional method, with a minimum depth. In each element the cost is the lowest one could expect to meet in any acceptable specification. £90 for the roof complete with timber and tiles, £89 for all the plastering, £26 for the electrical installations, £26 for complete decoration, inside and out! (Done at a loss, surely?) 30s. for gas carcassing (other gas boards, please note). Yes, perhaps 3d. per sq. ft. might have been saved by using cavity wall and cheap facings instead of pebbles and asbestos panels, but then this would have been diminished by the consequent increase in the width of the foundations and the size of the roof, and pebbles have not been used on all front elevations.

A comparison between the cost of the two sites produces little more of value. Nether Priors is just as cheap. Orsett End is the simpler to study as almost all the dwellings are the same size.

In future it should be easy, on referring to this number of AJ, to see where our flats or private houses are so expensive. From the cost point of view Basildon is the basic price.

CONTRACTORS

Orsett End:

General contractors: W. & C. French Ltd. Floor tiles: Semtex Ltd. Facing bricks: R. Passmore & Co. Ltd., London Brick Co. Ltd. Sanitary fittings: Stitson's Sanitary Fittings. Metal windows: The Crittall Manufacturing Co. Ironmongery: H. and C. Davies & Co. Ltd.

Nether Priors:

General contractors: Leslie & Co. Ltd. Floor tiles: Marley Tile Co. Ltd. Roof tiles: Wood Mathams Ltd. Plaster: Alfred Charldwood & Sons Ltd. Plumbing: Mathew Hall & Co. Ltd. Electrical: Holliday, Hall & Stinson Ltd. Paints: C. & T. Painters Ltd. Fences: Penfold Fencing & Engineering Ltd.

working detail

COVERED WAYS AND CANOPIES: 32

CANOPY: OFFICE BLOCK IN VEVÉY, SWITZERLAND

J. Tschumi, architect (material supplied by Dariush Borbor)



This canopy is a tour de force in aluminium construction. The dramatic effect of the cantilever is heightened by the fact that the width at the extremity is slightly greater than that at the building face. Note (on the drawing) the ingenious manner of disposing of rainwater.

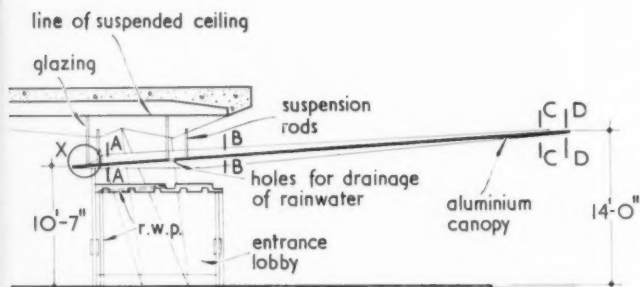
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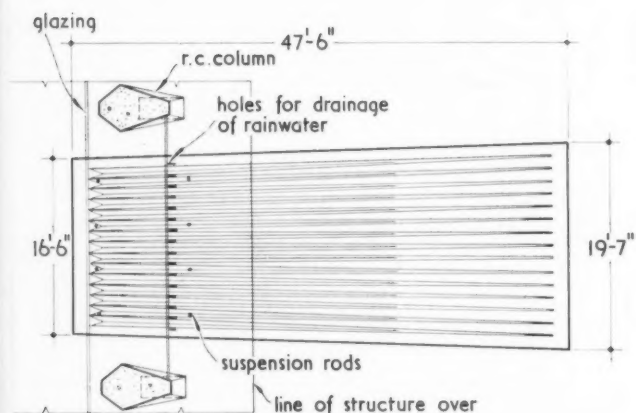
working detail

CANOPY: OFFICE BLOCK IN VEVEY, SWITZERLAND

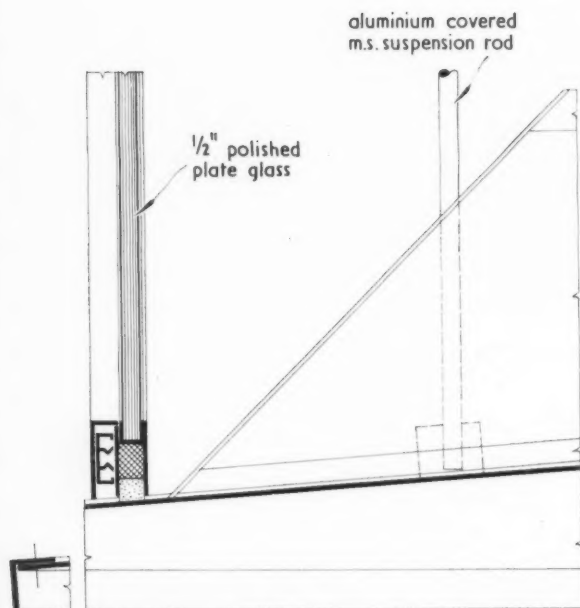
J. Tschumi, architect (material supplied by Dariush Borbor)



SECTION THROUGH CANOPY. scale $1/16" = 1'-0"$



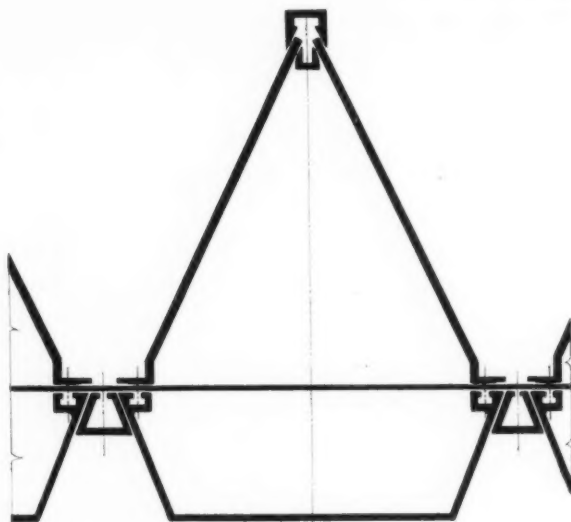
PLAN OF CANOPY. scale $1/16" = 1'-0"$



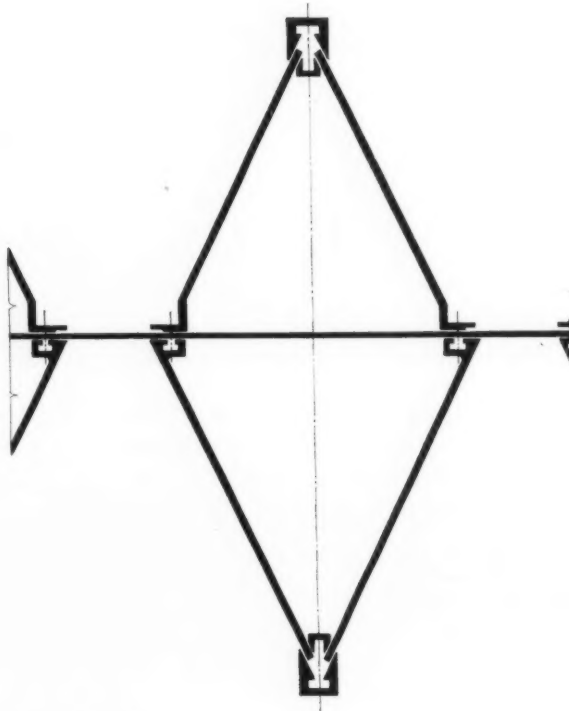
DETAIL AT X. scale $3/16$ full size

(38)

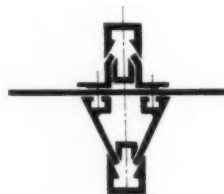
COVERED WAYS AND CANOPIES: 32



SECTION A-A. scale $3/16$ full size



SECTION B-B.



SECTION C-C.



SECTION D-D.

note: figured dimensions in feet and inches are approximate

working detail

HEATING: 25

BATHROOM HEATING PANEL: FLATS IN GENEVA

Marc J. Saugey, architect (material supplied by Dariush Borbor)

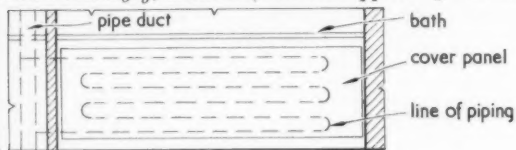
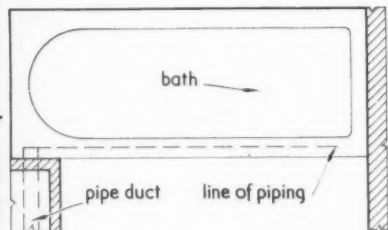
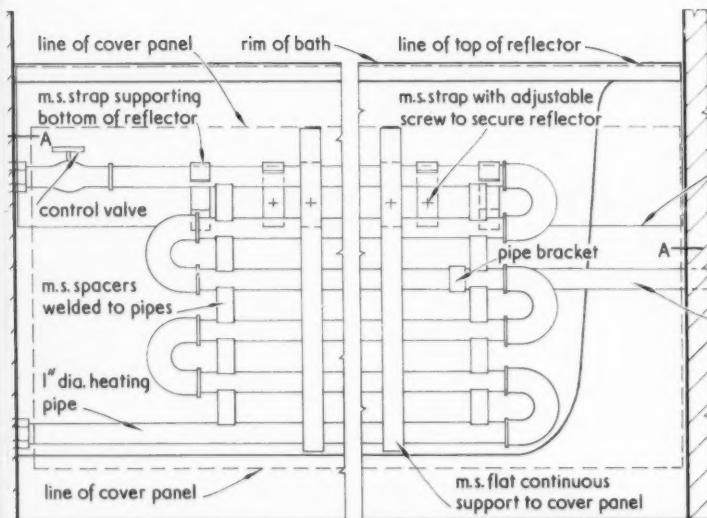
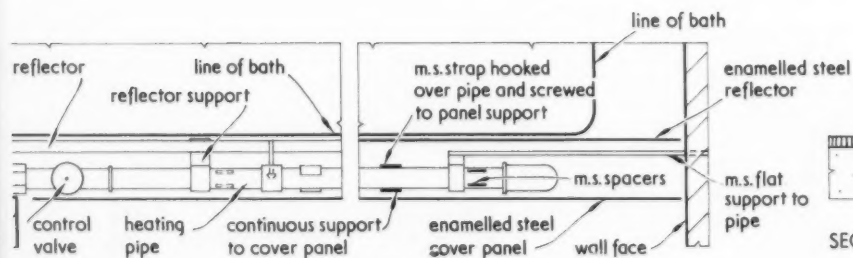
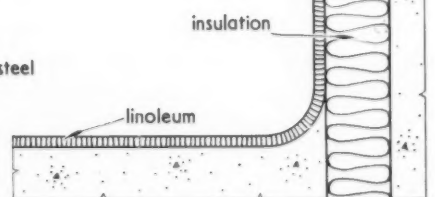
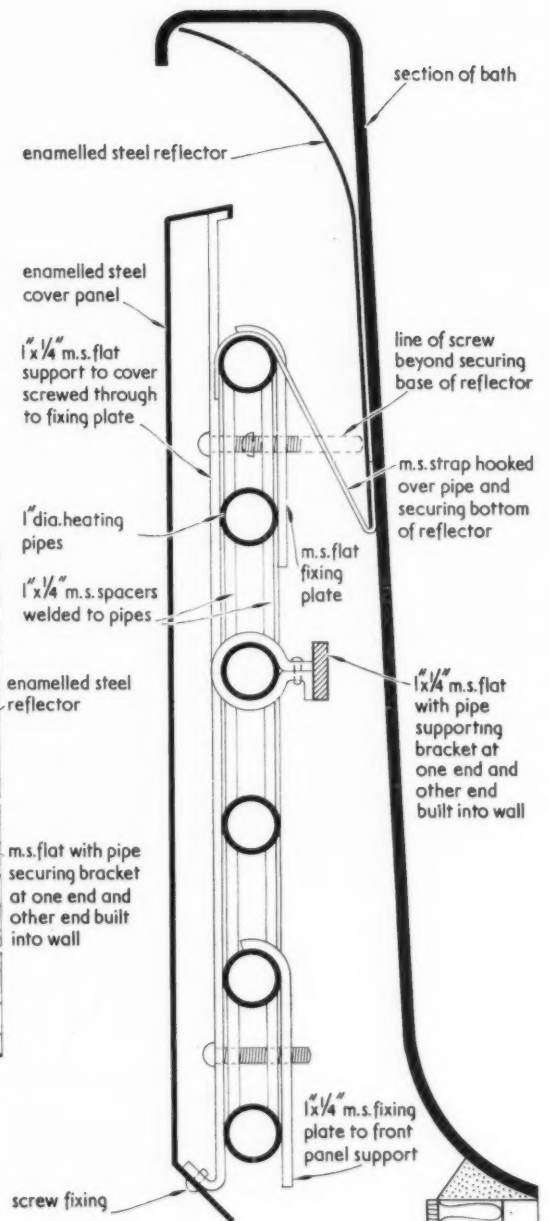


The case for placing a bathroom heating panel in this position is that, while heating the room, it also heats the bath and reduces heat loss from the water. Added to this, there is the consideration that some form of panel must be provided to the bath front in any case.

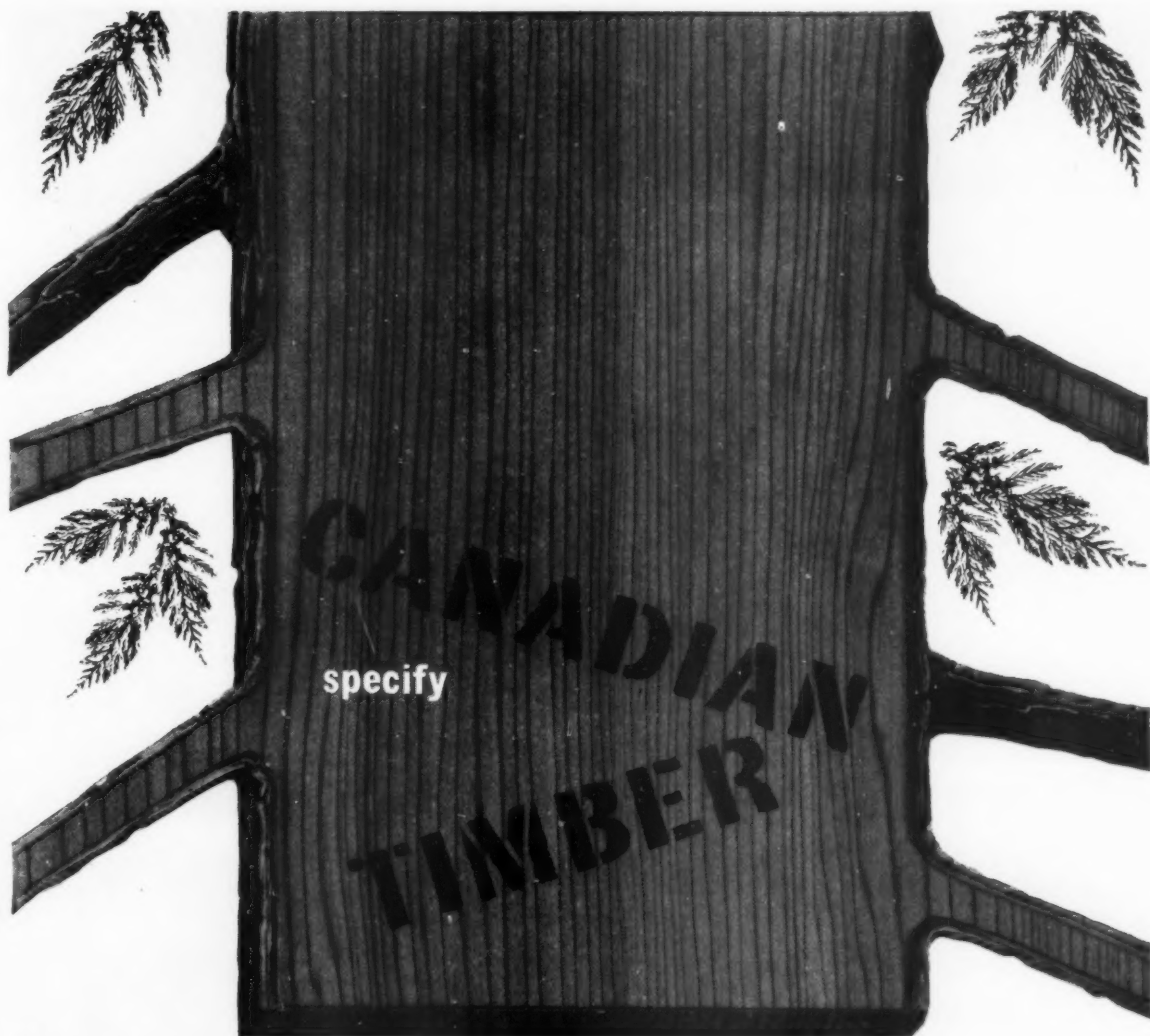
working detail

BATHROOM HEATING PANEL: FLATS IN GENEVA

Marc J. Saugey, architect (material supplied by Dariush Borbor)

ELEVATION. scale $\frac{3}{8}'' = 1'-0''$ PLAN. scale $\frac{3}{8}'' = 1'-0''$ ELEVATION OF PIPING. scale $\frac{1}{8}''$ full sizePLAN AT A-A. scale $\frac{1}{8}''$ full sizeSECTION. scale $\frac{3}{8}''$ full size

note: figured dimensions in feet and inches are approximate



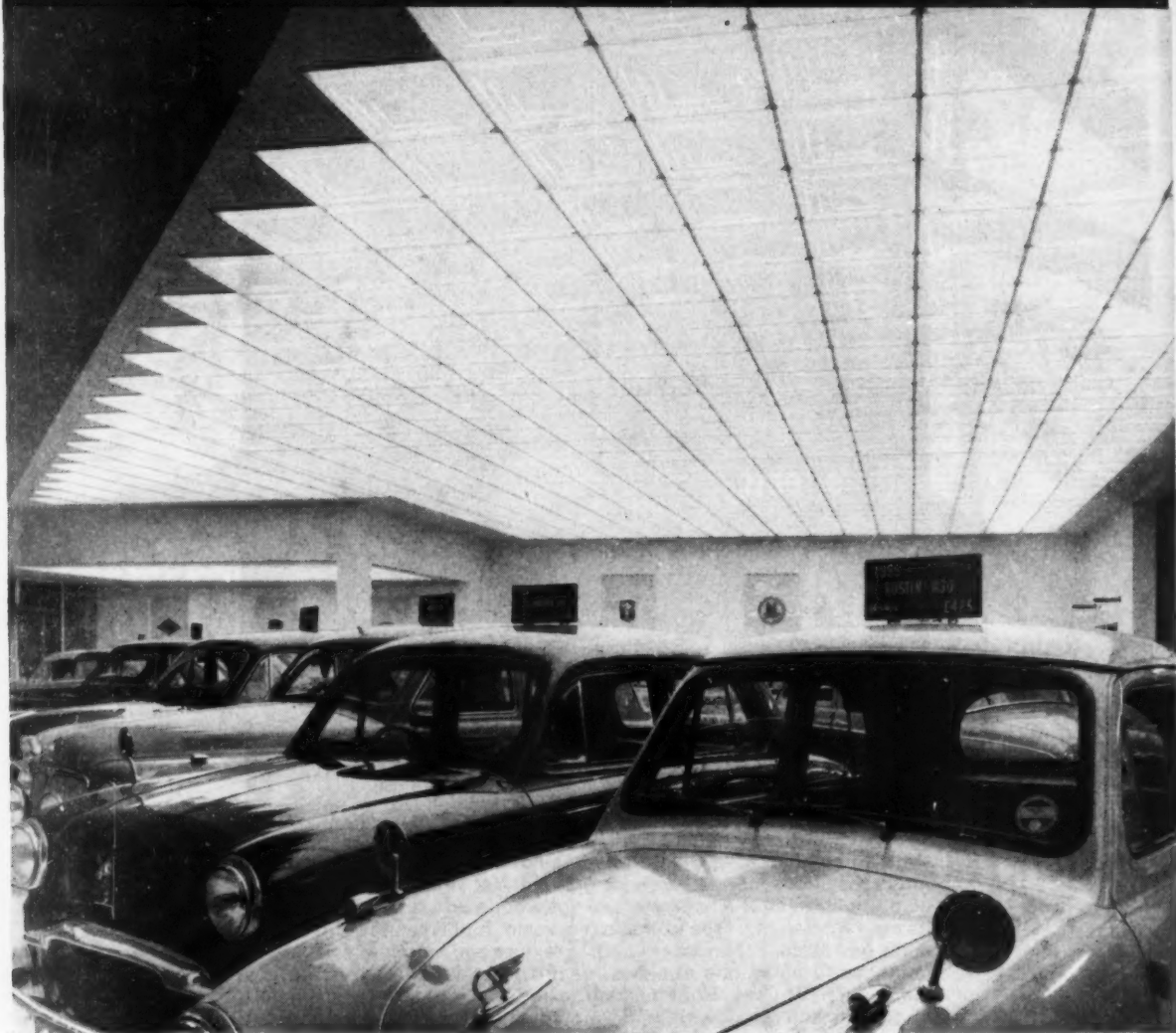
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West Coast woods
give shape
to an exciting
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The ceiling that lights



A Luminated Module installation in the showroom of Middlesex Motors, Stanmore. ARCHITECTS: Tubbs, Duncan & Osborn, A.R.I.B.A.

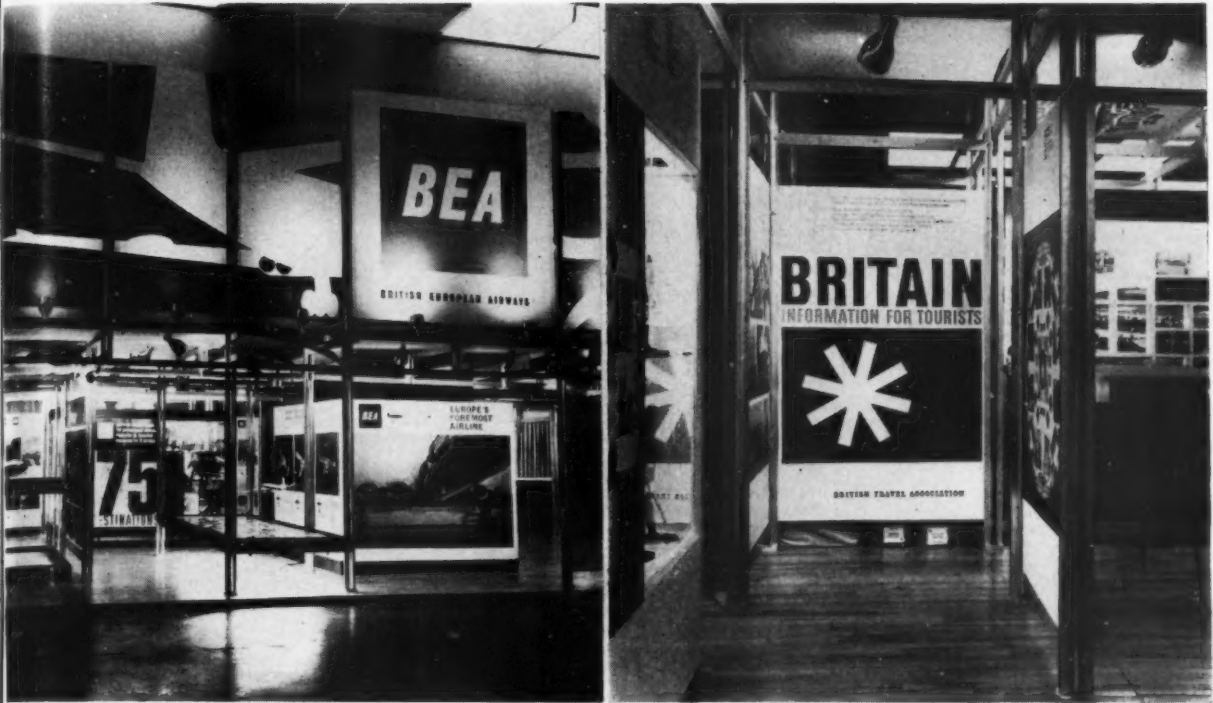
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(continued overleaf)



Photograph by courtesy of London Transport Executive.

"Winslot" Type 3 solid panel fencing, 12ft. high, erected at Cockfosters Train Depot as a windbreak. This quality fencing is made in various heights from 1ft. to 12ft.

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Experienced staff will survey your site and erect the fence



together to form a rigid framework. The whole stand was fabricated in New York, being one of the very few made there; erection took four to five days. Graphic work was done in this country and flown out. The stand was designed by Anthony Snow and Claus Seligmann, with graphic design by David Collins, for the Advertising Branch of BEA, who acted for the two air lines and the BTA.

CONSVLTING THE ORACLE



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At the vast Singer factory at Clydebank in Scotland, chain grate stokers feed a moving belt

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for Singer

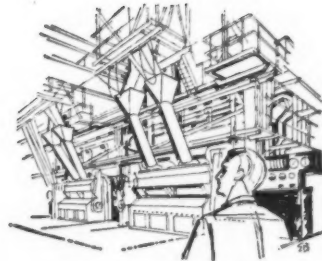
of heat under the 4 giant boilers in the impressive powerhouse. The fuel is coal—chosen by the directors for reasons of convenience, economy and reliability. The choice is a wise one, for coal, mechanically stoked, is smokeless, and produces more heat for the money than any other fuel. Furthermore, the coalfields of Britain can supply all the fuel our industries will need for scores of years to come.

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"At Singer we provide our own power and steam process requirements from coal.

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We at Singer choose coal because it meets all our fuel requirements."

**Here are some key facts and figures
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Method of firing:	chain grate stokers
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Continuous max. rating:	60,000 lbs. of steam per hour each
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Feed temperature:	185°F.
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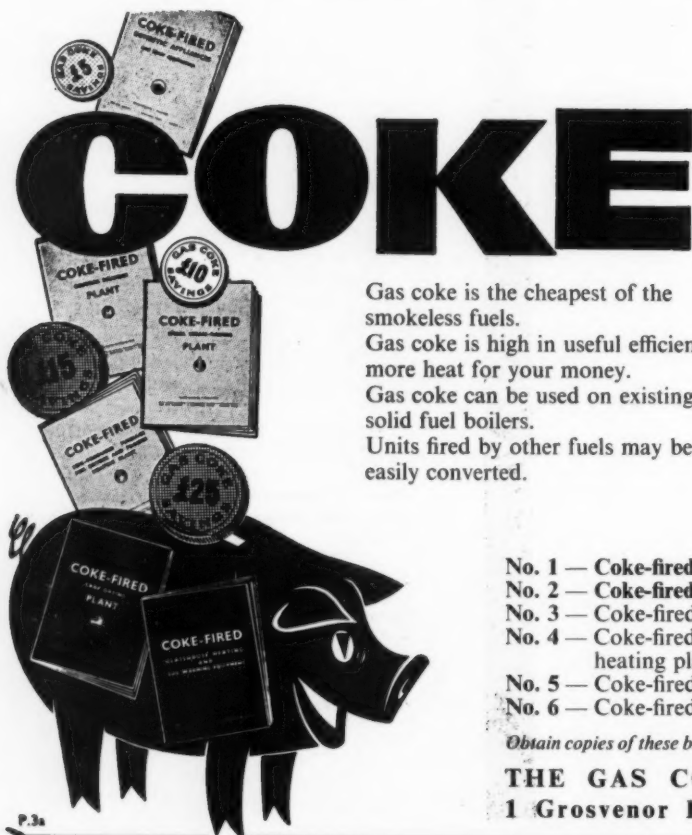
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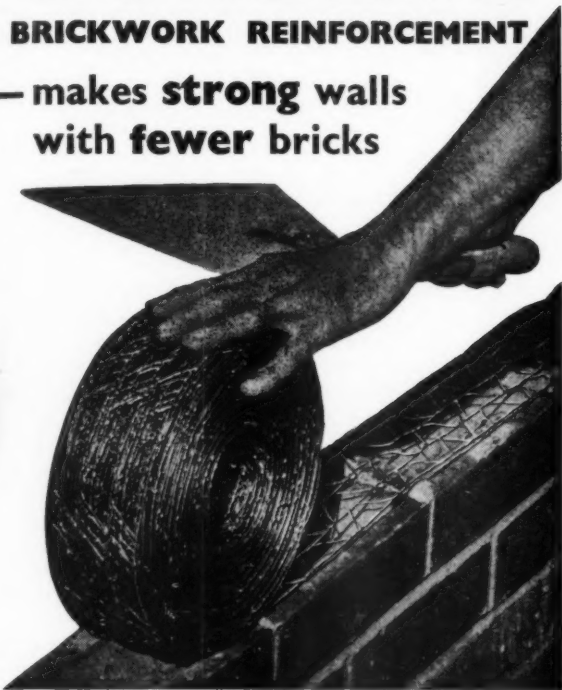
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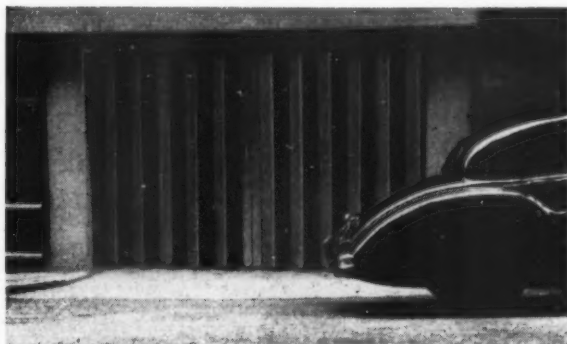
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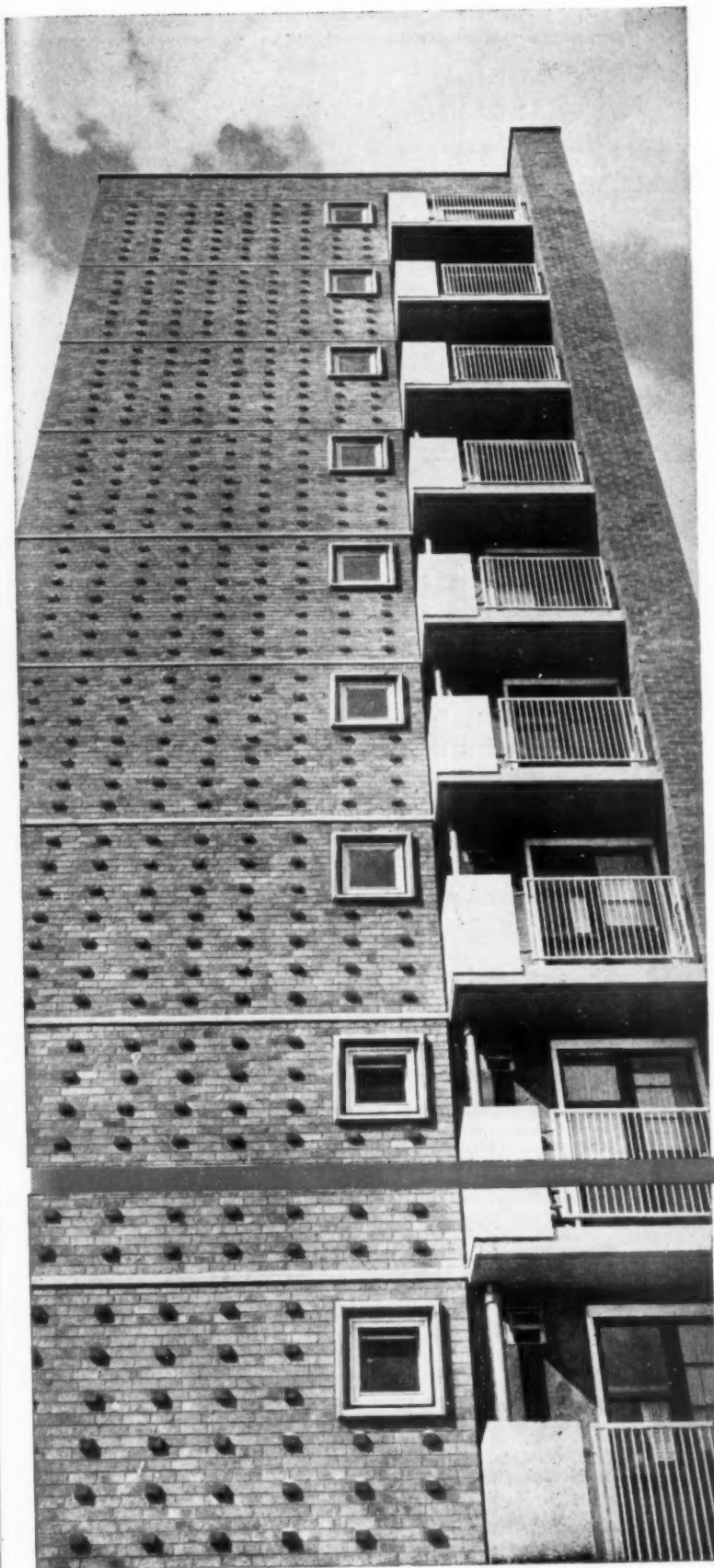
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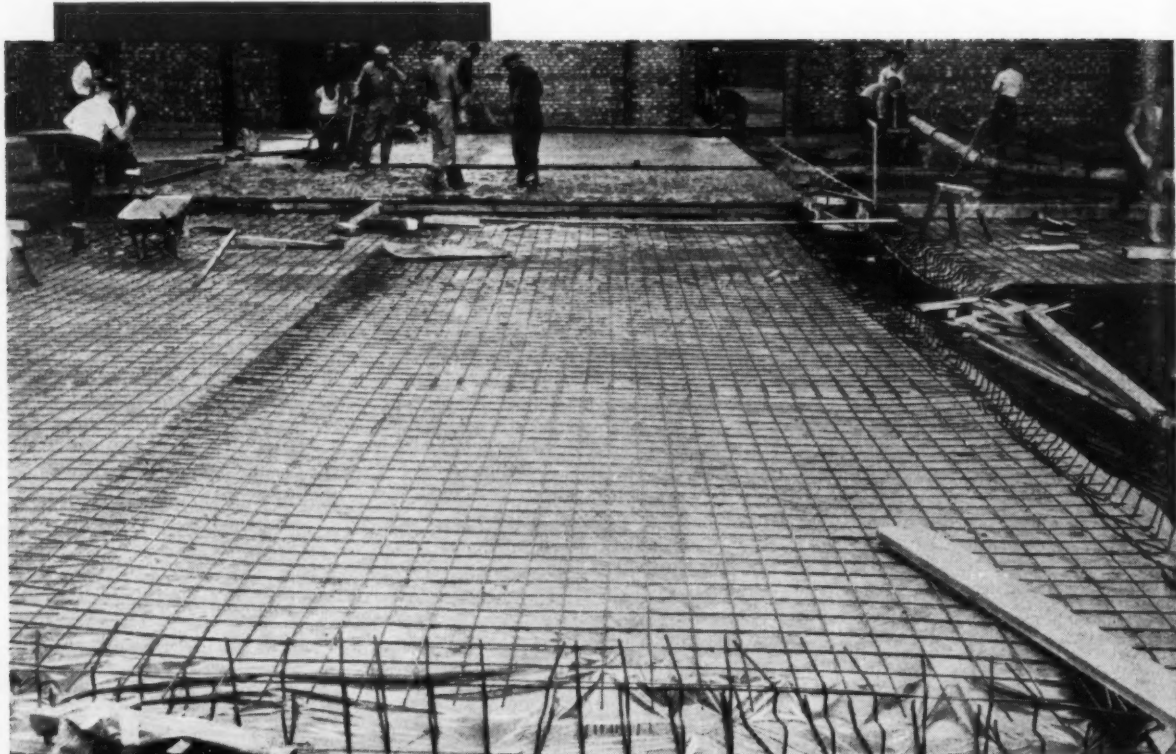


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A 'Visqueen' sheet is shown being used to lay the ground floor slab of the new Preston Road factory at Stevenage. Although 10 ft. by 16 ft. 'Visqueen' was used on this site, 7 ft. by 10 ft. sheets are available. F.R.I.E.A. & Partners, Consultants, Stevenage, Herts. (South Essex) Ltd.



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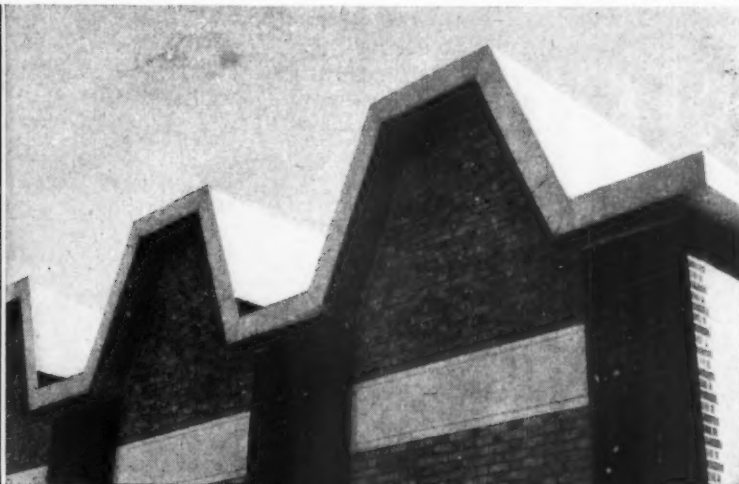
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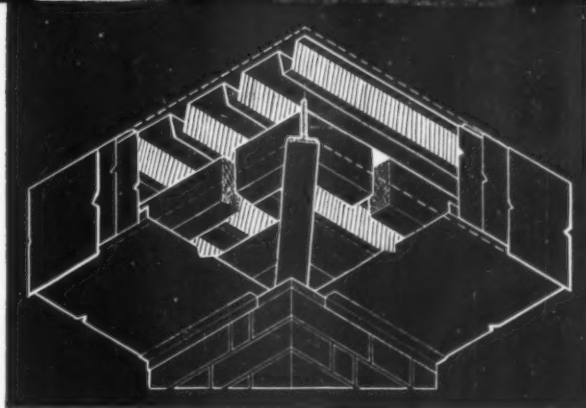
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- * This was achieved by the introduction of timber spacers below the oversailing roof deck units, to which the aluminium soffit was fixed, and the provision of an aluminium angle to bridge the gap between decking and soffit at the oversail line to waterproof the detail and to provide backing for the aluminium fascia.

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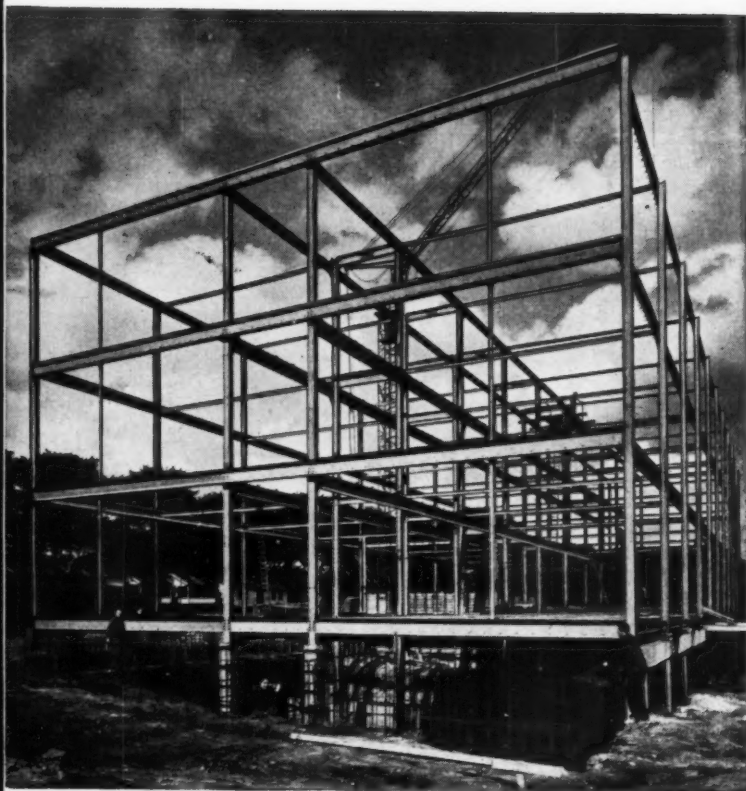
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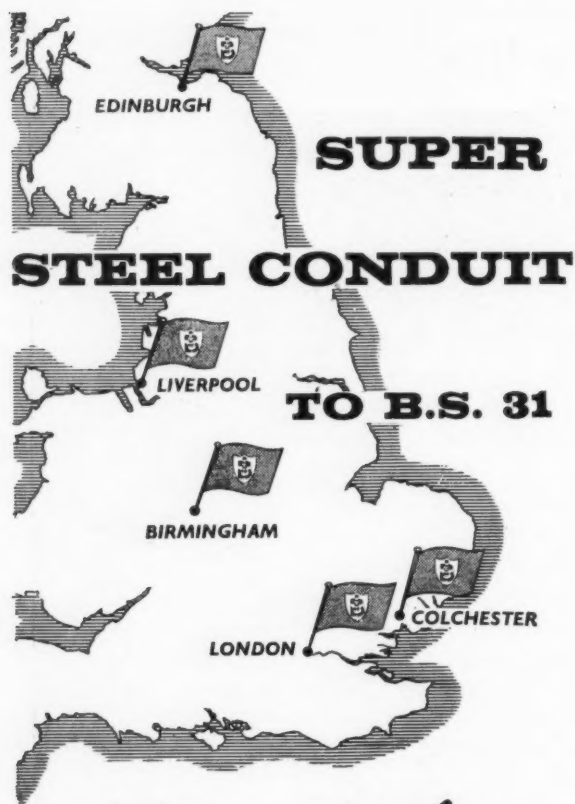
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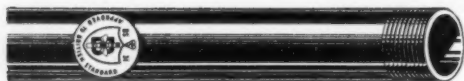
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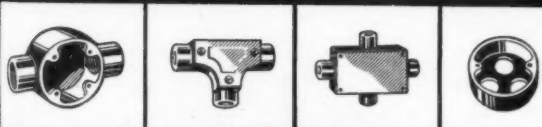
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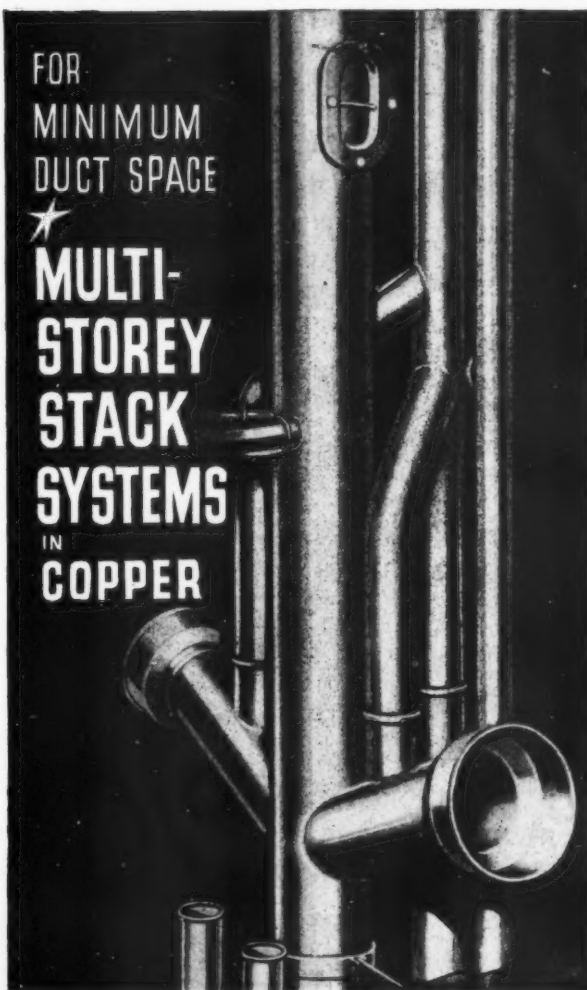
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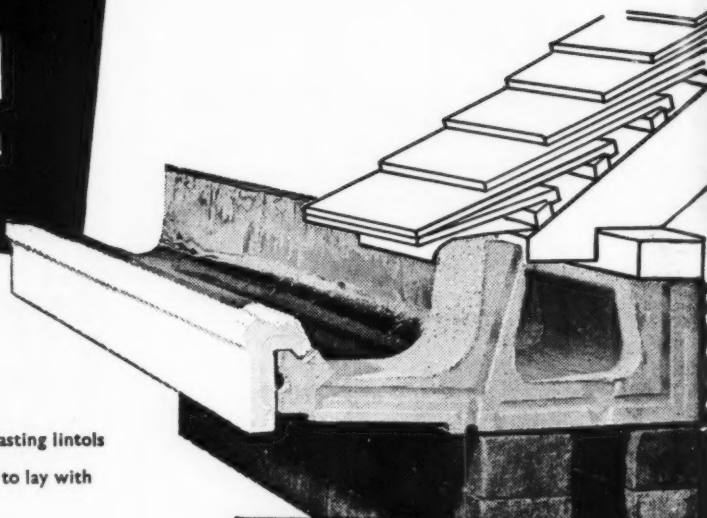
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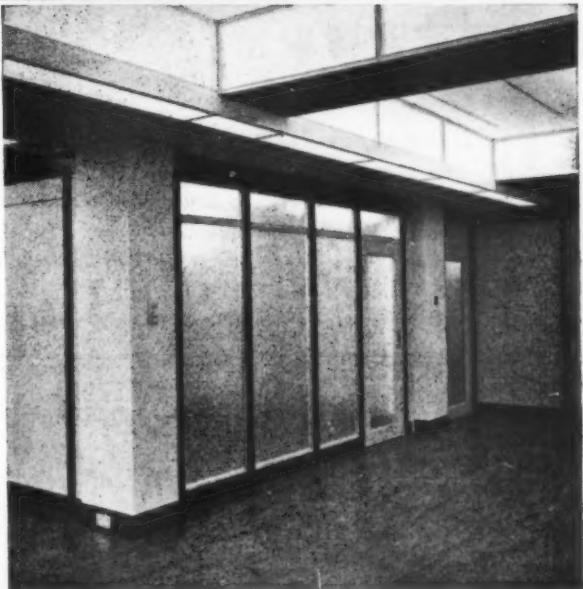
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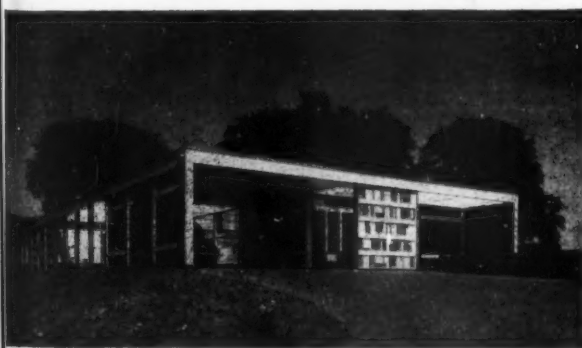
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by Jurgen Joedicke, translated by James Palmes

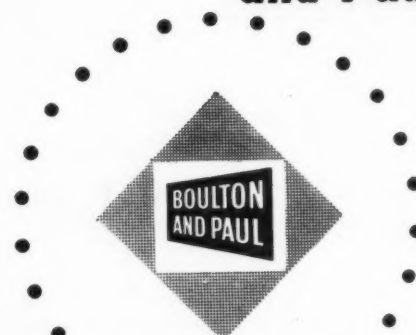
HITHERTO there has been no general history of the modern movement in architecture available in English. Professor Joedicke's book thus satisfies an important need, but it goes further than this—it is more comprehensive, yet more compact and better illustrated than any of the general histories of modern architecture available in other languages. His approach is straightforward and imposes no personal system on the material, accepting the classic distinction between the age of the Pioneers, and the age of the Masters, so that the contributions of famous architects can be found where one would expect to find them. In addition to the dominating personalities of the movement, Professor Joedicke, who teaches at the celebrated Technische Hochschule in Stuttgart, also gives a full account of the part played by new structural materials and new spatial concepts in the creation of the new architecture, and also surveys the contributions made by the leading architectural countries of Europe and the Americas. He thus covers the field from Joseph Paxton to Felix Candela in time, from Helsinki to Rio de Janeiro and Los Angeles in space.

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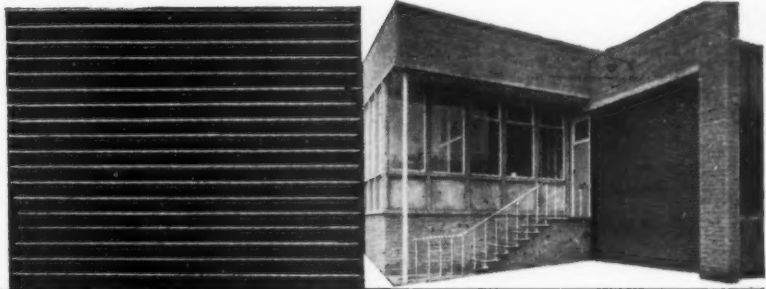
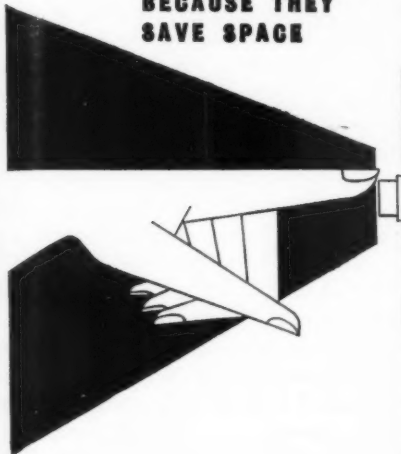
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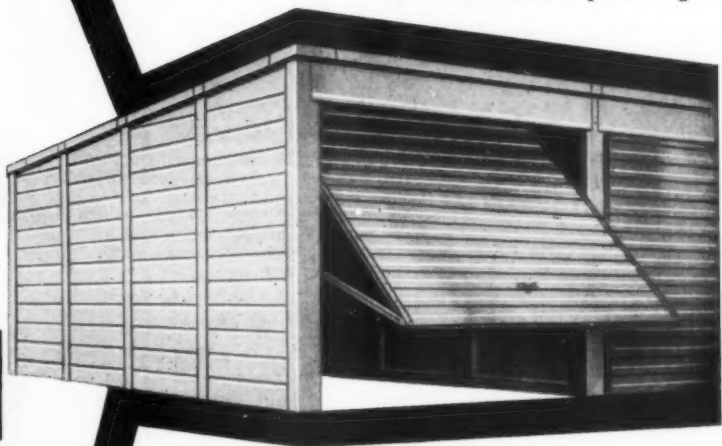
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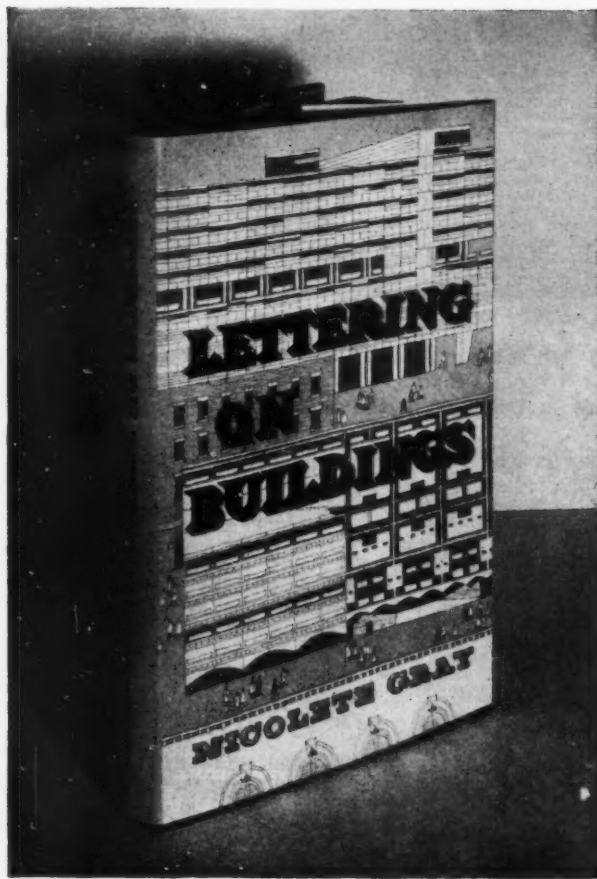


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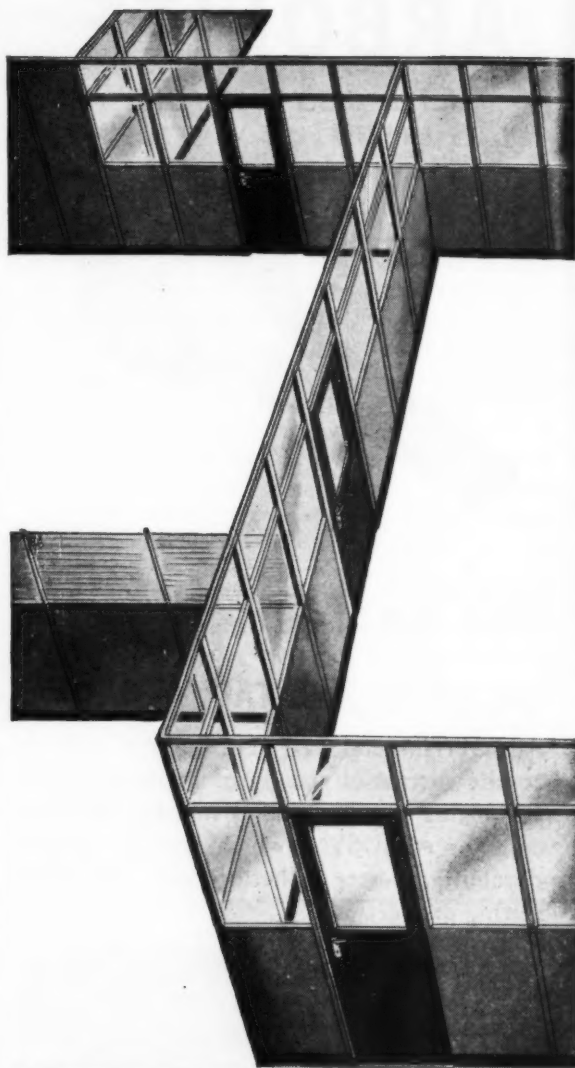
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A. G. JURY,
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1938

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1964

CUMBERLAND COUNTY COUNCIL
APPOINTMENT OF COUNTY ARCHITECT

Applications are invited for the appointment of County Architect for the Administrative County of Cumberland. Salary within the scale £2,780 (1 x £115); (2 x £110)—£3,115 p.a. Application forms, together with further details, may be obtained from the undersigned, to be returned not later than Thursday, 1st September, 1960.

G. N. C. SWIFT,
Clerk of the County Council.

The Courts,

Carlisle.

21st July, 1960.

2526

LONDON COUNTY COUNCIL
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Vacancies for ARCHITECT/PLANNERS. Tasks include three-dimensional planning in Comprehensive Development Areas and all other important areas of new development throughout London, including those associated with road improvements. Up to £1,250 according to experience and qualifications. Forms and particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/AJ/1790/8), County Hall, S.E.1.

2180

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2665

COUNTY BOROUGH OF SOUTH SHIELDS
ASSISTANT ARCHITECTS

Applications are invited for the above appointments in the Borough Engineer's Department. Applicants must be suitably qualified and the salary paid will be in accordance with Grade APT IV (£1,065—£1,220). Housing accommodation will be made available to successful applicants if necessary and they will be required to pass a medical examination for Superannuation purposes. Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m., Monday, 19th September, 1960.

R. S. YOUNG,
Town Clerk.

2682

CITY OF PORTSMOUTH
USE OF ROUND TOWER, ETC.

The Corporation invites schemes and offers for the use of the Round Tower and parts of the adjoining accommodation situated at Point Battery, Broad Street, Old Portsmouth. Closing date 31st October, 1960.

Certain restrictions will be imposed having regard to the historical character of existing buildings and fortifications; otherwise the developer is at liberty to submit such proposals as are considered to be in both public and/or private interests.

Further particulars and drawings may be obtained from the City Development Officer, Municipal Offices, 1, Western Parade, Southsea, Portsmouth.

V. BLANCHARD,

Town Clerk.

2536

BOROUGH OF RAWTENSTALL
APPOINTMENT OF ARCHITECTURAL
ASSISTANT

Applications are invited for the above-mentioned appointment on the permanent staff of the Borough Surveyor. The salary payable will be within the limits of the Special Grade (£785 to £1,070); the starting salary will be fixed according to experience.

Candidates should have passed the final examination of the A.R.I.B.A.

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

Housing accommodation will be provided if required.

Applications with relevant particulars including the names and addresses of two persons to whom reference may be made, should reach the undersigned not later than Friday, August 26th, 1960.

Canvassing will disqualify. Any relationship to members or senior officers of the Council must be disclosed.

(Signed) COLIN CAMPBELL,

Town Clerk

2563

Town Hall,
Rawtenstall,
Rossendale, Lancs.
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2506

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Salary Special Grade (range £785—£1,070 per annum).

Candidates should have passed the Final examination of the Institution of Civil or Municipal Engineers or of the R.I.B.A., as appropriate, and have had experience with a Municipal Authority.

Casual car allowance will be paid on the instructions of the Borough Surveyor and the Council will consider payment of removal expenses.

Housing accommodation provided if required. Forms of application and particulars of duties and works in hand obtainable from the Borough Surveyor, 31, Chester Street, Wrexham.

Applications to be returned to the undersigned by not later than 12 noon, 22nd August, 1960.

PHILIP J. WALTERS,

Town Clerk.

2517

Guildhall,
Wrexham.
July, 1960.

CITY OF PETERBOROUGH
ARCHITECTURAL ASSISTANT, Grade I A.P.T.

Housing accommodation provided. Details from and applications to City Engineer. Closing date: 26th August, 1960.

C. PETER CLARKE,

Town Clerk.

2618

Town Hall,
Peterborough.
July, 1960.

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KESTEVEN COUNTY COUNCIL
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ASSISTANT ARCHITECTS
Special Grade (£785—£1,070)

Full particulars of the above appointments may be obtained from the County Architect, County Offices, Sleaford, Lincs.

Applications from suitably qualified persons, with the names and addresses of two referees, should reach the undersigned not later than the 26th August, 1960.

J. E. BLOW,

Clerk of the County Council.

County Offices,
Sleaford, Lincs.

2533

BOROUGH OF COLCHESTER
BOROUGH ENGINEER'S DEPARTMENT
ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment at a salary in accordance with A.P.T. Grade I (£610—£765) per annum according to experience. Applicants must have a sound knowledge of building construction, able to prepare working drawings, make surveys and use a level. Preference will be given to those who, in addition, are studying for the R.I.B.A. examinations.

Applications endorsed "Architectural Assistant," stating age and full particulars of experience, etc., accompanied by the names of two referees, should be delivered to The Borough Engineer, 1, West Stockwell Street, Colchester, not later than Friday, the 19th August, 1960.

Canvassing will disqualify and applicants must state whether they are related to any member or senior officer of the Council.

N. CATCHPOLE,

Town Clerk.

Town Hall, Colchester.

5th August, 1960.

2591

BOROUGH OF WARWICK
APPOINTMENT OF CHIEF ASSISTANT
ARCHITECT

Applications are invited from Qualified Architects for the above appointment within the special grade £785—£1,070.

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2589

CITY AND COUNTY OF
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CITY ARCHITECT'S DEPARTMENT

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Further details of the posts and Forms of Application may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1. Applicants must state the Section of the Department and post applied for when requesting particulars.

Closing date for completed applications, Saturday, 3rd September, 1960.

JOHN ATKINSON,

Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.

29th July 1960.

2588

CITY AND COUNTY OF
NEWCASTLE UPON TYNEAPPOINTMENT OF CHIEF ASSISTANT
ARCHITECT (GENERAL)

Applications are invited for the appointment of Chief Assistant Architect (General) in the City Architect's Department at a salary in accordance with J.N.C. Scale E (£1,655 per annum, rising by annual increments to a maximum of £1,885 per annum).

Applicants must be Fellows or Associates of the Royal Institute of British Architects and should have received a sound architectural training, preferably at a recognised School of Architecture. The Officer appointed will be responsible, under the direction of the City Architect, for the control of all building work undertaken by the Department for all Committees of the Corporation other than Housing and Education.

Further details of the post and Forms of Application may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1.

Closing date for completed applications: Saturday, 3rd September, 1960.

JOHN ATKINSON,

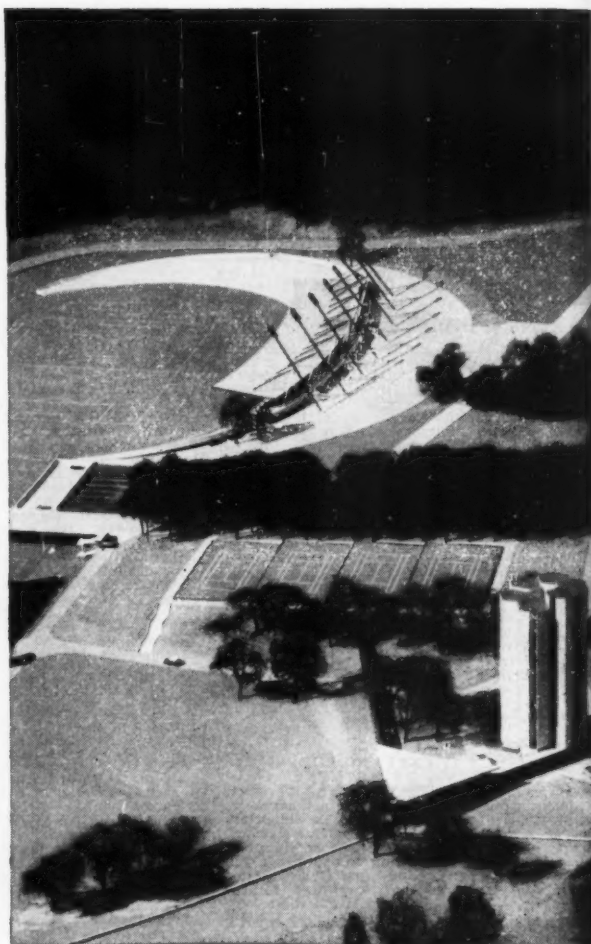
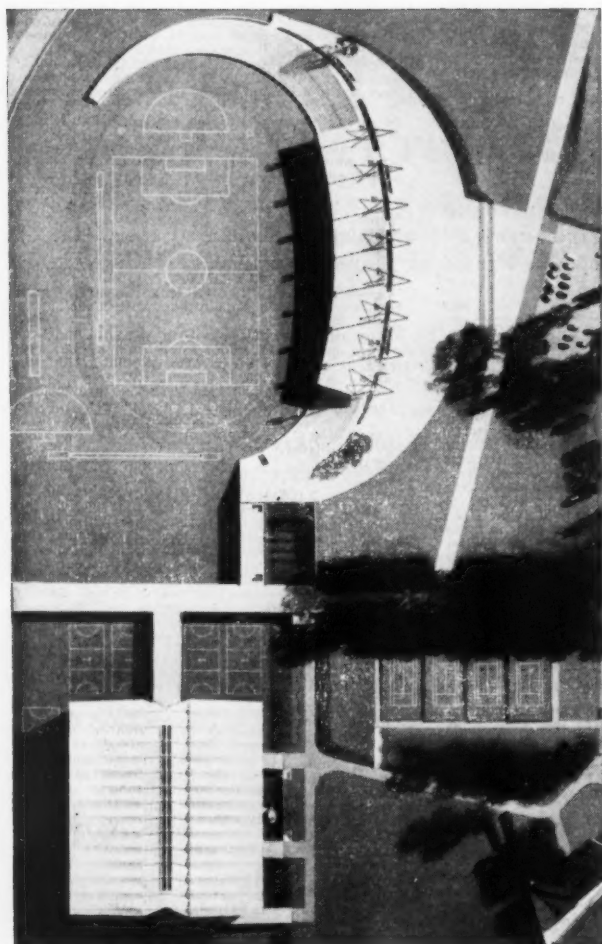
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.

28th July, 1960.

2587

NEW DIVISION AT COUNTY HALL



ARCHITECTS are wanted for the New Special Works Division to deal with Crystal Palace, South Bank Development, (including extension of Royal Festival Hall, small Concert Hall and gallery), and a variety of other new work. The programme is expected to last several years after which there will be opportunities to continue on other work in the Department. First-class Designers are wanted to match this challenging opportunity. **Grade II—£1,250 - £1,500, Grade III—£830 - £1,250, Architectural Assistants up to £950.** In addition to the major projects on the South Bank and at Crystal Palace, there are wide opportunities for young recently qualified architects on small individual buildings such as children's homes, approved schools, ambulance and fire stations. Starting points suitable to experience and qualifications. Application form and particulars obtainable from Hubert Bennett, F.R.I.B.A., Architect to the London County Council, the County Hall, S.E.1. quoting ref. EK/AJ/1397/8.

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BOROUGH OF WILLESDEN

Applications are invited for the following permanent appointments:—

- (a) ASSISTANT ARCHITECT within Grade A.P.T. IV (£1,065—£1,220 p.a.).
- (b) ASSISTANT ARCHITECT within Special Grade (£785—£1,070 p.a.).
- (c) ARCHITECTURAL ASSISTANT within Grade A.P.T. II (£765—£880 p.a.).
- (d) ARCHITECTURAL ASSISTANT within Grade A.P.T. I (£610—£765 p.a.).

London weighting is payable in addition to the above salaries.

Candidates for posts (a) and (b) must be associates of the R.I.B.A. and should have a high ability in design, capable of supervising contracts and experience of multi-storey flats.

For one post experience of redevelopment schemes will be an advantage.

Candidates for posts (c) and (d) should have passed the Intermediate Examination of the R.I.B.A.

A programme of interesting and varied works is expected to continue for many years and opportunities are offered to imaginative designers of any age with a contemporary and practical outlook.

The appointments will be superannuable and subject to the National Conditions of Service.

The Council is unable to assist with housing accommodation.

Forms of application and conditions of appointment may be obtained from the Borough Engineer, Surveyor, Town Hall, Dyne Road, Kilburn, N.W.6.

Applications to be returned to the undersigned not later than 10 a.m. on Thursday, 1st September, 1960.

R. S. FORSTER,

Town Clerk.

2586

ROYAL BURGH OF DUMFRIES

ARCHITECT'S DEPARTMENT

Applications are invited from qualified and experienced Architects for the post of CHIEF ASSISTANT ARCHITECT. Salary Grade, £970—£1,075. The tenancy of a Town Council house will be offered to the successful applicant.

Applications, stating age, experience, qualifications and present appointment, together with copies of two recent testimonials, to be lodged with the Burgh Architect, 32, George Street, Dumfries, on or before 29th August, 1960.

GEORGE D. GRANT,

Town Clerk.

2584

Municipal Chambers,

Dumfries.

29th July, 1960.

BRANDON AND BYSHOTTLES URBAN

DISTRICT COUNCIL

APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of an Architectural Assistant in the Architect's Department on the salary scale A.P.T. I (£610—£765).

The appointment will be subject to the National Scheme of Conditions of Service and Council Regulations. (Five-day week is in operation.) The month's notice is required on either side.

Forms of application can be obtained from the undersigned and should be returned not later than Monday, 29th August, 1960.

A. A. LUXMOORE,

Clerk of the Council.

Brownie House,

Brownie Colliery,

Durham.

2nd August, 1960.

2614

ADMIRALTY

TEMPORARY ASSISTANT ARCHITECTS

(Basic Grade)

Assistant Architects required in newly formed architects Branch of Navy Works Department of Admiralty at Headquarters (Pinner, Middlesex).

Duties embrace design of sleeping, messing and recreation buildings for single officers and men, houses, flats and housing estates, instructional buildings, office blocks, hospitals and industrial buildings. Assistant Architects at Headquarters work under control of main grade and/or Senior Architects and expected to lead group of Architectural Assistants. Qualifications: A.R.I.B.A. Must be British subjects with first class design ability and sound working knowledge of up-to-date forms of construction, material and costs. Scope for development and application of new ideas in design of Naval buildings. Posts in basic grade with salaries starting from £830 per annum (London rate) at age 25 to £1,125 per annum (London rate) at age 34 or over. Maximum of London rate is £1,300 p.a. Posts offered are non-pensionable with opportunities for establishment promotion to main grade (salary maximum £1,730 annual rate) and higher posts. Five-day week. Annual Leave allowance 22 days, rising to 25 days after 10 years' and 30 days after 20 years' service. Forms quoting reference J.275/OA from Ministry of Labour, Technical and Scientific Registrar (K), Almack House, 26, King Street, London, W.1.

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WILTSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

Wiltshire has a large and expanding building programme and it has been decided to recruit a new group who will deal with all types of County projects.

There is considerable scope for imaginative design and opportunity for acquiring experience in a progressive Office with good working conditions.

Applications are invited for the following posts:—

GROUP LEADER, Scale "B." £1,285—£1,485.

ASSISTANT ARCHITECT, A.P.T. IV, £1,065—£1,220.

ASSISTANT ARCHITECTS, A.P.T. III, £880—£1,065.

ARCHITECTURAL ASSISTANTS, Special, £785—£1,070.

ARCHITECTURAL ASSISTANTS, A.P.T. I and II, £610—£880.

ARCHITECTURAL DRAUGHTSMEN, Miscellaneous Division, £590—£650.

An applicant for the post of Group Leader must be an Associate of the Royal Institute of British Architects and have had at least five years' experience on major projects. Preference given to qualified Architects for the posts graded A.P.T. III and IV and to Assistants undertaking a course of study leading to qualification for the remaining posts. Day release may be considered in certain circumstances. Previous Local Government experience is not essential.

The appointments are subject to medical examination, the National Scheme of Conditions of Service and the provisions of the Local Government Superannuation Acts 1937-53, and determinable by one month's notice in writing on either side. Alternative Saturday mornings are free and canteen facilities available.

Applications should be submitted on forms to be obtained from the County Architect. Completed forms, accompanied with the names and addresses of three referees, should be returned to the Clerk of the County Council, County Hall, Trowbridge, within 14 days after the appearance of this advertisement.

2554

KENT COUNTY COUNCIL

ARCHITECTS are required in the office of the County Architect to assist with the Council's expanding building programme which includes schools, colleges, residential homes and other public buildings. The salary range extends to £1,375 a year, the starting grade and salary depending on qualifications, ability and experience. Application forms and further details from the County Architect, Springfield, Maidstone.

Closing date 30th August, 1960.

2679

BOROUGH OF WORTHING

APPOINTMENT OF SENIOR ASSISTANT ARCHITECT

Applications are invited for the appointment of an Assistant Architect in the Borough Engineer's Department on the Special Grade of salaries, i.e. £785—£1,070, commencing salary according to experience.

Candidates must have passed the Final Examination of the R.I.B.A. or its equivalent at a recognised school of architecture, and must have had at least five years' experience including the period spent on theoretical training.

The appointment will be subject to the National Scheme of Conditions of Service of Local Government Officers, to the provisions of the Local Government Superannuation Acts, and to the successful candidate passing satisfactorily a medical examination. The appointment will be terminable by one month's notice on either side.

Applications, stating age, qualifications, experience, present and past appointments, with dates, and accompanied by copies of two recent testimonials, should be submitted to the Borough Engineer & Surveyor, Town Hall, Worthing, not later than the 29th August, 1960.

ERNEST G. TOWNSEND,

Town Clerk.

2686

BOROUGH OF MAIDSTONE

(a) CHIEF ASSISTANT ARCHITECT—

A.P.T. IV — £1,120—£1,220.

(b) ASSISTANT ARCHITECT—

A.P.T. II-III—£765—£1,065.

The person appointed for (a) will be mainly responsible for housing and flat construction under the Principal Architect, and will have an Essential User's car allowance. Consideration will be given to the provision of HOUSING ACCOMMODATION if required.

The appointments will be subject to the Local Government Superannuation Acts and to the National Joint Council's Scheme of Conditions of Service.

Application forms obtainable from the Borough Engineer, Palace Avenue, Maidstone, to whom they should be returned not later than August 25th.

T. SCHOLERS,

Town Clerk.

2487

COUNTY BOROUGH OF SOUTHEND-ON-SEA

BOROUGH ARCHITECT'S DEPARTMENT

A house will be available and removal expenses paid to Assistant Architects with initiative and enthusiasm to be appointed according to experience within grades A.P.T. III to V (£880—£1,375).

Applications with usual particulars and the names of referees, should be sent to the Borough Architect, 30, Alexandra Street, Southend-on-Sea, by Monday, 29th August, 1960.

ARCHIBALD GLEN, Town Clerk.

2676

ABERCARN URBAN DISTRICT COUNCIL

ENGINEERING ASSISTANT

Applications are invited for the permanent position of Engineering Assistant in the Council's Surveyor's Department from persons having had Architectural experience. Salary will be within the range of the Special Grade (£785 to £1,070) or of A.P.T. IV (£1,065 to £1,220) dependent upon qualifications and experience.

The successful applicant will be required to live within the Council's Area and housing accommodation will be available if required.

The appointment will be subject to (1) the National Scheme of Conditions of Service (2) the provisions of the Local Government Superannuation Acts (3) the passing of a medical examination and (4) termination by one month's notice on either side.

Applications, giving age, qualifications, if any, present appointment and experience, together with the names of two referees, must reach the Undersigned not later than 12 noon on Monday, 29th August, 1960.

N. C. BIZLEY,

Clerk of the Council.

Council Offices,

ABERCARN, Mon.

5th August, 1960.

2684

COUNTY BOROUGH OF SOUTHAMPTON

Applications are invited for the following appointments:—

(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. V (£1,220/£1,375), for duties in connection with an extensive and varied programme of housing development including multi-storey flats. Applicants must hold the qualification A.R.I.B.A. with wide experience in the design and administration of major building works.

(b) ASSISTANT ARCHITECT, Grade A.P.T. III/IV (£880/£1,220), for duties in connection with housing estate development. Applicants must have passed Parts I and II of the R.I.B.A. final examination. Commencing salary according to experience and qualifications.

The appointments are subject to N.J.C. conditions of service.

Housing accommodation available in approved cases and approved removal expenses reimbursable up to a maximum of £50.

Apply on application forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, returnable by Monday, 29th August, 1960.

2662

BOROUGH OF CHATHAM

Applications are invited for:—

(a) JUNIOR ENGINEERING ASSISTANT (within A.P.T. II £765—£880).

(b) ARCHITECTURAL DRAUGHTSMAN (within General Division £210—£595, or Grade A.P.T. I £610—£765), according to age and experience.

Applicants for (a) should have been trained in a Municipal Engineer's office, and housing accommodation will be made available in an appropriate case.

Applications with copies of two testimonials, or the names and addresses of two referees, should be delivered to the Borough Engineer and Surveyor, Town Hall, Chatham, not later than Saturday, 27th August, 1960.

The appointment will be:—

(a) in accordance with the National Scheme of Conditions of Service.

(b) terminable by one month's notice on either side.

(c) superannuable, subject to satisfactory medical report.

In accordance with their usual practice the Council will require the successful candidate to give an undertaking to remain in the Council's service for two years.

ROWLAND NEWNES,

Town Clerk.

Town Hall,

CHATHAM.

11th August, 1960.

2663

AIR MINISTRY Works Design Branch requires

in LONDON and PROVINCES ARCHITECTURAL ASSISTANTS with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 days paid leave per year initially. Overseas tours for which special allowances granted. Salary in LONDON ranges from £680 (age 25) to £900 p.a. for men; from £673 to £868 p.a. for women; somewhat lower in PROVINCES. Commencing salary dependent on age, quals. and exp. Applicant, who must be natural born British subjects, should write to AIR MINISTRY, W.G.A., Lacon House, Theobald's Road, London, W.C.1, or apply to any Employment Exchange quoting Kings Cross 891 giving age, details of training, quals., full particulars of former posts held and copies of any testimonials. Candidates selected will normally be interviewed in London and certain expenses reimbursed. 1988

ARCHITECT required by the National Coal Board in Edinburgh. Salary within the scale of £815 to £1,125 per annum. Applicants must be Associate Members of R.I.B.A. (or if not yet qualified, may be appointed in the first place as Architectural Assistants in a salary scale of £595 to £850). Applications stating age, education, qualifications, experience, present post and salary, to Staff Department, National Coal Board, 3, Eglinton Crescent, Edinburgh 12.

2610

**CITY OF LEEDS
CITY ARCHITECT'S DEPARTMENT**

Applications are invited from persons holding appropriate professional qualifications for the following permanent posts:—

- (a) ASSISTANT CITY ARCHITECT (HOUSING).
- (b) ASSISTANT CITY ARCHITECT (EDUCATION AND GENERAL).

Salary Scale £1,790—£2,985 per annum, Grade F.

The Assistant City Architect (Housing) will be responsible for large house building programmes and should have had a wide experience of all forms of housing layout, comprehensive developments and multi-storey flats.

The Assistant City Architect (Education & General) will be responsible for major educational building projects and large public buildings, e.g. multi-storey college, municipal office block, abattoir, swimming baths, etc.

Both posts carry great responsibilities and offer worthwhile opportunities to those who are keenly interested in design and the planning and organisation of extensive municipal building schemes.

Further details and application forms may be obtained from the undersigned.

Applications are also invited for the following permanent posts in (a) Housing and (b) Education & General sections of the department.

- Post No. 1. PRINCIPAL ARCHITECTS, Grade C, Salary Scale £1,385—£1,620.
2. ASSISTANT PRINCIPAL ARCHITECTS, B, £1,320—£1,485.
3. SENIOR ASSISTANT ARCHITECTS, A.P.T. V, £1,220—£1,375.
4. SENIOR ASSISTANT ARCHITECTS, A.P.T. IV, £1,065—£1,220.
5. ASSISTANT ARCHITECTS, A.P.T. III, £880—£1,065.
6. ARCHITECTURAL ASSISTANTS, A.P.T. II, £765—£880.

Applicants for the senior posts must hold appropriate professional qualifications and should have had a wide experience in either housing, education or other types of large public building work and will be required to design and work on these projects to completion. Applicants will be considered on their capability for design, experience, contemporary outlook and suitability.

The appointments are supernumerary—medical examination.

Application forms obtainable from the undersigned, are to be returned by 12 noon on Monday, 5th September, 1960.

Canvassing disqualifies.

J. R. SHERIDAN-SHEDDEN,
City Architect.

Priestley House,
Quarry Hill,
Leeds, 9. 2695

**CITY OF LEEDS
CITY ARCHITECT'S DEPARTMENT
QUANTITY SURVEYING STAFF**

A number of vacancies occur in the Quantity Surveying Section which deals with the preparation of bills of quantities and other work in connection with the large building programmes of the department. These programmes include schools, housing with multi-storey flats, hotels and other interesting projects and the posts offer opportunities to work as part of a team in a progressive office.

- Post No. 1. SENIOR ASSISTANT QUANTITY SURVEYOR, Grade B, Salary scale £1,320—£1,485. Applicants should have wide experience in the preparation of bills of quantities for major works including schools.

2. SENIOR ASSISTANT QUANTITY SURVEYOR, A, £1,310—£1,420. Applicants should have considerable experience in taking off and preference will be given to those with experience in cost analysis and cost planning.

3. SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. V, £1,220—£1,375. Applicants should have considerable experience in taking off, in the measurement of work in progress and the settlement of final accounts for major schemes.

4. SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. IV, £1,065—£1,220.

5. SENIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. III, £880—£1,065.

6. SENIOR WORKER-UP, A.P.T. III, £880—£1,065. It is essential that applicants for this post should have the ability to write a good bill for major schemes and should have wide experience of this type of work in a professional office.

Applicants for posts Nos. 1, 2 and 3 should hold appropriate professional qualifications and applicants for posts Nos. 4 and 5 should have reached the appropriate standard of qualification and preference will be given to those qualifying for the Quantities sub-division of the R.I.C.S.

The appointments are supernumerary—medical examination.

Further details and application forms may be obtained from the undersigned and applications are to be returned by 12 noon on Monday, 5th September, 1960.

Canvassing disqualifies.

J. R. SHERIDAN-SHEDDEN,
City Architect.

Priestley House,
Quarry Hill,
Leeds, 9. 2696

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

Applications are invited for the following appointments within the scope of the grades stated:—

- (a) PRINCIPAL ASSISTANT ARCHITECT (Housing and General Section), A.P.T. Grade V (£1,220—£1,375 p.a.). Applicants should be A.R.I.B.A.

- (b) QUANTITY SURVEYING ASSISTANT, A.P.T. Grade I (£610—£765 p.a.).

Housing accommodation may be made available if required. The appointments will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Acts.

Applications stating age, education, qualifications, full particulars of training and experience, together with copies of two recent testimonials, should be sent to the undersigned not later than Monday, 29th August, 1960, in envelopes endorsed "Appointment of"

A. NORMAN JAMES,
Town Clerk.

Town Hall, Dewsbury.
27th July, 1960. 2604

**CITY OF ROCHESTER
ARCHITECTURAL ASSISTANT, Grade A.P.T. I**

Applications are invited for the above appointment in the City Surveyor's Department.

Minimum qualification: Intermediate R.I.B.A. or equivalent standard. Commencing salary according to qualifications and experience.

Housing accommodation available if required.

Approved removal expenses paid after one year in appointment.

Applications, stating age, training, qualifications, present and previous appointments and experience, together with the names and addresses of two persons to whom reference may be made, should be delivered to J. A. Peel, A.M.I.C.E., M.I.Mun.E., City Surveyor, 66, Maidstone Road, Rochester, not later than Tuesday, 30th August, 1960.

PHILIP H. BARTLETT,
Town Clerk.

Guildhall,
Rochester.
27th July, 1960. 2603

**COUNTY BOROUGH OF TYNEMOUTH
BOROUGH SURVEYOR'S DEPARTMENT**

Applications are invited for the following posts:

1. JUNIOR ASSISTANT ENGINEER, A.P.T. I, £610—£765.

2. JUNIOR ASSISTANT ARCHITECT, A.P.T. I, £610—£765.

3. JUNIOR Q.S. ASSISTANT, A.P.T. I, £610—£765.

The scale commencing at £610, rising by four increments of £30 and one of £35, and the successful applicants will be placed on the point appropriate to their experience.

Application forms, together with Conditions of Appointment, can be obtained from D. M. O'Herrily Esq., O.B.E., B.Sc., M.I.C.E., Borough Surveyor, 16, Northumberland Square, North Shields, to whom they should be returned by the 31st August, 1960.

FRED. G. EGNER,
Town Clerk.

2601

**COUNTY BOROUGH OF ROTHERHAM
ARCHITECTS**

Applications are invited for ARCHITECTURAL ASSISTANTS, A.P.T. I (£610—£765) to Special Grade (£785—£1,070).

The department has a varied and interesting programme of architectural work and candidates are required to have passed Parts I and II of the R.I.B.A. Final examination. The commencing salary in the grades will be according to capabilities and experience.

Applications to be endorsed "Architects," stating age, qualifications and details of experience, together with names of two referees should be received by me not later than Friday, 26th August, 1960.

Canvassing will disqualify.

JOHN S. WALL,
Town Clerk.

Municipal Offices,
Rotherham.
28th July, 1960. 2599

**NORTHAMPTON RURAL DISTRICT COUNCIL
ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment. Salary in accordance with Grade A.P.T. Division scale, £610 x £30 (4) x £35 to a maximum of £765 per annum.

Applicants should have passed the R.I.B.A. Intermediate examination or its equivalent and have had a sound general experience.

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

Applications, in candidates' own handwriting, stating age, endorsed "Architectural Assistant" with personal details and details of experience and qualifications, together with names of two referees, to be sent to the undersigned by Saturday, the 20th August, 1960.

Canvassing, directly or indirectly, will be a disqualification.

CLIFFORD E. JONES,
Clerk of the Council.

Council Offices,
1, Cheyne Walk,
Northampton.
29th July, 1960. 2619

**WARWICKSHIRE COUNTY COUNCIL
ARCHITECT'S DEPARTMENT**

- (a) DEPUTY GROUP ARCHITECTS (TWO), Grade A.P.T. IV-V (£1,065—£1,375).

Applications are invited from qualified and experienced architects for these posts, which are for the groups handling projects for the Council's education building programme.

In each case the post is one of responsibility requiring a high degree of initiative and design ability in up-to-date forms of construction, use of materials, control of costs, job planning and organisation.

The successful applicant will also be expected to deputise generally for the group architect.

- (b) ARCHITECTS, SPECIAL GRADE (£785—£1,070).

Applications are invited from architects who have passed Part I and II of the R.I.B.A. Final or Special examination or their equivalent at one of the recognised schools of architecture. The successful applicants will work in groups on large projects, and an opportunity will be given to men with enthusiasm and ability to design and carry out projects under a group architect.

- (c) ARCHITECTURAL ASSISTANTS, Grade A.P.T. II (£765—£880).

Vacancies exist for Assistants who are up to Intermediate R.I.B.A. standard and who require experience in a variety of interesting projects.

The commencing salary can be within the grade according to ability and experience. Five-day week worked. The Council have schemes for the payment of removal expenses and a lodging allowance to married officers. Application forms and full conditions applicable to the appointments can be obtained from Eric Davies, F.R.I.B.A., A.M.T.P.I., County Architect, Shire Hall, Warwick.

L. EDGAR STEPHENS,
Clerk of the Council.

Shire Hall,
Warwick.
July, 1960. 2597

ARCHITECTURAL ASSISTANT

required by UGANDA GOVERNMENT P.W.D. on contract for one tour of 36-36 months in the first instance. Salary according to age and experience in scale (including Inducement Pay), £1,014 rising to £1,422 a year. Gratuity at rate of 13½ per cent. of total substantive salary drawn. Outfit allowance £30. Free passages. Liberal leave on full salary. Candidates, under 35, must have passed Intermediate R.I.B.A. and have had good architectural experience. Experience in tropical building problems an advantage.

Write to the CROWN AGENTS, 4, Millbank, London, S.W.1. State age, name in block letters, qualifications and experience and quote M2B/50878/AG. 2596

**NORTH THAMES GAS BOARD
AN ARCHITECTURAL DESIGNER (Male or Female)**

is required for work in connection with the design of new showrooms and the remodelling of existing showrooms and shopfitting, furniture, etc. Candidates should be capable of carrying out sketch designs, working and detail drawings with the minimum of supervision.

Preference will be given to candidates who have completed part or whole of the qualifications for A.R.I.B.A.

The appointment will be permanent and pensionable and the starting salary for a male will be £915 per annum or above according to qualifications and experience.

Applications, stating age and giving full details of experience, should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, W.8, quoting reference AJ/873, 2595

SOUTH AUSTRALIAN GOVERNMENT

Applications are invited for appointments in the following professions in the Government Service of South Australia:—

- ARCHITECTS, Salary ranges £A1,170—£A1,920.
- ARCHITECTURAL ASSISTANTS, £A1,340—£A1,525.

Commencing salaries within these ranges according to qualifications and experience.

First class passages provided for selected applicants and families.

Good leave conditions (Recreation, Sick and Long Service). Superannuation Fund available. Houses on a rental basis provided.

Full information from:

Agent General for South Australia,
50, Strand,
London, W.C.2.
WHITEHALL 7471. 2605

**BOROUGH OF KING'S LYNN
APPOINTMENT OF ASSISTANT QUANTITY SURVEYOR**

Applications are invited for the above appointment. Salary within Grades A.P.T. II-III (£765—£1,065). Housing accommodation provided. Removal expenses paid.

Further particulars may be obtained from G. Holmes, A.R.I.B.A., Housing Architect, Clifton House, Queen Street, King's Lynn.

Closing date, 30th August, 1960.

E. W. GOSCHER,
Town Clerk.

Town Hall,
King's Lynn,
Norfolk. 2606

**DEPARTMENT OF MUNICIPAL AFFAIRS
AND SUPPLY**
PROVINCE OF NEWFOUNDLAND, CANADA

**Appointment of
SENIOR PLANNING ASSISTANT**

Applications are invited from suitably qualified and experienced persons for the above appointment in the Provincial Planning Division of the Department of Municipal Affairs and Supply in St. John's. The appointment will be contractual for a period of two years and subject to satisfactory service will be established at the end of that time. Salary will be within the salary scale \$5,390 x \$100—\$5,830.

Duties will include the preparation of Municipal and Regional Plans including detailed designs for communities and districts throughout the Province, and the control of development in accordance with various Provincial regulations.

The office is situated in St. John's but some travelling within the Province will be required.

Candidates must have appropriate professional qualifications in Town Planning together with considerable practical post graduate experience. Experience in public relations and ability to address meetings of different types is very necessary.

Conditions of service, full details of which are available on request, provide free passage of applicant and family to St. John's.

Applications giving full details of candidate's age, education, professional qualifications, appointments held, professional experience, together with the names of two referees should be sent to J. T. Allison, Director of Urban and Rural Planning, Department of Municipal Affairs and Supply, Confederation Building, St. John's, Newfoundland. Applications should be postmarked not later than 31st August, 1960.

C. W. POWELL,
Deputy Minister of Municipal Affairs. 2651

**BOROUGH OF BILSTON
HOUSING DIRECTOR'S DEPARTMENT**

Applications are invited for the positions of:—

- (a) **DEPUTY HOUSING DIRECTOR** (£1,192—£1,391).
(b) **CHIEF ARCHITECTURAL ASSISTANT—Grade IV** (£1,065—£1,220).
(c) **ARCHITECTURAL ASSISTANT, Grade III** (£880—£1,065).

Applicants for posts (a) and (b) must be qualified members of the R.I.B.A. and should have had experience in Municipal Housing.

The appointments will be subject to the National Scheme of Conditions of Service, medical examination and the Local Government Superannuation Acts 1937 and 1953.

Housing accommodation will be made available if desired.

Applications in writing, stating post applied for, giving age, qualifications and previous experience together with the names and addresses of two referees should be sent to the Housing Director, Municipal Buildings, Hall Street, Bilston, not later than Saturday, 27th August.

A. M. WILLIAMS,
Town Clerk. 2649
3rd August, 1960.

**HUYTON-WITH-ROBY URBAN DISTRICT
COUNCIL
ARCHITECTURAL AND HOUSING
DEPARTMENT**

Applications are invited for posts in the above Department as follows:—

- (a) **SENIOR ASSISTANT ARCHITECT, Grade A.P.T. IV** (£1,065—£1,220).
(b) **ARCHITECTURAL ASSISTANT, Grade A.P.T. II** (£765—£880).

Candidates for post (a) should be Associate Members of the R.I.B.A. and candidates for post (b) should have passed the Intermediate Examination of the R.I.B.A.

The work of the Department consists of a large Housing and Capital Works programme.

The appointments will be subject to the Local Government Superannuation Acts and the National Conditions of Service, and will be terminable by one calendar month's notice in writing on either side.

Applications stating age, qualifications and experience, together with the names of two persons to whom reference can be made should reach R. T. Chappelle, A.R.I.B.A., Architect and Housing Director, Archway Road, Huyton, not later than 22nd August, 1960.

Canvassing disqualifies.
D. WILLGOOSE,
Clerk of the Council. 2638
Council Offices,
Derby Road,
Huyton.

**CAMBRIDGESHIRE COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT**

Applications are invited for the appointment of **PLANNING ASSISTANTS** on A.P.T. Grades I and II (£610—£765 and £880—£1,065). Applications with full details of qualifications, experience and names of two referees to be submitted by 31st August, 1960, to the County Planning Officer, Shire Hall, Cambridge. 2643

**BOROUGH OF BRIDGWATER
BOROUGH ARCHITECT'S DEPARTMENT**
Applications are invited for the following posts:—

- (a) **TWO ASSISTANT ARCHITECTS** (Special Classes, £785—£1,070 p.a.).
(b) **ARCHITECTURAL ASSISTANT (A.P.T. II, £765—£880 p.a.).**

Application forms and particulars from The Borough Architect and returnable by 27th August, 1960.

H. A. CLIDERO,
Town Clerk. 2627
Town Hall,
Bridgwater,
29th July, 1960.

**BOROUGH OF BRIDGWATER
BOROUGH ARCHITECT'S DEPARTMENT
APPOINTMENT OF BUILDING INSPECTOR
& TOWN PLANNING ASSISTANT**

Applications are invited for the above post at a salary in accordance with A.P.T. III (£880—£1,065) with essential user's car allowance. Applicants must hold the Building Inspectors Certificate of the Institute of Municipal Engineers or equivalent of the Royal Institute of British Architects and have had considerable experience of Building By-law control and Town Planning Procedure, etc.

Consideration given to provision of housing accommodation. Appointment subject to N.J.C. conditions, a medical examination and one month's notice either side.

Applications in writing to the Borough Architect, Town Hall, Bridgwater, giving names and addresses of two referees, not later than 27th August, 1960.

Canvassing disqualifies.
H. A. CLIDERO,
Town Clerk. 2626
Town Hall,
Bridgwater,
25th July, 1960.

**LANCASHIRE COUNTY COUNCIL
ARCHITECTURAL ASSISTANT required at
PRESTON, salary Special Scale (£785—£1,070).**

Applicants should be qualified architects, planning experience is desirable but not essential. Duties include the design of housing layouts and central area redevelopment schemes, and the preparation of working drawings for houses, flats and shops.

Applications, giving age, qualifications, present appointment, experience, etc., and two referees, to the County Planning Officer, East Cliff County Offices, Preston, by the 22nd August, 1960. 2582

**THE SCHOOL OF ARCHITECTURE, TOWN
PLANNING AND BUILDING
KUMASI COLLEGE OF TECHNOLOGY,
GHANA**

Applications are invited for the post of **SENIOR LECTURER IN BUILDING TECHNOLOGY.**

Applicants for the post should hold either Associateship of the Institute of Builders or Associateship of the Royal Institute of British Architects, and have had five years' professional experience and at least five years' teaching experience. The College prepares students for examinations qualifying at present for the Licentiate of the Institute of Builders, and ultimately for the Associateship. From 1961 onwards there may be some degree level teaching to Engineers reading for the External London B.Sc. examination. The applicant selected will be responsible to the Head of the School for the organisation and running of the Building Technology section.

Contract appointments are normally for five years, and may be renewed. Three months' notice of resignation of an appointment is required on either side.

The contract salary scale for this post is £2,054 x £78—£2,522 per annum.

In addition children's allowances are paid up to a maximum of three, and a gratuity at the end of the contract at the rate of £150 for each year of satisfactory service. The entry point is fixed according to qualifications and experience.

The College is fully residential, and members of staff are housed in pleasant modern bungalows on the spacious campus; climate and living conditions are good. Annual leave with three free return passages in four years is granted to members of staff and their families.

Application forms and an Information Brochure may be obtained from the Assistant Registrar, Kumasi College of Technology, 29, Tavistock Square, London, W.C.1, who will also be glad to answer any questions about this appointment. The closing date for application is mid-August. 2655

**THE NORTH WESTERN ELECTRICITY
BOARD
ARCHITECTURAL ASSISTANT
(DESIGNATED AS FOURTH ASSISTANT
ENGINEER)**

**ENGINEERING DEPARTMENT
AREA BOARD HEADQUARTERS
CHEETWOOD ROAD, MANCHESTER. 8**

Applicants should have passed the Intermediate Examination and be studying for the Final Examination of the Royal Institute of British Architects.

Experience should include design and working drawings for small buildings and detailing for larger buildings.

Salary within range: £855—£1,165 p.a. Grade BX.11. N.J.B. Conditions.

Application forms to be obtained from the Secretary, The North Western Electricity Board, Cheetwood Road, Manchester, 8, and returned to him by the 22nd August, 1960. 2689

COUNTY BOROUGH OF SUNDERLAND
Applications are invited for architectural staff appointments in the Borough Architect's Department, GRADES: J.N.C. SCALE: A, A.P.T. V, A.P.T. IV, A.P.T. II AND GENERAL DIVISION. Salaries according to experience and qualifications. Application forms obtainable from Borough Architect, Grange House, Stockton Road, Sunderland. Applications, in the envelope provided, must be received at my office, Town Hall, not later than 30th August, 1960. Canvassing will disqualify.

G. S. MCINTIRE,
Town Clerk. 2690
Town Hall,
Sunderland.

**COUNTY BOROUGH OF HALIFAX
BOROUGH ENGINEER'S DEPARTMENT**

Applications are invited for the appointment of **SENIOR ASSISTANT ARCHITECT, Grade A.P.T. IV** (two appointments), Salary £1,065—£1,220, in the Education Section. Applications stating age, education and training, qualifications, present and past appointments (with dates and salaries) and experience along with the names and addresses of two persons to whom reference may be made, should be delivered to the undersigned not later than Saturday, 27th August. Provision of Housing Accommodation will be considered for the successful applicants.

RICHARD de Z. HALL,
Town Clerk. 2687
Town Hall,
Halifax.

**SOUTH EASTERN ELECTRICITY BOARD
ARCHITECTURAL ASSISTANT—Surrey Area.**

Salary £1,150—£1,240 p.a. in accordance with N.J.C. Grade 5. Superannuable. Applications are invited from suitably qualified architects for the post of Architectural Assistant at Surrey Area Headquarters, Rough Rew, Ridgeway Road, Dorking. The successful applicant will be required to assist the Surrey Building Superintendent in general architectural work connected with the Board's showrooms, offices, depots and other buildings (including the preparation of specifications). Applications, quoting A.J. and naming two referees, on forms from the Surrey Manager, Seeboard, Rough Rew, Ridgeway Road, Dorking, Surrey, by 24th August, 1960.

GEORGE WRAY,
Secretary. 2685
Surrey Area Headquarters,
Rough Rew, Ridgeway Road,
Dorking, Surrey.

**COUNTY BOROUGH OF SOUTH SHIELDS
PRINCIPAL ASSISTANT QUANTITY
SURVEYOR**

Applications are invited for the above appointment in the Borough Engineer's Department. Applicants must be suitably qualified and the salary paid will be in accordance with Grade A.P.T. V (£1,220—£1,375).

Housing accommodation will be made available to successful applicant if necessary and he will be required to pass a medical examination for Superannuation purposes.

Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m., Monday, 19th September, 1960.

R. S. YOUNG,
Town Clerk. 2683
Town Hall,
South Shields.

**BOROUGH OF WALLSEND
Applications are invited from suitably qualified persons for the following posts in the Borough Surveyor's Department:—**

- (a) **ARCHITECTURAL ASSISTANT.**
(b) **ENGINEERING ASSISTANT.**

Salaries will be on the special grade (£785—£1,070) commencing at points on the scale appropriate to qualifications and experience.

The Council will be prepared to assist with housing accommodation for married applicants.

Applications giving details of experience and qualifications together with the names and addresses of two referees to be forwarded to the undersigned by 27th August.

JOHN STOKER,
Town Clerk. 2681
Town Hall,
WallSEND.

**COUNTY BOROUGH OF EAST HAM
BOROUGH ENGINEER'S DEPARTMENT**

Applications are invited for the following temporary appointment:—

- SENIOR ASSISTANT ARCHITECT—GRADE IV**

£1,065—£1,220.

London Weighing is paid in addition, and a salary in excess of the minimum may be paid according to qualifications and experience. The appointment is for work on a new Technical College and is expected to be for a period of not less than 3 years.

Further details and application forms returnable by 26th August, 1960, from the Town Clerk, Town Hall, East Ham, E.6. 2666

DRAUGHTSMAN (male), over 20 years of age, required in the Civil Engineering Department, Southern Electricity Board, Lower Drayton Lane, Cosham, Portsmouth.

The work covers an interesting variety of new construction and alteration work in Offices, Showrooms, Workshops and Industrial Buildings. Previous experience in an Architect's Office would be desirable. Preference will be given to those holding a G.C.E. and/or studying for professional qualifications.

Salary within the range £410—£640 per annum dependent on age, quals. & exp.

Applications to Sub-Area Secretary by 25th August, 1960. 2668

QUANTITY SURVEYOR
required by:
NATIONAL COAL BOARD—EAST MIDLANDS DIVISION

We have a vacancy for a young Quantity Surveyor who should be an associate of the R.I.C.S. and have at least one year's subsequent practical experience in all aspects of the work in a Quantity Surveyor's office. The commencing salary would be within the scale £815 x £30 — £1,125.

Applications giving details of age, qualifications and experience to:—
Divisional Chief Staff Officer,
National Coal Board,
East Midlands Division,
Sherwood Lodge,
Arnold,
Nr. Nottingham,
quoting S.V.1041R. 2693

CITY OF MANCHESTER
CHIEF ASSISTANT AND SENIOR ASSISTANT PLANNING OFFICERS required in the City Surveyor and Engineer's Department. Salaries:—
Chief Assistant Planning Officer, J.N.C. Scale "D" (£1,520—£1,755).
Senior Assistant Planning Officers, J.N.C. Scale "B" (£1,260—£1,485).

Candidates must be appropriately qualified by examination and must have had considerable experience in the Planning and Development work of a local authority.

These appointments offer practical experience on large scale projects. Housing accommodation and removal expenses.

Applications stating age, education, qualifications and experience together with the names of three referees to the Town Clerk, Town Hall, Manchester, 2, not later than 23rd September, 1960. 2656

BOROUGH OF TOTTENHAM
Applications are invited for the following established posts:—

ASSISTANT ARCHITECTS (3)—A.P.T. Special Grade: £785 to £1,070 per annum plus £25, £40 or £45 per annum London weighting allowance.

Applicants must have passed Parts I and II of the R.I.B.A. Final or Special Final examination or their equivalent and to have had at least five years' experience (including period spent on theoretical training). Five-day week; canteen facilities; Sports Club with private accommodation for sports and recreational facilities; percentage of rental expenses reimbursed.

Application form and Conditions of Appointment from Borough Engineer (A3), Town Hall, N.15.

Applications to be delivered not later than Monday, 22nd August, 1960. 2510

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

ARCHITECTS' SECTION
(a) SENIOR ASSISTANT ARCHITECT, A.P.T. V (£1,220—£1,375).

(b) ASSISTANT ARCHITECT, A.P.T. III/IV (£880—£1,220).

(c) ARCHITECTURAL ASSISTANT, Grade A.P.T. I (£610—£765).

Applicants for post (a) should be members of the R.I.B.A. fully experienced in the design and administration of major building projects.

TOWN PLANNING SECTION
(d) SENIOR ASSISTANT PLANNING OFFICER, A.P.T. V (£1,220—£1,375).

Applicants should be Associate Members of the Town Planning Institute and possession of a University degree or other appropriate qualification will be of advantage. The post is second to the Senior Planning Officer in charge of the Planning Section of the Department and requires experience in a senior capacity of technical and administrative planning work.

QUANTITY SURVEYOR'S SECTION
(e) SENIOR QUANTITY SURVEYORS, A.P.T. III/IV (£880—£1,220).

(f) ESTIMATING ASSISTANT, Miscellaneous Grade VI (£715—£775).

Applicants for post (f) should be experienced in estimating for small jobbing works and knowledge of "working up" and/or site measuring will be advantageous.

Housing accommodation available in approved cases, and approved removal expenses reimbursed up to a maximum of £50.

Applicants should possess appropriate qualifications. Commencing salary within grade according to experience and qualifications.

Application forms from the Borough Architect, Civic Centre, Southampton, returnable by 24th August, 1960. 2623

BEESTON AND STAPLEFORD URBAN DISTRICT COUNCIL

TEMPORARY ARCHITECTURAL ASSISTANTS £1,500 per annum will be paid to suitably qualified Architects required for work in connection with the design and planning of a Covered Swimming Bath comprising two Pools.

Candidates should have good design ability, with experience in contemporary design and detailing.

Applications stating age, qualifications and experience, together with particulars of present and previous appointments and names and addresses of two referees, must be received by the Housing Architect, Town Hall, Beeston, Nottingham, not later than the 29th August, 1960.

H. D. JEFFRIES,
Clerk. 2617

CITY OF BIRMINGHAM EDUCATION COMMITTEE
MATTHEW BOULTON TECHNICAL COLLEGE
Suffolk Street, Birmingham, 1.
Principal: J. C. MARTIN, M.A., A.M.I.E.E., A.M.Brit.I.E.E.

Applications are invited from suitably qualified persons for the following appointment in the Science and Building Department, to commence duty 1st September, 1960, or as soon as possible thereafter.

ASSISTANT Grade "B"
The person appointed will be required to share the teaching of Building Construction, Draughtsmanship and Building Science (Materials) to students in Professional Building Courses. The Department offers courses for Civil and Municipal Engineering, Royal Institute of Chartered Surveyors, Public Health Inspection, Auctioneers and Estate Agents and Institute of Housing.

Salary in accordance with the Burnham Technical Scale: £700 x £27 10s. to £1,150 plus additions and allowances as appropriate.

Application forms may be obtained from the Principal to whom the completed forms should be returned as soon as possible.

E. L. RUSSELL,
Chief Education Officer. 2622

BRACKNELL DEVELOPMENT CORPORATION
Applications are invited for the following posts in the Quantity Surveyor's Section:—

(1) **QUANTITY SURVEYOR.** Salary range £1,065—£1,220. Candidates must be Corporation Members of the R.I.C.S.

(2) **ASSISTANT QUANTITY SURVEYOR.** Salary range £765—£880. (Preference will be given to candidates who have passed the Intermediate Examination of the R.I.C.S.)

Duties embrace Housing, Town Centre and Industrial buildings. Superannuation schemes, medical examination. Housing available. Apply by 22nd August, 1960, stating post applied for and giving age, education and qualifications, experience and appointments held (with dates) and names of two referees, to General Manager (Q.S.), Bracknell Development Corporation, Farley Hall, Bracknell, Berks. 2621

CANNOCK URBAN DISTRICT COUNCIL
(Population 43,020)

SENIOR ASSISTANT ARCHITECT
ARCHITECT'S DEPARTMENT

Applications are invited for this appointment at a commencing salary up to the maximum of Grade A.P.T. IV (£1,065—£1,220 per annum). The successful applicant will have an opportunity of gaining experience on a variety of capital schemes including new swimming baths, public offices, etc. in addition to a continuous housing programme.

Housing accommodation available, if married and consideration given to assistance with removal expenses.

Further particulars may be obtained from the undersigned to whom applications should be submitted by Monday, 22nd August, 1960.

The area of the Authority is not adversely affected by proposals of the Local Government Commission.

H. C. ALLEN,
Clerk of the Council. 2620

Council House,
The Green,
Cannock,
Staffs.
July, 1960.

ENGINEERS AUSTRALIA
NEW SOUTH WALES
PUBLIC SERVICE

Qualifications: Appropriate Degree, Diploma or Institute membership (by examination).

Salary: From £A1,359 to £A2,069. Commencing rate according to qualifications and experience. Promotion positions carry salaries up to £A2,800 and beyond.

Experience: Civil, Mechanical and Electrical engineering or architectural design and supervision. Applicants will be employed in the New South Wales Department of Public Works on a wide range of engineering and architectural projects including dam, water supply, sewerage, road and bridge construction, building services and in the construction of schools, hospitals and other public buildings.

Subject to satisfactory medical report the successful applicant and family under the age of 19 years will be nominated to travel under the Assisted Passage Scheme to New South Wales.

Further details and copies of application forms obtainable from Agent General for New South Wales, 56-57, Strand, London, W.C.2. Applications close on 31st August, 1960. 2608

CITY OF MANCHESTER—HOUSING COMMITTEE

Applications are invited (returnable by 26th August 1960) for the undermentioned appointment:—

DEPUTY CHIEF ASSISTANT ARCHITECT J.N.C. "E" £1,260—£1,485 p.a.

Application forms and details of conditions of the appointment obtainable from the Director of Housing, Town Hall, Manchester, 2. 2661

EAST SUSSEX COUNTY COUNCIL

Applications are invited for the appointment of an ASSISTANT ARCHITECT, Special Grade, £785—£1,070, on the permanent staff of the Architect's Department.

Applications, giving the names of two persons to whom reference may be made to be sent to the County Architect, County Hall, Lewes, by the 26th August, 1960. 2598

HAMPSHIRE COUNTY COUNCIL
PLANNING ASSISTANTS, Special Grade (£700—£1,070) required for South-East Area Planning Office at Fareham. Candidates should be Corporate Members of the T.P.I. or other appropriate professional body and have had all-round planning experience, especially in Development Control in the Planning Department of a Local Authority. Separation allowance and assistance with removal expenses in approved cases. Applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 21st August. 2615

Auctions
36s. per inch; each additional line 3s.

HORSHAM, SUSSEX
ON THE NORTHERN OUTSKIRTS OF THE TOWN

ABOUT 20 ACRES
OF VALUABLE FREEHOLD BUILDING LAND

Occupying a delightful situation with views over Warnham Mill Pond and including

MILLMEADS, PONDTAIL ROAD
containing

4 RECEPTION ROOMS, 6 BEDROOMS,
3 BATHROOMS, DOMESTIC OFFICES
and RANGE OF OUTBUILDINGS

VACANT POSSESSION OF THE WHOLE

KING & CHASEMORE

have received instructions to offer the above for sale by auction (unless previously sold by private treaty) at

THE TOWN HALL, HORSHAM
ON WEDNESDAY 7th SEPTEMBER, 1960
at 3 p.m.

Solicitors: Messrs. H. A. Crowe & Co., 48, Chancery Lane, London, W.C.2.

Auctioneers: Messrs. King & Chasemore, Richmond House, Horsham (Tel. Horsham 3355). 2647

Architectural Appointments Vacant

3s. per line; minimum 12s. Box Number, including forwarding replies, 2s. extra.

SENIOR ASSISTANTS required immediately. Salary by arrangement. Theo. H. Birks, 3a, Portland Place, London, W.1. LAN 7236. 1446

BOOTH, LEDEBOER AND PINCKHEAD require ASSISTANTS in the salary range £750—£1,250. Apply 17-20, Mason's Yard, Duke Street, St. James's, S.W.1. Tel. TRAFALGAR 1866. 2271

ASSISTANT ARCHITECT required for senior position in private office, London, W.1. Box 2270.

ARCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age, qualifications, experience, etc., to Box 910, c/o 1, Coptic Street, W.C.1. 884

RONALD WARD & PARTNERS have immediate vacancy for ASSISTANT ARCHITECTS with initiative and some experience, for interesting, commercial, industrial and civic projects. Salaries commensurate with ability. Apply, 29, Chesham Place, S.W.1. BELGRAVIA 3361. 658

LEWIS SOLOMON, KAYE & PARTNERS rapidly expanding practice require ARCHITECTS and ASSISTANTS with initiative and competence to work on major design projects in the London area. These projects include Comprehensive Development Schemes, Hotels, Schools, Offices, and Luxury Flats. Good salaries according to ability and experience, luncheon vouchers, five-day week, and excellent working conditions. Write 5, Holborn Circus, Thavies Inn House, E.C.1, or telephone CITY 8811, quoting SLB in both instances. 770

ARCHITECTURAL ASSISTANT required. With at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 20, Bedford Square, London, W.C.1. 7282

MONRO AND PARTNERS require ARCHITECTURAL ASSISTANTS of Intermediate Final R.I.B.A. standard in their London, Watford, and Glasgow Offices for work on interesting industrial and commercial projects. Salary range £800—£1,000 p.a. Non-contributory Pension Scheme. Five-day week. Apply in writing to 32, Clarendon Road, Watford. 8669

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon Office. Pension scheme. Box 9744. 7282

£1,000 /£2,000 p.a. will be paid to experienced competent ARCHITECTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to Box 9360. 7282

NORTH & PARTNERS, Chartered Architects (Broadway, Maidenhead, require additional ARCHITECTURAL ASSISTANTS for wide spread and varied practice. Salary range £750—£1,250 p.a. 1891

ARCHITECTS and ASSISTANT ARCHITECTS required for interesting commercial, industrial and civic projects. Responsibility and initiative encouraged. Five-day week, good salary commensurate with ability and experience. Donald Ward & Partners, 29, Chesham Place, W.1. BELGRAVIA 3361. 9246

BASIL SPENCE & PARTNERS require qualified and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 48, Queen Anne Street, W.1, stating experience and salary required. 9824

INTERMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks, 39, Portland Place, London, W.1. LAN. 7236. 9739

AN ARCHITECTURAL ASSISTANT required in small but busy London West End Office. Work includes Churches, Schools, Homes for old people, Factories, etc. Must be capable of preparing working drawings from sketch plans. Pension voucher scheme. Salary by arrangement. Telephone WELbeck 9863 for appointment. 1963

WEST END OFFICE requires ASSISTANT ARCHITECTS of Final and Intermediate standards for interesting Industrial projects in some Counties. Good salaries offered to men with initiative and ability. Bonus Scheme, five-day week, holiday arrangements honoured. Box 139. 2497

ARCHITECTURAL ASSISTANTS required, A salaries £600 to £1,000. W. Leslie Jones & Partners, 8, Acresfield, Bolton, Lancs., and 241A, High Street, Poole, Dorset. 2454

ARCHITECTURAL ASSISTANT wanted for busy, interesting, and progressive country practice. Office experience necessary and Intermediate standard preferred. Salary £650-£850 per annum according to experience. Apply to Jamsay & Coombes, Lloyds Bank Chambers, Haslemere, Surrey. 2426

ARCHITECTS
QUALIFIED Men or Women required, to run Church, School, and industrial projects. Starting salary £1,000 to £1,500 or more for above-average ability. 2497

WEIGHTMAN & BULLEN, ARCHITECTS
76, Rodney Street, Liverpool, 1.
FIVE-DAY WEEK, BONUS AND PENSION SCHEME. 2418

LEICESTER—SENIOR ARCHITECTS and ASSISTANTS required for general practice. Appropriate salary paid. Five-day week. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 18, Friar Lane, Leicester. Tel. 56476. 2413

LOUIS DE SOISSONS, PEACOCK, HODGES & ROBERTSON have immediate vacancies in their London Office for SENIOR and JUNIOR ASSISTANTS. Write, stating age, salary and experience, to the above at: 3, Park Square Mews, Upper Harley Street, N.W.1. 2415

LOUIS DE SOISSONS, PEACOCK, HODGES & ROBERTSON have immediate vacancies in their Welwyn Garden City Office for SENIOR and JUNIOR ASSISTANTS. Write, stating age, salary and experience, to the above at: Midland Bank Chambers, Welwyn Garden City, Hertfordshire. 2416

ARCHITECT in Private Practice in London will pay £1,000 to £2,000 per annum to competent ARCHITECTURAL ASSISTANTS. Varied and interesting work in hand. Write stating age and experience and salary required, to Box 2417. 2417

IF YOU WANT
A constant and interesting works programme. Occasional Travel.
Five-day week.
Present Holiday arrangements honoured.
Annual Bonus.
Non-contributory Pension Scheme.
Base in Ealing.
Secure job with the Resident Architect to a Multiple Company.
A principal who values experience above qualifications.

THESE ARE OFFERED TO:
First class SENIOR ASSISTANTS.
Apply for appointment, stating age, experience and salary required. Box 2419. 2419

SCHERRER AND HICKS require ASSISTANTS of R.I.B.A. Final and Intermediate standard, preferably with two or three years' experience. Please write to 19, Cavendish Square, W.1. 2427

WHY work in Town when you can eat your sandwiches in equal squalor at Hershams, 8 miles south of Kingston, as a member of the Architect's Dept. for a large Development Group, carrying out work varying from a Chelsea conversion to £350,000 office and shop schemes, including factories, warehouses, housing, flats, etc. Salary range £800-£1,500 per annum. Holiday arrangements honoured. Please phone Walton on Thames 26311. Ref. G.W.M. for interview. 2428

INTERMEDIATE to Final standard. Design-conscious expanding practice engaged large scale commercial projects requires ARCHITECTURAL ASSISTANTS with initiative and perceptive ability. Good salaries according to capabilities. Five-day week. L.V.A. Raymond Spratley & Partners, 9, Hertford Street, Park Lane, W.1. GRO 1532. 2338

ARCHITECTURAL ASSISTANT, qualified or unqualified, with practical experience, required for busy, interesting and varied practice. Salary up to £1,000. Box 2347. 2347

ELIE MAYORCAS requires ARCHITECTURAL ASSISTANTS, preferably with some office experience, for interesting work. Write, giving particulars of architectural education and experience, and salary required to: 13, David Mews, Baker Street, W.1. 2214

CROYDON. Varied and interesting experience offered in progressive and growing practice to SENIOR and JUNIOR ASSISTANTS. Holiday arrangements respected. Five-day week. Please write or telephone: L. A. Macintosh & Haines, A./R.I.B.A., 33/35, High Street, Croydon. CRO 5780/9992. 2362

OSCAR GARRY AND PARTNERS have immediate vacancies for Senior and Junior ASSISTANTS for work on major design projects. Good salary, luncheon vouchers, travelling expenses. Apply: 66 Gloucester Place, W.1. WELbeck 2507. 2133

£850-£1,400. ARCHITECTS with imagination and growing ability required to assist with large and important new developments in the central London Area. Telephone or write—Trehearne & Norman, Preston & Partners, 83 Kingsway, W.C.2. HOLborn 4071. 2185

DONALD ROWSWELL urgently requires capable ASSISTANTS of various grades for Croydon office. Salary by agreement. Holiday arrangements honoured. Apply with full details to: 5A, Friends Road, Croydon, or telephone CROYdon 4080. 1945

BRYAN & NORMAN WESTWOOD & PARTNERS require SENIOR ASSISTANTS. Please apply at 21, Suffolk Street, S.W.1. Trafalgar 4411. 9914

ARCHITECTS and ASSISTANTS
REQUIRED for work on interesting Industrial Project affording first class design and technical experience.
Apply in writing to:
Sir William Halcrow & Partners,
(B.A. Architects' Section),
47, Park Lane, London, W.1. 1752

WATKINS, GRAY & PARTNERS, 57, Catherine Place, S.W.1, require SENIOR and JUNIOR ASSISTANTS for work on large hospital projects. Excellent opportunities for those seeking first hand experience in this most interesting and rapidly developing field. Luncheon Vouchers and pension scheme in operation. Write giving full particulars. 1524

SENIOR ASSISTANT ARCHITECT required by Devereux and Davies. Good salary to applicant with the requisite ability and experience. 3, Gower Street, Bedford Square, London, W.C.1. 1733

CLIFFORD CULPIN requires experienced qualified and "post-Intermediate" ASSISTANTS to work on a wide variety of schemes including luxury flats, an office building, a comprehensive school, London banks, a town hall and a Civic Centre. Opportunities to take responsibility. Paid holiday this year. Phone CHANCery 5395 or write 39, Doughty Street, W.C.1. 1949

ARCHITECTURAL ASSISTANTS required by busy Architect's Dept. of large multiple firm. Applicants should be experienced in preparation of working drawings and details. Good salary and prospects to suitable applicants. Five-day week. Pension Scheme and canteen facilities. Apply Box 1947. 1947

F. W. WOOLWORTH AND CO. LIMITED
ARCHITECT'S DEPT.
KING STREET, DUDLEY
WORCS.

REQUIRE ASSISTANTS of Final standard in their Architect's Dept. for interesting development programme in multiple stores. Applicants must have previous experience in preparation of working drawings and details. Starting salary depending on qualifications and experience.

The positions are permanent and pensionable. Good working conditions. Five-day week. Canteen facilities. 1948

APPLICATIONS are invited to fill posts as ASSISTANT ARCHITECTS. Five-day week. Compulsory Superannuation Scheme. Salary range £730-£1,080 per annum according to age and experience. Apply: R. C. Steel, A.R.I.B.A., Chief Architect, C.W.S. Ltd., 99, Leman Street, London, E.1. 1534

SENIOR ASSISTANT required by Hasker & Hall, L.F.R.I.B.A., in their office in Warwickshire. Good salary, with scope for initiative and responsibility. Write London House, High Street, Knowle, or telephone Knowle (Birmingham) 3502. 2143

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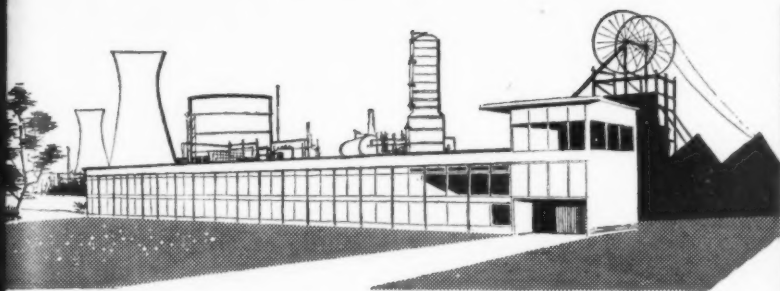
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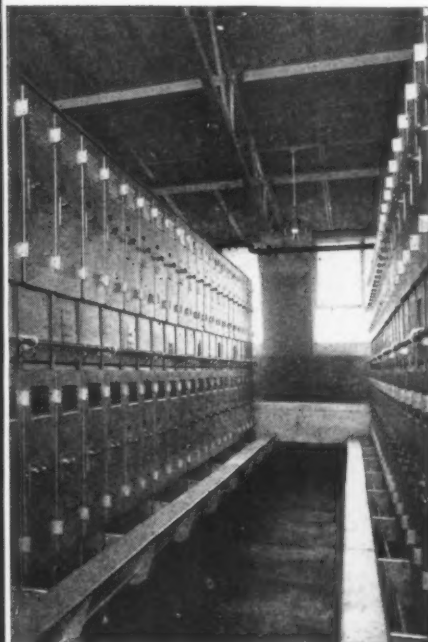
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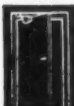
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