

THE ARCHITECTS' JOURNAL



standard contents

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

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Wanted and Vacant

No. 3441]

[Vol. 133

THE ARCHITECTURAL PRESS

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★A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their addresses 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, W.1.	Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, 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.	Wellbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3.	Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1.	Hunter 1945
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, 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, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalt 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, N.W.1.	Wellbeck 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. Teddington Lock 3222	
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. 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, 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 Art Commission. 5, Old Palace Yard, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SE	Society of Engineers. Abbey House, Victoria Street, 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.	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 3006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trade Federation. 75, Cannon Street, E.C.4.	City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1.	Grosvenor 6636

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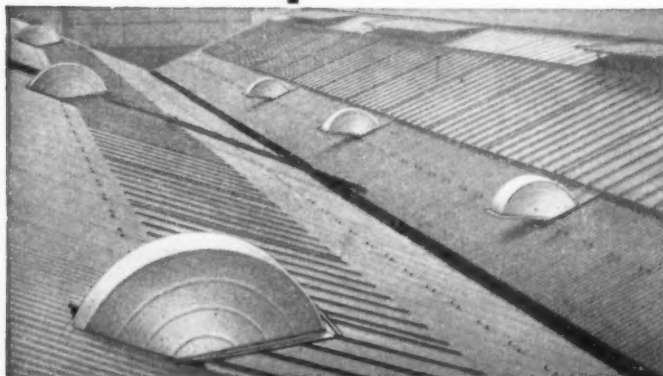
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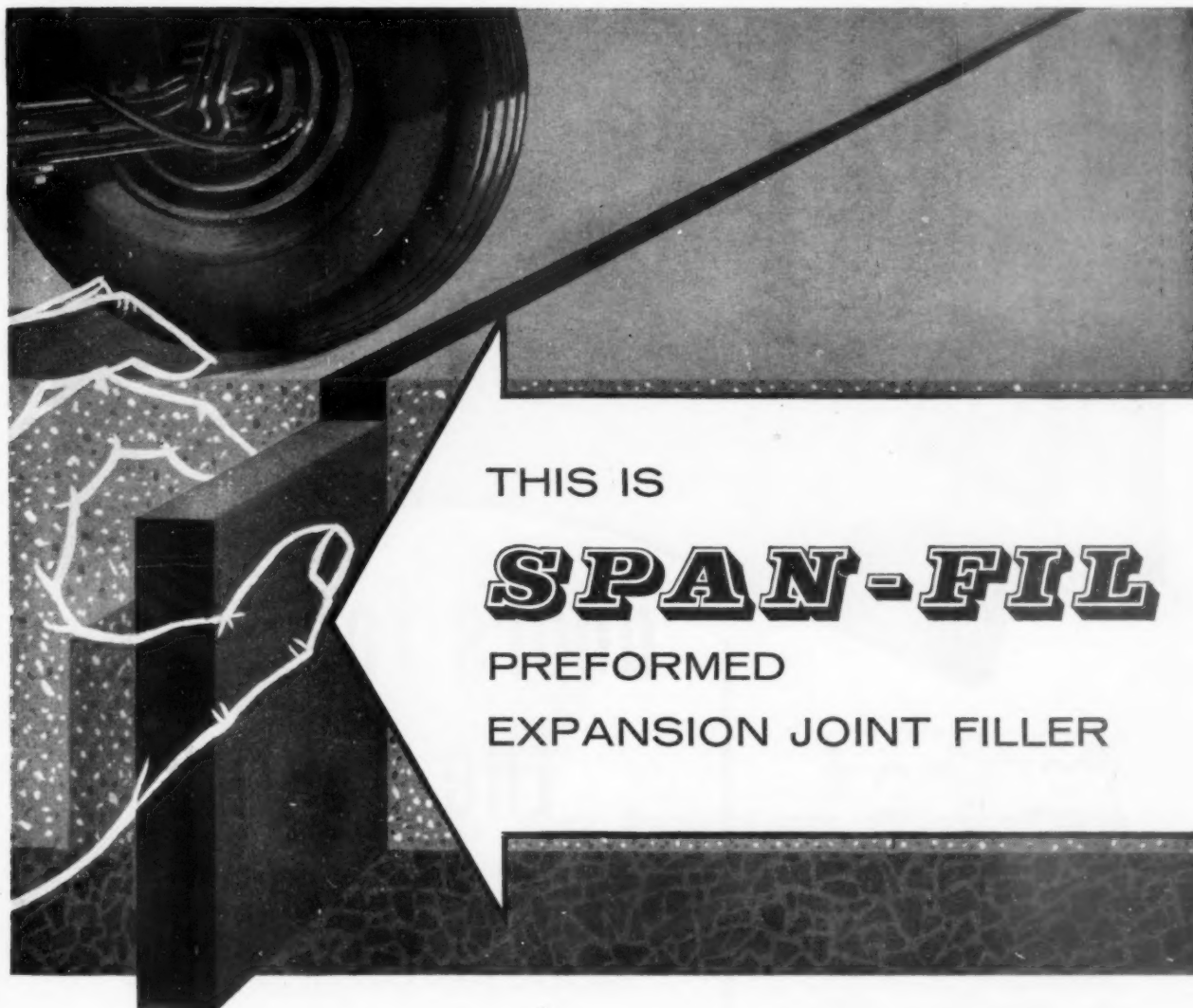
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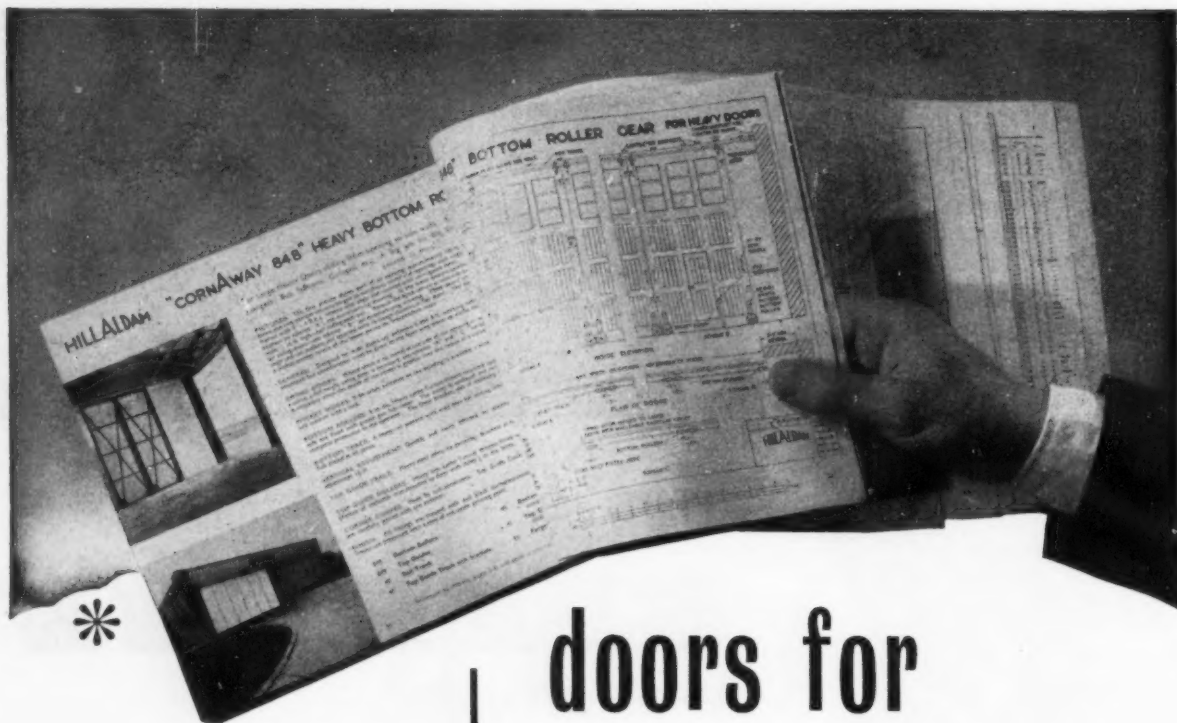
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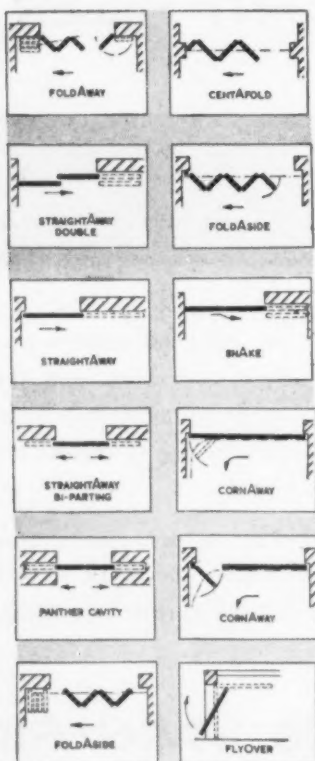
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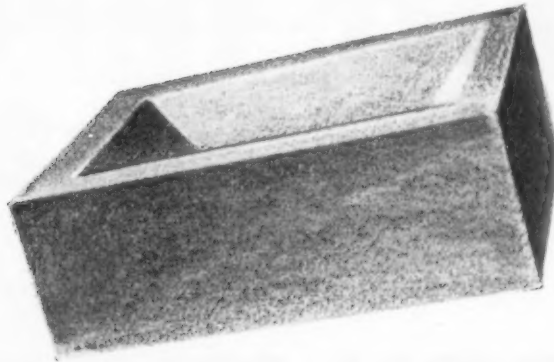
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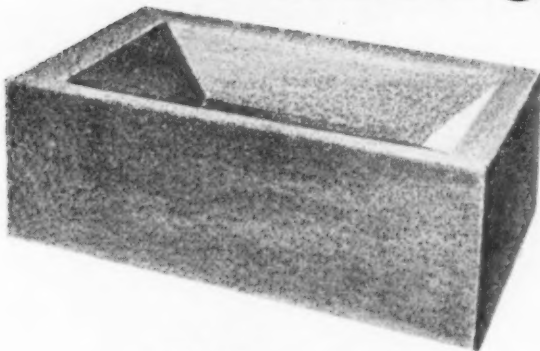
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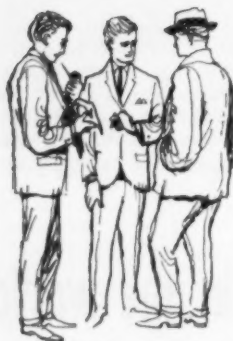
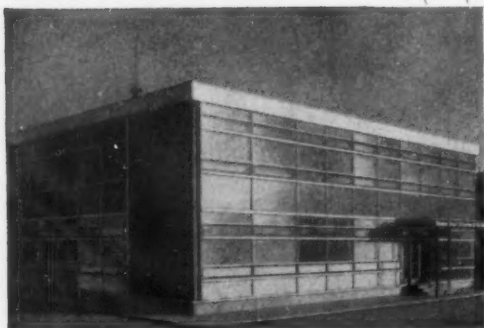
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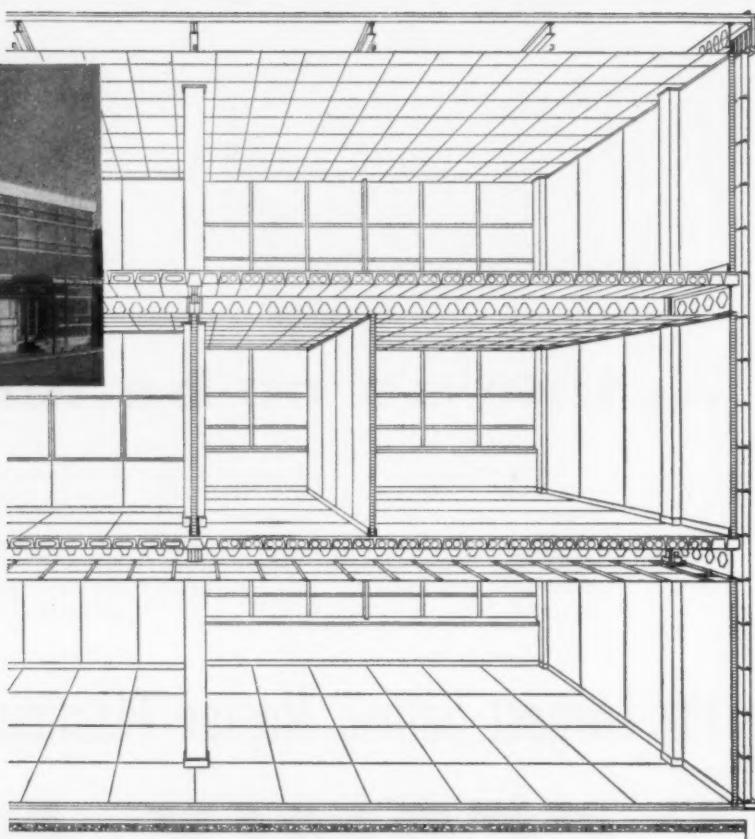
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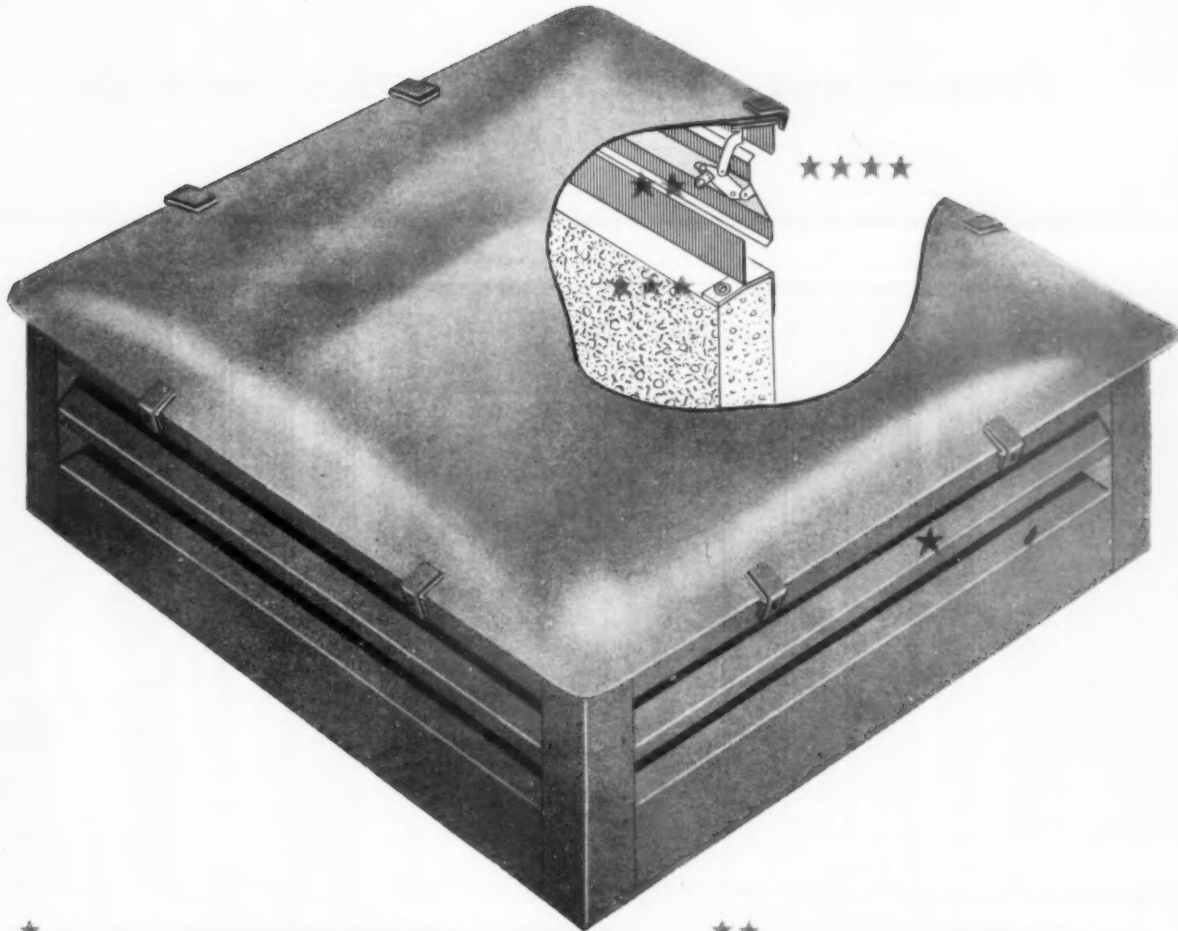
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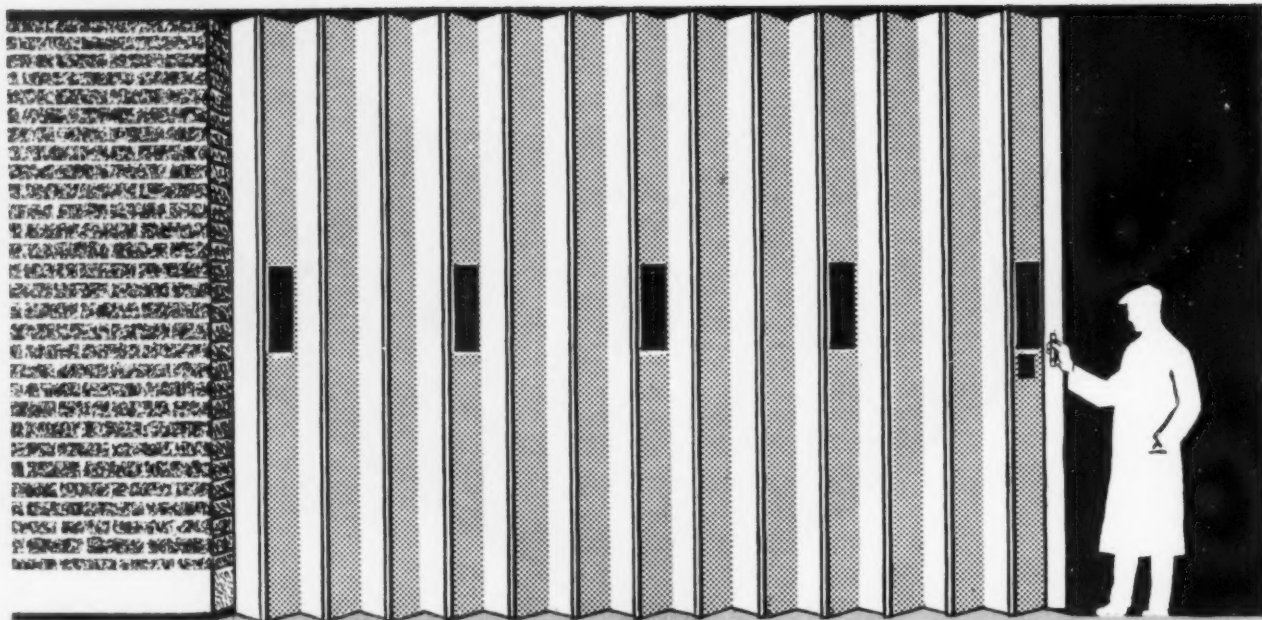
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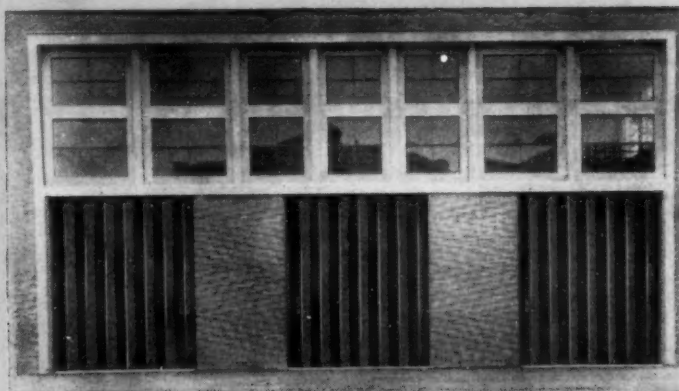
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GV17

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Above: Three single doors each 13 ft. wide x 14 ft. high for Metropolitan-Vickers Electrical Co. Ltd.

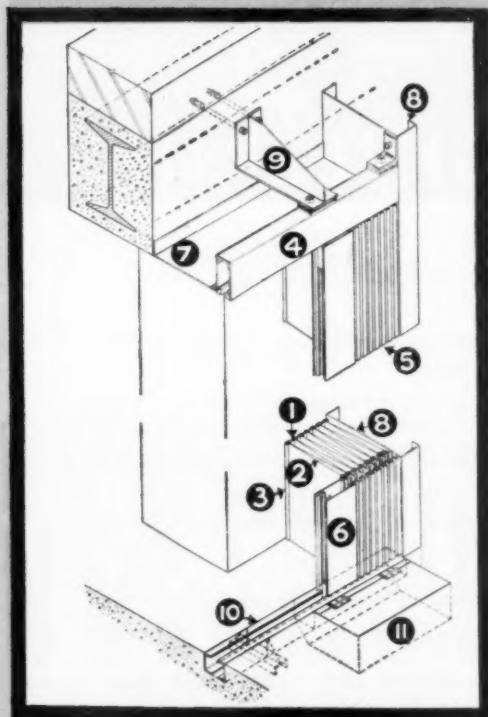
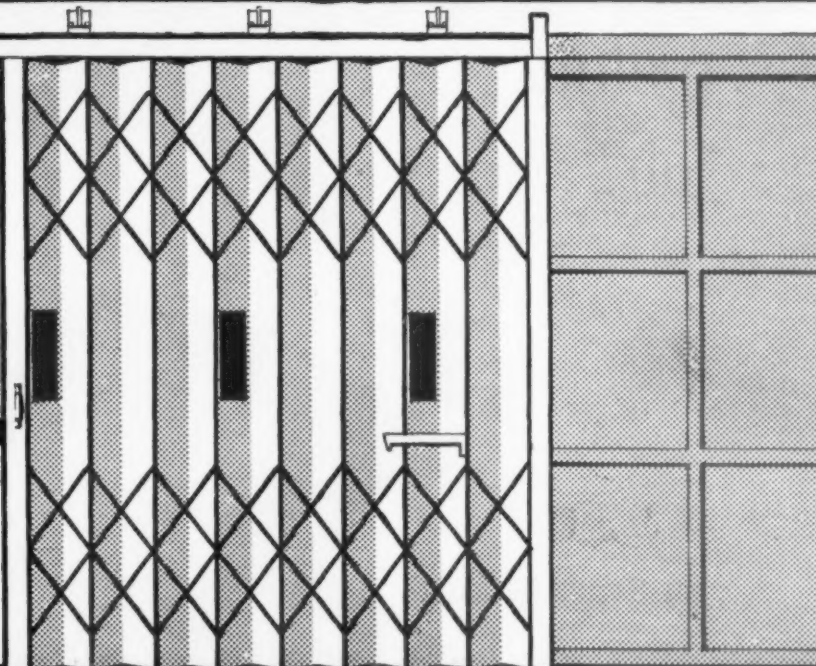
For Left: One pair of doors, 26 ft. wide x 14 ft. high with 12 inch leaves to reduce bunching space.

Left: One pair of doors 20 ft. wide x 10 ft. 3 in. high, fitted with inspection windows.

and this, technically speaking, is the other

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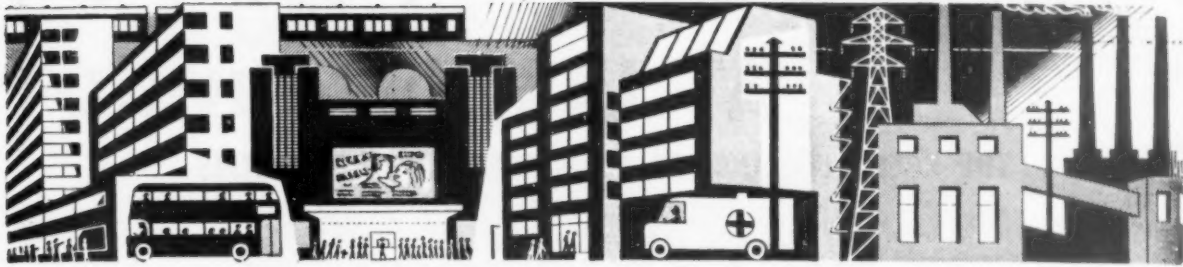
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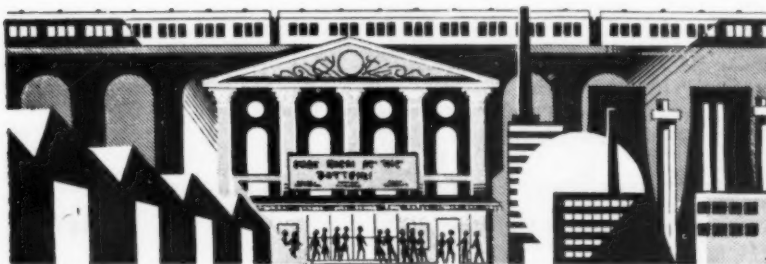
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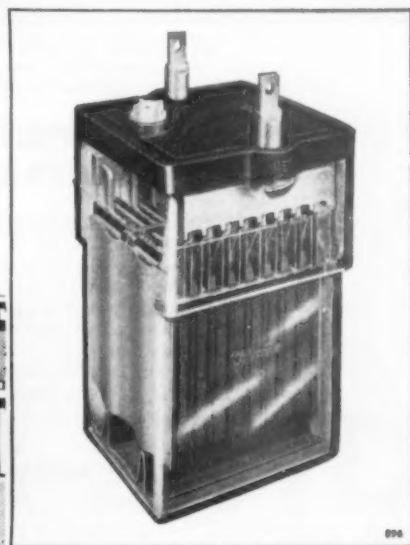
*The new cell will from now onwards be fitted in all Keeplite units—the Chloride Company's automatic emergency lighting system.

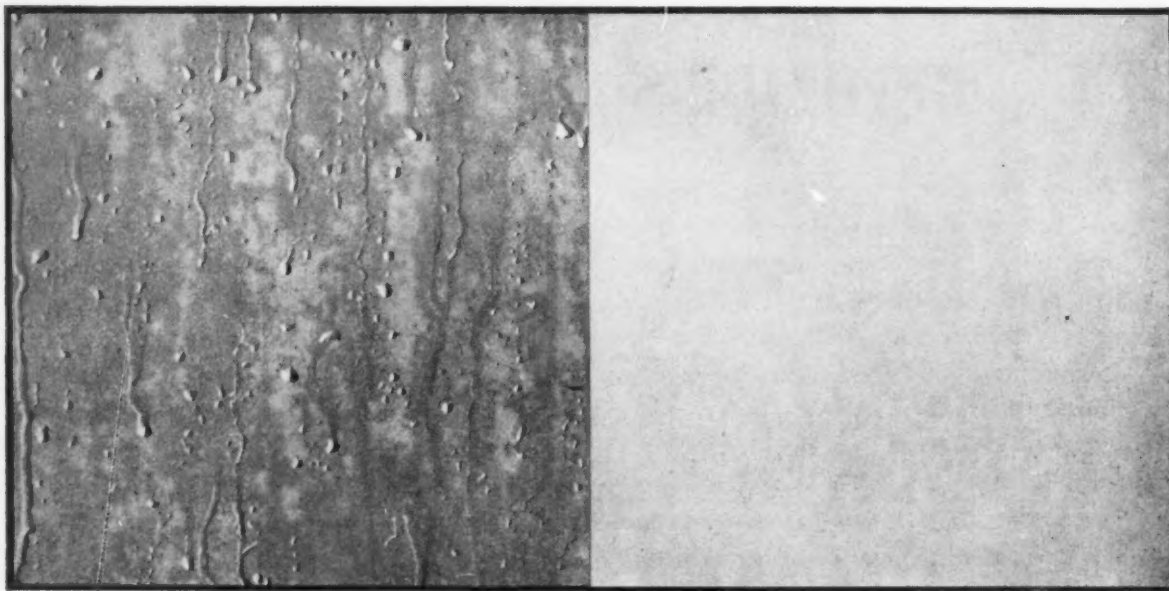
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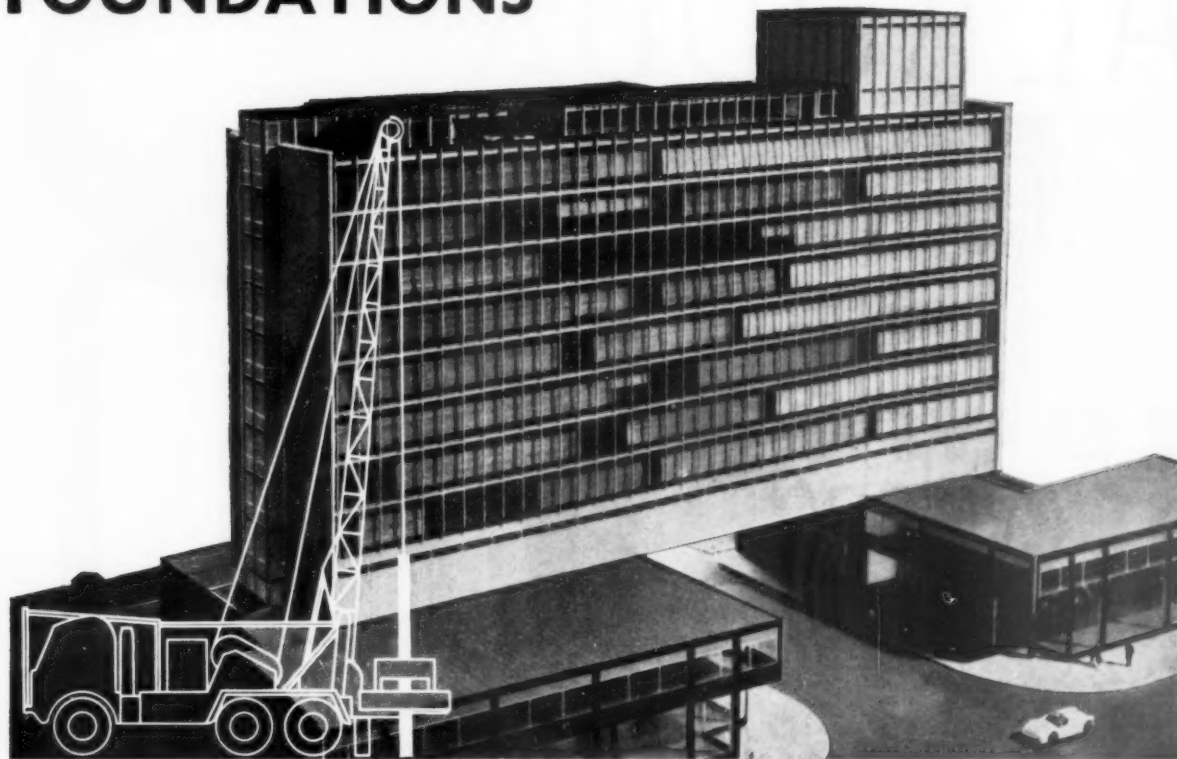
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- 4 It is applied by brush, spray or roller and produces a smooth decorative emulsion finish.
- 5 It is available in a range of colours.

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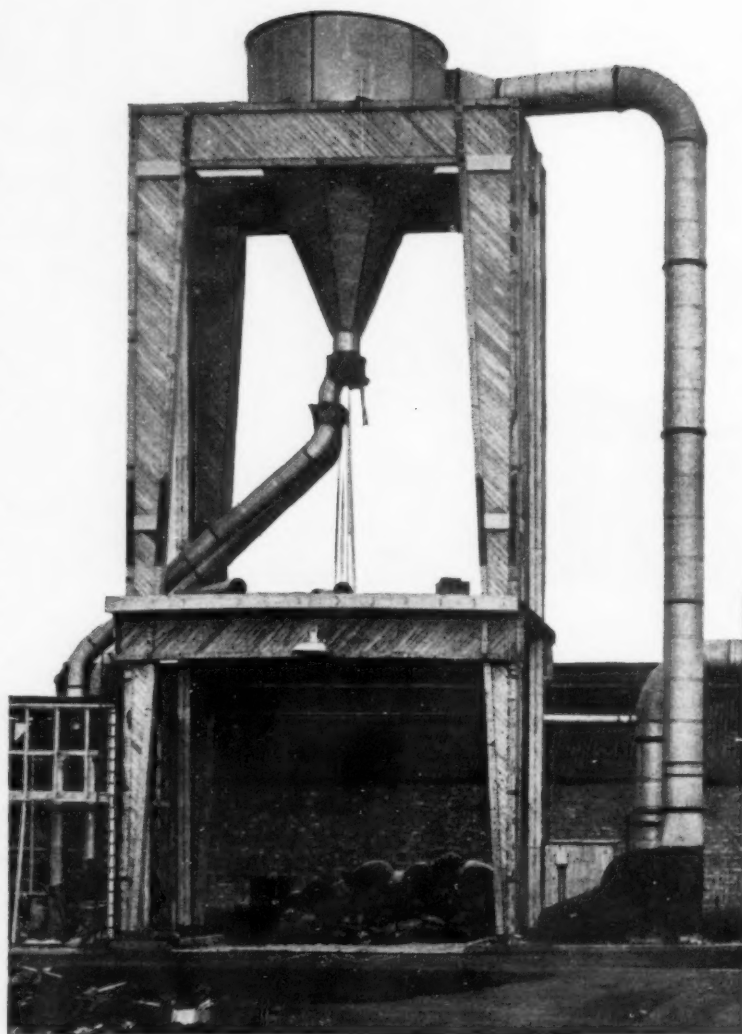
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AERODUX

weathers
the
cyclone

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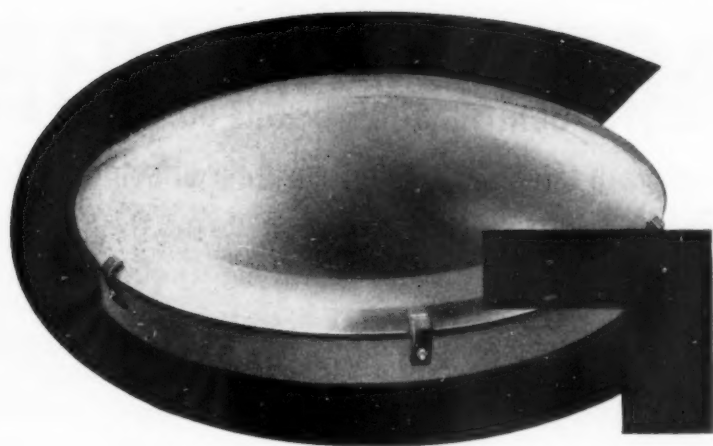
Aerodux



synthetic resin glues for wood

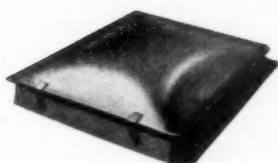
Aerolite and Aerodux are registered trade names

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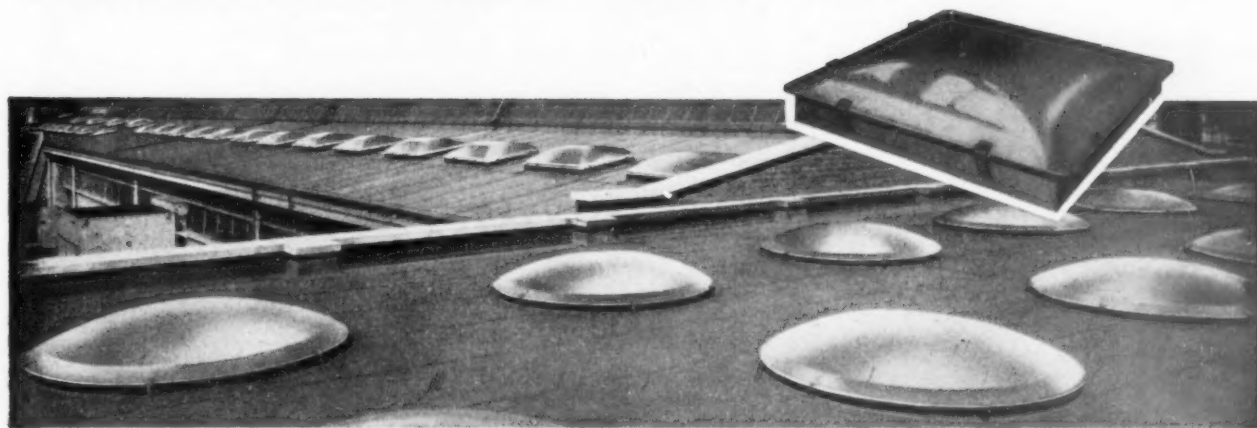


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Indicator lights on the Redfyre Centramatic 35 act as a constant reminder of the temperature selected by the user and the boiler is automatically operated to this setting by a sealed printed-circuit control unit. When the correct temperature is reached, the boiler switches itself off.

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When heat is again required it lights itself by means of electric ignition and reaches full operating efficiency almost at once. No pilot flame or low-pressure 'idling' to dribble away the fuel wastefully.

Perfect for the kitchenette

The Redfyre Centramatic 35 is completely self-contained and insulated, with dimensions to fit the smallest kitchen. The attractive enamelled casing is in white or cream; the bottom

front panel is anodised aluminium; and for the easily interchangeable top front panel there is a choice of these colours: Atlantic Grey, Nursery Blue, Eau-de-Nil, Flame Red, Cream, White, Buttercup, and Lilac.

Automatic combustion

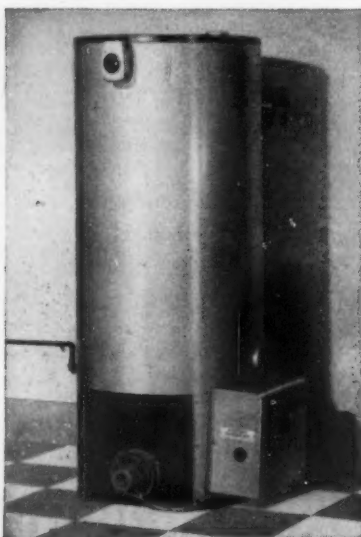
The Redfyre Centramatic 35 does not rely on a constant chimney draught to provide air for correct combustion. The fan on the unit does this and a 5" diameter chimney flue (top or back outlet) with some updraught is all that is needed.

Brief specification

Output—35,000 B.Th.U's/hr. continuous rating (water transfer)
Overall size—36" high x 18" wide x 21" deep.
Steel boiler with 1½" B.S.P. tappings.

Retail price of the Redfyre CENTRAMATIC 35 is £89.

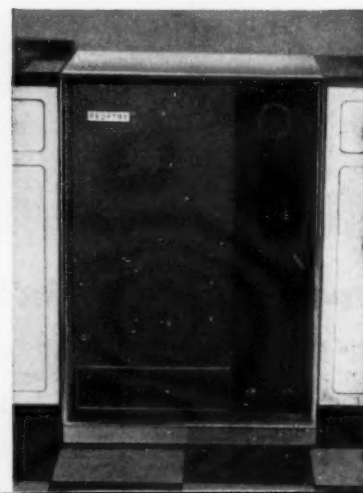
A REDFYRE CENTRAMATIC TO SUIT EVERYBODY



There are now three Redfyre Centramatics—the 35, described above, the 50 (50,000 B.Th.U's/hr) price £128 (each of these models will fit beautifully into the kitchen) and the 80 (80,000 B.Th.U's/hr) price £149. All three Redfyre Centramatics are fully automatic and suitable for use on either gravity or small bore systems.

◀ THE REDFYRE CENTRAMATIC 80

THE REDFYRE CENTRAMATIC 50 ▶



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REDFYRE CENTRAMATIC 35

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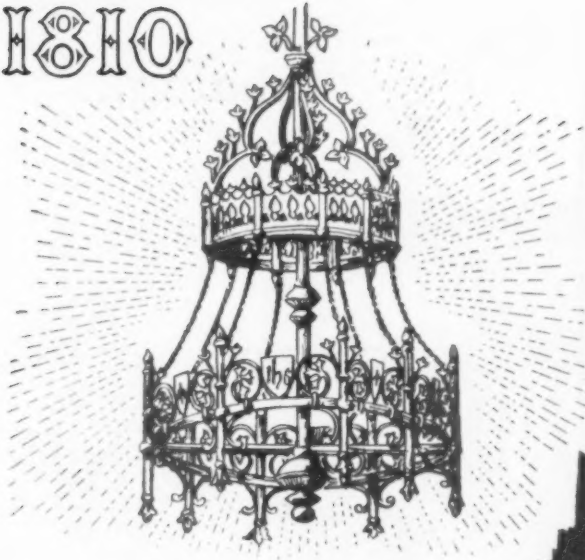
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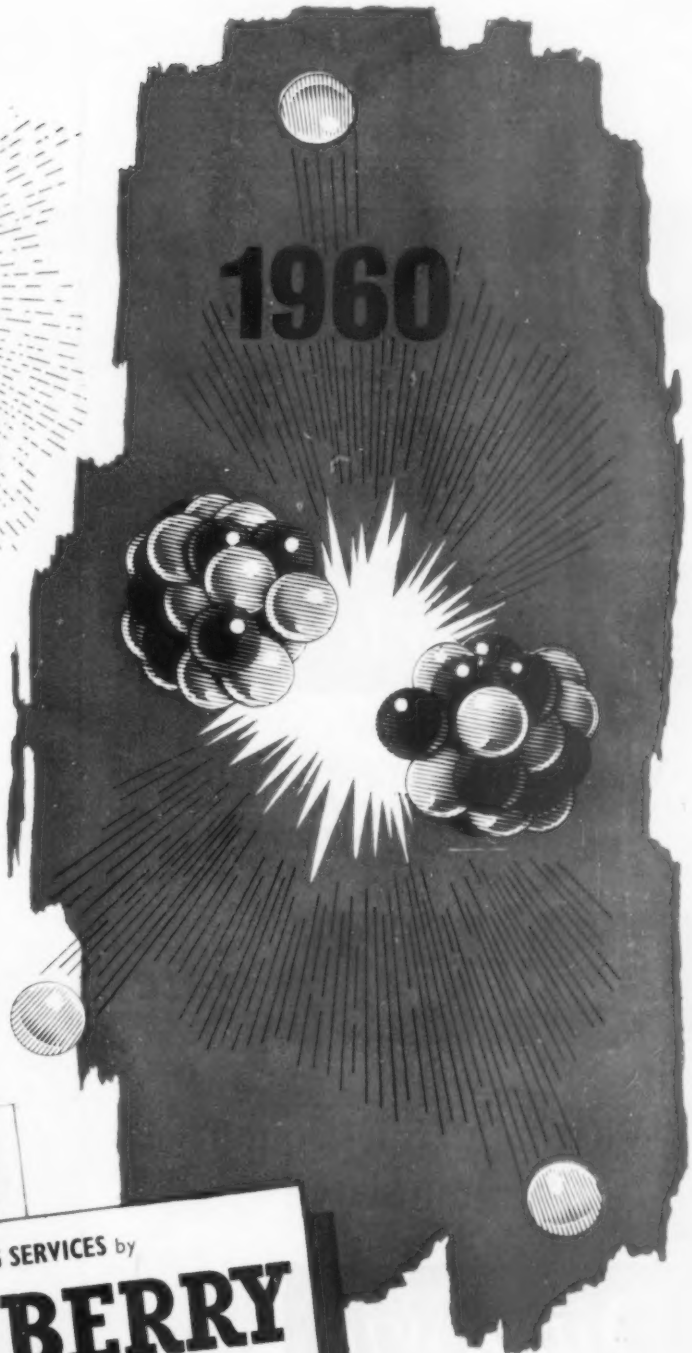
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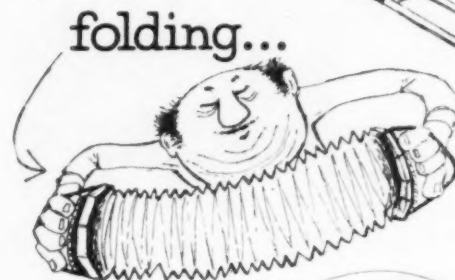
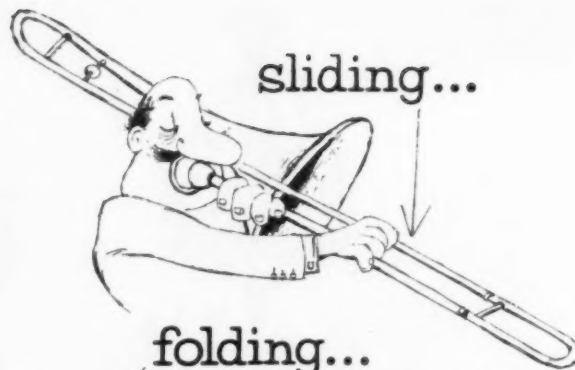
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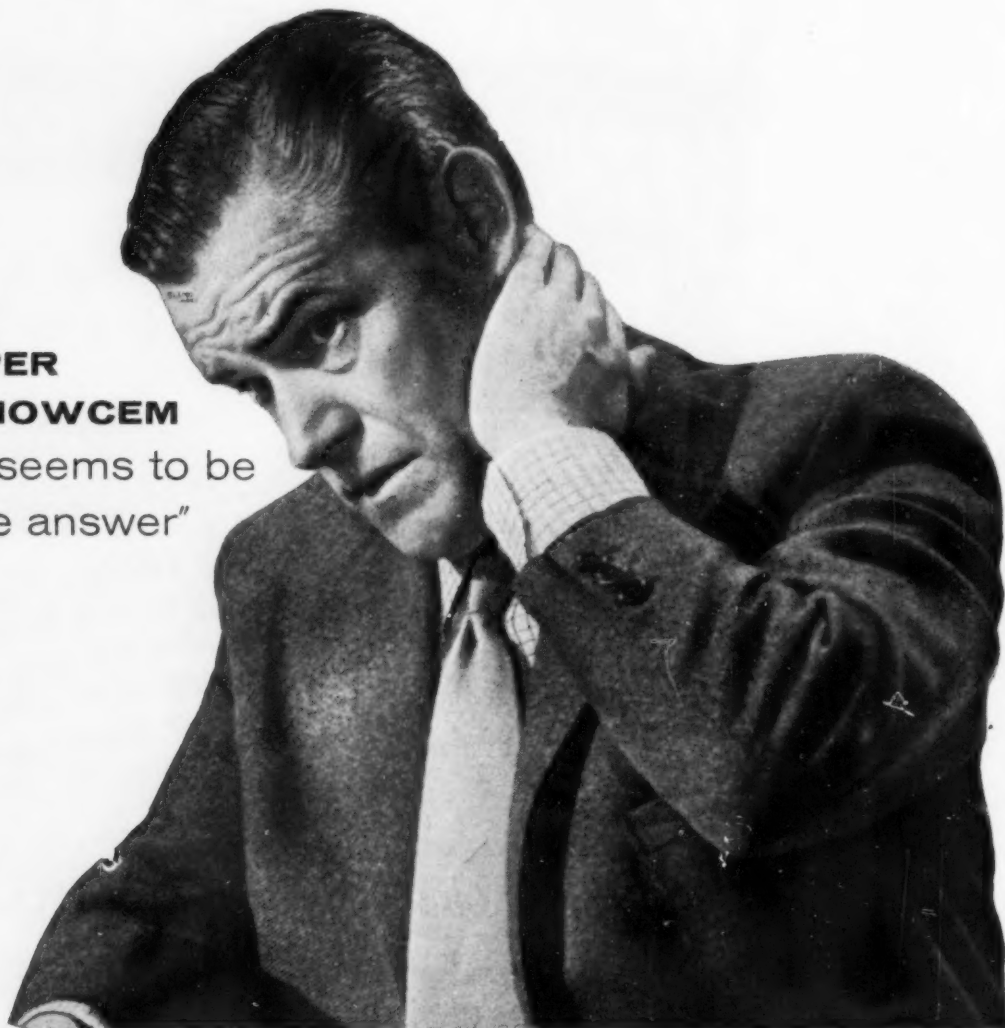
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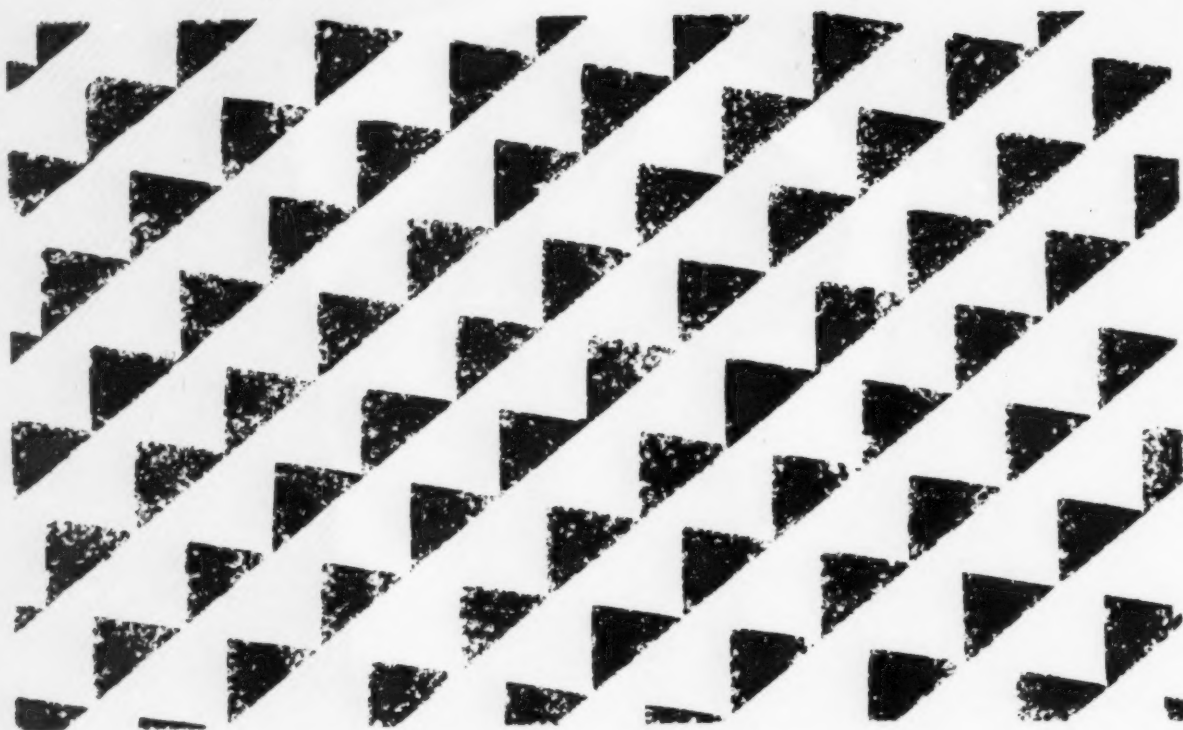


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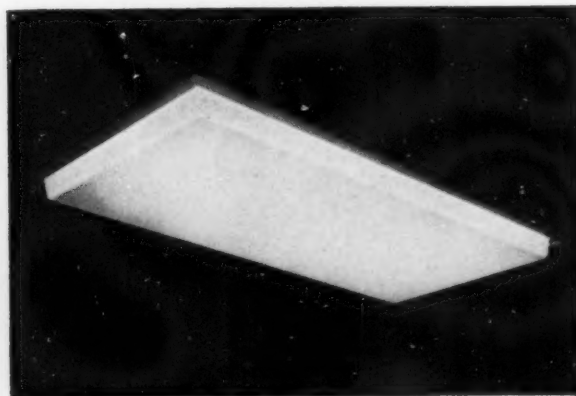
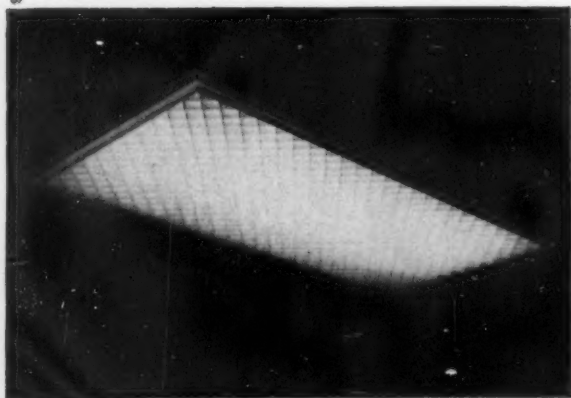
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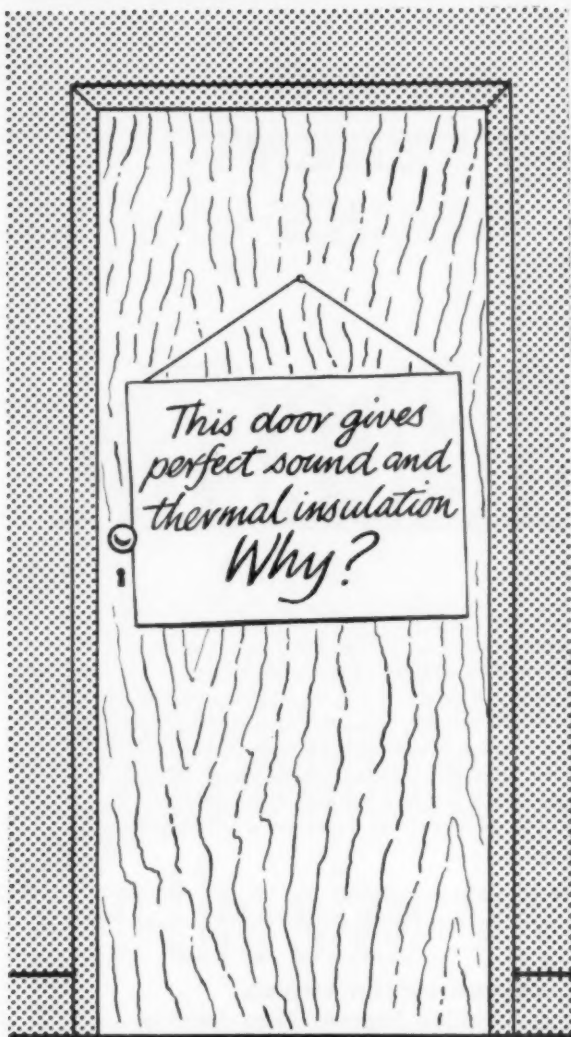
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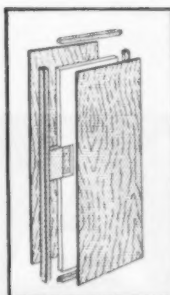


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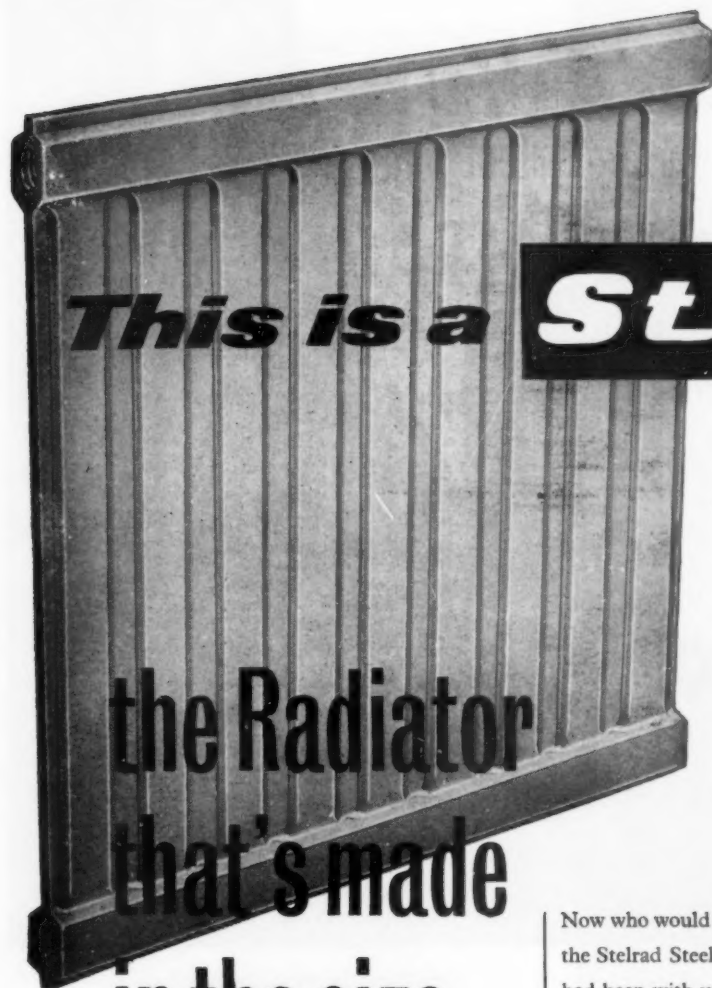
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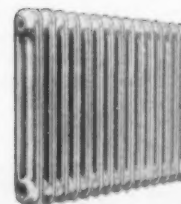
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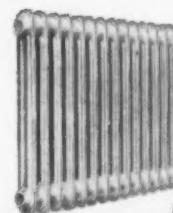
Double Wall



Angle-Wall



3-Column

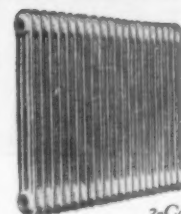


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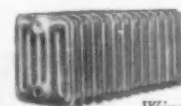
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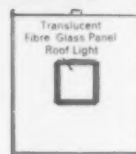
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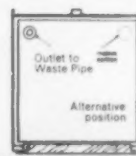
Minus mixer and spray with back panel undrilled: £42



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SECTIONAL PLAN

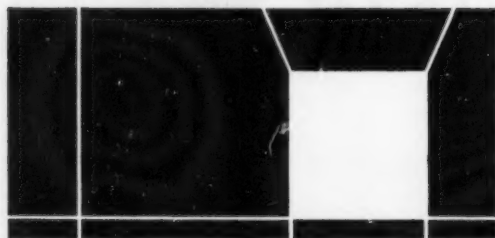
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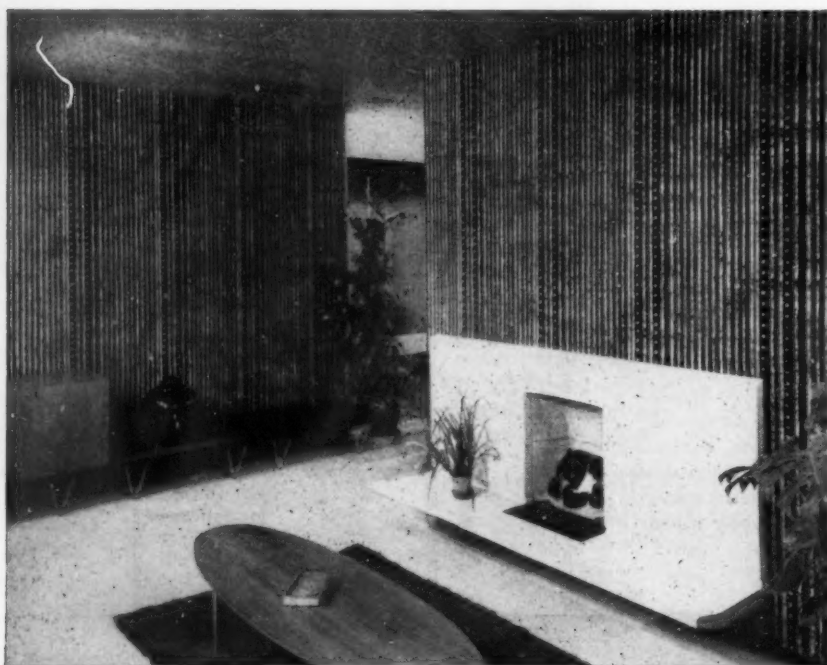


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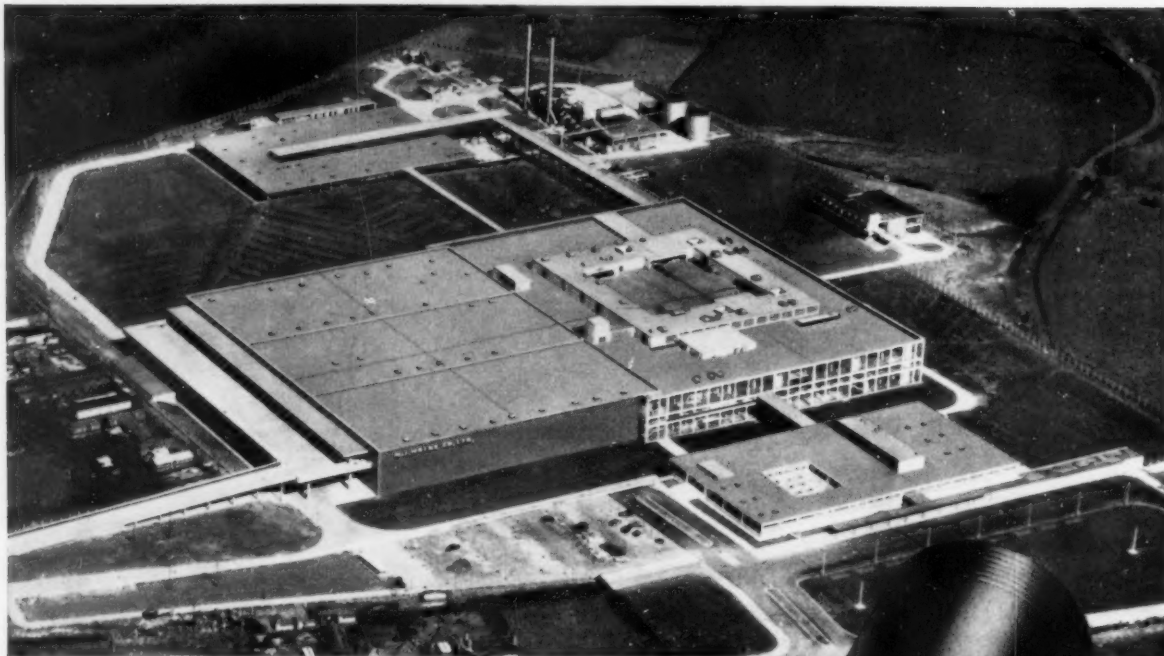
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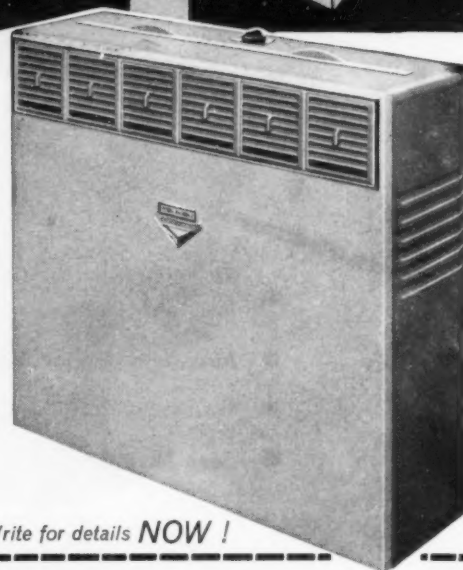
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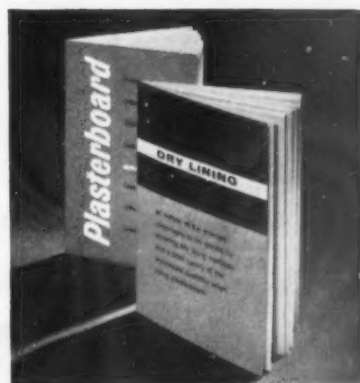
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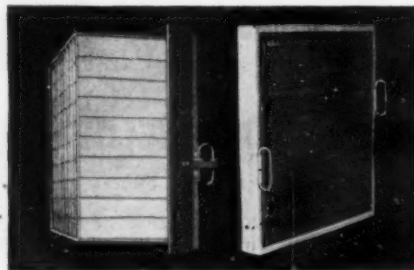
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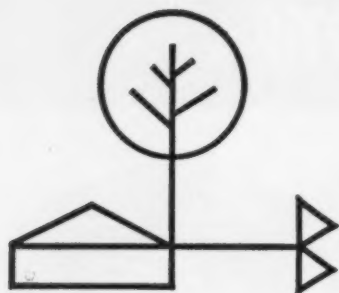
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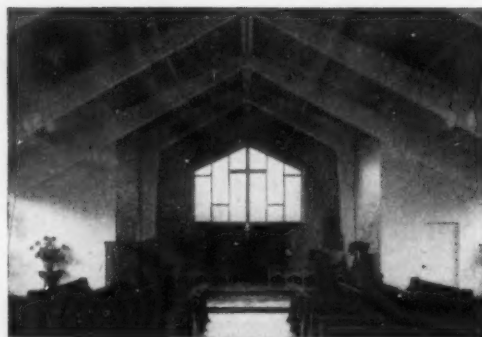
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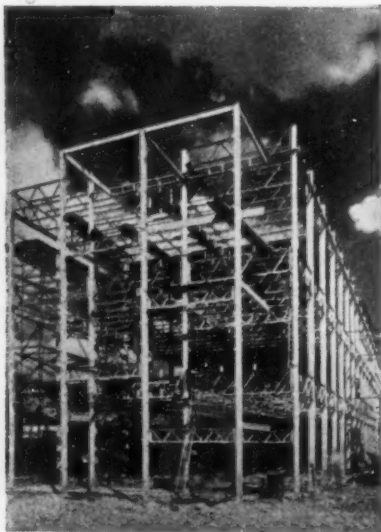
Full technical information available. Write or telephone

THE RUBEROID COMPANY LIMITED, 45AB COMMONWEALTH HOUSE, 1-19 NEW OXFORD STREET, LONDON, W.C.1. HOLBORN 8797 AND 9501

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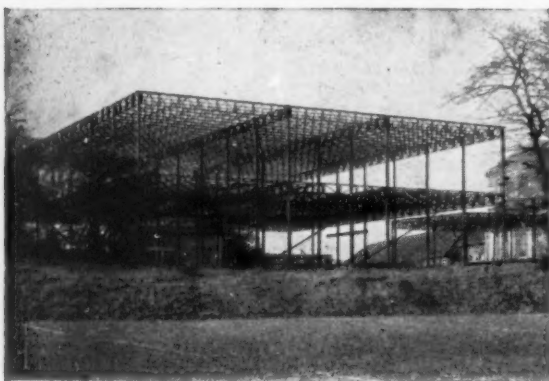
structural steelwork

THE BOWATER PAPER CORPORATION LIMITED. The Architects for the new Office Blocks at both Mersey and Northfleet designed for Lattice Steelwork on a modular grid which allowed service lines to be run between floor and ceiling and gave complete flexibility for internal arrangements. Architects: Messrs. Farmer & Dark.



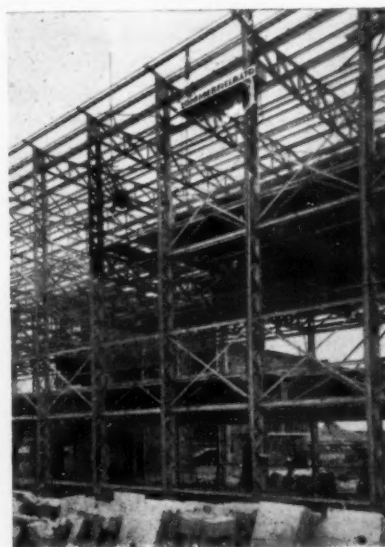
YORK. For the City of York a Grammar School. Sommerfelds designed the Steelwork on a 3 ft. 4 in. modular grid allowing complete freedom for the Architect to use curtain walling and internal arrangements.

Architect: E. Firth, F.R.I.B.A., A.M.T.P.I., City Architect.



B.E.A. For this B.E.A. Building, speed was the essence of the Contract. Sommerfelds designed the Steelwork and from unloading the first lorry on site to the completion of a 250 ton steelwork erection took three weeks.

General Contractors: Messrs. Richard Costain Limited.



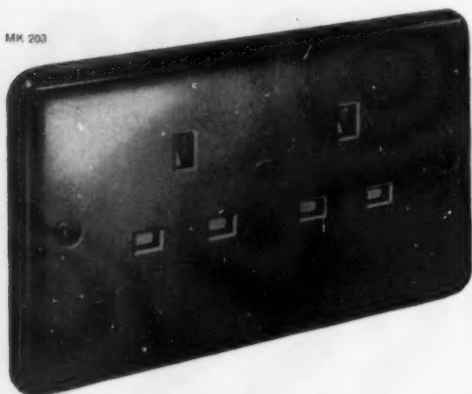
I.C.I. For I.C.I. a Laboratory Block. A multi-storey building with a height to eaves of 44 ft. and uninterrupted spans of 50 ft. on each floor. Deep Lattice Beams and light stanchions were used with considerable saving in steel requirements.

Architects: Messrs. J. Douglass Matthews & Partners.

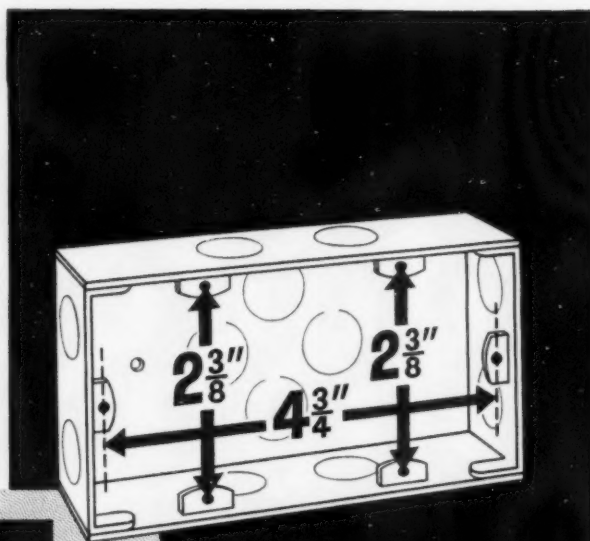
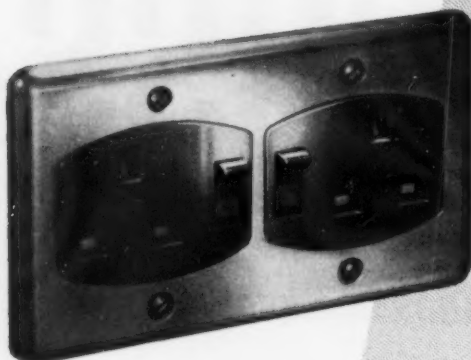
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LTD.

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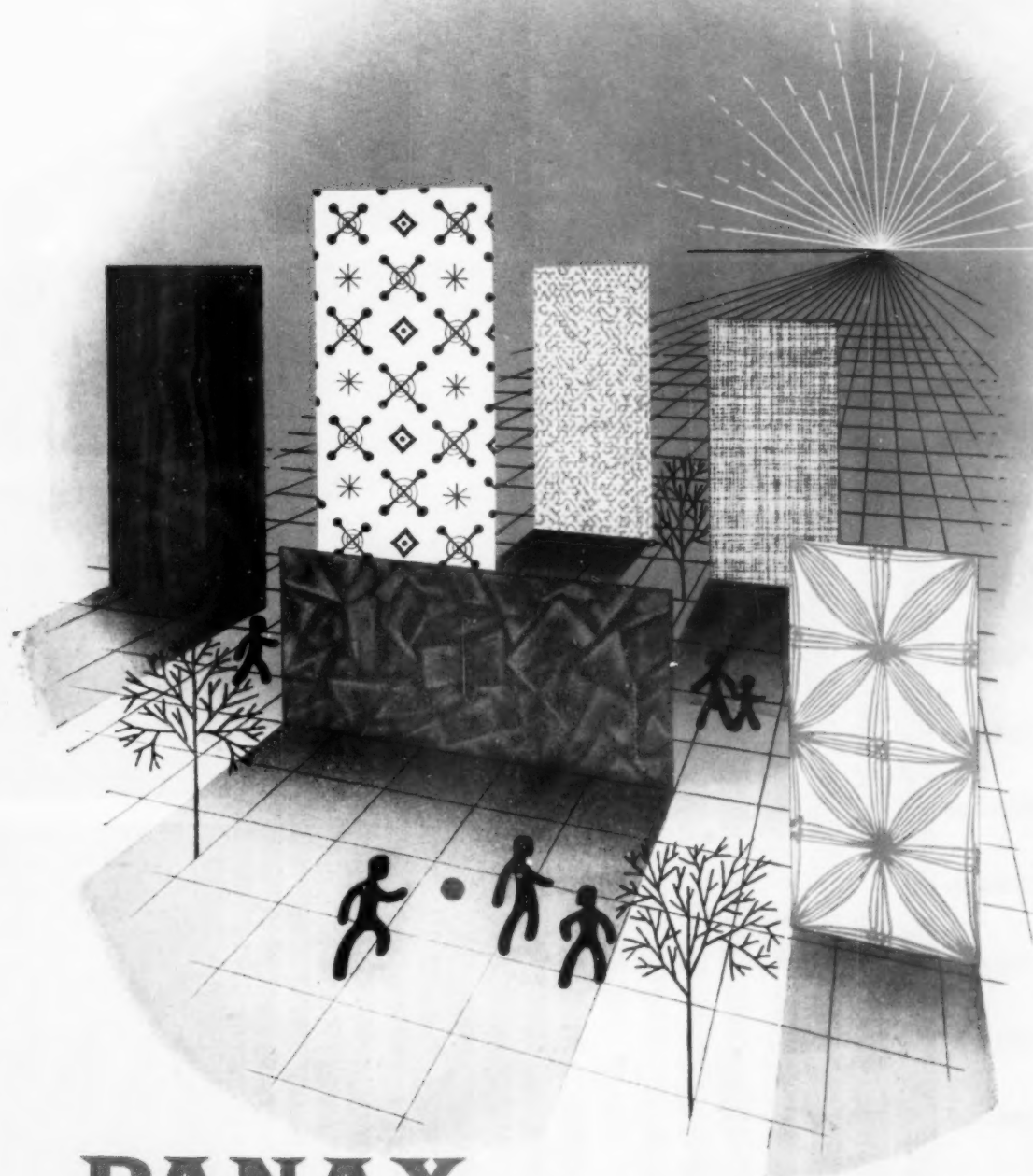


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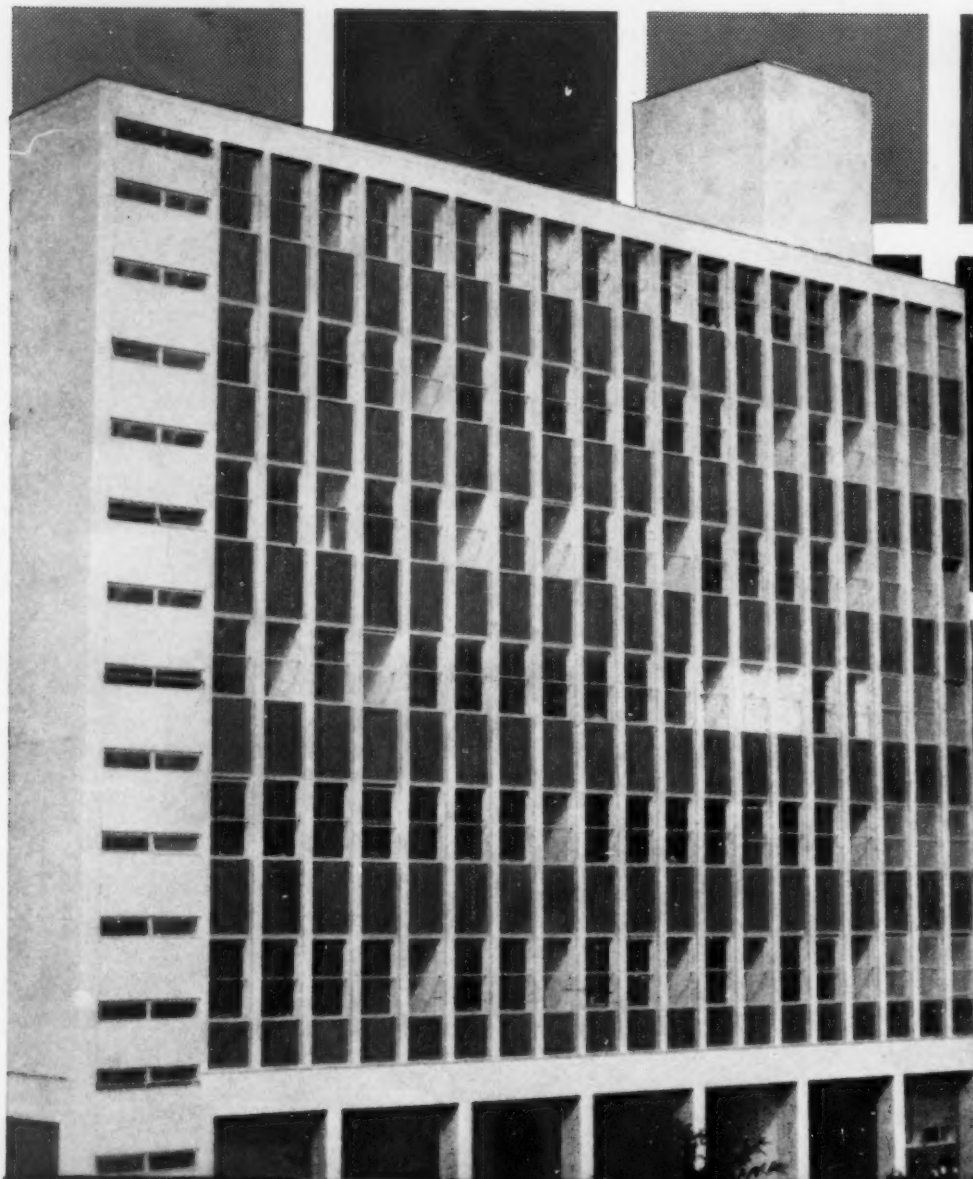
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CONTRACTORS:

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“Can’t be any more important
than my trees.”

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“They can’t build
trees! Come on down before
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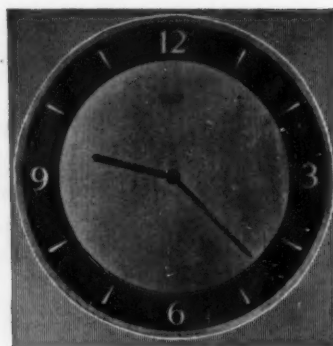
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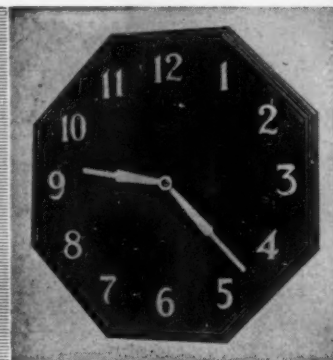
DESIGNS OF DISTINCTION IN WOOD



Calendar Clock

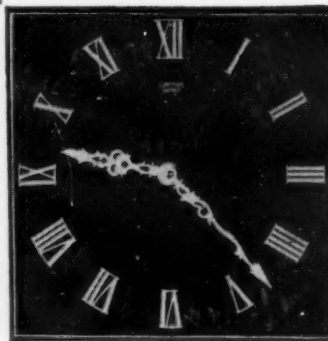


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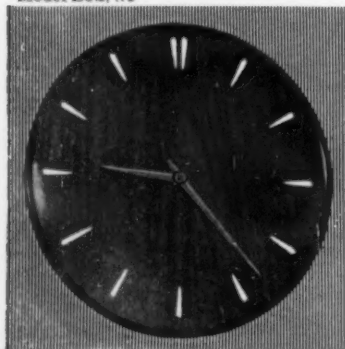
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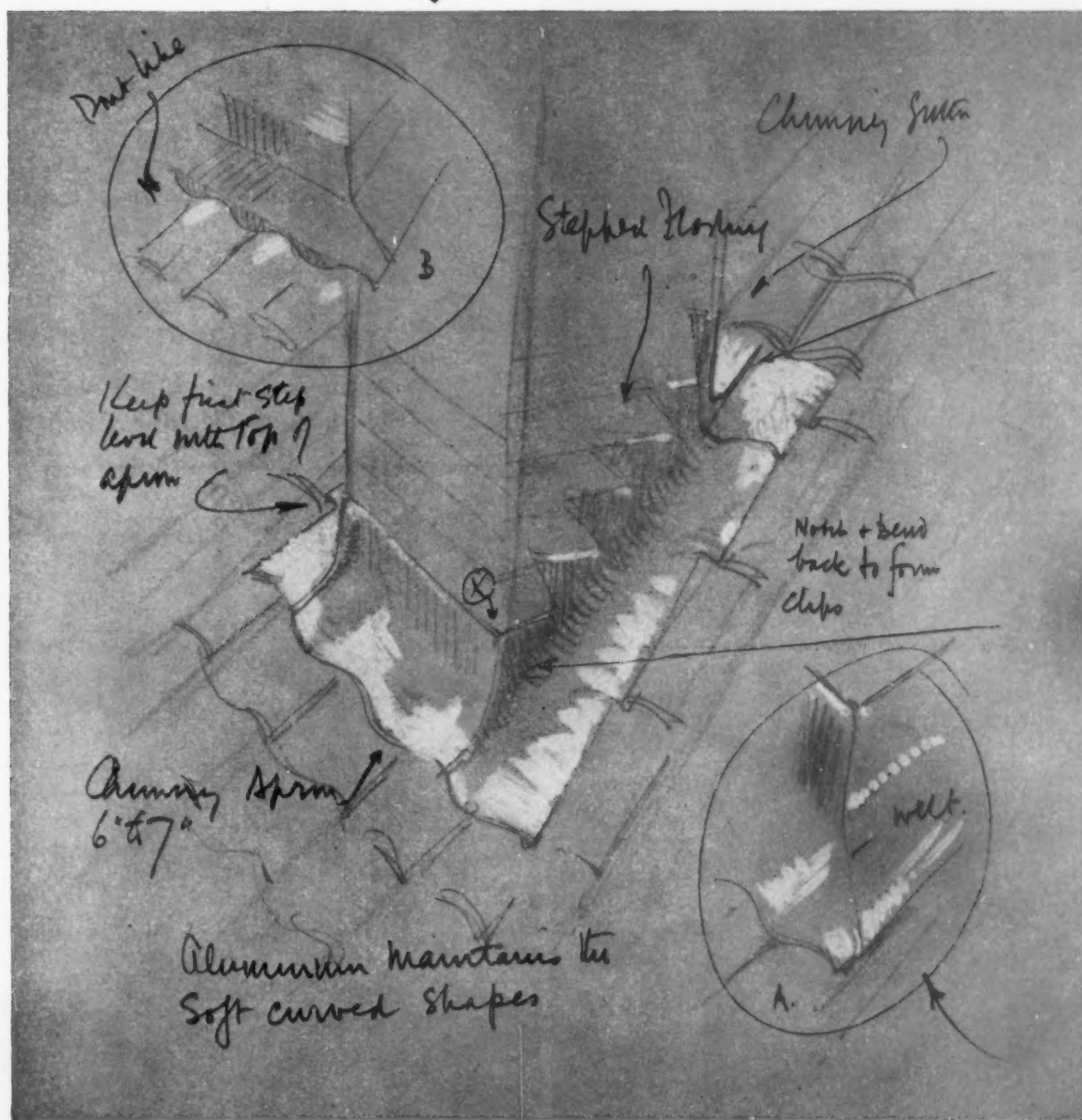
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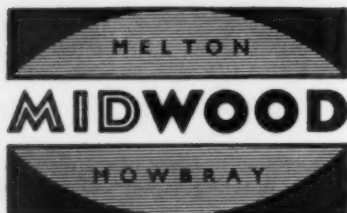
Architect's drawing of flashing with notes

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Type of Unit	Fuel	Space heating output	Intended for	Approximate capital cost for typical installation
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OS.85 (Available for high level or low level warm air offtake)	Oil	85,000 Btu/hr	Houses of up to 2,750 sq. ft. floor area, and other buildings of up to about 25,000 cubic ft. capacity	£400/£550 excl. building work, depending upon whether installations are ducted or non-ducted
G.150 (Available for high level or low level warm air offtake)	Gas	150,000 Btu/hr	Houses up to 5,000 sq. ft. Commercial and industrial installations: one unit provides full heating for approx. 45,000 cu. ft. depending on insulation	£350/£500 excl. building work, depending upon whether installations are ducted or non-ducted

*Units marked with asterisk supply hot water as well

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balcony
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droppers,

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Hubert Bennett, F.R.I.B.A. Architect to the Council.



L.C.C. DWELLINGS, CLIVE STREET, STEPNEY, E.1.
Wates Ltd.—Main Contractors.

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A feature of the construction is the vertical 'Droppers' or columns, which, fixed outside the balcony and stove enamelled black, considerably enhance the detailing and 'height' of the building. The droppers are a fabricated hollow section and act as down pipes for surface water from the roof and balconies. This water is taken off in a horizontal pipe suspended under the first floor and thence to a single drainage point.

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✱ Aluminium Sections by The British Aluminium Co. Ltd.



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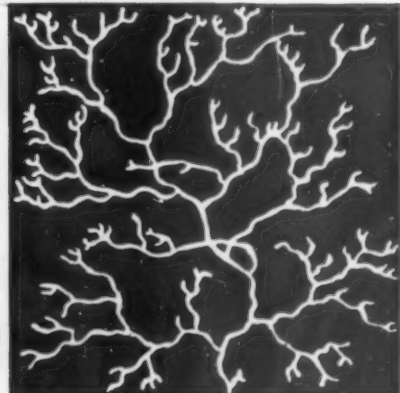
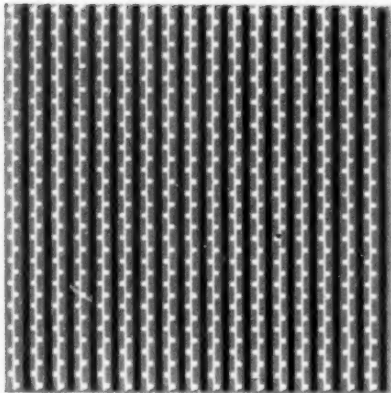
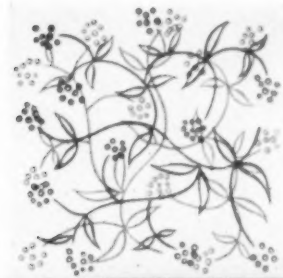
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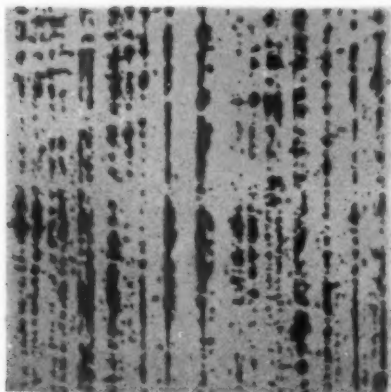
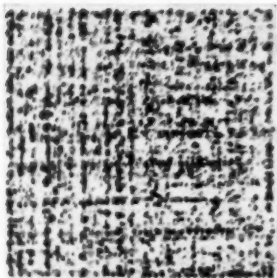
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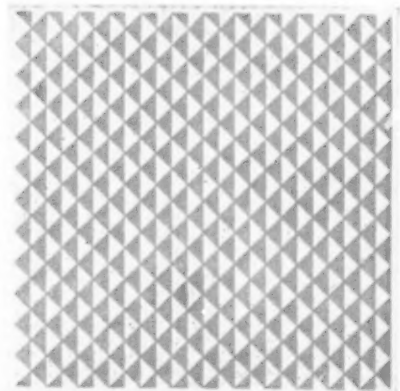
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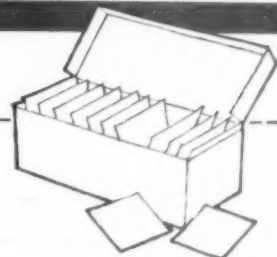


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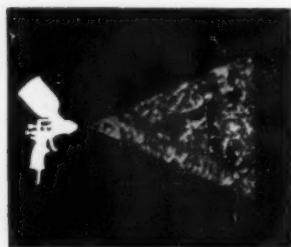
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paint in
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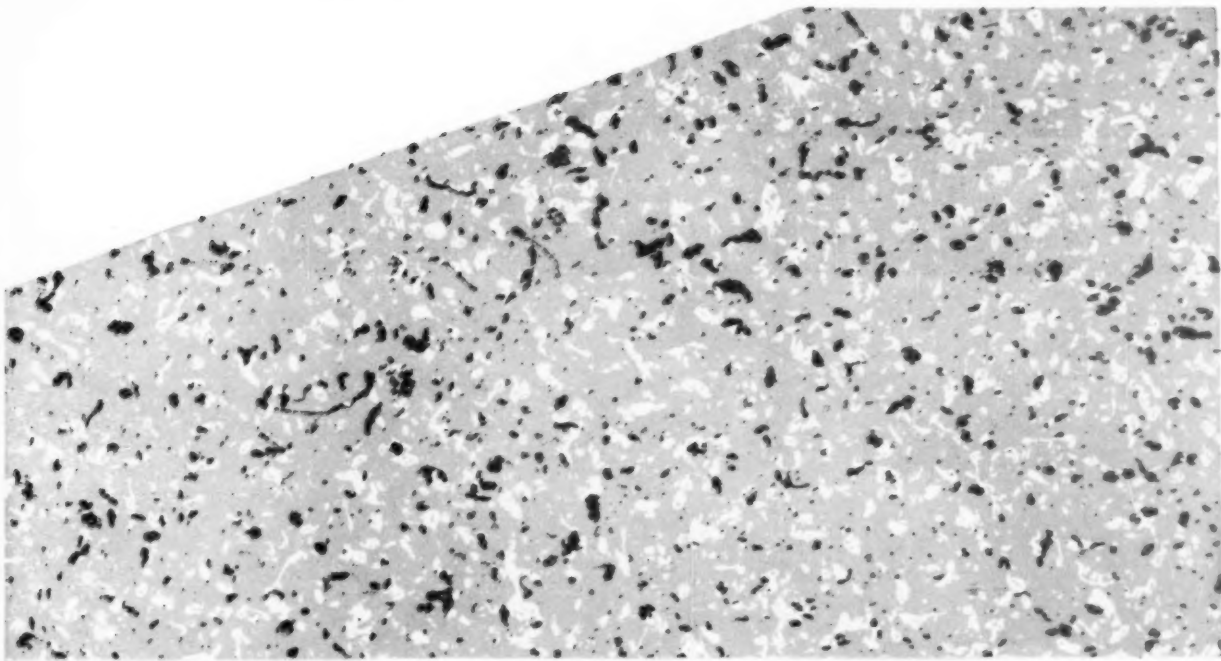
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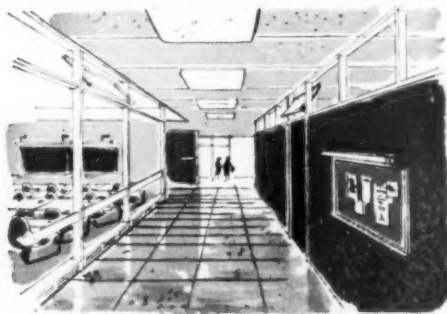
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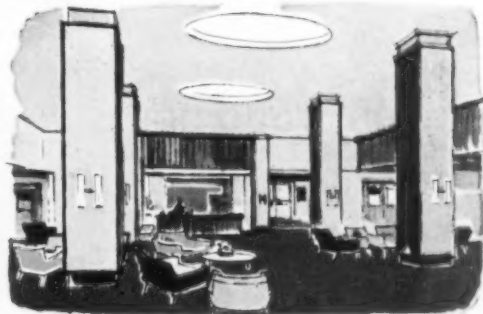
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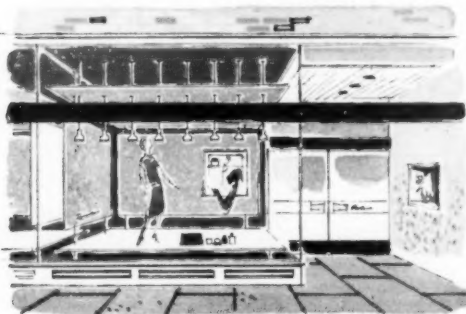
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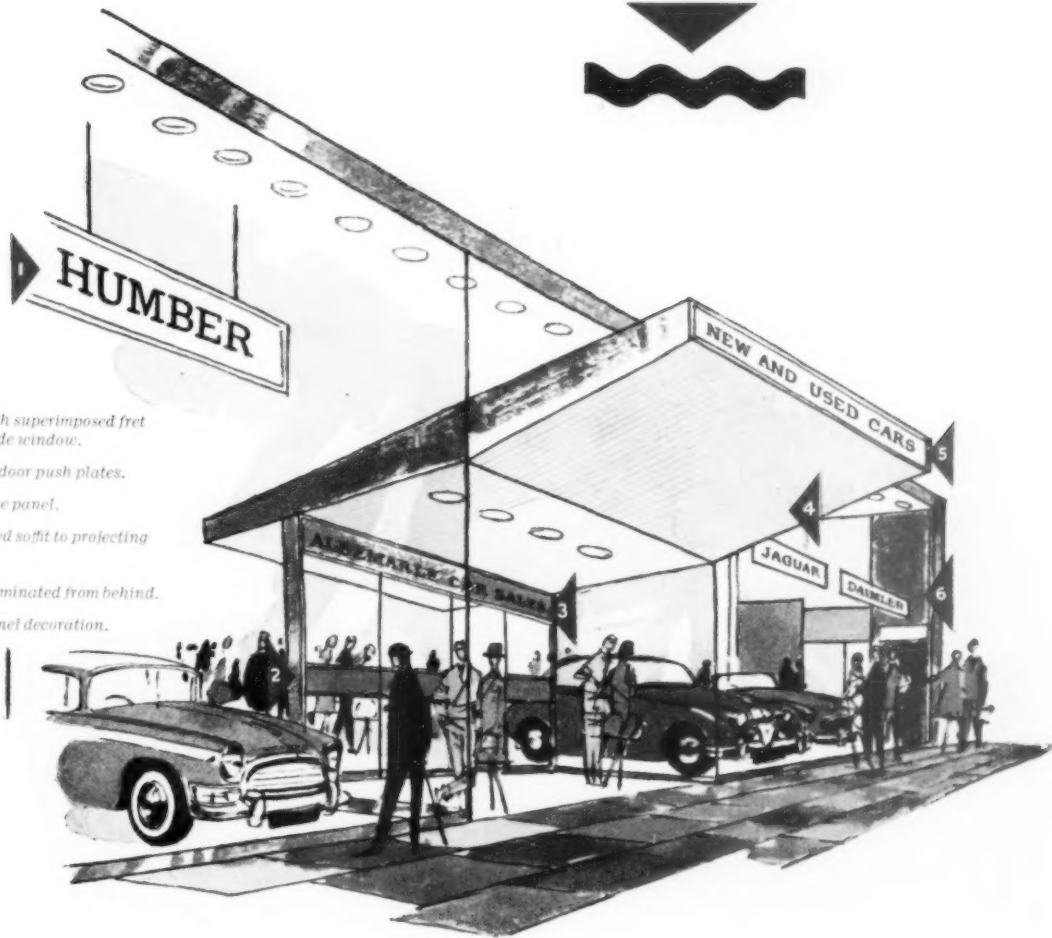
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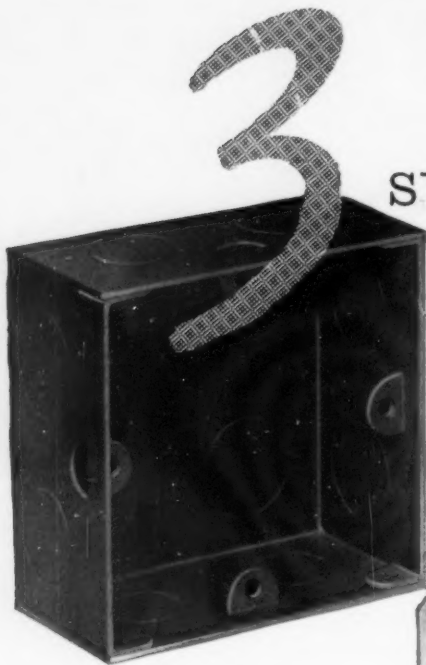
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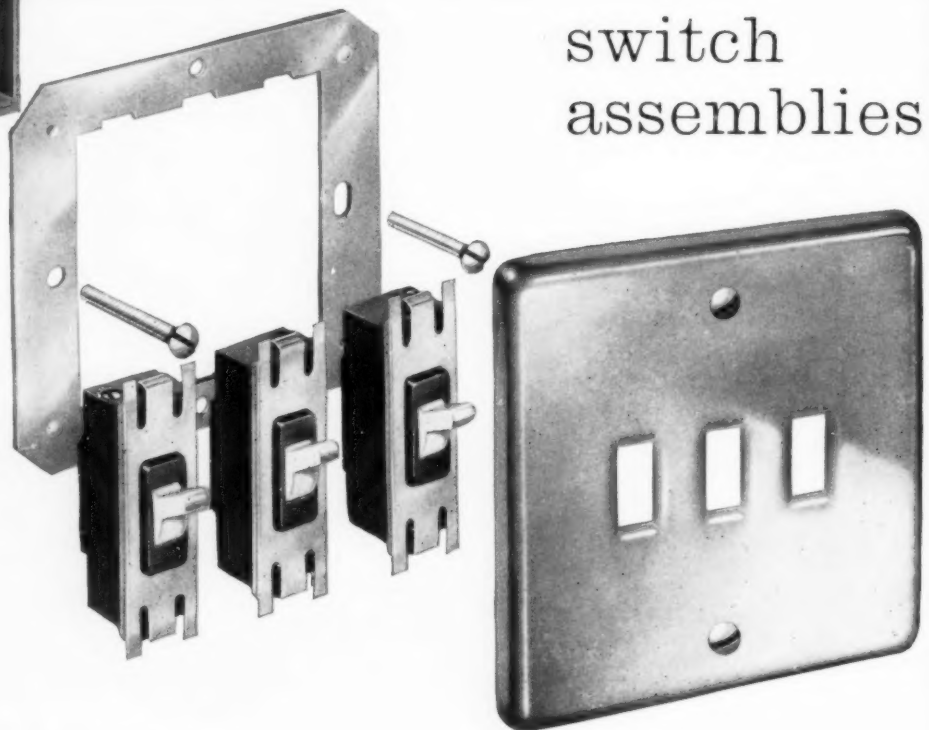
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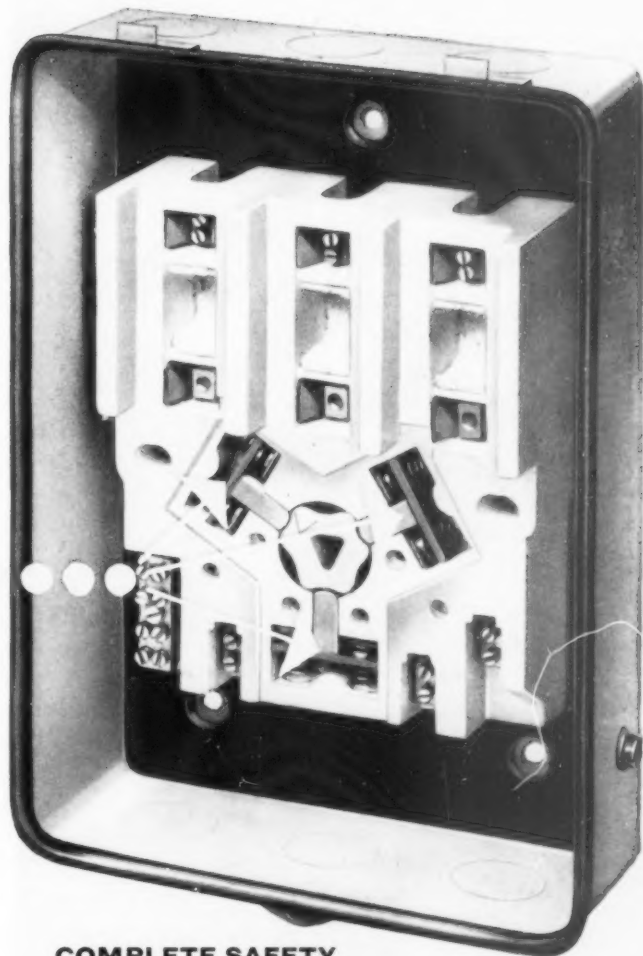
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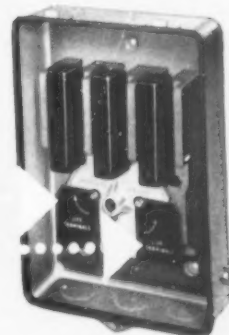
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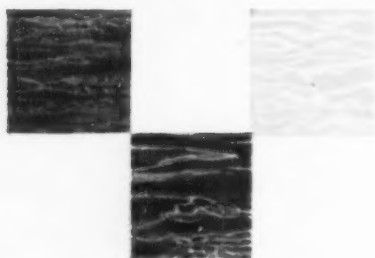


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NOT QUITE ARCHITECTURE

PRS Digest 1 (First Series)

Research and its uses

This Digest is introductory in intention. It will be noticed that the format is in the A Flexible size, and all SFB and UDC symbols are omitted; this is to facilitate the use of the recently developed P.R.S.I.a. or "lying around" quick-reference system.

The Research Station exists for the purpose of improving our understanding of the profession, and its relationship with the client. At present, approximately three investigations are taking place, falling into the three categories, A, B, and C. The following examples indicate the scope and general aims of the work in progress.

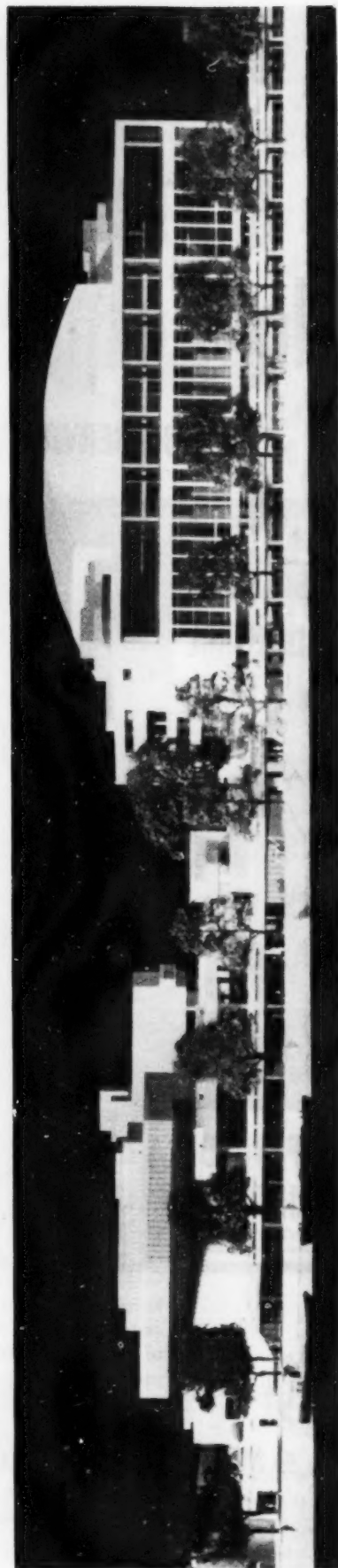
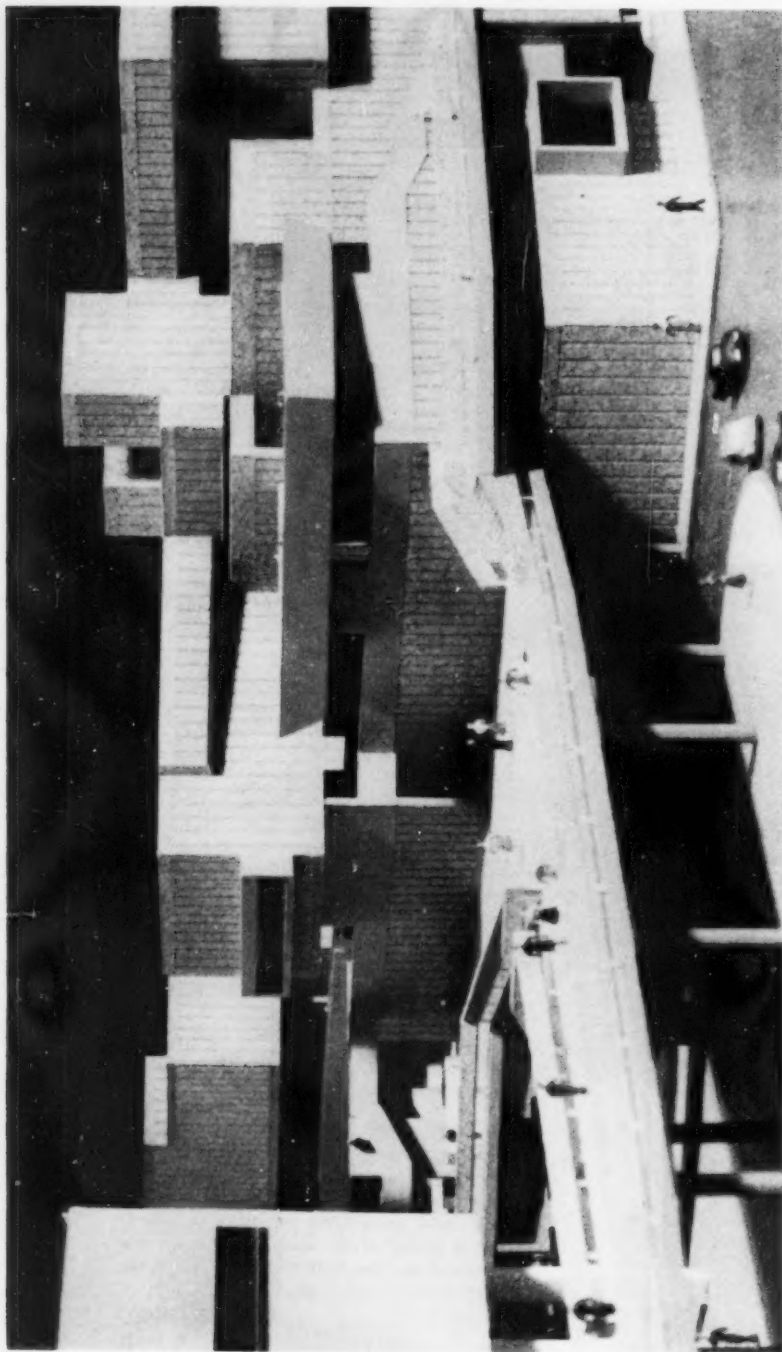
Sociological and Climatic influences and the Staff-efficiency coefficient

An investigation has just been carried out into the Real, as opposed to the Assumed efficiency of assistants of Intermediate standard upwards. An analysis was made of all time spent away from the drawing board, over a period of six weeks; the results are expressed as time factors relating to a basic seven hour working day.

	Hr.	Min.	Sec.
The Common Cold	1	6	32
Late arrival—Bus queues, fog, punctures, etc.		7	43
Reading own newspaper		9	11
Reading other people's newspapers		18	54
Personal telephone calls— Incoming		6	18
Personal telephone calls— Outgoing		5	44
FA Cup Replays		10	6
Visit from ex-colleague, now at Coventry		1	30
Taking Finals again		28	19
Indispositions relating to Christmas and New Year		9	3
Total ...	2	43	20

Next Phase for South Bank

The LCC launched the second phase of its comprehensive development plan for South Bank this week, comprising a new concert hall and art gallery, and the completion of Royal Festival Hall, the three buildings ingeniously linked by a spacious pedestrian precinct, stretching from the riverside gardens to Waterloo station, with two loop roads for traffic below. The photograph of the model below shows the view of the new buildings from across the river, with the new concert hall on the left, with the art gallery partly visible behind and to the right of it, and the extended Festival Hall on the right. Above, a view from the raised pedestrian walk which runs between the back of the Festival Hall and Belvedere Road, showing traffic loop road below and the art gallery with external cantilevered sculpture courts in right foreground. (The scheme is fully illustrated on pp. 469-478.)



From these results it is clear that staff efficiency is related in inverse proportion to the period of time spent in other activities. Expressed in the form of an equation:—

$$\text{RE equals AE} \times \frac{(\text{AE} - \text{FR})}{\text{AE}}$$

RE equals the Real Efficiency.

AE equals the Anticipated or Expected Efficiency.

FR equals the Factor of Reduced Efficiency, in this case 2.72166 recurring.

It is essential that FR be calculated initially for each individual office if this type of analysis is to produce an accurate result. No allowance has been made in the above research for seasonal variation; it is hoped to examine this aspect of the problem at a later date.

It would be dangerous to draw too many dogmatic conclusions from this rather limited study. What does emerge is the fact that people do vary in their attitude to architecture and indeed to most things.

*

Question and Answer—Office Ventilation

An architect writes:—"I have a serious ventilation problem in my office. When the drip feed heater is working properly, the temperature soon becomes unbearably hot, and I have to open the door, because the windows are all stuck up with old paint. Unfortunately, when the door is open, a large black dog from next door comes in, chews up my drawings and frightens my clients."

A study group visited the office and carried out a systematic experiment. The drip feed heater was turned on, at its maximum capacity. The office soon became unbearably hot but the windows would not open, as the frames appeared to be all stuck up with old paint. Therefore, the door was opened. Shortly afterwards a large black dog appeared, chewed up several drawings and bit the study group.

It was later decided to make two alternative recommendations, in an attempt to solve the ventilation problem. The architect in question could (a) move to other premises, with better windows, or (b) obtain a larger and fitter black dog. A brown dog is a possible alternative, but this proposal is tentative until the appropriate information charts, graphs and tables are prepared.

*

PRS Projects

Research planned for the immediate future includes the following projects:—

Insight: An exploration into our new understanding of the profession, with special reference to the P, PP, F, L, and A chromosomes.

Pre-packed V-8 pencils (HH).

Sex and the Architectural Student (A Time and Emotion Study).

Undercutting, without actually losing on the deal.

Prepared at the Plater Research Station, "The Swinging Hod," Yorks. March, 1961.

ALAN PLATER

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

The Editors

LONG SIGHT AND SHORT ON THE SOUTH BANK

LAST week the Government of London and the Government of the United Kingdom presented us with an odd contrast: while the LCC published its plans for the comprehensive development of the next stage of the South Bank scheme, up for approval before the Council this week, the Chancellor of the Exchequer knocked the next stage but one, by finally vetoing the National Theatre which was to have been built at the west end of the site, and for which the LCC has held the site ever since the Festival of Britain.

This is a thoroughly earthbound decision, not to be excused by the Chancellor's offer of increased subsidies to the Old Vic and what has suddenly become the Royal Shakespeare at Stratford on Avon, even though these welcome donations may turn away some wrath.

The South Bank is being turned by the LCC from a riverside dump into an imaginative cultural complex, with its three concert halls, art galleries and sculpture courts, the National Film Theatre, restaurants, and additional space at the Royal Festival Hall for more dancing, exhibitions and conferences, the whole a part of an excellently planned pedestrian precinct, providing an urban park which will stretch from Westminster Bridge to below Waterloo Bridge, facing one of the most beautiful and historic views in London. It will become the haunt not only of Londoners, but of the visitors who are coming to London from all parts of the world in greater numbers every year. But it will include no theatre!

There has always been hostility to building the national theatre on this South Bank site. Londoners, it is often urged, "won't cross the river"—as if millions of them did not already live in that strange, southern hinterland. By the time the LCC's present scheme is completed, in 1964, we prophesy that the habit of going south for a bit of culture will be so thoroughly well established, that we shall hear that argument no more. We can only urge the LCC to continue to hold on to the site for the National Theatre until a change of heart or government puts it back into London's building programme.



SAFER AND DENSER

I hope the representatives of the LCC's "out-county" expanded towns benefited from their trip, the other day, to Stevenage New Town. They could hardly fail to. This town continues to show signs of its salvation by its chief architect and planner, L. G. Vincent, who took over from never-mind-who in 1954. Everyone seems pleased with the pedestrian shopping square and lanes—including the shop-owners (who have found that it works) and your columnist, whose occasional London-Norfolk drives are now interrupted by compulsive strolls in this busy, but relaxed, urban setting.

*

If you can find Mr. Vincent when he has time to spare—somehow he found time for 5,000 visitors from abroad last year—you will hear some good tips on how to control bad architects and some interesting theories on modifications of the Radburn system. A neighbourhood of up to eight thousand houses now being planned (work starts next month) will have underpasses, overpasses and main roads that are not lined with houses. As a pilot scheme for this ambitious development Mr. Vincent has been putting up a more conventional Radburn scheme: three hundred out of seven hundred houses are complete. Other projects in hand are the civic centre—another pedestrian

square containing law courts, town hall and municipal offices as well as large department stores—a bowling alley and, very important, a long-term plan for the rationalisation of house-building. The large, improved-Radburn neighbourhood is being designed to save 10 per cent in building costs by the application of non-traditional methods to traditional materials. A pilot scheme of 20 houses using several combinations of materials is going up very soon.

*

And just to show what sort of a town Stevenage would have been if he had got there in time to do more than a spectacular rescue operation Mr. Vincent is peppering parts of the low-density areas with tower blocks.

NEW APPOINTMENTS

ASTRAGAL congratulates two architects on their new jobs. E. G. Chandler the City Architect and Planning Officer of Oxford has been selected to be the first City of London Architect. The City has got some odd post-war things to live down, but recently it has shown a new and progressive attitude, as the Barbican bears witness. Let's hope Chandler can continue the good work. The other appointment is that of David Jenkin from head of the general division of the LCC to the post of City Architect of Hull: a town with a housing problem which will benefit from someone with the experience and the big ideas the LCC inculcates.

THE LEAST OF EAST

It is as easy to have fun with inconsistencies in the "Buildings of England" series, edited by Dr. Nikolaus Pevsner, as it is with those in *Who's Who*. What worries me most in the Suffolk edition* is something I've come across before—an inconsistency in the use of qualified comments. No doubt Dr. Pevsner knows exactly why he thinks some oriel charming and others merely oriels. And to him there must be a reason for one church rood being hammerbeam and another splendid hammerbeam. I'm not sure if the occasional enthusiastic adjective gets in by mistake, or if the editor really does feel that the buildings he compliments are better than others. But this valuable series of guides is intended for laymen, and it would be nice for them to have a little more help.

* Penguin 12s. 6d.

One other thing bothers me about the Suffolk book. It is a point mentioned in last week's *Spectator*—the hit-and-miss approach to modern architecture. Does Dr. Pevsner, or one of his research team, really visit all buildings mentioned? How could anyone see the Tayler and Green house at Oulton Broad ("in conspicuous and unman-nered") without noticing the Fello Atkinson house almost next door to it? And if the neat but tiny house down the road by John and Sylvia Reid was worth mentioning, why not other housing in the county by, say, Felix Walter or Peter Barefoot. And how could anyone visit Lowestoft and inspect the Royal Hotel (by John Thomas) without noticing its mid-fifties defacement, and the extraordinary jumble of Festival modern now standing in place of the pier pavilion that was once a foil to it?

LOOK AT IT THIS WAY

If you want to impress a client and convince yourself that the eighteen-storey blocks in your twelve-acre development project are not too domineering, let me recommend you to invest £45 in a Modelscope—a device made by Film Surveys Ltd. to bring architectural models to life from a pedestrian's-eye viewpoint. The effects obtainable from this twenty-lensed periscope-cum-telescope are extraordinary—so much so that a nameless mother-in-law who is not unrelated to me wanted to buy one just for the fun of turning a desk top spattered with ash-trays, pepper pots and match boxes into a miniature Brasilia. I don't really mean miniature, because the Modelscope adapts itself to the scale of the things you are viewing and gives you the illusion of looking at a life-size image.

*

If your client really wants to chuck his money about, Film Surveys Ltd. will make a film of a model, including shots taken over a small steering wheel at appropriate car speeds. One of their most impressive films is of a descent into the human lungs, which gives you a clue about the origins of the Modelscope.

BRICKS ARE BEST

My early youth was improved by the constant use of wooden, Victorian building bricks. Loads and tensions



The All Saints Church at North Ainslie, Australia (above), was built from the remains of the Rookwood Cemetery railway station, Sydney (right). The station was built in 1869, under the guidance of architect James Barnet, using local sandstone. The bell tower was moved to the right hand side and the original entrance archway, with its ornamental angels, was erected between the chancel and the sanctuary.



didn't worry me! Instinct guided my pudgy wrist, and the occasional crashes taught me not to put that brick *there* again. In the BBC TV "Science and Life" programme for schools last week, entitled "Architecture in the Street Age," very little was shown which a child could not have observed if he had played with similar bricks and kept his eyes open near building sites. The opinions of the commentator, however, were interesting. Architecture, he said, was largely a fashion, but it did depend somewhat on which building materials were available at the time. To illustrate this we were shown Scottish baronial, LCC flats and an office block ("some people call these egg-boxes"). Irritating stuff, but ASTRAGAL was mollified by a sight of the iron bridge at Coalbrookdale and the comforting words that "after the war, when we were very short of materials and builders, we had some very skilful architects who could design schools to be constructed from components to be made in factories and easily assembled on the site."

*

After this statement the studio gave way to film, showing several buildings being constructed, including schools. Various materials were shown (without much commentary, but with a maddening piano accompaniment), and there were neither details of assembly nor clear indications of which structural materials were being used.

POOR PLUG FOR SINKS

I suppose we shall be hearing complaints soon about a wave of violence

in the consumer-defence magazines, but I must say it did the old heart good to see *Shopper's Guide* roundly denouncing a particular line of plastics sinks as a "discredit to the whole plastics industry." I won't tell you which one it was (people who don't subscribe to *Shopper's Guide* or *Which* don't deserve the protection they afford subscribers), but it was a glass-fibre job. On the whole the glass-fibre sinks didn't compare well with the acrylic ones; and none of the plastic sinks compares favourably with those of fireclay or vitreous enamel as far as resistance to hard wear, acids and heat is concerned. On the other hand *Shopper's Guide* might have made rather more of the *advantages* of plastics sinks—their quietness is a big consideration in a small echoing kitchen, and their tendency *not* to break china is a real boon in any normal family. Are our defenders getting a bit too preoccupied with materials, and paying too little attention to function?

GREEN AND WARM

Now the Air Force has given up flying boats and abandoned Calshot the CEBG has cast envious eyes on the site and is making tentative noises to find out if the planners will agree to a 2,000 megawatt power station, about

four times the capacity of the existing Marchwood station, a few miles further up Southampton Water. It would be in the Green Belt, and neither Hampshire nor the New Forest want it.

*

What with this and the atomic power station proposed for the Isle of Wight, it looks as though all the cooling water will help to bring Solent sea temperatures a little nearer Mediterranean levels. Brighton power stations have been helping to grow coral in Shoreham canal for years, and some dock or other in Swansea is supporting sub-tropical barnacles and two foreign crabs, one American and one from the Eastern Mediterranean. Memo for the travel boys, "Come to Cowes Pier for the *bêche-de-mer*."

NOT UNUSUAL OFFICES

The Institute of Directors has published a very sensible report on *Better Offices*, with a lot of help from architects and designers as well as from the personnel and health people. The average architect ought not to find anything particularly surprising in it, but it is nice to find Big Business thinking that office design has begun to matter.

ASTRAGAL

LETTERS

Clifford Culpin,
O.B.E., F.R.I.B.A., M.T.P.I.

Paul Ritter,
M.C.D., B.Arch., A.R.I.B.A., A.M.T.P.I.

Tony Howard, A.R.I.B.A.

William G. Reid, A.R.I.B.A.

Roy D. Littlejohn, A.R.I.B.A.

Financing Young Practice

SIR: The problems of financing the expansion of an established practice have brought home to me the difficulties that must be faced by the younger man trying to remain solvent while getting a new practice going. We strive to launch more and more open competitions but do nothing about helping a winner who may have to pay his way until fees start to come in. Public authorities, who are the principal promoters of competitions, are rather reluctant to part with their money until they see something tangible in return. They usually offer the architect one-sixth fees on approval of sketch plans and then expect him somehow to survive, and to finance the heaviest part of the work, until he draws a further half-fee on the signing of the building contract.

A worse sting comes in the tail, for although we are sometimes (but not always) offered a further one-sixth fees when supervision is half complete, we are asked to wait until the final certificate is written before drawing that last one-sixth. Delays in settling final accounts may hold it up for two years!

If the client can be persuaded to apply strictly the "Mode and Time of Payment" conditions in the RIBA Scale, things are a little better but still not good enough. We need more frequent payments and, particularly, extra instalments to fill in the nasty financial gaps at the first and last stages of our work.

While fitting into the scale pattern, my method secures many more payments and ensures a steady flow of fees into the office throughout the job. It has been accepted by public authority clients. In the hope that it may be of use to someone starting up a new practice, I set it out here. It consists of 12 *equal instalments* as follows:—

1. On approval of preliminary sketch designs sufficient to indicate the architect's proposals;
2. On approval of the full sketch design drawings, with approximate estimate of cost;

3. When the working drawings are one-quarter complete;
4. When the working drawings are one-half complete and Town Planning and Building Byelaw approvals have been obtained;
5. When working drawings are three-quarters complete;
6. When working drawings are sufficiently complete for quantity surveyors to take off their Quantities;
7. When Bills of Quantities go out to Tenderers;
8. When a building contract has been executed;
9. When certificates to the value of one-third of the contract sum have been issued;
10. When certificates to the value of two-thirds of the contract sum have been issued;
11. When "practical completion" has been reached;
12. When the final account has been agreed and the final certificate issued.

CLIFFORD CULPIN

London, W.C.1

Science and Dr. Banham

SIR: Dr. Banham prescribes science. But the dose is dangerous. The promising pages of Lancelot Law Whyte, Paul Goodman, Wilhelm Reich, Scott Williamson, etc. are shunned by the Establishment and the research he refers to uses inadequate methods. Human sciences and (his very own) "New Biology" are too dodgery. To invoke Maholy-Nagy, does not support, but devastates his argument. He knew the importance of function and emotion and believed in the integrative science:

"It is the artist's duty today to penetrate yet unseen ranges of biological functions, to search the new dimensions of the industrial society, and to translate the new findings into emotional orientation. The artist unconsciously disentangles the most essential strands of existence from the contorting and chaotic complexities of actuality and weaves them into an emotional fabric of compelling validity, characteristic of himself and his epoch. "The ability of selection is an outstanding gift based upon intuitive power and insight, upon judgment and knowledge. And upon inner responsibility to *fundamental biological and social laws* which provoke a reinterpretation in every civilisation." (Maholy-Nagy, *Biography*, by Sybil Maholy-Nagy, Pg. 236. My italics.)

Below are seven instances where the "inner responsibility" led to fruitful actions while the human sciences failed and fail to give badly needed guidance:

1. The need for privacy in the house was sensed by architects like Segal—patio housing.
2. The need for segregation of pedestrian from motor traffic, by philosophers and planners like Mumford, Stein and Wright.
3. The functional parallel of the social scene of the "bye-law" street was formu-

lated by Corbusier, and furthered in Sheffield, by architects.

4. The neighbourhood idea, was Perry's.

5. The new town ideas beyond the neighbourhood principle, as used in Cumbernauld, stem from anything but the human sciences.

6. "Enclosure" has reality and meaning in planning and architecture only because of the imaginative (not analytic) observations of Summerson, Sitte, Sharpe, Unwin, Mumford—not a scientist among them.

7. It was Prof. Llewelyn Davies, an architect, who conceived of the fruitful interdisciplinary group research with regard to hospitals and who stressed that a client does not know his brief, similarly Doxadis in his *Ekistics*.

This is the particular difficulty in the study of our human society: it does *not* know its "brief," and it is sick. From the study of the sick body, individual or corporate, must be deduced what is healthy. Without a functional approach, restricted to such as Williamson or Reich, the problem is intractable for the human sciences. So orthodoxy flies from these conclusions, and the hypotheses based on them.

However Freud, Burrow, Scott-Williamson, Reich, Frank, Horney, Halliday and Halmos made the above diagnosis of "illth" independently in terms of the "psycho-analytic," "sociological," "functional," "sex-economic," and "bio-energetic," "socio-psycho-somatic," "cultural," "psycho-social" and "bio-social," respectively. Progress, architectural development, as specific in man may be seen as a therapeutic and prophylactic process born of the regenerative tendency found in life.

Dr. Banham is optimistic indeed if he thinks that human sciences can give us the client's requirements when they do not even admit the state of illth and differentiate "healthy living."

I suspect the phrase "human sciences" is "in." Dr. Banham is invariably in. But until the study of man and his environment can tell us why a cow that is loved gives more milk than its identical twin (a fact), and why plants that are blessed grow better (a fact), what influence materials and shapes have on man, and why we had far better stick to and support the few workers outside the orthodox bodies of science, and rely on our creative imagination to discern critically. Scott-Williamson's Peckham Health Centre died for lack of official support. Shame on the "Human Sciences"!

PAUL RITTER

Nottingham.

SIR: During Dr. Banham's most recent sally at the RIBA, he was asked this rather disturbing question: Much is talked about the value to our profession of the study of science and the scientific method—what is meant by this and what is the precise value of this study?

The inadequacy of Dr. Banham's reply (which boiled down to "a broad outlook") suggests one or more of three things:—

- (i) There is little of value for us in the study of natural philosophy.
- (ii) We have been mentally steam-rolled by the weighty achievements of twentieth-century technology into believing that the

study of a couple of paperbacks on DNA and the steady-state universe will prepare us for similar advances in architectural thought.

(iii) It is a good question.

It is obvious that a certain amount of scientific knowledge is of use in coming to grips with the end-products of our startling technology. A flood of new materials and techniques engulfs us: difficult to keep pace with in terms of quantity and difficult to classify mentally because of unexpected properties of familiar-looking materials. To assess the value of a new material by means of a data sheet rather than empirically acquired knowledge requires some understanding of the basic "laws" by which materials behave.

But at what level does one "understand" the laws sufficiently to be able to understand, for instance, the behaviour of a new material in building practice? Should one be aware of Heisenberg and his Uncertainty Principle in relation to the non-deterministic behaviour of matter at the microscopic level?

Or perhaps a thorough grounding in the theories of classical physics (analytical mechanics, theory of light, transformations, thermodynamics, etc.) would be sufficient? In fact, a knowledge of how to use a few simple formulae, and an understanding of their meaning from a simple phenomenological point of view, would be quite adequate.

If the study of natural philosophy is not important in our efforts to classify and master new materials and building methods, where does its value lie? J. D. Bernal may well suggest that "science today needs no emphasising" but neither do politics or international economics. It does not follow that every well-trained architect must learn to think like a politician or an economist. On the other hand, does the definition offered by Mr. Cowan of a scientific activity suggest a more fruitful source of inspiration?

Observation, measurement and classification are three of the more passive scientific activities. A more vital definition of the scientific process might be observation, experiment and theory: experiment being the reproduction under controlled conditions of the phenomena to be observed; theory being the formulation of laws which, since Newton, have been non-empirical, mathematical in form.

It is certainly easier to see the place of the scientific method in architectural research than in any other architectural activity, since the process of scientific discovery is synonymous with basic research. Another possible field of application, however, may be the "design process" and, more particularly, the planning process.

While skirting warily round any mathematical rationalisation of aesthetics, it does not seem unlikely that planning problems might be reduced to mathematical form and become soluble, probably not by any simple rule of thumb, but by computers. The main problem would be to state the limits within which the computer would function—this would require a careful analysis of our basic assumptions in solving

the simplest planning problem. Assumptions have shown themselves to constitute one of the most difficult problems of definition—witness Hilbert's postulates for Euclidian geometry together with subsequent wrangling—but it may well be possible to define our assumptions sufficiently to deal with this practical problem.

Perhaps, however, this is being dangerously specific. All I am suggesting is this: It is an exciting hobby to follow the latest achievements in that field where achievements are most spectacular; it would be satisfying indeed if this study gave us the sort of outlook which would enable us to put our own profession into twentieth-century working order. But to assume this happy coincidence without inspecting its validity is to indulge in psychotic wish-fulfilment.

I think the study of natural philosophy has a place this side of BRS, but we should make some attempt at defining its applications. In this way we may use most potently the methodology which, from being earth-bound, has made us space-borne in 60 years.

TONY HOWARD

London, N.W.3

Radburn Planning

SIR: Paul Ritter's recent series of articles on Radburn planning must have been of considerable interest to everyone dealing with large scale housing development, as they summarise some of the most comprehensive effort ever made to solve the very considerable problems associated with large relatively low density schemes where a high proportion of dwellings have private gardens or patios.

In his analysis he has shown great interest in the traffic segregation principles implicit from the beginning in the Radburn idea: it is unfortunate that he has failed to emphasise a further and most important aspect in Stein and Wright's work resulting from this segregation, which is the basic relationship of the individual dwelling to the pedestrian and vehicular means of circulation.

A study of early American examples will show that the functions of vehicular access and service to both dwellings and garages were always combined, and the resultant access culs-de-sac with their private garages attached to dwellings, or block of garages and parking areas, were treated as a logical and acceptable environment through which to approach the dwelling when arriving by wheeled transport.

The gardens or patios, however, were normally situated away from the vehicular access ways, with a direct relationship to the pedestrian system of circulation running through the area, so that the private gardens enjoyed the advantage of opening directly into the pedestrian walks leading to open spaces, schools and shops, the principal rooms of the house taking advantage of the views in this direction.

This, after all, is the true segregation of activity which can only be achieved in low density development in schemes of the super block kind, yet it is hardly apparent

in Paul Ritter's examples: to show a layout where highly public private gardens open their gates on to hard standings fringed by dozens of garages is to show something which is hardly more than a shadow of the original idea in potential advantage to the occupiers of the dwellings.

It would not be doing justice to the Radburn idea to let this point pass without comment and it should be noted therefore that most of the "Radburn" schemes shown in illustrating this series of articles are only about half baked: the traffic segregation parts have risen pretty well, but the individual dwellings and their relationship to the means of segregated circulation are still rather flat.

Only at Cumbernauld does some of the clarity of the original idea come through, and there is little doubt that the achievement of the desirable relationship described above at densities of 18-20 dwellings to the acre, complied with the creating of a satisfactory urban environment, is quite a problem, and it remains to be seen where, if ever, it can be effectively solved.

WILLIAM G. REED

Basildon, Essex

The author replies: Though it is, of course, true that many of the examples shown were imperfect in some respect or other, Mr. Reed's criteria are not valid. If he were to study the American examples, he would note that Stein himself thinks most highly of Baldwin Village where "patios offer additional reposeful retreat on the garage court side of the houses. The patio is the indigenous private outdoor living room . . ." and if he were to look at the illustration of one of these in the second edition of "Towards New Towns For America," he will see how successful this can be. As my series tried to suggest, the varying conditions met with in different sites and climates call for a variety of arrangements.

Soccer Match

SIR: I have recently received a letter from Mr. Ricketts, the Secretary of the RIBA, in which he tells me that the Institute have received a challenge from the Royal Institution of Chartered Surveyors to play a soccer match against them. He also asks if I would be interested in raising a side amongst members and Students RIBA to meet this challenge. I feel that we cannot possibly let this opportunity go without taking some action and have therefore offered to do my best to form a soccer club.

May I take this opportunity through your correspondence column of asking any soccer minded members or Students RIBA who would be interested in playing to contact me, enclosing a few brief notes on their abilities and position played?

ROYD. LITTLEJOHN

5 Myrtle Road,
Queen's Park,
Bournemouth.

NEWS

TCPA

The Future of South-East England

The need for genuine regional planning was the theme of the Town and Country Planning Association Conference at County Hall on March 17, exemplified by the growing crisis of over-population and all its attendant problems in South-East England and above all in London. A policy statement introduced by Peter Self, vice-chairman of the Association, put forward three proposals for dealing with the unavoidable effects of London's irresistible magnetism. Present trends suggest that by 1981 another 2 million people will be wanting homes, work, transport and other amenities of civilisation in "those parts of the London Region outside the metropolitan green belt." The TCPA put forward three principal measures for guiding and controlling this growth: first by a planned increase, providing for about 1 million more people in the next 20 years within a radius of 20 to 40 miles from central London. The Council put forward a list of country towns ringing London which could between them plan for such growth, largely by private enterprise but also by public schemes of overspill.

Secondly, they recommend the considerable development of certain towns much further from London, selected as being suitable "sub-regional centres," which could offer a wider range of urban facilities to the whole of the surrounding countryside—towns such as Northampton, Peterborough and Ashford (Kent).

Thirdly an East Anglia Development Corporation is proposed, of which Peter Self said, "our third suggestion is rather more visionary. We believe that a more co-ordinated and integrated approach to the expansion of smaller towns should be attempted in one selected area" with a single agency operating to impart more drive and vigour than could come from a number of small local authorities. The TCPA suggest East Anglia as the most suitable area for this experiment in regional planning because it contains many small towns which would wish to expand but lack the resources, because it is much the most under-developed area in the vicinity of London, and because it could develop as a distinctive sub-region with an enduring character of its own.

The background to this policy was deftly brought to life by Wyndham Thomas, in an assessment of the achievements and failures of the Abercrombie Plan, which he described as the boldest and the one that had come nearest to fulfilment of all the "plans born out of that mood of defiant optimism and high resolve which characterised Britain in the war years." Quoting the figures of population, employment and the growing trend towards non-manufacturing employment in the London region, Mr. Thomas commented, "Eco-

nomically, the region's astonishing diversity of employment seems bound to increase its relative strength . . . it would feel the impact [of any slump] later and weather the storm better than any other major region. The best hope for limiting the extent of London's dominance therefore lies in continuing very full employment in the country as a whole."

Both public transport policy and the growth of private cars were clearly influencing future development and the London Region was becoming more diffuse. This was "the metropolitan region stage in the evolution of the conurbation, that international phenomenon of economic advance. . . . The critical challenge to planning," he concluded, "is not how to deny the development but how and where to guide and gather the disparate parts of the metropolitan explosion into a series of compact groupings, bringing efficiency, comfort and convenience where chaos, discomfort and waste must otherwise prevail." Opening the conference, M. J. Wise, Professor of Geography in London University, pointed out that regional planning has been neglected for the past 10 years or more, and that this is itself one aspect of the present crisis. While warmly concurring in the theme of the conference he pointed out that in fact the problem of London's over-population would never be solved in isolation from the lack of balance in the rest of the country.

"The problems of the London region," he said, "are but one aspect of a national problem, that of the regional balance of employment and population growth. . . . Great differences between the regions of Britain exist: in rates of growth, in the standards of social services, in housing conditions, in the opportunities that they offer for leading a full life." He hoped that before finalising its policy the TCPA would also discuss the problems of the areas which are losing industry and population.

"The aims of town and country planning," said Professor Wise, "are often defined as the rational use of land. But land use is not in fact the fundamental problem. This is the location of employment and population. Changes in the use of land are the results of technical, economic and social changes over which planners have little control. The location of industry is in one set of hands; the planning of transport in another. To a limited extent there is economic planning of other kinds too, and the town and country planner is left to sort out the resultant situation as best he can by controlling the use of land. This situation can produce only unsatisfactory results. There must be greater co-ordination of economic planning with land use planning: this is not an easy task, it is one that in a democratic society we have not fully faced."

DESIGNERS' CONFERENCE

Meeting in Venice

The second conference of the International Council of Societies of Industrial Designers

is to meet in Venice from September 14 to 17, and the official British delegation is to be appointed by the SIA Council and the CoID. Other designers, architects and interested persons will also be welcome as observers. The full programme and details are available from Misha Black, president ICSID, 37, Duke Street, London, W.1.

ACCIDENTS

A Record Year

Accidents in the construction industries reached a new all-time peak last year and presented a "distressing and melancholy picture," said Mr. Peter Thomas, Parliamentary Secretary, Ministry of Labour, in London earlier this month.

Provisional figures, just released, showed there were 20,596 reported accidents—over 2,000 more than in 1959—and fatalities increased by 65 he told the annual dinner of the London Building and Engineering Constructors' Accident Prevention Group.

In the past seven years one man in ten had been badly hurt, and in the last six years one man in 1,000 had been killed.

While compliance with the awaited codes of safety regulations covering the construction industries as a whole should help to reduce "the grim annual toll of accidents," a personal sense of responsibility for improving standards was needed from both employers and employees.

SOUTH BANK

Credits List

The South Bank scheme, details of which appear on pages 469 to 478, was designed by: Hubert Bennett, Architect to the Council; F. G. West, Deputy Architect; Geoffrey Horsfall, Senior Architect, Special Works Division, and J. G. Cairns, Asst. Senior Architect, Special Works Division, and the following working groups: *South Bank Group*: N. Engleback, Group Leader; M. J. Attenborough; J. W. Chalk; R. J. Herron; R. C. F. Pocock; R. L. Martin; A. Waterhouse; J. M. Cars; D. Crompton; D. J. Curry; T. E. Kennedy; J. A. Roberts. *Festival Hall Group*: A. J. G. Booth, Group Leader; D. Wisdom; E. G. Williams; C. S. Burgess; Miss M. Hichison; S. Kapuscinski; Mrs. T. K. Hartry; C. Bennett; S. Meades; J. W. Szymaniak; C. Franklin; H. Liley; G. Leitch; M. F. Rice, Principal Quantity Surveyor; L. W. Lane, Planning Officer; G. C. Logie; J. M. Hirsch; J. Rawlinson, Chief Engineer; F. M. Fuller, Deputy Chief Engineer (Roads); R. J. Dickson, Divisional Engineer, Heating and Ventilation; C. A. Belcher, Divisional Engineer, Electrical; William Webb in succession to J. E. J. Toole, Valuer to the Council; L. A. Huddart, Chief Officer of Parks Department; *Consultants, South Bank*: Ove Arup & Partners, Structural Engineers; Peter Dunican, Partner-in-charge; Hugh Creighton, Acoustic Consultant, *Royal Festival Hall*: Scott & Wilson, Kirkpatrick & Partners, Structural Engineers; Hope Bagenal, Acoustic Consultant.

SPUR

High Oxford Street

When D. Rigby Childs introduced his scheme for the segregation of pedestrians from vehicles in Oxford Street at a special meeting of SPUR at the RIBA last week,* he provoked a lively discussion amongst his audience. He thus achieved one of his objects in formulating this scheme, which was to "get people thinking."

Sir William Holford opened the discussion by praising the broad principles of the scheme whilst at the same time directing three "loaded questions" at Mr. Rigby Childs. He observed that the scheme did not increase the vehicle traffic capacity of Oxford Street and asked what consideration had been given to the vexed problem of intersections which, at present, is a major cause of traffic congestions in the street. Secondly, he questioned the effect of the design for the raised pedestrian platform in blotting out the sky and suggested that the result aesthetically would be undesirable. In Sir William's opinion (and this was supported by others) it would be better to have either no roof over the pedestrian way at all or else completely to roof over Oxford Street between the buildings in a "Crystal Palace" manner. Sir William's third question concerned the very many small frontages in the street: would every shop, no matter how small its frontage, require a separate bridge from the central raised pedestrian way?

Walter Bor said that, whilst he held no brief for Oxford Street architecturally, he was concerned lest Mr. Rigby Childs's scheme should be taken as a prototype for other streets which have considerable architectural character. He seconded Holford's suggestion of either no roof or roofing over the whole of the street. He also suggested that the supporting columns down the centre of the road would deprive Oxford Street of at least one traffic lane as buses would not drive within 2 ft. or so of them. Another speaker suggested that a scheme of columns down the centre of Oxford Street would run into considerable foundation difficulties because of the vast number of services under the road. An Oxford Street shopkeeper in the audience made the point that most motor traffic, other than buses, does not want to use Oxford Street but is compelled to, as there is no alternative east-west route. He suggested that if a through east-west road were built in the area immediately to the north there would be no need to make any changes to Oxford Street whatsoever.

The most spirited attack on Mr. Rigby Childs's scheme came from the Borough Engineer and Surveyor of St. Marylebone. He criticised the central columns saying that if a bus crashed into one it might do no harm to the columns (which Mr. Rigby Childs said had been designed to withstand this) but what about the passengers in the bus? He wanted to know how Mr. Rigby Childs proposed to prevent pedestrians using the existing pavements at street level; what provision there was for service vehicles to the shops; who would pay for the lighting, cleaning and policing of the scheme. He

condemned the attitude of many architects in regarding the street as a potential building site and pointed out that, as well as being a shopping area, Oxford Street was an important east-west class 1 road.

In answering the many questions put to him, Mr. Rigby Childs said that one of the factors which he had constantly in mind in designing this scheme was that, if something were not done to improve conditions in Oxford Street in the near future, it may well decline as a major shopping area. People would not come into the West End, preferring to shop in the outer suburbs.

In reply to Holford's point on increasing traffic capacity, he said that the capacity would be increased by providing laybys for bus stops and for allowing vehicles to set down passengers. He proposed underpasses where possible at intersections. He considered that it would not be difficult slightly to widen the road to compensate for any loss at the columns. Columns would pass through services to foundations below them. Pedestrians would not be prevented from using the existing road level pavements, but they would be encouraged to go to the upper level by making the displays at this level attractive with minimal window displays at road level.

In summing up, the chairman, Peter Chamberlin, warned that, because Mr. Rigby Childs's scheme had been put forward as an idea, it should not be condemned as impractical: we tended to be terrified of ideas. He pointed out that the scheme had not been the result merely of one architect working in isolation, but of an architect collaborating with several other professions.

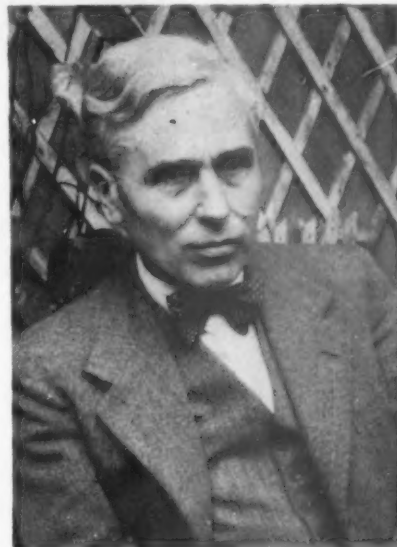
The scheme represents the combined work of a number of individuals: D. Rigby Childs was responsible for the planning and design; Norah R. Glover and L. Rudowski for the design and drawings; S. Vaughan and J. R. Kell of Oscar Faber & Partners, the structural design and engineering services; D. B. Connal and J. F. Green of D. B. Connal & Partners, the cost analysis; and R. Parker and E. Brooker of Way & Waller, surveyors and valuers, the property analysis. It is hoped that the scheme will be seriously examined by the Oxford Street Traders' Association and others whom it directly concerns.

ARCUK

Council Decisions

At this month's Council meeting the Board of Architectural Education recommended that the School of Architecture of Portsmouth College of Art be recognised, and the Diploma Final Examination and examination in Professional Practice and Practical Experience be recognised as qualifying for registration from June 1960.

The Board also recommended the Council to get a judicial interpretation of the term "students in architecture," so as to make sure that the terms on which maintenance scholarships for special studies can be widened to include registered applicants as well as those who have passed all parts of the Final Examination except Professional Practice.



David Jenkin has been appointed City Architect at Kingston upon Hull

This has arisen because since the scheme came into operation last year, the Board has been advised that the scholarships would yield more fruitful results if they could be awarded to registered persons with post-registration practical experience.

The Act under which such scholarships are provided, however, specifies "the assistance of students in architecture," and the Board wants legal advice as to whether the phrase covers any bona fide student in architecture, whether registered or not and whether or not studying architecture at a recognised school, or whether it means only students studying architecture for the purpose of qualifying for registration.

CITY ARCHITECT

From London to Hull

David Jenkin, at present senior architect, head of the General Division at London County Council, has been appointed City Architect of Kingston upon Hull in succession to A. Rankine. Mr. Jenkins, who is 47, was deputy county architect for Buckinghamshire before he went to the LCC in 1946.

LCC

Communal facilities on High-Density Housing Estates

Communal facilities required on high-density housing estates were the subject of a talk by the LCC Deputy Director of Housing, Mr. R. J. Cowley, at the Housing Centre earlier this month.

Tenants' clubrooms are usually provided on all estates of 400 dwellings or more, including a small hall for dancing, drama and games, a kitchen where light refreshments are served and several small rooms for special interests and classes, he said. These clubrooms are run by the tenants' groups to whom they are leased by the LCC at half

* Illustrated in the AJ last week.



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the economic rent. Even so, rents are sometimes as high as £7 per week which tends to force the groups to concentrate on money raising activities. On some estates there are separate clubrooms for old people who manage them with the help of a warden. Three types of children's play spaces are provided: a fairly small area for toddlers, a bigger one for juniors and a kick-about area for teenagers; the latter is the most difficult provision on account of size (60 ft. long) and appearance (12 ft. high fencing). If no provisions were made, however, hooliganism resulted. New equipment is being tried out—sandboxes which can be locked at night, water trays, wooden tents, etc., and some of the play sculpture such as a reclining Gulliver by Trevor Tennant at St. Anne's Neighbourhood, Stepney. Mr. Cowley described them as "great fun." Experiments with supervised play areas which provide a greater variety of equipment have been promising.

It was regrettable that it appeared necessary to fence grassed areas on smaller estates of higher density. However, on large estates like Roehampton where there are two to three acres of grass they can remain unfenced, provided privacy was afforded to ground floor tenants.

Mr. Cowley went on to describe changes in laundry facilities: communal laundries on new estates have been abandoned but drying cabinets are now provided for every six dwellings. A commercial firm has been installing coin washing machines and spin driers in some of the wash rooms on old estates and this is proving a success. Mr. Cowley expressed great keenness to try out new ideas. Experiments currently being carried out include gas incinerated refuse disposal, coal vending machines, motor-car ports and underground garaging, he said. One is tempted to ask whether the LCC would consider some experiment in management on some selected estates to encourage a fuller use of the amenities and greater participation by the tenants in their maintenance and management.

Mr. Cowley's talk was a challenge to architects to detail communal buildings and equipment to take the wear and tear of high density, and to design with their probable use clearly in mind. If they fail, these very amenities fall into disrepute both with management and with tenants.

MOLG & MOH

Old People

Closest co-operation between housing, health and welfare authorities and voluntary organisations to meet the varying needs of old people will improve the provision for their well-being says a joint circular just issued by the MOLG and MOH.

They should meet regularly to review the local situation, and work out co-ordinated programmes based on estimated needs, particularly for housing "where there is known to be a big unsatisfied demand for most types of accommodation."

The circular stresses that old people want to lead an independent life in their homes for

as long as they can, and thus have the best chance of an active and contented old age. "To make this possible, housing authorities must provide, in adequate numbers, a full range of small bungalows, flats and flatlets designed for old people."

Some form of central heating should be a normal feature of this purpose-built accommodation, to ensure regular warmth and an even temperature—"one of the most important aids to keeping old people healthy and active."

In grouped housing schemes, particularly in blocks of flatlets, a common room is useful and may also serve as a clubroom for other elderly people in the neighbourhood.

Subsidy changes in the Housing Bill now before Parliament should, the circular claims, enable every housing authority, "the less well-off as well as those with adequate resources," to meet, in time, all the demands in their area.

Housing for Old People

A five-year national plan to tackle the acute need for more housing for our rapidly-increasing number of old people was urged on the Government in a recent House of Commons debate on housing for the elderly. Borough councils could not solve the problem by themselves, said Mr. John Mackie (Enfield—Lab.). In his constituency nearly 600 old people had applied for flats and at the present rate they would have to wait 10 to 15 years.

A new office block, 48,000 sq. ft., had just been erected in Enfield on a site which the Ministry refused for house building and gave to a private firm. Enormous signs "To Let" were fixed on it. "That building represents 120 houses for old folk," he said.

In Leicester the housing committee could only consider applications for bungalows or flats for pensioners if they had been made before December 1947, "a shocking position," reported Sir Barnett Janner (Leicester N.W.—Lab.).

Since 1945 only 195,000 single-bedroom houses had been built for old people, he complained, questioning the "impressive improvement," suggested by the Ministry figure that of the total houses built by local authorities in 1959, 22 per cent were dwellings for the aged. "The increase in absolute numbers is negligible," he charged.

Here Government spokesman Sir Keith Joseph, Parliamentary Secretary, Ministry of Housing and Local Government, intervened. "The increase, in terms of local authority housing, has been from 11,000 in 1950 to something over 27,000 in the last year."

The "miserable subsidy of £10 per annum" on one-bedroom dwellings was ineffective and inefficient, Sir Barnett went on; purpose-built or purpose-converted housing units helped the elderly to retain their independence and were more economic.

Only the local authorities could solve the housing needs of the aged, said Mr. A. E. Hunter (Feltham). "The majority of retired people can afford only a moderate rent, and private enterprise building is not likely

to satisfy their requirements."

Sir Keith, however, later expressed the hope that private enterprise "will one day recognise the market that there will be for the housing of the elderly," just as they had recognised the market for the teenagers.

Later this year the Minister is to issue a comprehensive bulletin on the provision of suitable accommodation with advice on siting, design and amenities for flats, bungalows, flatlets and conversions.

"Colonies" for old people, described by one speaker as places where they sit "watching one another's funerals," were not desirable.

ARC

Experimental Farm Buildings Scheme

The Agricultural Research Council has received a large number of offers from farmers and landowners to co-operate in this scheme, which came into operation last July, and under which the ARC makes grants of up to half the capital cost of erecting farm or horticultural buildings of experimental types, provided the Council is permitted to investigate the working of the building for a limited period after its completion.

Many offers of co-operation relate to the use of slatted floors for cattle, an experimental project has therefore been planned on this subject, and no further applications for grants will be considered in connection with research on slatted floors, unless of exceptional interest.

MOHLG

Farm Buildings

Pamphlet on the design and siting of farm buildings is being considered by the MOHLG. Sir Keith Joseph, Parliamentary Secretary to the MOHLG, told the House of Commons last week that the Minister was considering whether such a pamphlet would serve a useful purpose.

Because of their exemption from planning control, said Sir Keith, farmers had a very special responsibility to carry out their developments in as seemly a way as possible.

AA

Architect and Services Consultant

Mr. T. Smith, A.M.I.MECH.E., A.M.I.H.V.E., M.A.S.H.R.A.E., an associate partner of Steensen, Varming & Mulcahy, the Services Consultants, speaking on "The work of the Services Consultant and his association with the Architect" at the AA on March 15, reviewed the relationship between architects and service engineers, the organisation and duties of a services engineer's office, and the problems of costing and specification in this field.

He felt that services engineers are not yet an accepted part of the building team, and that architects, conscious of their own ignorance of the subject, regard them with deep suspicion. Mr. Smith returned several times to this point, asserting that architects do not provide adequate information at the right time; that they do not make adequate provision for services; that they allow the function of the building to take second place to the elevations; that they constantly modify schemes, thereby causing major services changes and increasing the expenses of the services consultant (a point which he dealt with at some length); and that, in general, they do not appreciate the services engineer's problems. "Architects," Mr. Smith said, "are artists adding dabs of paint up to the last moment."

He called for more architectural co-operation in these aspects, but made no practical suggestions, apart from recommending that the services consultant should be called in early.

Mr. Smith described, in some detail the organisation of his office, which is composed of three sections, mechanical, electrical, and sanitary. The sanitary section is a recent addition to the services field, having been taken over from the architect as a result of increasing complexity. Each job is supervised in all its aspects by one engineer. The scope of the work includes investigation and reporting, estimating, preparing schemes and specifications, and supervision. Mr. Smith deplored the lack of costing data available, which makes accurate estimating difficult, a problem aggravated by lack of consistency in contractors' own estimates. He did not feel that analyses into cost per sq. ft. could be sufficiently refined for practical use, although he appeared to modify this view somewhat as a result of the contribution of Peter Jay, the electrical consultant, in support of this method. Mr. Smith made the point that a minor architectural change can substantially alter the cost of services originally quoted.

The preparation of Bills of Quantities for services work instead of Specifications would provide data for future costing, but would have to be prepared by the engineers at extra expense since quantity surveyors do not have the necessary technical staff. Services contractors would probably oppose this development since it would have to be based on a standard method of measurement which would very often vary from their own pricing systems.

IPHE

Sanitation of tall buildings

The meeting of the Institution of Public Health Engineers, on March 16, at which R. T. Gillet, B.Sc., A.M.I.C.E., F.I.P.H.E., F.R.S.H., presented his paper on "The Sanitation of Tall Buildings" had an attendance of over 100, which is a larger audience than usual and a clear demonstration of the keen interest in this subject felt by Public Health Engineers. Mr. Gillet did not read or illustrate his paper. He made a number of introductory remarks, posed some ques-

tions, and then invited contributions from the floor. Many of the audience must have found this disconcerting since not everyone had had the opportunity to read the paper in advance.

The paper itself, which will be published in the Institution of Public Health Engineers' Journal, dealt with water supply, waste and soil systems, drainage, surface water, and refuse disposal; unfortunately it was couched in general terms, covering ground which must be familiar in principle to most architects.

Among the points raised in discussion were the following: The considerable savings in water consumption resulting from the use of spray taps, and from turning off urinals at night, were confirmed with examples. The division of the building into 10-storey sections for water supply was advocated as good practice. The necessity for routine maintenance of services installations was stressed by several speakers: draining water pipes at intervals to remove sediment and recaulking the lead joints of cast iron stacks after loosening due to thermal movements were two of the points raised.

Mr. Gillet said that in America to keep water supplies in tall buildings safe and palatable, the drinking water is sometimes circulated and refrigerated in a ring circuit system. Mention was made of the difficulties confronting officials of local authorities, who, without special knowledge or experience of multi-storey problems will have to give rulings on the application of the byelaws. Architects received their share of criticism for taking sanitary considerations into account too late, and for providing inadequate access to plumbing. It was apparent that the Public Health Engineers attending the meeting could have contributed collectively an impressive and valuable aggregate of information on this subject, but general discussion is not a method which could bring these data to light efficiently or give it significant form.

RICS

Residential Course

The Junior Organisation Quantity Surveyors' Committee has arranged a residential course at Trent Park Training College, near Barnet, from April 7 to 9, on the subject, "Clients, Cash and Contracts." Lecturers will be: W. Bonham Galloway, B.A., A.R.I.B.A., D. M. Gritten, M.B.E., F.R.I.C.S., and B. L. Richards, G.M., B.Sc., F.R.I.C.S., F.A.I. Application with a remittance for £2 15s. should be sent to Giles Every, A.R.I.C.S., c/o Langdon & Every, 21, Russell Square, London, W.C.1.

Rights of Light

Bryan Austen, speaking on March 6 at the RICS on rights of light, carried this difficult subject one stage further by describing a method for assessing damages. This method, which he said "had been successfully used to reach amicable agreement on a number of occasions," begins with the calculation of

the 0.2 per cent sky factor contour before and after the placing of the obstruction. Taking the area over which the contour moves, you "assume as a general guide that the rental value per square foot of this area is halved if the area lies between the half-way line and the window and ... is diminished by 25 per cent if the area lies between the half-way line and the back of the room."

RSUA

Architects' Forum

A first Forum for architects, painters and sculptors from all parts of Ireland is being arranged in the National Trust village of Cushendun, in the Glens of Antrim, during the weekend of April 14 to 16, by the Royal Society of Ulster Architects. There will be room for about 40 participants at the Glendun Hotel, and the cost of the weekend will be £4 10s. Those wishing to attend should write (sending a registration fee of £1) to Ian Campbell at 4, Malone Road, Belfast 9.

This is intended to be the first of such gatherings in different parts of Ireland: it will be accompanied by a small exhibition of recent work and projects, and those attending are invited to bring examples of their work and projects, for discussion in the context of the Irish tradition.

RIBA

Seminar on Teaching Method

The RIBA Schools Committee is organising a seminar on this subject in collaboration with the Gloucestershire County Council Education Committee from April 10 to 13 at the School of Architecture, Pittville Pump Room, Cheltenham, which is of course a department of the Gloucestershire College of Art, and from which full details of the arrangements and syllabus can be obtained. The Introduction to the course will be given by Denis Clarke Hall, F.R.I.B.A., A.A.Dipl., vice-chairman of the Board of Architectural Education and Member of the RIBA Council.

CIVIL ENGINEERING

Wages Settlement

An increase of 6d. per hour in the basic rate of craftsmen and labourers has been agreed at a meeting of the Civil Engineering Construction Conciliation Board, and will come into effect on October 2, when building wages go up by the same amount.

COID

Scottish Committee

The President of the Board of Trade has appointed Mr. Ian W. S. Wilson as chairman of the Scottish Committee, and a member of the Council of Industrial Design, in succession to Sir Charles Connell. Mr. Wilson is managing director of the Edinburgh printing firm of Pillans & Wilson.

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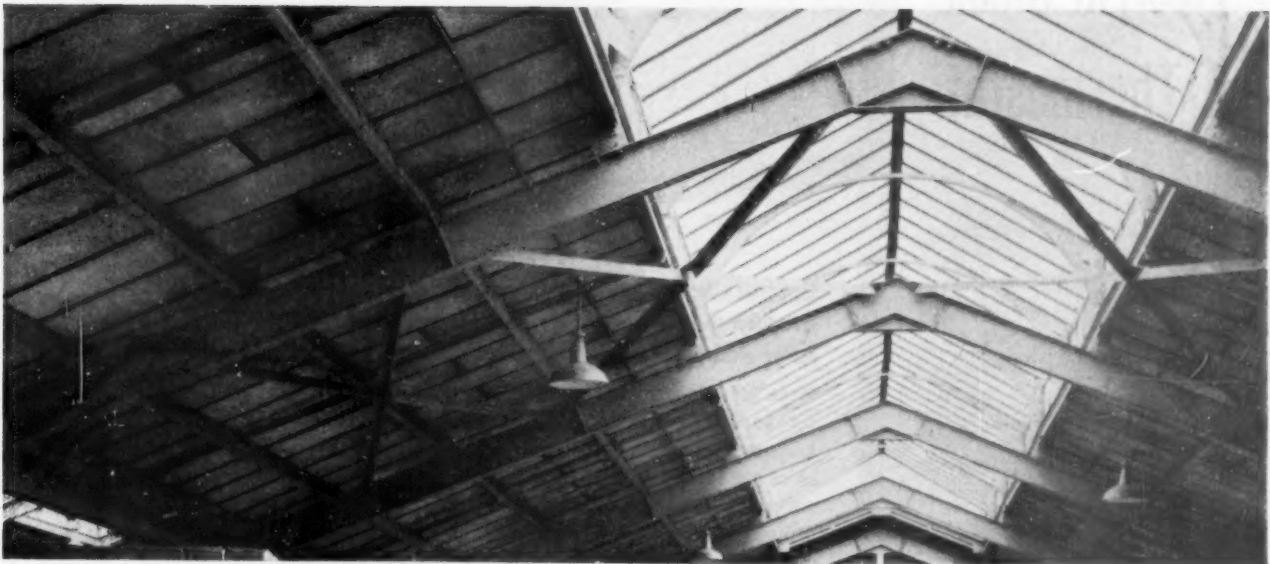


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With just an ELECTRIC CLOCK THERMOSTAT and a few yards of bell wire, you can make your next heating system the most up-to-date in your area. Here are its features—the features that will pull more clients *your way*.

Minimum use of fuel. The ELECTRIC CLOCK THERMOSTAT guards against overheating throughout the day, and automatically turns space temperature down to a pleasant and fuel-saving low level at night.

Pleasant waking: the thermostat automatically restores space temperature to normal just before waking up time.

The convenience of a fully automatic system. Times and temperatures can be easily set, and once set the system requires no further attention.

And the clock! Handsome and accurate, the electric clock will be a very welcome 'extra'.

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Ruislip Road East, Greenford,
Middlesex.
Waxlow 2333

*I am interested in your
Clock Thermostats.*

*Please send me
Specification Sheet No 95-2248
Illustrated Leaflet 8AA9*

Name _____

Position _____

Address _____

A.J.

Offices in the principal towns and
cities in the United Kingdom and
throughout the world.

Honeywell



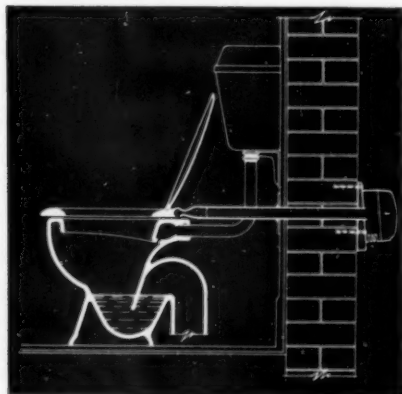
First in Control
SINCE 1885

THE INDUSTRY

This week Brian Grant describes ventilation of W.C.s, plastic-lined shuttering, a circulating pump and an oil-fired boiler.

Ventilation of W.C.s

A system called Silavent eliminates the dangers which are said to be inseparable from the use and flushing of a water closet. The aerosols produced by the flushing action are removed directly from the w.c. bowl and exhausted to the atmosphere. The equipment consists of a normal-looking plastics seat with a collector fitting in the hinge: from the collector units runs a length of $1\frac{1}{2}$ in. bore plastics tubing which is connected to an extractor fan on the outer face of the wall. The fan incorporates an automatic draught shut off to keep out dust and cold air when the unit is not in operation. Control of the fan is by a ceiling switch or automatic with a door switch. For multi-storey buildings or where

The Silavent system

an externally-mounted fan would not be practicable a flush-fitting unit which can be installed from inside the building is being developed. In multiple installations such as hospitals and schools, or where the w.c.s are not against an outside wall an alternative collector for use with a ducted ventilation system is available. The components cost £9 9s. retail, plus a fitting charge of about £5.

The first installation so far is in the new liner *Canberra*, where a total of 812 units has been used in both passenger and crew lavatories. (*Morphy-Richards (Installations) Ltd.*, 50, Conduit St., London, W.1.)

Plastic-lined Shuttering

The photograph on the right shows shuttering lined with Lustrex polystyrene sheet being used on the columns of a bridge on the St. Albans by-pass. The material was first used for this purpose three years ago on some flats at Bristol, and seems to prove successful in practice. It gives a smooth surface finish and needs no mould oil, as there is no adhesion between it and the concrete. (*Monsanto Chemicals Ltd.*, *Monsanto House*, 10-18, Victoria St., London, S.W.1.)

Another Circulating Pump

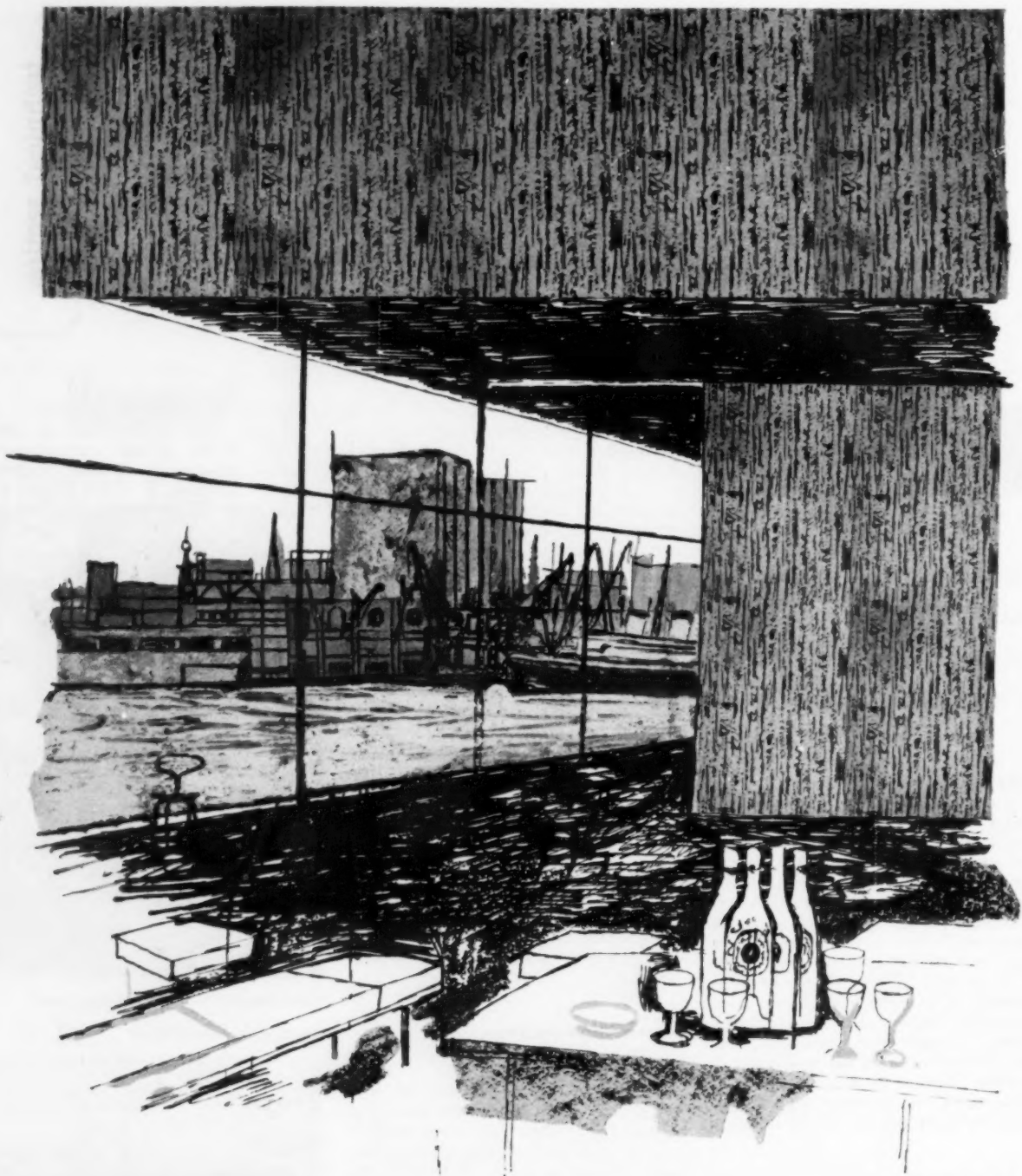
Pulsometer are now making in this country the Swiss Perfecta range of small circulating pumps in sizes up to 150 gall. per min. The general design follows the now usual pattern, with the rotor and impeller mounted on a single shaft with water lubricated bearings, the motor windings remaining stationary and being protected by a waterproof sleeve. The smallest model in the new range, which will be available from April, is rated at 60 watts. It is guaranteed for two years and costs £22 10s. (*Pulsometer Pumps Ltd.*, *Oxford Rd.*, *Reading, Berks.*)

New Oil-fired Boiler

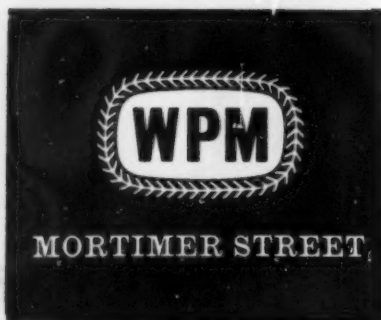
The illustration on the right shows the new Redfyre model 35 Centramatic boiler, which has an output of 35,000 B.Th.U. per hr. It is an oil burning type with electric ignition so that there is no pilot flame or idling at low output. The cabinet is the standard 36 in. high and has a flat top so that it can be used with other kitchen

equipment. It is also the standard 21 in. deep. Price is £89, to which must be added the cost of the oil tank and pipework. (*Newton Chambers & Co. Ltd.*, *Sheffield.*)

*Shuttering lined with Lustrex polystyrene**The Redfyre oil-fired boiler*



Drawing by Walter Hoyle



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7 PRACTICE

communications in the building industry: a review of the standard documents used by five offices, 1, job recording and office costing

The disorganised way in which many architects run their offices has been causing concern to the profession for some time now. The recent decision of the RIBA to conduct a large-scale survey of offices is evidence of this. As a first contribution to the study of this problem, the Editors have prepared a series of articles, the first of which appears below, reviewing the office documents currently used by five firms of architects.

Each of these offices contributed to the RIBA's Travelling Exhibition on Communications which was first on view at the last Building Exhibition. The Editors wish to thank them for allowing publication of their office documents, and for their co-operation in providing the background information for the articles.

The prime *raison d'être* of an architect's office is to get buildings designed and built. The organisation of an office should be geared to achieving this in the simplest, quickest and most efficient way. Whilst purely administrative paperwork is disliked by most architects and forms and systems for their own sake are to be deplored, there is evidence that too few offices are sufficiently well-organised to be getting the best out of themselves and their resources. The newly-formed Management Committee of the RIBA whose brief is to examine "... all practical

ways of promoting efficiency in the architect's office ... " has been collecting documents from offices all over the country. Last autumn the Institute's Travelling Exhibition on Communications was on view at the Brixton School of Building. Five of the offices whose documents were displayed, Messrs. Grenfell Baines & Hargreaves, T. Alwyn Lloyd & Gordon, Harry W. Weedon & Partners, J. M. Austin-Smith & Partners, and J. Douglass Mathews & Partners, have agreed to allow the AJ to publish a selection of their documents which were displayed. This and subsequent articles are devoted to their presentation. Between them the documents under review fill the following broad functions:

- (1) job recording;
- (2) office costing and fees;
- (3) job information;
- (4) tenders;
- (5) job control (progress);
- (6) job control (financial).

This article is concerned with the first two only.

The five offices can probably claim to be amongst the best organised in the country. Even so, it is obvious that despite the ground they cover collectively, there are many gaps. In view of the work of the RIBA's office survey teams (which is already under way) this is not the time for detailed criticisms. It is to be hoped that the results of the survey will provide a thorough basis for establishing good practice in office organisation. One general criticism worth making at this stage, however, is the enormous variation in paper size and format which exists not only between offices but also within each office. This is hard to reconcile with the architect's design upbringing and the fact that these offices are amongst the more efficiently run. One explanation, of course, is that the documents used by an office tend to have arrived one at a time over the years rather than to have been designed as part of a complete system. None the less, this is an item to which the RIBA should give attention.

1. Job Recording

Two of the offices have a system of standard documents on which every job is recorded as it comes into the office. Harry W. Weedon and Partners have a form (Fig. 1) known as a *Requisition Sheet*. This office has a separate administrative section (i.e. as distinct from the architects and assistants) called the control department. When a job comes into the office the *Requisition Sheet* is filled up noting client's name, job

technical section

Date							
Client						Job No.	
NATURE OF COMMISSION							
DATE	REQUIREMENTS		DATE SENT OUT	DATE	REQUIREMENTS		DATE SENT OUT

Fig. 1. Requisition Sheet, Harry W. Weedon & Partners

Fig. 2. Job Control Card, Harry W. Weedon & Partners

PARTNER IN CHARGE		HARRY W. WEEDON, F.R.I.B.A. & PARTNERS						JOB: NUMBER			
JOB CONTROL CARD											
DATE INSTRUCTIONS REC'D		CLIENT ADDRESS		TEL. No.		F.W.R. SENT OUT					
DATE TARGET COMPLETION		NATURE OF COMMISSION				P.C. SUMS TO CONTROL					
DATE ACTUAL COMPLETION		CONTRACTOR ADDRESS		TEL. No.		CONTRACT AMOUNT					
DATE CONTRACT SIGNED						CONTRACTORS BOARD					
DATE O/ORDER ISSUED											
DATE CONTRACT INSURED											
REQUISITIONS											
DATE	REQ. No.	DEPT.	ADM.	NATURE OF REQUISITION	COMPLETION DATE			DATE WITHDN.	DATE ACCOUNT	ACCOUNT No.	REMARKS
					TARGET	EXTENDED	ACTUAL				
				ADMINISTRATION							
				SURVEY							
				SKETCHES							
				WORKING DRAWINGS							
				SPECIFICATION							
				BILLS OF QUANTITIES							
				PLANS TO SURVEYOR							
				DETAILS							
				OUT TO TENDER							
				CONTRACT COMPLETED							
				FINAL ACCOUNT RECEIVED							
				FINAL ACCOUNT AGREED							
				FINAL INSPECTION							
				FINAL CERTIFICATE ISSUED							

NATURE OF COMMISSION										Contingencies £																																																					
CLIENT										TEL. No.																																																					
ADDRESS										TEL. No.																																																					
Date										Date																																																					
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Fig. 3. Job Record Sheet, Harry W. Weedon & Partners

number and address, the work to be done, job and requisition numbers and the service to be provided. The job is allocated to a partner and an administrative unit and/or drawing office team and details are recorded on the sheet. The top copy also contains the office cost permitted to be spent on the job and this copy is handed to the partner who will run the job. The carbon copy, which does not contain the permitted office cost, goes to the assistant concerned. The "requirements" column contains brief information on drawings required and forms a programme and progress record. When the sheet is returned to the control department it means that the job is complete and no more time can be booked to it. Also, it indicates to the department that no further records need be expected on it and when all requirements on any job have been withdrawn and returned, the client's requirements have been fulfilled and fees may be charged.

The Job Control Card (Fig. 2) is a history of each job

and is held by the control department. On the back of this form is recorded the progress of the job by means of monthly reports filled in by the chief people concerned. Where the job is of long duration, continuation cards are used. The Job Record Sheet (Fig. 3) constitutes the "Domesday Book" of this office. Certificates, variation orders, provisional amounts and provisional amounts disbursement account details are entered here. This form also serves as a progress summary of the job, recording the dates at which the various stages of the contract are completed.

The office of T. Alwyn Lloyd and Gordon lays some stress on use of check lists and many of their forms for recording information are intended as check lists (or reminders) as well. They have a form, called the Job Reminder Sheet, which records the dates on which the various stages of the job have been carried out (e.g. the date when the site survey was made, the date when formal planning approval was given). These stages are grouped under the main headings, site,

technical section

CHECK LIST ON GOING TO TENDER

JOB _____

	F.C. Housing	L.A. Housing	S.C.R. Show- rooms, etc.	General	Initials Asst. in Charge or K.M.
Covering Letter to Contractor with	Drawings				
	Form of Tender				
	Labelled envelope for return of Tender (completed with name of job)				
	Labelled envelope for return of Specification and Drawings (com- pleted with name of contractor)				
Copy of letter, draws and spec. to	Con- servator	Clerk	Manager	Client	
L.A. Housing only	Letter to Surveyor enclosing drawings for approval and services				
General	Envelope opened for returned documents and list of contractors entered				

To be filed on completion

CHECK LIST ON INSTRUCTING CONTRACTOR TO PROCEED

JOB _____

	F.C. Housing	L.A. Housing	S.C.R. Show- rooms, etc.	General	Initials Asst. in Charge or K.M.
Covering Letter to Contractor with	Contract Documents				
	Working Drawings and Specification				
	Bye-Law Cards				
	Variation Orders (if any)				
	Instructions regarding certificates				
Copy of Letter to Clerk of Works with	Working Drawings and Specification				
	Any Special Instructions				
Copy of Letter to	Con- servator	Clerk	Manager	Client	
L.A. Housing only	Service Authorities advised				
General	Start of Contract Slip to A.J.G.				
	Entered Start of Contracts Ledger				
	Unsuccessful contractors notified				
	Contractors who have not returned documents asked to do so				
	Follow up re any existing services on site				

To be filed on completion

Fig. 4. Two check lists; left: before going to tender; right: before instructing contractor to proceed, T. Alwyn Lloyd & Gordon

services, approvals, finance, consultants, contractors and contract. A second check list/record lists the important items in the contract, such as the insurance clause (A or B), dates of possession and completion, liquidated damages amount and limit of Retention Fund. It also records the name and address of the client and the contractor, a description of the work, the contract amount, amendments to the contract and variation orders. It is known as the *Contract Document Brief*.

Another check list used by this office is that shown in Fig. 4. It serves as a reminder at two important stages of a job (i) going to tender and (ii) instructing contractor to proceed.

The office has a *Job Record Card* as well (Fig. 5) which the architects describe as the nucleus of their system. They record on this form all information about a job so that they have in one place a complete record of each job. It will be apparent from this and from Harry W. Weedon and Partners' *Job Record Sheet* that both these offices recognise the necessity for being able to check quickly the state of any job at any time. They have achieved this in possibly the simplest way, that is to have one "master form" containing the salient data from several other forms. The degree of usefulness of a "master form" is as good a test of the office's documentation system as any.

Both offices have a register of drawings. Harry W. Weedon and Partners (Fig. 6) differentiate between the following (under the heading *Types*): Paper original (denoted PAP), demax (D), blue print (BP), true to scale (TS), linen tracing (LT) and pencil tracing (PT). Drawings which are on loan are entered in red. The register comprises loose leaf sheets which are bound with the other documents retained at the end of the job.

T. Alwyn Lloyd & Gordon's register is self-explanatory (Fig. 7). They have a second register which records the drawings sent to consultants and specialists.

2. Office Costing and Fees

Many of the documents grouped under this heading necessarily overlap with those above. The important point is that somewhere within an office organisation there must be a means of recording the costs incurred in carrying out a job. It would be stating the obvious to say that at the start of every job it must be possible to determine exactly how much the office can afford to spend on that job, and the above cost information, therefore, not only is the basis for compiling the statement of account for fees but also checks that office costs are not exceeding the target figure.

technical section

Client						Job No.	
NATURE OF COMMISSION							
File No.	Drg. No.	Type	DESCRIPTION	SENT TO	Asmt	Date	Retd.

Fig. 6. Register of drawings, Harry W. Weedon & Partners

JOB DRAWING NUMBER SHEET						JOB NUMBER	
JOB						ASSOCIATE	ASSISTANT
Date	By	Drawing Title	<u>Design</u> Dwg. No.	<u>Working</u> Dwg. No.	Fees Information		

Fig. 7. Register of drawings, T. Alwyn Lloyd & Gordon

DEPARTMENT		HARRY W. WEEDON, F.R.I.B.A. & PARTNERS TIME AND EXPENSES SHEET										NAME						
		PERIOD																
JOB No.	REQ. No.	P. IN C.	DATE	CLIENT	NATURE OF SERVICES RENDERED AND DETAILS OF EXPENSES							TOTAL TIME	EXPENSES CLAIMED	A.C.	PASSED BY			
EXAMINED BY												RECEIVED EXPENSES £					TOTAL	
DATE												SIGNED						

Fig. 8. Time and Expenses Sheet, Harry W. Weedon & Partners

[illegible]

PARTNER IN CHARGE		HARRY W. WEEDON, F.R.I.B.A. & PARTNERS										JOB NUMBER	
		SUMMARY OF COST SHEETS											
		CLIENT & ADDRESS											
		SITUATION OF JOB										PROFIT OR LOSS	
DEPARTMENT		NATURE OF JOB										% PROFIT	
ISSUED	Withdrawn	REQ.	S.	RECOVERABLE PAYMENTS	UNRECOVERABLE PAYMENTS	NATURE OF REQUISITION	PAYMENTS & DATE	ESTIMATED FEE	REMO	SANCTIONED EXPENDITURE	COST	CHARGE	

Fig. 10. Summary of cost sheet, Harry W. Weedon & Partners

Fig. 11. Start of contract slip and draft fees account, T. Alwyn Lloyd & Gordon

START OF CONTRACT SLIP AND DRAFT FEES ACCOUNT		General Scheme No Consultants	
Name and address of Client	Extra copy for		
Name of scheme		
Delete, amend or complete as applicable	Preparing survey, taking particulars on site and taking levels (Assistant's time _____ days) £ Taking your instructions and preparing sketch plan for your consideration. Amending it as necessary and preparing working drawings. Submitting these for Byelaw and Planning Approval. Preparing detailed specification and obtaining competitive tenders. Reporting on these and subsequently letting a contract. Preparing detailed drawings and instructing the contractor. General supervision, issuing certificates and passing contractor's accounts, obtaining quotations for P.C. goods and sub-contracts, and instructing the main contractor. Settling the final accounts on completion.		
Check that both approvals sought - delete as applicable			
Enter contract figure	Contract figure - £ Fee at R.I.B.A. Scale of % £ Half fee due on signing contract £		
Abortive work, re-tendering, etc.	Fee £ Out of pocket expenses:		
Give details in this column of any other work carried out which calls for a supplementary fee	Travel £ Photoprints £ Lithography £ Expenses £ Now payable £		
Information taken from Job Card - Dwg No Sheet			
Architect in Charge			
Entered K.M.			

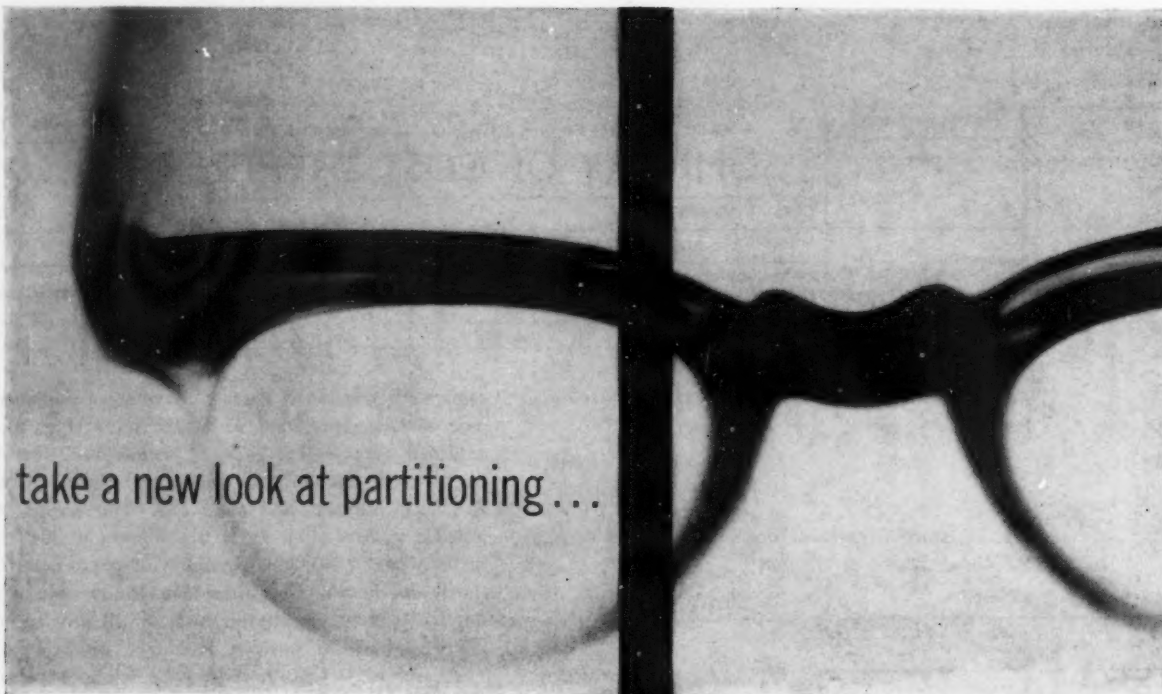
Fig. 12. Statement of account form, T. Alwyn Lloyd & Gordon

Harry W. Weedon & Partners have three documents. The first, a *Time and Expenses Sheet* (Fig. 8), is returned weekly by every "productive" member of the staff, including partners, and serves as well to check progress and site visits. The second, the *Job Cost Sheet* (Fig. 9), is a summary of the costs incurred on a particular job by all concerned. The third, *Summary of Cost Sheet* (Fig. 10), is, as its name implies, a summary of the costs on all jobs so that the week-by-week position is known on every job. The architects say that it is possible to know, within half an hour, the cost to date of any job in the office.

The office has a draft account form and final fees are drafted out on these by the assistant in charge and/or partner's secretary by reference to the forms (Figs. 1 and 2).

T. Alwyn Lloyd & Gordon have a standard form called *Start of Contract Slip and Draft Fees Account* (Fig. 11). This form is for jobs on which no consultants are engaged. Similar forms are used for jobs with consultants and local authority housing. The office has a standard statement of account form (Fig. 12). It may be interesting for readers to compare this with the form used by Messrs. Taylor & Crowther published in the AJ, February 11, 1960.

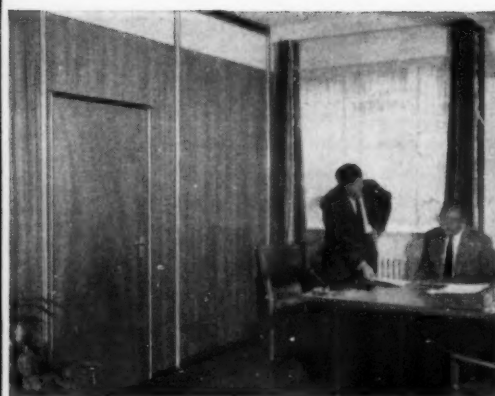
In respect of balance of services following: First account submitted on Final cost of contract Including work handled by Structural Consultant to the value of Including work handled by Testing Consultant to the value of Fee at scale of 90 on Fee at scale of 40 on Less sum already paid Out of pocket expenses since previous account: Lithography Travel Photoprints Now payable	
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South Bank Development—The Next Stage

We illustrate on the following pages the LCC's comprehensive development scheme for the South Bank from Waterloo Bridge to Hungerford Bridge, comprising the new concert hall and art gallery, extensive improvements to the Royal Festival Hall, and the creation of complete pedestrian segregation from traffic throughout the site, the first time this has been planned on such a large area by any local authority

This week the long-delayed second stage of the LCC's ambitious comprehensive development scheme for the South Bank was approved by the London County Council. It is a bold and imaginative scheme, comprising the building of the new, small concert hall, the new art gallery, which will be let to the Arts Council, and extensive alterations to the Royal Festival Hall, including the removal of the main entrance from the east side to the front of the building, thus giving the interior of the building the orientation that its exterior has always seemed to demand.

The new stage in the South Bank development comprises the building of the new concert hall, the new art gallery and alterations to the Royal Festival Hall, the main entrance of which is to be removed from the east side to the front, thus giving the interior of the building the orientation that its exterior has always appeared to demand. But perhaps the most exciting feature of the whole scheme is that the fundamental design approach is based upon the need to segregate motor vehicle and pedestrian traffic. This is achieved by two pedestrian systems from Waterloo Station. The one in principal use will link all the building elements and provide a through circulation at high level between Waterloo Bridge, Hungerford footbridge and Waterloo Station without contact with vehicular traffic; a second pedestrian system will link Waterloo Station and the proposed low level pedestrian system under a new traffic roundabout at the southern approach to Waterloo Bridge and thence on the downstream side of the bridge toward the river front. These two systems will be interlinked at a number of points.

The vehicular circulation takes the form of two one-way loops from Belvedere Road. The downstream loop road passes between and serves the new concert hall, the exhibition gallery and the re-positioned entrance to the National Film Theatre, returning to Belvedere Road on the downstream side of Waterloo Bridge.

A car park is sited below the exhibition gallery.

The upstream loop road passes in front of the riverside façade of the Royal Festival Hall and under Hungerford Bridge, returning to Belvedere Road on the upstream side of Hungerford Viaduct. A car park arranged in two tiers below a pedestrian podium, will be provided at a later date for 550 cars in this area.

The circulation principles predetermine two levels of entry to all the building elements, and the high level pedestrian terraces will embrace and extend the riverside open space available to the public, in addition to providing the essential traffic links already

described. In this respect Theatre Square, the riverside memorial gardens and the terraces behind them, reaching up to Waterloo Bridge and back to Belvedere Road, will form a continuous pedestrian promenade affording a constantly changing view of the river and the buildings. Higher terrace levels over the lower exhibition galleries and the new small concert hall foyer provide a secondary circulation link from Waterloo Bridge on to the South Bank and a generous observation area away from the more busy lower levels—a sort of human "Mappin Terraces."

The new concert hall and exhibition gallery are integral with the circulation system and consequently their mass is reduced, avoiding conflict with the existing environment. The materials have been purposely limited to reconstructed Cornish granite slabs, on vertical faces, and fair-faced concrete on soffits, patterned by the use of close-boarded shuttering, enabling a large scale of detailing to be used. This stage of the scheme is to be completed by 1964, the year of the projected Commonwealth Festival, and by then what was begun at the Festival of Britain should have achieved an impressive unity and maturity with the Royal Festival Hall at last fitting into worthy surroundings, and the whole providing a cultural centre such as nobody has attempted to build in this country since the uprush of museums in South Kensington. One decision which will greatly speed the maturing of the scheme is that fully grown trees are to be planted in an avenue along the river frontage—chestnuts are spoken of as the likeliest choice, and one hopes for white chestnuts rather than pink ones. This technique, well known in other countries, has hitherto been treated as an example of reckless extravagance in this one, and it is greatly to the credit of the LCC that it is now to be adopted in this outstandingly important scheme.

The New Concert Hall

An additional concert hall, holding about 1,100 people has for long been needed, and this will now be provided in the new building, as well as a smaller, recital room holding 400. The main auditorium will be convertible to accommodate a full symphony orchestra and choir for rehearsals. Both halls will be reached by way of a single-level foyer overlooking the riverside gardens, and artists' accommodation and administrative offices are disposed around the stages of both. A single control point will be placed at the meeting of the upper and lower entrances and a small box office, for "on the night" bookings. Advance booking for all three halls will be handled in the Royal Festival Hall box office. This concert hall

has been designed in close collaboration with BRS, the music panel of the Arts Council and with the advice of Hugh Creighton, the acoustic consultant. In the main hall, in order to achieve a longer reverberation period than in the Royal Festival Hall, the allocation of space for seating will be very generous in relation to the volume of the hall.

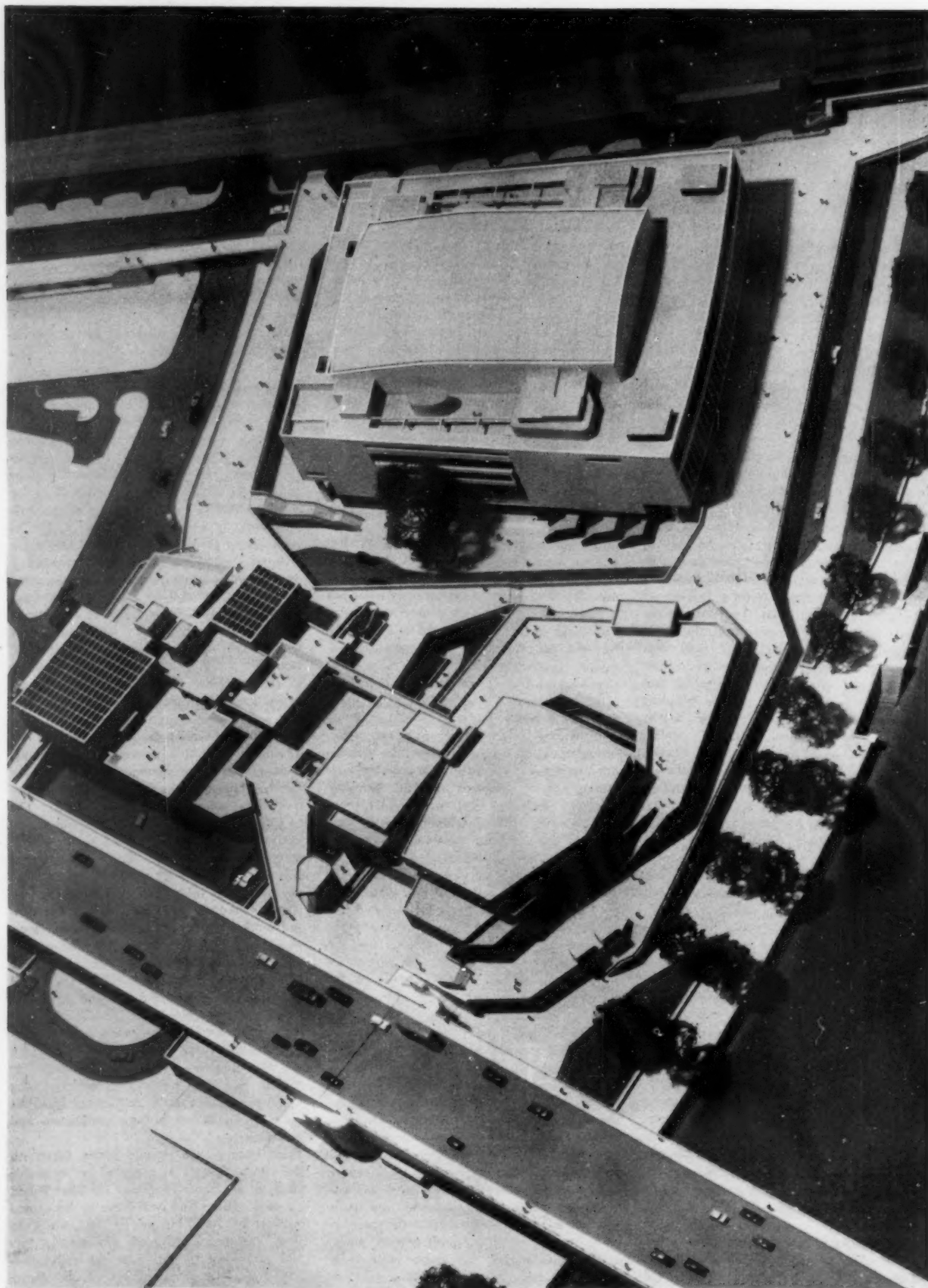
The Art Gallery

This building has been designed in consultation with the Arts Council, which is to rent it, and expects to make full use of it for at least nine months of the year. The exhibition space is varied and versatile, so as to be equally suitable for a single large or several smaller simultaneous exhibitions, with separate access to each gallery. This is achieved by providing a two-level exhibition area of 20,000 sq. ft. planned around a vertical service and public circulation core, with stores, workshops and loading bays beneath. The lower gallery will be entirely artificially lit, and above is a top-lit gallery with natural lighting through a glass roof. Both are fully air-conditioned. In addition to these galleries, three open air sculpture courts are cantilevered out from the building.

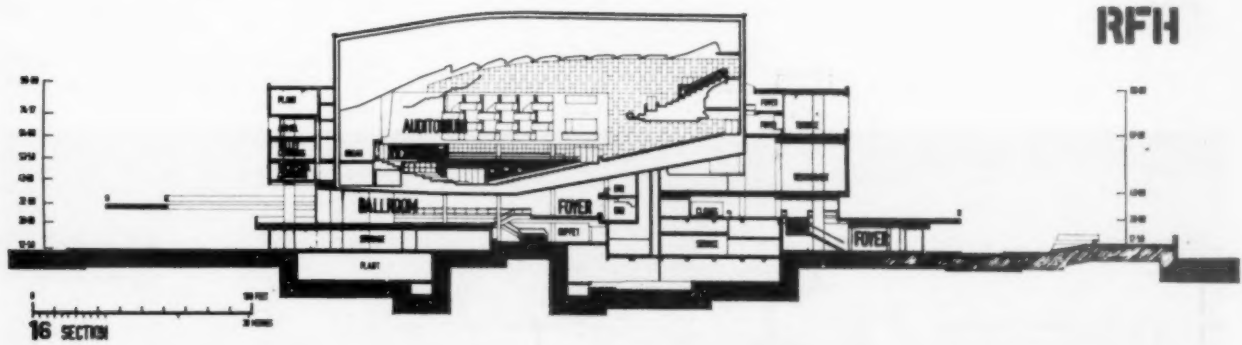
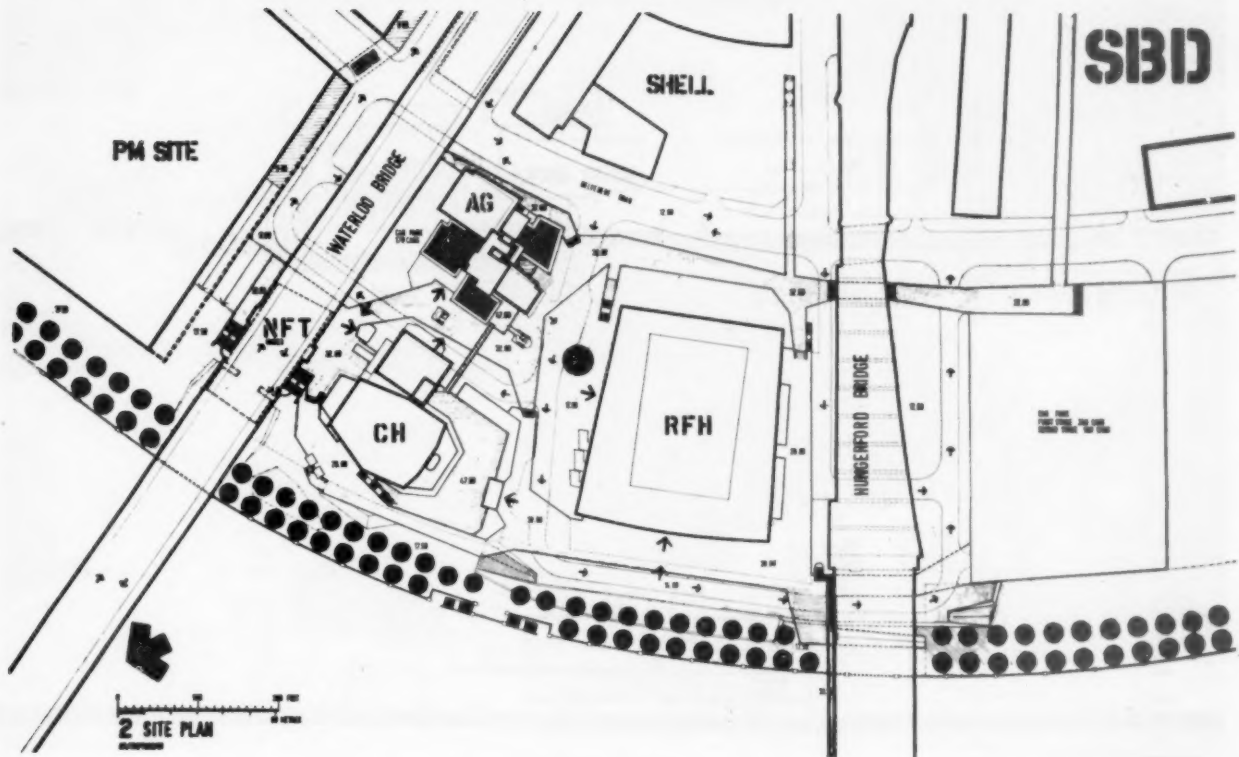
The Royal Festival Hall

The Festival Hall is an unfinished building, which since it was opened in 1951 has had serious deficiencies as regards artists' accommodation and administrative offices. The building is now to be completed and extensions towards the river and towards Belvedere Road are planned. The main entrance will be resited on the river front, and the extension on this side will incorporate a larger restaurant at upper level and a new self-service restaurant on the ground floor, which will also be available to the public. Two new passenger lifts, on each side of the new entrance, will link the foyers with all parts of the auditorium. At the Belvedere Road end, the extension will allow for new staff and storage accommodation, artists' rooms and an office suite. On this side also the ballroom and foyer areas will be extended and the existing entrance facing Waterloo Bridge will give access to this area for balls, exhibitions, congresses and banquets.

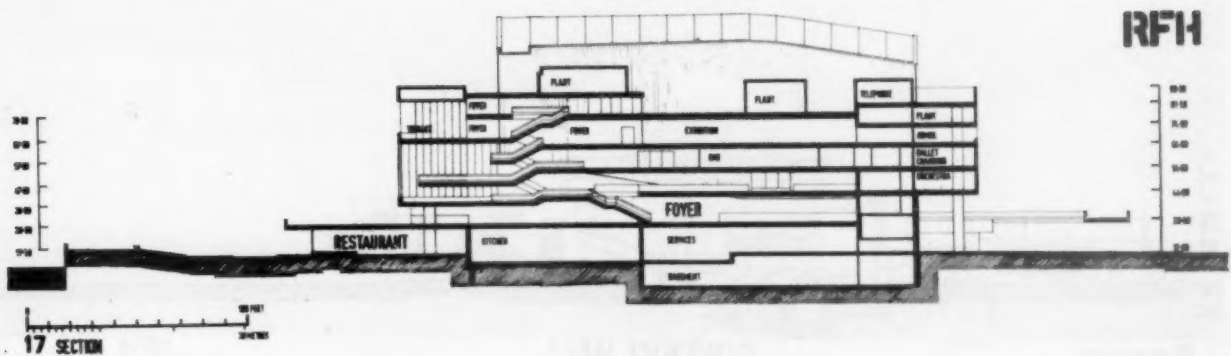
Trial borings are already being taken on the site and work is expected to start this summer on the alterations to the Royal Festival Hall, which will have to be closed between May and November 1963, while the new entrances, enlarged restaurant, lifts and extensions to the foyer are under construction. This whole phase of the South Bank redevelopment should be completed by 1964, and is expected to cost about £3,704,000.

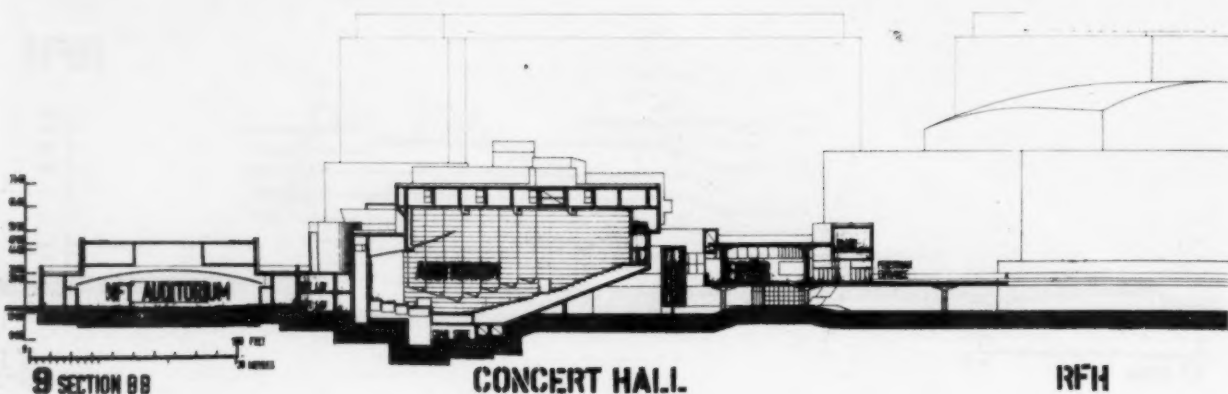
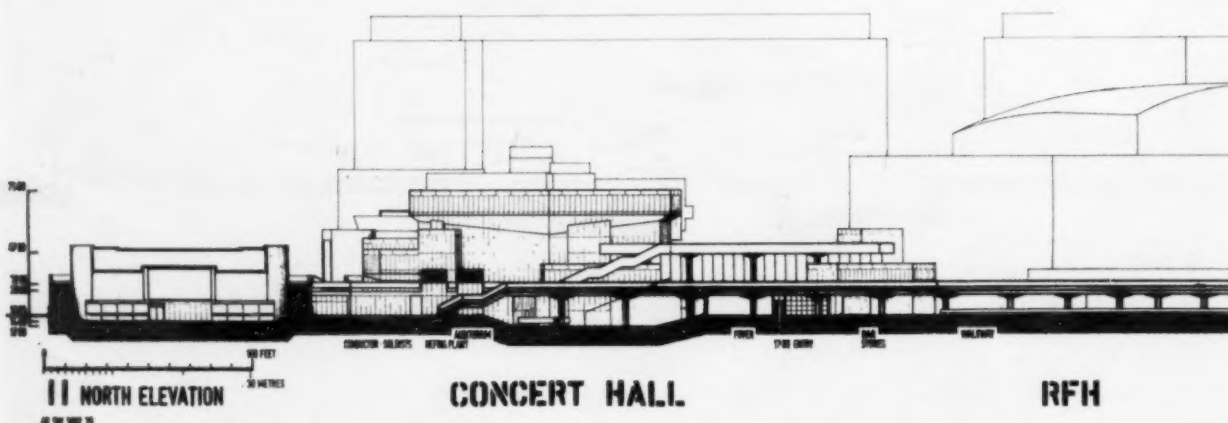
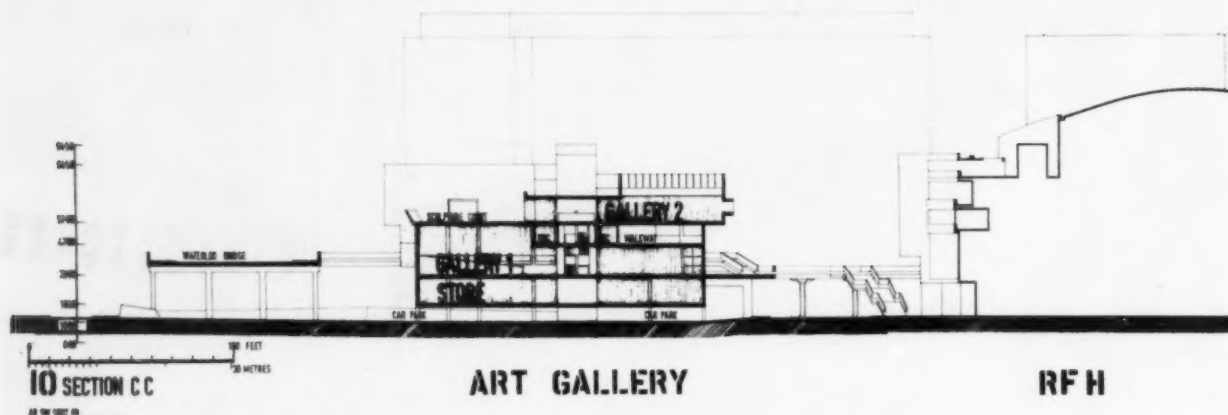
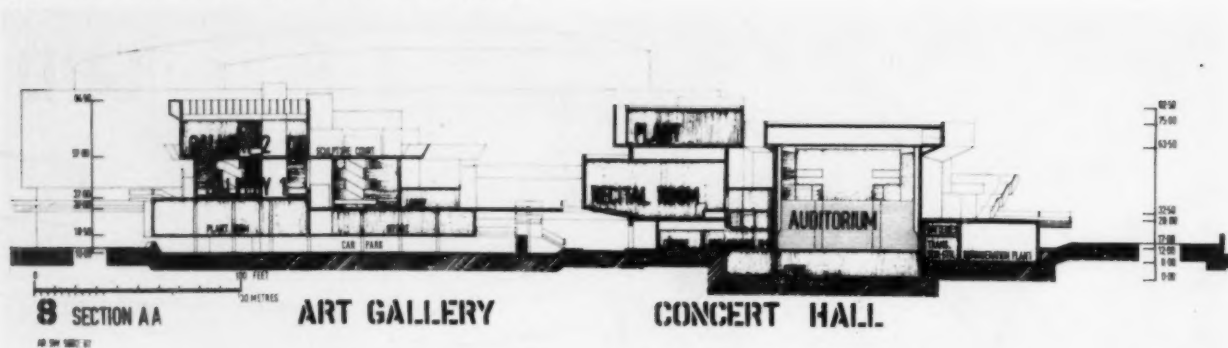


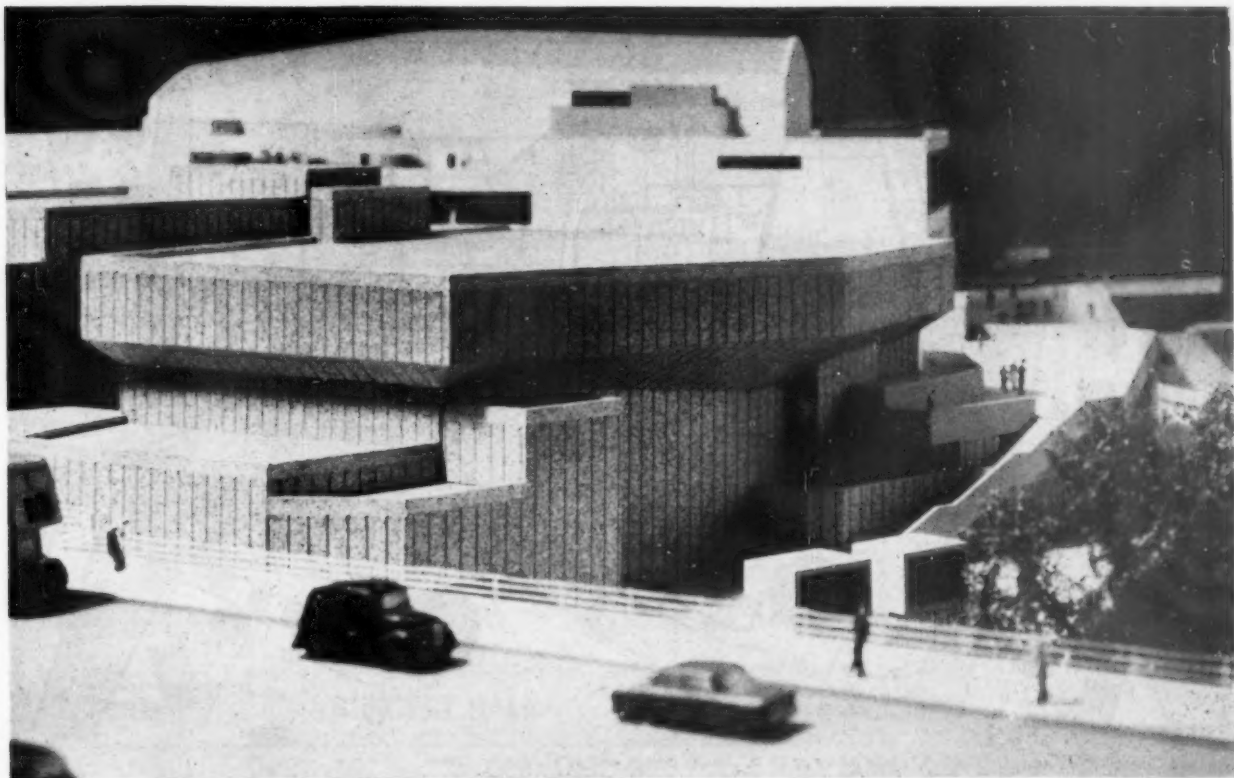
Aerial view of the model, with Waterloo Bridge, bottom, Hungerford Bridge, top, Belvedere Road on left and the river on right. The Royal Festival Hall is seen at the top of the site, the new concert hall, lower right, and art gallery on left. All are linked by a series of pedestrian walks under which traffic to the buildings circulates by two loop roads



Top: site plan of the scheme. Centre and below, two sections of the extended Royal Festival Hall

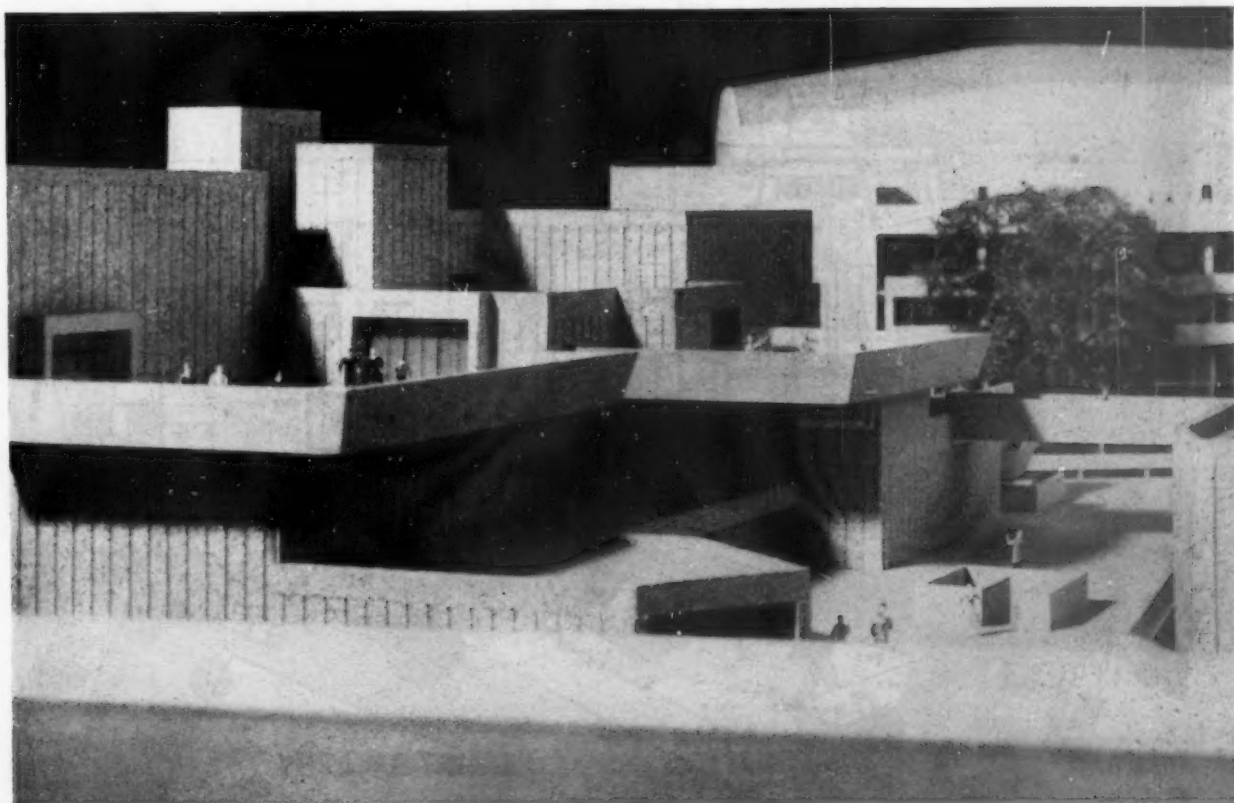


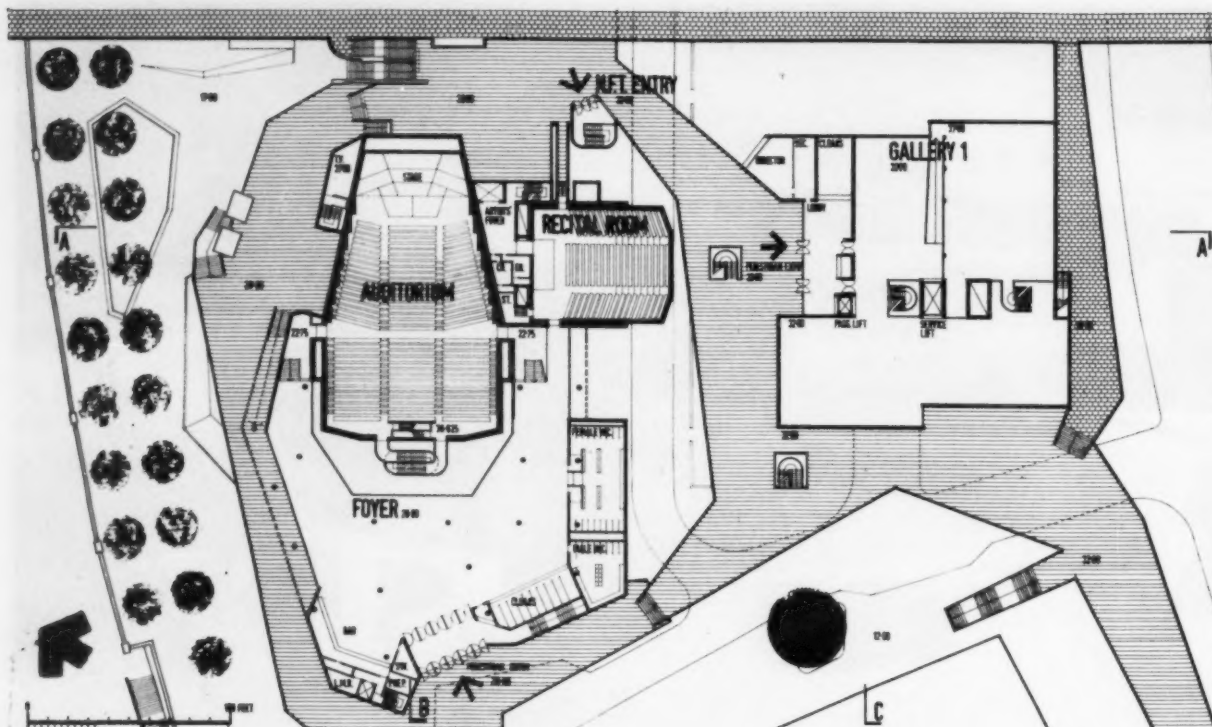




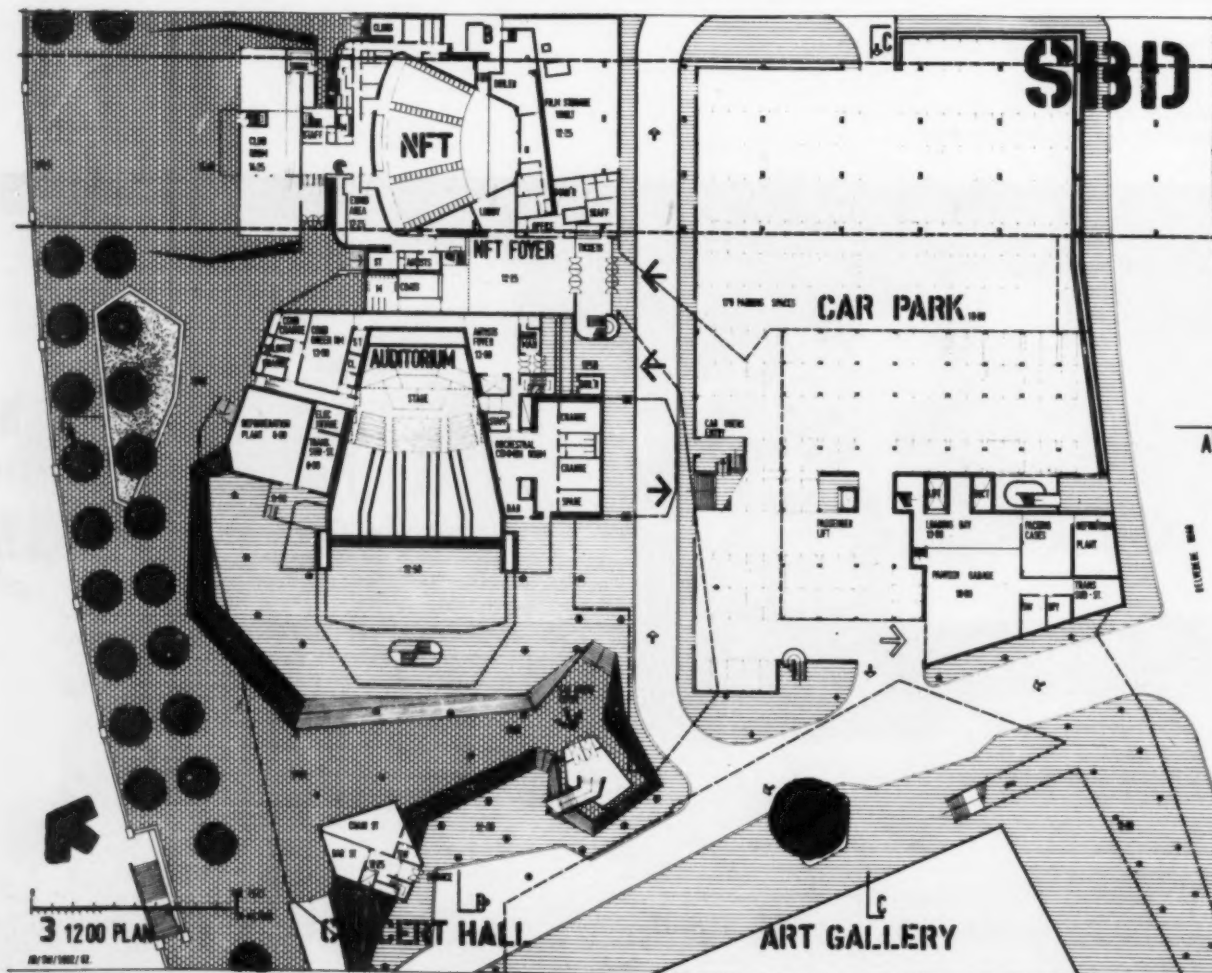
Above, the model of the new concert hall, seen from Waterloo Bridge

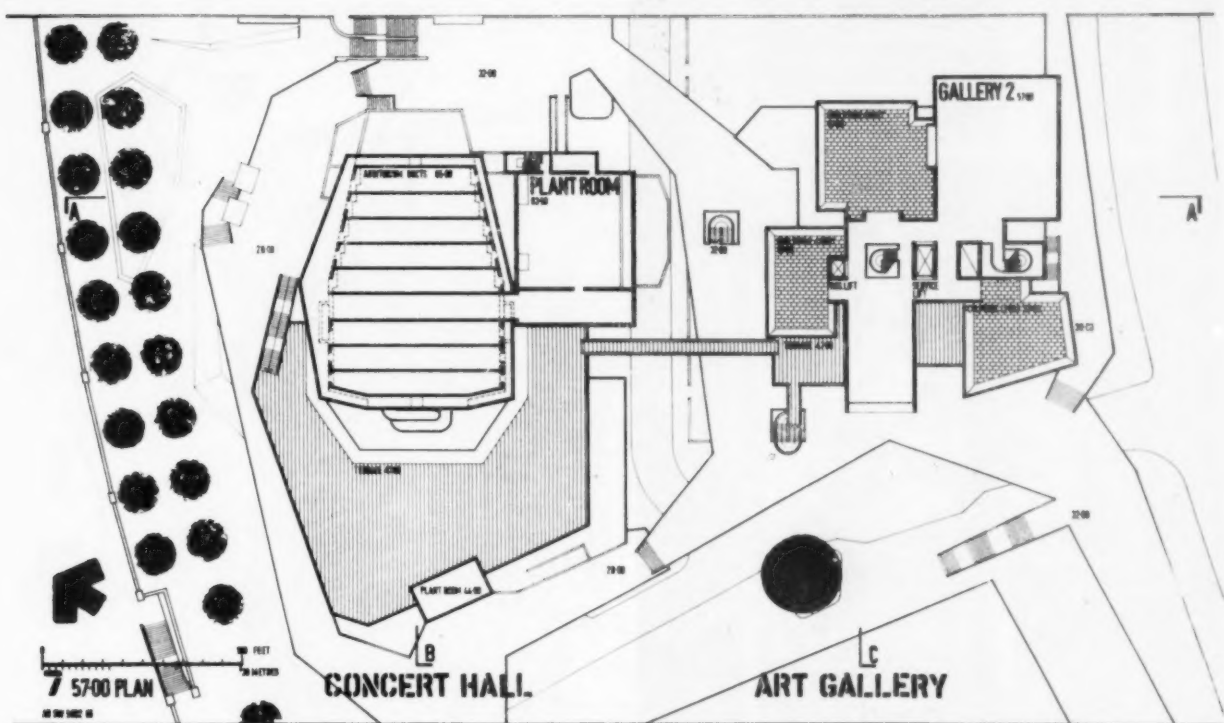
Below, the Art Gallery, left, and Royal Festival Hall, right, seen from Waterloo Bridge





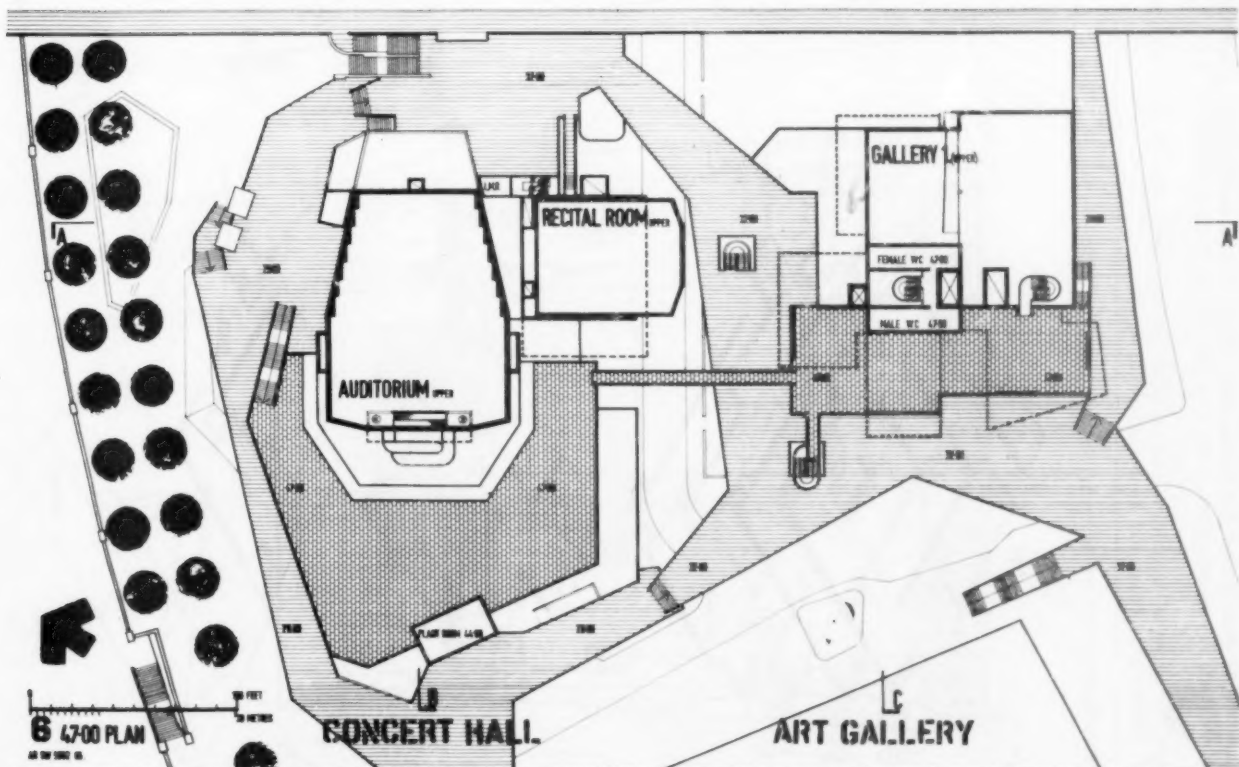
The new Concert Hall and Art Gallery. Floor plans at 12 ft. datum, below, and 32 ft. datum, above





The new Concert Hall and Art Gallery, showing pedestrian link-up at 57 ft. datum, above, and 47 ft. datum below

WATERLOO BRIDGE



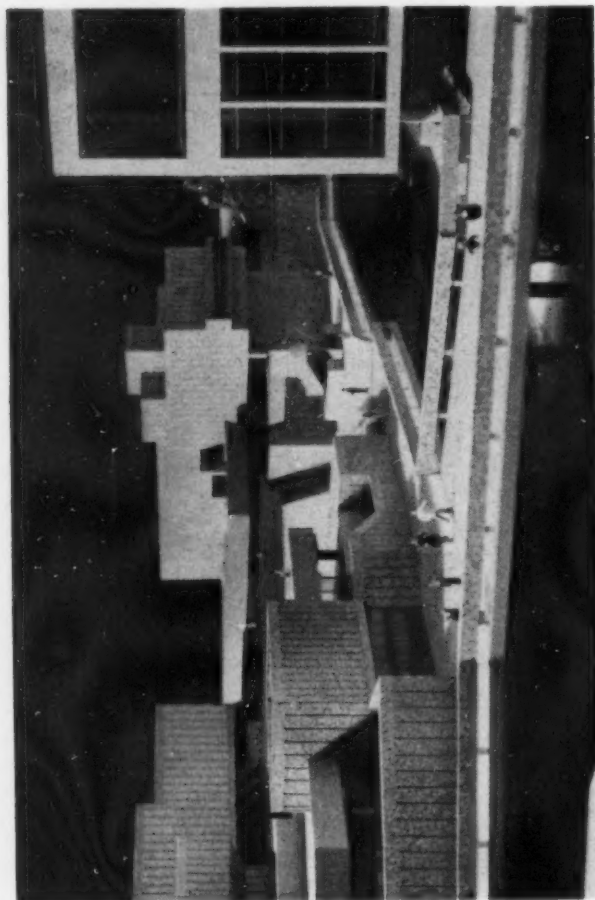
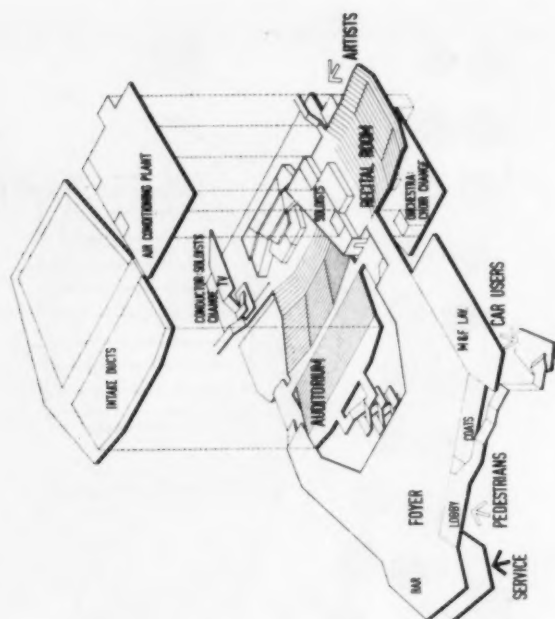
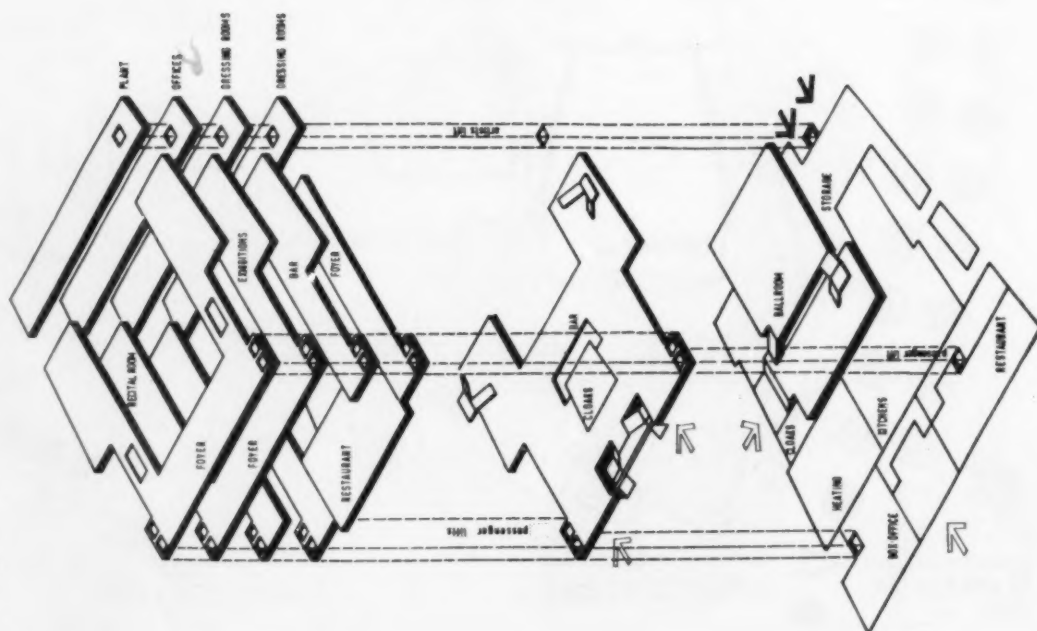


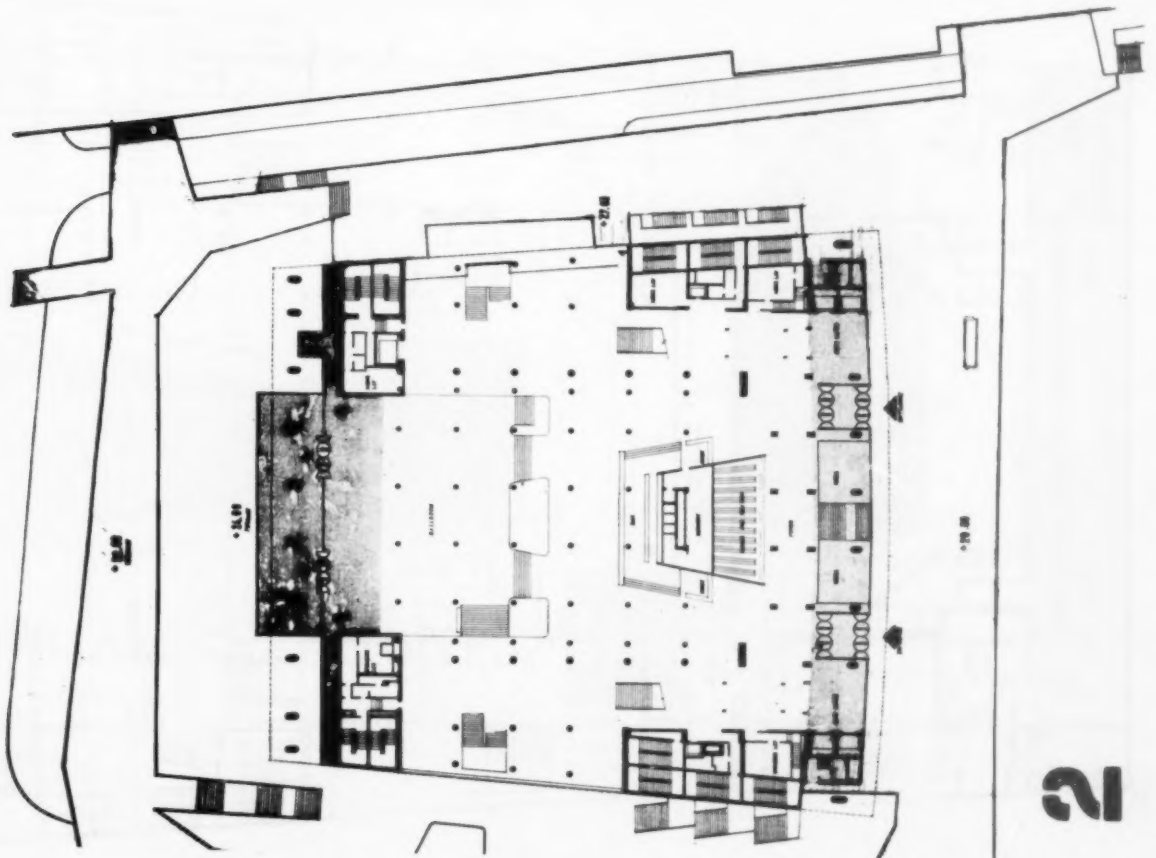
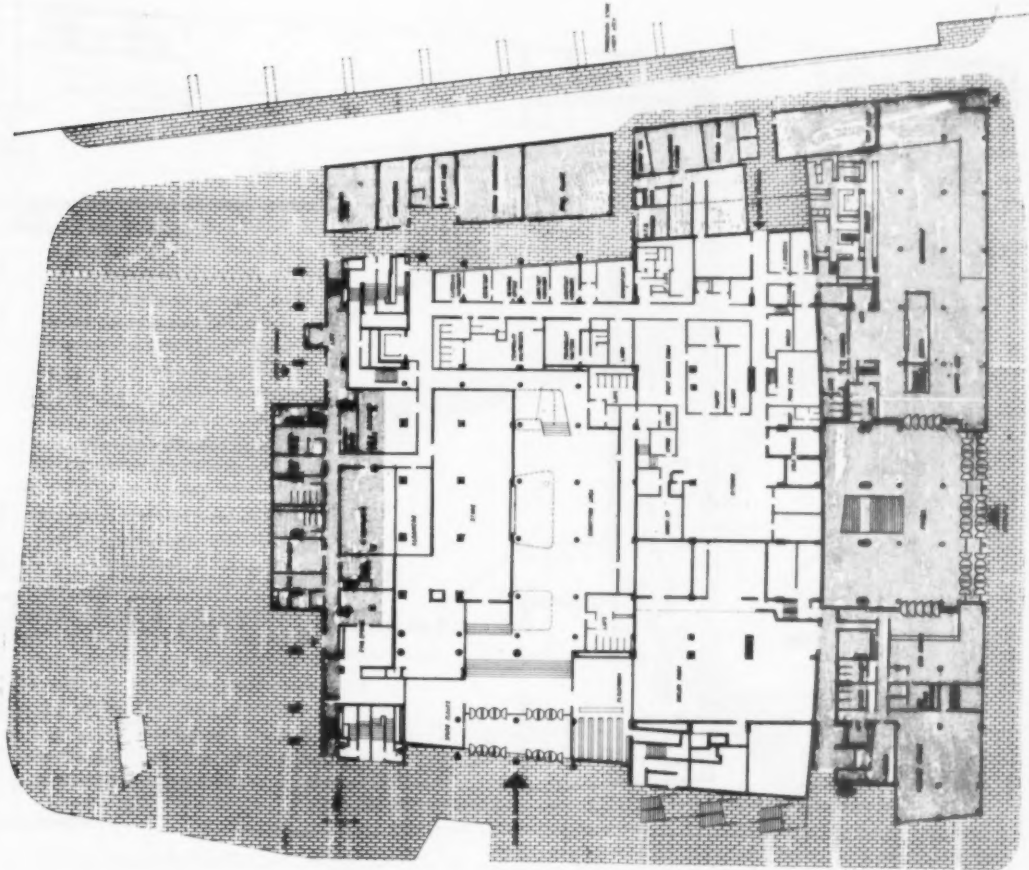
Diagram of the Royal Festival Hall showing, from bottom: 1, road entrance level; 2, pedestrian entrance level; 3, restaurant level; 4, bar level; 5, exhibition level; 6, top level

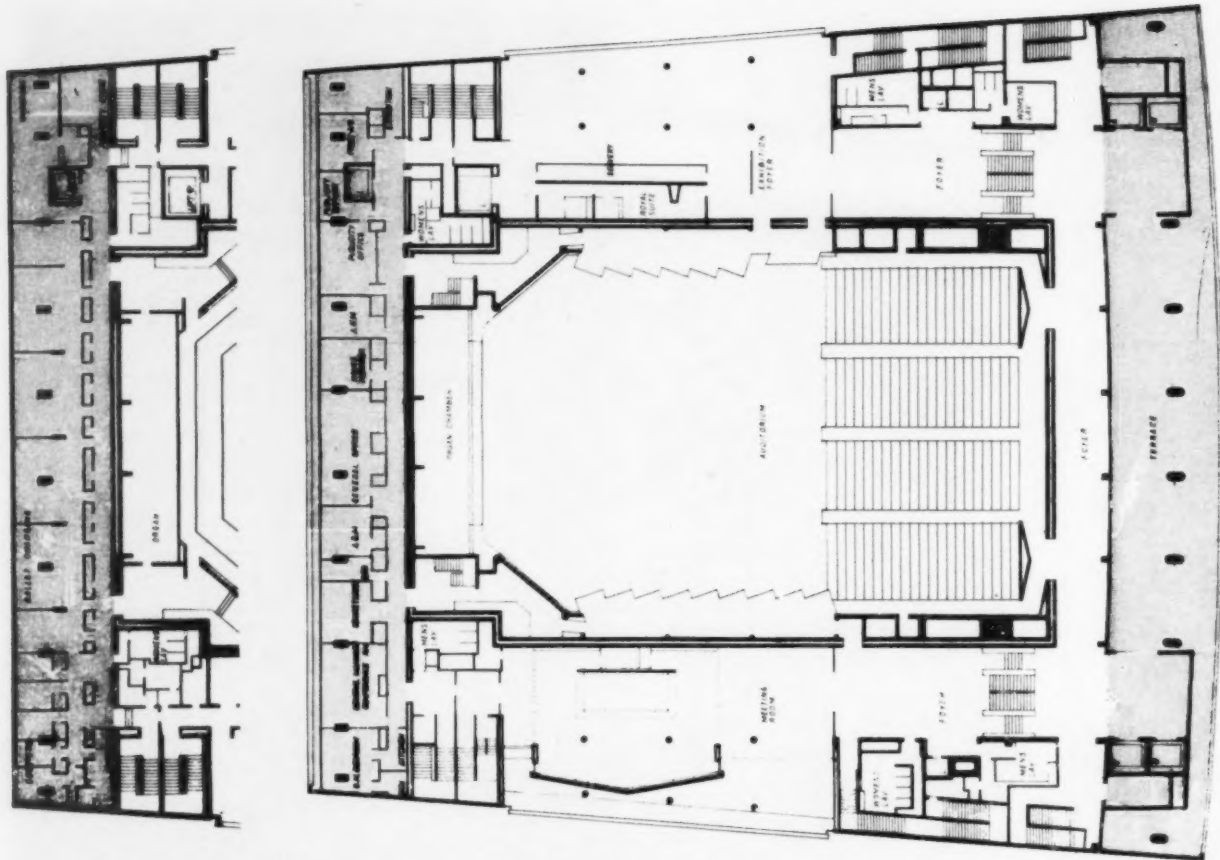
Right, photograph of the model, looking across the pedestrian precinct to the new concert hall, left, and art gallery, centre, with Royal Festival Hall on right

Below, diagrams of the art gallery, left, and new concert hall, right

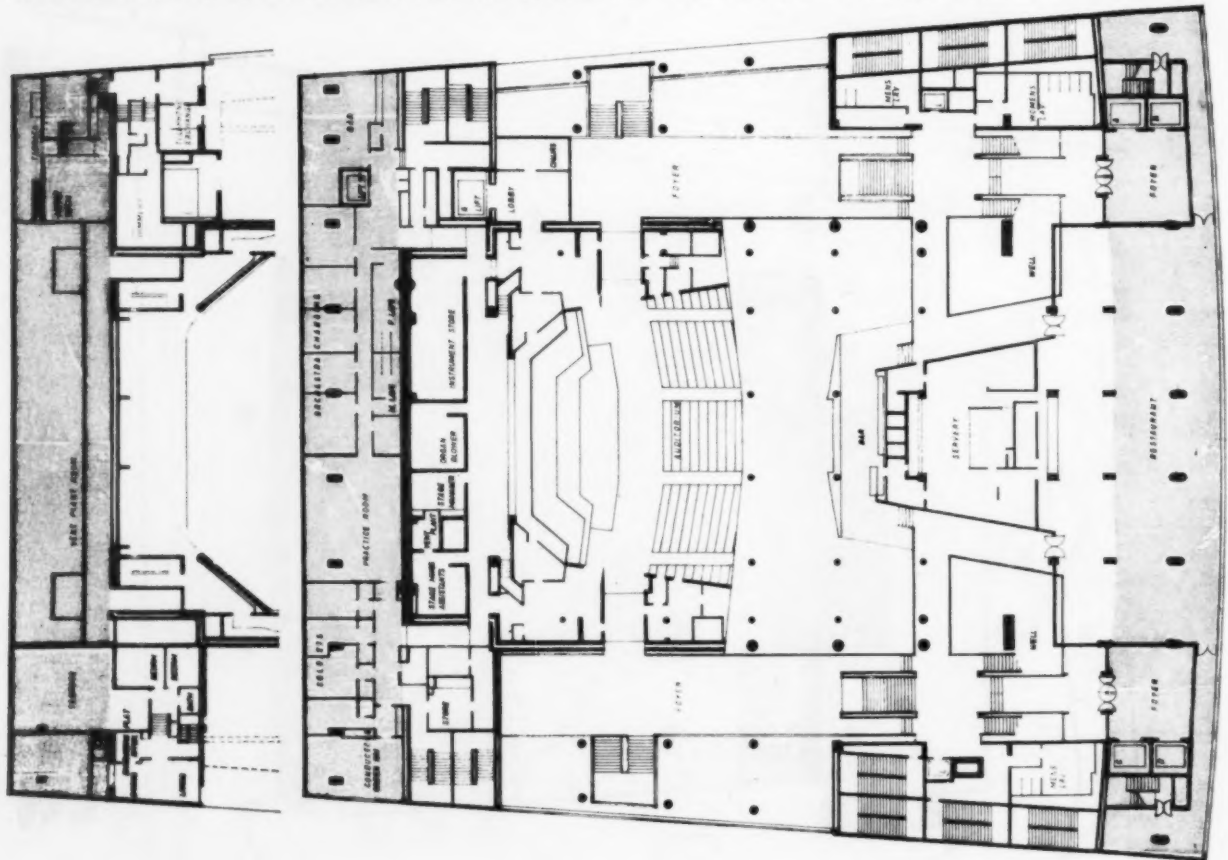


Royal Festival Hall, left, second floor plan; below, ground floor

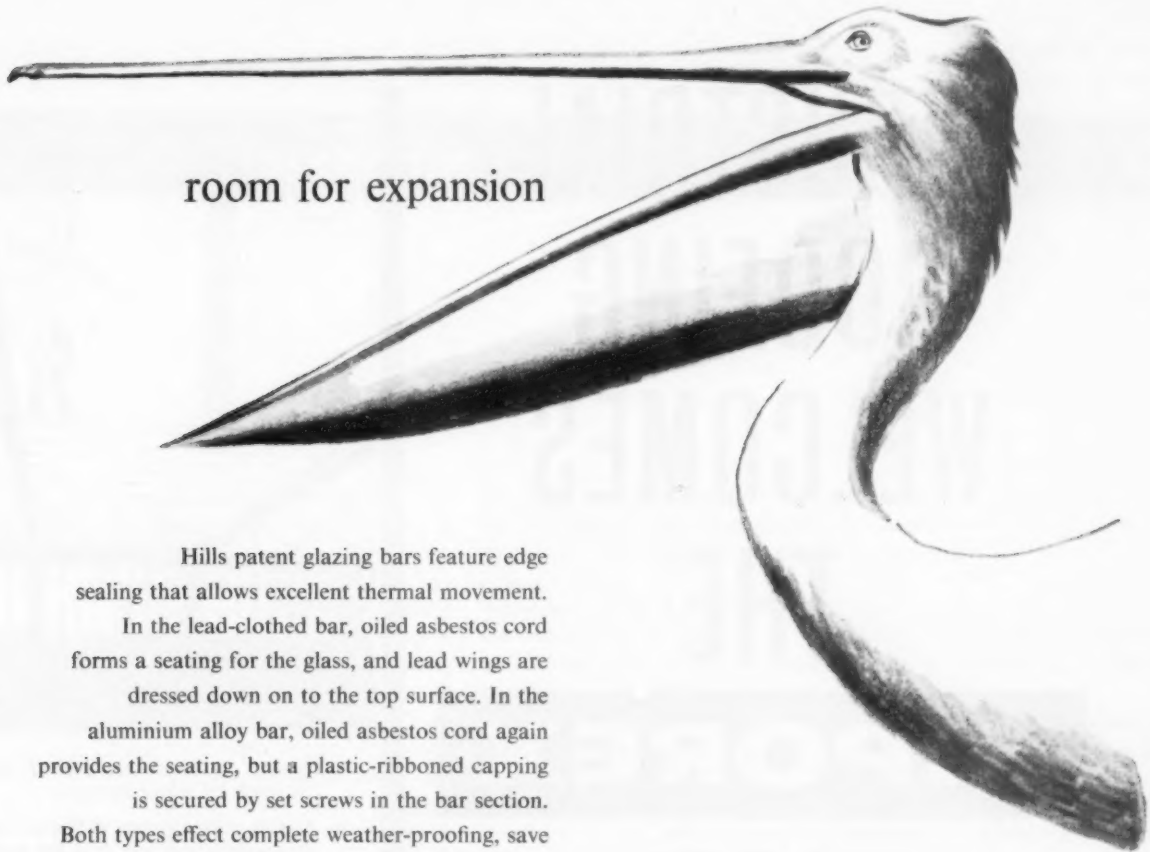




Royal Festival Hall floor plans: above, at entrance level, and, on left, the end of the 4th floor; below, the third floor plan, and, on left, the end of the 6th floor



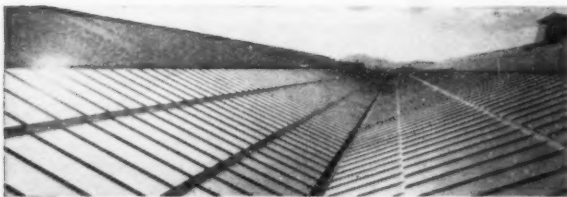
room for expansion



Hills patent glazing bars feature edge sealing that allows excellent thermal movement.

In the lead-clothed bar, oiled asbestos cord forms a seating for the glass, and lead wings are dressed down on to the top surface. In the aluminium alloy bar, oiled asbestos cord again provides the seating, but a plastic-ribboned capping is secured by set screws in the bar section. Both types effect complete weather-proofing, save time in fitting and cost in maintenance.

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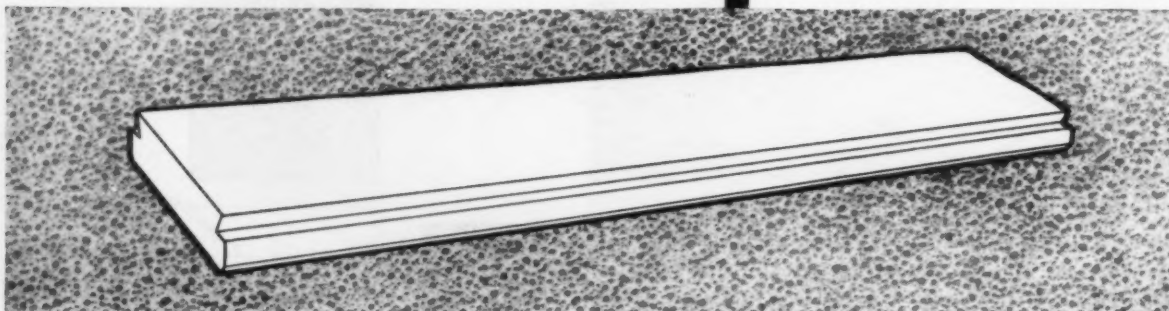
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Contract administration

site inspection

4

Although you may have visited the site previously, once official instruction to proceed with design has been received and a brief agreed, revisit the site making a careful inspection specifically related to the brief. Pending receipt or preparation of an accurate survey drawing, sketch notes should be made, the site fully photographed and basic dimensions taken in such a way that this inspection will enable analysis and preliminary design work to begin immediately on sound sources of information relating to, and supplementing, each other.

The information should include:—

Site boundaries with approximate dimensions and positions of any existing buildings.

Buildings adjoining or overlooking the site with notes of any windows.

Any features of the site which should be used within the development.

Orientation of the site.

General characteristics of surrounding landscape or buildings.

Access roads or paths.

Levels on the site and surrounding area, and nature of soil.

Evidence of all services including:—

drains

water

electricity

gas

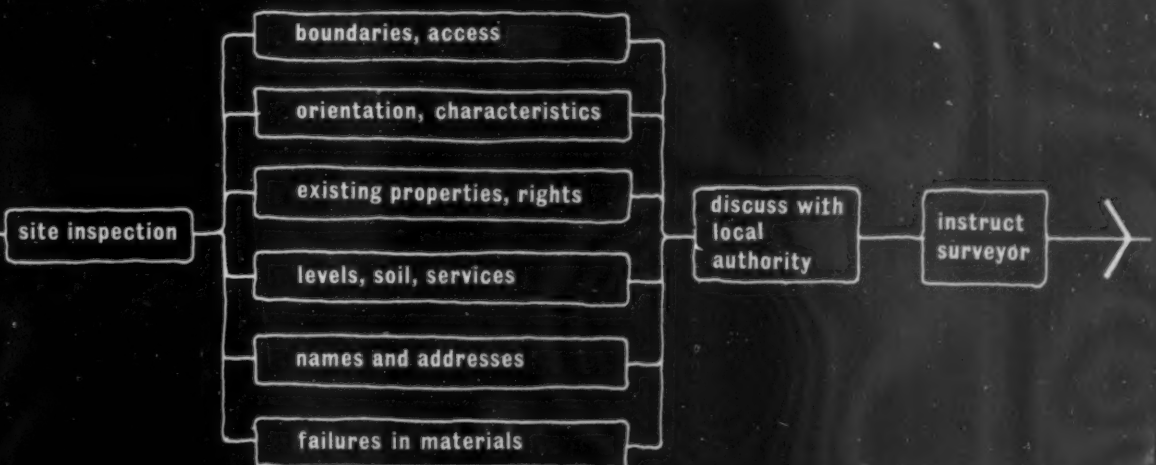
telephones

Any failures in specific materials used on existing properties on or near the site.

Names of owners or occupants and postal addresses of surrounding properties.

The local authority, and address, in whose area the property is situated.

General state of property if existing building is to be converted.



Contract administration

survey

5

Rather than prepare the true survey yourself, it is in your client's interest to employ the services of a qualified surveyor to prepare this survey. While this is being done, investigate the problem on the basis of your own site inspection notes. The survey should in any case be checked by you on the site as architect.

Where works are to be carried out on existing properties the client should be advised to have a property inspection report prepared, together with measured survey of the premises if this is not already available. These should be prepared by a competent qualified

surveyor and also include information as to title, leasehold or tenancy covenants or terms of agreement, information on rights of light or easements and an accurate schedule of defects. The inspection report should be made available to the architect to check items which may have a bearing on the work to be carried out.

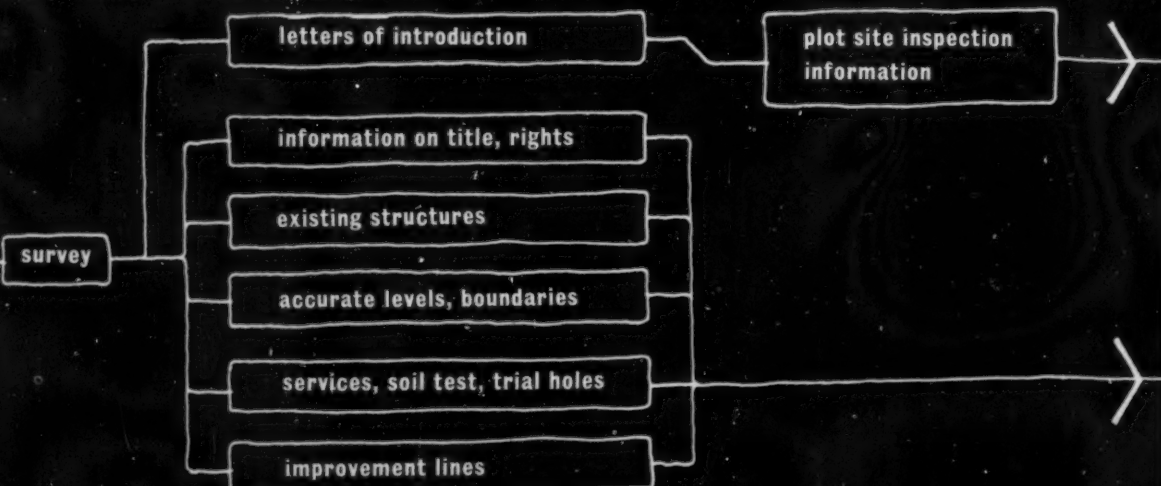
If your client asks you to recommend a surveyor, suggest one whose work is known, or alternatively ask to see previous survey drawings which have been prepared by them. Meet the surveyor on the site and explain exactly what is required, including any specific

large scale details. Obtain an estimate of cost and time required, report to client and after approval instruct surveyor to proceed giving him letters of introduction.

This is an ideal opportunity to introduce yourself to adjoining owners. Write to them and inform them that the survey is to be carried out and obtain permission to measure any sections of their building which are relevant to the survey requirements.

The surveyor should be briefed on the basis of the check list opposite.

The survey drawings should be prepared to the largest practicable scale.



Contract administration

survey

check list

Preliminaries

1. Prepare or have reproduced to appropriate scale a sufficient area of the ordnance survey map to show all boundaries of the site and surrounding or adjoining properties. Check area on geological map, and or obtain geologist's report. Obtain aerial photographs of the site.
2. Check and ensure that you have all necessary equipment.
3. Check with client, solicitor or agent:—
Full address of property.
Covenants or other terms in title or lease.
Ownership of fences.
Rights or easements affecting site or adjoining properties.
Age of existing properties and previous occupational uses of either site or buildings.
4. Decide precisely what you will want to learn from site before going.

Local Authority Enquiries

1. Planning or byelaw considerations, including:—
Building or improvement lines.
Future development of area including road or drainage works.
Specific restrictions or preservation orders governing development.
2. General information on:—
Nature of sub-soil and likely bearing capacity, information on any local borings.
Water table and liability to flooding.
History of site.
Evidence of subsidence, erosion or underground workings.
Evidence of material failures peculiar to district.
Main services, including water for building and positions and depth.
Addresses of public service authorities and preliminary information on existing services.

Site

1. Orientation and general, natural or other characteristics of site and environment (including overhead).
2. Levels related to bench mark or permanent features.
3. Positions for trial holes, position for spoil during building.

4. Dimensions overall including boundaries, trees (on or adjoining site), buildings, manholes, paths, roads, etc., and general condition.
5. Evidence of all services, drains, inverts and cover levels.
6. Names and addresses of adjoining owners.

Buildings

1. Plans, elevations and sections and selected details, all in sufficient detail for reproduction to predetermined scale.
2. Comprehensive notes on total construction with sketch details and materials and colour notation in support of measured work including as much hidden foundation work as possible, and tracing and describing all internal and external services, with sizes.
3. Schedule of defects or omitted items with notes on required correction.
Exterior: materials and finishes, including roof, throatings, flashing, weathering, damp course, pointing, ventilators, points of structural failure or horizontal or vertical alignment.
Interior (by room or area, numbered not named): materials and finishes on floors, walls, ceilings and stairs or structural members.
Evidence of rot, beetle, staining, dampness, smell.
Doors: hanging, alignment and opening.
Windows: hanging, alignment and opening.
Fittings: alignment, ironmongery.
Services components: electrical
gas
water
mechanical
heating
ventilation
fire appliances
sanitary fittings
flues and ducts.
4. Comprehensive photographs of site, surroundings and building internally and externally with rule or tape in each photograph and cross reference to drawing and written information.
5. Description of structural system of the building.

Contract administration

site analysis

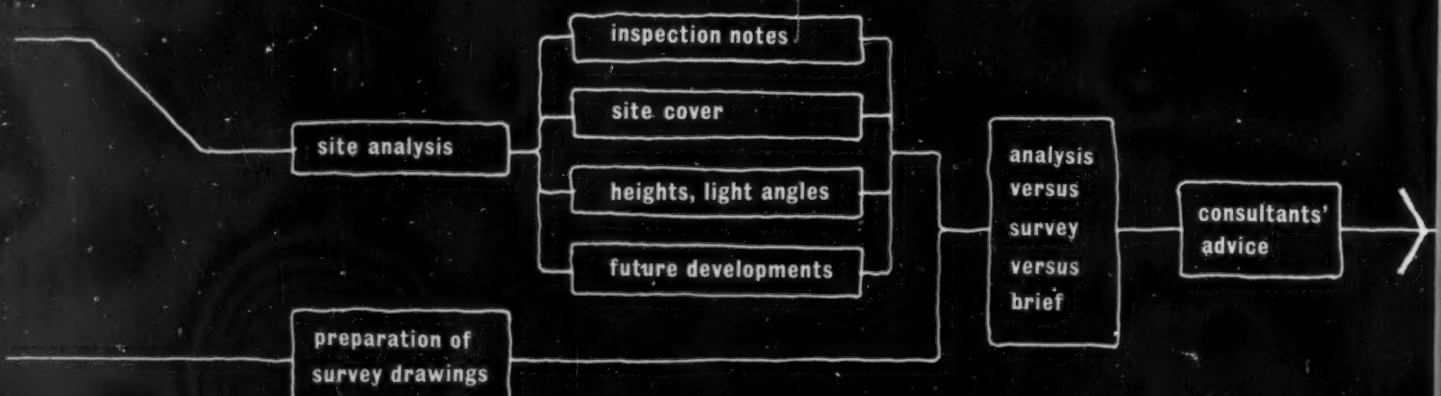
6

This represents the factual foundation of the whole exercise. If carried out properly it should eliminate any possibility of a preconception establishing itself which could, at a later date, throw the whole design process off balance. It is a factual record of existing elements set against the new elements enumerated in the client's brief. The result represents the framework within which any design or ideas may be developed, unless, on investigation, you feel the client's brief to be incorrect. To by-pass this process by going straight into the design drawings

in the desire to get to grips with the problem will inevitably cause trouble later. There are times throughout a contract when the original reason for taking a decision is lost. A statement in the form of a site analysis is a permanent reminder of these reasons. In addition, the site analysis is the very thing on which you can lean with confidence when faced with the committee of twenty people determined to find the snag, whim or personal element which has produced a building which they cannot quite reconcile with their original brief.

The analysis can be produced in any form but it is essentially a diagram which can be easily understood by the client.

The analysis should be produced with the following points in mind: permissible site coverage, maximum and minimum heights, boundaries and existing properties, light angles to windows, existing and new, rights or easements established by previous or existing properties, building or improvement lines or any future development nearby and everything from bus stops to fire appliance access.



working detail

(21)Gi

WALLS AND PARTITIONS: 109

CURTAIN WALL: FACTORY AT INKOO, FINLAND

Viljo Revell, architect (material supplied by H. S. Sami)



The curtain wall is constructed entirely of timber, the mullions of the patent double glazing being of laminated pine. The dividing panel is clad in asbestos-cement sheets painted white to reflect the heat of the sun during the summer months, as the machinery inside the building generates a large amount of heat of its own.

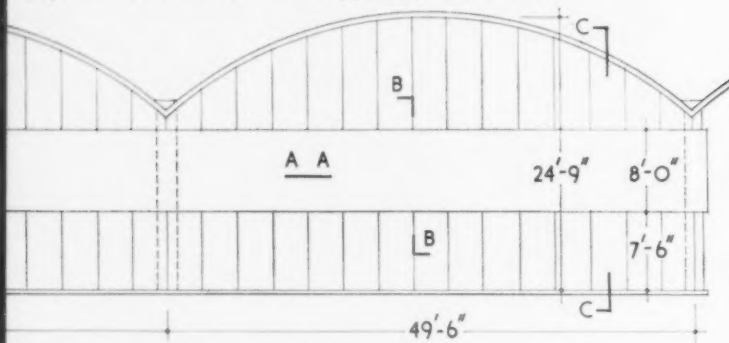
working detail

CURTAIN WALL: FACTORY AT INKOO, FINLAND

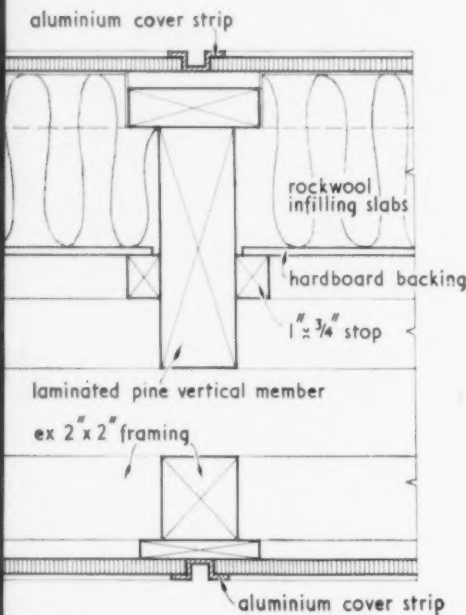
Viljo Revell, architect (material supplied by H. S. Sami)

(21)Gi

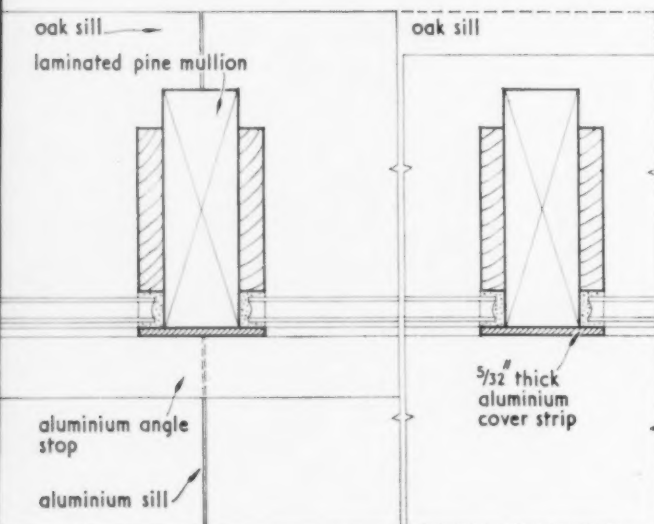
WALLS AND PARTITIONS: 109



ELEVATION scale: $\frac{1}{16}'' = 1'-0''$

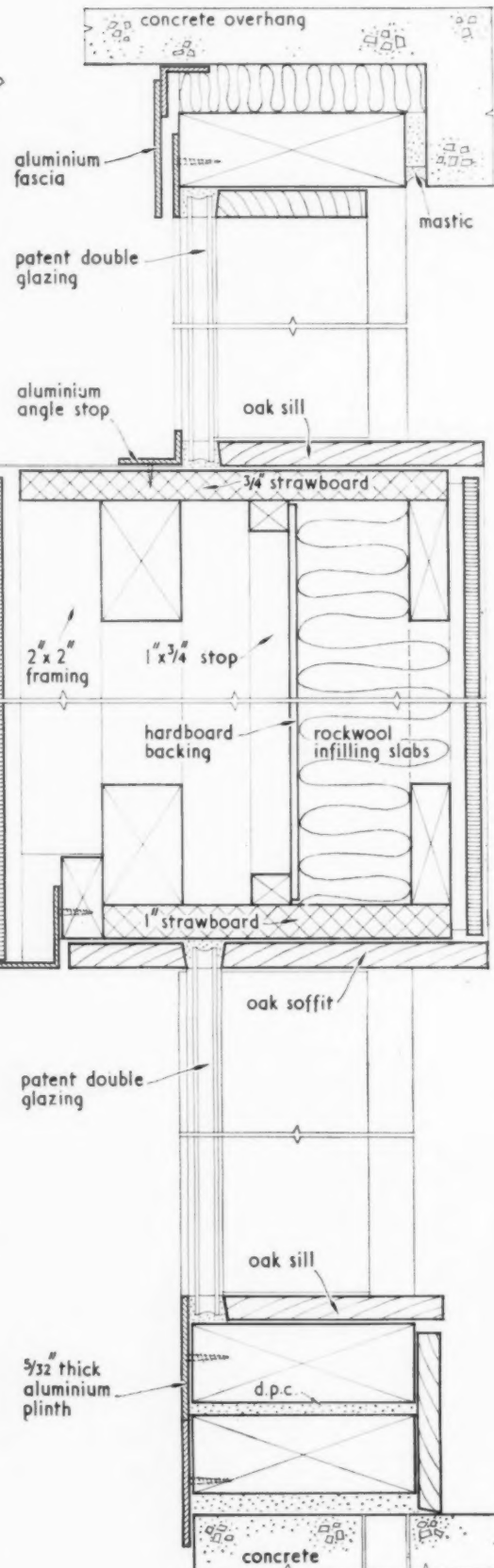


PLAN A-A scale: $\frac{1}{4}$ full size



PLAN B-B scale: $\frac{1}{4}$ full size

note: figured dimensions in feet and inches are approximate



SECTION C-C scale: $\frac{1}{4}$ full size

working detail

WALLS AND PARTITIONS: 110

PARTITION: OFFICES AT NEUILLY SUR SEINE

Andre Aubert and Pierre Bonin, architects (material supplied by S. F. Bone)



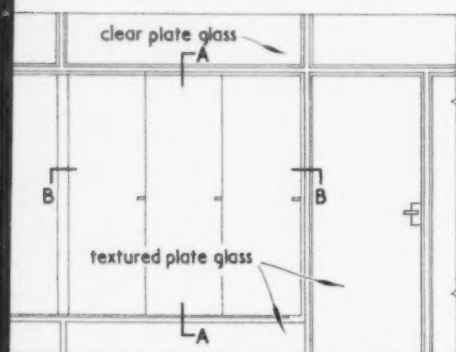
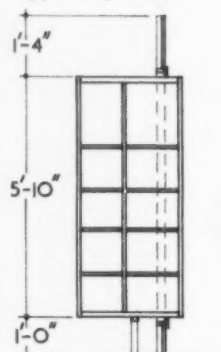
The sound transmission through this partition is reduced by the inclusion of the cupboards, the weight of the glass used and the rubber door seal, but the simplicity of the design and fixing has not been impaired.

working detail

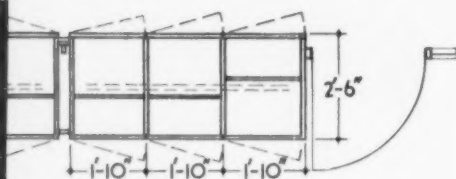
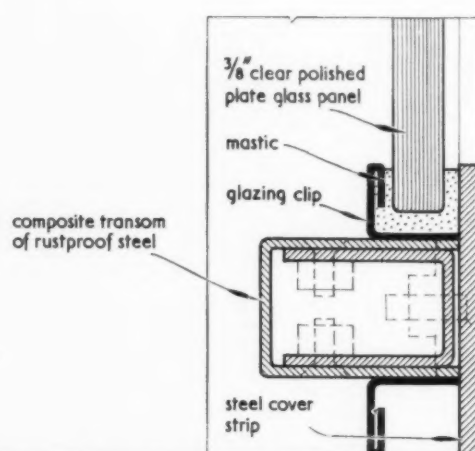
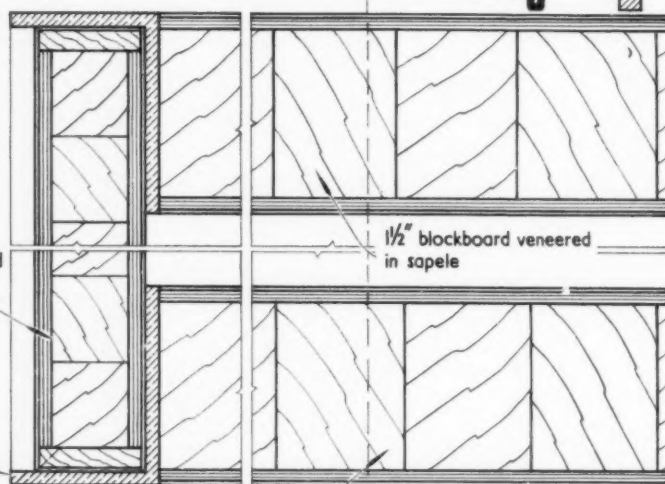
WALLS AND PARTITIONS: 110

PARTITION: OFFICES AT NEUILLY SUR SEINE

Andre Aubert and Pierre Bonin, architects (material supplied by S. F. Bone)

ELEVATION. scale $\frac{1}{4} = 1'-0''$ 

SECTION.

PLAN. scale $\frac{1}{4} = 1'-0''$ door of $\frac{7}{8}$ " blockboard veneered in sapele $\frac{1}{8} \times \frac{1}{8}$ " polished aluminium angle framing $\frac{1}{2}$ " blockboard veneered in sapele

steel cover strip

composite steel transom

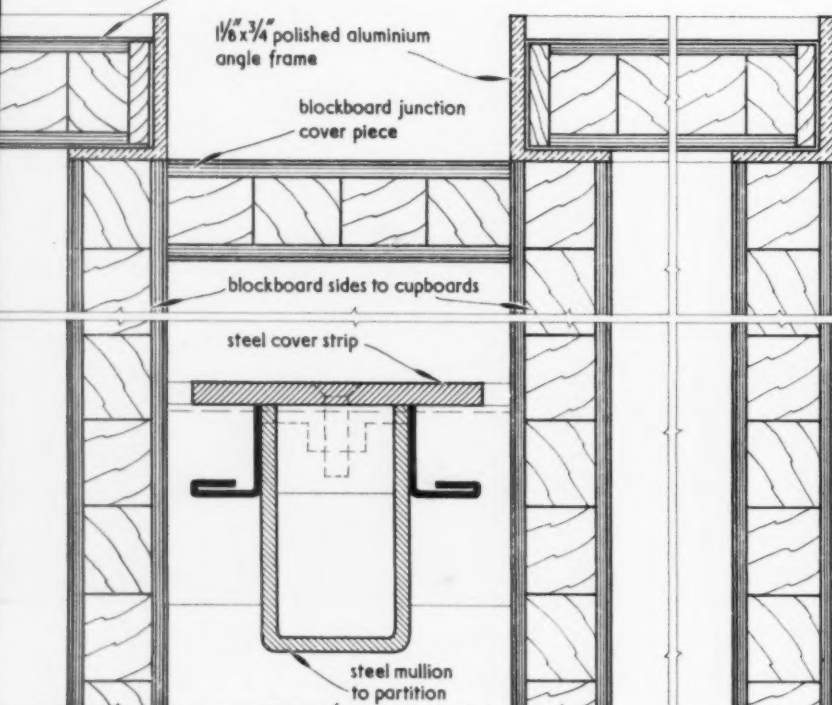
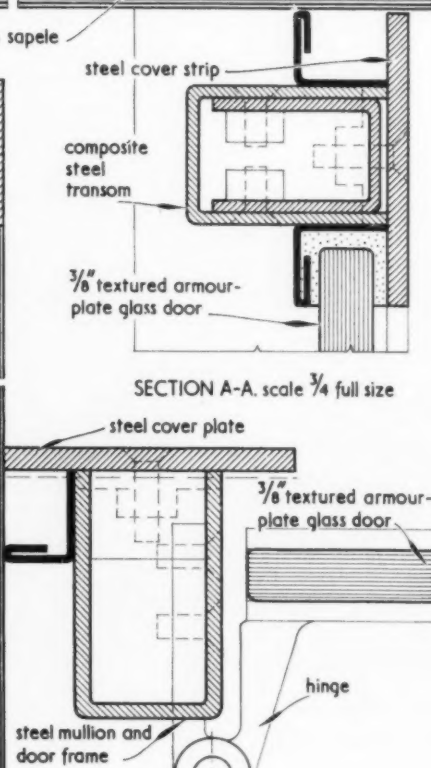
 $\frac{3}{8}$ " textured armour-plate glass doorSECTION A-A. scale $\frac{3}{4}$ full sizedoor of $\frac{7}{8}$ " blockboard veneered in sapele $\frac{1}{8} \times \frac{3}{4}$ " polished aluminium angle frame

blockboard junction cover piece

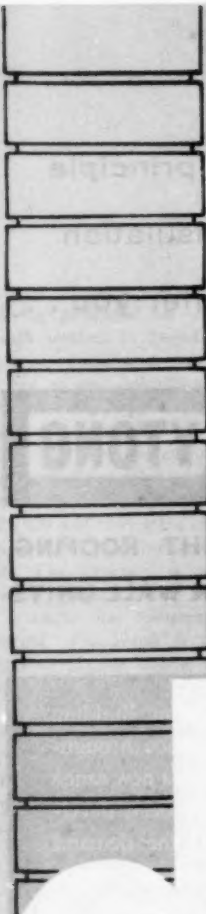
blockboard sides to cupboards

steel cover strip

steel mullion to partition

PLAN AT B-B. scale $\frac{3}{4}$ full size

note: figured dimensions in feet and inches are approximate



draw the line at dampness with...

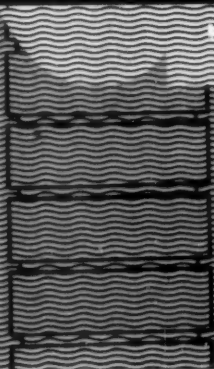
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lead cored flexible bitumen
dampcourse with fibre base—
impervious under the most
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dampcourses by PERMANITE



* 'LEAD BITU' conforms to B.S. 743:1951 Type 5E 'PERMALEAD' conforms to B.S. 743:1951 Type 5D

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Units of correct span and thickness made to specific requirements.

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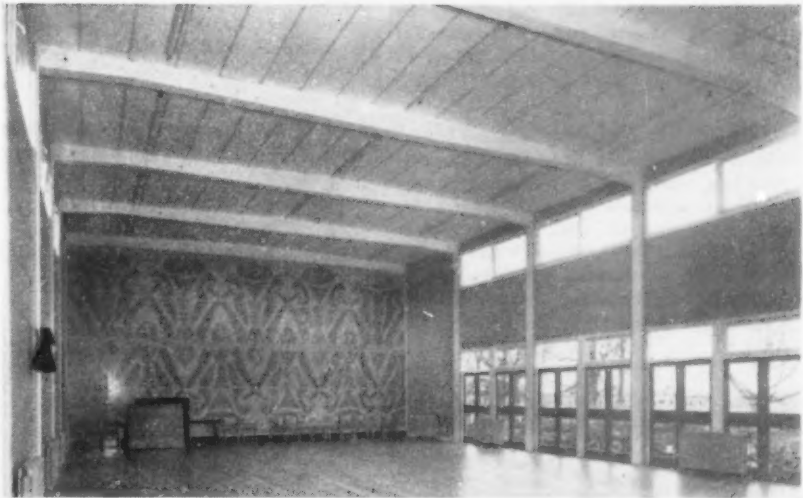
For full technical details please write to:-

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Announcements

PROFESSIONAL

Frank E. Moore, L.R.I.B.A., is now in private practice at 92, Church Road, Bebington, Cheshire (Telephone: Bromborough 1608), where he will be pleased to receive trade literature, samples, etc.

Brunton, Baden Hellard & Boobyer have established an office for consulting work at 131, High Street, Croydon, Surrey (Telephone: Croydon 5154), and would be pleased to receive trade and technical information, particularly where this is to A.4 size and referenced under the SFB classification.

The Southend-on-Sea Municipal College is holding a course of Post-Graduate Study for practising architects on April 18 and 25, May 2, 9, and 16, 1961. The subject is "Cost Control for Architects" and the fee is £1 0s. 0d. Applications should be sent to the Registrar, Municipal College, Victoria Circus, Southend-on-Sea, before Monday, April 10.

N. W. Neale, A.R.I.B.A., has changed his address to Whitecroft, Middle Leigh, Street, Somerset.

Myles-White & Associates, chartered architects, have moved to 91, Clarkehouse Road, Sheffield, Yorkshire (Telephone: Sheffield 64474/5), and will be pleased to receive trade literature. The address of their office at Mansfield, Nottinghamshire, is unchanged.

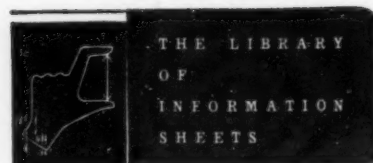
Cubitt Nichols, F.R.I.B.A., F.R.I.C.S., have moved to 6, Bolton Street, Piccadilly, W.1 (Telephone: Grosvenor 7517/8).

Knapton & Deane have moved to 11, Catherine Place, Westminster, S.W.1 (Telephone: Victoria 0053), and have changed the name of the firm to Knapton Deane & Partners.

John W. Ball, L.R.I.B.A., has moved his office to 22, Welbeck Way, Welbeck Street, London, W.1 (telephone: Welbeck 8619).

Correction

The address in the advertisement for Better Buying Service in THE ARCHITECTS' JOURNAL, March 9, was incorrect and should have read 56, Grosvenor Street, W.1 (telephone: MAYfair 8502).



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4.E1 CANCELLATION

Readers are asked to note that this Sheet is cancelled and should be withdrawn from collections.

COMPETITION

Trinity College Library

Five Russian architects are among the 185 who have submitted designs for Trinity, Dublin's, new library building, the closing date for which was this Tuesday. This international architectural competition has attracted schemes from 100 American architects, 25 from Japan, and others from Australia, Borneo, Ghana, Palestine, South Africa, and all the Scandinavian countries. We presume that there is an English competitor, though he gets no mention in a current Press handout.



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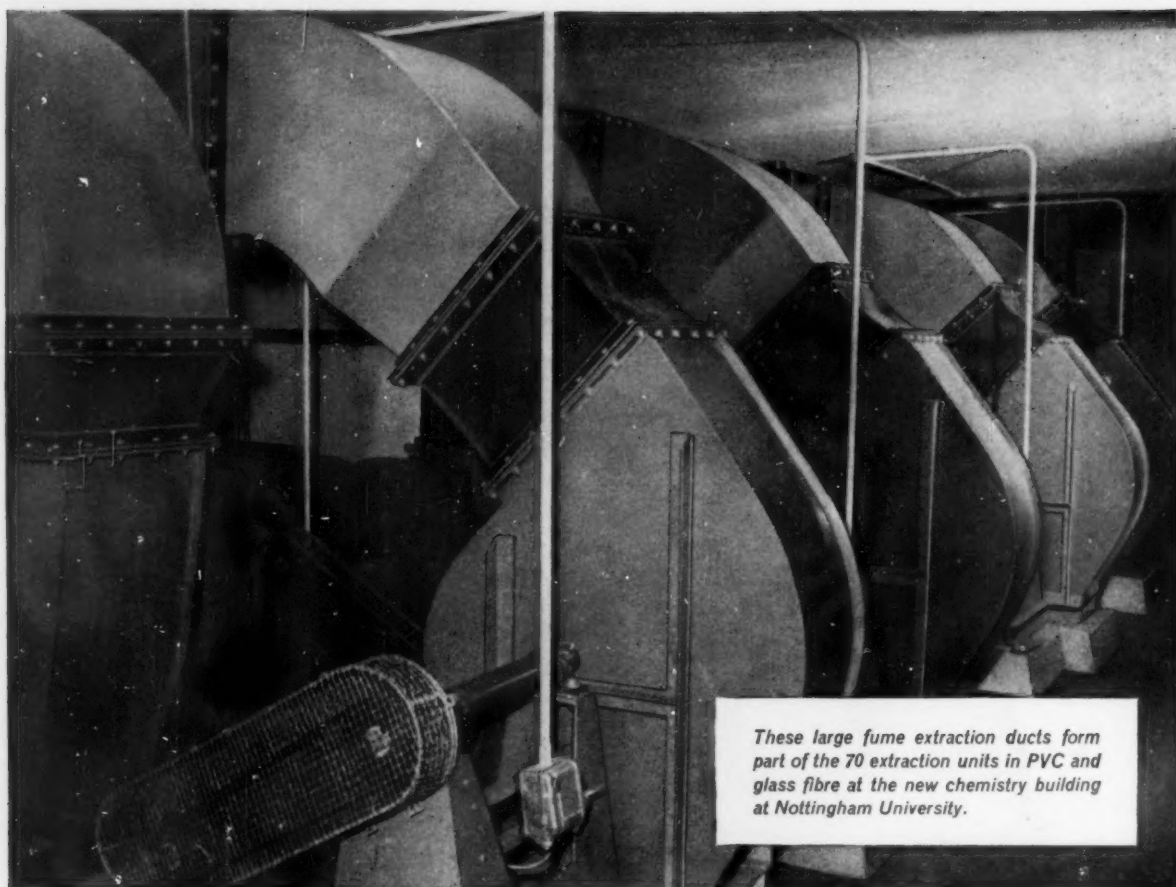
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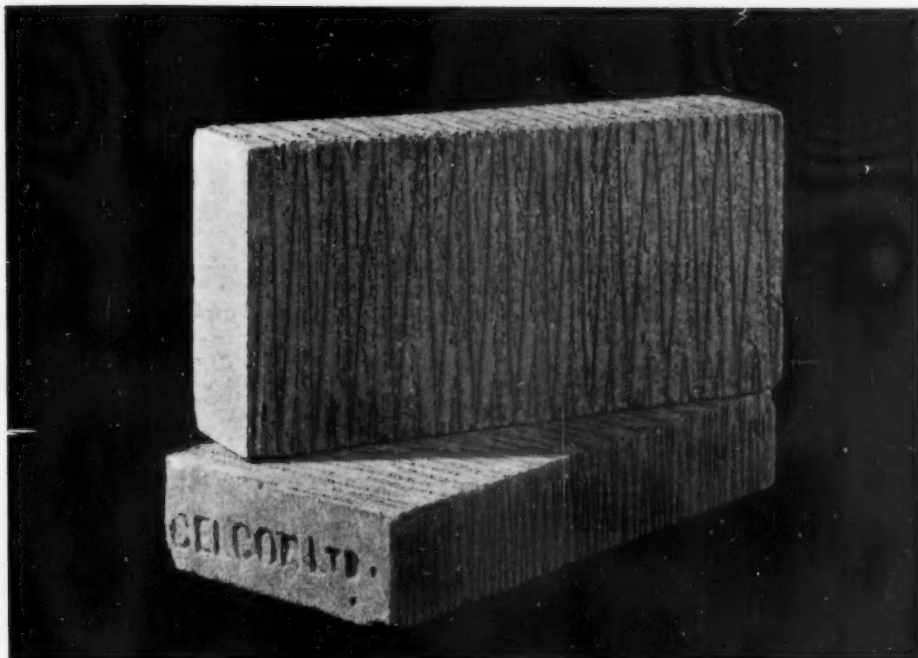
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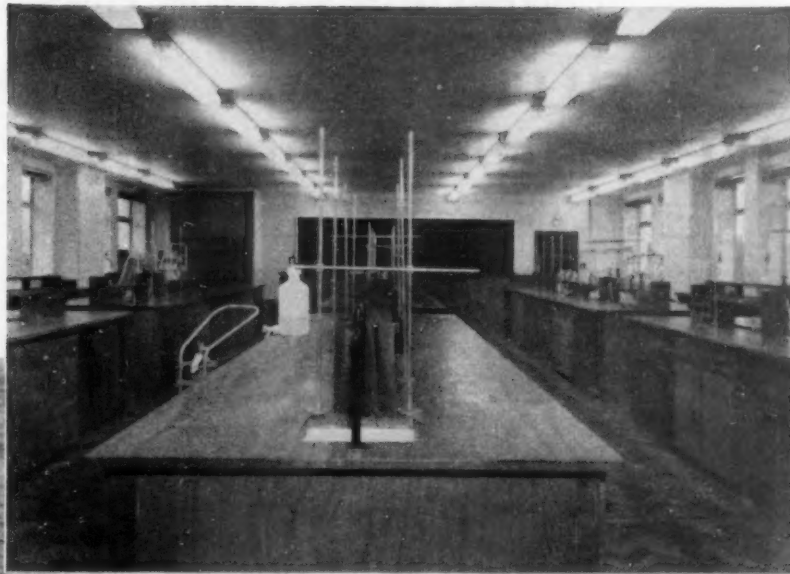
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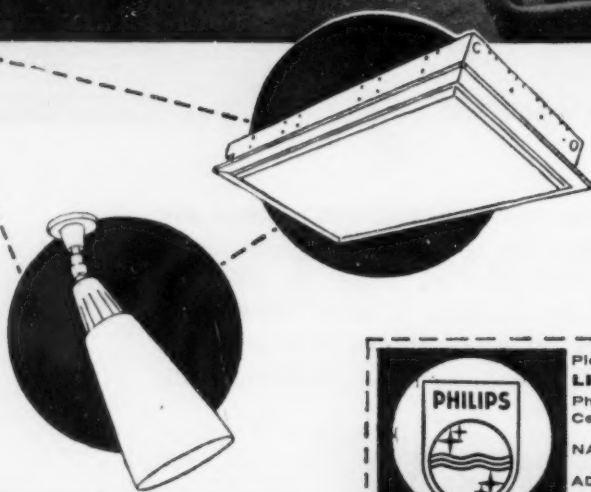
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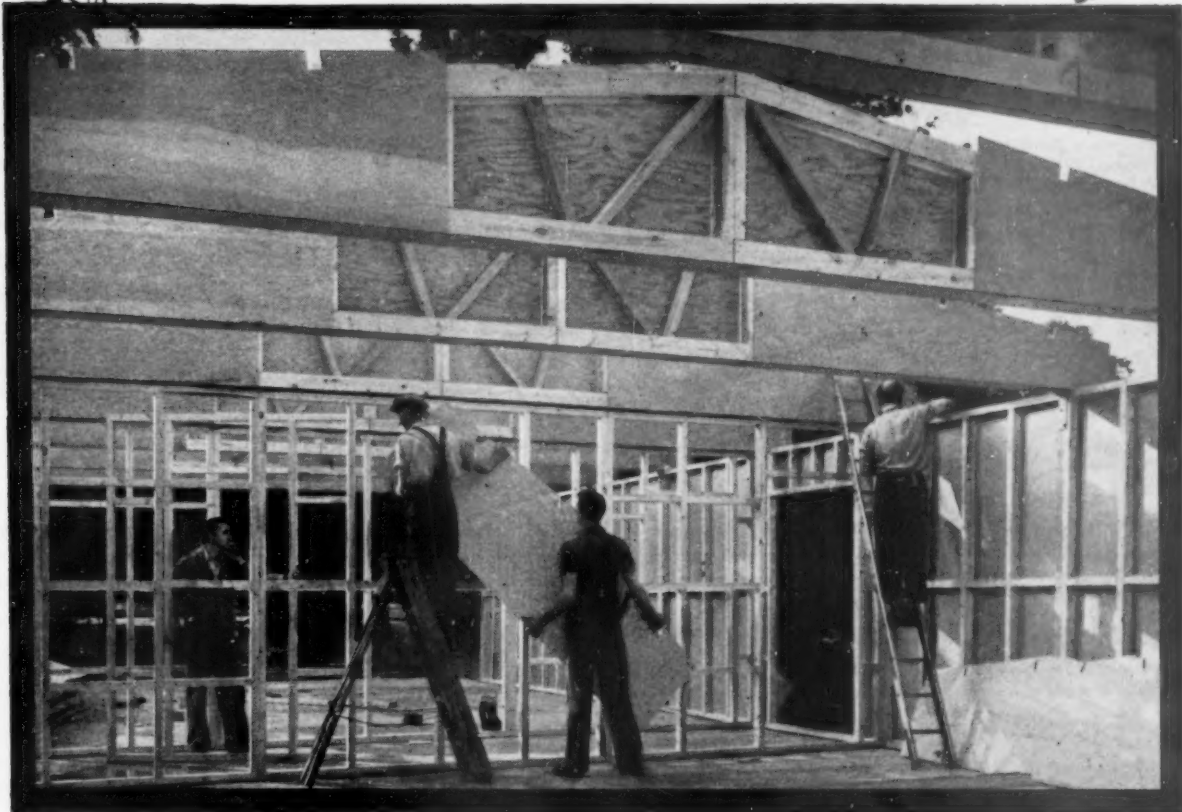
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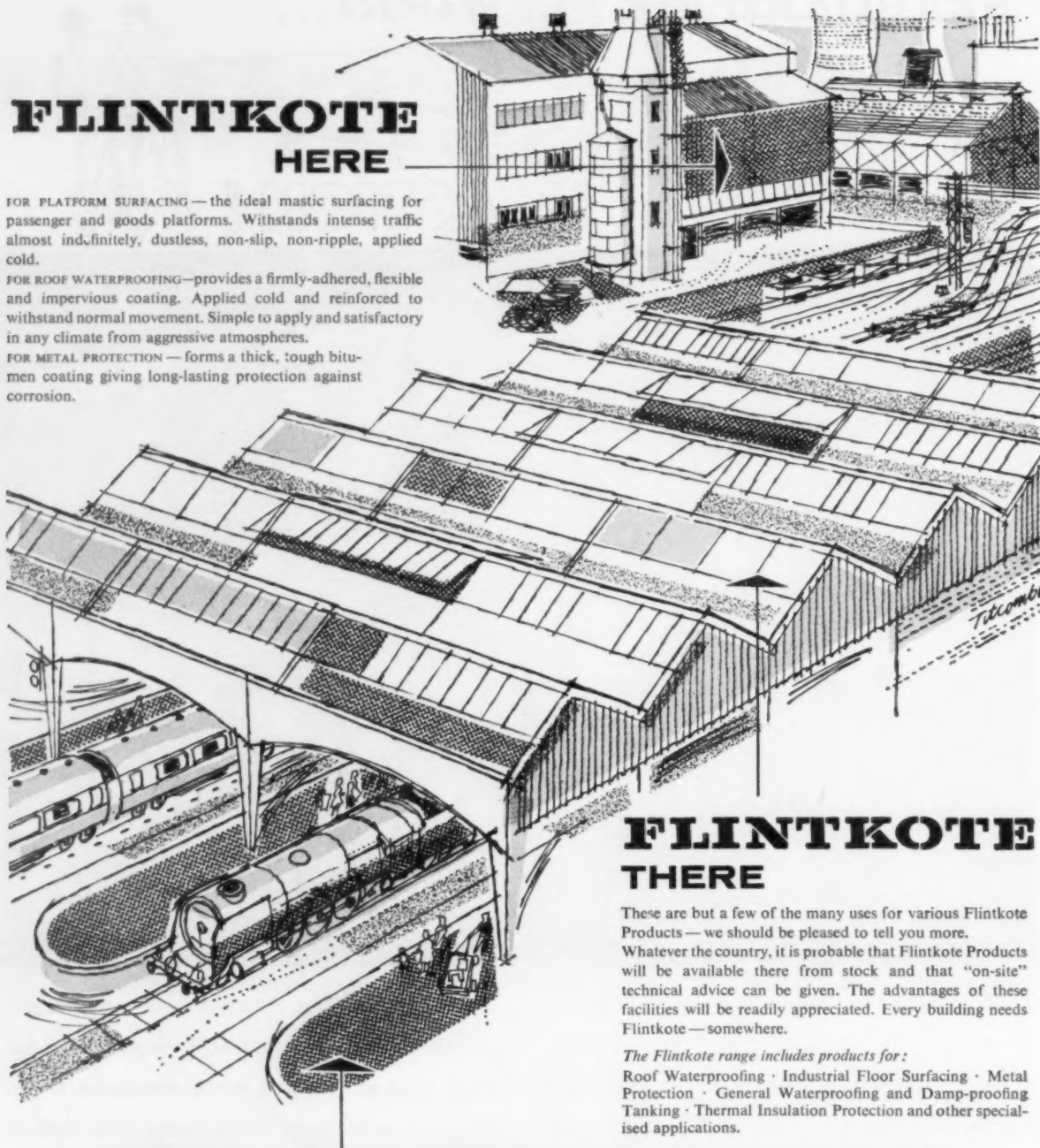
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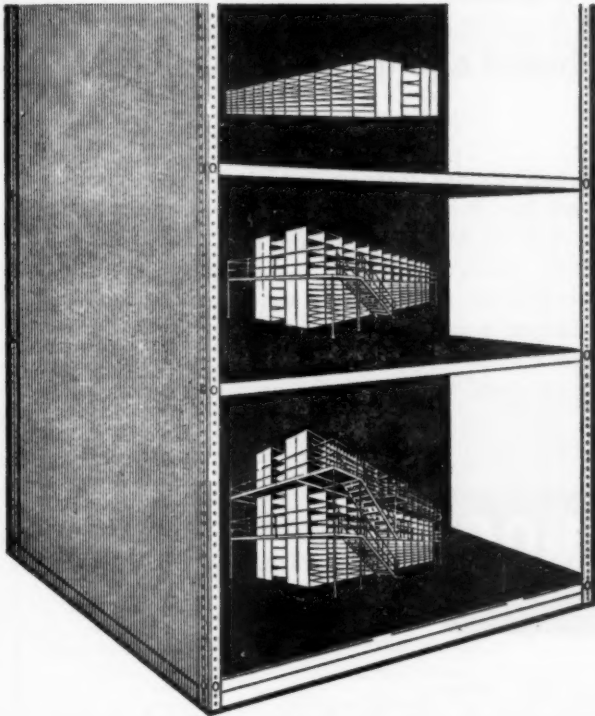
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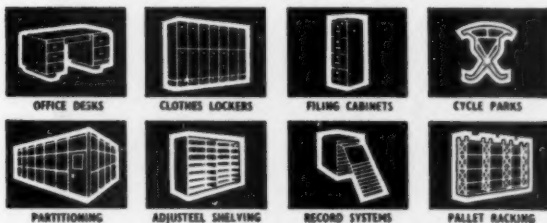
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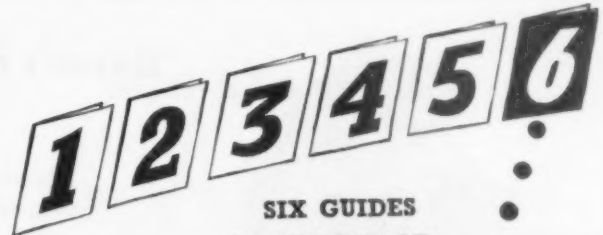
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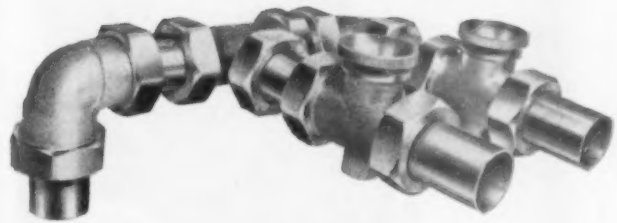
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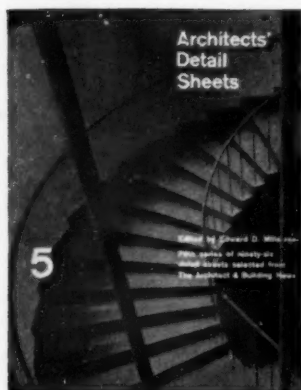
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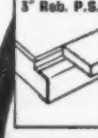
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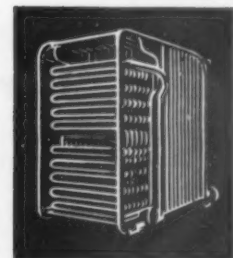
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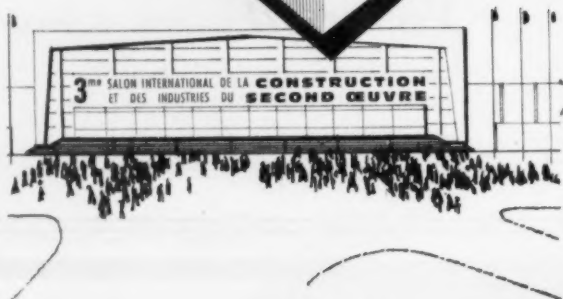
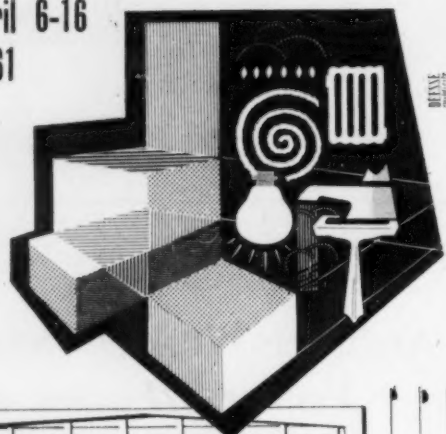
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ANTONI GAUDI

by Josep Lluís Sert & James J. Sweeney

In recent years there has arisen a widespread interest in the work of the great Spanish architect Antoni Gaudí. For too long Gaudí was regarded merely as an eccentric, an outsider: the true importance of the contribution he made to architecture was misunderstood; and art historians failed to allocate to him his rightful place in the historical development of the Modern Movement.

Writing with detachment and without prejudice, the authors trace Gaudí's life and work from his days as a student to his death in 1926. The picture which emerges is that of a wholly sincere architect-builder who lived only for his chosen work; one who quickly freed himself from the then accepted imitative styles to build in accordance with his own personal and highly original principles. The authors lay stress on Gaudí's constant reference to nature, his preoccupation with structural principles, his habit of making models which showed him exactly what loads and stresses his buildings would have to bear. A dramatic collection of photographs in monochrome and colour, together with many detail drawings, show that Gaudí's work richly deserves the attention it is now receiving.

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THE ARCHITECTURAL PRESS

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Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11, and 13, Queen Anne's Gate, Westminster, S.W.1. Normal printing arrangements have been altered to allow for the Easter holiday. The latest dates for receiving advertisements are as follows:—
April 6 issue—Tuesday, March 28.
April 13 issue—Friday, April 7.

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

AIR-MAIL SERVICE available on request.
In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of this special service to Overseas subscribers will be 5s. for four weeks (i.e. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

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CITY AND COUNTY OF NEWCASTLE UPON TYNE

CITY ARCHITECT'S DEPARTMENT
A unique opportunity exists in this office for competent Architects to take part in one of the most ambitious programmes of varied building works in the country, and vacancies in the establishment occur for ARCHITECTS who will be considered on their ability in design, experience, and architectural outlook, in the following grades:—

J.N.C. "C": £1,560—£1,825 per annum.
J.N.C. "B": £1,410—£1,670 per annum.
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A.P.T. III: £960—£1,140 per annum.
A.P.T. II: £815—£960 per annum.
A.P.T. I: £645—£815 per annum.

The Department is engaged upon a wide and varied programme of major redevelopment schemes embracing multi-storey flats, shopping precincts and associated community buildings, one of which schemes is the Scotswood Road Redevelopment Area to rehouse approximately 5,000 people, and which is expected to cost in the region of £12 million.

Planning work has now commenced on the new Education Precinct in the central area, comprising Colleges of Further Education, Art and Industrial Design, Drama, Commerce and Multi-storey Hostels, which will be the largest development of its kind in the country.

Further projects include: Airport Terminal; Abattoir and Fatstock Market; Vegetable Markets, Central Library, and Divisional Police Headquarters, etc., and a varied programme of normal housing development of a stimulating character.

The department is also engaged on the New Town Hall, where an exceptional opportunity is presented for working on a building of some £4 million in value, and being executed in materials of the highest quality.

Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1, indicating the grade for which they wish to apply.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
20th February, 1961. 6084

CITY OF GLASGOW
ASSISTANT ARCHITECTS
The Architectural and Planning Department has a number of vacancies for qualified Assistant Architects.

The Department has in hand a large, varied and interesting programme of work, including Comprehensive Redevelopment, Multi-storey Flats, Schools and Civic Buildings. The work will provide scope for personal initiative in the preparation of designs and details of schemes upon which construction work will follow.

The salary scale for these assistantships is up to £1,560 with placing according to experience. A five-day week is in operation.
Advances up to 100 per cent of valuation will be made available, where needed, for the purchase of suitable houses in or near Glasgow, by successful applicants.

Form of application may be obtained from the Principal Administrative Officer, 20, Tron-gate, Glasgow, C.1.

A. G. JURY,
City Architect and Director of Planning.
6318

LONDON COUNTY COUNCIL
ARCHITECTURAL DRAUGHTSMEN
Skilled and experienced Draughtsmen required in Housing Division, Architect's Department, to produce working drawings under supervision. Up to £1,250 according to experience and quality. Form from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/A/666/3b), County Hall, S.E.1. 6373

MINISTRY OF WORKS
NORTH WESTERN REGION
require in Manchester, Liverpool and Preston, for work of widely varying and interesting nature
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of inter-R.I.B.A. standard with keen, modern outlook.

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With experience as above and similar standard of technical education.

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General: Equal pay; 5 day week; promotion and permanency; 3½ weeks leave per annum; prospects of Non-contributory pension scheme.
Applications, stating age, training and experience to Mr. H. J. Muir, A.R.I.B.A., A.R.I.A.S., Assistant Regional Director (Works), Ministry of Works, Warwick Road South, Old Trafford, Manchester 16. 6488

NORTH RIDING COUNTY COUNCIL
Applications are invited for the post of **BUILDING INSPECTOR** for Architect's Maintenance Area based on Richmond and covering the North West Area of the Riding. Grade A.P.T. I. Salary £645—£960 p.a. according to age, qualifications and experience.

Conditions of Service and application form from R. Allport-Williams, M.B.E., B.Arch., F.R.I.B.A., County Architect, County Hall, Northallerton, Yorkshire, and applications to be returned to The Clerk of the County Council at the same address by 28th March, 1961. 6310

HAMPSHIRE COUNTY COUNCIL
ARCHITECTURAL ASSISTANTS, A.P.T. II/III £1,140—£1,410 for pensionable posts in County Architect's Department. Candidates should have passed the Intermediate Examination of the R.I.B.A. The commencing salary will be determined by qualification and experience. Separation allowance and assistance with removal expenses in approved cases. Five-day week.

Application forms, returnable by 31st March, from the Clerk of the County Council, The Castle, Winchester. 6467

IF YOU ARE INTERESTED in the work of the London County Council described in this issue, perhaps you would like to be considered for an appointment. There are vacancies in grades with maxima of £950, £1,250 and £1,500.

The wide range of building and the group organisation enable individuals to be used according to their special abilities. If you are interested, please write to Hubert Bennett, F.R.I.B.A., Architect to the Council, County Hall, S.E.1, quoting ref. (EK/A/769/3). 6611

BOROUGH OF ERITH
BOROUGH ENGINEER'S DEPARTMENT
Applications are invited for the following appointments:—

- (1) **ENGINEERING ASSISTANT, A.P.T. Grade II.**
- (2) **ARCHITECTURAL ASSISTANTS, A.P.T. Grade II.**
- (3) **ARCHITECTURAL ASSISTANTS, A.P.T. Grade I.**

Plus appropriate London weighting.
Applicants for appointment (1) should have a good general experience in Municipal Engineering and possess the appropriate qualifications.

Five-day week.
Applications stating age, qualifications, experience and the names of two referees to be received by the Borough Engineer and Surveyor, Town Hall, Erith, Kent, by Monday, 10th April, 1961.

J. A. CROMPTON,
Town Clerk.

Town Hall,
Erith,
Kent. 6617

DENBIGHSHIRE COUNTY COUNCIL
APPOINTMENT OF DEPUTY COUNTY ARCHITECT

Applications are invited for the appointment of Deputy County Architect at a salary of £2,053 6s. 8d. per annum, rising by three annual increments of £33 6s. 8d. to a maximum of £2,385 6s. 8d. per annum.

Candidates must be Associate Members of the Royal Institute of British Architects and must have had wide administrative experience in a County or County Borough. A knowledge of Welsh will be an added qualification.

The appointment is subject to three months' notice; to medical examination and to the Local Government Superannuation Acts.

Application forms, together with terms and conditions of appointment, obtainable from me. Completed application forms should reach me by the 11th April, 1961.

W. E. HUFTON,
Clerk of the County Council.
County Offices,
Ruthin,
Denbighshire. 6560

BERMONDSEY BOROUGH COUNCIL

ASSISTANT IN ARCHITECT'S SECTION

TEMPORARY ASSISTANT required for Architect's Section. Applicants must be under 31 years of age and have passed intermediate examination of R.I.B.A. or R.I.C.S., and should have experience in surveying old housing properties and preparing conversion and improvement schemes. Commencing salary at a point in A.P.T. III (£960—£1,140) or IV (£1,140—£1,310) plus London Weighting, according to experience. Apply giving details of experience, etc., to Borough Engineer, Municipal Offices, Spa Road, S.E.18. 6478

COUNTY BOROUGH OF WEST BROMWICH

BOROUGH SURVEYOR'S DEPARTMENT

Applications are invited for the following appointment:—
SENIOR ASSISTANT ARCHITECT, A.P.T. Grade A.P.T. IV (£1,140 to £1,310 per annum). N.J.C. Conditions of Service, and a five-day week.

Applications, naming two referees, to the undersigned by 5th April, 1961.

W. H. GREENWOOD,
Borough Surveyor.
Town Hall,
West Bromwich. 6512

BOROUGH OF SOLIHULL

APPOINTMENT OF SENIOR ASSISTANT ARCHITECTS AND ASSISTANT ARCHITECTS

Applications are invited from Architects with suitable qualifications and experience for the under-mentioned appointments:—

- (a) **SENIOR ASSISTANT ARCHITECTS, A.P.T. Grade V (£1,310—£1,480).**
- (b) **ASSISTANT ARCHITECT, A.P.T. Grade III-IV (£960—£1,310 p.a.).** Commencing salary according to experience.
- (c) **ASSISTANT ARCHITECT, A.P.T. Grade I-II (£645—£960 p.a.).** Commencing salary according to experience.

The Borough which has a population of approximately 90,000 and which is still expanding rapidly, is an Excepted District for education and in April, 1961, is assuming delegated powers for health and welfare services. It has also been recommended for County Borough status by the Local Government Commission for England. There is a considerable programme of varied capital work on hand and to be undertaken in the future.

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

In appropriate cases the Council will assist in the provision of housing accommodation and half the removal expenses will be paid.

Applications, giving full particulars as to age, qualifications and past and present experience, together with the names and addresses of three referees, should be submitted to the Borough Surveyor, 90, Station Road, Solihull, not later than Friday, 7th April.

W. MAURICE MELL,
Town Clerk.
The Council House,
Solihull,
15th March, 1961. 6554

BOROUGH OF SOLIHULL

APPOINTMENT OF ASSISTANT QUANTITY SURVEYORS

Applications are invited from Quantity Surveyors with suitable qualifications and experience for appointment as Assistant Quantity Surveyors in the Architect's Section of the Borough Surveyor's Department at a salary in accordance with A.P.T. Grade IV (£1,140—£1,310 per annum) commencing according to experience.

The Borough which has a population of approximately 90,000 and which is still expanding rapidly, is an Excepted District for education and in April, 1961, is assuming delegated powers for health and welfare services. It has also been recommended for County Borough status by the Local Government Commission for England. There is a considerable programme of varied capital work on hand and to be undertaken in the future.

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

In appropriate cases the Council will assist in the provision of housing accommodation and half the removal expenses will be paid.

Applications, giving full particulars as to age, qualifications, and past and present experience, together with the names and addresses of three referees, should be submitted to the Borough Surveyor, 90, Station Road, Solihull, not later than Friday, 7th April.

W. MAURICE MELL,
Town Clerk.
The Council House,
Solihull,
15th March, 1961. 6561

AIR MINISTRY require **SENIOR TAKERS OFF** in Quantities Division, London. Must have wide experience of all classes of work and preferably be A.R.I.C.S. (Sub-Division III Quantities). Salaries (inner London scale) from £1,448 to £2,015. Commencing salary A.O.E. Non-pensionable but long term with prospects of establishment and/or promotion. Five-day week. 22 days paid leave. Applicants must be natural born British subjects. Forms from Ministry of Labour, Technical and Scientific Register (K), 26, King Street, London, S.W.1. Quoting J.340/OA. 6315

ASSISTANT ARCHITECTS

RICHARD COSTAIN LIMITED

Richard Costain Limited have two vacancies for Assistant Architects to work on a community development project in the Middle East.

Candidates should preferably have passed final R.I.B.A. and have a minimum of 3 years experience. These are responsible posts which entail working under a minimum of supervision.

Age 22-30. Total remuneration including allowances £1,950—£2,100 per annum. Bachelor accommodation only provided free. Kit allowance £60. Tours of 12 months followed by paid leave in U.K.

Please apply to :

PERSONNEL MANAGER (ME/5),
111, WESTMINSTER BRIDGE ROAD,
LONDON, S.E.1.

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Sydney Greenwood, A.R.I.B.A.,

Chief Architect

requires

Architects, Assistant Architects and Architectural Assistants for a recently established Regional Office in Manchester.

This office will be responsible for all types of Architectural projects undertaken by the Department.

Architects should be qualified with at least 5 years' experience in schools, Industrial and Commercial Projects.

Assistant Architects should be qualified with 2/3 years' similar experience including domestic experience.

Architectural Assistants should be of intermediate standard with 2/3 years' experience in Architect's office.

There are excellent prospects within an expanding Organisation including Pension Scheme and other progressive benefits.

Applications giving brief details to:

Group Personnel Manager (MRO. 15)
JOHN LAING AND SON LIMITED,
London, N.W.7.

Or arrangements for interviews can be made by telephone (Mill Hill 3636).

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The work will cover design and layout of industrial and office buildings and the preparations of working drawings.

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Please write for application form to:

Personnel Manager,
KODAK LIMITED (Factories)
Wealdstone, Harrow, Middx.

LEEDS REGIONAL HOSPITAL BOARD

(Regional Architect—P. B. Nash, A.R.I.B.A., Dip., T.P.)

Applications are invited for the undermentioned appointments in the Architect's Section of the Board's Headquarters Staff.

These appointments are associated with the Board's increased capital programme for the provision of new hospitals and special treatment centres and are permanent and pensionable.

(a) Senior Assistant Architects—

Salary—£1,300 x 60(5)—£1,600.

New entrants would enter at the minimum of the scale. Candidates must possess the ability to handle contracts valued at £100,000 or more and an appreciation of contemporary design is essential.

(b) Assistant Architects—

Salary—£905 x 35(1) x 45(6) x 50(2)—£1,310.

Candidates for the above appointments must be registered architects and associate members of the R.I.B.A.

(Qualified architects awaiting registration may be appointed as Architectural Assistants at a salary of £865 per annum.)

(c) Architectural Assistants—

Salary—£625 x 30(8) x 35(1)—£900.

Candidates must have passed the Intermediate Examination of the R.I.B.A.

(d) Land Surveying Assistant—

Salary—£625 x 30(8) x 35(1)—£900.

Applicants must have passed the Intermediate Examination of the Royal Institution of Chartered Surveyors or an examination giving exemption therefrom.

Applications stating age, qualifications, previous experience and the names of two referees to the Secretary, Park Parade, Harrogate, by 7th April, 1961.

BOROUGH OF SUTTON AND CHEAM BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT

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

A. ARCHITECT Grade APT 5 (£1,310 to £1,480 per annum) plus London "Weighting" of £45 per annum. Applicants must be qualified members of the Royal Institute of British Architects.

The post ranks No. 3 in order in the Section and the person appointed will be expected to take a measure of responsibility under the Chief Architect, Mr. P. H. Masters, F.R.I.B.A.

B. ASSISTANT ARCHITECT APT.3/4 (£960 to £1,310 per annum) plus London "Weighting" of £25 or £40 per annum. Commencing salary according to ability and experience, entry into Grade 4 being conditional upon obtaining appropriate examination qualifications.

Work is of a varied and interesting nature comprising public and industrial buildings and comprehensive redevelopment including multi-storey flats, and experience in all or any of these types of buildings would be an advantage.

The Council may consider the provision of housing accommodation where appropriate.

The appointments are subject to the Local Government Superannuation Acts, National Scheme of Conditions of Service, medical examination and one month's notice in writing on either side.

Form of application from Mr. C. Needham, M.I.C.E., M.I.Mun.E., A.M.I.Struct.E., Borough Engineer and Surveyor, to be returned with two recent testimonials, by not later than 10th April, 1961, endorsed "(A) Architect, Grade APT.5" or "(B) Assistant Architect APT.3/4" whichever is appropriate.

Canvassing in any form will disqualify.

A. PRIESTLEY,
Town Clerk.
Municipal Offices,
Sutton, Surrey.
March, 1961. 6653

GOVERNMENT OF NORTHERN IRELAND ASSISTANT QUANTITY SURVEYOR

Applications invited for unestablished posts in Ministry of Finance. Preference for ex-Servicemen. Candidates must be Corporate Members of the Royal Institution of Chartered Surveyors (Quantity). Experience in "taking off" for large building works essential. Salary scale £936—£1,430; entry point according to age and experience. Prospects of pensionable appointment. Application forms obtainable from Director of Establishments, Room 271, Stormont, Belfast, 4, to be completed and returned by 11th April, 1961. 6357

AIR MINISTRY require **SENIOR WORKERS** UP in Quantities Division in London. Must be fully experienced and competent to Work Up entire Bills of Quantities. Candidates must hold O.N.C. or C & G. (Quantities) or equivalent technical qualifications. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 days paid leave a year initially. Salaries on annual incremental basis ranging from £975 (age 30 or over) to £1,115. Commencing salary according to qualifications and experience. Applicants, who must be natural born British subjects, should write stating age, qualifications and experience to Manager (PE 519), Ministry of Labour, Professional & Executive Register, Atlantic House, Farringdon Street, London, E.C.4. No original testimonial should be sent. 5499

BOROUGH OF HESTON AND ISLEWORTH APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT

Applications are invited for the permanent appointment of a Senior Architectural Assistant in the Borough Engineer and Surveyor's Department. Salary in accordance with A.P.T. Grade III (£960—£1,140, plus London weighting).

Applicants must have had good experience in architectural design and building work under construction, and, other things being equal, preference will be given to applicants who have passed the examination for Associate R.I.B.A. or hold a University Degree or Diploma in architecture accepted by that Institute.

The Council is unable to assist the successful candidate with housing accommodation.

Applications are to be submitted by 10th April, 1961 on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88 Lampson Road, Hounslow.

D. MATHIESON,
Town Clerk.
Town Hall,
Hounslow, Middlesex. 6505

METROPOLITAN BOROUGH OF POPLAR
Part-time ARCHITECTS (retired or otherwise) required by Poplar Borough Council. Salary scale A.P.T. III/IV (proportional to the rate of £960/£1,140 p.a.; £1,140/£1,310 p.a. plus £45 p.a. "weighting" per 38-hour week). Commencing salary according to qualifications and experience. Projects include multi-storey flats and maisonettes, etc., in redevelopment areas and municipal buildings.

Application forms from Borough Engineer and Surveyor, Poplar Town Hall, Bow Road, E.3. Closing date first post Monday, 10th April, 1961. 6633

COUNTY BOROUGH OF WOLVERHAMPTON APPOINTMENT OF PRINCIPAL PLANNING ASSISTANT

Applications are invited for the above appointment in the department of the Borough Engineer & Planning Officer. Salary within A.P.T. Grade IV—V (£1,140—£1,480 per annum), according to qualifications and planning experience.

Housing accommodation will be provided in suitable cases.

Further particulars may be obtained from the Borough Engineer & Planning Officer, Town Hall, Wolverhampton, to whom applications should be submitted by the 11th April, 1961. 6665

CITY OF LEICESTER CITY SURVEYOR'S DEPARTMENT

Applications are invited for the appointment of the following ASSISTANTS in my Maintenance Section:—

(a) 1—GRADE A.P.T. IV (£1,140 to £1,310 p.a.).
(b) 1—GRADE A.P.T. III (£960 to £1,140 p.a.).
(c) 1—GRADE A.P.T. II (£815 to £960 p.a.).
(d) 1—LEARNER, GENERAL DIVISION (£220 to £360 p.a.).

Candidates for (a), (b) and (c) should be suitably qualified by Examination and have a good knowledge of and be experienced in the maintenance of public buildings, alterations and additions to properties, preparation of plans, specifications, estimates, schedules, etc. Some knowledge of Works Study will be an advantage. The Learner's duties will include surveys, tracings, etc.

The appointments are subject to the Local Government Superannuation Acts and the passing of a medical examination.

Applications, stating age, qualifications and experience, and the names of two referees, should be forwarded to the undersigned by 15th April, 1961.

Housing accommodation may be made available if required.

JOHN L. BECKETT, M.I.C.E.,
City Surveyor.
Town Hall,
Leicester. 6666

ASSISTANTS AND DRAUGHTSMEN required in ARCHITECT'S OFFICE in London (Marylebone). Work primarily concerned with road transport depots and includes offices, transit buildings, vehicle workshops and ancillary facilities. Projects in various parts of country may involve some travel. Appointments will be according to age, qualifications and experience in salary ranges from £735/£790 to £1,225/£1,340. Contributory superannuation fund. Applications, giving age, qualifications and experience, to Personnel Officer, British Road Services Ltd., Melbury House, Melbury Terrace, London, N.W.1. 6662

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CORNWALL COUNTY COUNCIL

COUNTY PLANNING DEPARTMENT

ASSISTANT

PLANNING OFFICER (ARCHITECT)

WITHIN GRADE APT.V (£1,310—£1,480)

Applications are invited from Associate Members of the R.I.B.A. (with preference to Chartered Town Planners) for this post which covers a variety of work including Schemes of Urban Renewal, housing layouts, and problems associated with the preservation of the character of Cornish towns and fishing villages.

No application forms are being issued but further details can be obtained from the County Planning Officer.

The customary Conditions of Service will apply and car allowance will be paid. A 5-day week is in operation.

Applications, with names of three referees, should be sent to H. W. J. Heck, PP.T.P.I., County Hall, Truro, not later than 28th April, 1961.

E. T. VERGER
Clerk of the County Council

REBUILDING OF ST. THOMAS'S HOSPITAL

The Architect's Office, St. Thomas's Hospital, London, S.E.1, engaged in the complete rebuilding of an 800-bed teaching hospital and the development of the surrounding area, including major residential and commercial buildings, invites applicants for the following appointments:—

1. SENIOR ASSISTANT ARCHITECT—Salary Scale £1,300 × £60 (5)—£1,600 + £50 London weighting.

Will be responsible under the Architect for collection and interpretation of complex user requirements and for initiating subsequent planning, design and construction.

2. ASSISTANT ARCHITECT—Salary Scale £905 × £35 (1) × £45 (6) × £50 (2)—£1,310 + £40 London weighting.

Will assist the Senior Assistant Architect. Should be qualified, with a good knowledge of design and experienced in the preparation for and supervision of construction work, including working with engineering consultants.

3. ARCHITECTURAL ASSISTANT—Salary Scale £625 × £30 (8) × £35 (1)—£900 + £40 London weighting.

Intermediate R.I.B.A. with experience in construction and design applied to large sized contracts.

Applications should be returned to me by the 14th April, 1961, indicating post applied for, and giving particulars of education, qualifications and experience, together with the names of two referees.

W. FOWLER HOWITT, A.R.I.B.A.,
Architect to the Board of Governors,
45, Lambeth Palace Road,
London, S.E.1. 6653

DENBIGHSHIRE COUNTY COUNCIL COUNTY PLANNING DEPARTMENT

Applications are invited from suitably qualified persons for the following appointments to the Headquarters Staff of the County Planning Department at Ruthin:—

(a) ASSISTANT COUNTY PLANNING OFFICER, J.N.C. Scale "C" (Salary £1,560—£1,825 per annum).

(b) SENIOR COUNTY PLANNING ASSISTANT (Development Control), A.P.T. Grades IV/V (Salary £1,140—£1,480 per annum).

Applicants for post (a) must be Corporate Members of the Town Planning Institute and an additional appropriate qualification is desirable. Considerable experience is required in all aspects of Development Control work and planning administration.

For post (b), applicants should be Corporate Members of the Town Planning Institute or should possess an alternative appropriate qualification and have had development control experience.

Contribution made towards removal expenses and consideration given to the payment of subsistence allowances to married officers in the case of post (b).

Application forms and further particulars obtainable from me. Completed application forms to be returned by 22nd April, 1961.

W. E. RUFTON,
Clerk of the County Council.
County Offices,
Ruthin,
Denbighshire. 6645

QUEEN MARY COLLEGE (UNIVERSITY OF LONDON)

SENIOR TECHNICIAN in Department of Geography, Queen Mary College (University of London), Mile End Road, E.1. Skilled draughtsmanship and experience in dealing with maps essential. Salary placing on scale £690 × £25—£915 p.a. according to ability, with London weighting up to £45. Supplement for certain qualifications. Four weeks annual leave. Pension Scheme. Handwritten letters only to Registrar (G8T) stating age, education, details of past and present work, and names of two persons to whom reference can be made. 6638

LANCASHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT ARCHITECTURAL ASSISTANTS

(within the salary range £665—£960 according to experience and ability)

Applications are invited from Architectural Assistants for appointments to the permanent staff of the County Architect's Department, which is engaged on a large and varied programme of major projects.

Applicants should have attained at least Intermediate R.I.B.A. standard and, within this stage of qualification, have a reasonably varied experience.

Application forms and details of appointment obtainable from the County Architect, P.O. Box 26, County Hall, Preston, should be returned by 29th April, 1961. 6641

METROPOLITAN BOROUGH OF POPLAR ASSISTANT ARCHITECTS (THREE) required

by Poplar Borough Council. Salary scale A.P.T. III/IV (£960/£1,140 p.a.; £1,140/£1,310 p.a. plus £45 p.a. "weighting"). Commencing salary according to qualifications and experience. Projects include multi-storey flats and maisonnettes, etc., in redevelopment areas and municipal buildings.

Application forms from Borough Engineer and Surveyor, Poplar Town Hall, Bow Road, Bow, E.3. Closing date first post Monday, 10th April, 1961. 6635

UNIVERSITY COLLEGE OF NORTH STAFFORDSHIRE

Applications are invited for the following on staff of Architect and Buildings Officer:

(a) SENIOR ASSISTANT ARCHITECT—Scale £1,310 × £55 (2) × £60—£1,480 (A.P.T. V).

Applicants should have particular experience in design, be school trained with at least four years' practical experience and be Registered and Chartered Architects.

(b) ASSISTANT ARCHITECT—Scale £815 × £30 (4) × £25—£960 p.a. Applicants should have passed Intermediate Examination of R.I.B.A. and be studying for Final Examination.

Duties may include work on buildings for teaching and research, students' residences, general purpose buildings and services. Posts are included in College Superannuation Scheme. Further particulars may be obtained from Architect and Buildings Officer, The College, Keele, Staffs., to whom three copies of application giving full details of age, qualifications, experience, etc., and names of three referees, should be sent not later than 17th April, 1961. 6637

CITY OF BIRMINGHAM PUBLIC WORKS DEPARTMENT

PLANNING AND REDEVELOPMENT SECTION

Applications are invited for the following posts:—

(a) SENIOR PLANNING ASSISTANTS, Grade A.P.T. IV (£1,140/£1,310 p.a.).

(b) PLANNING ASSISTANTS, Grade A.P.T. II (£815/£960 p.a.).

Applicants for post (a) should be Corporate Members of the Town Planning Institute or hold equivalent qualifications, and for post (b) should have passed the Intermediate Examination of the Town Planning Institute or hold equivalent qualifications.

Applicants for appointment to A.P.T. IV should have had experience in lay-out design in the Planning Office of a Local Authority and for A.P.T. II should have had general planning experience.

The appointments are permanent, superannuable and subject to a medical examination. Applications endorsed with the heading of the post applied for, stating qualifications, age and experience, and naming two referees, should reach the undersigned by the 15th April, 1961.

Canvassing is disallowed.

HERBERT J. MANZONI,
City Engineer and Surveyor.
Civic Centre,
Birmingham, 1. 6609

HAMPSHIRE

TOWN DEVELOPMENT AT BASINGSTOKE

Applications are invited for the following posts concerned with the expansion of Basingstoke under the Town Development Act, 1952, from its present population of 25,000 to about 75,000 by 1975. The officers will be appointed to the staff of the Hampshire County Council, but will work under the direction of a Joint Committee of representatives of the Basingstoke Borough Council, the London County Council, and the Hampshire County Council.

Candidates should hold appropriate professional qualifications and have had extensive experience of town expansion schemes. The posts are pensionable. Separation allowance and assistance with removal expenses will be paid in approved cases. Salary of the Director will be fixed within the range according to qualifications and experience.

1. DIRECTOR OF TOWN DEVELOPMENT. £3,500—£4,000.

2. CHIEF ARCHITECT/PLANNING OFFICER. £3,250.

Applications, stating full details of age, education, qualifications and experience, and accompanied by a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 10th April. 6592

HAMPSHIRE COUNTY COUNCIL

ASSISTANT ARCHITECT, A.P.T. II (£815—£960), required for pensionable post in County Architect's Department. Candidates should have passed the Intermediate Examination of the R.I.B.A. Separation allowance and assistance with removal expenses in approved cases. Five-day week.

Application forms, returnable by 10th April, from the Clerk of the County Council, The Castle, Winchester. 6594

EAST RIDING OF YORKSHIRE COUNTY COUNCIL

Applications are invited for the appointment of ASSISTANT ARCHITECTS on the permanent staff of the County Architect. The salary will be in accordance with A.P.T. Grade V (£1,310 to £1,480 per annum).

Applications, giving particulars of qualifications, age, experience, past and present appointments with salaries, together with the names of three referees, should be sent to the County Architect, County Hall, Beverley, not later than Friday, 7th April, 1961.

Assistance towards removal, lodging and travelling expenses may be granted.

THOMAS STEPHENSON,
Clerk of the County Council. 6596

EAST KILBRIDE DEVELOPMENT CORPORATION ARCHITECTS, ARCHITECT/PLANNERS AND CIVIL ENGINEERS

The following staff are required for the rapidly expanding programme of industrial, commercial and housing developments in East Kilbride New Town:—

1. ARCHITECTS AND ARCHITECT/PLANNERS. Salaries range from £815 to £1,570 per annum.

2. CIVIL ENGINEERS. Salary scale rising to £1,480 per annum.

3. MODEL MAKER. Salary scale £815/£960 per annum.

Commencing salaries will be in accordance with qualifications and experience and appointments are subject to the Corporation's Conditions of Service and Superannuation Agreement. Five-day week. A house or flat will be made available if required. Selected candidates will be required to pass a medical examination. The Corporation will be prepared to consider applications from suitably qualified persons who have reached retiring age or who may be about to retire from their present posts. Application forms may be obtained from the General Manager, East Kilbride Development Corporation, Torrance House, East Kilbride, for return not later than 19th April, 1961. 6606

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REGULAR CONTRACTORS IN DEVON CORNWALL SOMERSET GLOUCESTERSHIRE WILTSHIRE DORSET HAMPSHIRE SOUTH WALES

BOROUGH OF TWICKENHAM
Applications are invited for the following posts:—

- (a) SENIOR ASSISTANT ENGINEER (A.P.T. IV, £1,140-£1,310).
- (b) ASSISTANT ARCHITECT (A.P.T. II, £815-£960).
- (c) JUNIOR ASSISTANT ENGINEER (A.P.T. I, £645-£815).
- (d) PLANNING ASSISTANT (A.P.T. III, £960-£1,140).

Posts (a) must have passed the final, (b) and (c) the intermediate examinations of the appropriate technical institute, and (d) commencing salary in accordance with qualifications and experience. All plus London weighting allowance. Five-day week. N.J.C. conditions will apply and superannuation is payable. Canvassing will disqualify and relationship to members or senior officers should be disclosed. Applications, giving age, experience, etc., to the Borough Engineer, Municipal Offices, Twickenham, by 8th April, 1961.

W. H. JONES,
Town Clerk.
6668

NORFOLK COUNTY COUNCIL
PLANNING DEPARTMENT

Recently authorised further increases in the department's establishment afford suitably qualified persons an opportunity to take part in a programme of constructive planning in this interesting and attractive country. The vacant posts are:—

- (a) ARCHITECT-PLANNER (Deputy-Development Plan Section): £1,310-£1,480.
- (b) SENIOR PLANNING ASSISTANT (Development Control Section): £960-£1,310.
- (c) SENIOR PLANNING ASSISTANTS (Amenity Section): £960-£1,310.
- (d) ARCHITECTURAL ASSISTANT (Amenity Section): £960-£1,140.

Appointment within salary scales depending on qualifications and experience. National Conditions of Service. Applications (no forms) to the undersigned by 10th April, from whom further detailed particulars may be obtained.

R. I. Maxwell,
County Planning Officer,
41/43, Thorpe Road,
Norwich, Norfolk, NOR 02T. 6670

METROPOLITAN BOROUGH OF GREENWICH
APPOINTMENT OF PRINCIPAL
ARCHITECTURAL ASSISTANT

Applications are invited for the appointment of a Principal Architectural Assistant in the Borough Engineer and Surveyor's Department. Salary grade A.P.T. V (£1,355-£1,525 per annum, including London weighting). Commencing salary in accordance with qualifications and experience.

Candidates must be Registered Architects, preferably Associates of the R.I.B.A., with experience in housing and other municipal projects. Application forms obtainable from the undersigned, to be returned by noon on Wednesday, 19th April, 1961.

G. C. TURK,
Town Clerk.

Town Hall,
Greenwich,
S.E.10.
March, 1961. 6669

BOROUGH OF ILFORD
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL
DRAUGHTSMAN

Applications are invited for this appointment. Salary £625-£685 (plus London weighting depending on age and amounting to £40 p.a. if 26 or over). Commencing salary according to qualifications and experience. Maximum paid to suitable applicant. Five-day week. Candidates should be competent draughtsmen and be capable of preparing working drawings under supervision. Appointment permanent, superannuable and subject to medical examination.

Form of application obtainable from Borough Engineer, Town Hall, Ilford. Closing date 12th April, 1961. 6621

AYCLIFFE DEVELOPMENT CORPORATION
(New Town of Newton Aycliffe)
ASSISTANT ARCHITECTS

Applications are invited for the above appointments at salaries within the range of Grades A.P.T. IV and VI of the Whitley Council for New Towns Staff salary scales, i.e. £1,140-£1,565 p.a. The commencing salary and grade will be fixed according to the qualifications and experience of the successful applicant.

The principal work for the successful applicants will be in connection with the development of the Town Centre of the new town.

Appointments subject to N.J.C. Conditions, superannuation, medical examination and to one month's notice, in writing, on either side.

Funding accommodation available if required. Applications, stating age, qualifications and experience, together with the names of two referees, to be sent to the undersigned.

A. V. WILLIAMS,
General Manager.

Churchill House,
Newton Aycliffe,
Nr. Darlington. 6672

COUNTY BOROUGH OF ROTHERHAM
SENIOR ASSISTANT ARCHITECT
Applications are invited for the appointment of a Senior Assistant Architect-A.P.T. V (£1,310-£1,480).

The department has a varied and interesting programme of architectural work and candidates are required to be Associate Members of the R.I.B.A. with good general experience in design and construction. The commencing salary in the grade will be according to capabilities and experience.

Housing accommodation will be available if necessary.

Applications to be endorsed "Senior Assistant Architect," stating age, qualifications and details of experience, together with names of two referees, should be received by me not later than Wednesday, 5th April, 1961.

Canvassing will disqualify.

JOHN S. WALL,
Town Clerk.

Municipal Offices,
Rotherham.
March, 1961. 6623

WORCESTERSHIRE COUNTY COUNCIL
ARCHITECT-PLANNER FOR TOWN
DEVELOPMENT, SCALE "A" (£1,365-£1,565).

A qualified Architect-Planner is required to lead a team engaged on schemes of Urban Renewal and Town Development in Worcestershire.

A PLANNING ASSISTANT, A.P.T. II-III (£815-£960, £960-£1,140), is also required to join this Design team.

Forms of application to be obtained from the County Planning Officer, County Buildings, Worcester, and to be returned by 17th April, 1961. (K.224.) 6605

SHEFFIELD REGIONAL HOSPITAL BOARD
HOSPITAL DEVELOPMENT PROGRAMME
COMMISSIONING OF ARCHITECTS

With the expansion of the hospital service it is anticipated that a number of major projects each exceeding £1 million in value, will be commenced by this Board during the next ten years. Such projects will include:—

- Complete New Hospitals.
- Major Extensions of Existing Hospitals.
- Remodelling and Upgrading of Existing Hospitals.

The Board invites ARCHITECTS, interested in hospital design and having the necessary staff and capacity to undertake quickly and efficiently the planning of such projects and their subsequent supervision, to submit their names for consideration.

Applications should be submitted to reach the undersigned not later than 17th April, 1961, and must include the following information:—

- (i) Qualifications of the partners.
- (ii) Particulars of projects recently undertaken including values and contract periods.
- (iii) Particulars including value of projects for which appointment has already been accepted for which building has not yet commenced.
- (iv) Number and grades of qualified and unqualified staff at present in post.
- (v) Whether the office capacity can be readily expanded to meet demand.

L. W. FAULKNER,
Secretary to the Board.

Fulwood House,
Old Fulwood Road,
Sheffield, 10. 6680

KIRKBY URBAN DISTRICT COUNCIL
CHIEF ARCHITECTURAL ASSISTANT

Applications are invited for this appointment in the Engineer and Surveyors Department. The post offers scope for wide experience and is the senior post in the architectural section of the department. Final R.I.B.A. or equivalent qualification required.

Salary—A.P.T. Grade V—commencing at £1,365 per annum. Five-day week. Assistance with housing and removal expenses considered. Casual user car allowance.

Applications, setting out full details of age, experience, qualifications, past and present appointments, salary, etc., and the names of two referees, to me not later than the 10th April, 1961.

Canvassing disqualifies. Relationship to be disclosed.

W. BYRON,
Clerk of the Council.

Kirkby Hall,
Hall Lane,
Kirkby,
Near Liverpool. 6681

GLAMORGAN COUNTY COUNCIL require an ASSISTANT PLANNING OFFICER for the Eastern area of the County, the area office being at Pontypridd. Salary £1,140-£1,310 p.a. A lodging allowance will be paid in certain circumstances, and a car allowance is payable.

Applicants are required to have passed the Final Examination of the Town Planning Institute or other approved Professional Body, or to be university graduates and in each case to have had five years' experience, including the period spent on theoretical training.

Applications, stating age, qualifications and experience, to the County Surveyor and Planning Officer, County Hall, Cardiff. Closing date 7th April, 1961.

RICHARD JOHN,
Clerk of the County Council. 6616

EDINBURGH CORPORATION

Applications invited for TWO PLANNING ASSISTANTS, salary scale £850-£1,150 per annum. Applicants desirably should have passed the Final Examination of the Town Planning Institute or equivalent and have had good general experience in town planning. The posts are pensionable and subject to a medical examination. Apply by letter, giving full particulars, together with copies of two recent testimonials, to the Town Planning Officer, City Chambers, Edinburgh, not later than 15th April, 1961. 6597

CITY OF CARDIFF
CITY SURVEYOR'S DEPARTMENT

Applications are invited from suitably qualified persons for the vacant positions of:—

- PRINCIPAL TOWN PLANNING ASSISTANT, J.N.C. Scale "A" (£1,485-£1,565).
- SENIOR TOWN PLANNING ASSISTANT, A.P.T. Grade IV (£1,140-£1,310).

General Conditions of Appointment may be obtained from the undersigned, to whom should be sent all applications in envelopes suitably endorsed, stating age, experience, qualifications and names and addresses of three referees. Closing date—8th April.

S. TAPPER-JONES,
Town Clerk.

City Hall,
Cardiff. 6612

NORTHAMPTONSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ARCHITECTURAL ASSISTANT, A.P.T. IV
(£1,140-£1,310)

Applications are invited for the above appointment. Candidates must be Associates of the R.I.B.A., with a contemporary approach to architecture. A great deal of delegated responsibility in design and control of projects and subsequent recognition will be given to a suitable candidate. The county building programme comprises a series of major projects for all committees totalling over £1,000,000.

A car travelling allowance will be payable in accordance with the County Council's approved scale and responsibility for site visits will also be delegated.

A weekly sum of 25s. by way of temporary additional salary will be payable, subject to review quarterly, to a married officer unable to find a house locally.

Details giving age, education, qualifications and experience, with a copy of a recent testimonial should be sent in an envelope marked "Architectural Assistant" to the County Architect, County Hall, Northampton, by Thursday, 6th April.

J. ALAN TURNER,
Clerk of the County Council.

County Hall,
Northampton. 6622

Architectural Appointments Vacant

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

ASSISTANT ARCHITECT required for busy, contemporary City Architect's office. Must be capable of preparing sketch designs for offices and residential buildings. Experience essential. Salary £1,500 per annum plus Luncheon Vouchers. Five-day week. Bonus and incremental salary. Long-term engagement to right person. Box 6617.

£950-£1,500. ARCHITECTURAL ASSISTANTS with imagination and designing 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.

OPPORTUNITY FOR FRUSTRATED INTERMEDIATE ASSISTANT WITH INITIATIVE AND IMAGINATION. UNABLE TO FIND POST OFFERING FREEDOM IN DESIGN OR CHANCE TO TAKE CHARGE IN PROJECTS. WRITE OR PHONE: NICHOLSON AND RUSHTON, 2, NEW SQUARE, LINCOLN'S INN, W.C.2. HOLBORN 2095. 5610

RONALD WARD AND PARTNERS invite applications from ARCHITECTS, Senior and Junior. Long-term prospects. Scope for initiative and responsibility in interesting commercial, industrial and civic projects in British Isles, West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension and Life Insurance schemes. Five-day week. Pleasant offices. Apply 29, Chesham Place, Belgrave Square, London, S.W.1. Tel.: BELGRAVIA 3361. 2966

EXPERIENCED and confident ARCHITECTS required to fill positions of responsibility in a growing and varied practice with industrial and commercial work throughout the southern half of the country. Applicants must have initiative as well as architectural ability to carry through contracts up to £100,000, working directly with Principals but with minimum supervision. Apply in writing to Thomas Mitchell & Partners, 20, Bedford Square, London, W.C.1. 5419

ARCHITECTURAL ASSISTANTS required with practical experience. Varied practice including contemporary work. Salary £700-£1,100 (plus L.V.A.) according to qualifications and experience. Please write giving full particulars, to Sir Giles Scott, Son & Partner, 9, Gray's Inn Square, W.C.1. 5661

WOLVERHAMPTON. Norman & Dawbarn require an ASSISTANT in their Midlands Office. This position could afford useful experience of small and medium size jobs in a young but expanding office, with possibility of later transfer to London Office or overseas if desired. Minimum of two years' office experience required if qualified, four years if Intermediate. Excellent working conditions, five-day week, three weeks' annual leave, lunch vouchers. Write or telephone 7, Portland Place, London, W.1 (LANgham 8011), or Heanton House, Salop Street, Wolverhampton (Wolverhampton 27387). 5628

PLAYNE & LACEY require experienced and enthusiastic SENIOR ARCHITECTURAL ASSISTANT for work on University project. Salary range £1,200 to £1,500. Write 19, Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2652 for interview. 5617

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 918, c/o 7, Coptic Street, W.C.1. 5647

OPPORTUNITY for Intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding practice in Croydon. Apply to Donald Boswell & Partners, 11/11a, George Street, Croydon, or telephone CROydon 4060. 5723

TWO SENIOR ASSISTANTS required. Salary in accordance with experience. Please apply to F. G. Frizzell, A.R.I.B.A., 80, Portland Place, W.1. LANgham 1732. 4943

SENIOR ASSISTANTS required for work on large Hospital programme, excellent opportunities for the right men, salary £1,000-£1,400. Luncheon Vouchers and five-day week. Write giving full particulars to W. H. Watkins, Gray and Partners, 57, Catherine Place, S.W.1. 5633

VACANCIES exist in large provincial practice with offices in Peterborough and Spalding for the following:

- (1) **ARCHITECTURAL ASSISTANT.** Male or Female, qualified, with few years' office experience. Able to work on own initiative and take responsibility. Salary up to £1,150 to suitable applicant.
- (2) **ARCHITECTURAL ASSISTANT.** Male or Female, qualified, having recently left college, office experience not essential. Salary up to £900.
- (3) **JUNIOR ASSISTANTS.** Intermediate/Final standard with 2/3 years' office experience. Salary up to £800.

The work is of a varied and interesting nature, pension scheme in operation. Assistance will be given with accommodation in appropriate cases. Apply in writing with full details to:—

Ruddle & Wilkinson, F/LA.R.I.B.A., Long Causeway Chambers, Peterborough. 6029

CROYDON—SENIOR AND INTERMEDIATE ARCHITECTURAL ASSISTANTS required for various large projects. Salary according to ability. Box 6196. 5999

ARCHITECTS IN LONDON require ARCHITECTURAL ASSISTANTS of Intermediate standard for interesting and varied projects. Good salaries paid. Five-day week. Luncheon vouchers. Box 5989. 5999

ARCHITECT required in Oxford Office to work on hospital programme. Five-day week. Write giving full particulars to W. H. Watkins, Gray & Partners, c/o Churchill Hospital, Headington, Oxford. 5964

ARCHITECTURAL ASSISTANTS required for interesting work, including schools and hospitals, in Croydon office. Commencing salaries offered: £900-£1,150 for Associates, £600-£850 for students, according to age and experience. Five-day week and annual bonus. Write to George Lowe & Partner, 79, George Street, Croydon. 5197

ERNO GOLDFINGER requires several qualified ASSISTANTS with at least 2 years' experience to take part in a growing programme of interesting work which includes large office buildings, central developments, Local Authority housing, schools and private houses. Good salaries and scope for men with sound knowledge of construction. Phone HYDe Park 5657. 5084

WILLIAM H. ROBBINS, A.R.I.B.A., requires JUNIOR and SENIOR ARCHITECTURAL ASSISTANTS of Final and Intermediate standard for interesting work in expanding office. Applicants should be experienced in design and construction, quick and able to take responsibility.

Excellent opportunity for advancement, salary range Junior Assistants £750 to £900, and Senior Assistants £1,000 to £1,400 per annum, according to experience.

Five-day week. Apply: 77, Wigmore Street, London, W.1. Telephone: WELbeck 0274/5. 5908

ARCHITECTURAL ASSISTANTS of all grades, particularly Intermediate standard, required on varied and interesting projects. High salaries will be paid in accordance with skill or experience of applicant. Lewis Solomon, Kaye & Partners, City 8811. 5970

YORKE, ROSENBERG and MARDALL have some vacancies for experienced STAFF starting salary according to qualifications and experience, in the range £950-£1,200. Ring AMBassador 4521 for appointment. 6290

SOUTHAMPTON—ASSISTANT of Intermediate standard required for interesting contracts in the Southern Counties. Apply with details of any previous office experience and required salary to E. M. Galloway & Partners, F.A.R.I.B.A., 10, Portland Street, Southampton. 4865

LEICESTER. SENIOR ARCHITECTS AND ASSISTANTS required for general practice. Appropriate salary paid. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 18, Friar Lane, Leicester. Tel. 56476. 5307

SIR JOHN BURNET, TAIT & PARTNERS have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries from £1,200 p.a. Luncheon vouchers, superannuation and medical schemes, non-contributory. Apply 10 Bedford Square, W.C.1. 6126

IMMEDIATE vacancies in leading Bristol office for all grades of ARCHITECTS and ARCHITECTURAL ASSISTANTS. Modern approach to design essential and considerable freedom of expression allowed. Top salaries paid according to ability and experience. Outstandingly good working conditions; 5-day week; annual bonus; contributory pension scheme available; existing holiday commitments honoured. Applying giving particulars of age and experience to W. H. Watkins, Gray and Partners, 8 Colston Avenue, Bristol. Telephone Bristol 292333, reverse charge calls accepted. 6132

ARCHITECTURAL ASSISTANTS, Intermediate to Final standard, required by firm of Exeter Architects. Salary range £600-£850. Apply giving full particulars of age and experience to Box 6225. 6225

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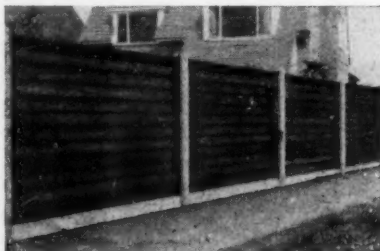
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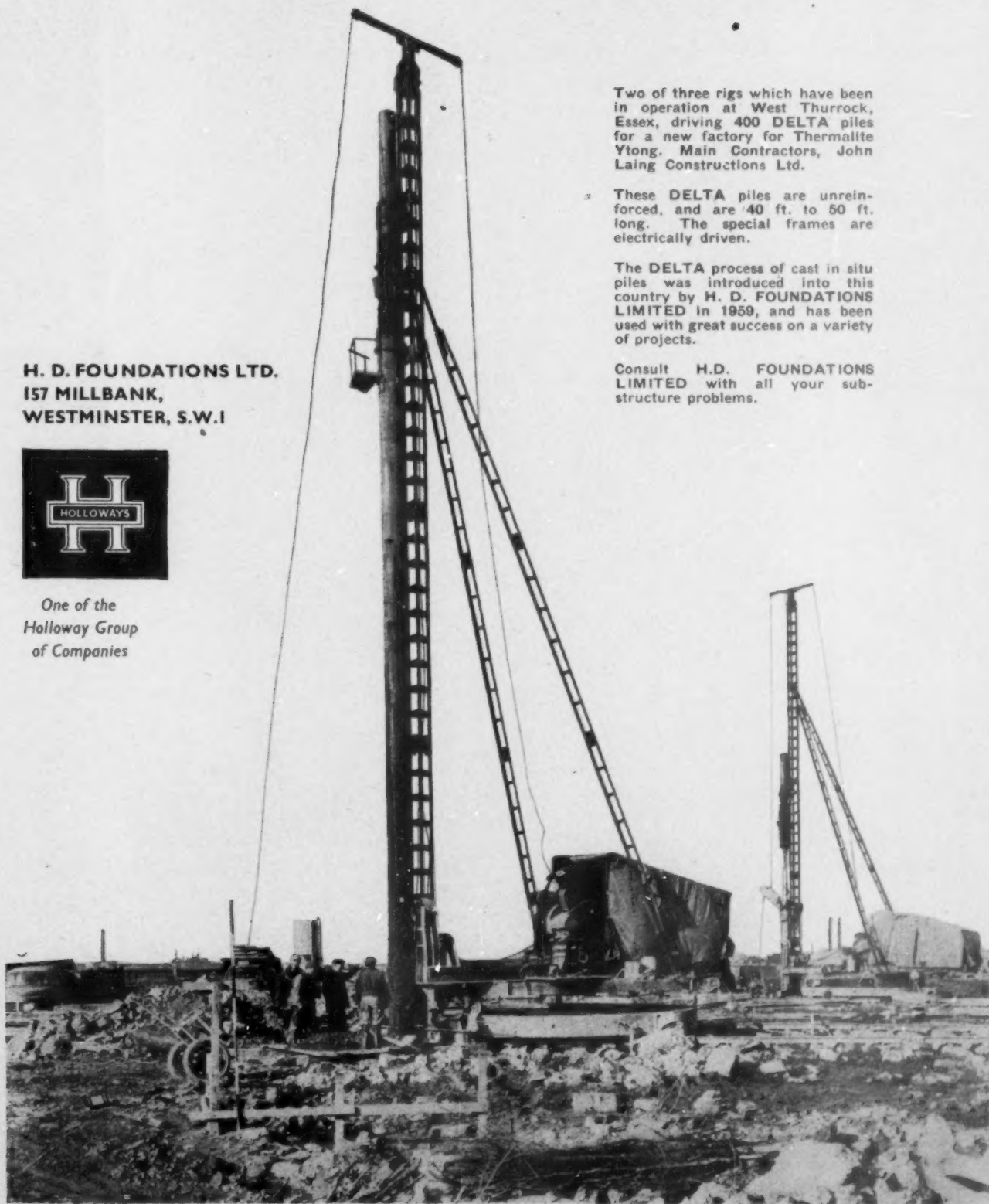
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