

The Architects' JOURNAL for January 1, 1959

# THE ARCHITECTS' JOURNAL



## standard contents

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

## NEWS and COMMENT

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*Wanted and Vacant*

No. 3331]

[Vol. 129

THE ARCHITECTURAL PRESS

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

ILA	Institute of Landscape Architects. 1, Park Crescent, Portland Place, W.1. Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1. Welbeck 9966
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee) Fire Research Station, Boreham Wood, Herts. Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2. Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James' Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalt Mine Owners and Manufacturers Council. 94/98, Petty France, S.W.1. Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1. Abbey 4813
NBR	National Buildings Record, 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers, 10, Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1. Whitehall 1693
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1. Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
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
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, 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 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4. City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1. Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636



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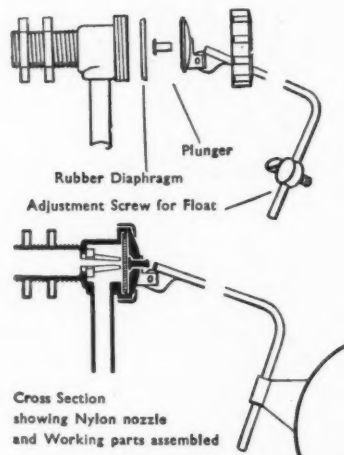
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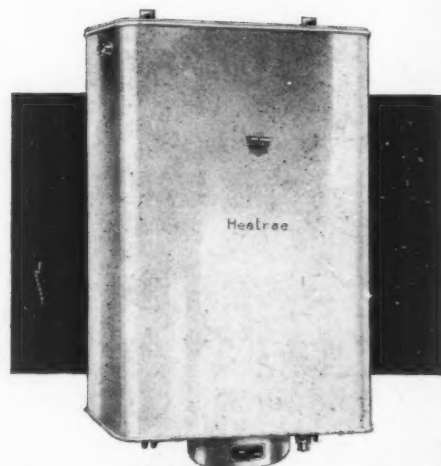
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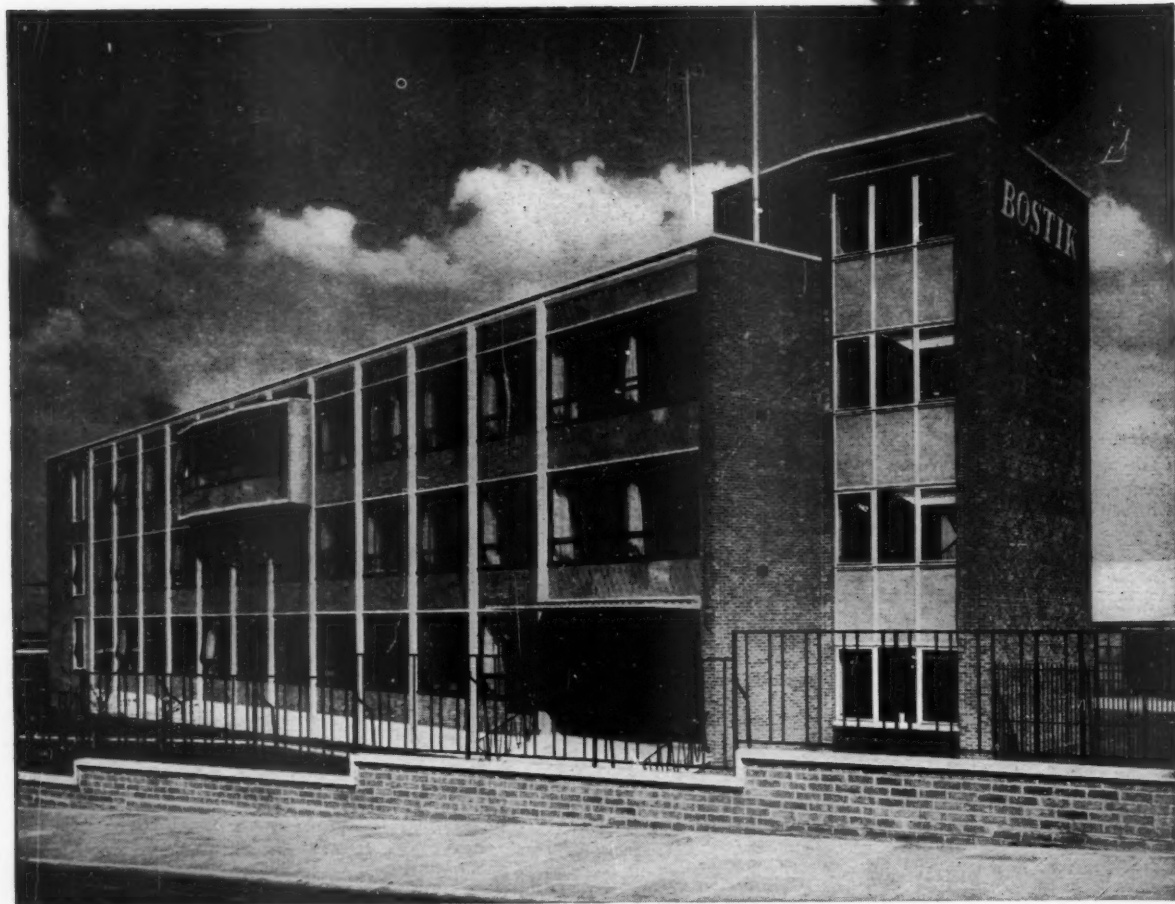
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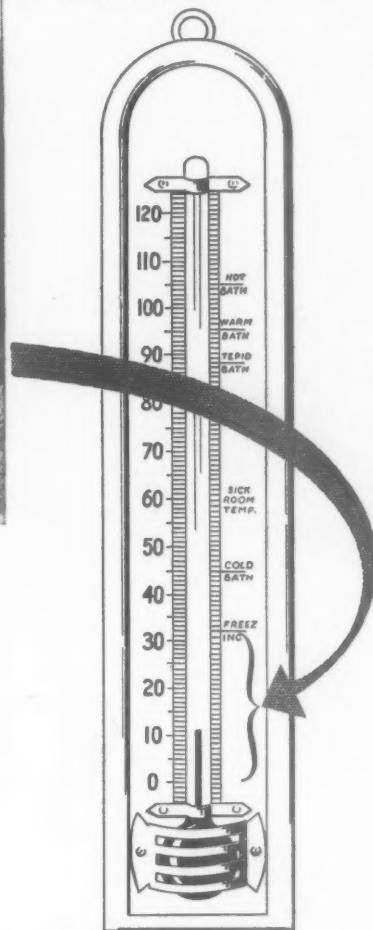


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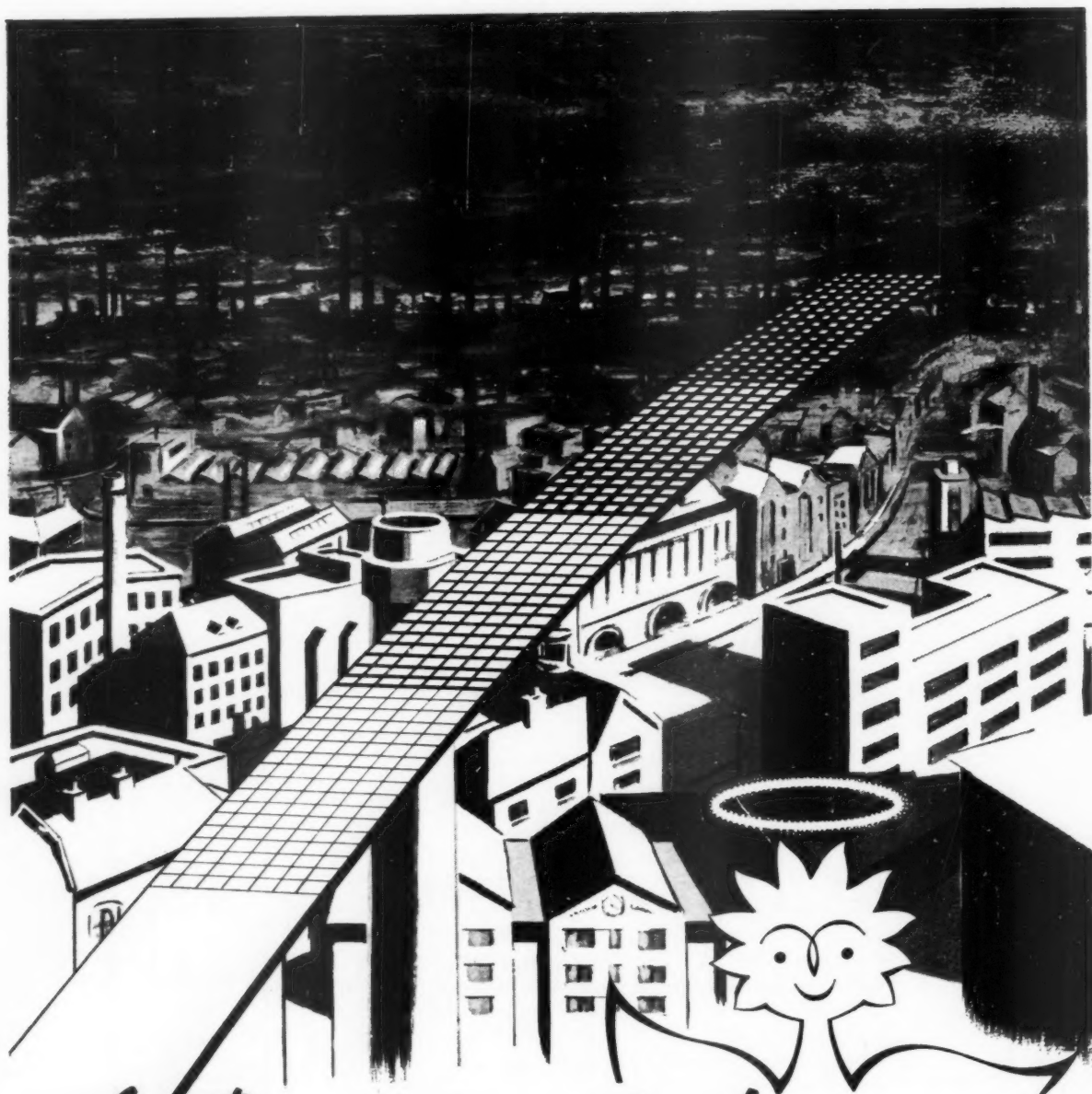
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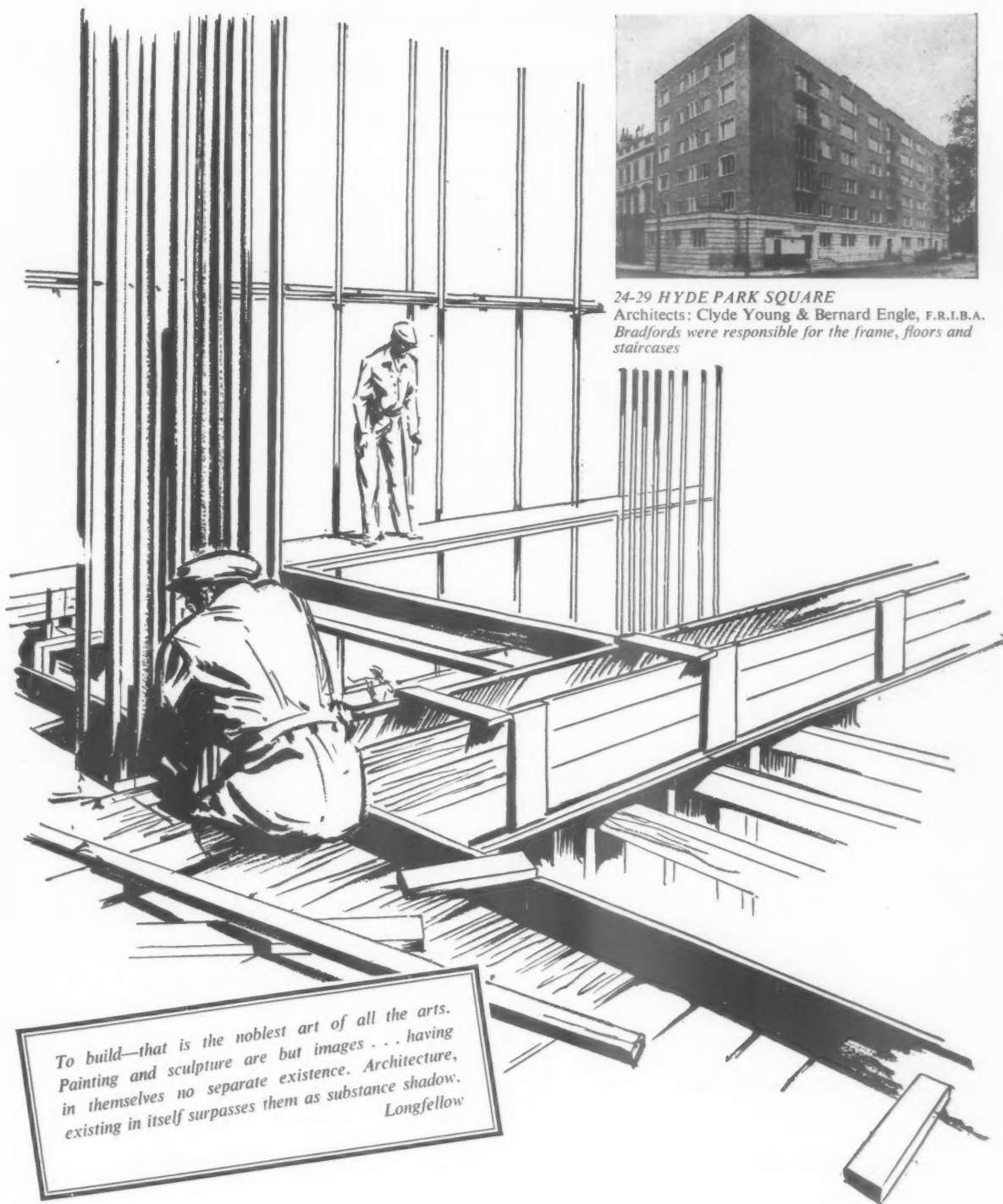
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Bradfords were responsible for the frame, floors and staircases

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Painting and sculpture are but images . . . having  
in themselves no separate existence. Architecture,  
existing in itself surpasses them as substance shadow.  
Longfellow

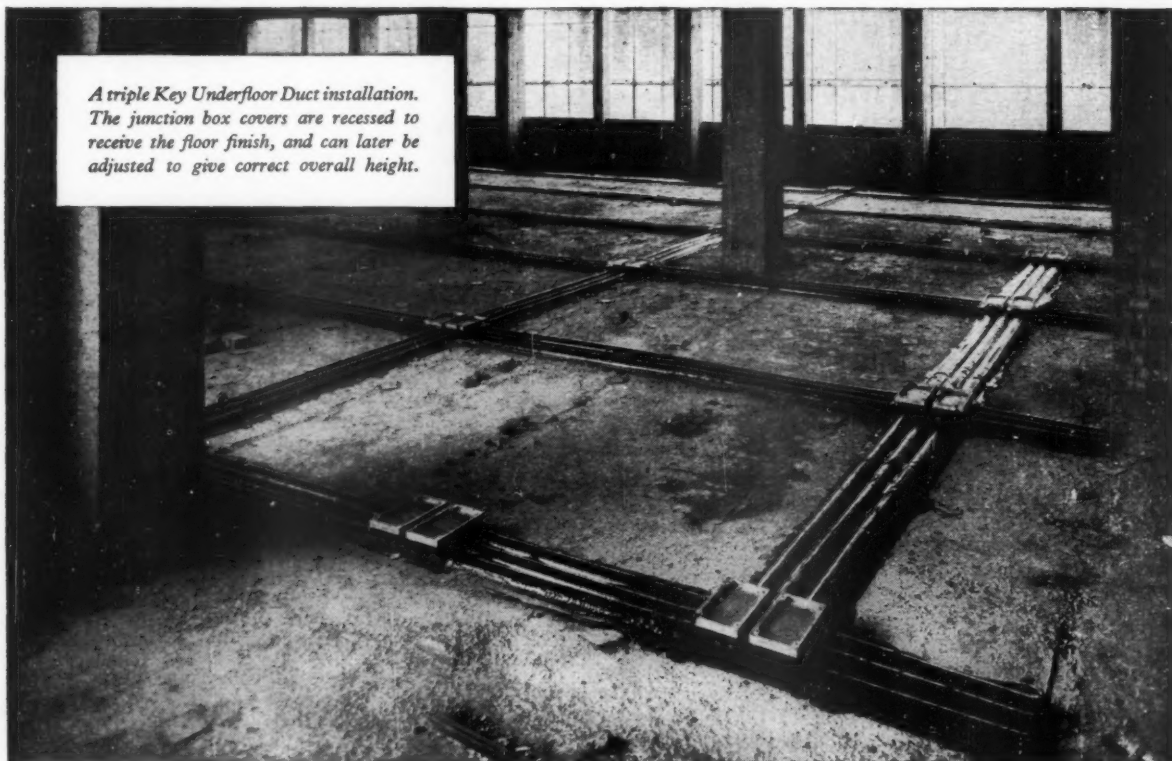
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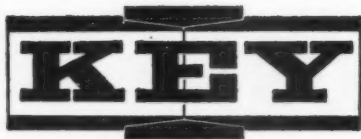
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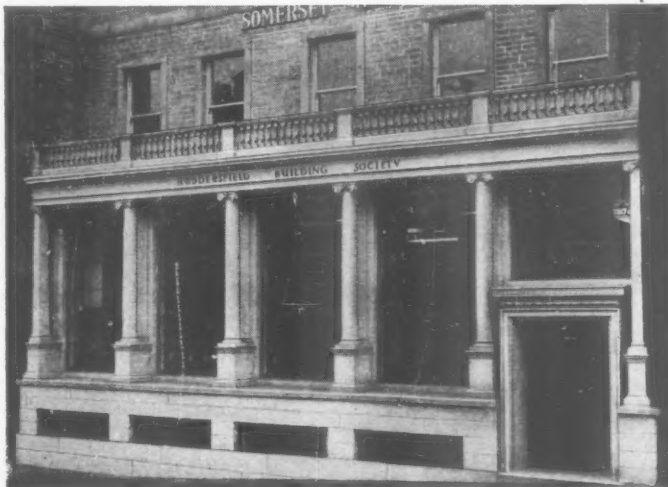
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## Once again, skirting heating by Crane



The Halifax Branch Offices of the Huddersfield Building Society present an attractive elevation in which the traditional style of 1766 has been faithfully preserved. The interior is bright, pleasant and, although the source of heating is not immediately apparent, always comfortably warm. For the heating system employed, is in fact, far from traditional, being Crane Skirting Heating, one of the most modern and unobtrusive methods of space heating. The panels used here are the 9" Type RC (Radiant-Convvector), but there is also Type R (Radiant). Type R, as well as being made in the 6-inch size, has lately been made available in the 9-inch size for situations requiring additional heating surface. All are made of cast iron for resistance to damage, and are in 2-foot lengths and 1-foot half sections. Skirting Heating is the perfect modern way of heating any building.

HUDDERSFIELD BUILDING SOCIETY

Architect:  
Clifford Hickson, F.R.I.B.A., Huddersfield  
Heating Engineers:  
T. H. Rayner & Sons Ltd., Huddersfield

# CRANE

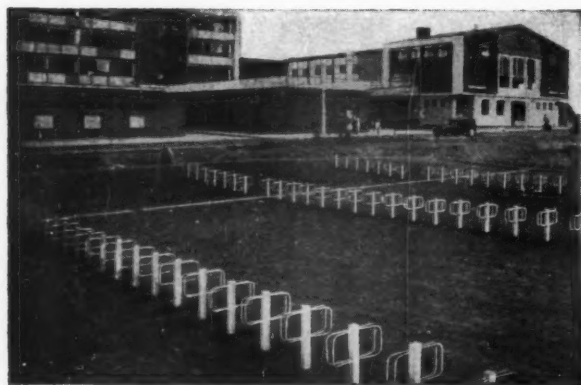
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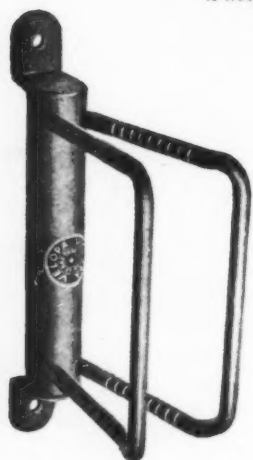




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## the versatile **VelopA**

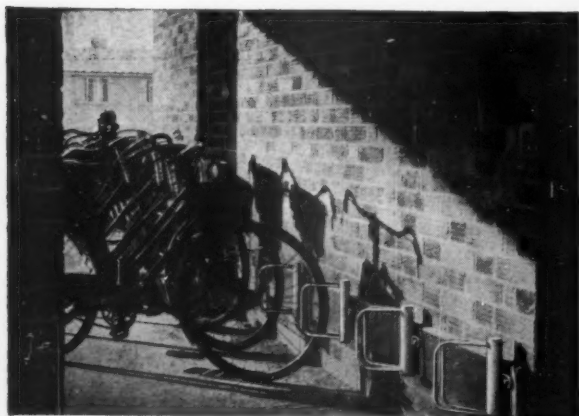
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is made from heavy section steel tubing and bar  
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has symmetry,  
simplicity  
and style



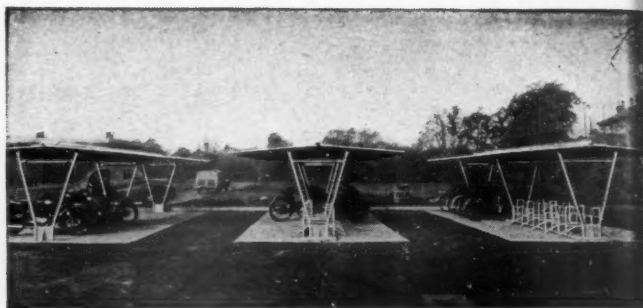
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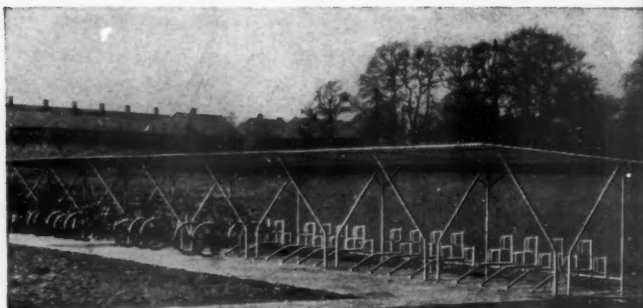
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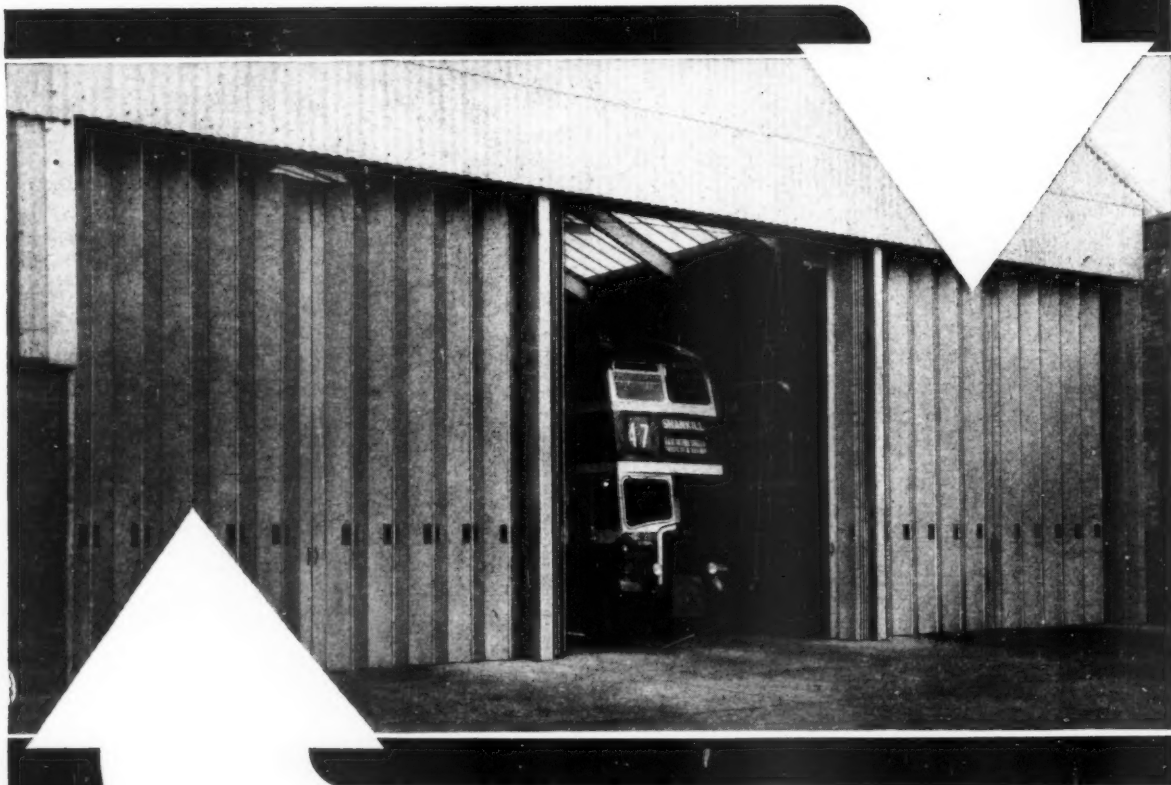
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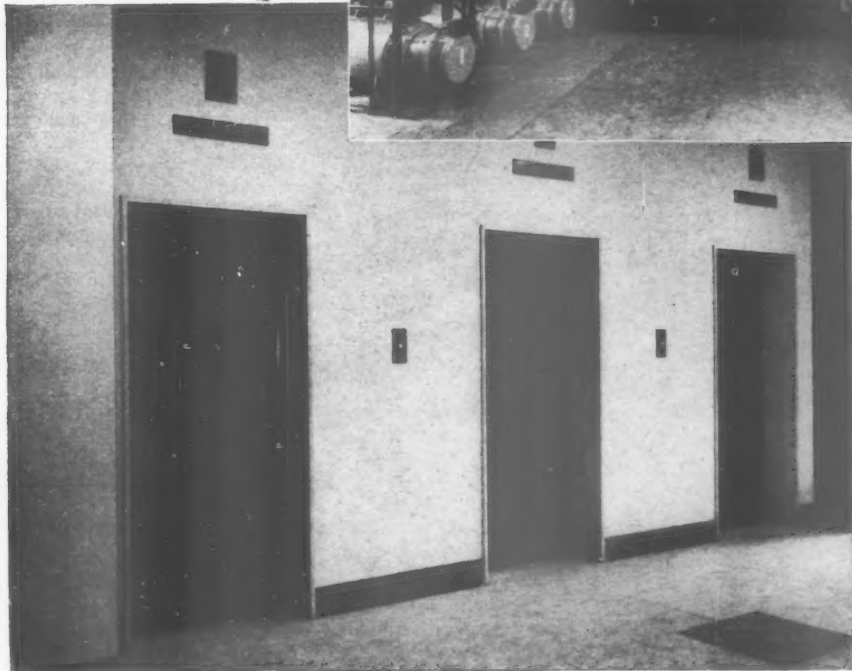




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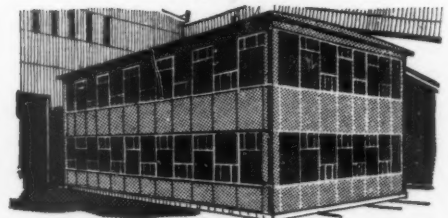
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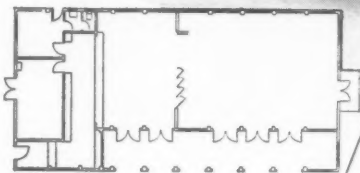


A Standard Maclean metal window installation  
Messrs. Colville's new Ravenscraig Works.

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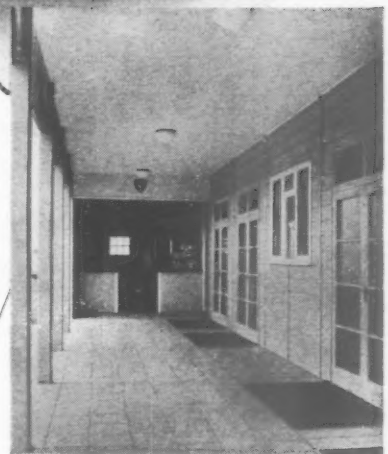
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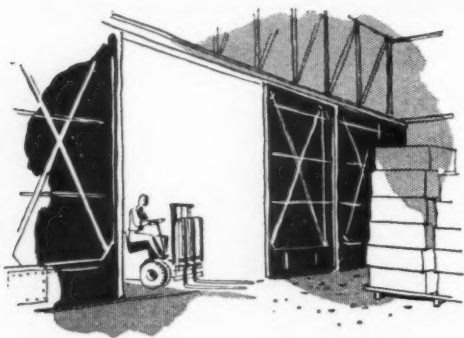
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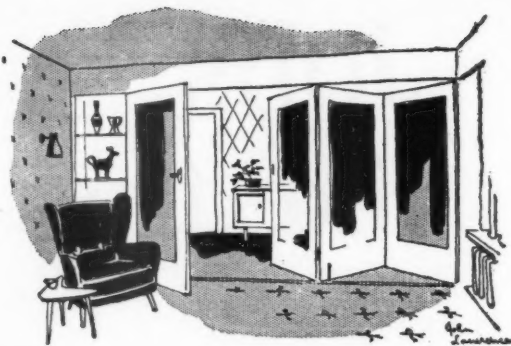
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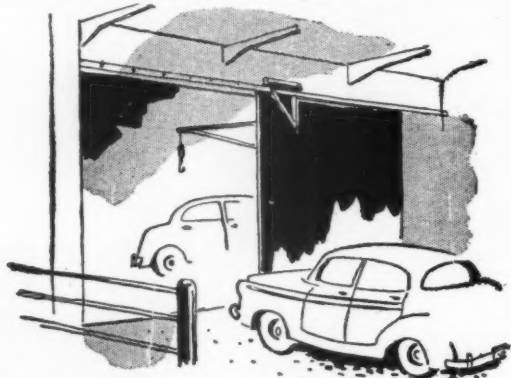
D 300



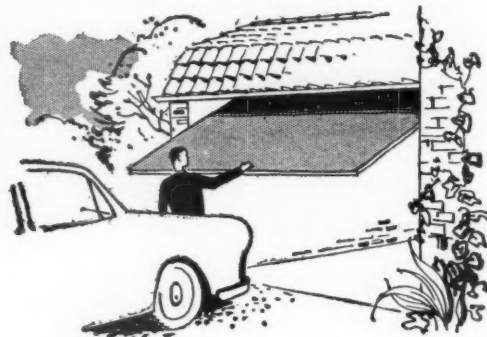
— STRAIGHT SLIDING INDUSTRIAL —



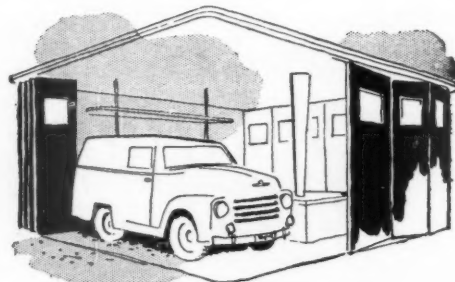
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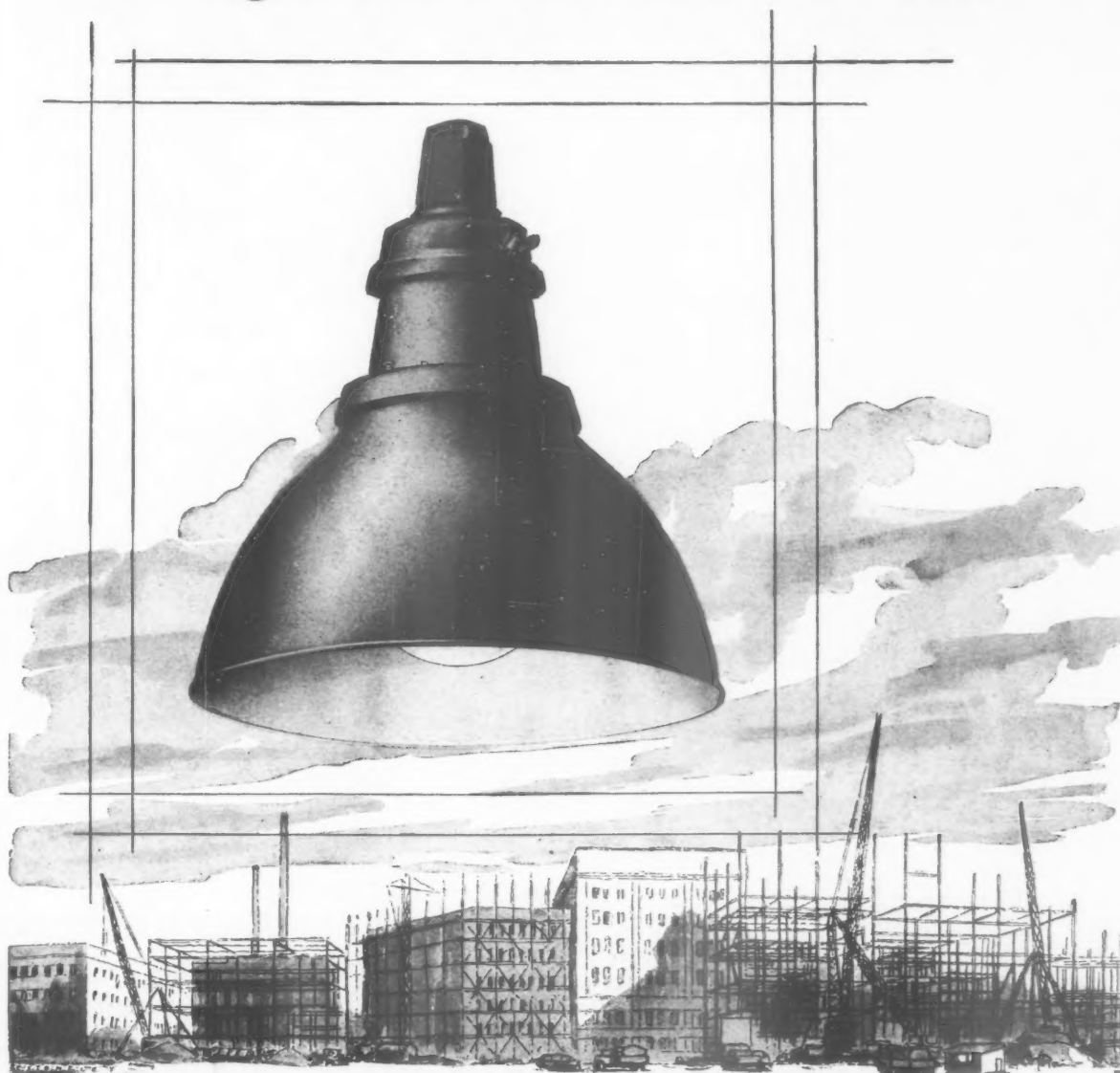
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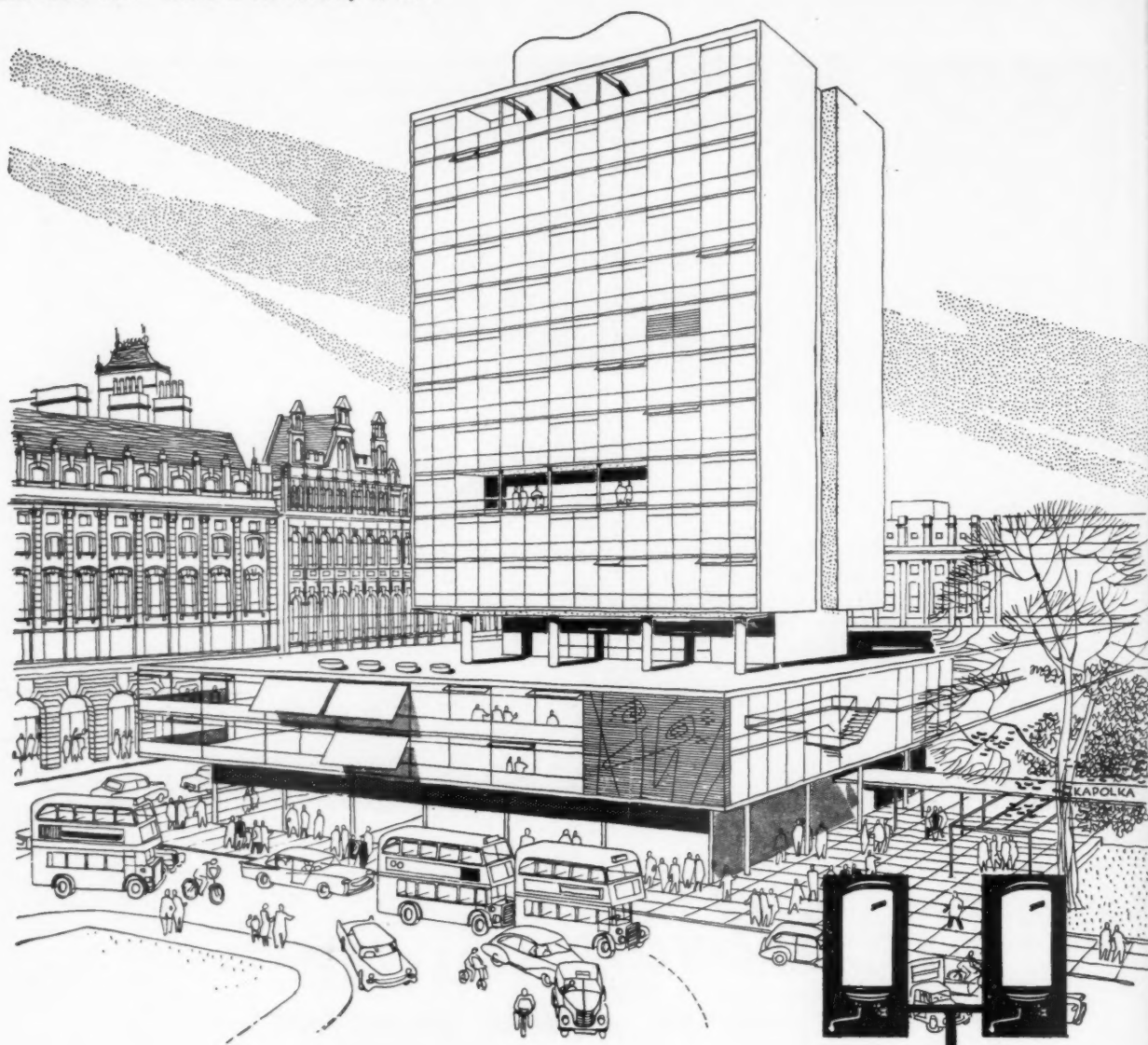
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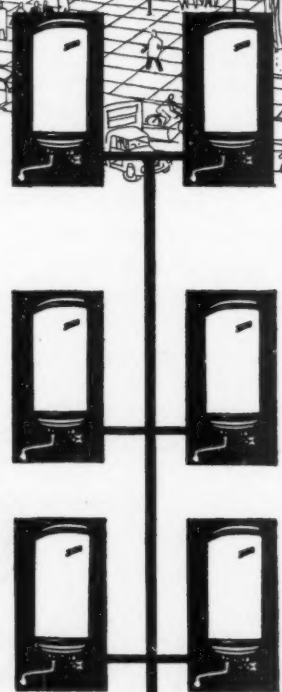
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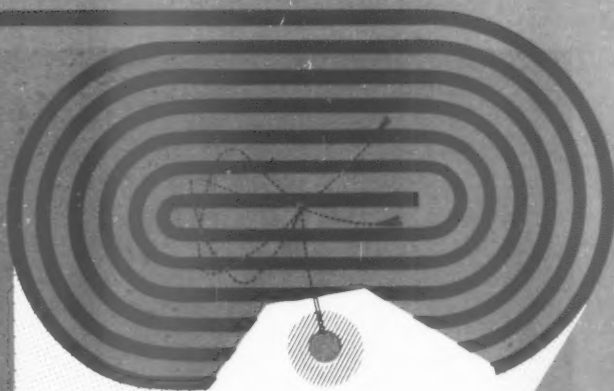
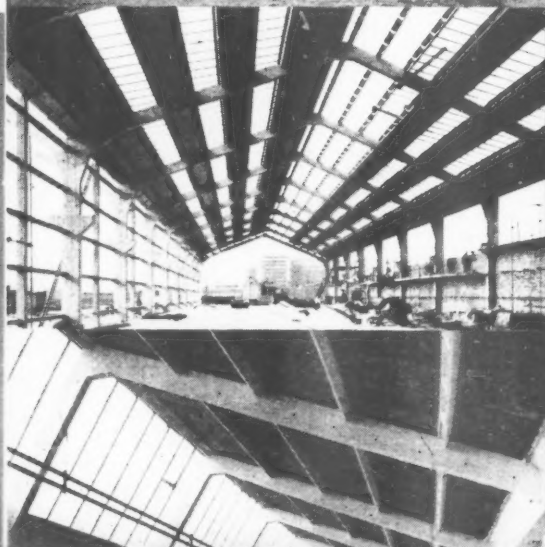
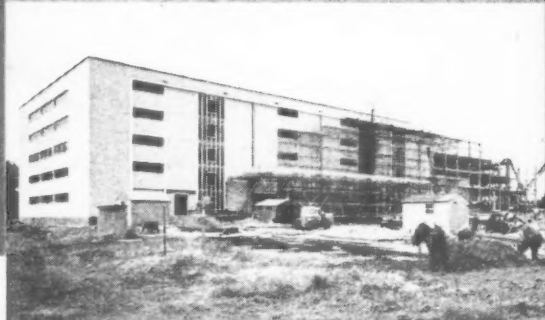
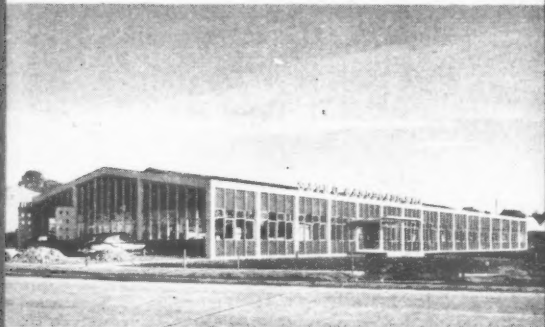
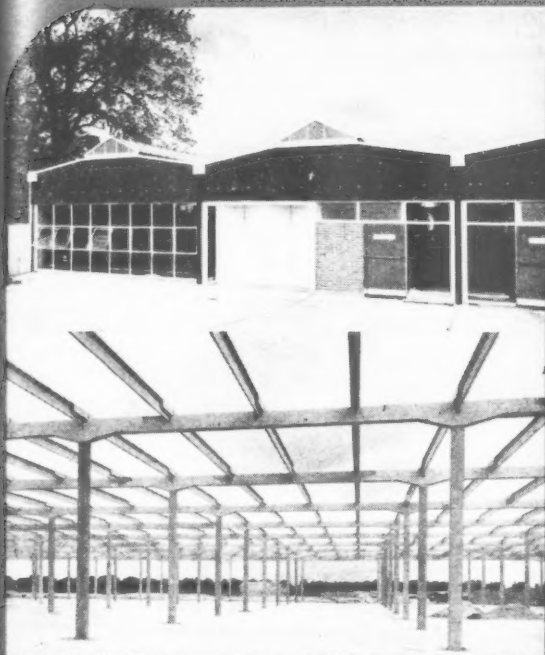
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## CHAPEL IN CONCRETE

By Diana Rowntree

**The Chapel at Ronchamp.** By le Corbusier. Architectural Press. Pp. 120. 25s.

"Never in my life have I 'explained' a painting. The painting will go out and will be loved or hated, understood or not." So says le Corbusier in his preface. Happily he does not apply the prohibition to buildings. People who have been inside the Ronchamp chapel always feel the wonder the architect strove for. Others, even lifelong Corbusier addicts, have felt disquiet. This book, written and designed by le Corbusier himself, shows with beautiful economy the long, silent process, the struggle, and the moments of certainty that produce a work of art, that between 1950 and 1955 produced this building.

First the finished building is shown by photographs of the kind that need no captions. We see black nuns praying against a light-pierced wall, the distant rolling landscape, and on the opposite page the immediacy of the simple concrete. Later, 'interspersed among sketches, calculations, photographs of models, and some very fine architectural drawings, "Corb" lists the workmen's names, tells with inimitable brevity how a crab shell lying on his drawing board gave the idea for the concrete shell of the roof; how the massive walls were compiled from ruined stones; how when the foremen picked up the cross and carried it up the nave the workmen began to crack jokes so as not to weep.

This is a most moving book for architects, children, poets, copywriters, and all who have eyes to see.

THE MANCHESTER GUARDIAN

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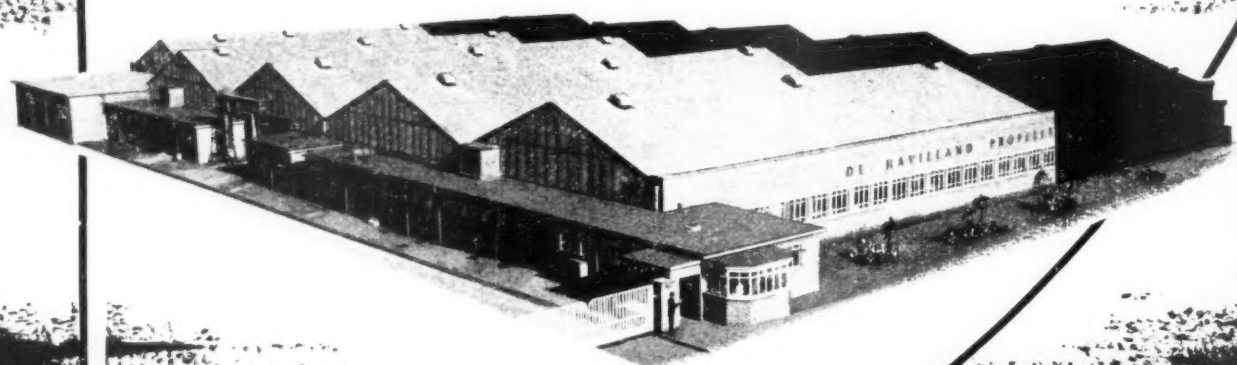
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## THE RAREST MAMMAL

The Tasmanian wolf (*Thylacinus cynocephalus*), the largest of the carnivorous marsupials, is now confined to the wildest parts of Tasmania. So close is it to extinction that recent expeditions failed to find any specimens though there was evidence of their continued existence. One was, however, reported sighted from a helicopter on January 2, 1957.

## THE OLDEST TREE IN THE BRITISH ISLES

Of all British trees, that with the longest life is the yew (*Taxus baccata*) for which a maximum age of 1,800 to 2,000 years or more is usually conceded. The Fortingall Yew in Perthshire and Darley Yew near Matlock, Derbyshire (32½-foot girth) are regarded as the extreme examples.

## THE LONGEST RIVERS

The longest in the world is the Nile which runs from Victoria Nyanza to the Mediterranean, 4,145 miles long. In the British Isles it is the River Shannon rising in Co. Cavan to Limerick (240 miles). In England and Wales it is the Severn (220 miles), in England the River Thames (210 miles). In Scotland the Tay (117 miles) and in Wales the Towey (68 miles).

## THE HIGHEST WAVE

The greatest possible height of a wave at sea is usually cited at 60 feet. However, the highest officially recorded sea-wave was measured from "U.S.S. Ramapo" proceeding from Manila to San Diego on the night 6th-7th February, 1933, during a 68-knot (78.3 m.p.h.) gale. The wave measured 112 feet from trough to crest.

## THE LARGEST METEORITE CRATER

The largest dry crater is the Coon Butte crater near Canyon Diablo, Winslow in Northern Arizona, U.S.A., which is 4,150 feet in diameter and now about 575 feet deep with a parapet rising 130 to 155 feet above the surrounding plain. It has been estimated that a mass of 25,000 tons travelling at 36,000 m.p.h. would have been required to gouge this crater.

## THE MOST FREQUENT COMET

Of all the recorded comets (these are members of the solar system) the one which most frequently returns is Encke's Comet, first identified in 1786. Its period is 3.3 years and not a single return has been missed by astronomers. At the other extreme is Comet 1910(a) whose path was not accurately determined but which is not expected to return for perhaps 4,000,000 years.

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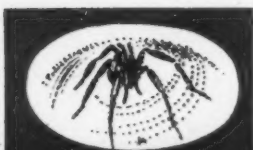
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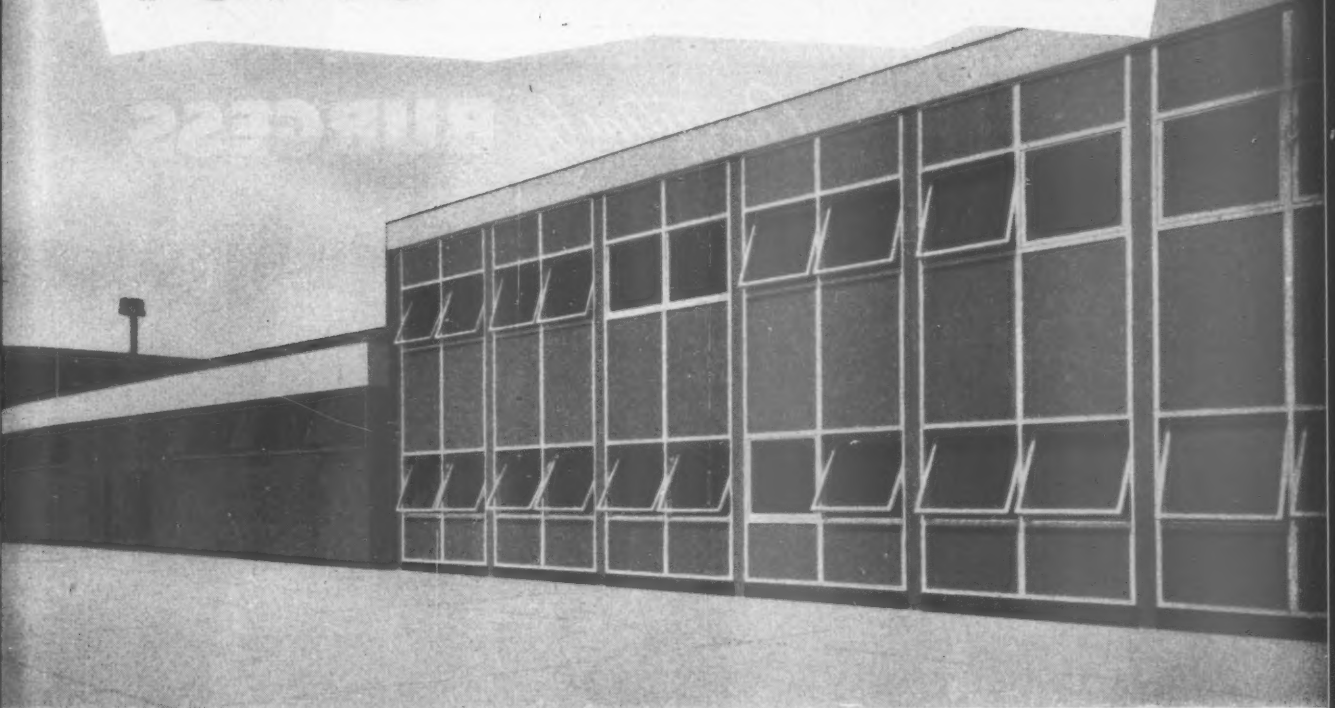
★ Full details and copies of Scientific and Technical reports available on request.

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# TOMO double-glazing at London Airport



Administrative and operations offices for aviation fuel supplies at London Airport, half of which are occupied by Shell-Mex & B.P. Ltd. and the other by Esso Petroleum Co. Ltd. Architect: Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I.

We think you'll agree that the appearance of these attractive offices at London Airport is enhanced by their TOMO double-glazed WINDOWS. But that's only a small part of the story. TOMO double-glazing also offers excellent thermal-efficiency values, remarkable sound-reduction properties, finely-controlled ventilation and total indoor window-cleaning.

On the subject of thermal efficiency, we should like to refer you to the report of a recent B.R.S. test quoted on the right. It speaks volumes.

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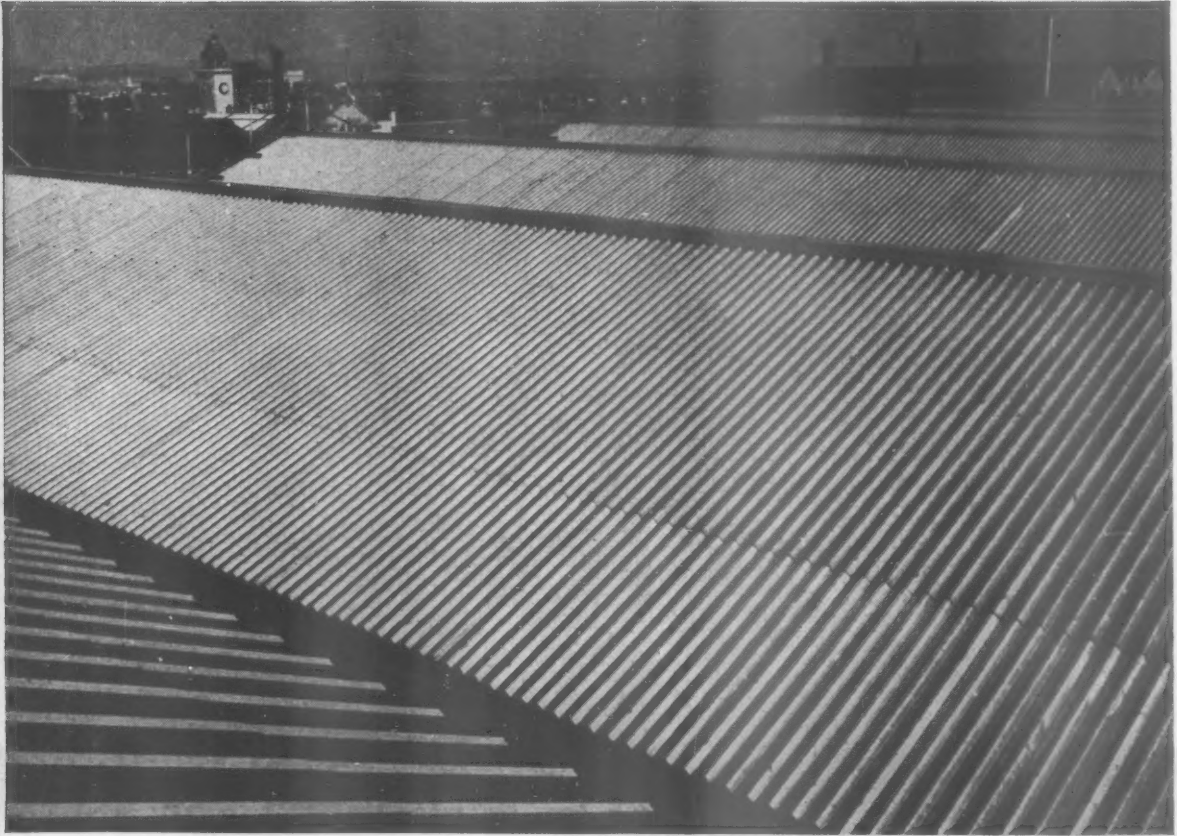
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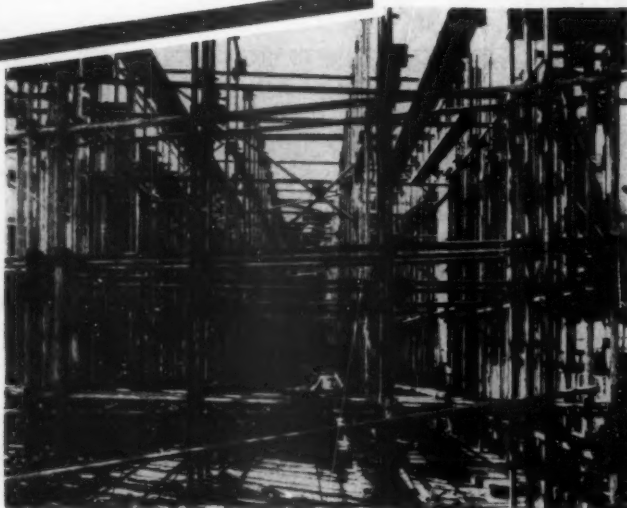
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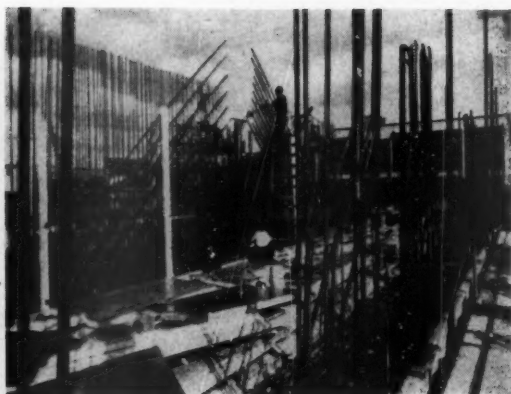
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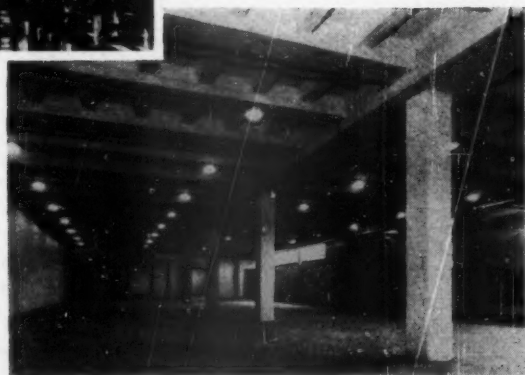
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Reinforcing steel being fixed in Vierendeel girder



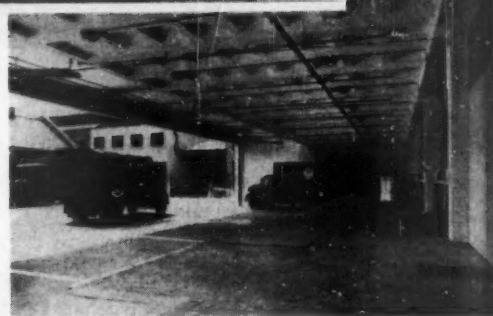
1st Floor of Warehouse showing Sovex chute and fireproof partition



Front elevation showing screen to spiral staircase and Vierendeel Beam



Spiral staircase (precast) from below



Loading Dock showing precast ceiling units

Wherever the sign of Howard Farrow appears there is work in progress. These photographs illustrate the progressive stages in the building of the Farmiloe warehouse at Nine Elms, the Architects for which were J. M. Austin-Smith & Partners

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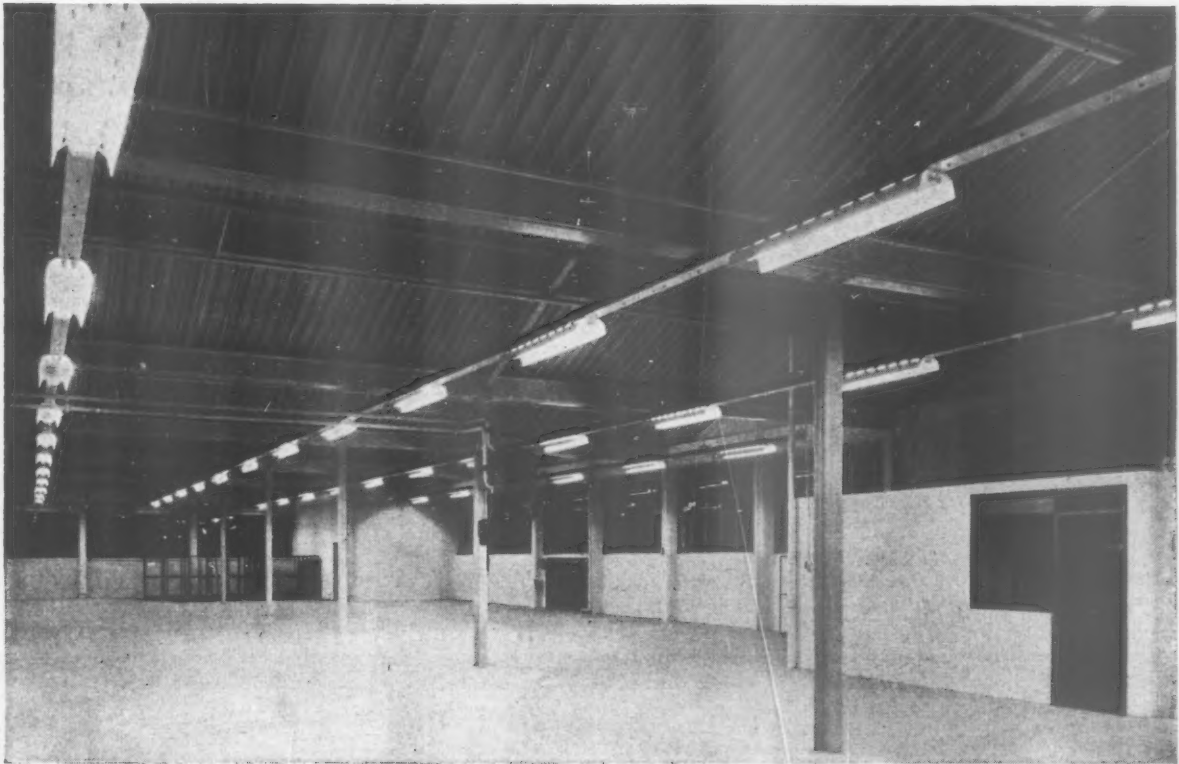
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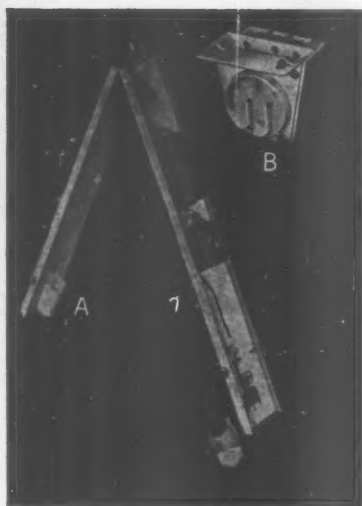
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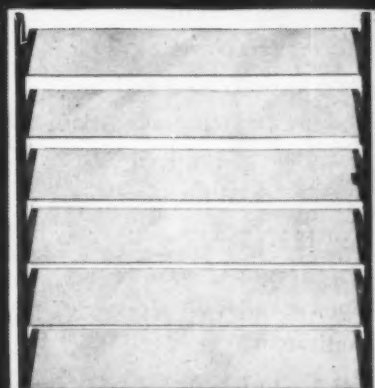
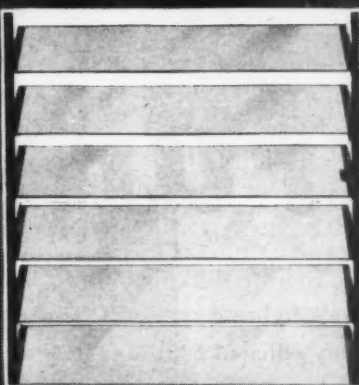
The Ministry of Education (Architects and Building Branch) have recently specified Naco Sunsash for many new developments. Other users include: U.K. Atomic Energy Authority; Ministry of Agriculture; Air Ministry; Ministry of Supply; Ministry of Works; London County Council; Bucks County Council; Herts County Council; The English Electric Co. Ltd., Nestlé Co. Ltd., and Roneo Ltd.


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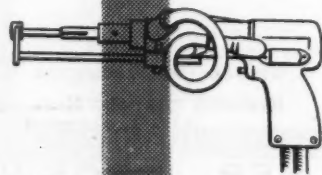
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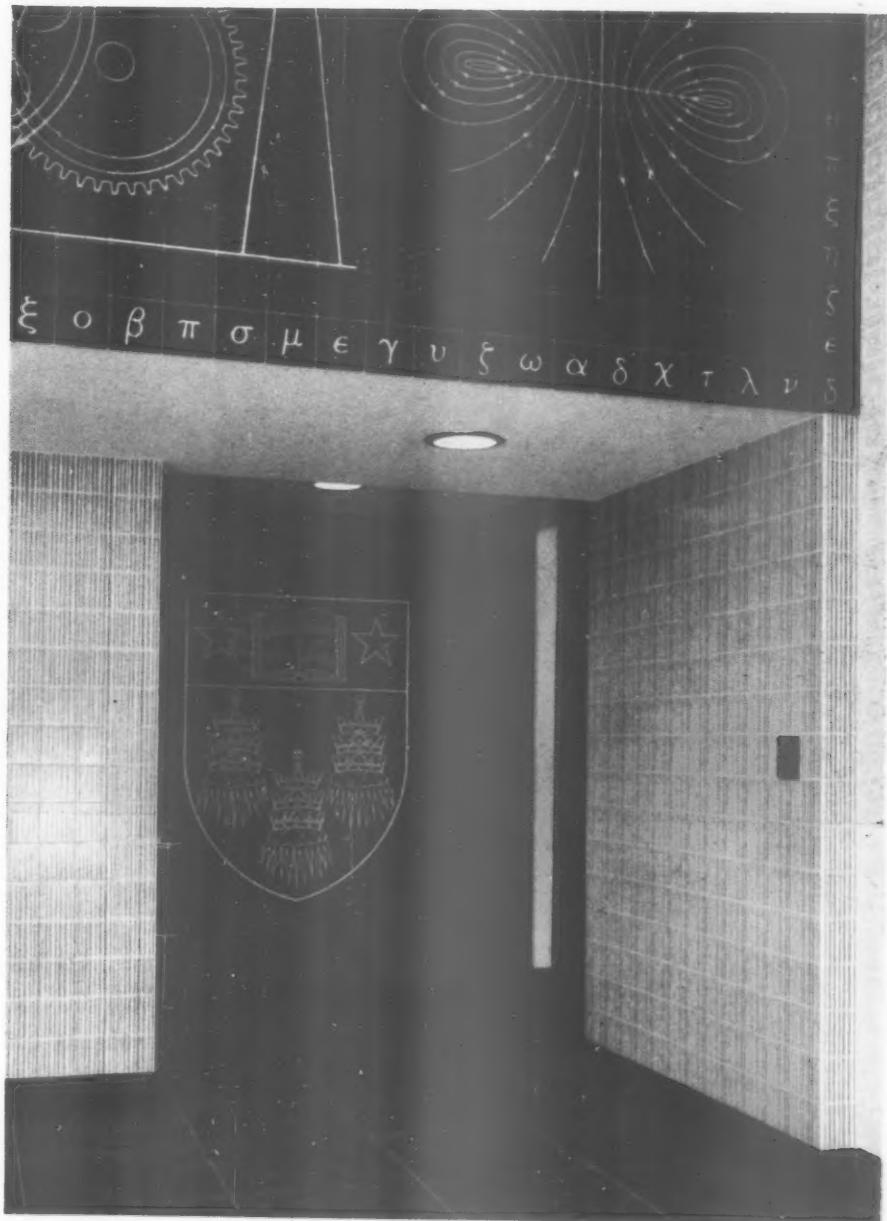
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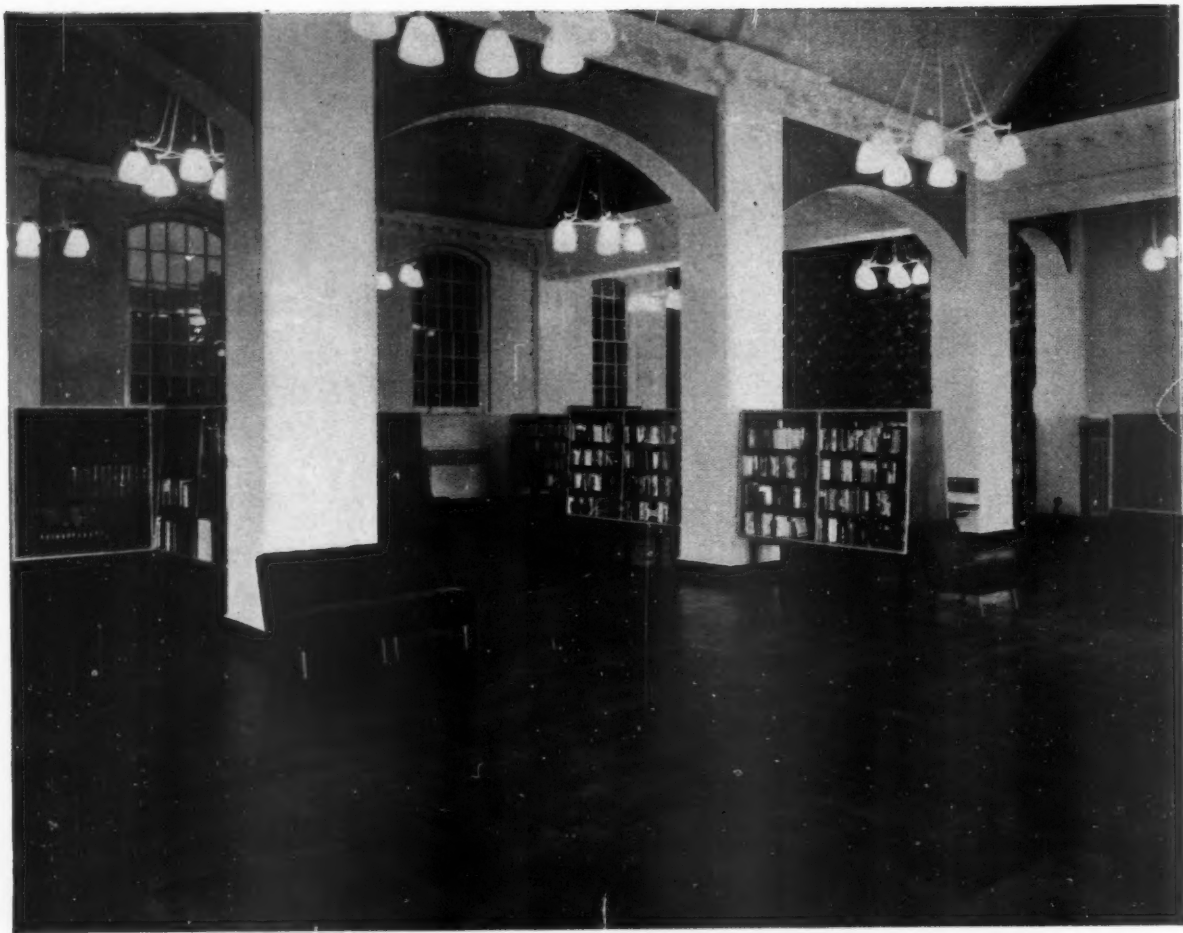


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The Architects' Journal

No 3331. Vol. 129. January 1, 1959

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NOT QUITE ARCHITECTURE

OLD PLATER'S  
ALMANACK: 1959

JANUARY: Celebrated American architect comes to England for a gold medal and an honorary degree. Reporters at London airport ask what he thinks of British design standards. Replies quickly in German.

\*

FEBRUARY: Famous architect of airports, point blocks and cathedrals appears as celebrity on *What's my Line* and beats the panel. The female members do not know who he is, even after they have been told who he is.

\*

MARCH: Ideal Home Exhibition dominated by up-and-coming young man's "House of the Day after Tomorrow." Planned on a triangular grid, it relies for structural support on two rainwater pipes and a chimney breast. On the third day of the exhibition it collapses.

\*

APRIL: Architect's own house in Home Counties rejected by Town Planning Committee as "out of keeping with existing development." Two fierce letters in the ARCHITECTS' JOURNAL and a paragraph in the *Observer* with a little perspective by Gordon Cullen. Not much else.

\*

MAY: Four members of the RIBA council resign to form close harmony vocal group, following success of their *New Town Cha-Cha* at Guild of Building dinner. Decca release first LP, *The Big Fellow and his Associates*. President of the Institute makes no comment.

\*

JUNE: Announcement of project to build mile-and-a-half high building in the Midlands causes interest and excitement in the profession. Idea hampered by byelaw restrictions regarding external brickwork thicknesses and finally abandoned with the discovery that an assistant has misplaced north point on survey.

\*

JULY: Respected Academician attacks modern architecture in after-dinner speech,

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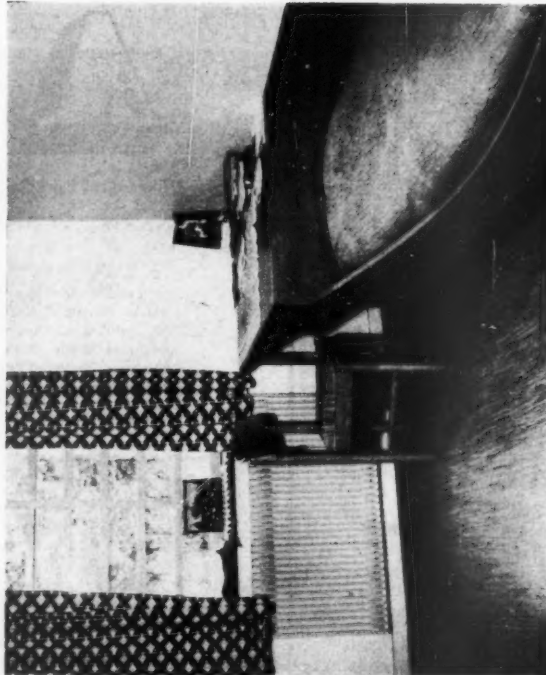
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Telephone: GROsvenor 1061/2.

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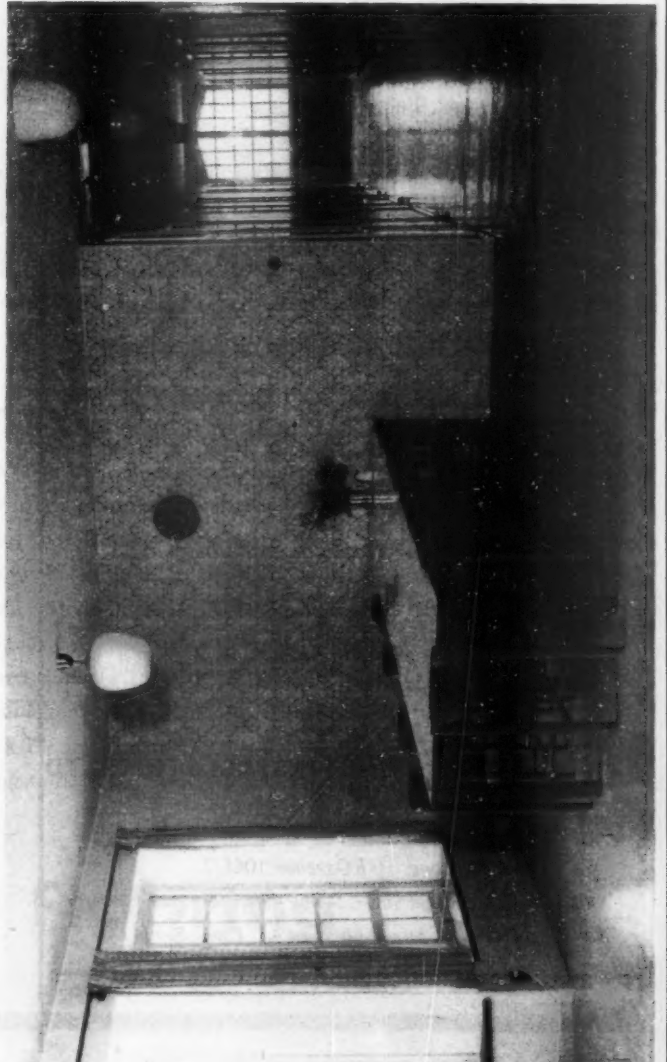
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DHB/6689



## A Swedish Prison

This new Swedish prison at Røxtuna, for men between the ages of 18 and 21, is not strictly comparable with the new British prison at Everthorpe which we published recently, as Everthorpe was planned as a security prison for old offenders. Nevertheless, the Swedish prison reflects a humanity in its design that seems to us lacking in Everthorpe, and an economy in construction. There is a mechanical workshop with modern machines that a British school would envy. The pictures show (above left) meeting hall and administration offices, (top right) prison quarters, equivalent to a cell block, with wire fence in foreground, (above) a cell, and (left) common room.



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in terms strong enough to make the National Press. 90 per cent of the readers of the *Daily Express* agree with him. The other 10 per cent do not understand.

AUGUST: Architect's appeal against Town Planning rejection of own house fails, despite support from J. Summerson, H. Casson, H. Lyttelton and W. Mankowitz. Cardboard effigy of civil servant and cup of tea burnt in Trafalgar Square by AA students. Letter about hooliganism in *The Times*.

SEPTEMBER: Unqualified architectural draughtsman involved in grey financial business regarding speculative estate development is acquitted and writes series for Sunday newspaper called "Architects—the corruption behind the drawing boards." Very popular.

OCTOBER: Peter Smithson nominated as prospective Liberal candidate in provincial by-election. Nomination is contested by a number of others and ultimately gained by Mr. James Wheeler, a professional entertainer.

NOVEMBER: A quiet month, disturbed only by the rumour that the National Theatre project has been finally abandoned. The sight of Mr. Eric Lyons thoughtfully viewing the area in question is said to be coincidence.

DECEMBER: The first New Movement of the year, centred round the "6-00 below Datum" coffee bar in Soho, merits two pages in *Architectural Design* and introduces a bureau to counter the effectiveness of the Counter-Attack bureau. A hairy leader of the group appears on *Tonight* and is generally believed to be Peter Sellers.

ALAN PLATER

## DIARY

*Special General Meeting to Discuss The Interim Report of the Constitutional Committee.* At the RIBA, 66, Portland Place, W.1.

JANUARY 6

*The new Planning Bill.* TCPA Conference at Caxton Hall, S.W.1.

JANUARY 6

*The Architecture of Leningrad.* Talk by The Hon. Richard Hare, in the Lecture Theatre, Victoria and Albert Museum, South Kensington, S.W.7. 6.15 p.m.

JANUARY 7

*Urban Motorways.* Institute of Highway Engineers and ISE. A talk by Lt-Col. G. W. Kirkland, Upper Belgrave Street, S.W.1. 6 p.m.

JANUARY 8

*Professional Negligence.* Talks by L. T. Donaldson and D. R. Sinnatt. Junior Organization RICS, at 12 Gt. George Street, S.W.1. 6.15 p.m.

JANUARY 8

*Suspended Ceilings.* Discussion at the RIBA, 66, Portland Place, W.1.

JANUARY 13

*The Maintenance of Modern Buildings.* Talk by H. J. Eldridge, at the RICS, 12, Gt. George Street, S.W.1. 5.45 p.m.

JANUARY 14

*A Survey of Recent Developments in Reinforced Concrete.* Talk by A. W. Hill. RCA meeting at 11, Upper Belgrave Street, S.W.1. 6 p.m.

JANUARY 14

*The Modular Assembly.* A public forum to discuss the results of The Modular Society's experimental structure, at the BC, 26, Store Street, W.C.1. 6 p.m.

JANUARY 14

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

## The Editors

### OUT OF THE MESS, BUT NOT YET OUT OF THE WOOD

THE report of the Finance and House Committee of the RIBA, and its estimate of income and expenditure for the years 1958 to 1961—summarized on page 8—show that the immediate financial crisis of a year ago has been surmounted. The emergency decisions to cut the public relations allocation to the bone, and to appropriate the entire surplus of income over expenditure for the repayment of the Building Loan, have been reversed. Things were not, in fact, nearly as bad as they were thought to be, and it has proved possible in the past year to pay no less than £21,058 out of current income towards the cost of building, with consequential savings of some £7,000. Surpluses, expected to amount to nearly £30,000 in four years, will be transferred to a Development Fund, which will provide the RIBA with a working reserve to meet unforeseen contingencies and from which to draw for specific projects to the advantage of the Institute and its members. More accurate information is now available about trends in the profession, and this provides a surer basis for future estimates.

Does this improvement, and the sensible decisions that have been taken, mean that the Institute's financial problems have been solved? Unfortunately, they do not. The estimates are necessarily based on the assumption that the Institute's present policies continue. But these policies are bound to change, and in so doing may undermine the present financial structure. The recommendations of the Oxford Conference on education could have the effect of cutting in half the Institute's income from students' subscriptions, examination and entrance fees. How serious this would be can be seen from the fact that between 1958 and 1961 examination and entrance fees will bring in £110,300, whereas examinations will cost the RIBA only £26,950. Students and new members,

in short, are yielding a surplus of £83,350: they are providing the whole of the Development Fund, and some £53,000 towards the general expenses of the Institute as well. The Institute has acquired a vested financial interest in the continuous expansion of its membership, at a time when the best interests of the profession probably call for its limitation.

Nor do the estimates take into account possible changes resulting from the report of the Constitutional Committee, which envisages different financial relations with Allied Societies. There is clearly little margin for any substantial increase in the allocations made to Allied Societies so long as the Institute's finances remain as they are. Nor can it be said that the budget for Public Relations, at £3,500 a year, is even now adequate for the job that has to be done. Other services to members, such as information, may also require more money.

The Committee does not yet seem to have considered drastic reforms in the finance of the RIBA. Merely to say that the increases in subscriptions and fees were inevitable is not enough. The problem is how to raise additional finance, particularly if the number of students falls. It cannot be got by any further increases in subscriptions. There is, on the contrary, a strong case in equity for reducing the burdens on students and the more recently qualified members whose earnings are still low. But is there not also a strong case for a special subscription by private firms of architects, based on the annual turnover or the annual staff salaries? The review of the Institute's finances has clearly to be carried a great deal further before the future can be considered secure.

## WHERE TO BUILD HIGH

The Royal Fine Art Commission's attitude to high buildings is mystifying. Its last annual report urged that if the character of London's royal parks was to be preserved the height of buildings on their fringes should be limited to about 100 ft. It added that, while it would not object to a few towers, it would deplore a slab of building rising above the general level.

In practice, however, the Commission seems to favour a uniform height of about 100 ft., which is in itself a substantial enough slab. When high towers are proposed the Commission objects to them, not merely on account of the individual design, but in principle. The latest example of this is a proposal to build a high-tower block on the site of the Odeon cinema, Marble Arch, which the LCC is prepared to approve in principle. The RFAC, however, considers that any new development should be of about the same height as the present buildings.

Surely the RFAC is wrong? Apart altogether from the fact that it is impossible to preserve the rural illusion in Hyde Park, slabs of uniform height fringing the park not only provide the least interesting skyline, but also encourage bad internal planning.



### THROUGH A DARK GLASSLY . . .

A happy new year to you. I hope that you are benefiting from the therapeutic value of your orgy, or, if you didn't have one, that you are managing to feel cheerful as well as smug. In any case I hope the last few days have blotted out memories of the less pleasant aspects of 1958—the rain, strikes, riots, terrorism, fog. . . . But let me not review the year for you until the AJ's new year issue. Let me try to salvage a few ideas I jotted down before succumbing to the mind-paralysing effects of Christmas.

\*

First, the party given by Hille. This was excellent, and in the middle of it all someone drew my attention to the small print on the invitation card. This made it clear that we weren't there just for the fun of drinking wine and dropping ash over each other: there was, in fact, some office furniture to be seen. These new designs, by Robin Day, are pleasant enough—but why so little attention to storage? I've yet to find the office furniture that will accommodate everything from paper clips and telephones to sherry bottles, cheque books and confidential letters. If legs and chair seats were adjustable, and a variety of containers could be attached to a variety of working tops, offices would begin to get efficient, like building sites.

## HERD BUT NOT SEEN

Another good party comes to mind through the fog of memory. No, come to think of it, all those drunken-looking, sheep-like individuals *were* sheep, except the cows, which were cows. The occasion was the Smithfield Show—an exhibition that is free from self-conscious display. Most of the incidental furnishing was routine contemporary stuff and the bulk of the exhibits—tractors, balers and harvesters—were fascinating in their own primary-coloured right.

\*

It occurred to me that anyone looking for new products would have a hopeless time trying to see them, just as we all do at the Building Exhibition. Incidentally, will this year's exhibition, in November, be any better than usual? Even if exhibits can't be grouped according to type, could we please have a separate exhibition of all really new products?

## THIS IS THE TITLE OF THIS NOTE

Should a telephone box have the word "Telephone" written on the side, or a picture of a 'phone, or both, or neither? Neville Conder, whose kiosk design is to be tried out shortly, has said that a telephone kiosk is its own symbol, and has pointed out that a bus does not need to have "Bus" written on it. Still, it may take the General Public a little time to recognize the new kiosk. If you haven't seen a picture of it yet you will find it, together with rejected designs by Misha Black and Jack Howe, in next week's AJ. It will be a pleasing addition to our street furniture, but it should be tried out in old, as well as new, towns. It would be unfortunate if the impression was inadvertently created that this kiosk is not eminently suitable for old as well as new settings. Incidentally one bold and novel feature will be the use of fresh air inside the box.

## ABSENT FRIENDS

If you want to see something of the work of practically anybody who has *been* anybody in the art world since the last part of the last century, you should buy *Modern Art, a pictorial anthology\**, edited by Charles McCurdy. This book covers the whole field of architecture, painting, sculpture and product design with representative (if small) black and white illustrations



Looking for something to spend your Christmas book tokens on? *Modern Flats* by F.R.S. Yorke and Frederick Gibberd (Architectural Press 63s) from which the above picture of flats at Liege by Carlier, Lhoest and Mozin is taken, is not a new or revised edition of the same authors' *The Modern Flat*, published before the war, but includes a representative selection of the best post-war flats from this country and abroad.

and explanatory text. But it doesn't cover the whole field of British architects. Arthur Drexler, of the Museum of Modern Art, mentions only Paxton, Macintosh, Lubetkin and Tecton, Wells Coates, Powell and Moya and the Smithsons. In spite of some bad spelling and the absence of Fry and Drew, Reggie Yorke, the LCC, and Herts Schools, Joe Emberton *et al*, the book is still a valuable background tome.

## YOU SHOULDN'T TAKE IT WITH YOU

Whatever you may think about the appearance of parking meters you must agree that they have improved traffic conditions in Mayfair's experimental area. The threat of fines and prosecutions has made many daily

commuters leave their cars at home. This has left room for the shoppers or business callers, who want to stay only an hour or two. Even at the busiest times there are always a few vacant places, so that motorists do not have to cruise round looking for parking space and traffic flows freely.

\*

By extending this scheme to the rest of Mayfair the Westminster Council will reduce the number of parked cars

The photograph below, when seen from a distance, could well be the skyline of a modern city, while ASTRAGAL wondered whether the photograph, right, might not show the wiring of a highly complex computer. In fact both are photographs from the Natural History Museum, of ruin marble and a gorgon-headed starfish.



\* Macmillan. 48s. 6d.



by two thirds (from 3,673 to 1,309). Is there any reason why the scheme should not be extended throughout the central areas of all cities? The motor-ing associations say that this should not be done until off-street parking has been provided for people who want to leave their cars all day. But isn't it far better to persuade (or even to compel) people to leave their cars at home and travel by public transport or taxi in central areas?

Some businessmen, incidentally, have already worked out a way of using the parking meters for all-day parking. In one Mayfair company's office the directors park their cars by the meters in the morning, and every two hours a secretary slips out and puts another shilling in for every car. A rota is posted up notifying the secretaries of the times they have to do this chore, and, of course, the company pays the fees.

#### PEOPLE IN GLASS HOUSES

What looks like a very promising architectural cross-talk act appeared at the ICA one evening recently: Ian McCallum had been talking about *America's Crystal Palaces* and Peter Smithson was his chairman. The questions that followed the talk were handled by them in partnership; a question would come up, the McCallum half of the partnership would answer from personal observation on points of detail, and the Smithson half would then wrap it up in generalized observations on architectural theory, an arrangement that gave the questioners very good value for their money.

They also had good value from the talk itself, which began by noting the interesting phenomenon that in the early 1950s "some of the most acute business brains in the world spent large sums of money to house themselves in leaky structures, costly to heat and cool, providing serious glare problems and backgrounds quite unsuited to boardroom Chippendale." It went on from there to consider US business patronage and the kind of buildings it got, and why. It seems that big business really wants glass buildings because it likes them, and because they are backed by a public that is genuinely interested in modern architecture.

ASTRAGAL



Enid Lakeman,  
Research Secretary, The Proportional  
Representation Society

R. Duncan Scott, A.R.I.B.A.

M. Widdup, A.R.I.B.A.

Jack Whittle,  
A.R.I.B.A., A.M.T.P.I.

Walter Segal, Registered Architect

Olga Wikeley

Geoffrey E. Dunn,  
Managing Director, Dunns of Bromley

### Voting Systems

SIR.—I have been reading with interest the report of the RIBA's Constitutional Committee. I notice it is called an "interim provisional" report, so perhaps the curious omission which strikes me is to be remedied later.

The introduction says that "hardly less important than questions of equity were those of administrative method and voting systems," but I can find no further reference to voting systems. I hope the matter of voting systems will be considered further by the committee, for it can make all the difference to the success or failure of the new scheme. To fill all the Council seats by election is a democratic move, but it does not of itself suffice to give a Council "fully and democratically representative of the profession at large." If voting is by the old method, each member being entitled to cast as many votes as there are vacancies, it is quite possible that one large category of members will win all the seats, and it is highly probable that one or more of the smaller categories will find themselves with no representation on the Council.

The suggestions I made in my article would ensure fair representation for all the various kinds of members, while avoiding any need to re-introduce "differentiation by classes of membership or categories of employment or occupation," and I hope those suggestions will receive consideration in the next report.

London.

ENID LAKEMAN,

### Report On The Constitution

SIR.—It is to be hoped that all members of the RIBA have read, and seriously analysed, the interim provisional report of the Constitutional Committee. Apathy amongst members is, however, traditional and this letter is written in the hope that, after reading it and other letters on this subject, a few more members will take the

trouble to read, digest and comment on the report.

The Committee in the introduction to the report states that "probably the main concern amongst those voting at the last AGM was to be left in no doubt that the RIBA Council is fully and democratically representative of the profession at large." Presumably, this has been the cornerstone of their discussions.

After reading through the report, however, one realizes that both in its discussions and its conclusions, the Committee has completely failed to understand the meaning of this statement—otherwise the Committee would never have produced such weak-kneed proposals, based on the traditional "English" sense of compromise.

The more or less violent rumblings amongst the membership are due basically to one fundamental defect in the present constitution—a lack of communication between the individual member and his ruling body, the Council, and between the Council and the individual member. Hence comes the feeling of frustration amongst members, and the suspicion that the RIBA is run by the boys for the boys. This is really the core of the matter.

It is probably not generally realized by the majority of members that the criticisms put forward at the last AGM were not the only—or the first—criticisms made to the Council. For some time certain Allied Society Representatives, motivated by feeling in the Provinces, had expressed strong dissatisfaction with the existing state of affairs, and at the Council meeting in April of this year a motion was submitted by the South Eastern Society of Architects, "viewing with extreme concern the recent financial report of the RIBA Council," and stating its opinion that the Council should be elected by or through the Allied Societies, including a London Society, so that Council members could be directly answerable to their electorate. This motion was accepted for submission to the *Ad Hoc* Committee which was to be set up at the start of the new session.

The best ways and means of obtaining as perfect a system of communication as possible can only be discovered by careful and conscientious deliberations of a Committee—the important point is to ensure that a system is arrived at which gives the best communication. The proposal put forward by the SESA seemed to the Society to be one answer, if not the only answer, but there may be another method.

The present proposals, however, not only do not improve the present position, but may in fact worsen the position. It is possible that no member elected regionally may be on his Allied Society Council, in which event even this small communication is severed.

A further point—if the Committee really believes that communication is the core of the matter, why does it not accept the fact and cut out all elections on a national basis? If it does not believe it, why not be honest and cut out elections on a regional or Allied Society basis? This is a matter which brooks no compromise.

I would add that I am writing this as an individual and not on behalf of the South Eastern Society, and I do so because of shortage of time before the meeting in January. No one wants this meeting to degenerate into a shouting of organized angry young men, trying to influence the Council by the amount of the noise that they make. I only hope that enough members, with the future welfare of the Institute as one of their main cares, will turn up and put forward their sincere views.

R. DUNCAN SCOTT.

Guildford.

SIR.—May I, as a backwoodsman from an allied society and one of the country bumpkin readers whose main interest in the AJ is to crib the latest clichés of the



bright boys from London, make some short comments on your editorial of December 11.

The RIBA subscription rebate is, presumably, given to Allied Societies to allow provincial members some of the facilities available to those who can commute to Oxford Circus Underground. To suggest, as you do, "some machinery for checking that Allied Society expenditure is not all used on social events" is an impertinence which surprises me. Most Allied Society Committees would be delighted to spend as much in proportion on tea and buns as is spent at Portland Place, and if you can't even trust us to decide for ourselves how to use our own rebate we may as well pack up and let the RIBA be run from the *Bride of Denmark*.

The vast majority of thinking architects (and, judging by what one sees from the top of a No. 73 'bus, there are just as many in London as anywhere else who don't think) will approve the bulk of the Constitutional Committee's recommendations—particularly shall we welcome the implication that the Allied Society Council member shall serve for three years and not necessarily be the President but, surely once more, we may be allowed to organize our elections as we wish.

As you so rightly say, a postal ballot will tend to produce a Council consisting of the best known architects. We shall be very democratic and elect the man whose name appears most often in the papers or whom we know personally by encounters in the corridors of some vast municipal office. This system of election obviously appeals to some members, and the business of the furtive show-of-hand voting in the Railway Hotel is, no doubt, rather wicked although I cannot see that it varies very much from packing meetings at the RIBA to pass resolutions.

Like many provincial architects, Sir, I shall be in London on January 6, but unhappily it will be to take the kids to the pantomime, and I shall miss what will obviously be a more entertaining evening.

M. WIDDUP.

Studham, Beds.

## Flats And Houses

SIR.—Having read your editorial on the Ministry of Housing and Local Government publication *Flats and Houses* 1958, I have become rather angry, not because it disagrees fundamentally with my review which was published in the same issue and to which you refer, but because it is so unbalanced.

Really, it is not worthy of your JOURNAL. It labels the Ministry publication "A Shoppers Guide" and then goes on to produce a standard shopping list for architect planners, only to grumble because the Ministry book is not a department store. Indeed some of the goods you claim are missing are to be found in the bargain basement—if you look.

There is no doubt that measured against the vast scope of planning technique, redevelopment, sociology and economics, the book is limited, but that in itself is no criticism. You may disagree with the priorities which the Ministry gives to its restricted research work but the book states in paragraph 4 why those problems which were studied were selected, and within that field the Ministry has done a good job.

Why does your editorial also misrepresent my review? I did not suggest that *Flats and Houses* 1958 will afford relief to any Housing Committee or architect. The book gives very useful guidance to those of us engaged in high density development but the principles it advocates call for a far higher standard of civic design than many Authorities now produce, as I thought I had made clear.

Further, how on earth there is any danger that this publication will "make life more difficult for those who see a little beyond the routine solution" is very difficult to understand. There is no such thing in redevelopment as a routine solution, and as the

principles argued by the book support such architectural solutions to high density redevelopment as Roehampton and Golden Lane, and also, incidentally, "The Living Suburb," I cannot see the meaning of this final sentence of your editorial.

JACK WHITTLE.

Epping.

The Editors reply: We do not disagree that *Houses and Flats* 1958 will give "useful guidance" and represents an approach to design better than that of many local authorities.

Our main criticism is that the MOHLG does not and never has attempted to work from the fundamentals of the living accommodation problem—in the sense that, for example, the MOE did for schools. We think that a Government Ministry should provide vision as well as useful guidance.

As answer to his last paragraph, we would ask Mr. Whittle to imagine the MOHLG and local authority reaction to a proposal by le Corbusier to build, somewhere in England, a *Unite d'Habitation*.

## 'Polytechnic-Georgian'

SIR.—Mr. Fenner (AJ, December 4) evidently misunderstood my harmless and inoffensive term "Polytechnic-Georgians" which refers to an earlier generation that still occupies some seats of power. Mr. Fenner's generation will supply the elderly gargoyle-studded Corbusier-ites to be feared by modern architects in the days to come.

I am pleased to hear that in Cumberland architects may present their schemes themselves; but I stick unrepentantly to my suggestion regarding the calling-in of an expert by the architect; better articulation usually triumphs over mere enthusiasm.

WALTER SEGAL.

London.

## Architects' Wives

SIR.—I laughed to read Toni Scott's letter. When I heard my male colleagues in the new town drawing office where I last worked, discussing their approach to the fixtures and fittings in their new houses, I sometimes wondered whether their wives had any say in the matter, but never liked to ask—now I know.

Let me tell her though that having qualified as an architect oneself is little help in being married to one—at least when you stop practising. Admittedly the training is useful when the cesspool is not functioning, and your own particular "hub of the universe" is too busy doing something interesting to find out why. But if you do happen to take five minutes off from the family chores, and try to keep the cobwebs at bay by reading the AJ, it's not wise to express your opinion on the contents too loudly, in case you get told "my dear girl, things have changed since your day!"

Incidentally, I wonder what proportion of women architects marry architects—among my acquaintances it must be nearly 100 per cent.; goodness knows what the moral is in this—I wish, though, that the RIBA had a joint subscription rate, for such cases.

OLGA WIKELEY,  
(ex-A.R.I.B.A.)

Kent.

## Furniture Maker's Guild Mark

SIR.—Referring to part of your remark "a dull lot of stuff must have been submitted," I would like to defend this Company's Designer by saying that he is capable of producing stimulating design, and indeed, is forever experimenting with materials. In the case of the two pieces of church furniture, he had a quite definite brief which allowed him very little latitude.

GEORGE E. DUNN,

Managing Director, Dunns of Bromley, Bromley.



## PLASTICS INSTITUTE

### Plastics in Building

An audience of about 150 were present at a meeting of the Plastics Institute on December 16, 1958, when V. H. Wentworth of Monsanto Chemicals Limited reviewed the present and future possibilities of plastics in the building industry (writes a correspondent). The talk was illustrated with copious samples, slides, and also with a colour film by the Monsanto Chemical Company of the United States.

Mr. Wentworth began by stressing the need in building for tried and tested materials. Many plastic materials are already in use, for example, polythene-covered electric cables and the plastic bonding of waterproof plywood sheets. He thought that though plastic materials have several unique qualities, like all materials they also have their weaknesses, and that it would be unwise to substitute plastic for an existing material, for it was rarely economic and often produced bad designs.

Mr. Wentworth went on to show a number of examples of successful applications of plastics at the present time. He instanced the use of polythene film as temporary covers for the protection of materials on the site, the use of long polythene pipes to reduce the number of joints, and the welding of joints to avoid screw cutting and thus reduce pipe wall thicknesses. Then he showed the use of toughened polystyrene sheet as a liner to timber shuttering for the columns on one of the main bridges on the new St. Albans By-pass. It produced a marble-like finish to the concrete; and, since there was no adhesion to the concrete, mould-release agents were unnecessary which is an added advantage, as cases were known where such agents had reacted on paint applied subsequently.

Discussing possible future applications, Mr. Wentworth produced samples of polystyrene foam bonded to metal fabric to give additional stiffness for use as panels. He also showed the use of methylmethacrylate for glazing in a large United States office building, the bonding of sand to breeze blocks with polyester resin, and the use of brilliant colours and unusual shaped tiles for flooring and walling.

Mr. Wentworth then introduced the film—this was the first time it had been shown in this country. It described the design, manufacture and assembly of "The Monsanto House of the Future" which was commissioned to demonstrate the use of plastics in as many ways as possible in a single house. The project was fabulously expensive—in the region of one million dollars—but this was because a large number of important American Corporations had co-operated, not only to design and

build the house, but also to provide the basic data and to carry out a full-scale series of experimental tests on the design over a period of two years before its final erection. The house is erected in Disney Land, California, a pleasure park of about 66 acres, where it is being visited by thousands of people every day. It appears to be standing up to all the design requirements and undoubtedly has achieved its main object, which was to stimulate design and thought in relation to the use of plastics and to "up-grade" the material.

Following the showing of the film, the meeting was open to discussion and the first question (probably from a cost-conscious architect) was "how much?" Other questions concerned the use of plastic for hot water pipes as well as cold water pipes (no guarantee could be given for the time being), the degree of fire resistance of the Monsanto House (this seemed to be good, since a fire retardant polystyrene is used inside and the polyethylene foam insulation is basically fireproof). Asked whether such a house was likely in the United Kingdom, Mr. Wentworth said it depended on a high degree of standardization and in his experience architects did not want standardization, each wished to design his own house and the number of people making prefabricated systems was legion. Yet the essence of successful plastic manufacture was the use of moulds and the reproduction of identical units to close tolerances and in large quantities. Finally, in reply to a question regarding precautions against extreme temperature differences in the Monsanto House, the speaker said that the plastic material used for the structure was essentially flexible and expansion gaps were unnecessary.

## RIBA

### Financial Report

The continuation of the increased subscription rates and entrance examination fees is recommended by the Finance and House Committee of the RIBA, in its review of the Institute's finances requested by the AGM in May, 1958. But it does recommend one important change in financial policy. At the AGM members criticized the decision taken in December, 1957, to apply all surpluses of income over expenditure to the reduction of the loan, and suggested that more money would be available for RIBA activities if the loan was paid off over a longer period. This view has now been adopted by the Finance and House Committee, which proposes paying off the £70,000 loan over 20 years and applying the surplus to a Development Fund.

They recommended that the policy for 1959 and subsequent years should be based on the following principles:

1. That balances of income over expenditure shall be paid to a Development Fund to be used as the Council may from time to time direct.

Table 1. Estimate of income and expenditure

	1958 Original estimate	1958 Amended estimate	1959	1960	1961
Income	£162,500	£170,500	£193,225	£194,525	£200,225
Expenditure	148,920	164,518	180,190	181,305	194,655
Balance (for transfer to proposed Development Fund)	13,580	5,982	13,035	13,220	5,570

\*Notes: Income from subscriptions rises from £126,000 in 1958 to £154,000 in 1959 and £160,000 in 1961. Income from examination fees is £24,000 in 1958 and £23,000 in subsequent years; expenditure on examinations is £6,450 in 1958, £6,500 in 1959, £7,000 in 1960 and 1961. In 1958 a sum of £21,058 is transferred to capital account to meet the balance of the cost of the

Table 2. Anticipated trends in membership

Year	Members at March 31				Total Corporate members	Students
	Fellows	Associates	Licentiatees			
1958	2,176	13,697	2,297	18,170	5,682	
1959	2,050	14,400	2,050	18,500	5,600	
1960	1,950	14,950	1,850	18,750	5,650	
1961	2,000	15,600	1,750	19,350	5,900	

2. That, subject to the Council's direction as stated above, the loan for the capital expenditure on the building loan shall be allowed to run its full term of 20 years.

3. That budgets for expenditure against carefully anticipated income should, within the principles of 1 and 2 above, be aimed at a steady progressive development of the Institute's activities in the interests of its members.

A rough estimate of income and expenditure for the years 1958 to 1961 is summarized in Table 1.

Points from the report are:

A review of the office organization has been begun by Gordon Ricketts, the secretary-elect, but further time is required to complete it.

### Subscriptions, etc.

An increase in subscriptions would have been necessary even if there had been no building programme at 68 and 69 Portland Place, for had there been no mortgage payments income based on subscriptions at the 1957-58 level would have fallen short of expenditure by about £10,000 annually. The increased rates should remain as necessary for the proper operation of the Institute's affairs, anticipated income on the revised rates is in no way excessive to meet anticipated requirements.

The statistical survey of trends in membership carried out by the Institute's Professional Relations Department shows a continued rise in membership, which is contrary to the anticipated trends from the rougher methods of assessment which were the only methods previously available. This is shown in Table 2.

### Public Relations

The allotment is to be increased from £2,400 in 1958 to £3,500 in later years. The budget is for three years so that these activities can be planned on a firm and forward-looking basis. A grant of £1,000 from the Civil Trust resulted in the 1958 allocation being underspent by £800. This is carried forward.

Provision is made for the continuation of Professional Relations activities already begun, for development of the Statistical Department, and for additional resources for the Science Committee.

By paying cash for building operations without drawing on the mortgage loan, and deferring the sale of some investments, there has been a saving of £5,000 on mortgage payments, and an appreciation of £2,000 in the value of securities.

### Development Fund

The Institute now has no free reserve funds. The Development Fund is intended to provide a working cushion to meet uncertainties of income and expenditure. The balance of income over expenditure will be placed in a separate account, to be held in stocks or accounts not subject to wide market fluctuations, and to be regarded as in part a working reserve, and in part a fund to finance specific projects. The use

of part of the fund for reducing the building loan during the next 20 years is not precluded.

building above the £70,000 to be borrowed. Expenditure on publications is £4,000 in 1958 and 1960, but £8,500 and £9,000 in 1959 and 1961, the years the *Kalendar* is published. The expenditure for 1961 includes £4,000 on the IUA for the London International Congress. A sum of £5,000 a year is to be spent on furnishing and decorations from 1959 to 1960 (nil in 1958).

### Furnishings, etc.

The provision of £5,000 in each of the years 1959-61 has been made for furnishings and equipment in the building, and subsequently for redecoration and modernization of the existing building which has had no major overhaul since 1934. An Advisory Panel has been appointed to assist the Committee.

## DSIR

### Five-Year Plan

Expenditure on research by the Department of Scientific and Industrial Research will be nearly doubled in the next five years. Under its second five-year plan, for 1959-64, approximately £61 million will be made available to the Department, compared with £36 million for 1954-9. Expansion will continue steadily throughout the period and for the year 1963-64 expenditure is planned to reach about £14 million. The largest expansion is planned to take place in the field of scientific grants to the Universities.

No information is available to show how the additional funds are to be allocated. The DSIR, when asked how much, if any, of the additional funds were for the Building Research Station, said that the information was not yet available.

## HOSPITALS

### 1960-61 Building Programme

Mr. Walker-Smith, the Minister of Health, has announced an increase in the capital expenditure on hospitals from £22 million in 1959-60 to £25½ million in 1960-61. The major projects now selected include, in the sphere of new building, the first phases of new general hospitals for north Tees-side and at Northwick Park for the Wembley-Harrow area; a further stage of the new Sheffield teaching hospital of which the outpatient department is now being built; the start of the reconstruction of Queen Mary's Hospital, Sidcup; a blood transfusion centre at Liverpool and later stages of some new hospitals already in the programme.

## LGAS

### General Meeting

The General Meeting of the Local Government Architects' Society is to be held on Saturday, January 31, 1959, at 2.30 p.m., in the RIBA building, when the Provisional Executive Committee will present their report. Full details of this report will be circulated to office "contacts" well in advance so that the delegate vote at the meeting itself can be based on the considered views of the whole membership, which is now approximately 1,400 drawn from 157 offices. An average of 42 new members join each week.

## SALTIRE SOCIETY

### 1957 Housing Awards

The Saltire Society has made only one award for housing completed by Scottish Local Authorities in 1957. This is for a scheme of flats and maisonettes in Lochgelly, in the mining area of Fife. The architects are Wheeler and Spronson, Kirkcaldy. The Society makes an honourable mention of a group of 26 old people's cottages at Restalrig, Edinburgh, designed in the office of the Edinburgh City Architect, Alexander Steele.

During the last few months we have made several references to the Modular Assembly in the JOURNAL. This is a small building which was designed by Mark Hartland Thomas specifically to demonstrate the principles of modular co-ordination as laid down by the Modular Society and was erected at 29, Albert Embankment. Immediately after its erection a detailed survey was made of the building and of all the components in it, to test how accurately they were placed in their "modular station" and how well they fitted their "modular space." The results of this survey were published in the current issue of the Modular Quarterly. The demolition of the Assembly itself began on December 16 and a post mortem of the experiment will be held at the Building Centre on January 14 (see Diary). We publish below an assessment of the experiment by a correspondent.

## THE MODULAR ASSEMBLY

### A Report On An Experiment

Modular Co-ordination has at last become a subject which no architect and no manufacturer of ready-made building components can afford to ignore any longer. The Modular Assembly has demonstrated that modular co-ordination just cannot be dismissed. Furthermore, everyone who has hitherto thought of the subject in terms of pre-fabricated schools, that is, of a planning grid ranging from 3 ft. 4 in. to 8 ft. 3 in., must bring himself abreast of current theory if his thinking is not to be ossified by the conceptions held in 1953. The current theory, which in principle is likely to be definitive, was set forth with admirable clarity in the *Modular Quarterly* for Summer, 1958.

The basic conception underlying the pre-fabricated schools was the stanchion grid—a grid of 8 ft. 3 in. squares, or 4 ft. or 3 ft. 4 in., 6 ft. 4 in., 6 ft. 3 in., or whatever was thought appropriate, on the intersections

of which all stanchions were placed. As many other components as possible were then dimensioned to fit the resulting structural frame—beams, cladding panels, windows and ceiling panels in particular. But, because stanchion sizes and wall thicknesses had to be taken into account, the dimensions of many components were far from being modular in the sense of being multiples of the grid dimensions or so-called "modules," and indeed, the actual dimensions of comparable components differed from one pre-fabricated system to another because stanchion sizes and wall thicknesses were never the same. For this reason alone, it was impossible to transfer components from one system to another. Yet, if full advantage is to be taken of mass-production techniques, such interchangeability is obviously indispensable, and it is the search for this which items 9 and 26); and obviously the larger

Fig. 1. Three of the drawings used to describe the Assembly. These have been drafted on a new convention devised specially for modular buildings. The building is taken as falling within a reference grid mapped out in 4-in. modular intervals. This grid has three axes: the vertical (Z) and two horizontal axes (X and Y). The left-hand drawing, which is really a ground floor plan, is described as "Section 10.Z," i.e., it is the horizontal section 10 modules up from the base of the Z axis. By the same token the centre drawing, which is really a first floor plan, is described as "Section 46.Z" because it is the horizontal section 46 modules (i.e.,  $46 \times 4 \text{ in.} = 15 \text{ ft. 4 in.}$ ) up from the base of the Z axis. The right-hand figure is a section in the orthodox sense. To locate it, refer to either of the plans and to a point 60 modules along the X axis. This convention enables parts to be located with certitude and accuracy, but takes getting used to. Needless to say, it is not essential to adopt this convention when designing a modular building. The numbers on the drawings themselves relate to the manufacturers of the components.

has prompted the new theory of modular co-ordination, of which the Modular Assembly is such an effective exemplar.

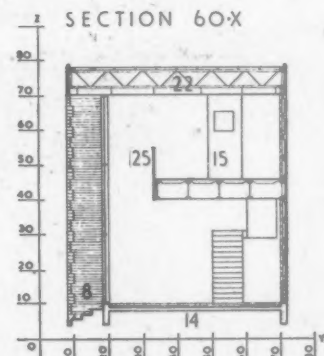
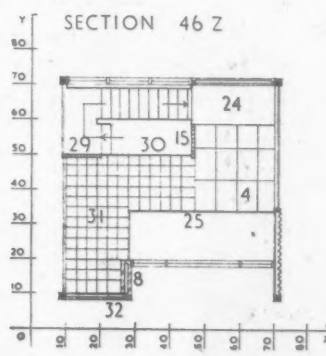
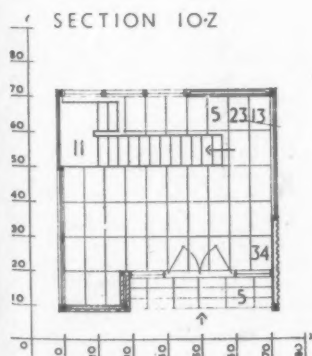
The essence of the new theory is that all dimensions of a component that affect the size of other components should be whole multiples of a small standard module. The Modular Assembly is made up (with few exceptions) of components dimensioned according to this rule, with 4 in. as the standard module. One apparent exception is the brick, for though there are some Modular bricks in the Assembly, these are block bonded with ordinary non-modular bricks. The object of this is to demonstrate that in the case of bricks, the unit need not be the individual brick, but may be the piece of brickwork in which they are laid.

It cannot be said, however, that all the



Fig. 2. Erection tolerances of two different components are here seen to be incompatible and the floor tile has had to be cut. An exaggerated example of problems the Assembly has pin-pointed.

problems of modular co-ordination have yet been solved and it would be a great disservice to further progress if the Modular Assembly were taken as an indication that they had been. The greatest problem yet outstanding is how to bring within economical limits the number of sizes needed in any given range of components in order to provide full modular flexibility. Indeed, the fundamental objection to the small module (4 in.), i.e. that too many components would be needed in a range, has not yet received more than a very partial answer. Combinations of two or more modular sizes are only a modest first step in this direction. Tiles 12 in.  $\times$  8 in. if turned one way or the other will fill any modular space larger than 8 in.; but if a panel is not to be smaller than 12 in.  $\times$  12 in. then, immediately, as many as five different panel sizes become necessary for full modular flexibility (see section 70.Y





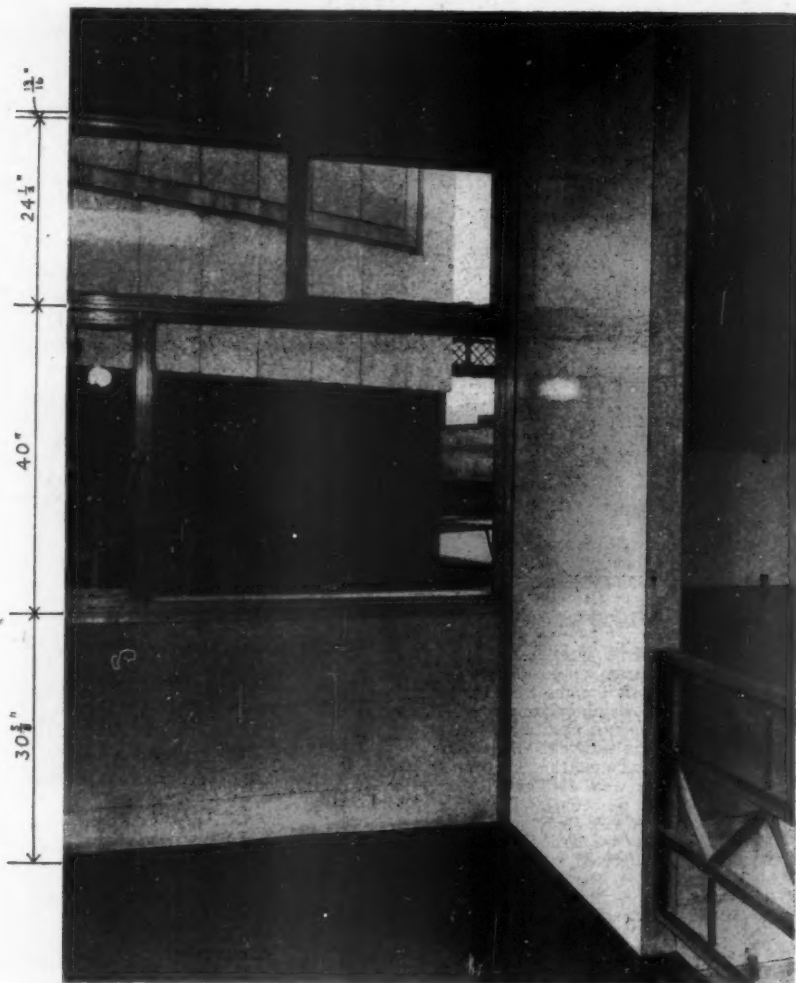


Fig. 3. Floor to ceiling height deviates here by only  $\frac{1}{16}$  in. in 8 ft; but in the window itself only one vertical dimension is modular.

Fig. 5. The sides of the black column are all on modular planes. Note how all other components line up on modular planes. This is the main point of departure from the "centre-line planning" of 1953.

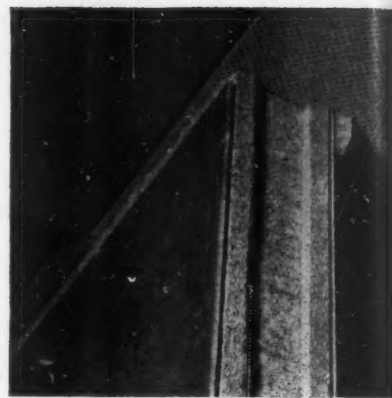
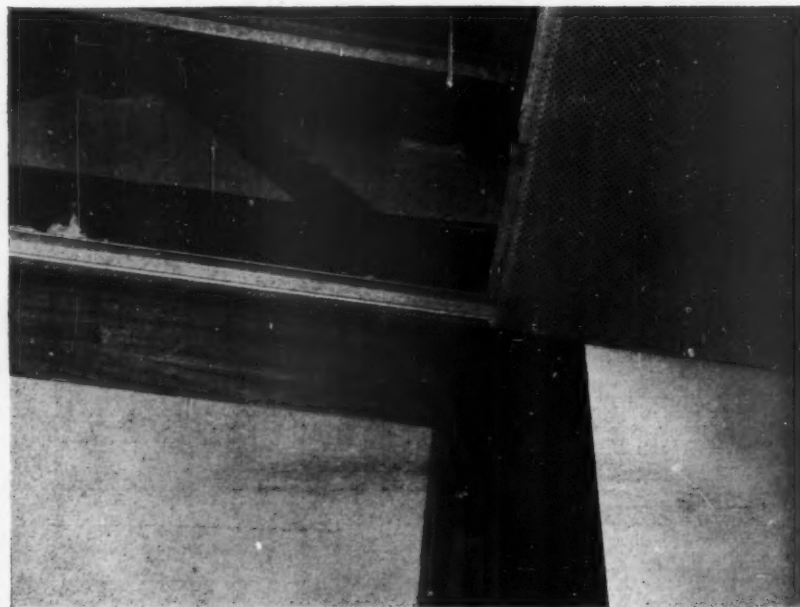


Fig. 4. The over-sailing ceiling. If the partition ran through, the ceiling panel would need cutting.

the minimum useful size of a component the greater will be the multiplicity of sizes necessary for full modular flexibility.

It seems likely that, useful though the 4 in. module is, something less than full 4 in. flexibility will ultimately need to be accepted when components of the larger order (e.g. windows, or stanchion-to-stanchion cladding slabs) have to be dealt with. When such a limitation has been accepted, the gap between the grid-planning concept and current theory will be lessened. It is much to be hoped that in its very proper anxiety to carry manufacturers along with it, the Modular Society will not burke this issue when further research shows what degree of limitation can most profitably be standardised.

In looking to future developments care will be needed to avoid solutions which ease the problem of co-ordination only by giving rise to other difficulties. A case in point is the first floor partitions of the Modular Assembly, which end at ceiling level, allowing the ceiling itself to run over them (Fig. 4). This is an attractive solution to the co-ordinator as it absolves him from cutting his ceiling panels or introducing additional sizes into the ceiling panel range. As used in the Assembly this solution is legitimate, but it is not applicable where the partition must go through the ceiling to support a load or to serve as a firestop or sound barrier.

Not the least value of the Assembly lies in the demonstration it provides of the tolerance problem. There are numerous instances where the fitting of components, despite the fact that the manufacturers were out to put up a good showing, is quite frankly disappointing. This is due both to manufacturing inaccuracies and to erection techniques not yet in tune with pre-fabrication. These discrepancies are very noticeable to the eye and are confirmed in the survey published in the autumn edition of the Modular Quarterly. This survey was conducted with two ends in view: to record, first, the spaces actually available to each component and, second, the actual dimensions of each component. In theory the space available ought to be slightly greater than the nominal modular dimensions and the actual dimensions of each product ought to be slightly less.

The most serious offenders in practice were the structural components, which were found in several places to be both oversize themselves and erected off station. Thus the four black corner columns in precast concrete which had a nominal modular cross section of 8 in. x 8 in. and should have had an actual cross section of slightly less, were shown to

Fig. ceiling ceiling moves nothing or perhaps think components are n

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Sim in the parti pon accu the mea whe their cien in m that and any toler laid com shor able on t is a oper the indu of f Th later this



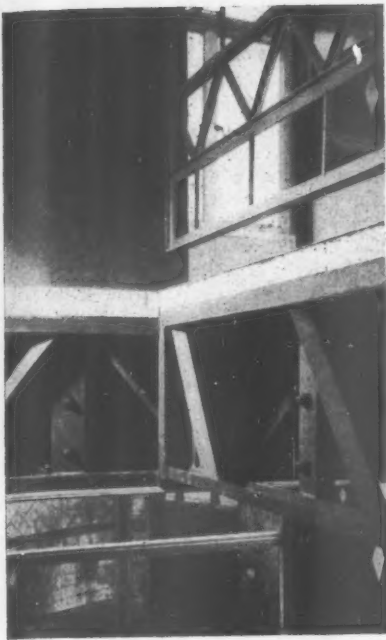


Fig. 6. In this detail finished floor and ceiling both lie on modular planes. Floor and ceiling thickness vary however and the beam moves up or down accordingly. There is nothing in modular theory either to cause this or prevent it; but it indicates that further thinking has yet to be done in the case of components like floor slabs or ceilings which are modular in two dimensions only.

have the following cross-sectional dimensions (in inches):

at top	at bottom
8 x 8	8 x 7½
8 x 8	8½ x 8
8 x 7½	8½ x 7½
8 x 7½	8½ x 8

Similar dimensional excesses were found in the structural girders and in the internal partitions. When a number of outside components are placed together these inaccuracies are cumulative. In the survey, the bricks and blocks were generally measured as though placed dry in contact, when they appear to be comfortably within their modular spaces. In fact an insufficient tolerance seems to have been allowed in many cases for the joint, with the result that the modular space occupied by brick and block-work was exceeded (Fig. 2). In any case it is evident that the kind of tolerances to which bricks are customarily laid is less fine than that required by other components. It is to be hoped that such shortcomings will not be regarded as insuperable or inherent in modular co-ordination; on the contrary once modular co-ordination is accepted as a going concern, the way is open for the introduction into building of the jigs and profiles which enable other industries to achieve accuracy and neatness of fit without undue extra cost.

The Modular Society are to be congratulated for encouraging industry to move in this direction.

On January 31 the Local Government Architects Society, formed in June 1958, will have another meeting at which it should take its permanent shape by adopting a constitution and taking important policy decisions. The purpose of this article is to provide an up-to-date factual survey of the position of salaried architects in the public service, and particularly to explain the complicated background which is essential to an understanding of the trade unions and the negotiating machinery in this field. The author, Anthony Goss, is himself an architect in local government, and a member of the Provisional Executive Committee of the LGAS, but he writes in a personal capacity, any opinions expressed being entirely his own.

## SALARIED ARCHITECTS IN PUBLIC SERVICE

### *Their Organizational Problems and Prospects*

Salaried architects have for some time now been conducting an agonising reappraisal of their position, their hopes and their prospects. The series of stormy AGM's at the RIBA, the work of the Sheppard *Ad Hoc* Committee and the first steps in the setting up of a society for salaried architects in local government—all are symptomatic of the general concern with the future which, in varying degrees, occupies the minds of salaried architects.

There have been a number of surveys and enquiries over the years concerned with private practice. This article is an attempt to outline the present position of salaried architects in the various forms of public service with particular reference to the future prospects of collective association among them.

It is a common misconception that the employment of salaried architects on any scale dates from 1945. In fact the growth of the salaried section of the profession has been a process taking place over at least fifty years. All the higher professions have been undergoing this same process although it would seem to be much further advanced in architecture than in many other professions of a similar status.

The growth of employment of architects by various sorts of public authorities has, of course, been closely linked with extensions of legislation for the provision of social services. It is worth-while briefly to recall the main stages of growth of public service architectural departments. Local government responsibility for schools goes back to 1902 when county councils and county borough councils were given responsibility for the building and maintenance of schools. Few local authorities undertook housing work prior to 1914. After the Armistice the housing shortage was desperate and the government of the day therefore made local authorities responsible for meeting working class housing needs in their districts. This brought large numbers of local authorities into the field of house building for the first time, and resulted in the building up of the

staff and the experience to tackle a continuous housing programme. The process of development was carried through the slum clearance programme of the 1930's with a further rapid expansion of architectural staffs after 1945, not only in local government but in central government, the regional hospital boards, the public utilities and the new towns.

#### Distribution of salaried employment

In 1958 the majority of architects are salaried employees. The 1949 questionnaire of the RIBA showed that, as far as corporate members of the RIBA were concerned, out of every 100 that answered the questionnaire, 34 per cent. were Principals or Partners and the remaining 66 per cent. were salaried architects in some form or other. The subdivision of the salaried architects works out as follows:

	per cent.
Local government, national boards, new towns	45
Salaried assistants in private practice	26
Central government	15
Commercial/industrial undertakings	8
Teaching and other architectural employment	6

If employed architectural students are taken into account the proportion of salaried rises even higher. This was stressed in a report of the Salaried and Official Architects Committee of the RIBA in February, 1954:

"No recent figures are available on which to compute the number of members and gainfully occupied students who are today in salaried employment; but based, partly on the statistical evidence adduced in 1949 for Sir Percy Thomas's Committee (to Consider the Present and Future of Private Architectural Practice), and partly on our observation of recent trends, we would reckon the percentage to be—on the conservative side—between 60 and 70."

Nearly 10 years have passed since the 1949 Questionnaire and more recent statistical data will become available when the results of the RIBA 1957 Questionnaire and the

1958 Questionnaire connected with the Royal Commission on Doctors and Dentists Remuneration are published. However, consultation with the RIBA indicates that changes in proportions during this period have not been substantial.

The trend towards salaried employment among architects is most clearly revealed by a comparison of the Census figures over the 30 years 1921-1951. The Occupation Tables of the Census subdivide all occupations into Employers, those "Working On Own Account" and Salaried. This gives a very approximate picture of the trends between principals and partners in private practice (who will either be employers or "working on own account" with no paid staff) and salaried architects together with employed architectural students.

	Salaried	Working on own account	Employers
1921	54.7 per cent	24.9 per cent	20.4 per cent
1931	47.6 per cent	25.6 per cent	26.8 per cent
1951	75.3 per cent	11.7 per cent	13.0 per cent

About 60 per cent. of all qualified salaried staff are employed in public offices. How are these salaried staff distributed as between the various branches of public service? This information is not readily available at the moment and an accurate picture will have to await the publication of the results of research at present being undertaken by the RIBA. However, it is possible to arrive at a rough-and-ready approximation by applying the proportions derived from the 1949 Questionnaire to the 15,000 chartered architects in the United Kingdom, making an addition for architects who are registered but not chartered and allowing for the obvious changes which have taken place in public services between Central Government, the National Boards and the New Towns. This gives the following approximations:

Local Government	4,500
National Boards	700
Central Government	450
New Towns	300
	5,950

In addition there are at least another 4,000 unqualified architectural staff in public offices of whom probably not less than 2,000 are "Student RIBA."

#### Architects and Trade Unions

Before 1945 salaried architects showed the same sort of reluctance as others in similar professions to abandon faith in the individual bargaining which, they felt, had stood them in such good stead in the past. However, the rapid growth of the employment of architectural staff by public authorities after 1945 involved architects willy-nilly in spheres where collective forms of bargaining with employers were being evolved. It would not perhaps be unduly exaggerated to say that the RIBA Questionnaire on Trade Union membership in 1954 started a new epoch for the salaried architect. To the question "Are you in favour of having a trade union composed wholly or mainly of architects and approved by the RIBA and would you join it?" nearly

6,000 members replied "Yes." Moreover, about 2,400 of those who replied "Yes" were already members of some trade union organization, indicating that there was considerable dissatisfaction with existing bodies negotiating the salaries and conditions of service of architects. The attitude had also developed, and persists strongly to the present time, that the Royal Institute, by virtue of its historical development and background, was slanted towards the maintenance and defence of the interests of the private practitioner as a legitimate function, while the interests of the majority salaried section had a secondary place, where it could be said to have any place at all. It was this feeling that led to the critical resolution passed at the Annual General Meeting of the RIBA in 1955:

"That this Annual General Meeting of the Royal Institute of British Architects does not support the Council's decisions concerning the representation of members and students in salaried employment as set out in their letter of January 4. It instructs the Council to reconsider these decisions and bring forward fresh and definite proposals in line with the majority opinion of those who replied to the questionnaire." This resolution, and the reaction of the RIBA Council to it, led to the *Ad Hoc* Committee and the inauguration, last July, of a society for salaried architects in Local Government.

In considering the trade unions already existing in the spheres in which salaried architects work most attention must be focused on the IPCS—Institution of Professional Civil Servants—in the civil service field, and NALGO—National and Local Government Officers Association—in the field of Local Government, Public Health Service, National Boards and New Towns.

There are approximately 72,000 in the Professional, Scientific and Technical grades of the Civil Service and the majority of them are members of the IPCS. The growth of this organisation since the war has been particularly rapid; from a membership of 30,000 in 1945 it had grown to more than 52,000 by the end of 1957—more than 70 per cent. of potential membership. It is important to note that the IPCS is not a general trade union for all clerical and professional civil servants but an organisation for professional, scientific and technical grades only.

The nearest equivalent in local government terms would be a trade union for those in the APT grades only, for IPCS caters not only for the qualified architect but also for the architectural draughtsman in a technical grade.

A large number of associations cater for other grades of civil servants. It may be argued that this fragmentation of trade unions in the civil service has been a source of weakness in that it has provided the means of setting one class of officer against another. It has certainly meant that the negotiating machinery in the civil service has been extremely complex. In 1919, when the system of Whitley Councils was established in the civil service for collective negotiation of salaries and conditions of service there were over 200 associations

represented on the Staff Side of the National Council. The National Council was composed, as at present, of 54 members—half appointed by the Government as the official side and the other half, the staff side, appointed by the Associations on an allocations system. Of the 27 seats on the staff side, the Institution of Professional Civil Servants had two seats. Today, nearly forty years later, as a result of many amalgamations, there are only 25 associations represented directly or indirectly on the staff side. The IPCS still has two seats out of the 27. In the sphere of local government the picture is very different. Here NALGO, the eighth largest trade union in Great Britain and reputedly the largest non-manual union in the world, caters for all grades from the office boy to the town clerk. Over 90 per cent. of all local government officers are members and in addition there are some 70,000 members in the nationalized industries and other fields of public service. Many architects see NALGO as a clerks organisation even though this is no longer an accurate characterisation. NALGO grew mainly from the lower grades clerical and administrative grades in the first place, although it should not be forgotten that local government officers who were also professional men such as Town Clerks, Borough Treasurers and even some City and Borough Engineers and Surveyors played a role in the development of NALGO out of all proportion to their numbers in local government.

With the development of a public health service and the public ownership of a number of industries the entire scope of NALGO membership has broadened. In 1946 NALGO amended its constitution to enable it to recruit officers in the health service, nationalised gas, electricity, water supply and transport services and changed its name to the National and Local Government Officers Association. This change was reflected in the rapid growth of NALGO from 134,364 members in 1946 to 242,698 members in 1957. It was during this ten year period that the majority of those in the professions have become more closely associated with NALGO.

#### NALGO and negotiations

The rapid growth of NALGO since 1946 both in size and scope has posed many new problems especially of the establishment of negotiating machinery. It will perhaps be useful to go over the steps leading up to the present negotiating machinery in local government. This will also serve to remind us how relatively new is national negotiation machinery in the fields covered by NALGO. It was not until 1943, after 22 years of persistent effort, that NALGO was able to achieve one of its prime objectives—an effective and fully representative national negotiating body for local authorities—the National Joint Council. Three years later the National Joint Council adopted "The Charter"—a national code of salaries and conditions, recruitment and training. It was thus only in 1946 that national salary scales were first introduced in local government and there is little doubt that the

APT Scales were a considerable improvement on the previous salary scales for most local government architects.

Since 1946 other new conditions have developed. In particular, the salaried professions have entered the arena of collective bargaining. NALGO recognized the problem that this created by developing a Joint Consultative Committee on which are now represented a considerable number of professional and sectional associations in local government. This body only allows these associations indirect participation in negotiations by way of being consulted—it is a purely advisory body within NALGO and it is a condition of membership of the JCC that each organization taking part must have at least 60 per cent. of its members in NALGO. NALGO thus maintains its stand that it is the appropriate trade union for all officers and should negotiate for all sections.

As far as the professions in local government are concerned, some of their feeling of dissatisfaction with their salaries and status and their desire to stress their professional standing led to the formation of their own organizations within local government. The largest of these, the Association of Local Government Engineers and Surveyors, has a membership of about 3,500 and was formed in 1947. It is certificated as a trade union and membership is open to anyone who holds one of a variety of technical qualifications and who works in the department of an Engineer and Surveyor.

The Association of Local Government Financial Officers is also certificated as a trade union and its membership covers qualified Accountants including chief officers and their deputies. Its membership it at present 1,750.

There are also two smaller associations—the Local Government Legal Society and the Association of Education Officers. Neither of them are trade unions and both lay special emphasis on the holding of meetings and conferences to discuss common problems and promote professional knowledge in their respective fields. In both cases, also, membership is open to chief officers and their deputies.

These societies have associated themselves with NALGO but have continued to argue that it would be preferable that their professions should be represented in negotiations by professional associations rather than NALGO.

The national scales under the jurisdiction of the National Joint Council were originally only applicable under a "ceiling" salary of £760. Over the last twelve years this salary "ceiling," below which the NJC negotiates has been raised to its present level of £1,325. Above this figure the salaries and conditions of those in the "lettered grades," deputy and chief officers, are negotiated by separate committees on which professional associations have so far been able to play a dominant rôle. For some time now it has been apparent that the abolition of this "ceiling" was in sight. Both sides of the NJC have been in general agreement that its eventual abolition was desirable. The Employers' side also seems

to wish to reduce the complexity of negotiating machinery and the number of bodies with which they have to deal. The effect of the abolition of the ceiling will be that senior officers at present in the "lettered grades" will then also come within the negotiating machinery of the NJC so that all local government officers other than medical officers of health and "designated" chief officers—treasurers, accountants, engineers and surveyors, chief education officers and architects—will come under one negotiating body, the National Joint Council, on which NALGO at present holds three-quarters of the seats.

It is in this context that NALGO put forward its proposals for a "panel system" within the NJC. Briefly, this proposal is for the professional societies to nominate representatives through NALGO so that when matters affecting a particular category of officers are being discussed, such officers would be present at the negotiating table, but the professional associations themselves would have no direct representation.

On the other hand, the professional associations have taken the view that, if there is to be one common negotiating body for all grades except chief officers, then there should be some form of subsidiary machinery to deal separately with all the qualified professional officers throughout their careers in local government: the staff side representatives on this subsidiary body they assert, should be members of the professional associations and not necessarily members of NALGO as well.

There is evidence, from the reports of the proceedings of the last NALGO Conference, that the proposals of its Executive Council were a compromise solution. A number of powerful NALGO districts tried, unsuccessfully, to delete reference to the panel system. As reported by the NALGO journal, *Public Service*:

"Yorkshire district committee considered that the NEC had gone too far to meet the demands of the professional groups. Conference rejected the amendment and turned to the next by Metropolitan District. This suggested instead of the Executive's proposal, a consultative panel system to which professional or sectional organizations concerned may nominate representatives to advise the NALGO members on the staff side:

"Moving this, J. Gardner suggested that the present staff side already contained sufficient senior officers to represent 'these gentlemen who want a bigger slice of cake through the back door'. The panel system proposed by the NEC would by-pass the districts."

This amendment was also rejected with the NEC leading the opposition.

NALGO attitude to the panel system was summed up by N. W. Bingham, a leading figure in the NALGO leadership:

"There is a new situation. The removal of the 'ceiling' is the most vital constitutional change in the local government Whiteley machinery since we got the Charter. We have been seeking it for years, and we must make it work.

"We are adhering to the main principle—that the staff side must consist of trade

union representatives, and that most of the seats on it must be held by NALGO people, appointed by NALGO. But within that principle, we must arrange for consultation with the sectional organizations, in their interest, in ours, and in those of the NJC."

The chairman of NALGO's National Executive, G. R. Ashton, also gave an assurance that the working of the panel system would mean that the representatives of the professional associations would actually take their places at the negotiating table:

"We want the experience of these specialist associations, and we know how to use it. In the past, the employers have sometimes asked us for details which we have been unable to give them. We have, therefore, had to hold up negotiations while we consulted the specialists. In future, the experts will be on the spot."

There seems to be common agreement that there is very little likelihood of acceptance, either from the employers side or the staff side of the National Joint Council, to a separate negotiating body for the professions at this stage. This being the case the main issue remaining is the mode of representation of the professions in negotiations. NALGO appears to take the view that it has no objection to direct representation of the professions where their salaries are involved but that representatives, while they may be nominated by the different professional associations, will also have to be NALGO members. Moreover, the 1958 Conference accepted a district amendment to the Executive's proposals that only those professional associations that have at least 60 per cent. of their members in NALGO could use the panel system. It remains to be seen whether the professional organizations can reach some form of agreement with NALGO to co-operate in the existing negotiating machinery.

Many of the criticisms of NALGO from professional people spring from a feeling that the professions have been neglected in the past by NALGO. The fact that NALGO sees the need to strengthen relations with the professional organizations through some form of panel system shows that such criticisms have not been entirely unjustified. At the same time it would be as well if criticism was reasonably well-informed. For example, if NALGO is a "clerks union" as is often claimed, this is not reflected in its leadership. Thus of the 1957 Executive Council about one third were eligible for membership of the four established local government professional associations. This is an indication that either the influence of the professions in NALGO is already considerable or could become even greater in the future. It is also worthy of note that, in the same year, although most other professions were represented on the NALGO Executive, there was not a single architect.

#### Problems of the new Architects Society

Coming into the field as it does at a late stage in the game the new society of salaried architects will be faced with many problems. It is not the intention of the author of this article to deal with these problems in



detail or to express preferences for any particular solution but to indicate some of the main ones which seem to emerge.

What is to be the scope of the membership of the new society? Starting as a society for local government officers, its inaugural meeting in June increased its scope to include other fields of public service—public utilities, hospital boards and new towns. Should the scope be widened to include architects in the civil service and the way left open for salaried architects in private practice offices and commercial or industrial undertakings to join, perhaps at a later stage? Is membership to be confined to chartered or registered architects only or should some account be taken of the considerable section of architectural staff that is unqualified, especially Students of the RIBA in full-time employment?

Not the least of the problems of the salaried architects' society will be that of the multiplicity of subscriptions. Whatever the subscription formally agreed upon by the new society it will seem to many salaried architects as a further addition to an already heavy burden. The temptation to economize may be a strong one especially in the case of those who already pay a hefty subscription to other organisations such as NALGO as well as to the RIBA. Yet, in the case of the largest sphere of public employment—local government—in order to participate in the negotiating machinery by means of the Panel System the Appeals bodies and the Joint Consultative Committee it may be necessary for not less than 60 per cent. of the members of a professional organisation to remain members of NALGO. Thus any pulling out of NALGO, even though the reason were largely financial, might render a salaried architects society impotent and unable to represent its members in a whole series of important negotiating bodies. Is there not any possibility of adjustment of this question of subscriptions by the larger bodies? Such adjustments of subscriptions by co-operating bodies do exist between other trade unions.

There is little doubt that IPCS has been extremely successful in its sphere and architects in the civil service seem to have a high regard for it which rather stands out as a contrast to the critical attitude towards NALGO among many local government architects. This of course prompts the question—if IPCS has been so successful in the civil service why should not there be a similar organisation embracing all the professions in local government and allied spheres? This possibility would seem to have many attractions, including the hope that the salaried higher professions in local government, as a unity, could negotiate for increased status and improved salaries without being tied hand and foot in an overall grading parcel. However attractive on the surface this comparison with the IPCS may appear, it would be as well to take into account certain vital facts which may make such a "professions union" in local government very difficult to achieve in practice, at any rate, in the immediate future.

The negotiating machinery for the civil service and local government have not evolved in identical form. There has always

been a multiplicity of civil service staff associations and there still are some 25 associations represented on the staff side. In local government, the staff side of the National Joint Council has one organisation—NALGO—which holds three quarters of the seats. Moreover, it should not be forgotten that the IPCS was formed nearly forty years ago and for a large part of that period was unable to claim that a majority of the eligible civil servants were members of it. In local government any "professions union" would be unlikely to obtain any national negotiating status unless it represented a majority of those in the professions concerned. If this is going to take a long time to achieve it could mean many years "in the wilderness" before such an organisation would have anything to show for its efforts.

This leads to the other query that is in the minds of many salaried architects in public service; these other local government associations have already been in existence for some time, in the case of the largest—ALGEAS—since 1947, yet they seem to have achieved very little in terms of being able to negotiate the salaries and conditions for the majority of their professions in local government. What guarantee is there that the association for salaried architects will be able to do any better?

There should be no illusions that the new association can achieve overnight, by the mere act of formation alone, spectacular successes in gaining negotiating status where other professions have so far failed. But the new factor is the increased degree of combination between the different salaried professional associations occurring at a time when major changes are proposed in the negotiation machinery of local government. It is, of course, highly speculative to attempt to foresee if a form of co-operation can be reached between the professional associations and NALGO but it is reasonably certain that if some form of agreement cannot be reached then the move for separation of the professions from NALGO—for a "professions union" in local government and allied spheres—will become very much stronger.

#### Summing up

To sum up, the trend towards salaried employment of architects is no new thing. Nor are there any signs that this is a temporary stage in the architectural profession. On the contrary, there seems a considerable likelihood that the long-term trend will even be to increase the proportion of the salaried among architects as with many other professions. Among salaried architects, as with other professions also, it is the salaried in the various spheres of public service who are foremost in seeking some form of collective bargaining to improve their salaries and status.

As far as salaries are concerned, the IPCS in central government and NALGO in local government and other public spheres are already in a very strong position indeed on the staff side of the negotiating machinery. The extent to which the professions can make their views felt over and above this

will depend on their opportunity and ability to use the existing negotiating machinery to put their case more forcibly not only to the employers' side but to convince the rest of the staff side of it as well.

This was the conclusion reached, after much discussion, by the RIBA *Ad Hoc* Committee, especially in respect of NALGO. In their open letter to all local government architects, published in September, 1957, they argued:

"It would, of course, be unrealistic to look for any radical change in the balance of power among all the associations concerned in local government, simply by reason of our getting the professions established on a proper footing. Everyone knows that on the staff side, NALGO is predominant and there are many who would not wish it otherwise. At any rate, our society would clearly need to be thought of as supplementary to and not a substitute for the overall machinery, which has, after all, been laboriously built up through long and sustained effort."

There are other aspects which may assume considerable importance for the architect. One of the principal difficulties especially in local government, is that of the status of the architect relative to that of other professions.

This is an aspect on which the all-embracing trade unions like NALGO and IPCS will clearly be unwilling to act. Yet experience proves that grading structures mean little unless the appropriate grades for various levels of responsibility are clearly worked out. For instance, in local government, the widespread use and abuse of the "Special Grade" to cover a very wide range of responsibility shows how important can be this question of status and how it relates to salary. For architects in local government there is the double problem of status *vis-a-vis* other professions and in addition the widespread subordination of architects to other professions (engineers and surveyors). It may well be that it is in this field that the new society may find it has a most important rôle to play.

There can be little doubt that, while there are obviously other factors involved, the grading and salaries of architects in public service have an effect on the wider public recognition of the rôle of the architect. If the public is able to employ architects, in the various forms of public service, at second-grade salaries, then the architect should not be surprised if he is also accorded second-grade status.

This is not just a matter that can be considered in trade union terms for the question of the status of the profession as a whole is involved. The raising of the status of architects in public employment could not but have a beneficial effect on the general status of the architect. Thus the development of forms of organization to this end among salaried architects in public service can help to produce a more healthy climate for our profession out of which can come even more fruitful results for the British architecture of the future.





## THE LIBRARY OF INFORMATION SHEETS

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

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

The Sheets 46.Z (A-FLE) published in the issue of 4.12.58, Sheets 46.Z (FLO-OL) and (OR-STA) in the issue of 18.12.58, and Sheet 46.Z (STE-Z) in this issue, give an up-to-date index cancelling all previous indexes.

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

### REPRINTS

Reprints of all Information Sheets in the current Library are available either singly (price 3d. each) or in complete sets in classified order. Specially-designed loose-leaf binding cases to hold approximately 100 Sheets may also be obtained and four to five are necessary to contain a complete set to date. Prices are as follows:

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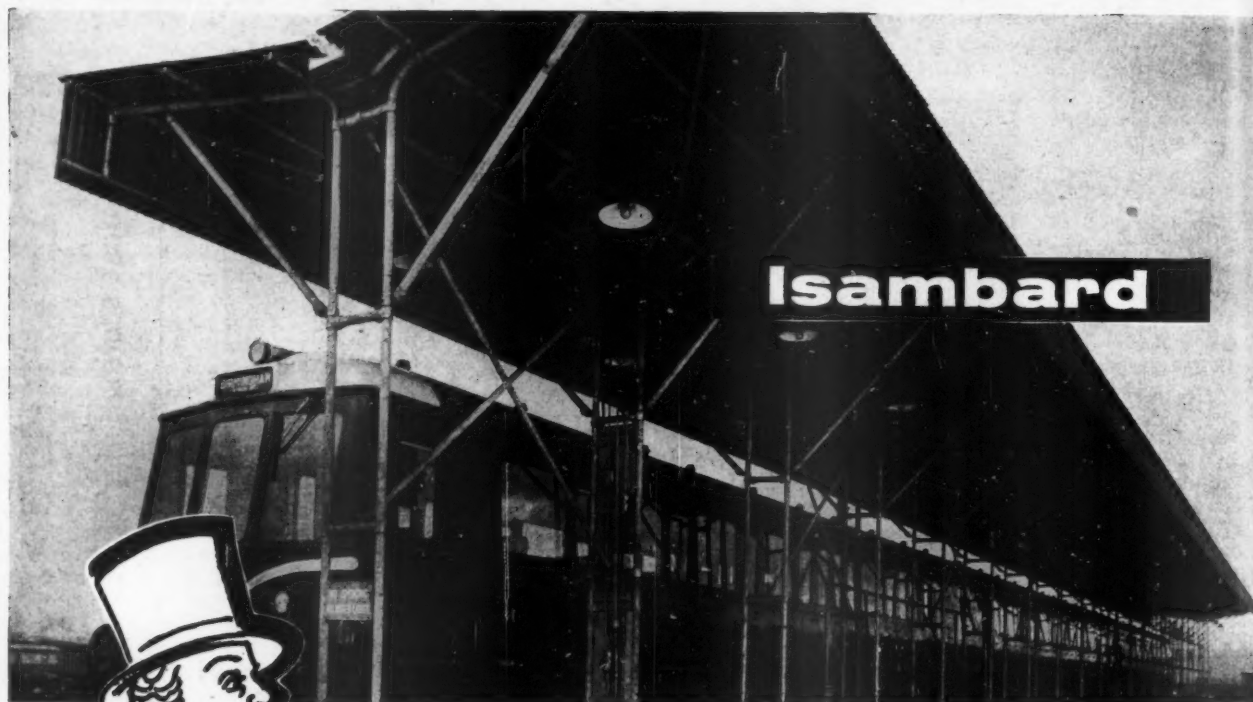
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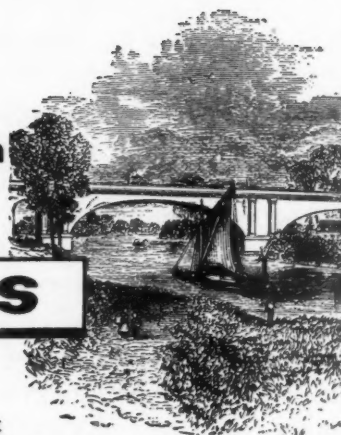
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technical section

## FILING INSTRUCTIONS

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

The first number of the symbol, 32, refers to one of the 46 main subjects into which the Library has been divided (in this case, water heating): the letter that follows refers

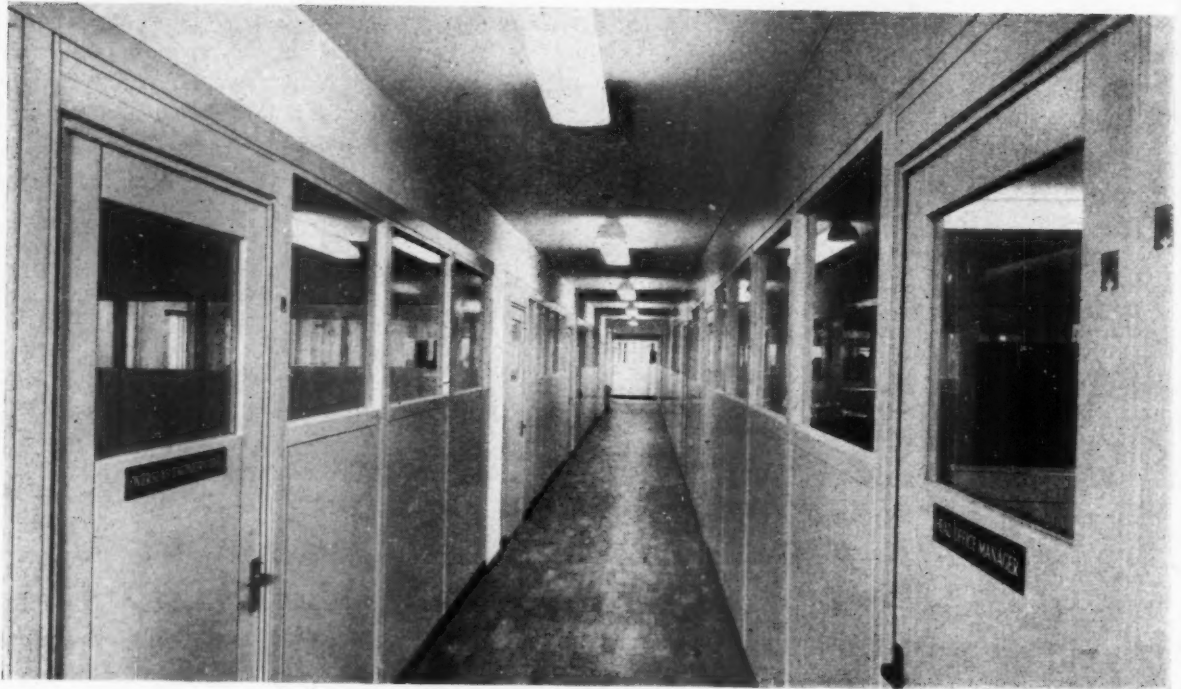
to the section, C (in this case, units : gas), under subject 32: the final number indicates the position in which the Sheet is to be placed in the appropriate section.

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

## CORRECT SEQUENCE OF COMPLETE LIBRARY AT DECEMBER 4, 1958

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2.B6	2.H1	2.H2	4.A1	4.A10	4.A11	22.D4	22.D5	22.D6	22.D12	22.D13	22.D16	33.C11	33.C12	33.D1	33.E1	33.K1	33.L1
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4.L7	4.L10	4.L11	4.N1	4.N2	5.B1	23.Z1	23.Z2	24.C1	24.D1	24.D2	24.D3	34.K1	34.K2	34.Z1	34.Z2	35.B1	35.B2
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10.G11	10.G12	10.G13	10.G14	10.G15	10.G20	26.A2	26.A3	26.C1	26.C2	26.D1	26.D2	41.B2	42.B2	42.C1	42.C2	42.C4	42.C6
10.G21	10.G22	10.J1	10.J2	10.J3	10.J4	26.D6	26.E1	26.J3	26.J10	26.J20	26.K1	42.C7	42.D2	42.E1	42.K1	42.K2	42.Z1
11.C1	12.F1	12.F2	12.N1	13.C10	13.C11	26.M1	26.M2	26.M3	26.Z1	26.Z2	26.Z3	42.Z2	43.E1	43.E2	43.E12	43.E13	43.E14
13.C12	13.F1	13.H1	14.B1	14.B2	14.B3	27.B9	27.B10	27.B11	27.B12	27.B13	27.C1	43.E15	43.H1	43.H2	43.Z2	43.Z3	43.Z4
14.B4	14.F1	14.K1	14.K2	14.L4	14.L12	27.C2	27.F1	27.F2	27.Z1	27.Z2	28.A1	43.Z5	44.D1	44.E1	44.J1	44.J2	44.J3
14.L13	14.L14	14.L15	15.B1	15.B3	15.B4	28.A2	28.A3	28.D1	28.E10	28.E20	29.A1	44.J4	46.Z (Four Sheets)				
15.B5	15.C1	15.C2	15.C3	15.C4	15.C11	29.B1	29.C1	29.C2	29.C3	29.C4	29.C10						

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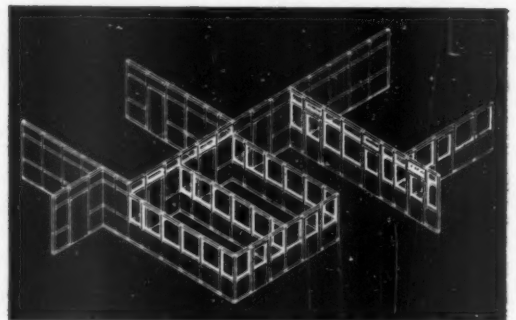


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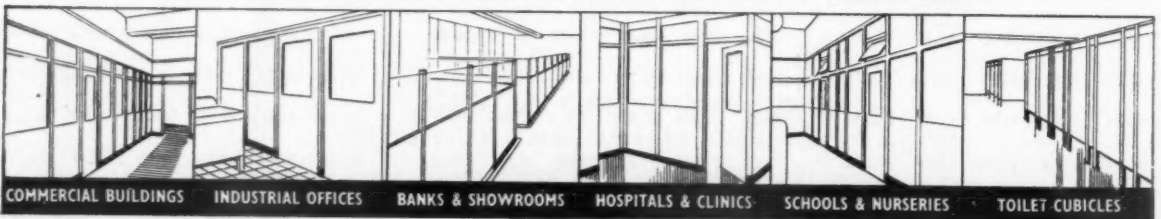
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## technical section

## REVISIONS 1958

**8.E1**—Face of Sheet, delete all references to "Bitumen quilt" and "Stitched quilt." To "Scottish quilt" add to "Nominal thickness"  $\frac{3}{4}$  in. and  $1\frac{1}{2}$  in. and amend "Nominal density" to 3. To "Ceiling board," "Description" add "Available in four types, depending on finish required." Add new item "Roof board; bonded glass fibre faced with a tough puncture-resistant covering;  $\frac{1}{2}$  in.,  $\frac{3}{4}$  in., or 1 in. thick; 4 ft. by 2 ft. in size; density 12; thermal conductivity 0.23; thermal insulation for roofs of industrial buildings, hospitals, schools, etc."

**10.B4**—Reverse, table headed "Material Specifications for Structural Aluminium Alloy Extruded Sections" amend year of B.S. 1476 to 1955. First entry in table, amend figure in third column to 17; second entry, amend to HE30WP and figures in second and third columns to 16 and 19, respectively.

**12.F1, 19.D1, 26.A2, 26.A3**—The manufacturer has now opened a branch in Edinburgh.

**26.A2**—Reverse, heading "Laying," subheading "Angle fillets" delete "under the asphalt coats" at end of paragraph.

**14.B2**—Reverse, heading "Thermal Transmittance," amend first two U-values to 0.22 and 0.26, respectively.

**14.B4**—Reverse, table headed "Size and Weights of Floor Blocks," item "Floor Blocks," column "Weald" add 11.25 (12 in.  $\times$  12 in.  $\times$  7 in.), 12.5 (12 in.  $\times$  12 in.  $\times$  8 in.), 14.0 (12 in.  $\times$  12 in.  $\times$  9 in.). Item "Filler and Panel Heating Tiles" column "Gault" add 10.5 (12 in.  $\times$  4 in.  $\times$   $\frac{3}{4}$  in.). Item "Lipped Floor Blocks," column "Gault" add 10.5 (12 in.  $\times$  12 $\frac{1}{2}$  in.  $\times$  7 $\frac{1}{2}$  in.), column "Weald" add 5.9 (10 in.  $\times$  12 $\frac{3}{4}$  in.  $\times$  4 in.), 6.4 (10 in.  $\times$  12 in.  $\times$  4 $\frac{1}{2}$  in.), 6.8 (10 in.  $\times$  12 $\frac{3}{4}$  in.  $\times$  5 $\frac{1}{2}$  in.).

**14.K1**—Reverse, heading "Internal Plastering," subheading "Paristone plaster," third line to read "... B.S. 1198 Type 1."

**14.K2**—Reverse, "Material and Construction," second sentence, add "of performance" after "... in all respects."

**14.L12**—Reverse, heading "Self-supporting Partitions," subheading "Fixing," second paragraph, eighth line to read "B.S. 1198 Type 1."

**14.L14-15**—Reverse, heading "Further Information" add "Duckboards should always be used during the laying of Gypklith slabs and the application of the screed and roof covering."

**15.B4**—Face, heading "Properties," subheading "Fire Resistance," second sentence amend to "... approximately 3,000° F."; third sentence amend to "... a suspended ceiling of  $\frac{3}{4}$ -in. Asbestolux ... two hours ...". Subheading "Thermal insulation," second sentence, amend to "... a U-value of 0.20 B.t.u. ..." and add "(This figure allows a safety margin of at least 10 per cent.)." Heading "Sizes," add "or 4 ft. and 6 ft. long by 2 ft. or 4 ft. wide, obtainable in thicknesses of  $\frac{1}{4}$  in. and  $\frac{3}{8}$  in. only." Heading "Fixing," sentence "This can be overcome by the use of Asbestolux fillets ..." delete words in brackets. Subheading "Flat Ceilings" add to the last two sizes "fixed on all edges."

**15.C11, 21.E2**—The trade name "Plimberite" is now obsolete: "Plimberite building board" is now known as "Plimber wood chipboard" and "Plimberite Rebond partitioning" as "Plimber Rebond partitioning."

**15.R1**—Reverse, heading "Sizes and Weights," the weights given for  $\frac{1}{4}$ -in. and  $\frac{3}{8}$ -in. sheet should be amended to 3 $\frac{1}{2}$  lb. and 4 $\frac{1}{2}$  lb., respectively. Heading "Fire Resistance," add before final paragraph "A test upon  $\frac{1}{4}$ -in. thick sheeting in

the form of a partition was carried out by the Swedish State Testing Institute. In this case, the standard exposure period was 1 $\frac{1}{2}$  hours at temperatures approaching 900° C. and the Durasteel successfully resisted flame penetration. (Certificate No. 32,279, 18.11.57)."

**15.S6**—Reverse, heading "General Applications," delete paragraph under subheading "Panels."

**15.U1**—Reverse, heading "Weight" delete last sentence. "Sheets are also available ..."

**17.H1**—The manufacturer's address is now Prefatite (G.B.) Limited, 159, Edgware Road, London, W.2.

**18.F2**—Face, heading "Cork skirting: applied to plaster face," amend skirting heights to 2 $\frac{1}{4}$ , 3 $\frac{1}{4}$  and 4 $\frac{1}{4}$  in. Heading "Cork skirting: flush with plaster face," amend skirting heights to 2 $\frac{1}{4}$ , 3 $\frac{1}{4}$  and 4 $\frac{1}{4}$  in. All thicknesses of tile are now available in the full range of shades of light to dark brown. The manufacturer's address is now Terminal House, 52, Grosvenor Gardens, London, S.W.1. Telephone: Sloane 9972/3.

**19.D1**—see 12.F1.

**20.D4-5, 22.F3**—The manufacturer is now known as Truscon Limited.

**20.E1**—Reverse, heading "Moisture Content," amend to "... approximately 9 per cent." Heading "Laying," after first sentence add "Heating and ventilation systems should be in operation before, during and after laying." Heading "Finish," last sentence to read "... the floor should be treated with one of the proprietary brands of floor finish which provide a seal and a non-slip surface."

**20.E3**—Face, drawings headed "Isometric Sketch of Typical Truss in Position," "Junction of Ceiling Joist, Strut and Queen Ties" and "At Ridge," the size of queen ties should be amended to 3 in. by 1 $\frac{1}{2}$  in.

**20.Z5, 20.Z7, 20.Z9**—The following changes in addresses and telephone numbers should be noted:

Birmingham Office: 97, Grange Road, Birmingham 10; Telephone: Victoria 5124.

Nottingham Office: 17, Huntingdon Street; Telephone: Nottingham 53266.

Glasgow Office: 125, Scotland Street, Hillington, S.W.2; Telephone: South 2233.

Head Office: Longford 4444.

London Office: Amherst 9381.

Bristol Office: Bristol 27888.

In addition there is now a Cardiff Office at 36, Windsor Place; Telephone: Cardiff 28516.

**21.E2**, see 15.C11.

**21.E4**—The standard partition width is now 4 ft. 2 $\frac{1}{2}$  in. The door unit remains 3 ft. 1 $\frac{1}{4}$  in.

**21.G2**—Reverse, heading "Properties," subheading "Sound Insulation," amend sound reduction factor to 28.

**21.Z1-2**—The manufacturer's telephone number is now Ellesmere Port 3622.

**21.Z2**—Face and reverse, heading "Sizes," the effective covering widths for types QSG and QSA are now 2 ft. 3 in. and 2 ft. 9 in. respectively. Both types are available to suit rail spacings up to 10 ft. 0 in. centres. Type QSG is now available in a range of colours.

**22.F1**—Reverse, heading "Plastering" last sentence of first paragraph, amend "Glastone Hardwall" to "Gypstone Board Finishing Plaster."

**22.F3**, see 20.D4-5.

**23.C1-2**—Reverse, heading "Construction," door frames, other than for doors 7 ft. 0 in. wide, may now be in 18 gauge minimum thickness.

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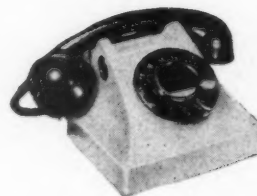
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## technical section

24.L1—Face, drawing subheaded "Concrete kerb with clip fixing," delete "copper" from note to clip. Reverse, heading "Fixing," last sentence of second paragraph, delete "copper" before "fixing clips lined with asbestos."

25.B1-2—Although the design is referred to a 3 ft. 4 in. horizontal and 10 in. vertical module on these Sheets, the manufacturer wishes it to be known that the system is not limited to these: the economic module for any given span can be chosen.

26.A2-3, see 12.F1.

26.Z1—Face, Types 2 and 3, funnels, where fitted, are now vertical, not at an angle of 45°.

27.B9—Face, drawing headed "General Assembly of Component Parts," amend notes to "... for cross joints at 6 ft. 0½ in. crs." and "... panel support members at 2 ft. 0½ in. crs."

27.B11—The continuous grooves for stiffening, etc. (on the opposite edges of the tiles to the "pips" and stops) are no longer incorporated. Tiles 24 in. by 6 in. and 24 in. by 4 in. have been added to the range. All rectangular tiles are now obtainable with or without the dividing V-groove. Half-tees now measure 1½ in. by 1½ in. The manufacturer's telephone number is now Hinckley 3701-5.

27.C2—Face, the design of the spiked talon has been slightly modified. The manufacturer's address is now Bowater House, Knightsbridge, S.W.1. Telephone: Knightsbridge 7070.

28.A1-3—The manufacturer's address is now 127, Victoria Street, London, S.W.1; Telephone: Tate Gallery 2220.

29.C4—Model 25 is now supplied with a perforated metal outlet grille in place of the cast aluminium.

29.J1, 29.J3-6—The address of the Glasgow Office is now 15, Fitzroy Place, Sauchiehall Street.

30.B3-5—The manufacturer is now known as Marley Concrete Limited and the address of the Head Office is now Peasmarsh, Guildford, Surrey. Branch Offices: Shurdlington, Nr. Cheltenham, Glos.; Stifford Road, South Ockendon, Nr. Romford, Essex; Hatchpond Road, Waterloo, Poole, Dorset.

31.C2—The manufacturer is now known as Parkinson Cowan Appliances Ltd. and the works telephone number is now Stockford 4000.

32.C4—Face and reverse, heading "Separate Flowpipe," amend to "A separate copper flowpipe coated with high density polythene is fixed..."

32.C22—References to heater type RS 52/1 should be deleted and Type 509 substituted. Full details of types 509, including output figures, are given on Sheet 32.C21.

32.C24—Face, drawings headed "Front and Side Elevations of Typical Heater," in side elevation the dimension from the wall to the front of the heater is now 8½ in.

32.C34—Reverse, heading "Installation of Heater," delete last paragraph as the boiling water heater (now Type 509) can also be connected direct to the jiggled wall fitting.

33.K1—The following additional models are now available: wall-inset models 3708, 3708A for flush installations; domestic model 3707 for the disposal of household refuse; large floor model 4000. Details of all types are available from the manufacturer.

33.P2—The trap is now moulded in white high density polythene as standard: owing to the increased strength and rigidity of this material metal reinforcements are no longer incorporated but in all other respects the design is unaltered.

33.Q1—Reverse, headings "Models 55, 44, 33" and "Caravan Model," subheading "Finish" delete "Bonderised" and substitute "rust-proofed"; substitute "plated fittings" for existing descriptions of fittings: Heading "Model 99," subheading "Finish," delete "mahogany finish" and substitute "wood."

33.S1—Face, drawing headed "Section through bath," the maximum height with adjustable feet is now 1 ft. 10½ in. Drawing headed "Detail of adjustable foot," the maximum height of the bracket for the 3-in. trap is now 8 in. The O.P. Handgrip in chromium plated tubular steel is now available, with rubber grips if required. It can be easily fitted to an Atlanta bath specially drilled for it, and hinges back against the wall when not in use.

38.H1—Face, table at top of Sheet, entry "Linoleum" amend second column to read "One coat Bourne Gleem." Reverse, subheading "Maintenance" (continuing under heading "Bourne Gleem" on face), "Gleem Shine" should be deleted and "Sheen" substituted.

40.A1—Face, second table headed "Preventative Treatment" delete "Xylamon Natural" and its references. Third table, entry "Xylamon Stains," column "Uses" delete words "Natural... Treatment)." Fluralsil was misspelt Flurasil. The manufacturer is now known as Wood Preservation Limited and the telephone number is now Sloane 9985.

42.E1—Reverse, heading "Types," for existing description of Pattern B substitute the following:

*Pattern B:* This is a double-tier locker, but with flush doors, more inside space and full length hanging space for coats: backs are staggered as shown in the drawing on the lower right face of the Sheet.

*Pattern B (modified):* This locker is of similar size to Pattern A, but with flush doors and streamlined appearance.

After paragraph headed "Finish" add following paragraph headed "Heater Unit": "Purpose-made electric plenum units are available for supplying up to 96 lockers in an aisle. Alternatively, specially designed and rated tubular heaters can be installed, complete with switch panels for immediate connection."

43.E1—Sink units are now available.

43.E12—Reverse, heading "Construction Generally" subheading "Edge Mouldings" delete last sentence and substitute "Sinks are normally supplied with standard moulding all round, as shown in the drawing headed "Sink Unit: 1 ft. 6 in. wide." As an alternative, they can be supplied with a 1½-in. upstand and ¾-in. tuck-in, as shown in the drawing headed "Sink Unit: 1 ft. 9 in. wide." Heading "Unit for large kitchens, hotels, etc." first sentence should read "The design shown is standard (with or without splash-back) but an alternative..."

43.E13-15—The manufacturer is now known as English Rose Kitchens Limited.


43.Z3-4—The name Carter Tiles Limited supersedes Carter and Co. Ltd., Poole, Dorset.

46.Z—Face, delete "Blundell Spence and Company Limited" and all references to Sheet 38.D1.

## CANCELLATIONS

Sheets 8.E1, 15.B3, 26.E1, 33.C11 and 36.B1 were cancelled and republished this year. Sheets 18.F1, 18.G1, 19.H1, 20.E2, 20.E4, 20.Z8, 23.H1-6, 26.F1-4, 29.J10-11, 33.B3, 33.Q2-3, 36.D2, 38.D1, 42.C3, 42.C5 and 44.E2 have been cancelled and should be withdrawn from the Library.





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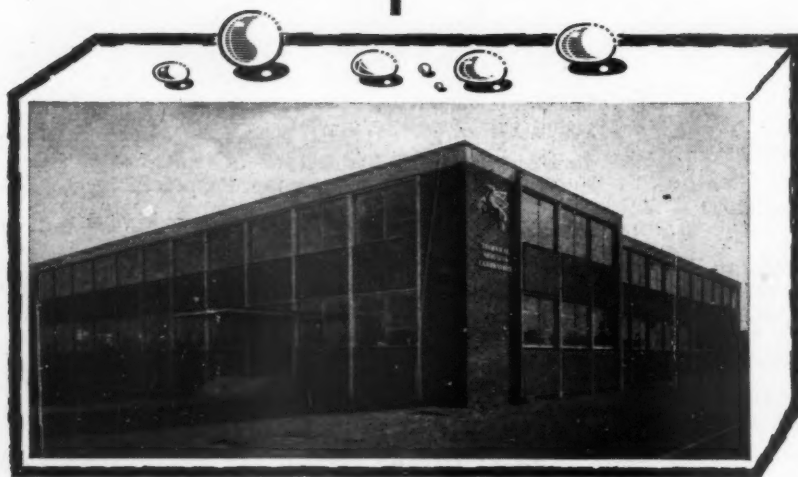
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The external concrete frame of this imposing new Technical Service Laboratory for the Mobil Oil Company at Coryton (Architect S. Greenwood A.R.I.B.A.) is faced with precast concrete units treated with a water repellent based on DRI-SIL silicone. Photo by courtesy of Mobil Oil Company Ltd.

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THE INDUSTRY

*This week Brian Grant describes a new cooker control, tubular steel frames, a nylon sink and post and panel walling*

Cooker controls

A comparatively low-priced cooker control unit with a switch rated up to 45 amps. has been introduced by Simplex. The high rating is to take care of the current trend for higher cooker loadings, and the usual auxiliary circuit for 13 or 15 amps. is also



The Simplex cooker control unit.

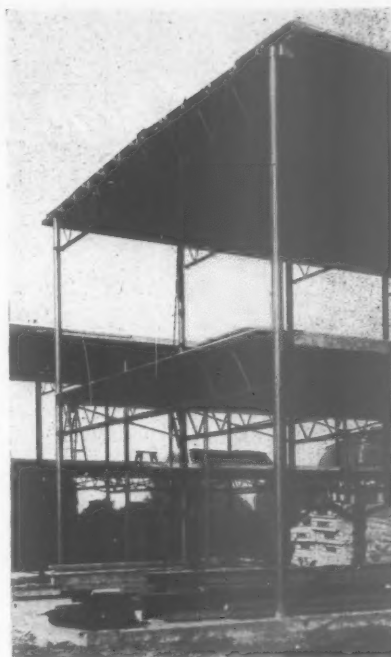
included. There is a single rotary control to operate the circuits either separately or together, and pilot indicators can be provided for both. Standard finish is cream or white enamel or in colours to match Creda cookers. Price, without plug, is 22s. 4d. each. (Simplex Electric Co. Ltd., Broadwell, Oldbury, Birmingham.)

Tubular steel frames

What is probably the first two storey all tubular structural steel framework has

recently been completed at Finchley for the Central Electricity Board. The structural frame was supplied by Sherbourne Engineering, and the intermediate floor and roof covering are supported on welded tubular lattice girders site bolted to tubular columns which extend from foundations to roof, the top chords of the girders having cradles for carrying roof and floor joists.

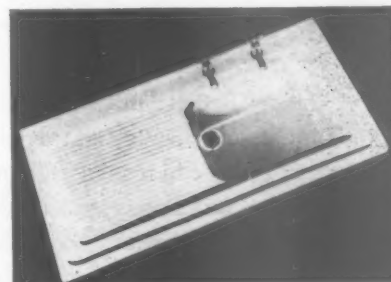
Stephenson Developments were responsible for the rest of the building, which is clad with timber curtain walling made up from vertical hardwood mullions supporting softwood preglazed panels and vertical mahogany weatherboarding, and can be provided with single or double glazing. Double skinned partitioning was used internally, with floors on 6-ft. square sections of  $\frac{3}{4}$ -in. ply and a roof of 2-in. Stramit and three layers of felt. The two firms concerned are now interested in further schemes, and claim that their method is especially suitable for jobs overseas. (Sherbourne Engineering, Sherbourne Road, Acocks Green, Birmingham 17, and Stephenson Developments (Huddersfield) Ltd., Grosvenor Works Linthwaite, Huddersfield.)



Above, tubular steel frame of a building for the Central Electricity Board, by Sherbourne Engineering. Below, the Supanilan sink.

Another nylon sink

The new Supanilan sink has a draining board with raised ribs and, as the photograph shows, a waste outlet in the corner to allow an unrestricted working surface. The draining board can be either right or left hand, and there is a colour choice between white and cream. The price of £11 19s. 9d. includes a wooden under-frame for easy fixing to any standard cabinet, but does not include taps: size is 42 in. by 21½ in. The sink is produced by the injection moulding process, so that there is no difficulty in ensuring constant wall thicknesses, and there should be no weakness at corners, a result not always achieved in the production of metal sinks. Although nylon is a thermoplastic material the sink is claimed to withstand temperatures well in excess of boiling point, though I would be a little suspicious of really hot frying pans. (The Nylon Sink Co. Ltd., 62, High Street, Uxbridge, Middlesex.)



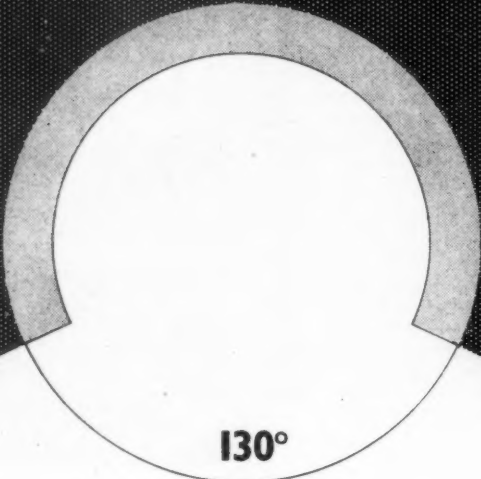
Below, Marley post and panel concrete walling.

Post and panel concrete walling

Marley Concrete have evolved a system of post and panel walling which has been used recently to replace old timber fencing along the perimeter of Earls Court. Here there is a concrete raft of considerable area, much of it 15 to 20 ft. above ground level. The Marley scheme was to provide a mild steel rod in the bottom of each post, and these were let into sockets which had been made in the kerb of the raft to take the original fencing. The posts were grouted in and extra support was given by haunches at each side, after which 12-in. deep concrete panels were slotted into each 5-in. by 5-in. post. For normal use the posts would be given a 30-in. foundation, and several variations of walling panel are available. (The Marley Group, Sevenoaks, Kent.)



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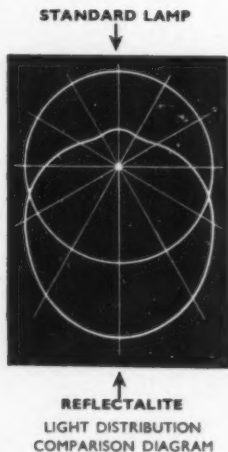


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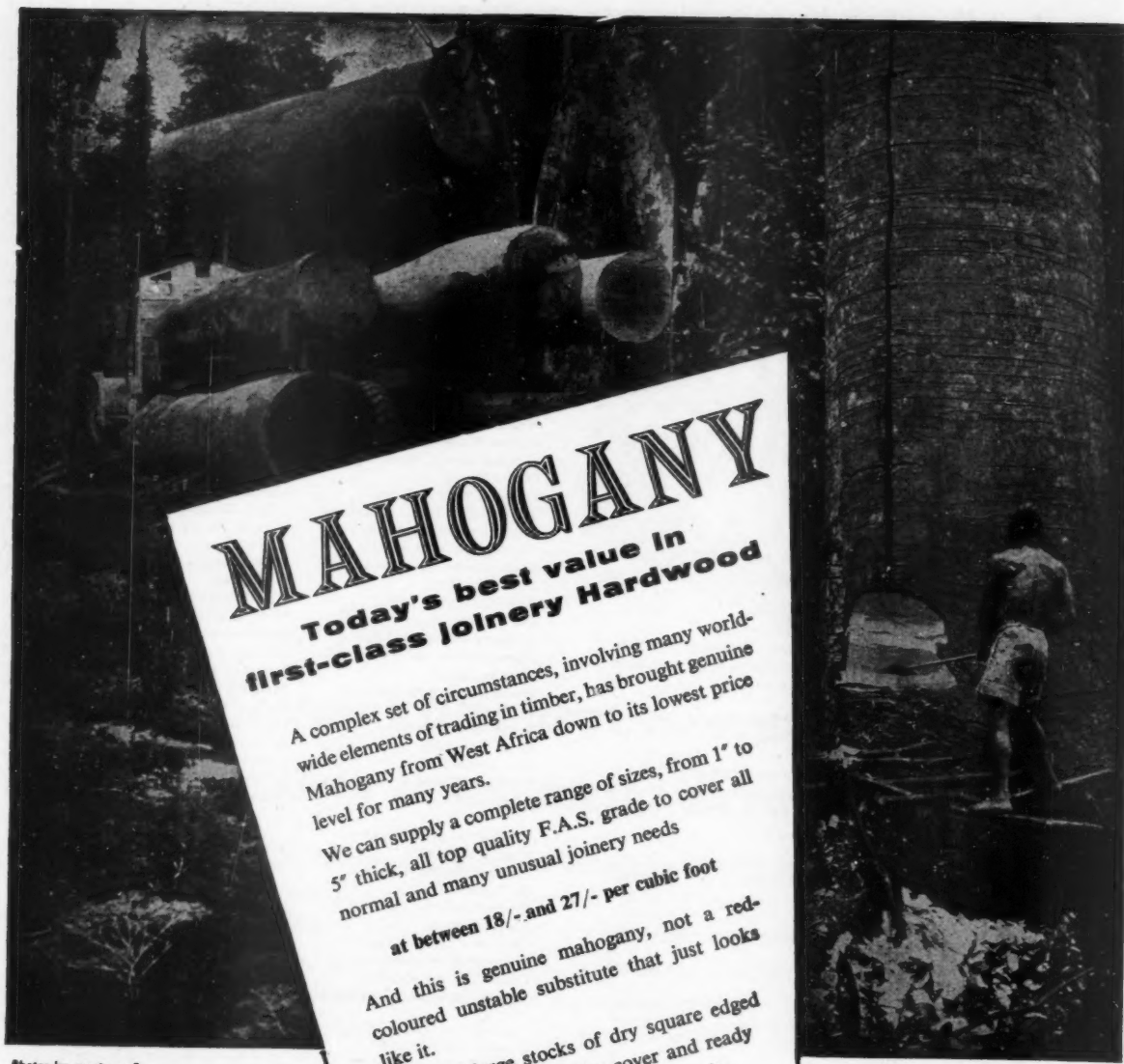
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## Index to the AJ's cost analyses

*Below is an index to the cost analyses which have been published in the JOURNAL since the first appeared on February 24, 1955.*

Type of building	Architect	Date published	Type of building	Architect	Date published
<i>Churches (and church halls)</i>			Gooseacre Health Centre, Welwyn Garden City, Herts.	C. H. Aslin, county architect	2.2.56
Church hall, Chessington	Kenneth Wood	11.8.55	Admission Unit, Fairmile Hospital, Wallingford, Berks.	Powell & Moya	19.4.56
Church hall, Fernhill, Hawley, Hants	Alec Livode	11.8.55	Radiotherapy Dept., Edinburgh Group Practice surgery, Brentwood, Essex	John Holt	27.12.56
Church at Coventry	Lavender, Twentyman & Percy	30.5.57	Pathology Lab., Highcroft Hospital, Birmingham	Cullerne Pratt	20.3.58
Church and hall at Darlestone	Lavender, Twentyman & Percy	7.11.57	Rest home and annex, Geriatrics Hospital, Oxford	Denys Hinton (Live Project)	3.4.58
Congregational church hall, Ipswich	Johns, Slater & Haward	4.12.58	Nurses' Home and Training School, Western General Hospital, Edinburgh	R. Llewelyn Davies (Nuffield Provincial Hospitals Trust)	1.5.58
Congregational church, Crawley	Lomas & Pooley	4.12.58		John Holt	18.9.58
<i>Educational (Schools, Primary)</i>			<i>Hotels</i>		
Sugar Hill, Durham	Grenfell Baines & Hargreaves	29.9.55	The Dover Stage, Dover	Louis Erdi	8.8.57
South Bolton Gardens, London	Chamberlin, Powell & Bon	13.9.56	<i>Houses and flats (private)</i>		
Crawley, Sussex	Woodroffe, Buchanan & Coulter	5.4.56 and 24.5.56	West Mersea, Colchester, Essex	Richard Finch	30.6.55
Ladyloan Avenue, Glasgow	A. Buchanan-Campbell	30.8.56	Houses, Joppa, Midlothian	Alan Reiach	29.12.55
Stevenage, Herts.	Samuel Morrison & Partners, and C. H. Aslin, county architect	18.10.56	Hertingfordbury, Herts.	G. Woodward	19.7.56
Hackenthorpe, Derbyshire	Samuel Morrison & Partners, and F. H. Crossley, county architect	18.10.56	Oulton Broad	John and Sylvia Reed	19.7.56
C. of E., Bexhill, Sussex	Hilton and J. M. Wright	14.3.57	Digswell, Welwyn, Herts.	Maurice Lee	30.8.56
Alderman's Green, Coventry	Architects' Co-Partnership	2.5.57	Scarborough, Yorks. (conversion)	J. G. L. Poulsen	10.1.57
Woodside, Amersham, Bucks.	MOE	1.8.57	Birch Lane, Purley, Surrey	R. G. R. Haggard	26.9.57
Mansfield, Notts.	D. E. E. Gibson, county architect	24.10.57	Thames Ditton, Surrey	Michael Lyell	26.9.57
Batford Infant, Harpenden, Herts.	Architects' Co-Partnership	4.9.58	Studio House, Hampstead	R. W. Trebilcock	12.12.57
Woolton, Liverpool	Bernard Miller & Duncan Stewart	4.9.58	Edwalton, Notts.	Paul Ritter	12.12.57
<i>Educational (Schools, Secondary)</i>			Newstead Abbey, Notts.	Bartlett and Gray	13.3.58
Barnet, Herts.	C. H. Aslin, county architect	24.2.55	Old Windsor, Bucks.	F. W. Lancaster	13.3.58
Parson's Cross, Sheffield	Basil Spence & Partners	24.3.55	Rickmansworth, Middlesex	Dore and Wurr	26.6.58
Durrington-on-Sea, Worthing	MOE	4.8.55	Reigate, Heath, Surrey	John Stammers	26.6.58
Bellingham, London, S.E.	J. L. Martin (LCC)	25.8.55	Dorking, Surrey	Gerald F. Jones and Sykes	26.6.58
Hatfield	Architects' Co-Partnership	8.9.55	House and surgery, Stevenage, Herts.	Margaret and Stirling Craig	26.6.58
Broad Lane, Coventry	MOE	13.10.55	Staines Green, Hertford	Glyn Davies	16.10.58
Herne Bay, Kent	Lyons, Israel & Ellis	24.11.55	Great Missenden	R. Plincke and Peter McKinley	16.10.58
South Belper, Derbyshire	MOE	15.12.55	Diss, Norfolk	J. Fletcher Watson	16.10.58
Mayfield Comprehensive, Putney	Powell & Moya	2.8.56	Colchester, Essex	J. E. C. Brand	16.10.58
Abbey Road Comprehensive, Coventry	Arthur Ling, city architect	28.2.57	Cramond, Edinburgh	Morris and Steedman	1.1.59
Lyng Hall Comprehensive, Coventry	MOE	15.12.55	<i>Housing (Local authority)</i>		
Sydenham, London, S.E.	Basil Spence & Partners	12.9.57	Flats in Bedford	Max Lock	7.7.55
Earnock, Hamilton, Lanark	Scottish Education Department	30.1.58	Flats in Osnaburgh St., St. Pancras	Davies and Arnold	29.12.55
Balls Park, Hertford	C. H. Aslin, county architect	24.4.58	Fitzhugh Estate, London, S.W.17	J. L. Martin (LCC)	29.11.56
<i>Educational (Further Education, Technical Colleges)</i>			Maisonettes	Study by R. O. Whittington	26.7.56
Dartford Technical College	E. T. Ashley Smith, county architect	28.4.55	Claremont Estate, West Ham	T. North, borough architect	17.10.57
Gymnasium, Bedford College of Physical Education	S. V. Goodman	10.1.57	Demonstration maisonettes at Canterbury for MOHLG	John L. Berbiers, city architect	27.3.58
College of F.E., Slough	F. B. Pooley, county architect	8.5.58	Millpool Hill Estate, Birmingham	A. G. Sheppard Fidler, city architect	17.4.58
College of F.E., Oswestry	C. H. Simmons, county architect	12.6.58	<i>Housing (for old people)</i>		
<i>Educational (Higher, and Training Colleges)</i>			Plymouth (bedsitting rooms)	H. J. W. Stirling, city architect	21.11.57
Training College expansion (Assembly Hall), Great Offley, Herts	Woodroffe, Buchanan & Coulter	7.6.56	Old People's bungalows, East Horsley Surrey	Clifford Culpin	24.7.58
Theological College, Montagu Place, London, W.1	Yorke, Rosenberg & Mardall	19.6.58	Flats at West Hartlepool	A. G. Sinclair	24.7.58
<i>Educational (laboratories)</i>			<i>Industrial buildings (factories)</i>		
Laboratories and Hostel for Worcs. Institute of Horticulture	Richard Sheppard & Partners	26.4.56	Factories and offices, Stevenage	D. P. Reay and L. G. Vincent, Dev. Corporation architects	31.3.55
Sherborne Girls' School, Dorset	Architects' Co-Partnership	21.11.57	Standard Telephones, Harlow	Frederick Gibberd and Victor Hamnett	26.5.55
Westcliff High School for Boys	P. F. Burridge, county architect	3.7.58	Peterlee, Jeremiah Ambler Mills	Sir William Holford & Partners	15.9.55
Magdalen College School, Oxford	Booth, Ledebor & Pinckheard	3.7.58	Silentbloc, Crawley	J. M. Austin-Smith & Partners	6.10.55
<i>Entertainment</i>			Loewy Engineering, Poole	Farmer and Dark	17.5.56
Little Theatre, Middlesbrough	E. de Pierro	13.2.58	British Tabulating Machine Co., Stevenage	L. G. Vincent (Dev. Corp. Architect)	6.9.56
Belgrade Theatre, Coventry	Arthur Ling, city architect	7.8.58	Paint factory, Hemel Hempstead	Ove Arup & Partners	20.12.56
<i>Health Buildings</i>			Corset factory, Shrewsbury	W. Marmorek and L. Weaver	24.1.57
Vale of Leven Hospital, Dumbartonshire	J. L. Gleave (Keppie and Henderson and Gleave)	3.11.55	Allen & Hanbury's, Ware	Dunham, Widdup and Harrison	23.5.57
			Universal Grinding Wheel, Stafford	Edward D. Mills & Partners	13.6.57
			Factory and offices, Camberley	John Bickerdike	31.10.57
			Flatted factories at Birmingham	Philip Skelcher & Partners	20.2.57
			Aspro-Nicholas, Slough	J. Douglass Mathews & Partners	17.7.58
			British Diamond Wire Die Co., Poole	Farmer and Dark	13.7.57
			Extension to Pullins Optical Co., Brentford	Joseph Mendleson & Partners	28.8.58
			Pickle Factory, Hackney	Walter Segal	2.10.58
			<i>Industrial (laboratories)</i>		
			Sylvania-Thorn Colour TV	G. A. Jellicoe & Partners	15.11.56
			Shell, Egham	P. A. Cranswick	14.2.57
			ICI, Welwyn Garden City	E. D. Jefferiss Mathews	25.4.57
			Fison's Research Centre, Lavington	Johns, Slater and Haward	6.3.58





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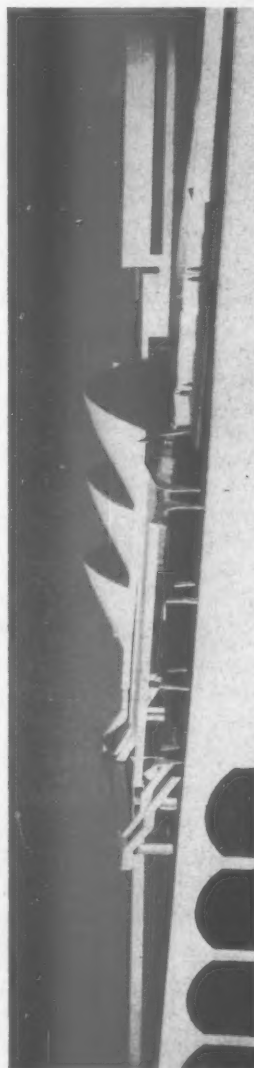
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Type of building	Architect	Date published
<i>Industrial (warehouses)</i>		
Warehouse and processing building, Witham, Essex	Chamberlain, Powell & Bon	1.6.56
Warehouse and offices, Cardiff	Grenfell, Baines & Hargreaves	28.3.57
Warehouse and offices, Nottingham	J. M. Austin-Smith & Partners	18.4.57
Farmiloes, Nine Elms Lane, London, S.W.	J. M. Austin-Smith & Partners	30.10.58
<i>Industrial (Miscellaneous)</i>		
Boiler house, MAFF Research Institute, Pirbright	Westwood, Sons & Harrison	14.3.57
Pithead Baths, Dudley, Northumberland	Richard Sheppard & Partners	22.8.57
Pithead Baths Pye Hill, Notts.	Elie Mayorcas	31.7.58
<i>Offices</i>		
Edgware Road, N.W.9	Walter Segal	28.7.55
Chiswell Street, E.C.1	Handiside & Taylor	21.6.56
Dock Labour Board, S.E.1	Frederick Gibberd	18.10.56
Hypothetical office building	Stillman & Eastwick-Field	25.10.56 24.1.57 25.4.57
High Street, Sidcup	Huckle & Durkin	15.8.57
Heath Road, Twickenham	MOW	7.11.57
Traffic Manager's office at Cambridge for BR	H. H. Powell & R. T. Walters	23.1.58
Engineering and Allied Employers' HQ, Edgbaston	John Madin	10.4.58
Armour House, Liverpool	Stephenson, Young & Partners, Robert Gardner-Medwin	6.11.58
<i>(Miscellaneous) Public buildings</i>		
Community Hall, Roe Green, Hatfield	Lionel Brett & Kenneth Boyd	1.9.55
Cattle Market, St. Oswalds Road, Gloucester	J. V. Wall, city architect	3.5.56
Library, Beaconsfield, Bucks.	F. B. Pooley county architect	25.7.57
Law Courts, Slough, Bucks.	F. B. Pooley, county architect	26.12.57
<i>Public buildings (fire stations)</i>		
Fire and ambulance station, Slough, Bucks.	F. B. Pooley, county architect	31.1.57
Fire station, Eastern Avenue, Gloucester	J. V. Wall, city architect	18.7.57
Fire station, Wythenshaw, Manchester	Leonard C. Howitt, city architect	3.10.57
Fire station, Harlow	Harold Conolly, county architect	30.1.58
<i>Public buildings (police stations)</i>		
Police HQ, Stretford, Manchester	G. Noel Hill, county architect	5.5.55
Police HQ, Wellington, Shropshire	C. H. Simmons, county architect	1.11.56
Police HQ, Earls Court Road, London, W.8	J. I. Elliott	9.5.57
Police HQ, Hull	Priestman & Lazenby	3.10.57
<i>Shops</i>		
Shops and maisonettes, Basildon, Essex	Noel Tweddell, Dev. Corporation architect	8.11.56
Department store, Southampton	Yorke, Rosenberg & Mardall	6.12.56
Shops and maisonettes, Coventry	Arthur Ling, city architect	21.2.57
Department store, Portsmouth	T. P. Bennett & Son	13.9.56
Furniture shop at Bromley, Kent	Bertram Carter	5.12.57
Shops in Above Bar Street, Southampton	Oliver Carey	20.3.58
<i>Sports buildings</i>		
Werneth Golf Club extension, Oldham, Lancs.	George A. Hayes	5.9.57
Sports pavilion, Hayes, Middlesex	Pite, Son & Fairweather	27.2.58
Sports pavilion, Acton, London, W.3	Hening & Chitty	27.2.58
Cricketer pavilion, Oundle School	Hughes & Bicknell	27.2.58
Swimming pool, Hornchurch, Essex	Vincent Williams, borough engineer	27.11.58
Empire Pool, Cardiff	John Dryburgh, city architect	27.11.58
<i>Transport buildings</i>		
Potters Bar railway station	H. H. Powell & R. T. Walters	8.12.55
Traffic Manager's offices, BR, Cambridge	H. H. Powell & R. T. Walters	23.1.58
Airport terminal buildings, Edinburgh	R. H. Matthew	5.7.56
Garage and service station, Harlow, Essex	Ramsey, Murray, White & Ward	29.8.57
Hangar, offices and workshops for Transair, Gatwick Airport	Clive Pascall & Peter Watson	14.8.58

## REBUILDING OXFORD ROAD STATION, MANCHESTER

platforms will be connected by a new concrete footbridge and a subway, with lifts for transporting luggage. In front of the station a spacious passenger concourse encircling a car park will be linked to Oxford Road by a new approach road. The station has been designed by the London Midland Region Architect's Department, under the direction of the Chief Engineer.

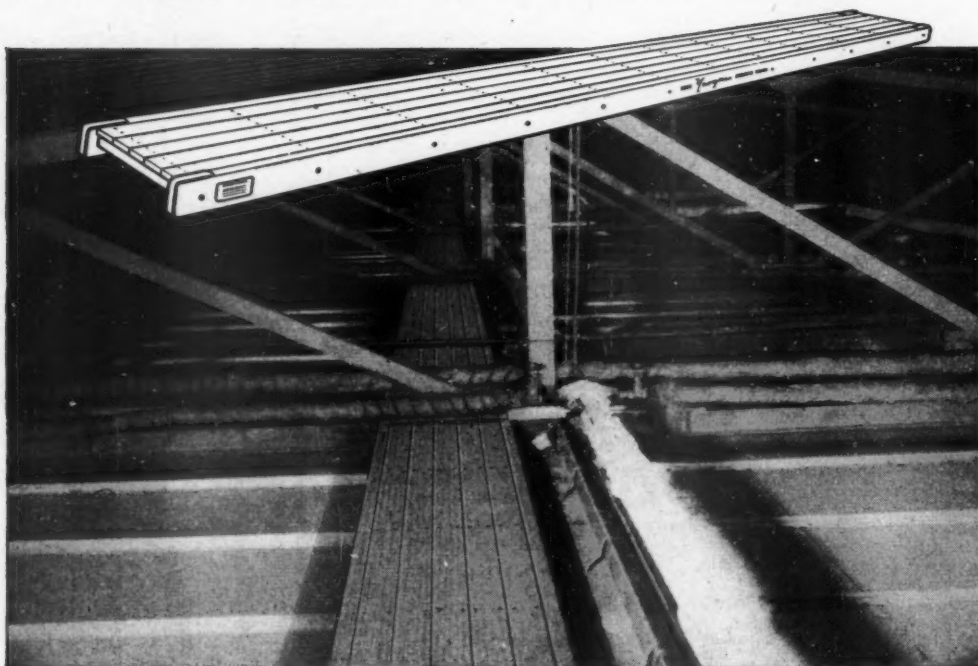


Work has begun on the new Oxford Road station at Manchester, where the old station is being completely demolished and replaced by the end of next year without the station being closed, or passengers greatly inconvenienced. This was made possible by a tightly planned sequence of work. The model (right), showing the new station from above, makes clear the triangular layout based on Oxford Road. Trains from the London Road Manchester station use the three platforms on the left, and trains from Altringham the two platforms beyond the curved-roofed waiting room and booking office in the centre. The three conoid roof units (shown in profile above) will consist of three layers of timber boarding supported on glued laminated timber tied arches, the shells being tied on one edge to the arch and on the opposite edge to the tie. The vertical space between the shells will be glazed to provide three north lights. The five

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House in Cramond Road North, Edinburgh

# HOUSE

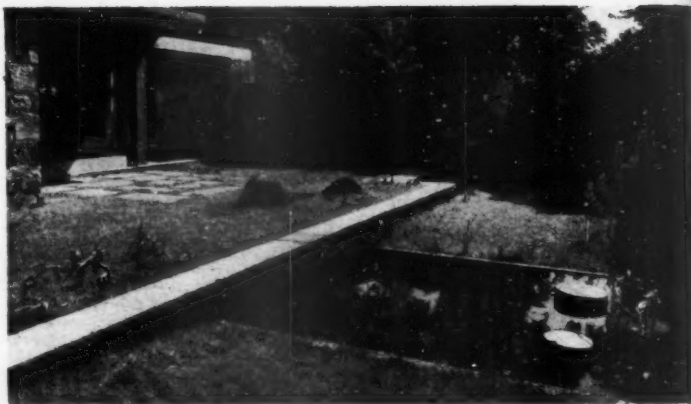
in CRAMOND ROAD NORTH, EDINBURGH; designed by MORRIS and STEEDMAN

This house, among the first batch of modern houses in Scotland (all late-comers and only very recently completed or still in progress) is perhaps more indigenous in character than its few rivals. No module has been adopted and the discipline of its design is represented rather by thoroughly studied landscaping, careful detailing (particularly of panel wall surfaces internally), and the ingenuity of circulation—whereby spaces used just for that purpose are visually vital to the whole concept both inside and out. The house has a distinct but varied character.

*View from the driveway. The garage is on the left and immediately to its right is the gate and approach to the main entrance.*



building illustrated



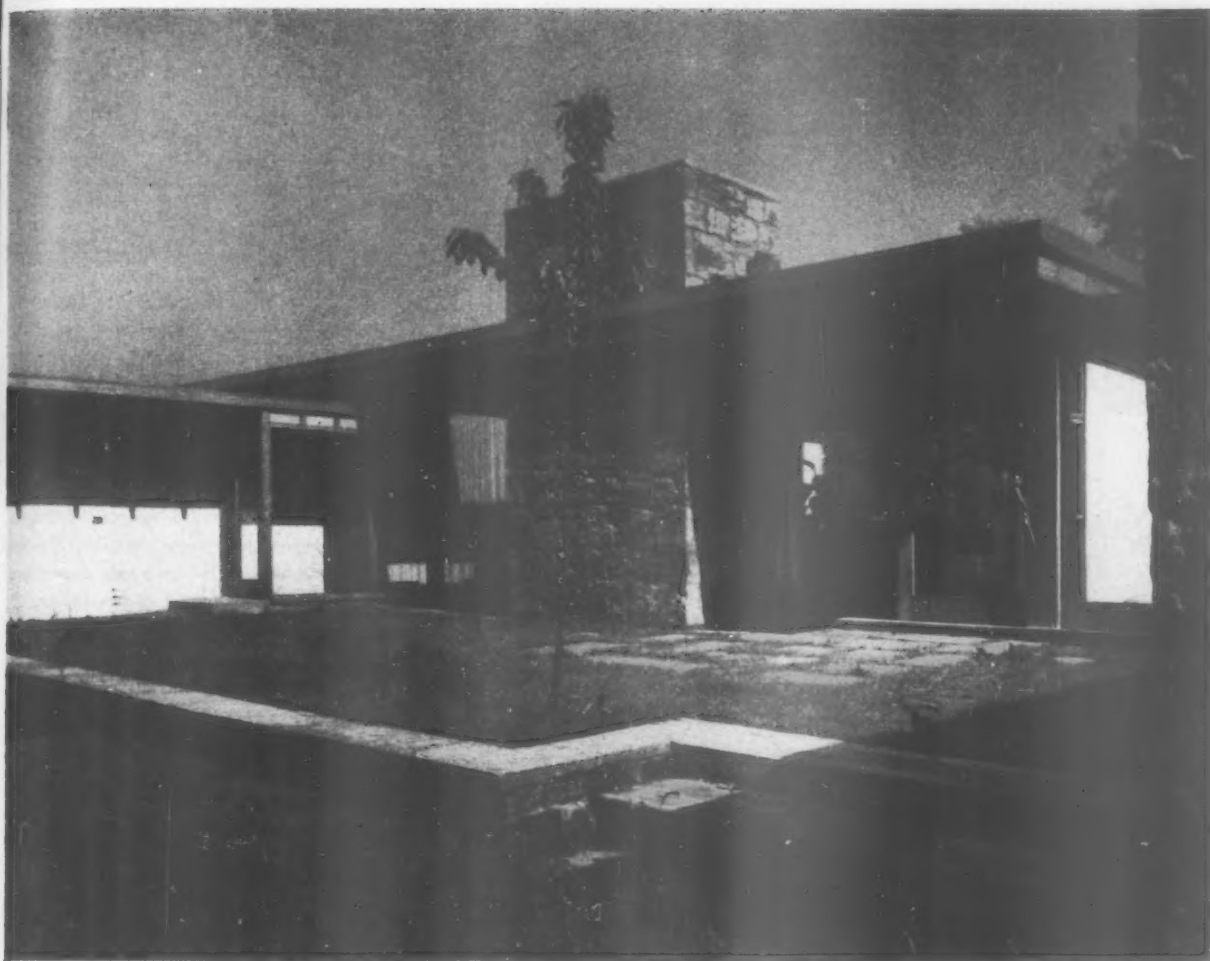
Left, the main entrance in closer detail. The overhang of the garage roof gives shelter to the approach, which passes through the court on the south side of the house.

Above, the view of the court, which gives shelter from the wind and privacy, from just inside the gate. In the foreground is a small pool, illuminated at night by lights under the circular stepping stones. The stone for the rubble walling was obtained second-hand from nearby demolitions, and is topped by cement and sand.

Below, another view of the court from above the garage. The stone tower encloses the fireplace, and above roof level contains the water storage cistern. One of the two main beams which support the roof of the house is carried out to the stone court wall in the centre of the picture, and guides the large sliding window of the living room into a position where it closes the court at this corner.







*Above, looking from the south-east corner of the court towards the living room and main entrance. To the left of the stone tower is a small patio (the roof above having a hole in it) used for outside dining. This also allows sun to penetrate into the centre of the house.*



*Left, the court from its north-east corner, with the garage and entrance gate on the right. The recession in the far wall has a horizontal water pipe, punctured with some twenty holes, about five feet up, which drips water over the stone into the pool below.*



*Below left, the north-west corner of the house. The large window at the far end is to the living room; a low stone retaining wall forms a small terrace here. The continuous run of windows is to the kitchen, bathroom and bedroom. The brick wall underneath is carried out as a screen wall, and takes up a slight difference in ground levels.*



building illustrated



Above, the west side of the house and garage. The door at the house end of the garage wing is a service door. The slit windows of the garage (the end one on the left ventilates the dark room) seem quite foreign to the design, which is otherwise fairly free from mannerism.

Left, corner detail of the second bedroom. The photograph shows the ends of the two main beams of the house roof. Beams and post are both formed of two 11½-in. × 2½-in. Douglas fir members bolted together with spacers between. The fascia is of cedar with a deep aluminium "drip" member above. Brickwork is painted white. The outside lighting is operated from within and extends the lighting of the room into the outdoor space.



Above, view from the entrance hall looking towards the living room. The kitchen is behind the wall on the left; the white glass window lights the worktop.

Left, the entrance hall, looking back into the court, with the outside dining area on the left. The main entrance door is glazed; the adjacent white door leads to the service entrance. The painted chip-board panels of the partition walls are nailed on the face of 4-in. and 2-in. timber framing, leaving a chase in which the framing, painted black, is visible. The floor is of maple strip and the ceiling of spruce boarding.

## analysis



The living room has a continuous strip of lighting above the white east wall. The painting is by Charles Pulsford, who is one of Scotland's foremost modern painters.

## CLIENT'S REQUIREMENTS

A modern house with living and dining area, kitchen, two bedrooms (one to be used also as a study), bathroom, photographic darkroom and single garage.

## PLANNING AIMS

To take full advantage of Edinburgh's favourable record for hours of sunshine by building a walled court as an extension of the living room on the south side, and, the wall affording wind protection and privacy, the south wall to be glazed to full height. To make the fireplace the hub of the house both physically and visually. To take advantage of the fine view of the Firth of Forth to the north.

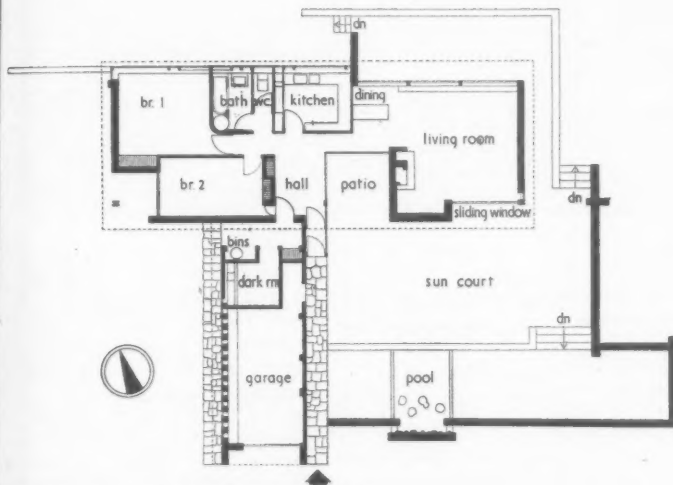
## SUMMARY

Ground floor area: 1,105 sq. ft.  
Total floor area: 1,415 sq. ft., including garage and dark room (not included in cost analysis).  
Type of contract: Working drawings and specification.  
Tender date: May 1, 1956.  
Work began: May 21, 1956.  
Work finished: August 31, 1957.  
Tender price of foundations, superstructure, installations and finishes: £3,800.  
Final contract price: £3,726.  
Tender price of external works and ancillary buildings: £900.  
Final contract price (including garage and stone walls): £1,224.  
Total: £4,950.

	cost per sq. ft.	s	d
Preliminaries and insurances		10	½
Contingencies		2	8½
Work below ground floor level		7	10½
13½-in. brick walling to floor level, concrete foundations, hardcore filling and concrete sandwich floor with d.p.c. membrane.			

## STRUCTURAL ELEMENTS

External walls	8	6
Load-bearing 11-in. cavity brick walling. 16-in. stone around living room fireplace and patio.		
Ratio: $\frac{\text{solid wall}}{\text{floor area}} = \frac{0.72}{1}$		
Windows and glazing	8	1½
All window frames in cedar. Sliding window in mahogany. Glazing generally ½-in. plate with ¾-in. plate to sliding door.		
Ratio: $\frac{\text{windows}}{\text{floor area}} = \frac{0.48}{1}$		
External doors	1	0
4 glazed doors, 1 flush door.		
Ratio: $\frac{\text{doors}}{\text{floor area}} = \frac{0.13}{1}$		



Ground floor plan (Scale: ¼" = 1' 0")

The fireplace corner has a built-in seat; the cushions are leather-covered on one side, the other being covered with heavy cloth in various colours.



# analysis

## Roof construction

9-in.  $\times$  2-in. joists at 18-in. centres, carried on two rows of 11  $\frac{1}{2}$ -in.  $\times$  2  $\frac{1}{2}$ -in. Douglas fir beams; 2-in. woodwool slabs on joists with glass wool insulation between joists.

Actual area of roof: 1,500 sq. ft.

Total of structural elements 24s 4  $\frac{1}{2}$ d

## PARTITIONS AND FITTINGS

### Internal partitions

2 8  $\frac{1}{2}$

Type of partition	Area of each type
4-in. $\times$ 2-in. studs with $\frac{1}{2}$ -in. chipboard	206 sq. ft.
3-in. breeze, plastered	242 sq. ft.
4 $\frac{1}{2}$ -in. brick, plastered	166 sq. ft.

### Internal doors

Flush, ply panelled both sides  
11 single doors, 1 pair double doors (to built-in wardrobe)

### Ironmongery

Teak and s.n. lever to all external doors.  
Internal doors, s.n. lever furniture.

### Fittings

Bookcase wall fitting, wardrobe fitting in bedroom 1, kitchen cupboards.

Total of partitions and fittings 7s 5d

## FINISHES

### Floor finishes

2 6  $\frac{1}{2}$

Type of finish	Area in sq. ft.	Cost per sq. yd.
Maple strip floor, 2 $\frac{1}{2}$ -in. $\times$ $\frac{1}{8}$ -in. thick, nailed to 2 $\frac{1}{2}$ -in. wood battens	513	49s
Concrete screed	592	

### Wall finishes

$\frac{3}{4}$ -in. plaster,  $\frac{1}{2}$ -in. chipboard panelling in hall;  
gaboon mahogany plywood in part of living room

### Ceiling finishes

Skim coat plaster on plasterboard in bedrooms,  
2  $\frac{1}{2}$ -in.  $\times$   $\frac{1}{8}$ -in. clear spruce lining in living room  
and hall.

### Roof finishes

White spar chips on 3-layer bitumen felt laid to fall  
on pumice concrete screed with aluminium edge  
flashing.

Area: 1,500 sq. ft.

### Decorations

Wood ceilings: one coat wood primer and one coat  
flat varnish.  
Woodwork, doors and windows: special primer and  
wax polish.

Chipboard and plaster: three coats oil paint, flat  
white.

Bedroom ceilings: two coats distemper.

External cedar untreated; other woodwork 2 coats  
wood preservative.

Total of finishes 12s 8  $\frac{1}{2}$ d

s d  
6 9

## SERVICES

s d

### External plumbing

1 1

All r.w.p.s, soil waste and vent pipes are inside.

### Hot and cold water installation

2 6  $\frac{1}{2}$

100 gall. galvanized-iron storage cistern, 25 gall.  
copper storage cylinder with immersion heater.  
Copper mains supply pipe.

### Sanitary fittings

1 10  $\frac{1}{2}$

1 pedestal basin.  
1 w.c.  
1 6-ft. porcelain finish bath.  
1 shower mixing valve.

### Heating and ventilation

2 10  $\frac{1}{2}$

Underfloor electric heating with independent  
thermostatic control for each room.  
Natural ventilation with opening casements.

### Electrical installation

3 1

Cost includes fittings.

Type of point	Number of each type
Lighting points	21
1-way switches	12
2-way switches	12
13-amp power	9
15-amp indicator	1

Total of services 11s 5  $\frac{1}{2}$ d

### Drainage

3 5  $\frac{1}{2}$

Septic tank, 4-in. fireclay pipes enclosed in concrete  
where under building.

### Other elements

7  $\frac{1}{2}$

Cost of bringing electricity and water supply on  
to site.

Total per sq. ft. of floor area:

£3,726 (net cost excluding external works) = 67 5  $\frac{1}{2}$ d

1,105 (floor area measured inside external walls)

1 11  $\frac{1}{2}$

## COST COMMENTS

2 2

In some measure the costs of this house reflect its unusual  
form of construction. For example, the large, overhanging,  
flat roof structure together with the Finishes at a combined  
total of 10s. 8  $\frac{1}{2}$ d. per square foot bear the greatest proportion  
of the cost, although the actual unit cost per square foot is  
10s. 8  $\frac{1}{2}$ d.  $\times$  1,105

which produces 7s. 11d.

1,500

Next greatest outlay arises from the plan shape, with its rela-  
tively long perimeter and consequent high wall : floor ratio  
of 1:20 : 1. Although the costs, per sq. ft. of floor area, of  
windows and solid floors are similar, the ratios for these two  
elements indicate that the unit cost of windows is almost twice  
that of solid walls; one of the main reasons being the exten-  
sive use of plate glass.

Note that floor finishes include screeds finished to receive  
fitted carpets (supplied by the client) in the bedrooms.

## CONTRACTORS

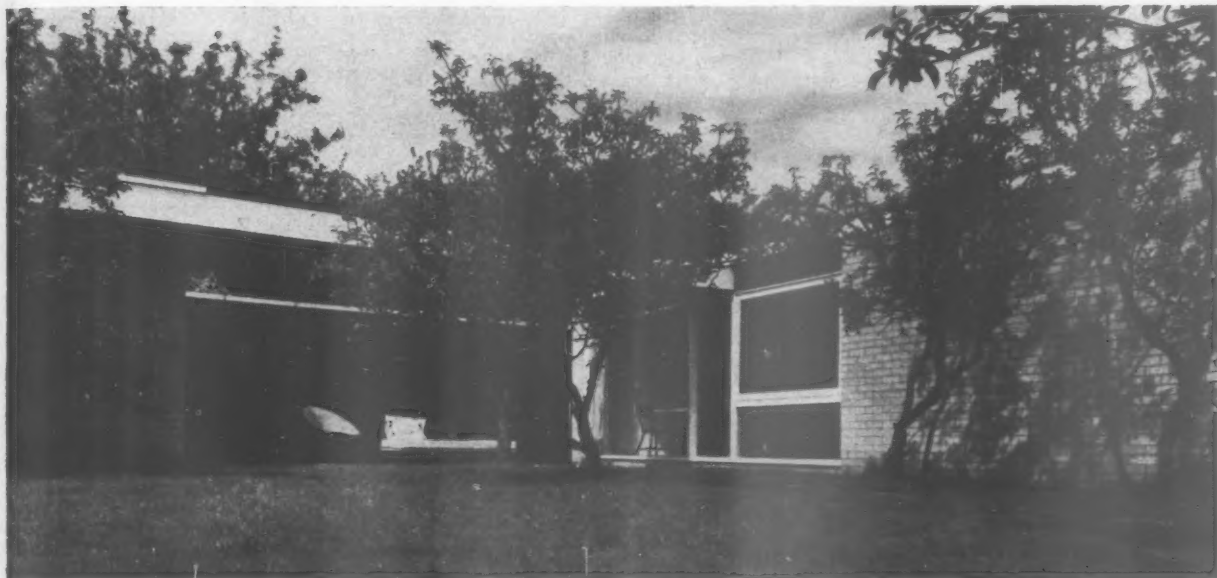
Builder: A. & P. Johnston. Joiner: Wm. R. Bruce. Roofing:  
Wm. Briggs & Son. Electrical: Jas. Scott & Co. Plumbing:  
Hugh Twaddle & Son. Painter: Rolland Decorators Ltd.



## critical study

## TWO SCOTTISH HOUSES: 1 THE RIG, GATTONSIDE, MELROSE

Michael Laird describes two houses recently built in the rolling Border country of Scotland, both designed by Peter Womersley. One is the architect's own house, The Rig, at Gattonside; the other for a client, above the Ettrick valley.



Both these houses are remarkably sophisticated exceptions to those with that rather naive quality, sometimes charming but sometimes dreary, which more usually prevails in modern house design. They are the latest works of an extremely talented young architect, who already has experience of several domestic projects, including the well-known "Farnley Hey" in Yorkshire, and a prototype house for spec building at Gattonside in Scotland. This experience, added to a natural aptitude for boldly imaginative and utterly logical planning and great diligence of detailing, puts these two houses well ahead of many that are published which often represent an architect's first effort in this field. Here are two quite different domestic design problems, solved by Peter Womersley in quite different ways.

In both cases there were "no holds barred" as regards materials, finishes, character or plan arrangements; in one instance the architect was designing for himself to a fairly tight budget, while in the other he was designing for a generous and apparently dedicated client. The detailed functional requirements are naturally different but the concept is broadly similar and developed to very successful conclusions, visually, in each house.

The Rig is Peter Womersley's own house and is built in an old orchard formerly belonging to the monks of Melrose Abbey. Gattonside is a small village set on a southern slope looking over Melrose and the Abbey to three prominent peaks of the Eildon Hills,

and is credited with a good micro-climate owing to its situation in the encircling hills. The stone flagged terrace outside the living room and study is frequently used as an outside drawing office, which was, in fact, its intended purpose. The site had to be cleared of fruit trees but as many as possible were left, and evergreen shrubs were planted for screening purposes on the eastern and southern boundaries. The courtyard between the house and garage is gravelled, but generally the garden has been completely grassed and is close cut, leaving high grass

*The house in its setting—fruit trees and grassed orchard. Garage and store on left, courtyard (later to have mural on rear wall) centre, and house entrance right. The intervening space between house and garage was designed primarily as an outdoor drawing office.*

*The entrance at night. Trees which have been retained close to the structure are picked up well by lighting from inside through the floor-to-ceiling glazing.*



## critical study

## TWO SCOTTISH HOUSES: 1 THE RIG, GATTONSIDE,

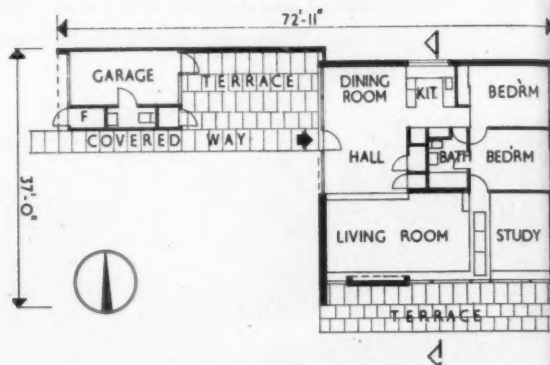
Cross section [Scale:  $\frac{1}{8}" = 1' 0"$ ]

*The house from the east. The simplicity of the "cut" box is very evident. Brickwork is pale pink and most colour derives from unobstructed views through the large window areas: e.g., the living-room curtain is orange and bedroom curtains have a black and white pattern.*

around the old fruit trees, eventually to be planted with bulbs.

**DESIGN:** This is a house for a bachelor's use as a home and office. The garage has been conceived with an eye to possible conversion, either as a separate office or a housekeeper's quarters, and has its

*The south side of the house showing the grid design reflected on elevation, window units being three, six or nine-foot wide units. The opening units are top hung, six feet wide, and glazed with 32-oz glass; remaining windows, except that above the brick spandrel, are double glazed.*

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

own wash-basin and w.c. The garage screens the house from the road entrance and, in the event of conversion, would be extended as a car-port in that direction. A covered way links it across the open south side of an intervening courtyard, to the box of brick and glass—rather an elegant one—which is the house. The house is planned generally on a three-foot grid with a ceiling height of 7 ft. 9 in.

Circulation space has been reduced to a minimum and the rooms are ingeniously related to the central service core—a box within a box. This contains the heating unit, boiler and drying cupboard, bathroom (top-lit and mechanically ventilated), and the main plumbing duct. The living area is coiled round three sides of this inner box on plan and the smaller bedroom is the only room fully enclosed in practice. The larger bedroom at present serves as a dressing room and is fitted with a full-height sliding door, normally left open to the kitchen area. This room is intended also as a guest room having its own access to the bathroom.

The fulcrum of the U-shaped living area is the sunken seating space, floored

in maple strip and one foot lower than the floors around, which are finished either with white plastic tile or fitted carpet. Further emphasis is given to this area by its ceiling of pine boarding which contrasts with the plaster finish elsewhere.

**CONSTRUCTION AND SERVICES** The walls have normal strip foundations and on the hardcore is a 4-in. waterproof concrete subfloor (with no other d.p.c.) and screed finish as required. Load-bearing walls are generally of cavity construction, with sand-lime brick externally and foamed slag internally, plastered and painted white overall. On long perimeter spans, i.e. at south and west, 11-in. and 3-in. trimmers are set over the window frames and take 9-in. and 3-in. softwood ceiling joists at 2-ft. centres. The roof is of 2-in. straw slab with three layers of roofing felt, and the ceiling below is of insulating plaster-board skim-coated and painted white. Internal walls are either of 4-in. foamed slag or reject bricks, plastered or lined with cedar boarding. Window frames are of softwood painted white, with infilling panels of either maroon



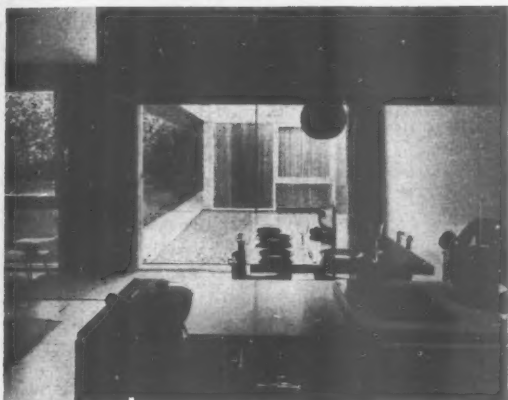
## MELROSE: continued



coloured glass sandwich, fixed panels of double glazing, or top-hung soft-wood-framed opening lights in plate or selected 32-oz. sheet glass. The large window to the dining space has sliding track and gear, allowing the room to open to the courtyard.

All plumbing and drainage is internal and concealed. Heating is by a forced air unit, working from a coke-fed boiler in the kitchen. The very open plan lends itself ideally to this arrangement.

**FURNITURE, FITTINGS AND FINISHES:** As Peter Womersley remarks, the furniture has been "architecturized" as much as possible, and is either built-in or fixed at selected points for spatial definition. For example, the long settee in the living room prolongs the



*Left, top to bottom: the kitchen from the dining area, with dressing room/guest bedroom beyond; a full height sliding door closes off the dressing room when necessary. View back into the courtyard from the kitchen; the rear wall of the garage has a large window in case of future conversion as a drawing office or a housekeeper's accommodation. General view of the study and sitting-room area, with walnut door off left to owner's bedroom; all the furniture and fittings were designed by the architect. The living room from the study; the ceiling is of polished pine and the floor maple and on the far side of the room can be seen the continuation of the upper floor level as a bench settee. The fireplace has a white tile mantelshelf, a black double asbestos flue, and black steel hood. Above: the owner's bedroom, from the bathroom; white walls and ceiling; black and white linen crash covers to mattresses; black haircord carpet; white rug; blue glass light fitting; orange, blue, black and white cushions.*

upper floor level across one side of the sunken living-room area and this level is picked up again by another settee at the same height also linking with the sill level on the opposite side of the fireplace. The central rosewood table is also deliberately set at the height of the upper floor level, being to some extent dual-purpose as a seat also. These aspects of the design are particularly successful and the full potential of internal space is certainly realized.

The sitting area is separated from the study by a long low cabinet housing wireless equipment on the one side and drawing materials on the other. The dining room and kitchen share a counter/sideboard unit with cupboards of cedar and obeche. This unit is topped with black plastic and extends round the kitchen to contain the sink and electric cooker. The cupboard unit over the cooker incorporates a hood and extract fan. Concealed lighting is fitted below a similar unit over the sink.

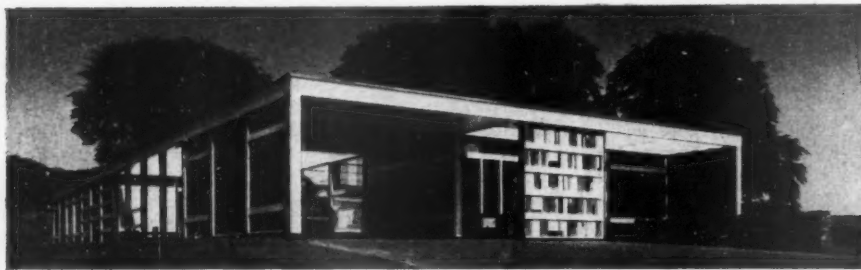
Colour is strong only in small concentrated areas and elsewhere is white, except where natural materials are exposed internally, as for instance at the fireplace where the pale pink sandlime brick is introduced inside, as it is around the well of the living room. The fireplace is of brick up to window transom height with a steel hood over the grate itself and a double asbestos pipe above, as a flue. The mantel is of reinforced concrete with a mahogany fascia, and a top surface of white tiles. Belgian black marble is also introduced here and continues "through the glass" to form the sill outside, the glazing being fixed direct to the marble. (The performance of this fireplace cannot be vouched for as it still had not been lit on the occasion of the writer's last visit). In any event, it is intended mainly as a focal point, being visible from most parts of the house, rather than as a heating element, which would be superfluous with the extremely efficient warm air system. Externally, too, roof fascias and window frames are white with lower fascia boards (over trimming joists) a dark blue-green. The front door is yellow but the garage door is of cedar boarding sealed with a plastic wax polish. Internally, the white walls are a magnificently effective foil to the natural qualities of the various woods and the brilliant colours of the fabrics, orange, purple and green, woven specially for the architect and dyed in Galashiels.

Total area: 1,300 sq. ft. (including garage and store, 210 sq. ft.); cost per sq. ft.: £3 (including fittings); designed mid-1956; working drawings completed: December 1956; building began: March 1957; house occupied: January 1 1958.



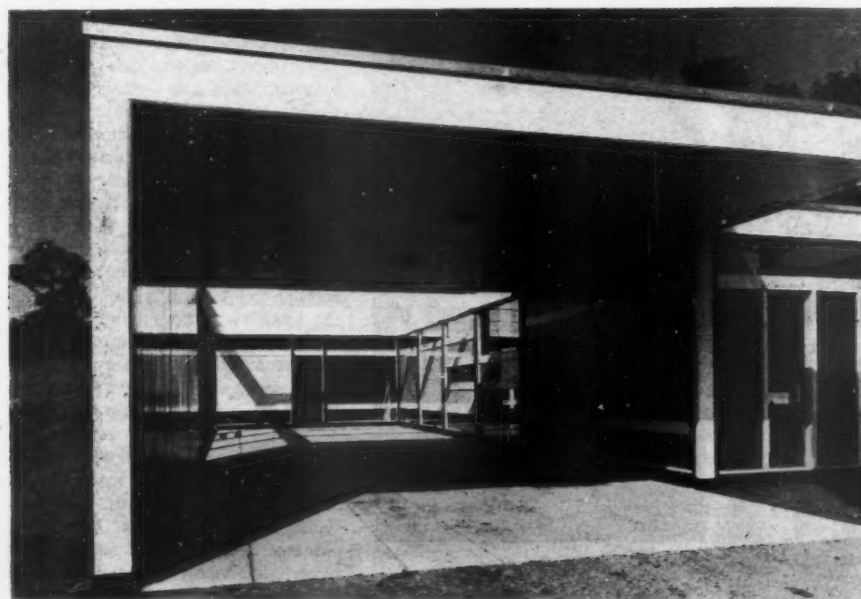
## critical study

## TWO SCOTTISH HOUSES: 2 HOUSE AT HIGH SUNDERLAND,



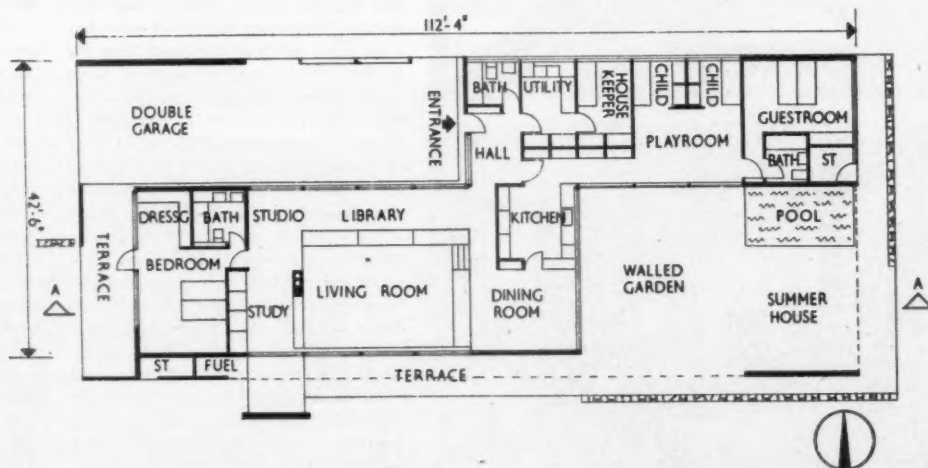
Above, the approach from the west, with main bedroom right, carport centre and children's wing left. The decorated panel, in front of the dressing room, is designed by the architect in glass sandwich with a free pattern of the infilling fibre colours used elsewhere in whole panels: black, dark green, yellow and two light

browns. Below, through the carport to the entrance door. The pebble inserts in the carport are designed to cope with oil drips from cars parked there. The colours of the opaque glass panels in this courtyard are brighter than those in that facing south-east, where sun prevails.



**SITE:** This comparatively large house at High Sunderland, Galashiels (2,700 sq. ft. plus garage and courtyards) is set upon a raft-like platform on a shoulder of the rolling hill country. This ridge overlooks the Ettrick valley with clear views to the south and is quite exposed. The retention of all the trees including five 80-ft. beech trees, has alleviated the physical effects of this exposure while not harming the splendid isolation of the site which this rather prismatic design so thoroughly exploits. The physical isolation is complete (water is piped from a fresh water spring more than a mile away), and the transition between the house and the landscape is contrived to take place in one or other of the two large courtyards, or on the terraces, which between them occupy almost half the overall area of the raft platform. A ha-ha divides the south side of the site from the neighbouring parkland, which is used largely as rough grazing, and nothing has been done (beyond the provision of an approach road and a septic tank) to upset these natural features. In fact, the existing planting, has been somewhat reinforced by the provision of specimen trees, planted in clumps to act as windbreaks, including beech, plane, chestnut, birch and conifers.

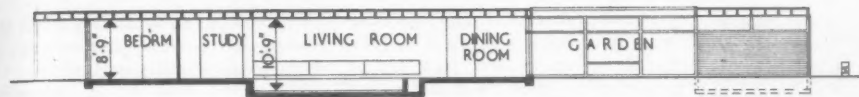
**DESIGN:** The architect was asked to design a comfortable house for a family of five, a textile designer, his wife, two children and a housekeeper, and very little further briefing was ever given. It seems that not even cost was discussed seriously, either before or during the project, and no definite cost figures are available. However, it is amply clear that the client is a completely contented customer. The house is set upon the already mentioned platform, which measures 112 ft.



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

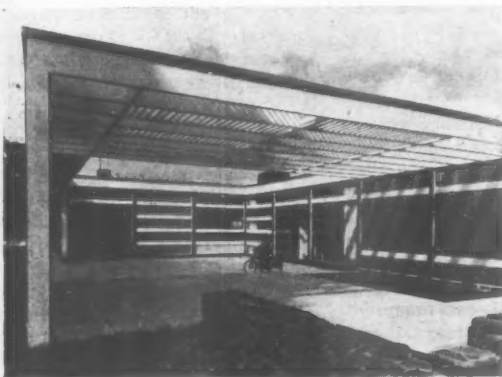


## GALASHIELS continued

Section A-A (Scale:  $\frac{1}{8}$ " = 1' 0")

Above, view from the south-west. Below, the south-east courtyard. The pool is fitted with a removable wire cover since the family includes a small child of crawling age. The pergola is to be fitted later with coloured canvas blinds and a fixed low marble table. Colours in the infill

panels are black, dark green, two shades of light brown. Bottom, the main bedroom elevation from the west terrace. The sliding window is fully open straight ahead and other glazing, both clear and opaque, mirrors the landscape.



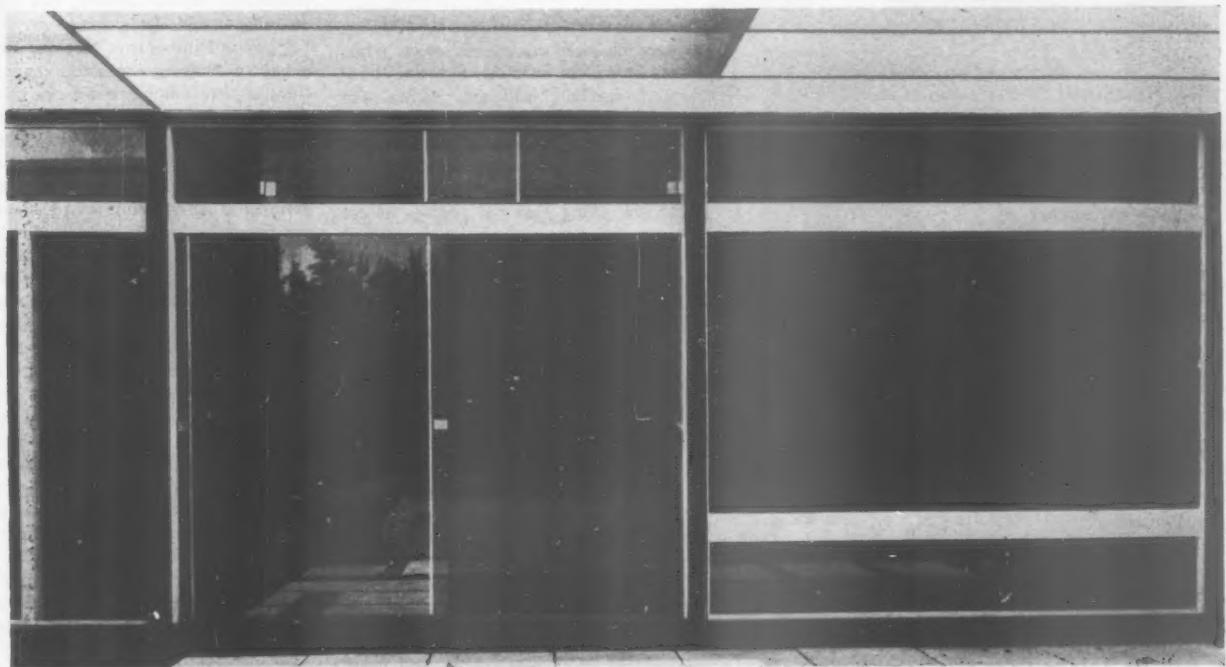
× 42 ft. The house only occupies part of it, for a large part of the skeleton structure which covers this base is used simply to support pergolas or covered ways over the terrace and courtyards. The living accommodation stretches from one corner to that diagonally opposite, the other two corners bounding two large courtyards of different character. The entrance courtyard includes a carport for two cars and is the more austere, contrasting in colour and size with the "living" courtyard to the south-east. Thus the house itself is divided into two unequal parts, the living area to the south-west and the

children's and service rooms to the east. Most windows are full height and face wonderful views. The sitting room is differentiated from the rest of the living room by being sunk 2 ft. below normal floor level; this measure was also intended by the architect to cut out too much foreground view in front of the house and counteract a feeling of exposure.

The sunken sitting area is similar in context and idea, though greater in scale, to that in the architect's own house. Similarly, in this case, the contiguous areas form a surrounding walkway: these areas are separated but not completely divided from one another, by such things as a chimney stack, a plant trough, and a low storage unit forming a balustrade.

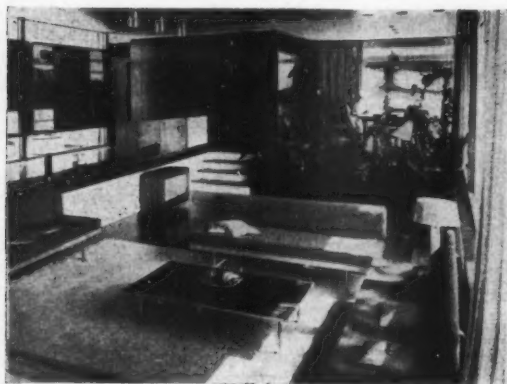
The kitchen is centrally placed to serve the front door, children's playroom, dining room, and also to help maintain a watch over children playing in either courtyard. It is entered from the entrance hall by a door concealed in the walnut panelling. The room is for food preparation only, there being a separate laundry and ironing room with tub, sink, washing machine, and drying cupboards adjoining the housekeeper's room.

At the east end of the house there is a guest's suite with the bathroom plumbing duct concealed in a hanging cupboard opening to the bedroom. The playroom next door is designed to provide two larger bedrooms for the growing children, but at present they have two sleeping cubicles behind large sliding doors, with wardrobes and dressing tables built in.

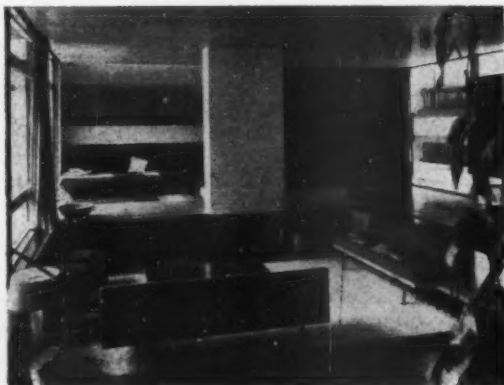


## critical study

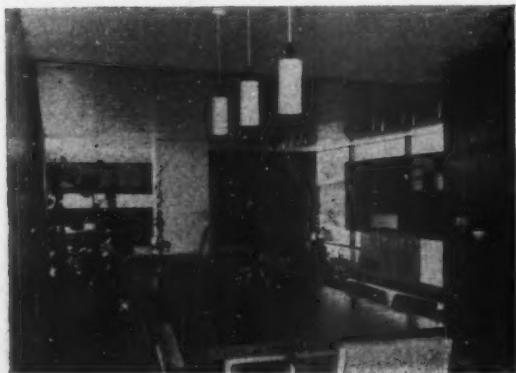
## TWO SCOTTISH HOUSES: 2 HOUSE AT HIGH SUNDERLAND continued



Above, general view of the living area from the study. Left to right: library "walk" at upper level, entrance hall with flush-panelled wall of rosewood, dining room beyond plant trough. The sitting area is 2 ft. 2 in. lower than normal floor level. Below, view of the living area from the east, looking towards the study. Colours: floor, walnut; carpet, white Indian; settees, orange and two shades of cinamon; light fittings, lacquered brass; plaster, white.



Below, view through the dining room to the living area. The fitting on the right is of mahogany and rosewood and divides the dining room from the kitchen. Recesses set as display shelves with black painted back panels and concealed lighting.



**CONSTRUCTION AND SERVICES:** The house is designed with an 8-ft. grid, framed in timber and built up of prefabricated frames. These 8-ft. square frames of makore are bolted to each other and fixed to the reinforced-concrete perimeter beam. Within this overall framework are infilling panels of either diagonally braced stud frames (sheathed in ply and faced with makore vertical boarding), full-length sliding windows, or fixed panels of sandwich glass (in dark green, yellow, black and two shades of fawn). Foundations are normal except at the eastern end where excavation to a depth of 2 ft. 6 in. was necessary because of the slope. The site concrete is placed directly upon the ground and incorporates a water-proofing layer.

At the upper perimeter of the structural frame is an 11-in.  $\times$  3-in. softwood trimming beam helping to support the roof joists, 11-in. deep open-web joists over the living room (with a 24-ft. span) and 11-in.  $\times$  3-in. normal softwood over the service wing (18-ft. span). In this way a constant ceiling level is maintained. The roof is finished with three layers of roofing felt on 2-in. showerproof straw insulation board.

Heating is by underfloor plastic coated copper coils, operated by time switches on reduced off-peak tariff, and a separate booster system on normal tariff can be switched on in really severe weather. Water heating is by immersion heaters and there are coils in the cold water pent houses to prevent freezing. Plumbing is internal and concealed.

**FURNITURE, FITTINGS AND FINISHES:** All the built-in furniture and fittings were designed by the architect, while all fabrics for curtains and upholstery were specially designed, woven and dyed by the client. Some of these fabrics have also been used, rather successfully, as panels in the fitted furniture.

In the living area the ceiling, except over the dining room, is of polished obeche panels. The sitting-room floor is walnut strip, while floors elsewhere are of maple, except for ceramic tile in kitchen and bathrooms. Other materials prevailing in the vertical surfaces inside are black Belgian marble on the short ends of the living-room wall, plaster, idigbo (in flush panels to the dining-room), rosewood and walnut in the main bedroom. In the client's bathroom, two basins are fitted side by side in a black plastic shelf and the room is ventilated by extract fans operating on a time switch. The parents' bedroom has a microphone connection with the children's bedroom at the other end of the house. In the kitchen the worktop is of white plastic;

there is an extract fan and hood over the cooker and a waste disposal unit is fitted to the stainless steel sink.

Total area: 2,700 sq. ft. (excluding carport and courtyards); total cost, figures not available, but in the region of £10,000 unfitted; sketch plans approved: Summer 1955; working drawings completed: December 1955; building began: February 1957; house occupied: January 1958.

**CONCLUSION:** The various merits of The Rig and High Sunderland must be obvious from the drawings and photographs, though the successful treatment of colour cannot be presented properly. Generally colour is supplied on textured surfaces only and the disposition of vivid concentrations of colour in their context of white plaster and near-neutral natural materials is brilliantly conceived. This, together with the ruthless reduction of pure circulation space (especially at The Rig) and the tight integration of furniture with the whole spatial concept make these houses as unique in Scotland for their design as they are for somehow or other unbending the bye-laws to an unprecedented extent.

On the other hand, Scotland has a distinct character of climate, landscape, materials, people and, one might add, a peculiar proclivity for not reflecting these in her few examples of good modern architecture. Speaking personally, I think that a lack of this expression is the basis of some disappointment in these houses too. The bold uncompromising nature of these houses in their landscapes is consistent with the personality of the country, but paradoxically enough the houses seem a little "thin" in spite of this. Not that there is bad landscaping—quite the contrary—but a certain stoicism that one might expect is missing and instead there is a slightly foreign fragile quality. The dry stone dwarf walls at High Sunderland consequently seem oddly self-conscious gestures to native tradition, to a native eye hopefully looking for some rather particular expression of regional character from such particular examples of a new architectural idiom. More positively speaking, not even the careful handling seems to have succeeded completely in dealing with so many different materials in the very open plan. A similar comment might apply to the variety of light fittings in High Sunderland's living area. Here also it seems odd, in wet weather, to park one's car under cover in the car port and then traverse the large open courtyard to the entrance door. However, it is not the purpose of this report to make a score card, and these observations must be understood as personal opinion rather than dogmatic criticism.

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*Sterling Metals, Ltd.*, aluminium .. 10.B2  
*Stic B Paint Sales Ltd.*, stone paints .. 40.C1  
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*Stramax Ceilings (G.B.) Ltd.*, acoustic heating ceilings .. 29.H5  
*Stramit Boards, Ltd.*, Stramit slabs .. 14.L4  
*Stratallyn, see* Radiation Ltd.  
*Stressed Concrete Design, Ltd.*, prestressed concrete, principles .. .. . 6.A1  
shell roofs .. .. . 6.B1  
*Strowger, see* Automatic Telephone & Electric Co. Ltd.  
*Structural Insulation, Ltd.*, thermal insulation general data 28.A1 28.A2 28.A3  
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## working detail

## ROOFS AND CEILINGS: 54

ACOUSTIC CEILING: OFFICES IN LONDON, W.C.2

*T. H. M. Partners, designers*

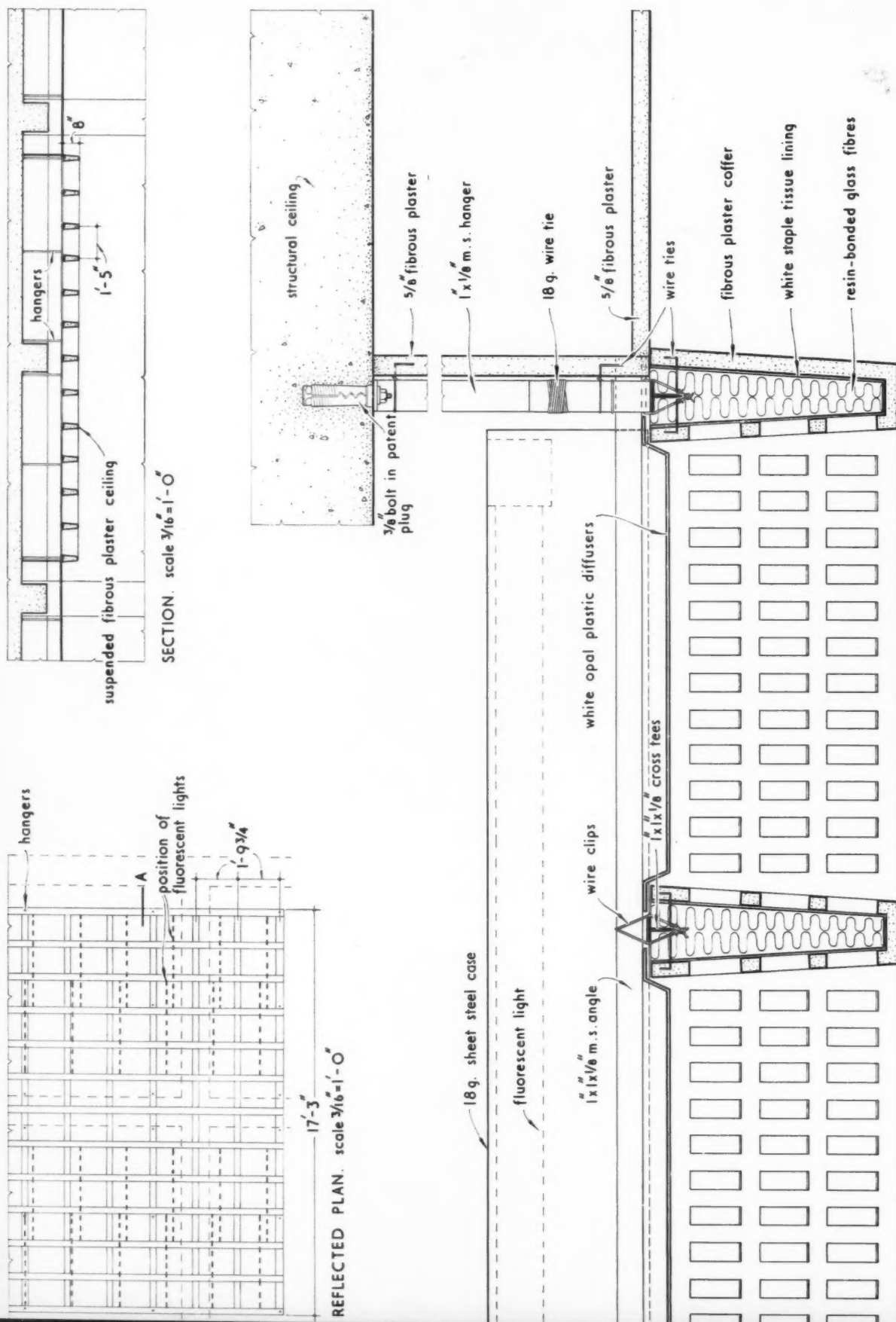
*This type of "fined" acoustic ceiling is more efficient than the more usual flat ceiling as it offers a greater area of acoustic surface. The fibrous plaster coffers were formed of longitudinal ribs each 18 ft. long with short transverse ribs spanning between. Note on the drawing the fibrous plaster firestop where the acoustic ceiling abuts the flat ceiling over the secretaries' desks.*

## working detail

## ROOFS AND CEILINGS: 54

ACOUSTIC CEILING: OFFICES IN LONDON, W.C.2

T. H. M. Partners, designers



working detail

HEATING: 22

HEATING PIPES: OFFICE BUILDING IN DON MILLS, ONTARIO

John B. Parkin Associates, architects (material supplied by Felix Moore)



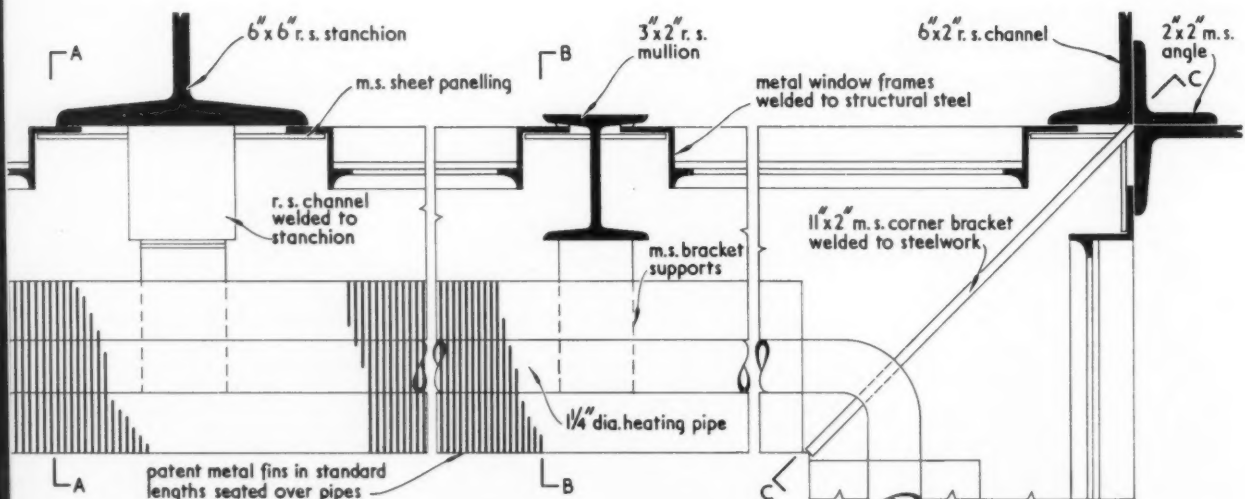
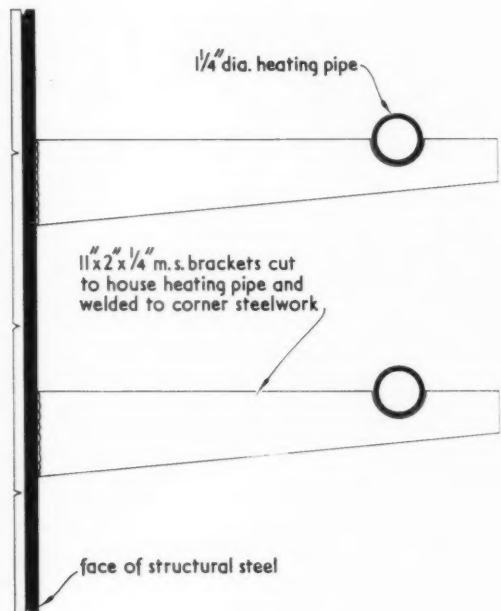
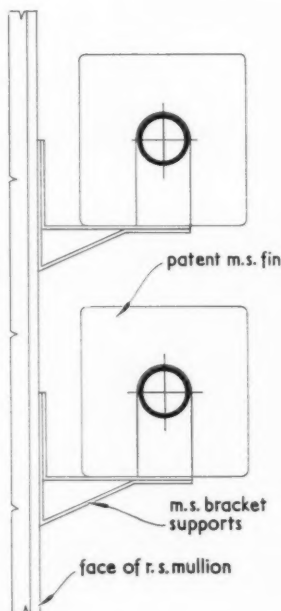
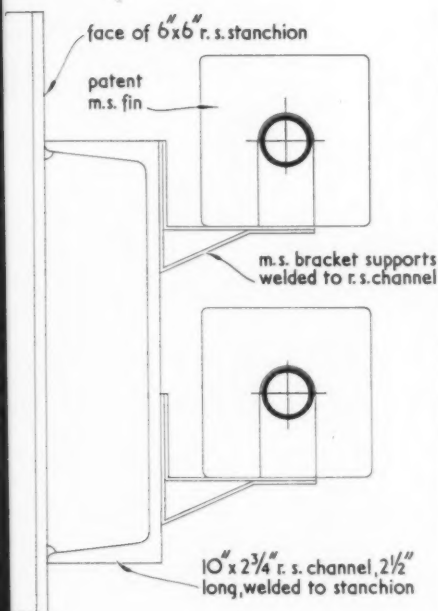
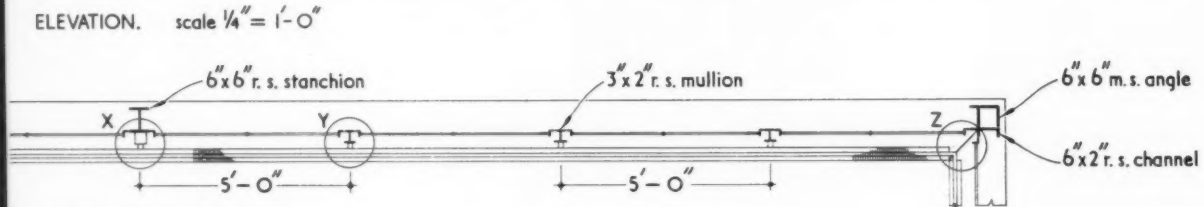
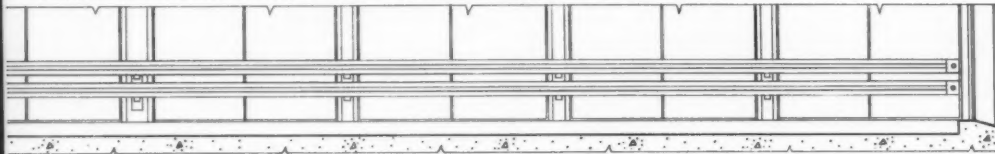
*This detail has been chosen because it shows a deliberate incorporation of the heating elements (here finned hot water tubes) in the visual scheme. It is at once more efficient from the heating point of view than the more usual concealment behind a casing and is less likely to become a dust trap.*

working detail

HEATING: 22

HEATING PIPES: OFFICE BUILDING IN DON MILLS, ONTARIO

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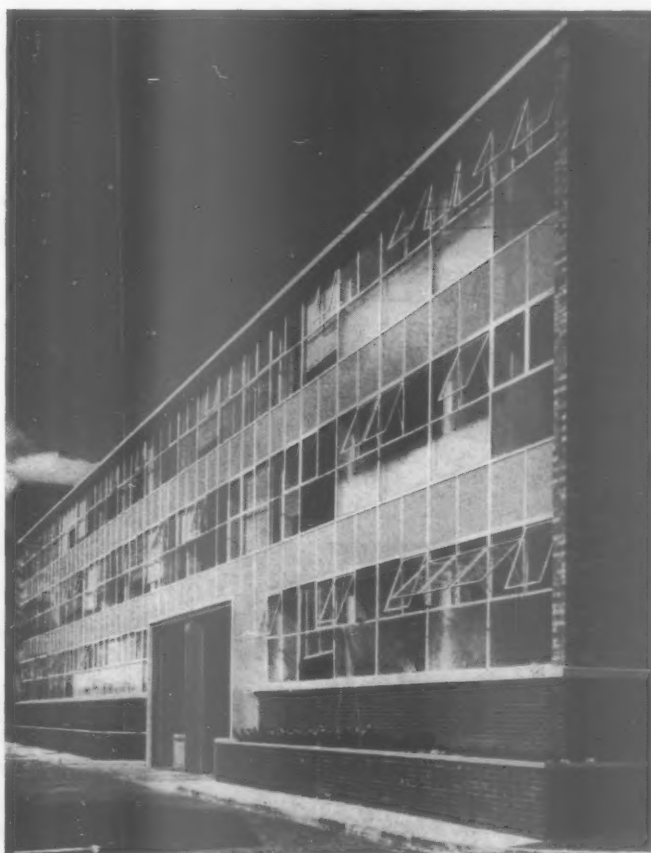
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and slowly filled with water at 60 deg. in summer, which temperature will be maintained. The buildings also include a steering and model storage tank, workshop and store for models, offices, water tunnel and plant room. On right, the chimney and ventilation tower, to the north of the tank building, looking suitably like a monster from the deep. When they are completed the buildings will form an important extension of the National Physical Laboratories. Designed by the Ministry of Works Architects Department, which supplied the pictures.



**Contractors**

*The Rig at Gattonside, Melrose* (pages 29-31), designed by Peter Womersley, A.R.I.B.A. Contractors: Excavation, foundations, concrete, bricklaying, partitions, tile-laying: Murray & Murrell. Joinery and fittings: James Finlayson. Electrical work: Standard Electric. Plumbing: Baillie Ruthven. Plastering: Messer. Roofing: Andersons. Glazing: Mitchells. Steel and ironwork: Morrison & Murray, Aimers MacLean. Tiles: Accotile Ltd. Plyglass and Vitroslab: Modern Art Glass. Maple flooring: John Herring & Co. Fabrics: Colourcraft of Galashiels. Sliding track: Allday & Hendersons & Moody. Boiler: Hope (Automatic). Heating unit: Weatherfoil Ltd.

*House at High Sunderland, Galashiels* (pages 32-34), designed by Peter Womersley, A.R.I.B.A. Contractors: Excavation, water supply, concreting, foundations, bricklaying, partitions, tile-laying: Murray & Burrell Ltd. Joinery, some internal fittings: James Finlayson. Electrical work and floor heating: Standard Electric Company. Plumbing: Grierson. Plastering: Messer. Roofing: Andersons. Glazing: Mitchells. Steel and ironwork: Aimers MacLean, and Morrison & Murray. Tiles: Langley. Veneered panelling and walnut strip floor: Wm. Mallinson & Sons Ltd. Plyglass and Vitroslab: Modern Art Glass. Maple flooring: John Herring & Co. Light fittings: AEC, GEC, Rotaflex and specially made. Upholstery and wax polishing: Findlater Smith. Fabrics: Colourcraft of Galashiels. Sliding track, etc.: Allday & Hendersons. Connectors: Rigiifix. Flue and fire: Supiro, Baxendales. Marble: Toffolo Jackson.

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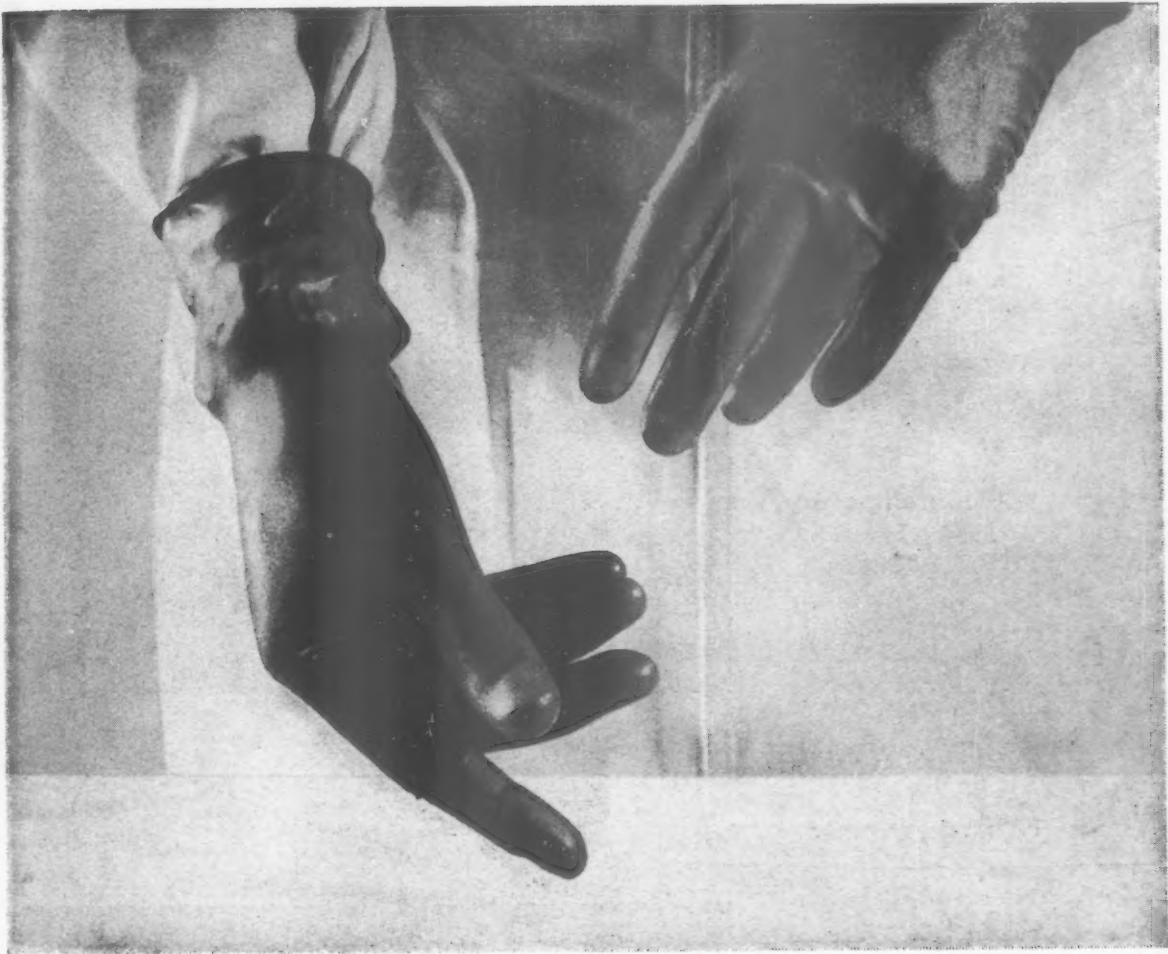
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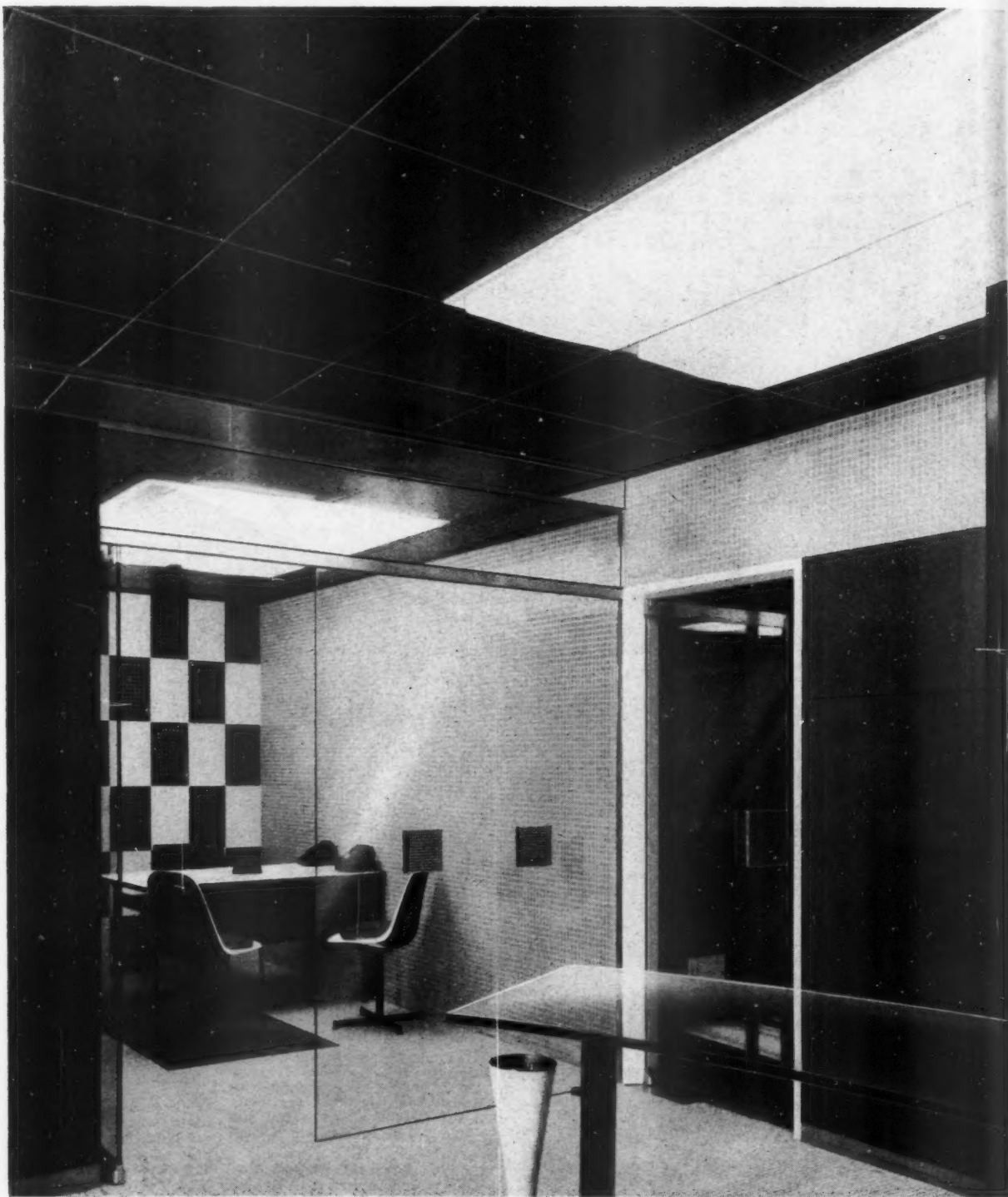


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## ASCOT IN NEW HOUSING (7)

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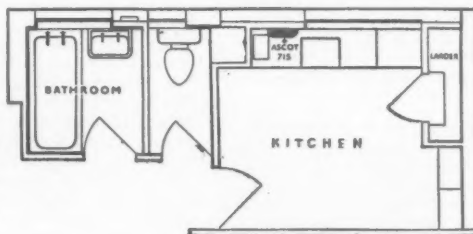
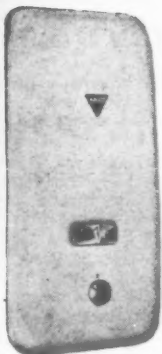
three-bedroom maisonettes, and a nine-storey block containing 51 flats of bed-sitting room, one-bedroom and two-bedroom design.

To provide an instantaneous hot water service throughout all the flats at Tower Court, Ascot 'balanced flue' multipoints were installed in the kitchens.

### RESPONSIBLE AUTHORITIES

Director of Housing Development: Geo. L Downing, O.B.E., M.I.C.E., M.I.Mun.E., A.M.I.Mech.E.

Architect: Harry Moncrieff, F.R.I.B.A., A.M.T.P.I. of Co-operative Planning Ltd.



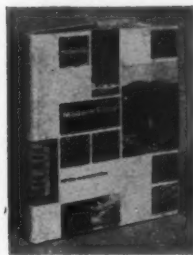
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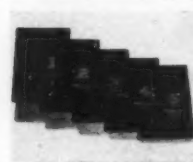
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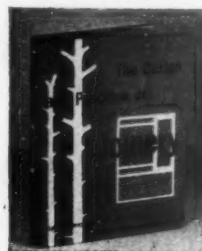
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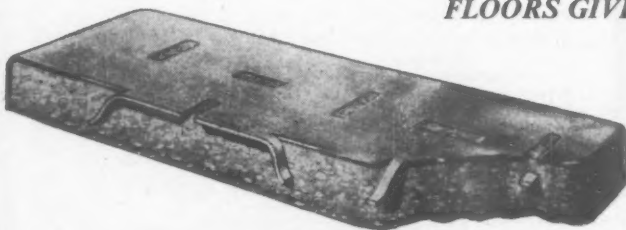
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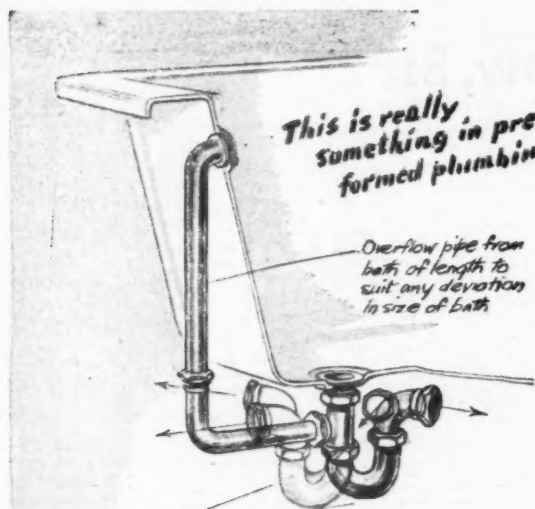


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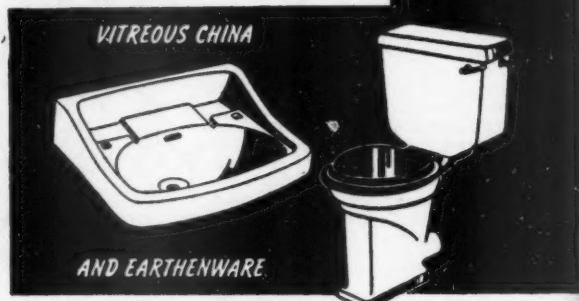
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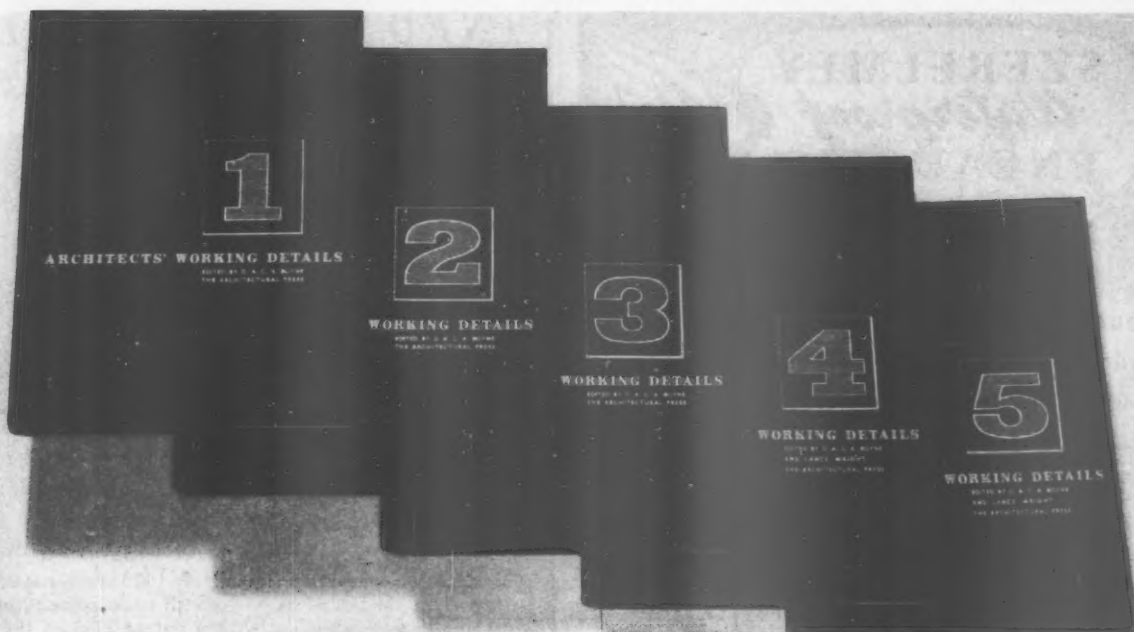
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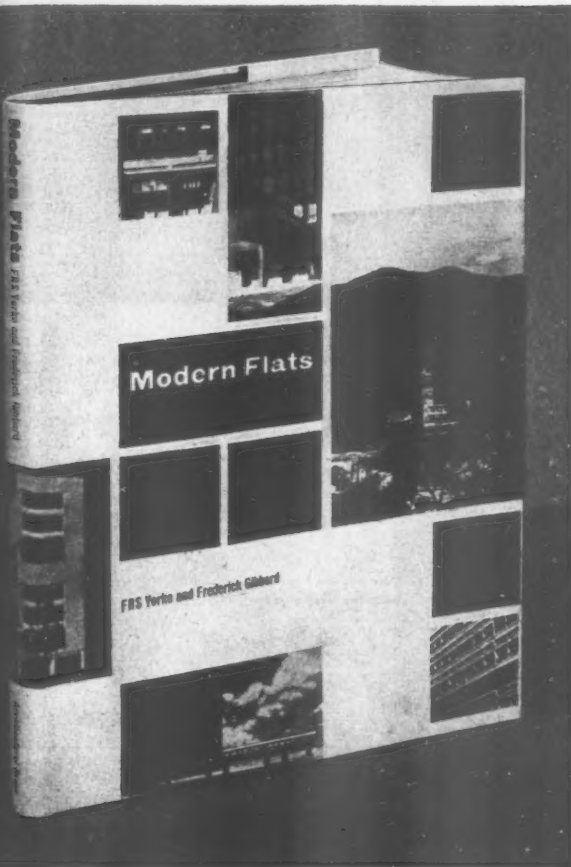
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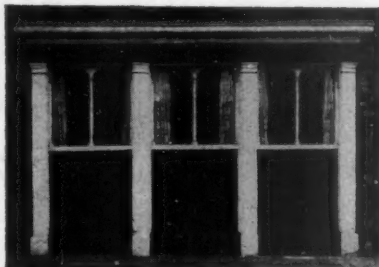


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## DECEMBER



Workshop Annex: new stores, paint shops, etc., for the Old Vic, ingeniously packed under some awkward daylighting angles by Lyons Israel and Ellis, and fully illustrated in this issue.



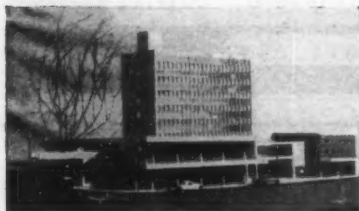
Pub Front: frame and fill on the facade of the Crown and Mitre, King's Lynn: one of the illustrations to an assessment of the aesthetic and functional aspects of pub exteriors and their future.

Seagram completed; and dwarfing even the Cadillac in foreground, the glass and bronze Seagram Building by Philip Johnson and Mies van der Rohe will be fully discussed and—tentatively—evaluated.



## JANUARY

### Special Preview Issue



New Town Multi-storey: an office block for the town centre of Hemel Hempstead, designed by H. K. Ablett, chief architect to the Development Corporation.

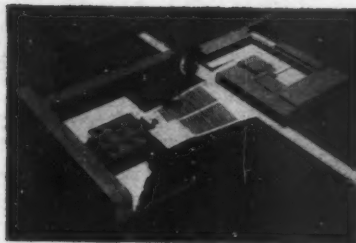
High Gorbals: a redevelopment area in Glasgow, by Robert Matthew and Johnson Marshall, one of a number of housing-schemes pre-viewed in this issue.



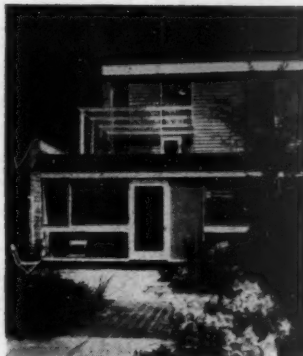
Northern Methodist: a projected church in Fulwell, Co. Durham, designed by S. W. Milburn and Partners for a Methodist congregation.



## FEBRUARY

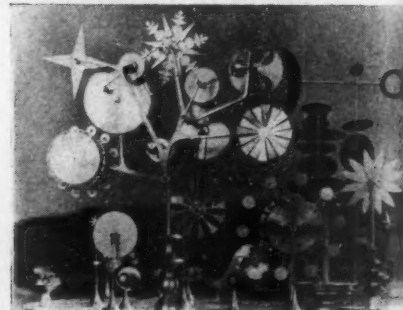


Nigerian University: Library, Arts Faculty, Administration and Students' Union buildings, and an open-air auditorium, at Nsukka, Eastern Nigeria, designed by James Cubitt and Partners, and pre-viewed in this issue.



Spec and Span: this house at Teddington is among the buildings discussed in a full-dress survey of Eric Lyon's Span speculative developments by R. Furzeaux Jordan.

Sun-Mill; the ingenious solar toy designed by the ever-inventive Charles Eames, to dramatise the potentialities of the sun as a source of energy, a cosmic mobile.



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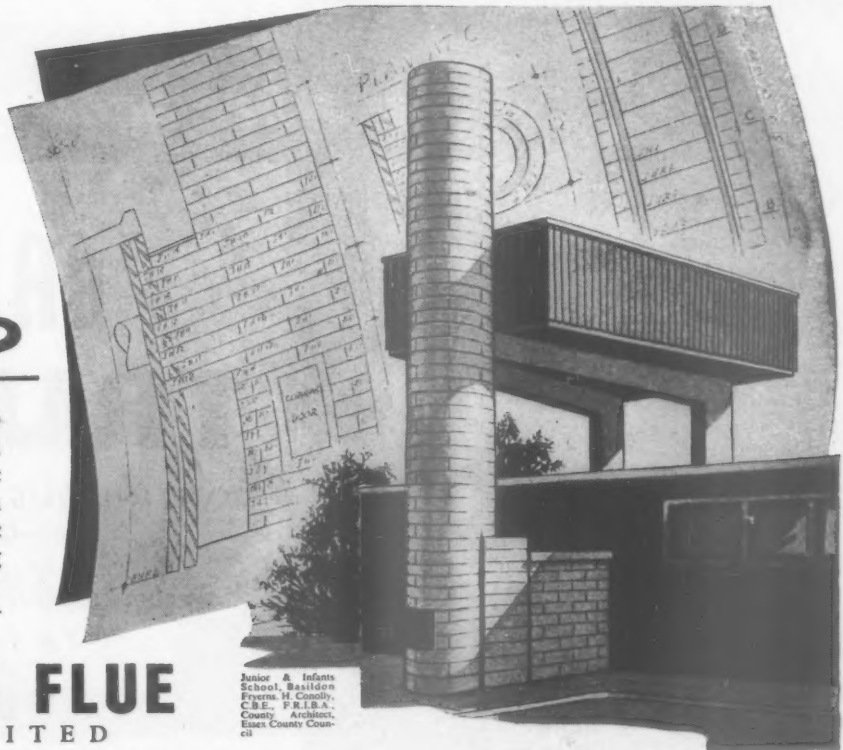
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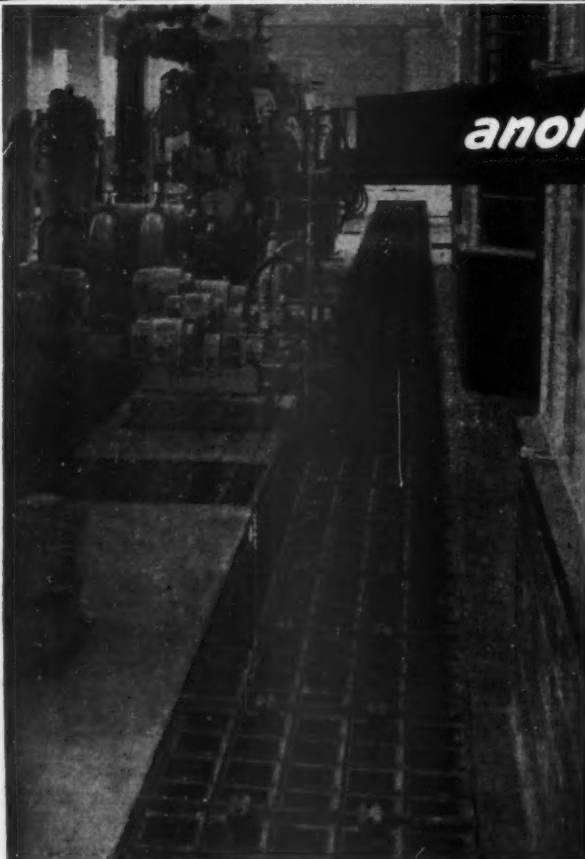
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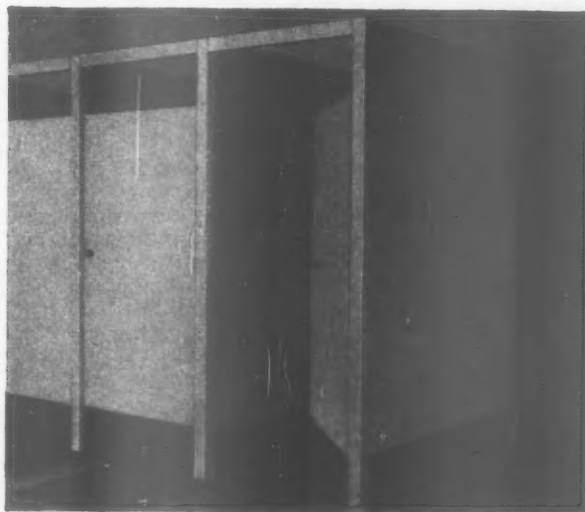
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This year the biggest revision is in *Carpenter and Joiner*: a new sub-section, 'Timber Engineering,' is contributed by D. W. Cooper, B.Sc., A.M.I.STRUCT.E., F.INST.W.SC. Types of plywood are more fully described by I. D. G. Lee, B.Sc. (ENG.), A.INST.W.SC., and a T.D.A. table of the main types of plywood, blockboard and laminated board is included. John Stillman and John Eastwick-Field, A./A.R.I.B.A., have re-arranged the specification clauses and re-written the matter about timber seasoning, and F. D. Silvester of T.D.A. has revised the introduction. The *Curtain Walling* section is extended to include some systems of timber construction and new steel and aluminium systems. *Plumber, Sanitary Engineer and Water Supply* is enlarged and more fully illustrated. Other sections substantially altered and



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Housing accommodation will be made available to successful applicants if necessary.  
The selected applicants will be required to pass a medical examination for the purposes of the Superannuation Scheme.  
Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m. on Thursday, 8th January, 1959. R. S. YOUNG, Town Clerk. 2343

**COUNTY BOROUGH OF SOUTH SHIELDS PRINCIPAL ASSISTANT QUANTITY SURVEYOR**  
Applications are invited from suitably qualified persons for the above appointment in the Borough Engineer's Department, salary in accordance with Grade A.P.T. IV (£1,025 × £50—£1,175).  
Housing accommodation will be made available to successful applicants if necessary.  
The selected applicants will be required to pass a medical examination for the purposes of the Superannuation Scheme.  
Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m. on Thursday, 8th January, 1959. R. S. YOUNG, Town Clerk. 2343

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Housing accommodation will be made available to successful applicants if necessary.  
The selected applicants will be required to pass a medical examination for the purposes of the Superannuation Scheme.  
Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m. on Thursday, 8th January, 1959. R. S. YOUNG, Town Clerk. 2343

## COUNTY BOROUGH OF SOUTH SHIELDS

**PRINCIPAL ASSISTANT ARCHITECTS**  
Applications are invited from suitably qualified persons for the above appointments in the Borough Engineer's Department, salary in accordance with Grade A.P.T. IV (£1,025 × £50—£1,175).

Housing accommodation will be made available to successful applicants if necessary.

The selected applicants will be required to pass a medical examination for the purposes of the Superannuation Scheme.

Application forms are obtainable from the Borough Engineer, Town Hall, South Shields, and should be returned to him not later than 10 a.m. on Thursday, 8th January, 1959.

R. S. YOUNG, Town Clerk. 2342

## PADDINGTON BOROUGH COUNCIL

**Require BUILDING SURVEYING ASSISTANT (A.P.T. I—£605 to £755 per annum).** Candidates should have practical knowledge of building construction, experience in surveying and levelling, the repair, adaptation and conversion of civic and residential properties, and be capable of preparing plans, specifications and estimates of costs in respect of those works and their supervision. Candidates preferred at advanced stage of preparation for R.I.C.S. Intermediate or equivalent examination. Written applications, stating age, qualifications, experience, and names and addresses of three referees, should reach the undersigned (quoting A.398) by 12th January, 1959. W. H. BENTLEY, Town Clerk. 2402

**Town Hall, Paddington Green, W.2.**

## METROPOLITAN BOROUGH OF LAMBETH

**ARCHITECTURAL STAFF**  
Applications are invited from architects to assist in large programme of conversion and improvement of dwelling houses. Duties: Surveys of existing properties, preparation working drawings and specifications and supervision of works in progress, etc. Appointment will be on a temporary basis for possibly two or three years. Applications will be considered from older members of the Profession with suitable experience. Salary according to qualifications and experience within the range £875/£1,055 p.a.  
Full details of experience and qualifications should be forwarded to the Town Clerk, Lambeth Town Hall, London, S.W.2. 2456

## EAST RIDING OF YORKSHIRE COUNTY COUNCIL

Applications are invited for the following permanent appointments on the staff of the County Architect.

**ASSISTANT ARCHITECTS.** Special Scale, £750—£1,030 per annum.

Applicants are required to have passed Parts I and II of the R.I.B.A. Final or Special Final examination or their equivalent at one of the recognised schools of architecture.

**ARCHITECTURAL ASSISTANTS.** Grade A.P.T. £575—£725 per annum.

Applicants should have passed the Intermediate R.I.B.A. examination.

**ASSISTANT QUANTITY SURVEYOR.** Special Scale, £750—£1,030 per annum.

Applicants are required to have passed the Final examination of the Royal Institution of Chartered Surveyors.

**ENGINEERING ASSISTANT (ELECTRICAL).** A.P.T. Grade III, £845—£1,025 per annum.

Candidates should be Associate members of the Institution of Electrical Engineers and should be experienced in the preparation of complete schemes, specifications and estimates in connection with electrical installations in schools and other public buildings. They should also be experienced in the design of electronic control of heating installations and should have attained a good standard of draughtsmanship.

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, 9th January, 1959.

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

THOMAS STEPHENSON, Clerk of the Council. 2436

## COUNTY BOROUGH OF WEST HAM

**BOROUGH ARCHITECT & PLANNING OFFICER'S DEPARTMENT**

Applications invited for the following permanent posts:

(a) **CHIEF ASSISTANT PLANNING OFFICER.** J.N.C. Scale A—£1,185 × £50 (3) × £45 (1)—£1,380 p.a.

Must be A.M.T.P.I. and additional qualification A.R.I.B.A. or A.R.I.C.S. an advantage, preferably with experience in replanning urban areas. Will be responsible for Planning Administration generally.

(b) **SENIOR GROUP ARCHITECT.** A.P.T. Grade V, £1,175 × £50—£1,325 p.a. and L.A. Must be A.R.I.B.A. with experience of handling large Housing Contracts and controlling staff. Planning qualification an advantage.

(c) **ARCHITECTURAL ASSISTANTS.** A.P.T. Grade I, £575 × £30—£725 p.a., and L.A. Intermediate R.I.B.A. standard, with office experience.

Application forms and details from Borough Architect and Planning Officer, 70 West Ham Lane, Stratford, E.15, returnable by 17th January, 1959. 2441

## BOROUGH OF MAIDSTONE

**ASSISTANT ARCHITECT**

Special Grade (£750—£1,030); commencing salary according to qualifications and experience, which should include the design of large public buildings. Housing accommodation if required. Forms and particulars from Borough Surveyor, Palace Avenue, Maidstone.

T. SCHOLES, Town Clerk. 2452

## METROPOLITAN BOROUGH OF LEWISHAM

**TEMPORARY CLERK OF WORKS**

Applications are invited from suitably qualified persons for the above post. Salary scale £585—£755 p.a. (A.P.T. I, plus London "Weighing"). Further particulars and form of application from Town Clerk (Dept. H), Lewisham Town Hall, Calford, S.E.6. Closing date 7th January, 1959. 2433

## CITY ARCHITECT'S OFFICE, MANCHESTER

Applications invited for appointment on the permanent staff of an ASSISTANT ARCHITECT, salary Special Scale £750 to £1,030 per annum; the commencing salary will be fixed according to qualifications and experience. Housing accommodation for a limited period may be provided. Removal expenses allowed. Five-day week in operation. Forms of application from the City Architect, P.O. Box 488, Town Hall, returnable 9th January, 1959. 2417

## COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE

**OFFICE OF THE COUNTY ARCHITECT**  
Applications are invited for the appointments shown below:—

For appointment in the Central Office at Wakefield

**ASSISTANT ARCHITECTS** in the Special grade, salary range £750—£1,030.

Applicants should be registered architects and have had good experience in the design and construction of modern buildings.

For appointment in the Harrogate Divisional Office

**ARCHITECTURAL ASSISTANT** in grade A.P.T. I, salary range £575—£725.

The appointments are subject to the provisions of the Local Government Superannuation Acts.

Applications, on forms obtainable from this office, must be delivered not later than the first post on Tuesday, 6th January, 1959.

A. W. GLOVER, F.R.I.B.A., County Architect. 2413

## Bishopgarth, Westfield Road, Wakefield.

**LONDON COUNTY COUNCIL ARCHITECTURAL ASSISTANTS & LAND-SCAPE ASSISTANTS** experienced in preparing schemes, working drawings, specifications and supervising contracts. Land surveying and good draughtsmanship essential. Interesting work on construction of new parks and open spaces and ancillary buildings and laying-out works at housing estates, schools and playing fields.

Up to £1,090 or £860 a year according to qualifications and experience.

Apply giving brief particulars to Chief Officer of the Parks Department, County Hall, Westminster Bridge, S.E.1 (WATERLOO 5000 Ext. 3076). (2494A). 2409

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

Applications are invited for the following temporary appointments:—

**SENIOR ASSISTANT ARCHITECTS,** Grade IV (£1,025—£1,175).

**ARCHITECTURAL ASSISTANT,** Grade II (£725—£845).

London weighting is paid in addition, and salaries in excess of the minima may be paid according to qualifications and experience. The appointments are for work on a new Technical College and are expected to be for a period of not less than 3 years.

Further details and application forms returnable by 14th January, 1959, from the Town Clerk, Town Hall East Ham, E.6. 2437

**LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT**

Vacancies for ARCHITECTURAL ASSISTANTS, starting salary up to £860. Full and interesting programmes of houses, flats, schools and general buildings.

Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council (EK/52/59), County Hall, S.E.1 (2168). 1949

## CITY AND COUNTY OF BRISTOL

**CITY ARCHITECT'S DEPARTMENT**

Applications invited for undermentioned permanent staff posts:—

(a) **SENIOR ASSISTANT ARCHITECTS,** Special Scale (£750 × £40—£845).

(b) **ASSISTANT ARCHITECTS,** Grade A.P.T. II (£725 × £30—£845).

(c) **ASSISTANT ARCHITECTS,** Grade A.P.T. I (£575 × £30—£725).

Appointments will be appropriate to professional experience and qualifications, but applicants for (a) must have passed Parts I and 2 of A.R.I.B.A. and have had experience in design, construction and contract administration preferably with a large Local Authority.

Applicants desiring housing accommodation should so indicate.

Details and application forms, returnable by 19th January, from City Architect, Council House, Bristol 1. 2439

**CITY ARCHITECT'S DEPARTMENT**  
Applications invited for undermentioned permanent staff posts:—

(a) **SENIOR ASSISTANT ARCHITECTS,** Special Scale (£750 × £40—£845).

(b) **ASSISTANT ARCHITECTS,** Grade A.P.T. II (£725 × £30—£845).

(c) **ASSISTANT ARCHITECTS,** Grade A.P.T. I (£575 × £30—£725).

Appointments will be appropriate to professional experience and qualifications, but applicants for (a) must have passed Parts I and 2 of A.R.I.B.A. and have had experience in design, construction and contract administration preferably with a large Local Authority.

Applicants desiring housing accommodation should so indicate.

Details and application forms, returnable by 19th January, from City Architect, Council House, Bristol 1. 2439

# LONDON COUNTY COUNCIL ARCHITECTS' DEPARTMENT

Vacancies for:-  
(I) PRINCIPAL ASSISTANT (Professional), salary scale £1,422 10s.-£1,705.  
(II) ARCHITECTS, Grade 1, salary scale £1,246-£1,482 10s.

Architects appointed would have charge of a section engaged on new building work in the Schools, Housing or General Division.  
The Principal Assistant (Professional) would be required to take in addition some specialist divisional responsibility.

Full programme of interesting work.  
Application form and further particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council, the County Hall S.E.1, quoting ref. AR/EK/52/58, returnable by 17th January, 1959. (2494).

**COUNTY BOROUGH OF WOLVERHAMPTON**  
**APPOINTMENT OF PLANNING ASSISTANT**  
Planning Assistant required in the Planning Section of the Borough Engineer's Department. Salary A.P.T. Grade I (£575-£725 per annum). Commencing salary in accordance with qualifications and experience. Candidates should be good draughtsmen preferably with experience in a Planning Office.

N.J.C. conditions of service. One month's notice on either side. Medical examination. Superannuable post.

Applications stating age, training and experience, naming two referees to the Borough Engineer, Town Hall, Wolverhampton, by 20th January, 1959. 2459

# EAST ANGLIAN REGIONAL HOSPITAL BOARD

**ASSISTANT ARCHITECTS** for work in connection with development and design of large new hospital at Peterborough, and general hospital work for whole Region. Candidates must be qualified and registered architects by examination and possess good general experience in design, construction and specification writing. Knowledge of hospital work desirable but not essential. Salary £700-£1,015 per annum; additional increments within scale based on experience and age may be granted.

Applications stating age, qualifications, experience, salary and details of present position with names of three referees to Secretary of Board, 117 Chesterton Road, Cambridge by 21st January, 1959. 2451

# COUNTY COUNCIL OF ESSEX COUNTY PLANNING DEPARTMENT

Applications invited for post of SENIOR PLANNING ASSISTANT. Special grade (£750-£1,030) at Wanstead. Applicants must have had practical experience in the preparation of development plans in urban areas and be able to take charge of a small section of work. Experience in, and a fair for, statistical and research work related to planning regarding population, industry, employment, education, etc., will be an advantage. Applicants should be Corporate Members of the Town Planning Institute or other comparable professional institute, or possess a University Degree in Economics or Geography.

Five-day week; medical examination; superannuation. Application form from County Planning Adviser, Broomfield Place, Broomfield, Chelmsford, returnable by 12th January, 1959. 2418

# NEWCASTLE REGIONAL HOSPITAL BOARD REGIONAL ARCHITECTS' DEPARTMENT

Applications are invited for the following permanent (superannuable) posts on the staff of the Regional Architect.

In addition to its normal building programme the Department is concerned with the planning and execution of a number of major hospital projects and the posts offer ample opportunity for gaining all-round general as well as hospital experience, and for doing good-class work in an expanding department.

(i) ASSISTANT ARCHITECT. Salary £700 x £25 (3) x £30 (1) x £35 (6)-£1,015.  
Applicants for this post must be registered architects and should have had practical experience of the planning and construction of public buildings. In this case the commencing salary will be fixed within the Grade by reference to relevant experience and to age.

(ii) ARCHITECTURAL ASSISTANT. Salary £750 (at age 21 or over) x £20 (4) x £25 (5)-£730.

Applicants for this post must have passed the Intermediate Examination of the R.I.B.A., or an examination recognised by the Institute as equivalent, and some practical experience is essential.

The commencing salary within the grade will depend upon the applicant's age and the amount of practical experience, but will not exceed £665.

(iii) ARCHITECTURAL DRAUGHTSMAN. Salary £425 at age 21 or over (subtract £20 for each year below 21) x £25 (6) x £30 (2)-£535.

Applicants for this post should have had previous experience in an architect's drawing office and be neat and quick draughtsmen.

Evening study facilities are available at King's College of Durham University in Newcastle.

Applications, stating age, qualifications, past and present appointments, present salary and details of experience and training, together with the names of three referees (of whom at least two should be architects) should be forwarded to the Secretary to the Board, Benfield Road, Newcastle upon Tyne, 6, not later than 8th January, 1959. 2419

# AUSTRALIA-UNIVERSITY OF SYDNEY

Applications are invited for the following positions within the University of Sydney:-

(1) SENIOR LECTURESHIP IN TOWN AND COUNTRY PLANNING.

(2) LECTURESHIP IN TOWN AND COUNTRY PLANNING.  
Salary for a Senior Lecturer is within the range £2,200-80-£2,500 per annum; for a Lecturer within the range £2,100-90-£2,100 per annum, and will be subject to deductions under the State Superannuation Act. In addition, in each case, cost of living adjustment will be allowed. Commencing salary will be fixed according to the qualifications and experience of the successful applicant.

Under the Staff Members' Housing Scheme, in cases approved by the University and its Bankers, married men may be assisted by loans to purchase a house.

Further particulars and information as to the method of application may be obtained from the Secretary, Association of Universities of the British Commonwealth, 36 Gordon Square, London, W.C.1.

The closing date for the receipt of applications, in Australia and London, is 9th February, 1959. 2422

# HARLOW DEVELOPMENT CORPORATION

Architect Planner: Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I.

Executive Architect: Victor Hamnett, B.Sc., A.R.I.B.A., Dip.T.P., A.R.I.C.S., A.M.T.P.I.

Applications invited from suitable qualified candidates for the following posts for work on varied interesting programme of housing, commercial and industrial buildings, which offers exceptional opportunities for candidates with good design ability.

Post A. ASSISTANT ARCHITECT, £679-£811 per annum.

Post B. ASSISTANT ARCHITECT, £934-£1,146 per annum.

Salary dependent upon qualifications and experience.

Dwelling accommodation available in approved cases.

Applications, giving full details and stating post applied for, to be sent with names of two referees to the General Manager, within ten days. 2421

# THE UNIVERSITY OF MANCHESTER

Applications are invited for two posts of LECTURER in ARCHITECTURE from candidates with professional membership of the Royal Institute of British Architects and not less than three years of practical experience. Salary on a scale from £900 to £1,650 per annum; initial salary according to qualifications and experience. Membership of the F.S.U. and Children's Allowance Scheme. Applications should be sent not later than January 31st, 1959, to the Registrar, the University, Manchester 13, from whom further particulars and forms of application may be obtained. 2401

# NORTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD

## APPOINTMENT OF REGIONAL ARCHITECT

The person appointed will be required to advise the Board on architectural matters relating to hospitals administered by the Board and to carry out such related professional and administrative duties as may be required. The Board have a number of major projects in hand including the construction of one new hospital and the planning of others. There is a Regional Engineer.

Applicants must be Fellows or Associates of the Royal Institute of British Architects and have had considerable experience, both of design and the administration of architectural practice especially in hospital work, including the carrying out of large schemes from sketch plan stage to completion of contract.

Salary scale £1,885 x £30 (1) x £85 (4) x £50 (1)-£2,355 plus £50 London weighting. Appointment is superannuable.

Apply, stating age, qualifications (with dates) and experience with names of three referees, to Secretary, North West Metropolitan Regional Hospital Board, 40, Eastbourne Terrace, W.2, by 19th January. 2425

# COUNTY COUNCIL OF STIRLING COUNTY ARCHITECT'S DEPARTMENT

Vacancies exist for ARCHITECTURAL ASSISTANTS in the following Grades for Schools and Housing Work, particularly Reconstructions:

(1) SENIOR ASSISTANT ARCHITECTS: Must be Associate R.I.B.A. and have not less than 4 years' continuous office experience. A.P.D. (Grade VIII-£1,005-£1,085).

(2) ASSISTANT ARCHITECTS: Must have attained Intermediate R.I.B.A. standard and be capable of supervising Contracts. A.P.D. (Grades VI to VII-£820-£1,025).

(3) JUNIOR ASSISTANT ARCHITECTS: Must be capable of preparing working drawings from rough sketch plans. A.P.D. (Grades I to V-£595-£830).

A house will be available for the higher posts. The appointments will be subject to the provisions of the Local Government Superannuation Act, and the successful candidates will require to pass a medical examination.

Applications, stating age, qualifications and experience, together with names of two referees, should be lodged with A. J. Smith, A.R.I.B.A., F.R.I.A.S., County Architect, Spittal Street, Stirling, on or before 14th January, 1959.

JAMES D KENNEDY,  
County Clerk.

Stirling County Council,  
Viewforth, Stirling.  
16th December, 1958. 2427

# ARCHITECTURAL ASSISTANTS

Required by  
MINISTRY OF WORKS

For employment in London and Provinces on design and detailing work on construction and maintenance of all types of public buildings.

Salary range £550 (age 21) to £870 p.a. London (slightly less elsewhere).

Starting pay according to age, qualifications and experience. Good prospects of promotion with salaries of £1,015 p.a. and above.

Opportunities for permanent posts leading to pensions (non contributory).

Interviews at Regional Offices where possible. Applicants should be of Intermediate R.I.B.A. standard. State age, training and experience to Chief Architect, Ministry of Works, Room 435, Abell House, John Islip Street, S.W.1. 2444

# CITY OF SHEFFIELD EDUCATION COMMITTEE

## COLLEGE OF TECHNOLOGY

Applications are invited for the following appointment in the Department of Building:-  
**LECTURER IN STRUCTURAL ENGINEERING** to teach Theory and Design of Structures in Sandwich courses and Higher National Certificate courses. Industrial experience and membership of an appropriate professional body are desirable.

Salary scale: £1,200 x £30-£1,350 per annum. Forms of application, obtainable from the undersigned (s.a.e.) at P.O. Box 67, Sheffield, 1, should be returned within 14 days of the appearance of this advertisement.

T. H. TUNN,  
Director of Education. 2438

# COUNTY BOROUGH OF BLACKPOOL

Applications (by Monday, 19th January, 1959) are invited for the following Posts in the Borough Surveyor's Department:

**TOWN PLANNING ASSISTANT, A.P.T. IV** (£1,025-£1,175 per annum).

**ASSISTANT ENGINEER** (Special grade), £750-£1,030 per annum (to assist Engineer in charge of Direct Labour, Civil Engineering and Building Works).

Application forms and particulars obtainable from the Borough Surveyor (Arthur Hamilton, B.Sc.), P.O. Box 17, Municipal Buildings, Blackpool.

ERNEST C. LEE,  
Town Clerk. 2443

# Competition

6 lines or under, 15s.; each additional line, 2s. 6d.

# THE ASSOCIATED BUILDERS MERCHANTS LIMITED

## COMPETITION FOR THE DESIGN OF CERAMIC SANITARY WARE

Associated Builders Merchants Limited, an organization of leading builders' merchants throughout the country who are responsible for the sale of over one million items of sanitary ware each year, invite architects and industrial designers to submit designs in competition for various items of sanitary ware.

The Promoters have appointed the following Assessors: On the advice of Associated Builders Merchants Limited-Mr. W. M. Goslett and Mr. C. J. B. Pratt; and on the advice of the Royal Institute of British Architects-Mr. P. A. Newham, A.R.I.B.A., and Mr. F. B. Pooley, F.R.I.B.A.

The authors of the three best sets of designs will have the opportunity of collaborating with a manufacturer to be nominated by A.B.M. Ltd. to produce full-size prototypes of the items they have designed. The final award will be made on the basis of the developed prototypes and the premiums offered will be:-

Set of designs placed 1st £1,000

Set of designs placed 2nd £550

Set of designs placed 3rd £250

Conditions of the Competition, together with Forms of Registration, can be obtained from Associated Builders Merchants Limited, of Broken Wharf, Upper Thames Street, London, E.C.4.

Applications must be received by 9th February, 1959. 2431

# Architectural Appointments Vacant

4 lines or under, 9s. 6d.; each additional line, 2s. 6d.  
Box Number, including forwarding replies, 2s. extra

**A COMPETENT ASSISTANT**, with several years' experience and capable of working with little supervision, required in Branch Office, Birmingham, engaged on a varied and interesting programme of commercial projects. Applications, giving full particulars and salary required, to: G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester, 4. 1974

**A ARCHITECTURAL ASSISTANT**, Intermediate standard, required for Architect's Practice in St. Albans. Salary by arrangement. Write giving particulars to Box 2327.

**A ASSISTANT** required in busy West End Office. About intermediate level. Write stating age, experience and salary desired. Box 2081.

**A ARCHITECTURAL ASSISTANT**, about Intermediate standard or approaching Final. Varied work at Grimsby Office. State experience, availability and salary to: Saunders & Partners, Architects, 13, Queens Parade, Grimsby, Lincoln. 2446



**CHIEF ASSISTANT** required for Architect's Practice in St. Albans. Possibility of working partnership subject to satisfactory service. Write giving particulars to Box 2326.

**ARCHITECTURAL ASSISTANTS**, preferably with office experience, required immediately for work on large and interesting projects. Vacancies occur in the following salary scales: Intermediate standard, £450-£550; Final standard, £700-£850. Five-day week, pension scheme, good prospects. Head office of firm: Southsea, Hants. Box 2304.

**RONALD WARD & PARTNERS** require **ARCHITECTURAL ASSISTANTS** with contemporary outlook and willing to use own initiative. Salary range £600 to £900. Congenial working conditions. Five-day week. Apply 29, Chesham Place, Belgrave Square, S.W.1. Telephone Belgrave 3561. 2398

**INTERMEDIATE ASSISTANTS** required for Architect's Office, London. Salary £600 to £800. Industrial and commercial projects. Scope for initiative and responsibility. Box 2340.

**GOLLINS, MELVIN, WARD & PARTNERS** have vacancies for **JUNIOR STAFF** interested in the contemporary design of hospitals and educational buildings. Five-day week. Pension scheme. Quarterly bonuses. Telephone WEL 9991. 2400

**GLASGOW ARCHITECTS**, young firm expanding to new offices early 1959, now seek (i) experienced **ASSISTANT**, (ii) keen **JUNIOR**. Five-day week. Pension Scheme. Busy but congenial atmosphere. Write basic particulars in confidence, to S. Lothian Barclay, A.R.I.B.A., 79, West Regent Street, Glasgow C.2, or telephone Douglas 3069 for appointment. 2378

**EXPERIENCED ARCHITECT** required to take charge Branch Office, West Africa. Minimum three-year appointment. Excellent prospects for person with all-round qualifications. Write Box 2374.

**NORFOLK Office** requires Single **ARCHITECTURAL ASSISTANT** of about Intermediate standard. Experience in Local Authority Housing an advantage. Reply with details of age and salary required to Box 2370.

**ARTHUR SWIFT AND PARTNERS** require the following additional staff for an expanding programme of work.

1. **ARCHITECTURAL ASSISTANTS** capable of running jobs. Salary range £750-£950 p.a.  
2. **JUNIOR ARCHITECTURAL ASSISTANTS** capable of preparing competent working drawings. Salary range £500-£700 p.a.  
All appointments carry bonus and luncheon vouchers.

Apply to 21, Upper Grosvenor Street, W.1. Telephone: MAYfair 2114. 2454

**A LEADING ARCHITECTURAL ASSISTANT** is required to prepare sketch plans and working drawings for a variety of buildings, some of a complex nature. Applicants should be of at least Intermediate R.I.B.A. standard and have had relevant experience.

Salary: £880-£1,060.  
Please send a Post Card to the Group Recruitment Officer (1283/119), Atomic Energy Research Establishment, Harwell, Berks., for details. 2458

**INTERMEDIATE** and Final standard **ASSISTANTS** required. Minimum 2 years' office experience. Salary according to ability. Theo. H. Birks, 38, Portland Place, W.1. LAN 7236. 2463

**SCHERRER & HICKS** require in their London Office a qualified **ARCHITECTURAL ASSISTANT** with 3 years' office experience for a variety of interesting contracts. Salary by arrangement. Apply in writing giving full particulars to 19, Cavendish Square, W.1. 2457

**SENIOR, Intermediate and Junior ASSISTANTS** required by Guy Morgan & Partners in their London office. Phone SLOane 0624 for appointment. 2455

**ARCHITECTURAL ASSISTANT** required in Chief Architect's Office of large Company with offices in Central London. All staff facilities; five-day week. Please state age, qualifications, experience and salary required. Box 2408.

**ARCHITECTURAL ASSISTANTS** of Final and Intermediate standard required immediately in Leigh office engaged on varied and interesting programme of Municipal Buildings, Schools, Churches, Housing, etc. Applications, giving full particulars and salary required, to J. C. Prestwich & Sons, M.A., F.A.R.I.B.A., Bradshawgate Chambers, Leigh, Lancs. 2410

**OPPORTUNITY** for **ASSISTANT** of Intermediate to Final standard to handle complete jobs—houses, schoolwork, church halls and alteration work—with minimum supervision. Very pleasant (Worcester) office, young staff, contemporary outlook. Salary according to ability. Box 2412.

**ARCHITECTURAL ASSISTANT** required. Busy office, commercial and industrial work, excellent scope for design. Apply, stating experience, reference and salary required, to G. Yarwood, F.R.I.B.A., The Barnsley British Co-operative Society Ltd., Twibell Street, Barnsley. 2414

**ARCHITECT** requires **ARCHITECTURAL ASSISTANT** for a new office in Bognor Regis. Please apply in writing, stating age, qualifications and experience, etc., to J. Godfrey-Gilbert, F.R.I.B.A., 1/3, The Broadway, Wimbeldon, S.W.19. 2415

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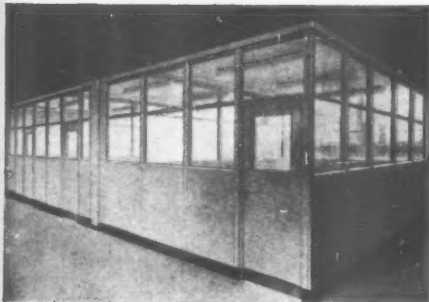
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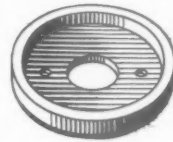
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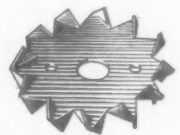


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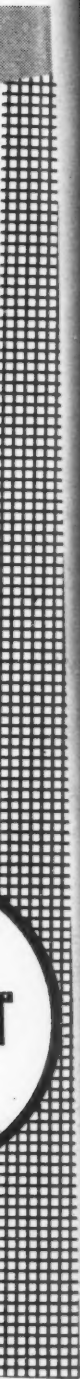
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