

THE ARCHITECTS' JOURNAL



standard contents

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

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Wanted and Vacant

No. 3430]

[Vol. 133

THE ARCHITECTURAL PRESS

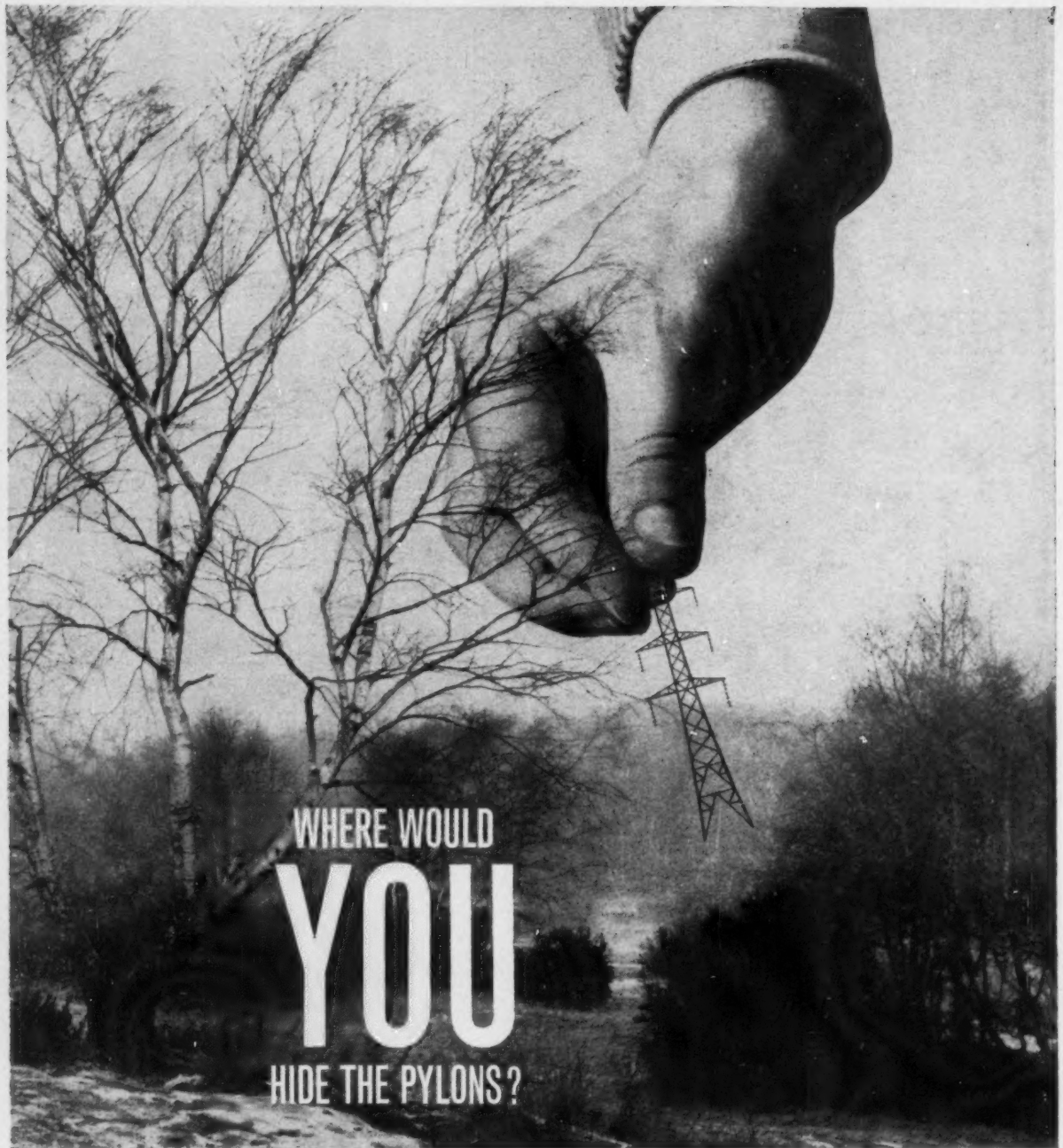
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★A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their addresses and telephone numbers. The glossary is published in two parts—A to Ii one week, Ii to Z the next. In all cases where the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

ILA	Institute of Landscape Architects. 1, Park Crescent, W.1.	Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1.	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.	Hunter 1945
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee).	
	Fire Research Station, Boreham Wood, Herts.	Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2.	Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1.	Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, W.1.	Hyde Park 7070
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell-Mex House, W.C.2.	Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council.	
	14, Howick Place, Victoria Street, S.W.1.	Victoria 1600 & 6477
NAS	National Association of Shopfitters. 2, Caxton Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, N.W.1.	Welbeck 0619
NCBMP	National Council of Building Material Producers. 10, Storey's Gate, S.W.1.	Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry.	
	21, John Adam Street, Adelphi, W.C.2.	Trafalgar 3927
NFBTE	National Federation of Building Trades Employers.	
	82 New Cavendish Street, W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives.	
	Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4459
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1.	Whitehall 1631
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1.	Langham 0064/5
		Molesley 1380
NPL	National Physical Laboratory. Head Office, Teddington.	
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers,	
	Bridge Street, S.W.1.	Trafalgar 6838
NT	National Trust. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	
		Fountainbridge 7631
RIB	Rural Industries Bureau. 35, Camp Road, S.W.19.	Wimbledon 5101
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5533
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1.	Whitehall 5322/9245
RFAC	Royal Fine Art Commission. 5, Old Palace Yard, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House.	
	Grosvenor Gardens, S.W.1.	Victoria 2186
SE	Society of Engineers. 17, Victoria Street, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, E.C.3.	
		Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1.	Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council.	
	Hon. Sec., Robert Pollock, Town Clerk, Rutherglen.	
SPAB	Society for the Protection of Ancient Buildings.	
	55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association.	
	28, King Street, Covent Garden, W.C.2.	Temple Bar 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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woods and hills, and only break cover when unavoidable. This kind of careful planning, which is going on all over the country today, is in the hands of the Central Electricity Generating Board, which is charged by Act of Parliament to provide an efficient and economical power supply to the nation, while doing everything possible to preserve the natural beauties of the countryside.

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and that means the mortar — for the strength, stability and watertightness of the wall depends on the type of mortar used. In the soft state, the mortar must be highly plastic so that it spreads with ease and allows the bricks to be cushioned easily into position. It should hold together well and it must also have good water retentivity to prevent the bricks sucking the water out of the mortar too

quickly so that the mortar does not stiffen before the bricks are thoroughly bedded and bonded.

In the hardened state, it should have adequate strength and a low drying out shrinkage. It should resist rain penetration and to have good durability, it must not be affected by repeated cycles of freezing and thawing.

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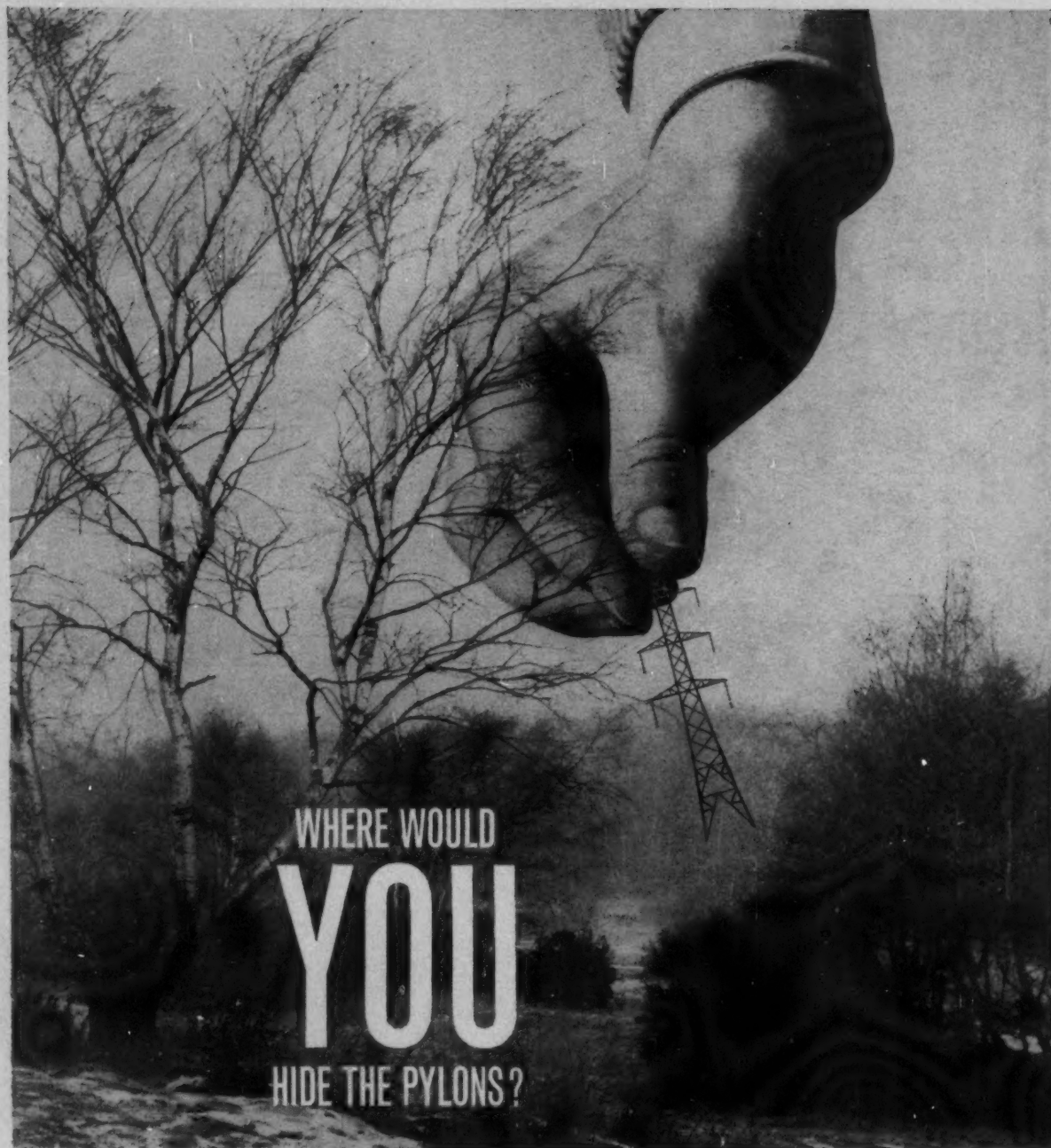
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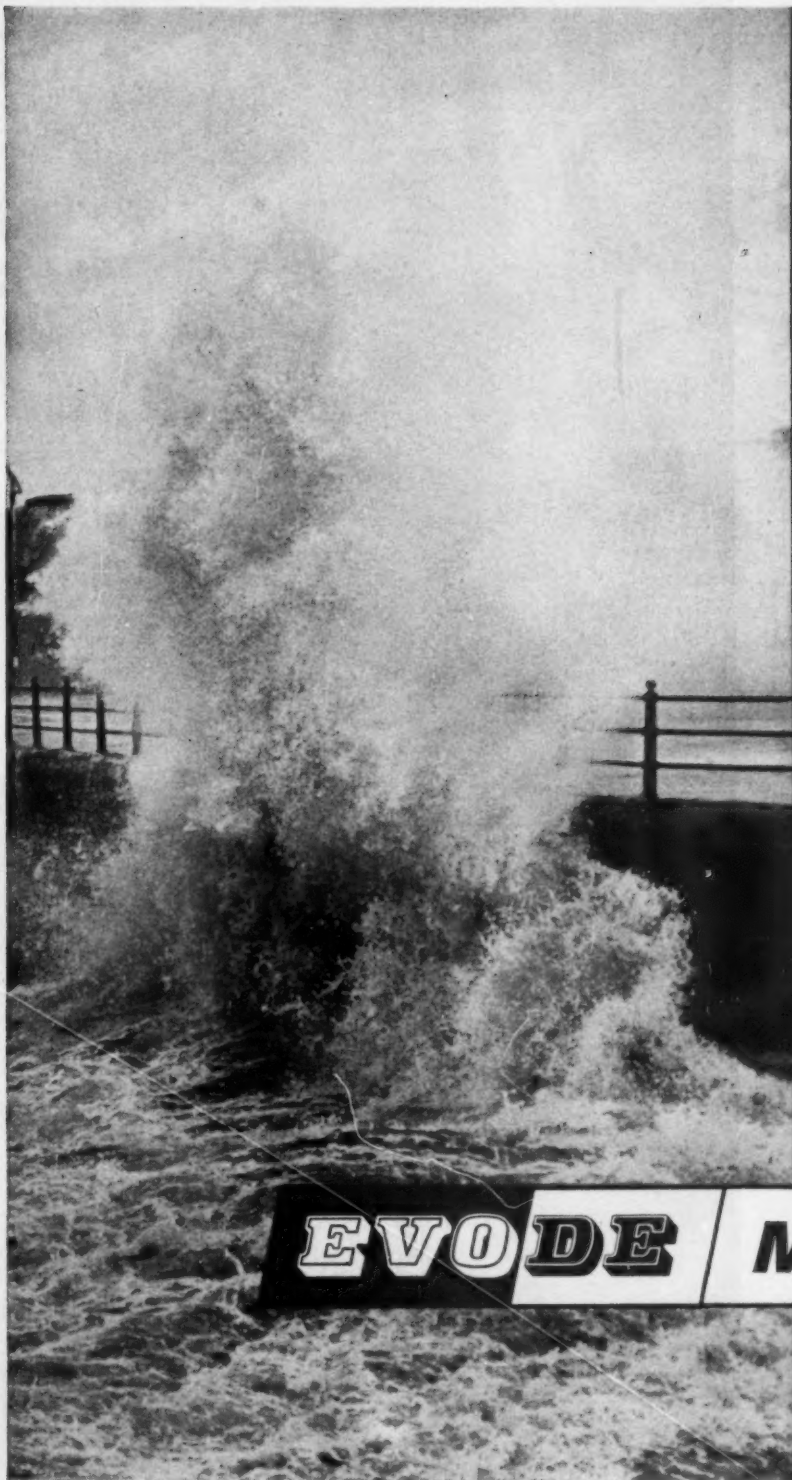
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LOOK FIRST AT NAIRN FOR OFFICE FLOORING

You see here four different offices where the architects have specified Nairn linoleum—all with obvious success. The installations vary: sometimes linoleum is used for dramatic effect, sometimes as a quiet background. In one case it is on the stairs, and it even appears on the wall. But every picture tells the same story: Nairn linoleum is the unchallenged best in smooth, hard floorcoverings . . . and for at least six reasons.

REASONS WHY

For a start, Nairn linoleum makes a *comfortable* floor. It's easy on the feet, and warm and quiet. Then, it's extremely *hardwearing*: properly laid, the right gauge of Nairn linoleum can last up to twenty years and more. This is because it's *tough*, with the *resilience* to meet the tramp of a million feet. Yet compared with many similar floorings, Nairn linoleum is very *economical*. When it comes to maintenance costs, Nairn linoleum can save you up to one-third as against thermoplastic floors.

Most architects choose Nairn linoleum for yet another reason: it offers a superb range of *colours*. Nairn are now making new ranges of linoleum to match the British Standard Ranges of Decorative Paints which the RIBA has recommended. This means that designers can now integrate the floor colour with that of the walls and ceiling, with obvious advantages in effect.

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left **SANDERSON'S SHOWROOMS**

On this staircase at Sanderson's showrooms W.1., is Blondwood linoleum for the risers and black for the treads. The Blondwood suggests lightness, the black suggests strength. Each step is clearly visible, and the wallpaper quietly echoes the design. The linoleum is Nairn's 6.7 mm black marble and 3.2 mm Blondwood. Architect: Slater and Uren, FRIBA. Flooring contractor: E. J. Elgood Ltd.

right **ABC CHANGE-RINGING**

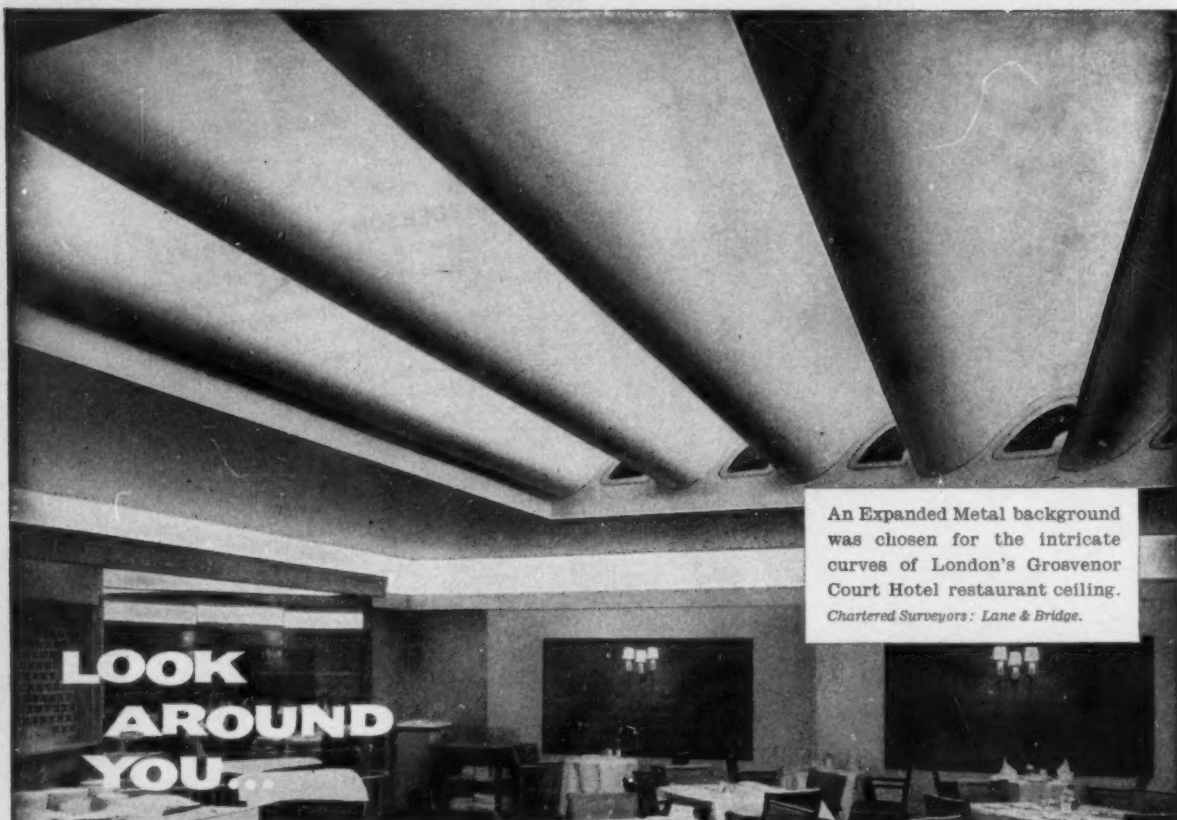
At the Golden Square offices of Associated British Cinemas, the architects rang the changes by putting Nairn Linoleum on the walls. The effect is sane and quiet. The linoleum is Nairn's 2.0 mm in Cardinal Red and Lavender. Architect: Alexander Leifer, ARIBA. Flooring contractor: Lino-Installations Ltd.

TOUR DE FORCE

This is the Reading office of the General Accident Assurance Co., Ltd., and it shows just what a good flooring craftsman can do: the symbol is all linoleum. The rest of the floor is mainly Nairn 4.5 mm in Gunmetal. Architect: Sainsbury and Chamberlain, Reading. Flooring contractor: Heelas Ltd., Reading.

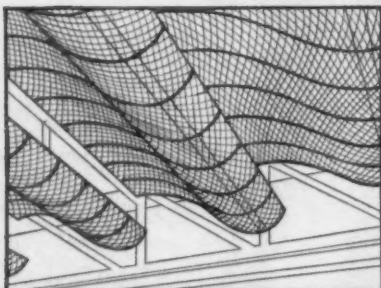
COSTAIN FOYER

An interesting trompe l'oeil design at the offices of Costain, the contractors. This floor was laid six years ago. The linoleum is Nairn's 6.70 mm in plain grey, with plain black, blue, and white lacing strips. Architect: Campbell-Jones & Sons. Flooring contractor: E. J. Elgood Ltd.



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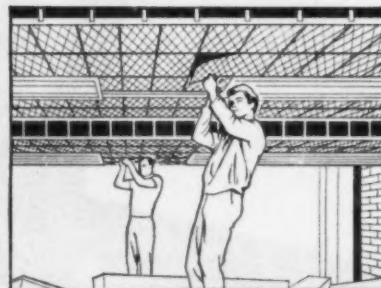
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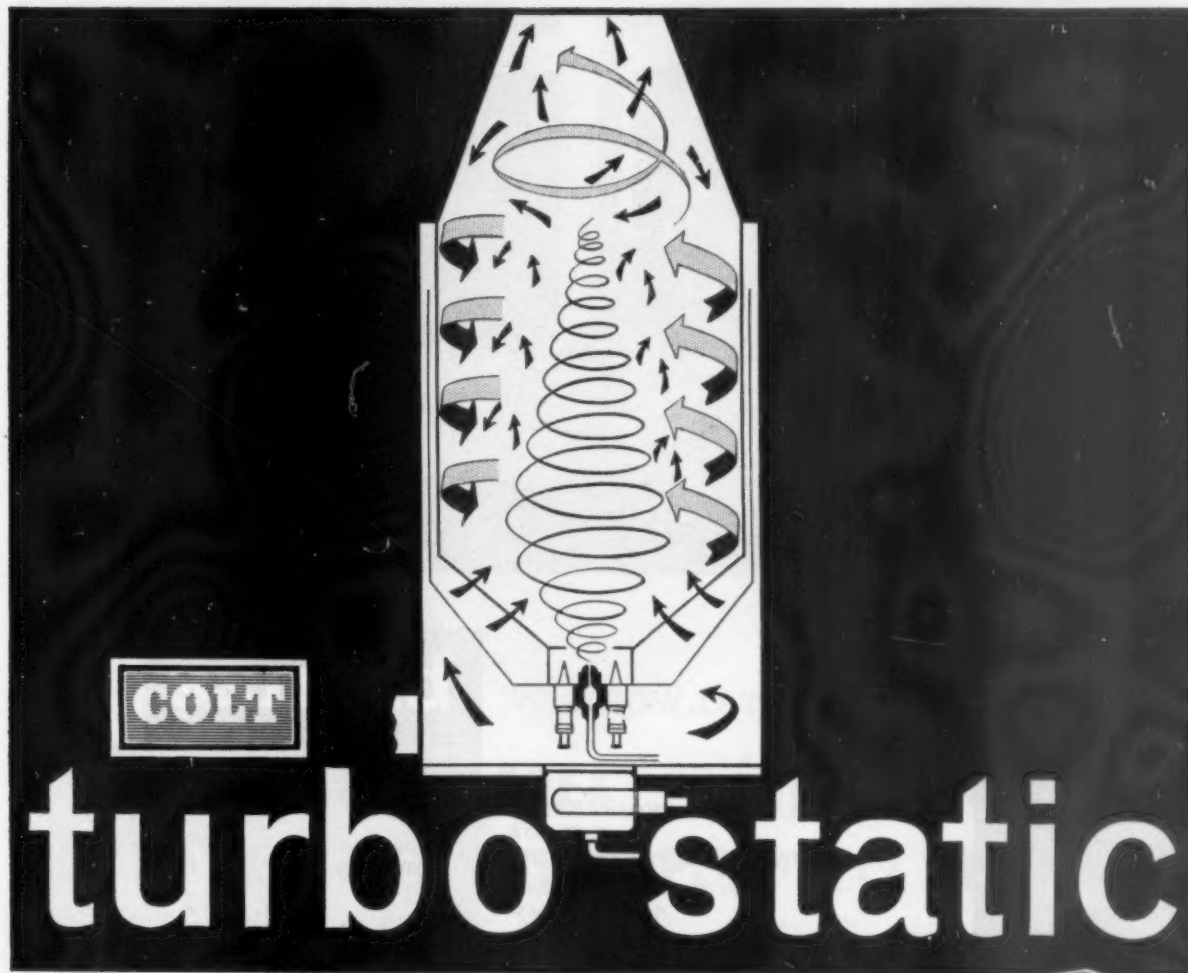
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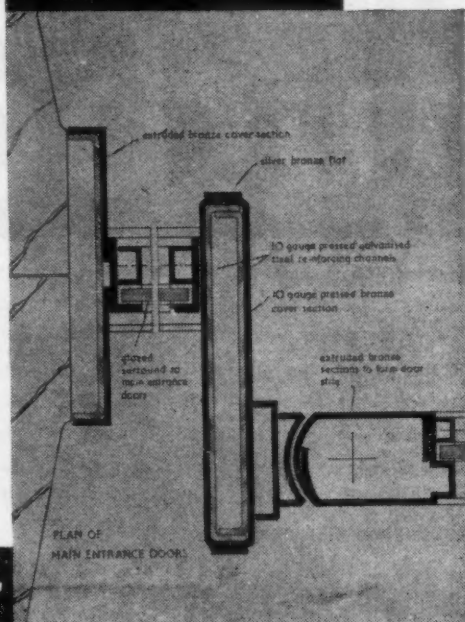
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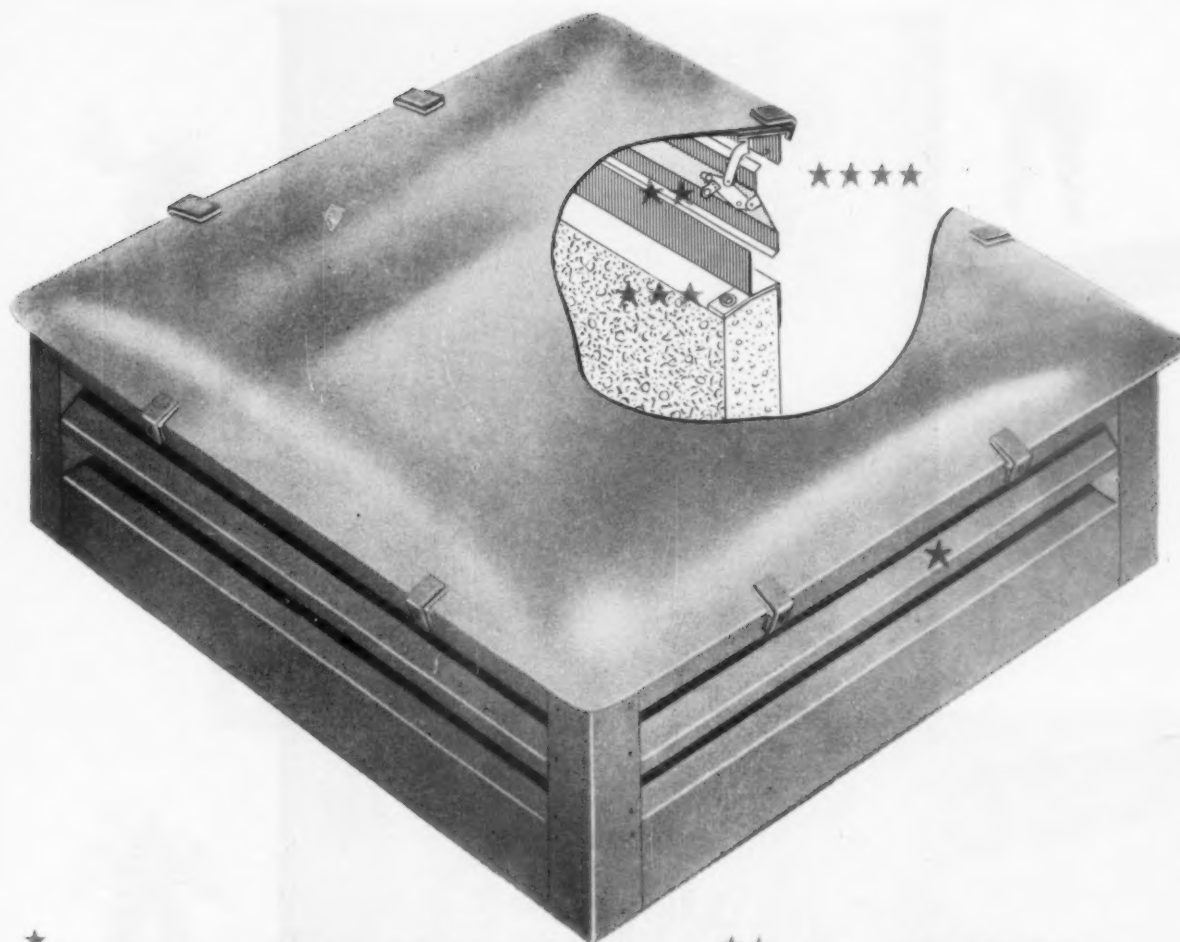
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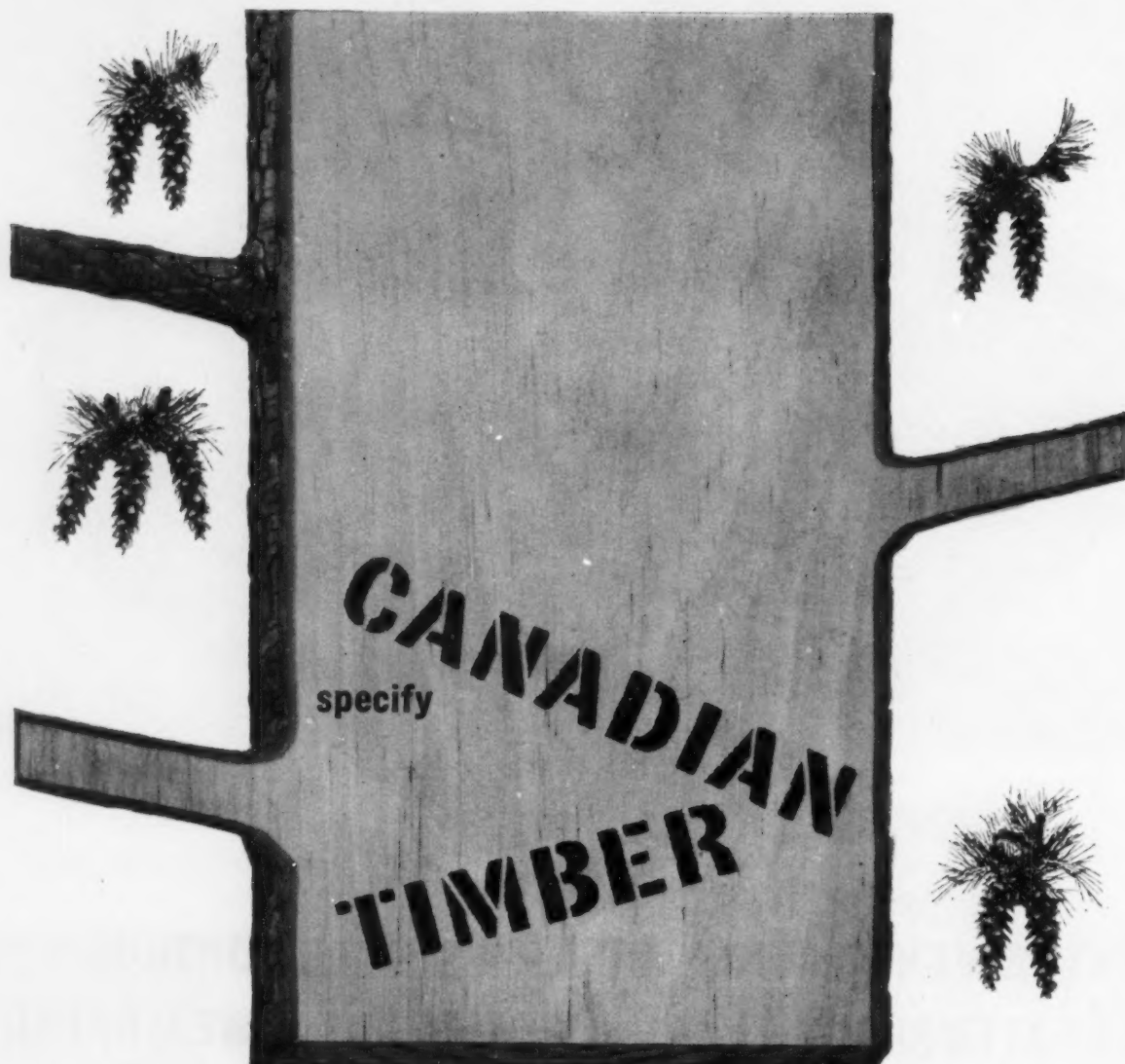
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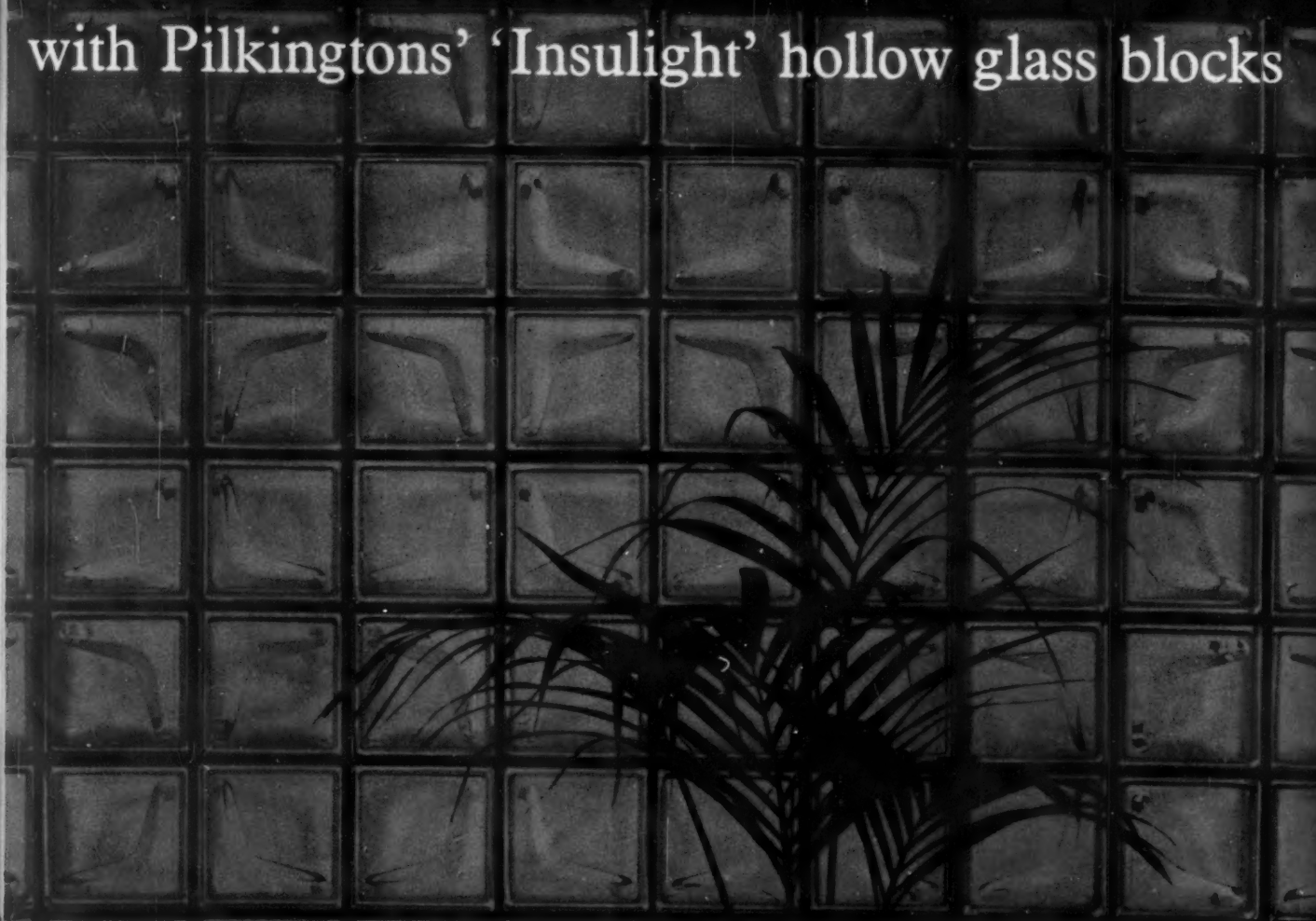
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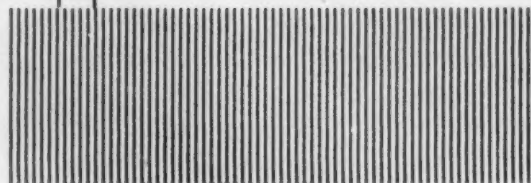
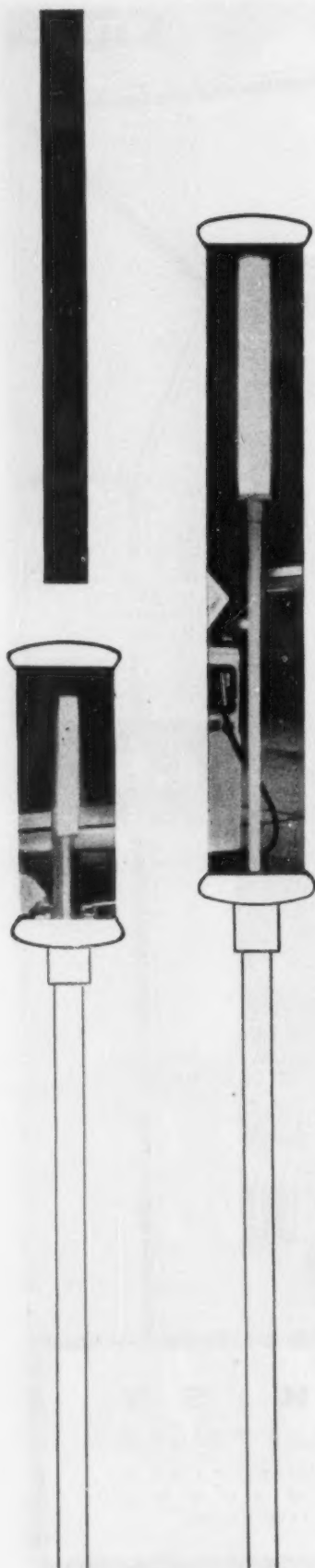
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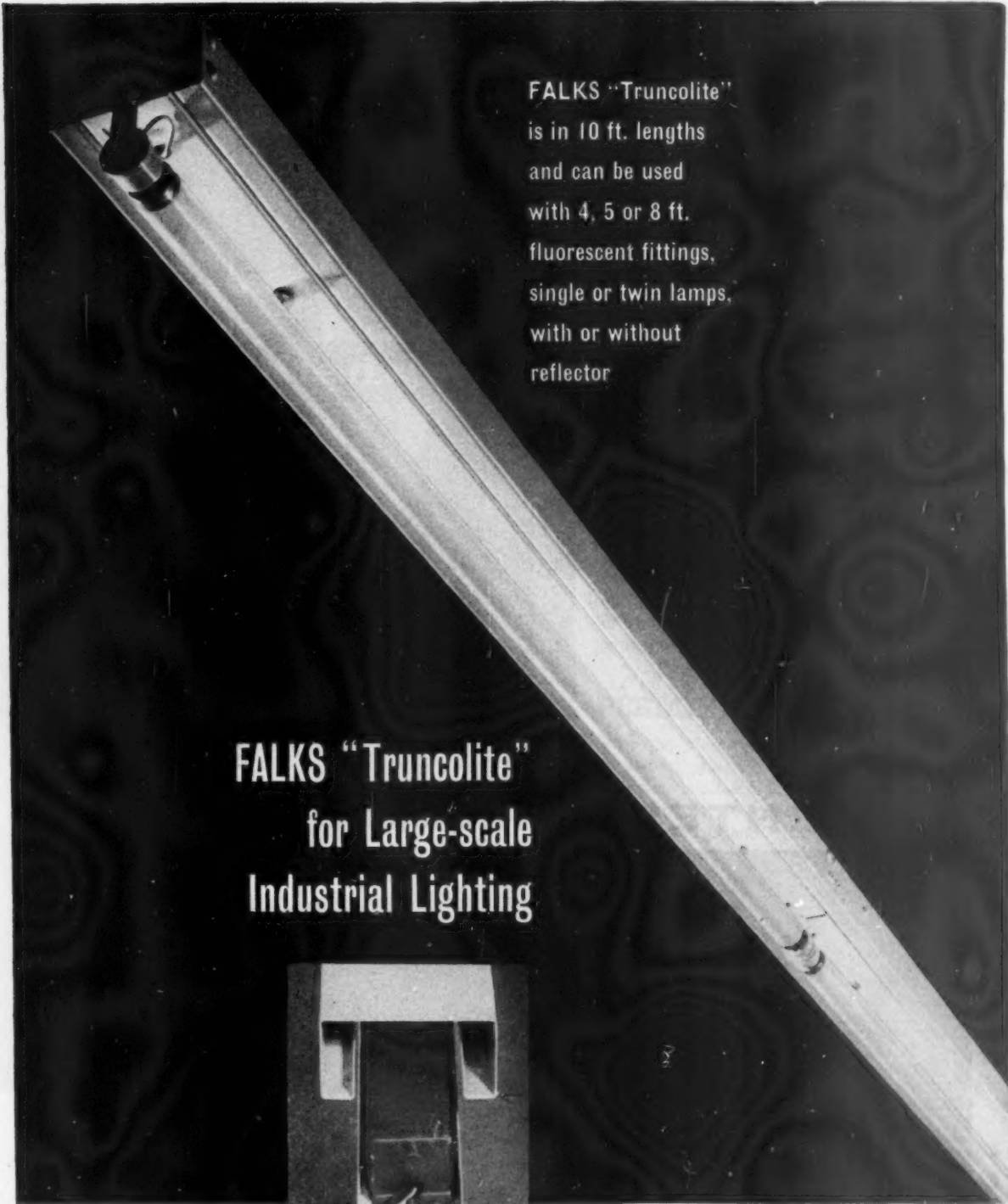
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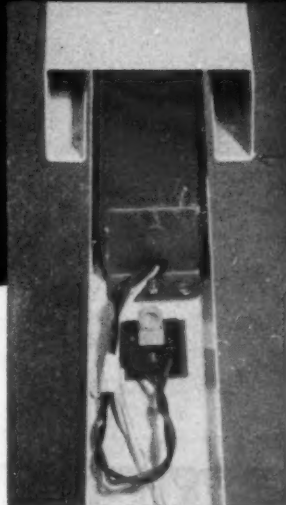
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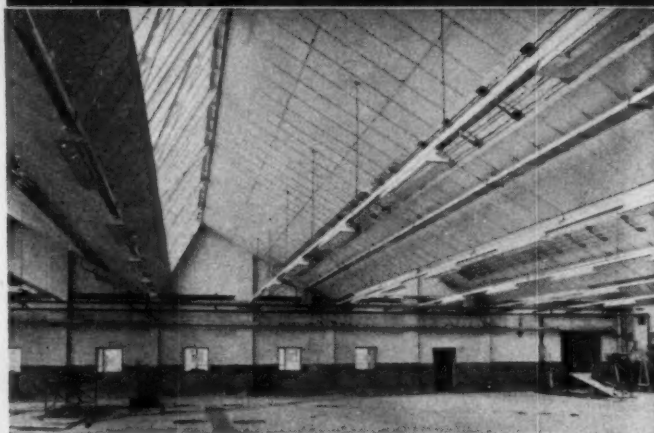
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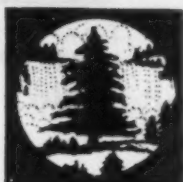
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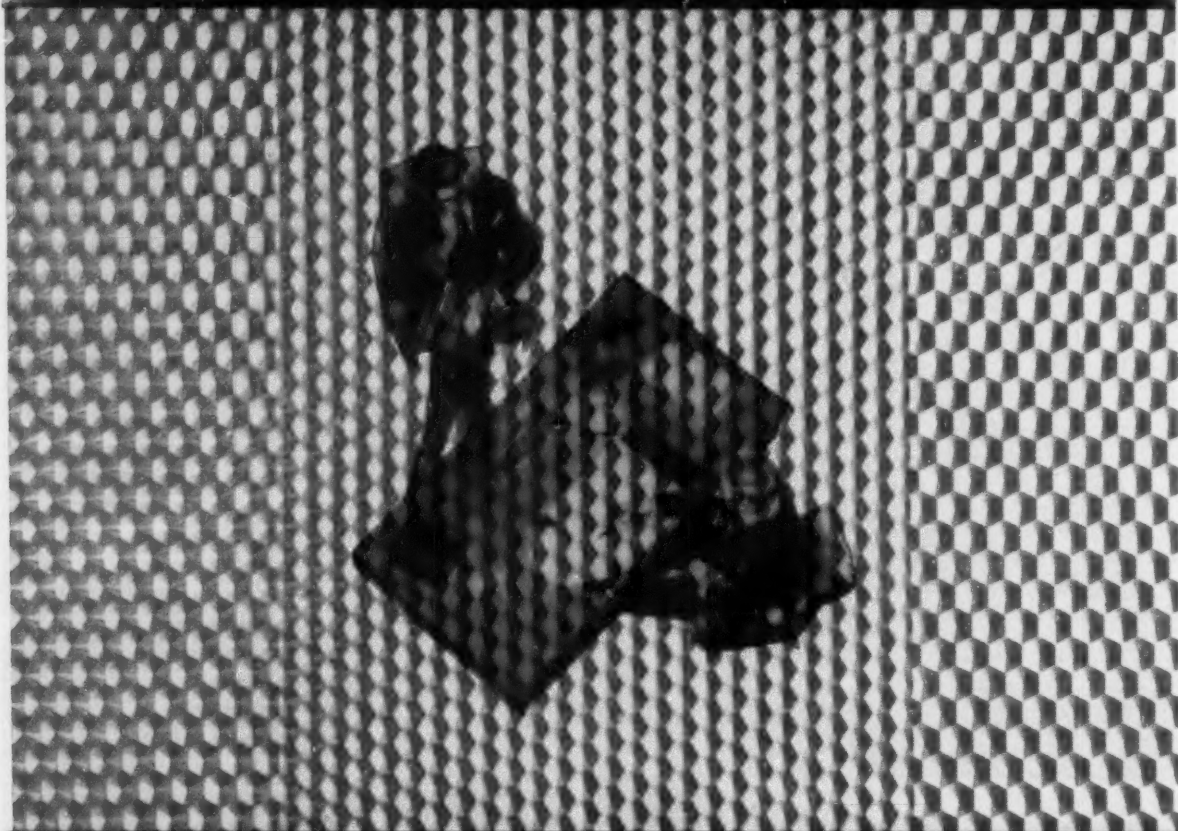
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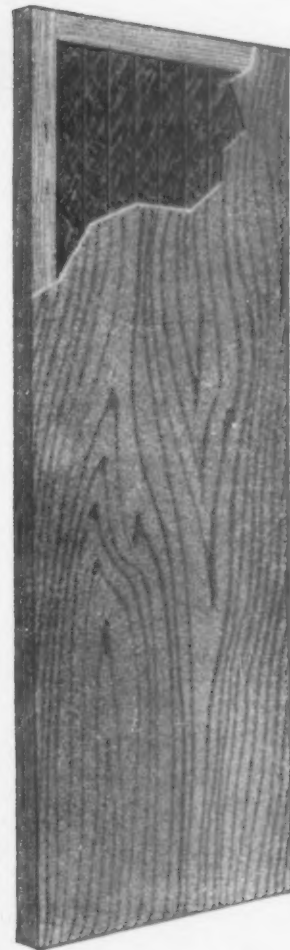
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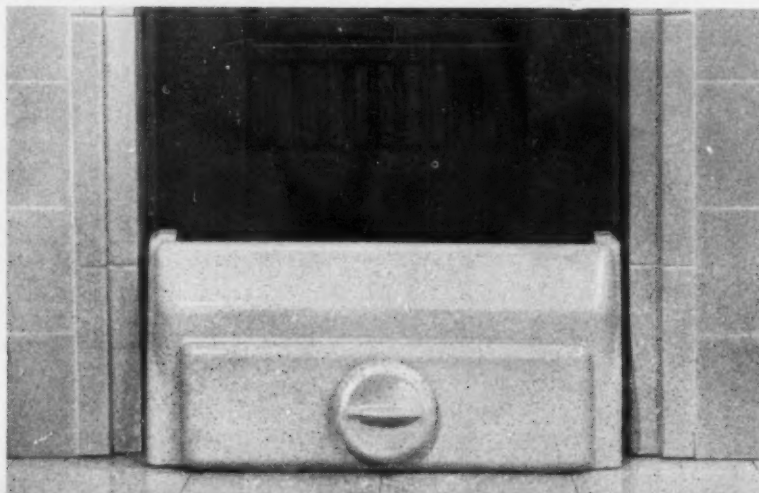
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THE ARCHITECTS' JOURNAL
(Supplement) January 12, 1961



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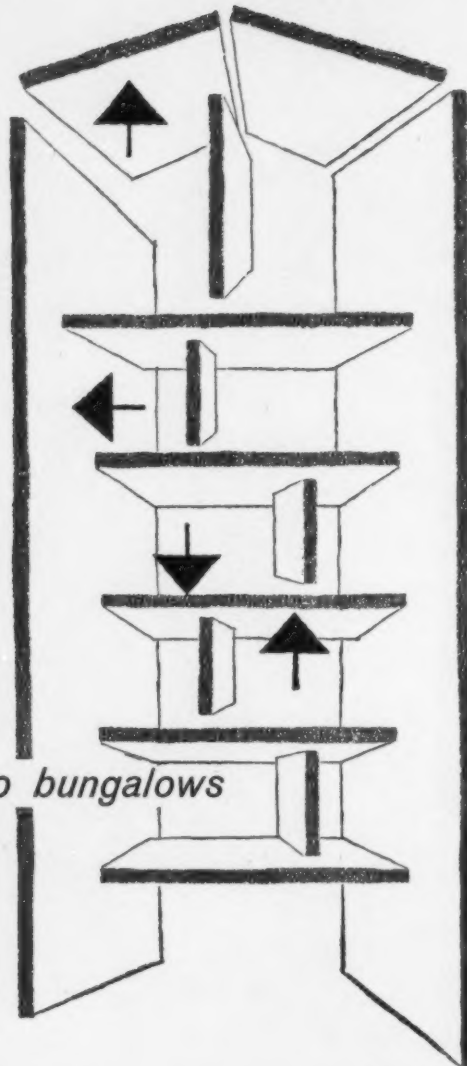
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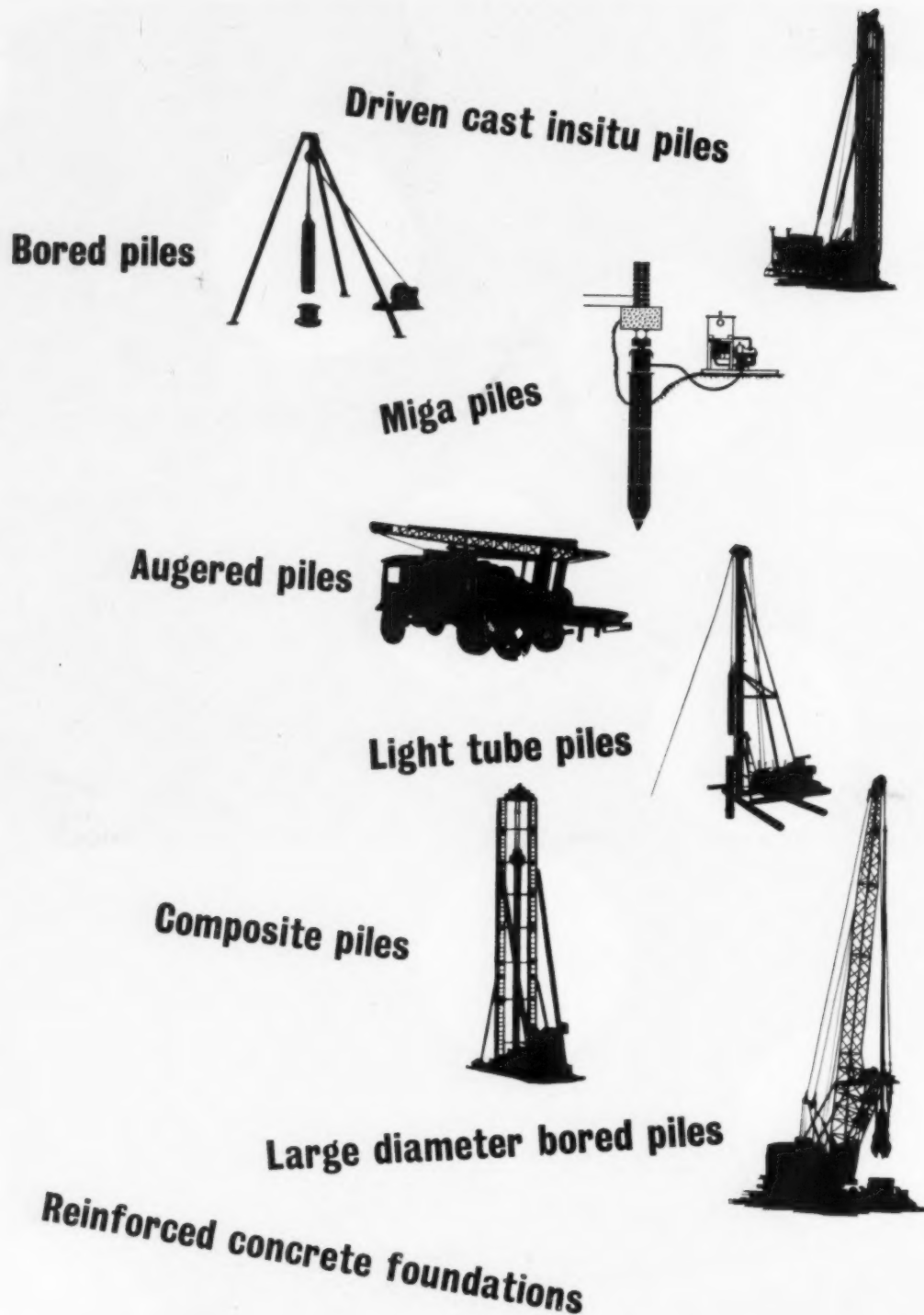
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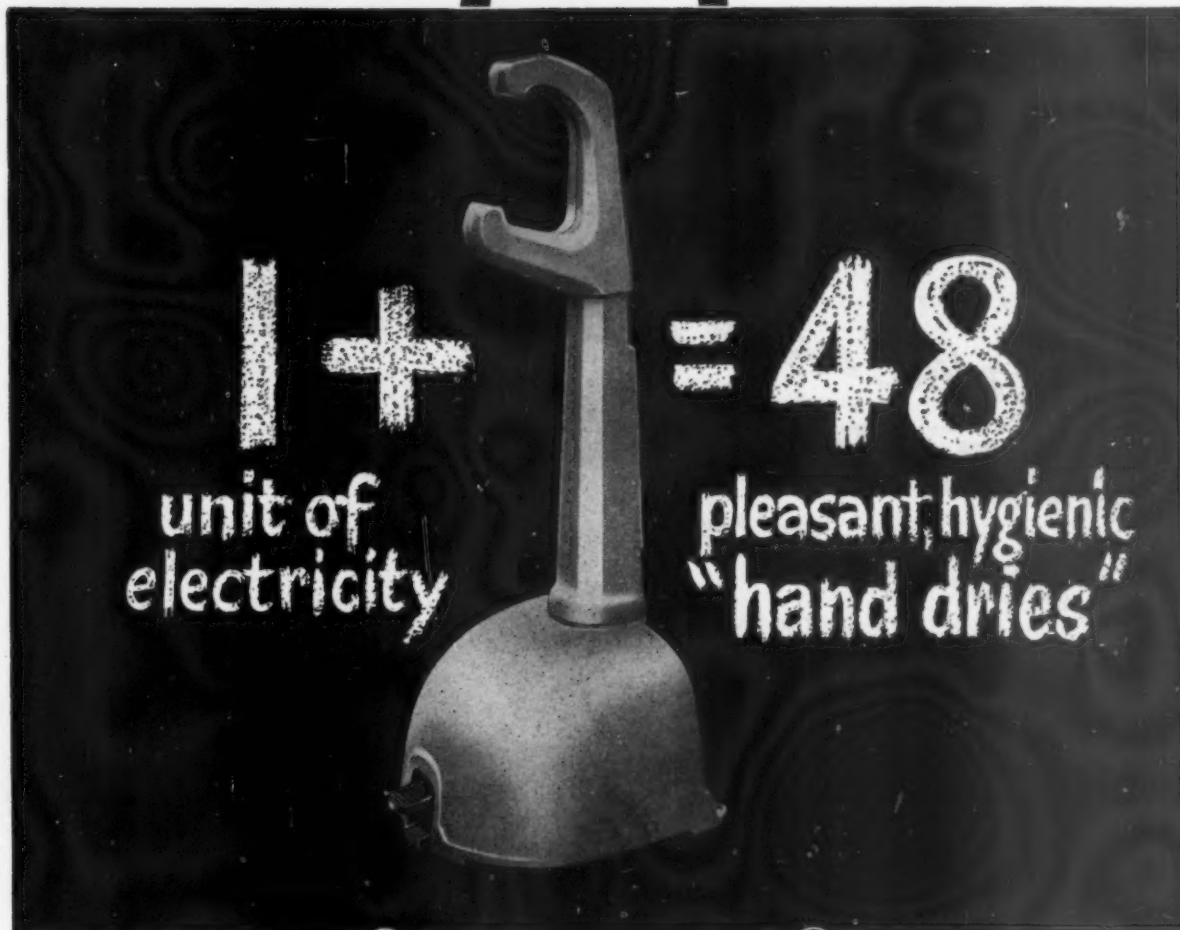


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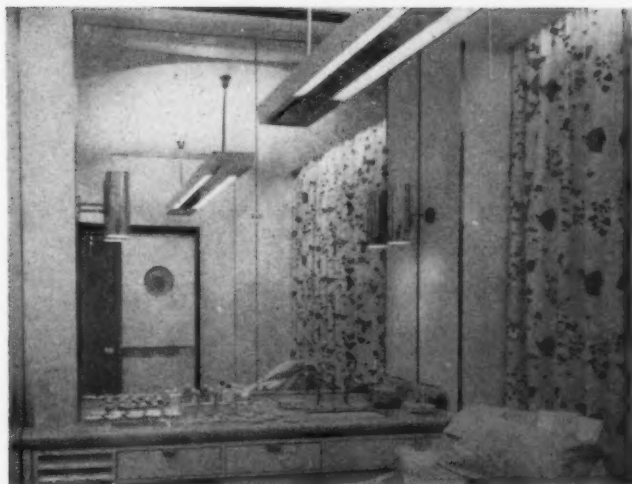
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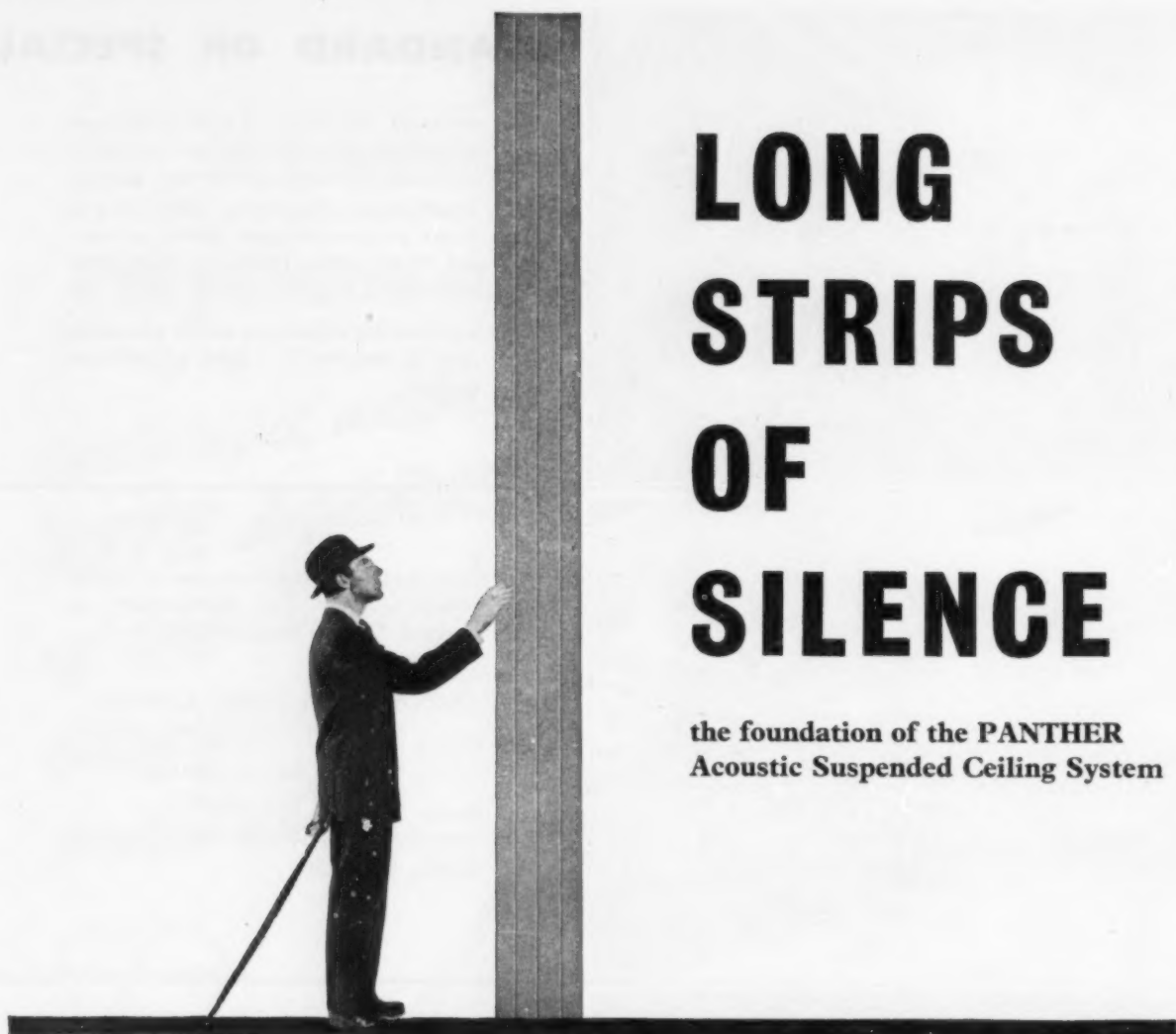
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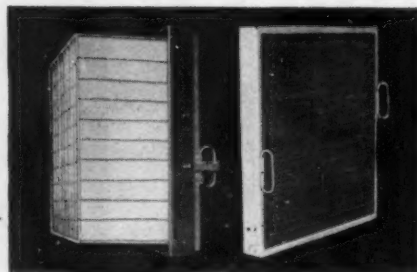
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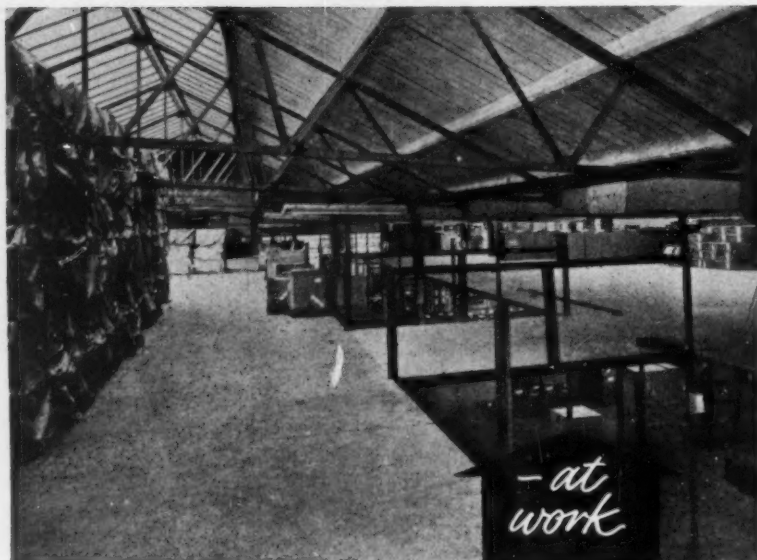
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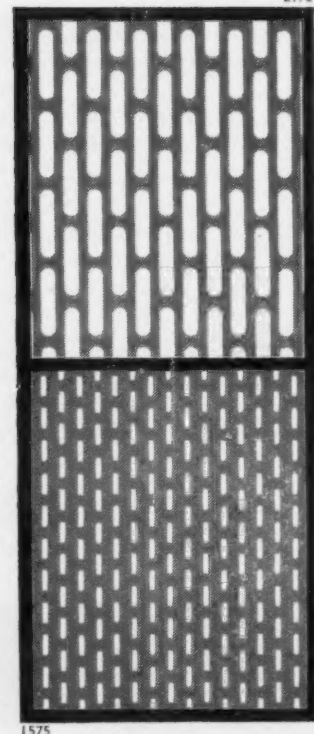
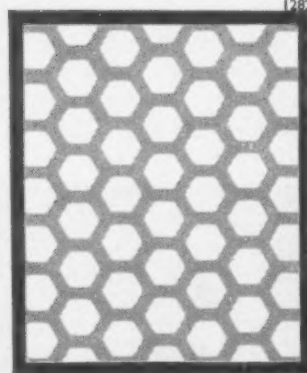
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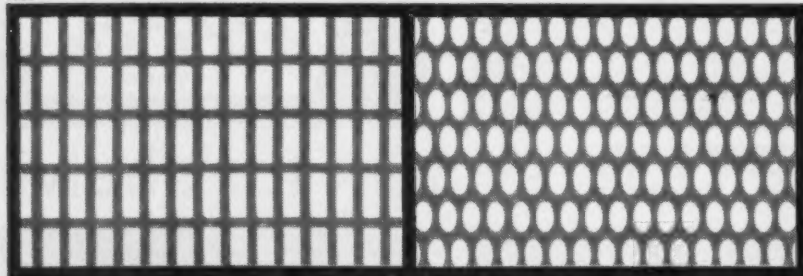
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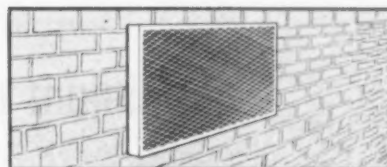


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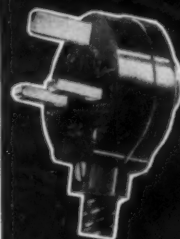
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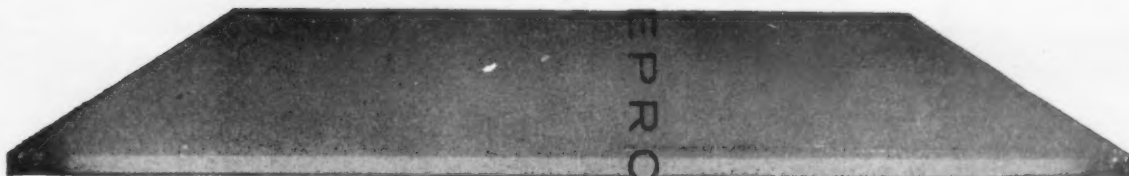
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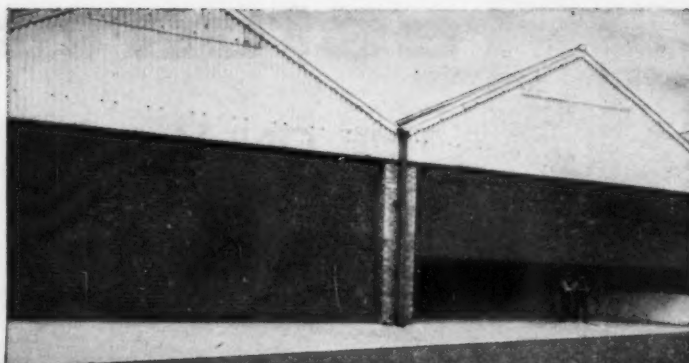
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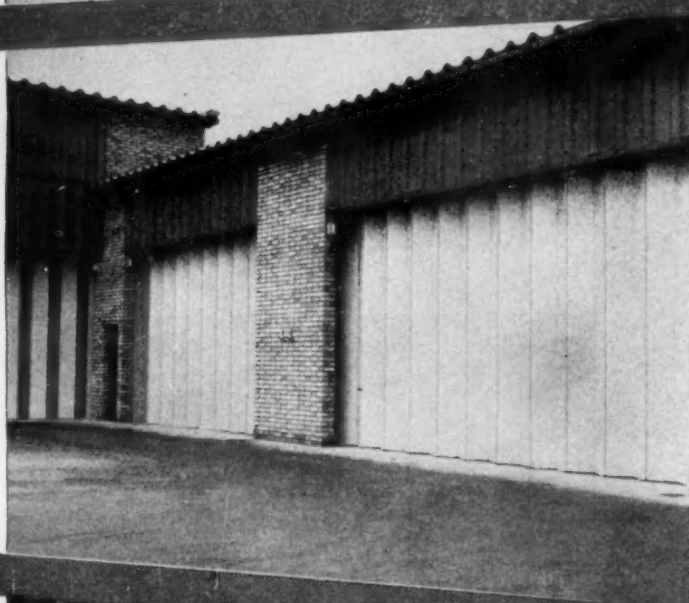
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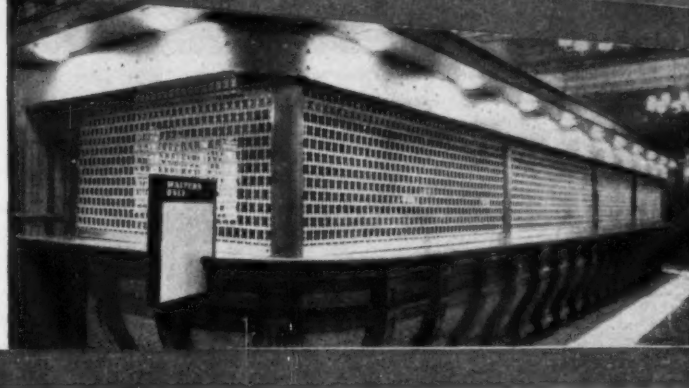
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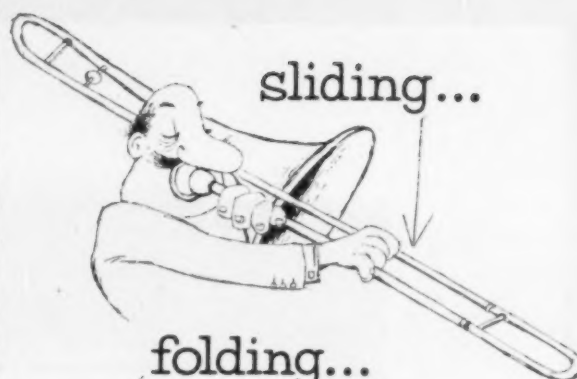
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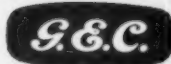
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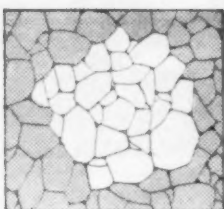
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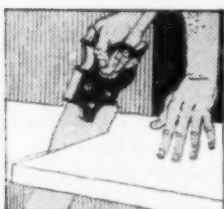
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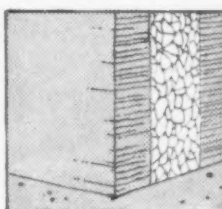
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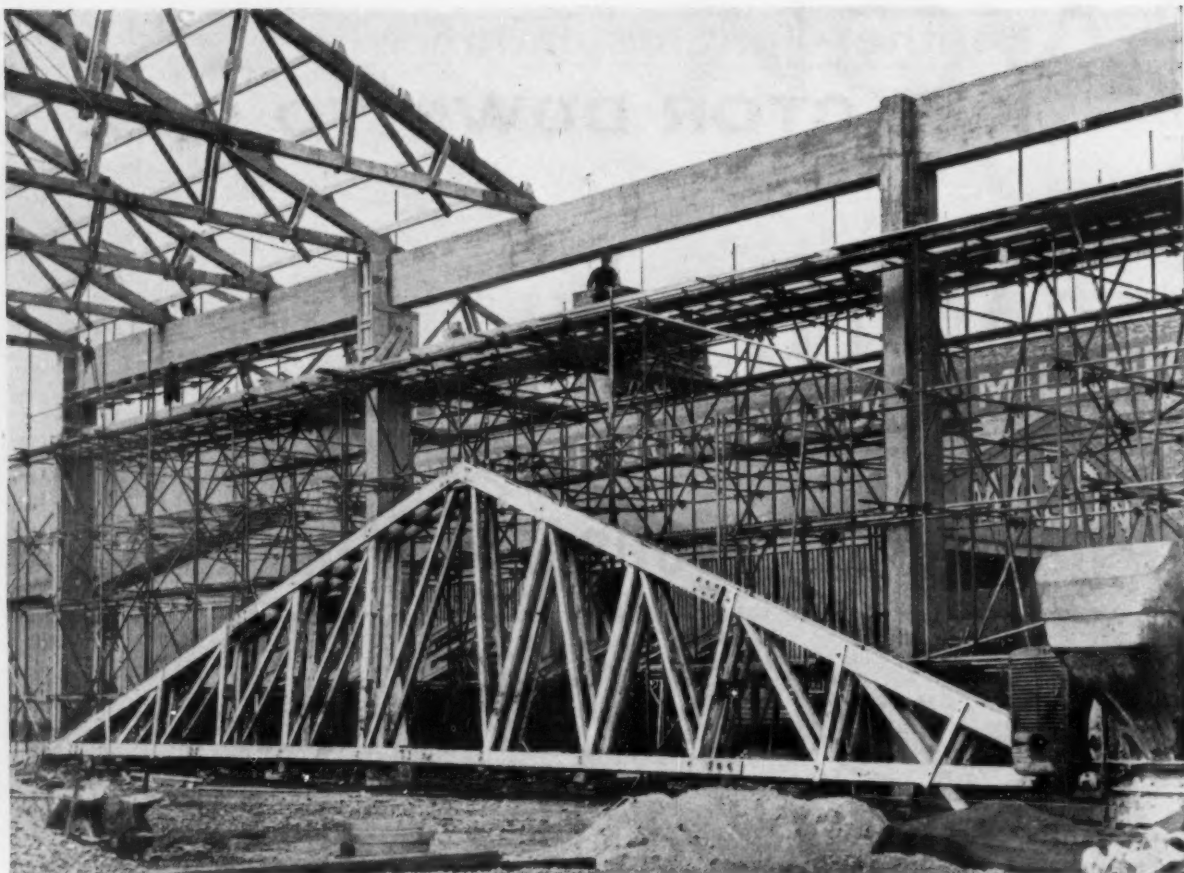
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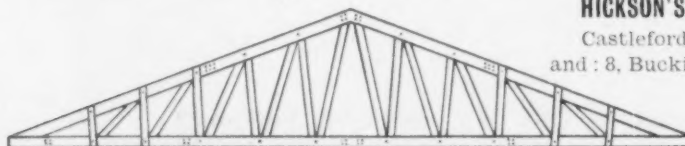
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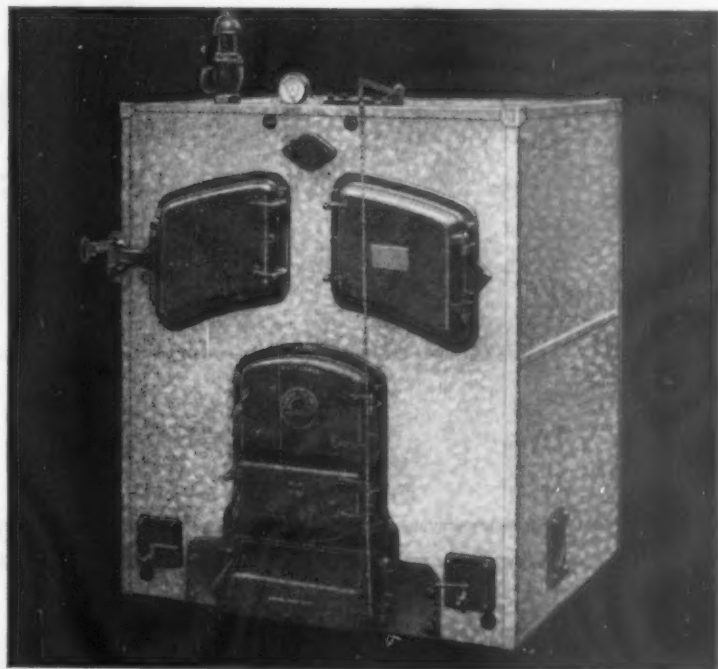
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NOT QUITE ARCHITECTURE

Aghast, Abaft: Horrid, Forra'd

Boats are not getting any better. In fact, they are getting worse. I may be prejudiced, and I admit to being technically ignorant, but having been to the Boat Show I don't think glass fibre, chromium plate, plastics and boat builders ought ever to have met.

†

Boats in my childhood were made of wood, with every plank visible, some scrubbed and some varnished. Brass was polished and portholes were round. A boat was a boat, soft and rounded like a duck's bottom, clearly meant to sail and row and be navigated . . . not steered or driven.

†

In the Show I discovered a bright yellow fibre glass motor boat with white seats (fully upholstered) trimmed in red plastic, a transparent plastic wheel—no helm on this boat—and rear fins (what for?) with twin yellow outboard motors.

†

Who could disfigure a placid waterway with a garish object like that?

†

Shattered, I forgot I liked messing about in boats and started being an architect. I went round again looking through eyes hardened by final inspections and defects liabilities. By coldly æsthetic standards there is surprisingly little to admire beyond a few superb hulls and external profiles.



*Civic Trust
Gives a Face Lift
to Croydon*

Croydon's Crown Hill and Church Street, at the heart of the old town, is the latest area where the Civic Trust has organised an improvement scheme, and the two pairs of before and after photographs above make clear how badly it was needed. Croydon Borough Council decided on a face lift to mark its millenary celebrations in 1959, and approached the Civic Trust for help. Complete co-operation was not on this occasion forthcoming from all the property owners concerned, who are threatened in the future by road widening, demolition proposals and leases falling in, and out of 150 properties only 70 per cent could be persuaded to come into the scheme. Nevertheless, the Civic Trust reports, "The interest of the scheme lies in this: that in any commercial street, however indifferent its character, however great the common attendant problems of road widening or public apathy, a vast improvement in appearance can nevertheless be achieved by joint efforts. It may also be noted that by October 1960 the traders in the area, with certain exceptions such as hire purchase firms, reported a marked increase in trade, in some cases up to 20 per cent." The essentially "market" character of the area with its hustle and activity was recognised in giving a robust commercial quality to the improvements introduced, simplifying, tidying up, introducing more colour, all of which has increased the sense of vitality. A number of old high level signs and hoardings were removed and new fascias and lettering and blinds and awnings have been introduced. Unused lighting columns and ventilating shafts were removed, newly designed guard rails produced, all street furniture was repainted and all "No Waiting" signs were repainted with a single yellow band on the poles. The cost of the work averaged £120 per shop.

Interiors are either vulgarly flashy or drearily woody, and apparently always planned with a hit and miss, here-it-goes-there-it-fits technique.

†

The modern look is given by extruded portholes, Formica peg board and plastics; and by giving everything rake-able a rake. This isn't good enough. Plenty of architects like boating. Is one ever involved in the design of the interior of a small boat?

†

I sat beneath the yellow glow of a glossily stippled ceiling in a cabin as claustrophobic as anything I've seen afloat, and asked the manufacturer why he had designed the interior the way it was. He replied: "Because it is different—it's not the way boats are usually laid out, and people like it." I asked him whether single bunks longitudinally would have given more spacious effect than his lateral double bunk, and he said: "Probably—but this is different and people like that."

†

On another yacht, externally beautiful but costing £12,000 and with a cabin interior as interesting as the inside of an empty cigar box, I asked a yachting enthusiast who thought it "impressive" whether he thought the interior really made the best use of the space available. At first he clearly thought me soppy, then he said he hadn't really analysed it. He finally decided perhaps it wasn't altogether ideal and observed that the four-berth sloop his family had bought at the previous year's show had since been remodelled internally by his mother "who knows a bit about architecture," and was greatly improved as a result.

†

Feeling this much justified, I continued my tour and discovered that generally speaking motor cruisers were better, planning-wise, than yachts, but that their detailing was far more vulgar. Motor boat runabouts tended to go to extremes of beastliness (including imitation plank joints in plywood decks) but sailing dinghys were almost universally splendid. Fibre glass, although potentially an excellent material, seems to have been sadly misused, in bulbous shapes and crude colours.

†

Boating is becoming more and more popular, which is a good thing. But it would be a pity if the rivers were to be filled with boats like coloured packing cases. I think there is room for some new thinking in the boat yards, and an architectural competition for an interior might be rewarding.

†

Motor boat builders would do well to look away from Detroit and think more about the sea, ships and a shiplike idiom.

MICHAEL MANSEY

The Editors

UNTIMELY DEATH OF GIFT HORSE

THE week before last, the last architect member left the Division of Architectural Studies of the Nuffield Foundation. Although we have still two publications to await, this effectively brings to an end an institution which has been a household word in the architectural profession almost since its first beginnings in 1947. In the introduction to the report of the Nuffield Foundation for the year ended March 31, 1960, the point is made that the new kind of Charitable Trust (of which the Nuffield is an example) is essentially experimental in its aims. Its object is to initiate work which will later be recognised, as necessary by the community and which will then be taken over by others.

It is greatly to the credit of the Trustees that, when after the war, they were looking round for work to initiate, they chose architectural research. For architecture is not only one of the most widespread and costly of human activities, but one which has almost no background of research whatever. The extent of the need may to some extent be measured by the success achieved in the short thirteen years by the very small division which the Foundation set up. In these few years this division, which never comprised more than a handful of staff, architectural and other, was able to make a decisive contribution to two building types: laboratories and hospitals; thereby saving the community untold expenditure on inappropriate building. About the wisdom of this initial choice there can be no question: but why has it suddenly been abrogated? The only valid reason for the giving up by a foundation of a successful project (apart from shortage of funds) is that the work initiated has been taken up elsewhere. But has architectural research been taken up on a scale commensurate with the need? A few research departments have started in universities, but their funds are so small that we cannot expect a significant contribution from them for a great many years to come. The need for more work on hospital user studies has indeed been recognised by the Foundation, for the Nuffield Provincial Hospitals Trust is to continue; but we must remember that this Trust has no architects on the staff and its work, useful as it is, hardly qualifies as architectural research. An examination of the last Nuffield Foundation Report shows that the Foundation is spending more of its money on financing buildings for other deserving bodies. This must be very welcome to those receiving aid, but this encouragement of projects already initiated has not the same social value as the initiation of original projects. This last is more difficult, but it is surely the real business of a Foundation. We know that architectural research *can* be highly fruitful. The need for it is as great as ever, for public opinion is still blind to the wastage caused by inefficient buildings. So that the generous venture of 1947 may bring its full social reward, we urge the Nuffield Trustees to restart their Architectural Division.



ARE YOU FRUSTRATED?

Do you know of any examples of delay, frustration or financial loss caused by the failure of the Ministry of Transport, or a planning or highway authority, to make a decision about a future road pattern? They are wanted by Malcolm MacEwen, the chief information officer of the RIBA, who is helping to prepare evidence for a television programme. But make sure the witty stories you have been dining out on are true. If they are of recent procrastination you may do us all a good turn if you sent them to Portland Place.

RIPE FOR A CHANGE

Last week Charles Glover told a London Press conference why, in his opinion, the Covent Garden market should be transferred to a site over King's Cross station (see the AJ for December 15). The LCC advocated this many years ago, but Mr. Glover's chances of success are thin now that a Government bill for rebuilding in the same area is having its second reading. His firm, which describes itself as "consulting engineers and architects," is consultant to a consortium of firms formed to design, construct and finance industrial development. They are well-known names, but it would seem from the models made for the proposals that their architectural judgment is very poor.

DETROIT COMES TO CHELSEA

A fabulous evening party last week inaugurated London's latest luxury hotel, the Carlton Tower in Cadogan Gardens. Hotel magnates, socialites, PROs, model girls, two architects (ASTRAGAL kept careful count) and one sculptor, milled around on the two reception floors and made excursions by lift to admire the view from the millionaire's suites on the eighteenth.

*

One of the two architects was, of course, Michael Rosenauer, who designed the building—but not the decoration and furnishing which were provided by the owners, the Hotel Corporation of America. The result, lavish all through, good in parts (e.g., the ground-floor grill-room), brash and tasteless in others, has the curiosity value of a bit of America planted down in Chelsea. Its layout, style and atmosphere, makes you feel you have walked straight off a London street into the best hotel in Detroit.

*

One feature of the interior, as the publicity has already told us, is Topolski (brought in by the American furnishers) wherever you look—paintings, sketches, drawings in all the public rooms and a glass mural in the (refreshingly spacious) entrance hall: a feast for those who admire his work. ASTRAGAL prefers his ephemeral sketches to the more pretentious paintings and doesn't think even the former suitable for framing on restaurant walls. The one sculptor present at the party was Elizabeth Frink, who has made an abstract sculpture (not yet in place) for the corner of the building alongside the entrance—at mezzanine level. She was brought in by Rosenauer.

*

The best things about the building are its siting (there are so many complaints about high buildings in the wrong places; here is one in the right place—looked at up Sloane Street it is an improvement to the London townscape), the design of interiors that the American furnishers haven't got at—such as bathrooms—and the sequence of spaces on the reception floors generally. Disappointing are the coarse treatment of the balconies and the relationship between the high and low parts of the building, seen from across the gardens.

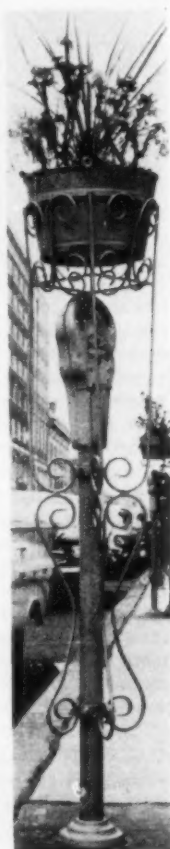
WHEN IS AN EYESORE?

Wisbech planning authority, in an attempt to raise design standards, recently turned down two bungalows which, if no worse than the mass of speculative building, were certainly fairly typical of it. The Minister, on appeal, has refused to back the authority, saying in effect, and he has done this sort of thing before, that the locality is too undistinguished to merit anything better.

*

The Tory ginger Bow Group have set their faces against any aesthetic control at all, and the growing number of architects who are fed up with the whole thing will agree with them. But even those who cannot bear to relinquish the reins completely ought to consider if such control is worth applying to small-scale sporadic building. Effective improvement is surely only possible where there is some chance of comprehensive, or at least co-ordinated development; and unless an area has been officially designated as such, people should be free to reflect popular architectural standards as they really are—changing, as they do, with the times.

These "Floral Parking Posts", in Erie, Pennsylvania, are described in a photo hand-out as "more than mere money-grabbers." They help, it seems "to beautify the streets. Ornamented with iron scrollwork and topped with flowering plants, the meters give motorists an unusual scenic park."



HILDA SAYS "NO"

Strange doings at the last meeting of the Belfast city council are reported in the *Belfast Telegraph*: the council decided to support its agreeably-named Improvement Committee in refusing to meet the Royal Society of Ulster Architects to discuss the city development plan. The Ulster architects had suggested that a conference might be arranged to discuss the corporation's proposals for comprehensive city planning and how they might be integrated with the proposed regional plan which Professor Robert Matthew has been appointed (by the Northern Ireland Government) to prepare.

*

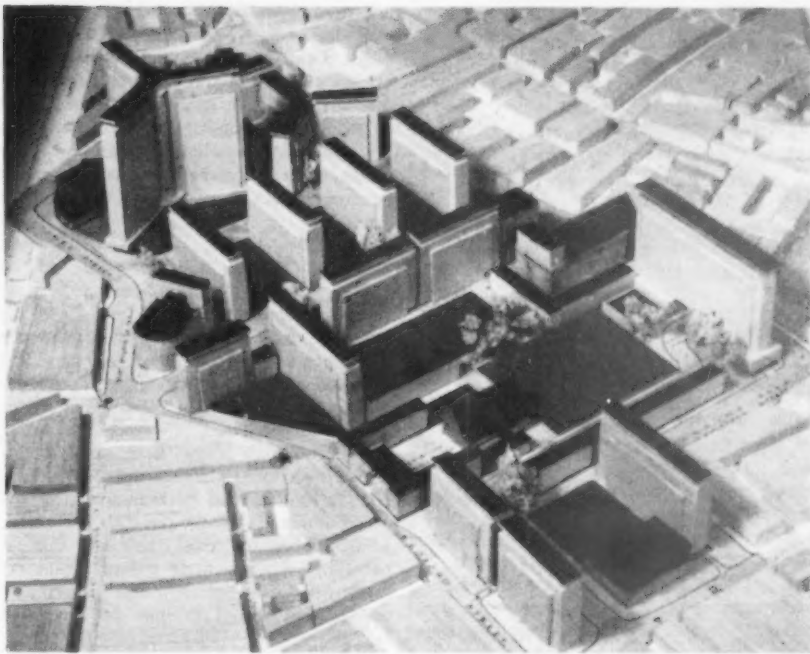
The committee decided that "no useful purpose would be served by such a conference," and at the city council efforts were made by a handful of councillors to refer this decision back, saying the decision was a "snub" to architects and that there was nothing to be lost and everything to be gained from such a meeting. However, Alderman Mrs. Hilda Wilson had the answer to such weak-kneed views. The society, she said, comprised "only ordinary architects" and "if we consult them other bodies will want to have their say and we will appear to be casting a slur on our officials."

*

It would indeed be frightful if citizens of Belfast began showing an interest and having a say in the future development of their city—as depressing a mess as ever blighted a superb site, and now spreading rapidly round the sides of the lough and up the encircling hills.

WHEN WERE YOU LAST YOUR FATHER?

Ossip Zadkine is an architect in good standing with the Modern Movement in Architecture, especially with the school of Corb, but the new show of his work at the Tate neither draws attention to this fact, nor contains any pieces of sculpture that would justify it. They are mostly very clever, poetic (if that is the word) gallery-pieces, depending very much on mixtures of materials and surfaces, and mixed metaphors visually. (Quite a lot of Orpheus is his Lyre, and groups of figures are often so much at one that odd limbs and heads and things get



A proposal for redeveloping the area around Covent Garden which the Industrial Development Group Ltd. (consultants: Charles Glover and Partners) would be prepared to carry out. Astragal comments on this very crude design opposite.

swapped over from one to another.) All this is carried off with tremendous professionalism and verve that doesn't quite build up to the grandeur and expressiveness of his Rotterdam monument.

*

The exhibition will be seen later in Newcastle and Bristol, but seize the opportunity to see it at the Tate if you can (it closes on February 12) for this reason: the Tate's permanent collection includes a cast of Rodin's *Prodigal Son*—you pass it on the way up to the Zadkines—which is a figure in almost exactly the same attitude as the Rotterdam monument (represented here by a less than full-size version in bronze). Whether or not you think Z was cribbing R, the ability to compare two such similar figures expressing not dissimilar emotions may give food for thought about just what the modern sculptor has gained by his violent transpositions and inversions and disembowellings of forms.

CIVIC SETTING

ASTRAGAL was in Lincoln last week and took the opportunity of inspecting the site of the future civic centre, the

subject of the competition recently announced (see these pages, December 29). It could be one of the most exciting competitions of recent years; for the site must be unique. It is in the lower part of the town, bounded by the River Witham (which has so far been poorly exploited townscape-wise—the competition offers the chance to make something of it), and immediately beyond the river, rises steeply the old part of the town crowned by the cathedral. The cathedral, silhouetted high above, and seen almost exactly in side elevation, provides a breathtaking background.

*

The competition will also have far-reaching consequences for Lincoln because it provides for transforming the adjoining Sincil Street into a pedestrian shopping precinct, which will clearly lead to other improvements in the future. To remind readers: conditions now available; last date for questions, January 31; closing date, July 7; assessors, G. A. Jellicoe, Sir Leslie Martin, J. M. Richards; first prize, £4,000.

ASTRAGAL.

LETTERS

H. A. R. Binney

Alan Turner,

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

W. H. Eccleston, A.M.I.H.V.E.

Ray Miller

'Consumer Protection' in the Building Industry

SIR: The British Standards Institution agrees with the view expressed in the AJ, of November 24, that "consumer information" for the building industry must be based on test results that are up-to-date and comprehensive if the service is to be satisfactory to consumers and fair to producers. With the multifarious products of the industry, their growing range and the complications of testing in some cases, this poses a serious problem which requires much more examination and thought in relation to the availability of testing resources.

There is a further problem. How can such a project be envisaged on a reliable and practical basis until there is available the vast number of agreed standard methods of test on which "consumer" reports of this kind must surely be based?

For many of the traditional and some of the newer building materials and products there are now accepted British Standard methods of test. But gaps exist and as new types of product come on to the market, so additional test methods need to be devised in order that the relative merits of similar articles can be compared against a standard yardstick.

In our view, much more basic work on establishing methods of test needs to be done before "consumer reports" become a reliable proposition in a field as technical and as changing as that of building materials.

This subject, together with your suggestion of listing the basic information to be provided about a product, is one to which the Building Divisional Council of BSI is being asked to give attention.

Yours faithfully,

H. A. R. BINNEY

British Standards Institution

'Arkitecture'

SIR: In your issue of December 15 you published some photographs of houseboats on the Basingstoke Canal with unfavourable comments by Astragal, who made comparisons with the caravan problem. There is an obvious similarity, but there are many points which Astragal has not considered.

"The Basingstoke Canal is semi-derelict... Waterways are part and parcel of the natural structure and ecology of the country and both canals and rivers are important agents of water supply, conservation

and drainage." I quote from Eric de Maré's excellent book "The Canals of England". It is extremely unlikely that the Basingstoke Canal will ever be re-instated as a commercially navigable canal, and consequently it may become completely derelict. The houseboat scheme will provide revenue and incentive for the owners to carry out maintenance to lock gates and to the canal in general.

The builder has for a long time been concerned at the indifference of official bodies to canals which are left to silt up or to become refuse tips, and it is his intention to enhance rather than diminish the appearance of the canal. As the canal is privately owned it is true that there is no planning control over the number or appearance of boats, but they are to be moored in small groups near access to bus routes with long stretches between groups, and the builder will have control over the paint colours and the erection of wires, posts, fences and other elements that, if uncontrolled, can create a visual slum. (I agree with Astragal about the unfortunate trellis work—an example of misplaced zeal).

The boats are to be moored on the private bank, which is well-wooded, and the view from the public towpath should merely be that of boats on a canal, which is neither an extraordinary nor an unpleasant sight. There is, of course, nothing revolutionary in the idea of living on boats; I am told there are 20,000 house barges in Amsterdam, and one well known architect lives and works on a boat.

Finally I must point out that my services were limited to the production of a design which was considerably altered by the builders, both in layout and detail, and I cannot, therefore, accept responsibility for the appearance of the prototype which was photographed. The builders have, however, asked me to co-operate in improving the design of future boats.

ALAN TURNER

London, S.W.1

Wind and Tall Buildings

SIR: It would appear from the Press, various journals and the utterances of people who are in a position to know—even specialised design teams—that the 1960s will be a period of taller buildings.

As a heating engineer may I take advantage of this space to invite discussion, after consideration of the following points:

- (1). It is a known fact that wind velocities cause a decrease in the external air film resistance, which in turn causes an increase in the fabric "U" value.
- (2). Internal crack leakage at windows is also a part function of wind velocity.
- (3). High wind velocities—direct on the windward side and induced on the leeward side—prohibit the opening of windows.
- (4). Double glazing units, to be really effective, must be associated with some form of artificial air renewal in the spaces concerned.
- (5). Solar gains, with a multiplicity of con-

trol zones, need to be studied and economically assessed before application on a purely geographical consideration.

It is well known to everyone using an English beach in a "typical" summer that a wind-break is as essential as rolled-up trousers. Now why not carry this native ingenuity a step further and apply this system to tall buildings? Provide in fact an external glass / aluminium / stainless steel envelope for those floors generally considered "severe".

On first sight the "pros" are encouraging:—

- (1). The wind and weather do not "get at" the building directly.

- (2). The external air film resistance will be increased above that for unprotected surfaces, with a corresponding reduction of the "U" values.

- (3). With a gap of about 18 in. between valance and building, well-placed inlets and horizontal breaks, even windows may be opened as required.

- (4). External walls—that is of the building itself—can probably be made from, say, honeycombed paper with integral heating panels, and a general overall cost reduction effected.

- (5). Air conditioning plant will be restricted to a minimum and heating plant reduced in capital, running and therefore amortisation costs.

- (6). There is the possibility of carrying the services "externally".

- (7). Building fabric maintenance is reduced to a minimum.

There must obviously be the other side to this coin, that of the "cons." This, I trust will be thrown open during the discussion that I hope will follow, but in the final analysis, when talking costs, that for the whole project capitalwise, maintenance, running and replacement must be the only consideration.

Architecturally, there is no reason why this type of "envelope" construction should deprive the architect and his building of individuality, rather in fact this may be the spur for a whole rethink by all concerned in the "tall building era".

W. H. ECCLESTON

Stanmore, Middlesex

Misplaced Zeal at Henley

SIR: I suppose you had to publish Mr. Jones's letter in AJ 15.12.60 so that you fairly give every point of view a hearing. It must otherwise be quite obvious that the horror views of Henley he objects to were taken from positions to which everyone has access, parts of the visual scene available to all—the sagging rusted chain link fence; the scruffy disowned banks; the ugly street furniture; the insensible planting of Neo-Georgian forecourts; and the treeless desert of heavy-hipped bungalows—these, Mr. Jones, are as much parts of the landscape as the more frequently photographed parts of Henley, and cover a much larger area. Here, indeed, is scope for the zeal of public spirited citizens!

RAY MILLER

Crawley, Sussex

NEWS

RICS

Fire Precautions in Buildings

On January 2, F. W. Delve, Chief Officer of the London Fire Brigade gave a paper on Fire Precautions in Buildings to the RICS. The greater part of his talk was occupied in detailing the existing regulations, but he made a number of comments on current experience which concern architects. Speaking of the danger of smoke (which not only makes a fire difficult to fight, but kills people at a distance from the source of burning), he remarked that the use of air conditioning presents a new hazard as it can quickly spread smoke through a building and block escape routes.

He had much to say about fire doors. Common faults attributable to the architect are leaving a gap under the door, failing to install a selector mechanism in double doors which will shut rebated leaves in the right order, omission of rebated meeting edges, self-closing devices which will not shut a door opened more than 90 deg. and the fixing of cabin hooks which encourage people to hold doors open.

Mr. Delve spoke interestingly on fire appliances, showing a natural bias towards those, such as sprinklers, which can put the fire out before the firemen get there. He mentioned different types of automatic extinguishers which can be used when items of high fire risk, such as oil storage tanks or oil-cooled transformers, have to be placed where they are hard to reach. Such equipment may prove very useful in solving difficult problems of planning.

Mr. Delve's last point concerned manual fire alarm systems. The very large buildings of today have created a new problem in com-

municating the presence of a fire both to other occupants and to the brigade. Vital minutes have too often been lost through firemen thundering down long corridors in fruitless search of the fire. Mr. Delve recommended the use of a special red telephone in the central switchboard to which all dialed alarms would be directed and to couple this with some means whereby the girl at the switchboard could quickly warn all occupants.

PRESTRESSED CONCRETE DEVELOPMENT

Professor Guyon in London

Prestressed Concrete Development Group In a lecture following the twelfth annual general meeting of the Prestressed Concrete Development Group on Thursday M. Yves Guyon described some recent large civil engineering projects in prestressed concrete. In England prestressed concrete is only just beginning to be accepted for major works, whereas in France there is now a tradition of large scale prestressing, or more clearly of putting the forces in a structure where you want them (often without cables).

For a reservoir a dam or a pipeline, prestressed concrete is quite as conventional a material in France as it is here for a simple beam. Speaking of bridges, M. Guyon casually remarked that the 500-ft. span no longer existed as a problem and went on to refer to spans of 200 ft. as "small." Visually his most arresting example was a scheme for a bridge with spans of 600 ft. in lattice concrete: based on cantilevered half arches with suspended spans this has much of the elegance of the cast iron bridges of Telford's day.

It is curious that lattice construction should not have followed on immediately from the birth of prestressed concrete. Once having found a means of using concrete wholly in

compression there was no reason why concrete should not have started straight away to approach steelwork in lightness. Some pioneer work has been done with lattice concrete in the last few years—much of it in England—but only on a limited scale. It would be fairly safe to predict that in the 'sixties large lattice bridges in prestressed concrete will be sprouting up all over the world. If this means that the end of the tyranny of the flat concrete arches (children of Waterloo), then the development will indeed be welcome.

OBITUARY

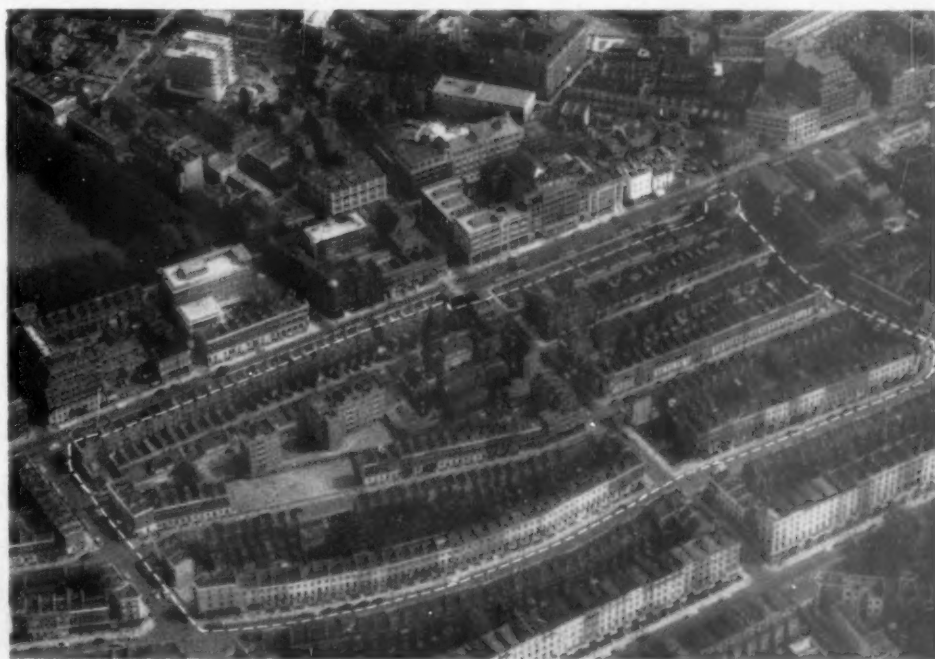
Sir Ninian Comper

Sir Ninian Comper, who died on December 22 at the age of 96, was a church architect of exceptional grace and distinction. He built his first chapel in 1889 and had been designing churches for over 50 years. One of the last may be generally considered to be one of the best, St. Philip's at Cosham, Portsmouth, built in 1937. Other famous churches of his are: St. Cyprian's, Clarence Gate, near the top of Baker Street, and St. Mary's Wellingborough. He also played a large part in the restorations of Southwark Cathedral. Sir Ninian loved to design and decorate his churches down to the last detail, and was a distinguished craftsman-designer in burnished gilding, fabrics and above all in stained glass.

Sir Ninian stoutly opposed the organisation of architects maintaining that architecture is an art, not a profession, and would never join the Royal Institute of British Architects; he was not however in general opposed to organising for good purposes, and was a foundation and leading member of the Norwood Preservation Society, taking an active part in defending the south London borough where he lived.

Westminster Competition Site

An aerial view of the Lillington Street, Westminster, site, for the development of which Westminster City Council is organising an architectural competition, with Philip Powell as assessor. Vauxhall Bridge Road, running diagonally across the photograph, forms the north-east boundary of the site and the curved street in the foreground forms the south. A corner of Vincent Square is on the left with Hide Place flats (subject of a series of AJ Progress Reports) above. Closing date for entries is July 10, 1961, and competition documents are now available from the Town Clerk, Westminster City Hall, Charing Cross Road, London, W.C.2, on payment of a three guinea deposit.



RIBA

New Work for Private Offices

The RIBA reports that the value of new work commissioned from private architects in the third quarter of 1960 was about the same as in the previous quarter, but nearly 25 per cent up on the third quarter of 1959. Commissions for industrial buildings, offices and banks all showed a fall compared with the second quarter of the year, but this was balanced by an increase in private housing and other commercial and miscellaneous building.

New commissions for public authorities were substantially higher than a year earlier, mainly because of an increase in housing: such increases however in particular building types for public authorities may reflect only the general pressure of work in local authority architect's departments.

One project in 14 was cancelled or postponed during the quarter (as against one in ten the previous quarter), and of these financial reasons accounted for one-seventh of the value of projects abandoned, difficulties over site or obtaining planning permission, for about two-fifths.

Regional analysis of new work commissioned showed a fall in the value of new commissions in London, Middlesex and the North West as compared with the previous quarter or the third quarter 1959: the rest of England showed an increase over the preceding quarter and the previous year, South West and North Western regions doing particularly well. New work in Scotland ran at about the same level as the previous quarter and above that of a year earlier.

DIARY

Architects' Christian Union, a reception from 7 to 8 p.m., in the Henry Jarvis Hall of the Royal Institute of British Architects. Buffet at 6.30 p.m. Speaker Prebendary Colin C. Kerr, M.A., Vicar of St. Paul's Church, Portman Square. JANUARY 12

Rehabilitation of Streets, by Professor Misha Black, illustrated with colour films. Architectural Association, 6.15 p.m.

JANUARY 18

The Aims and Activities of BASA. Architectural Association, 6.30 p.m.

JANUARY 19

Guarino Guarini, architect and mathematician, 1624-1683. Dr. Arnold Noach will introduce an evening on Guarini at the next meeting of the RIBA Library Group, at 66, Portland Place, London W.1, at 6 p.m.

JANUARY 19

AA Exhibition of Photographs by members and students. Closing date for submissions, January 19.

JANUARY 25-FEBRUARY 17

Swedish Furniture Trade Exhibition, Central Hall, Westminster.

JANUARY 31-FEBRUARY 4

OXFORD ROADS INQUIRY

The Evidence Summed up by Paul Thompson

FOR three weeks and a day Sir Frederick Armer has sat quietly in his upright arm-chair surrounded by maps and microphones in the great neo-Jacobean front chamber of Oxford Town Hall receiving evidence on the Oxford road problem. He has maintained a scrupulous absence of bias. He has asked no loaded questions; indeed he has hardly asked a question at all. He has cut nobody short; not even the humorist who wanted to solve the problem by draining the Thames, or the deputy town clerk who took half a day cross-examining all the city officers to show that no road should pass through his orchard. This benevolent admission of irrelevant evidence has been the most striking feature of the inquiry, and with it a consequent absence of insistence on relevant evidence.

Although an electric computer has been obtained so that calculations can now be quickly obtained (from the Oxford traffic survey) on the efficacy of various road proposals, these calculations have not been applied to all the major proposals before the inquiry; in particular no analysis has been made of either Sir William Holford's scheme for the Oxford Preservation Trust or the Townmaker road scheme.

The City Council opposed the suggestion that Sir William's scheme should be analysed. It would seem extraordinary to decide on respective schemes without the necessary comparative figures for all of them. It was left to a philosopher, R. M. Hare of Balliol, to produce his own set of figures for these roads, together with a cogent plea for a proper analysis from the laboratory.

A second extraordinary gap was the absence of any evidence on the effect of traffic increases on the various schemes submitted. Townmaker, who had planned for a big increase in traffic volumes, did not think this needed proving; "statistics on the growth of motor traffic in this and other countries show that we face a frightening problem. The Townmaker roads were capable of bearing the traffic envisaged for the next 10 or 15 years at least. While Townmaker had no large masses of figures to support its case, any study of the figures involved would not show that their conclusions were wrong."

These statistics may be well known to readers of THE ARCHITECTS' JOURNAL, and they are certainly well known at the Ministry of Transport, but they had not reached the notice of the lawyers who were the main protagonists at the inquiry.

The Preservation Trust thought it in their interest to deny the probability of rapid traffic increases and, without presenting any evidence in support, assumed that present figures will not double before 1984; the City Engineer said that he did not expect more than doubling "in the ultimate future." The *Oxford Mail* was stung by these absurdities

into an article on December 6 demanding more realistic estimates, but the lawyers offered no answer and Sir Frederick Armer did not require one of them.

Why Oxford, a city dependent on the motor industry, a famous tourist attraction, a county market town, with a high and rising car ownership, and traffic increases corresponding with those elsewhere in Great Britain, should suddenly acquire a phenomenal immunity from traffic increases, was a question never discussed at the inquiry, although it was fundamental to the cases presented by the City, the Preservation Trust, the University, Christchurch and Dr. Thomas Sharp.

This absence of the fourth dimension made many of the statistical arguments misleading; the Traffic Survey was used as a static source of information, and the efficiency of road proposals tested on the assumptions that old roads would be almost as slow even when congestion in them was relieved (a dubious assumption particularly for a wide, fast street like High Street); that new roads would be for "speeds appropriate to urban dual carriageways, and that the junctions would have sufficient capacity to carry the traffic without increasing the delay" (an assumption not encouraged by the City Engineer's repudiation of official traffic forecasts); and that new roads would generate traffic only in proportion to their length (despite the evidence that congestion is slowing down traffic growth and driving away shoppers).

So each road scheme was examined to see how it would have worked in 1957, and without any acknowledgment of the attraction to traffic that an uncongested commercial centre might have had even in 1957. The only witness to put this point was A. J. D. Harris, a former architectural correspondent of the *Oxford Mail*; he wanted to "suggest very forcefully that any relief road would result in an immediate and sharp increase in traffic."

Perhaps most disturbing of all was the absence of any evidence from the City Council on the relation of their scheme to their general planning and redevelopment proposals for Oxford. Although the principal alternative plans—Sir William Holford's and Townmaker—contained detailed suggestions for St. Ebbe's, and Townmaker also for the city centre, the City Council did not put up their own alternatives; the fact being that they had none.

Council on the relation of their scheme to line has been settled before presenting the statutory revision to the town development plan which is already due. Consequently their case did not put the problem as one of planning at all, and the University in opening their objection were obliged to say that "this was not primarily a traffic problem, but a town-planning problem of a very special sort."

The only reference to redevelopment pro-

posals came from the City architect, who appeared to regard a road through a redevelopment area as an advantage; in support of his own proposals he said, "I have previously described how this scheme passes through areas which the Council has decided to redevelop whatever final decision is taken with regard to the construction of new roads. The extent to which this scheme makes use of these redevelopment areas will clearly be helpful in getting the scheme operating reasonably soon." He used the same argument in cross-examination to uphold the Council's route, which bisects St. Clement's and trisects St. Ebbe's.

It was left to objectors—the University and Mr. Hare for example—to uphold the aim of residential areas freed of through traffic. The Council maintained that a speedy decision was necessary to allow the redevelopment of these two areas to proceed, but at the same time supported proposals which would destroy any possibility of creating viable neighbourhoods of them.

The inquiry opened with the presentation of the Council's case. Since the original presentation of three alternative schemes the Council had decided to support a compromise combination of two of their schemes. In order to avoid a decision on a north-south road through the city centre, which was politically impossible, an inner road through the Meadow was linked to an intermediate ring from the station to north Oxford.

This was presented by Mr. Ramsay Willis, Q.C., as a "substitute" road for the High Street, and he quoted Mr. Sandys's "pregnant phrase"—"This is not primarily a traffic problem"—with apparent approval, ending his speech by asking, "Is there any room for doubt that the traffic in the heart of Oxford which has to be endured week in, week out throughout the year, is a real disgrace to a country which affects a love of its ancient places?"

The body of his speech was devoted to a detailed attack on the three schemes which the Council had first presented as destructive, badly sited, and inconvenient. In some cases, such as the one-way streets in scheme A, it seemed curious that the Council had not themselves proposed the necessary amendments; and if "it was undesirable to introduce heavy traffic into residential areas, as scheme A would do," why did the Council not apply the same criterion to their own scheme? Once again it was left to Mr. Hare to ask.

Double standards in the Council's case became even more obvious when Mr. Baker, the chairman of the Planning Committee, said that "The Council's present proposal is conditioned by its view that Magdalen Bridge and The High should remain open to traffic and that what it has to solve is primarily a traffic problem, although the amenity aspect is involved." It later emerged that the relief road planned would—even without congestion and with a purposely awkward entrance to The High by a "deterrent roundabout"—give an advantage of only six seconds to a motorist travelling between St. Clement's and Carfax, so that the whole amenity value of the

scheme rested on a fractional calculation, itself derived from idiosyncratic traffic assumptions.

The City Constable followed, and to the Council's surprise (they had not bothered to consult him) supported a relief road along the Townmaker route.

Then Mr. Chandler, the City Architect, gave his defence of the Council's scheme. The second part of his evidence, however, consisted of justification of his own precinctual plan, which the Council had refused to consider as a whole. "The difference between the Council and myself arises from a difference in the approaches to this problem. I believe in the amenity approach. I reject the traffic approach as outdated and unworthy of a city like Oxford." Mr. Chandler relies in his principles on Dr. Sharp, whose precinctual approach and townscape vision he attempts to fulfil. His scheme, although superficially following the Council's route, is envisaged on a very different scale; his substitute roads would be first class traffic roads, without restrictive access, flyovers and underpasses. Mr. Chandler appeared in fact on the same side as all the other planners at the inquiry, and it is a pity that his dual role in supporting his own and the Council's entirely different policies continually confused the issues by allowing the Council, through his answers to objectors, to criticise others on the amenity grounds which they had themselves rejected, while Mr. Chandler's own scheme, because of its superficial similarity to the Council's, was never submitted to a really critical examination. Are central substitute through-roads of motorway scale really the best way to convert an old town centre into a precinct, or is the Townmaker approach, of a radical, new spine road, with spurs to the centre, more economic and effective? This crucial point was not debated.

The case of the Oxford Preservation Trust, which followed, was centred upon the evidence of Sir William Holford. His plan has been amended and improved by the continuation of his freeway road system up by the railway to relieve the whole of north Oxford, as in Townmaker, and by the provision of a new and adequate bridge across the Thames for the proposed new southern freeway to Cowley.

His statement contained an encouraging endorsement of the precinctual approach for the centre and collegiate areas and some of the traffic restrictions which this would require. He had also, after reflection, decided that an inner relief road was entirely unnecessary. On the other hand, the force of the Trust's case was lessened by the introduction of a phasing which seemed dictated rather by a desire to offend nobody than by traffic needs—"It may be 20, it may be 40 years ahead—one doesn't know," a remark that gave force to Mr. Willis's accusation of evasion.

The University case was a mixture of good sense—appeals for a general planning approach, for the integrity of St. Ebbe's, for a moderately precinctual scheme "preserving a city and university at present swamped with motorists"—and absurd opti-

mism—"It would be 27 years before traffic under scheme A would return to the 1957 level." (This is the intermediate ring road, which was calculated to give about 50 per cent relief.) The bypasses had not been completed, the Cowley shopping centre "was merely a mud patch," "none of the prerequisites for a modification of the University view has been fulfilled." In other words, the 1956 wait-and-see view was maintained, modified by the vote of Congregation for traffic restriction.

After a passionate appeal by Dr. Thomas Sharp for his own plan, for which he claimed support from Sir Patrick Abercrombie (the Trust's proposals are based on a ring road also attributed to Abercrombie), calling his meadow road "a thing of great beauty" across "a large open dank hummocky field, with a decrepit post-and-wire fence running across it." "It is a feat of wishful thinking to avoid facing up to the one thing that is the real solution"—Christchurch launched their first attack, scoring a point with a reference to Dr. Sharp's drawings of roads and roundabouts with virtually no traffic—"the people with their children and dogs would not be parading quite so much on the roundabout."

The Christchurch case was partly a weighty statistical onslaught on the Oxford traffic survey and the City cost estimates, partly an appeal for the meadow "which everybody loves so much," and it had the support of the president of the Institute of Chartered Surveyors for scheme A on planning grounds. They were "opposed to a precinct whatever that may mean." It was an impressive performance, but suffered from the same fundamental weakness as that of the University, to which it was largely complementary.

The final week was occupied by numerous minor objectors; a description of the plight of the City bus company, who nevertheless supported scheme A; the evidence of Mr. Hare and Mr. Harris; the deputy town clerk; the County Council; Lord Beveridge, who considered that Oxford had been a better place in 1897 with no baths in Balliol, no motors on the streets and no women in the University; the Chamber of Trade, who opposed the closing of High Street but commended the Townmaker scheme; the precinct campaigners, the Warden of All Souls with an impressive list of signatures, and myself, with the resolution passed at the precinct public meeting, and supporting arguments; and, to conclude on the most hopeful note, the Townmaker plan, amended to provide for a university precinct, and presented with a score of 6-ft. drawings and plans. Recognised as by far the most imaginative and thorough plan before the enquiry, it was not seriously criticised; Mr. Willis was only able to suggest that it would require an alteration of the development plan (due already) and a lot of money (needed anyway). It was apparently "no contribution to the problem you have to solve." This may be a convenient technique for brushing aside evidence in a murder trial, but one cannot help wondering whether a town planning inquiry can usefully be so amateur.

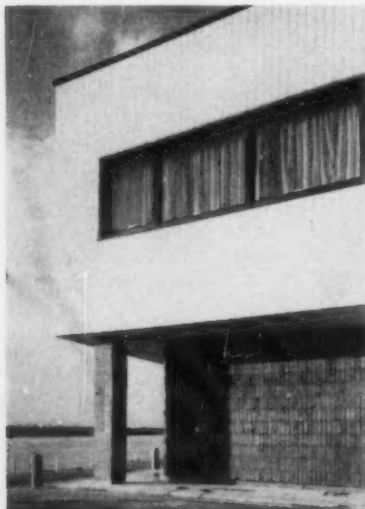
Factory Office Block



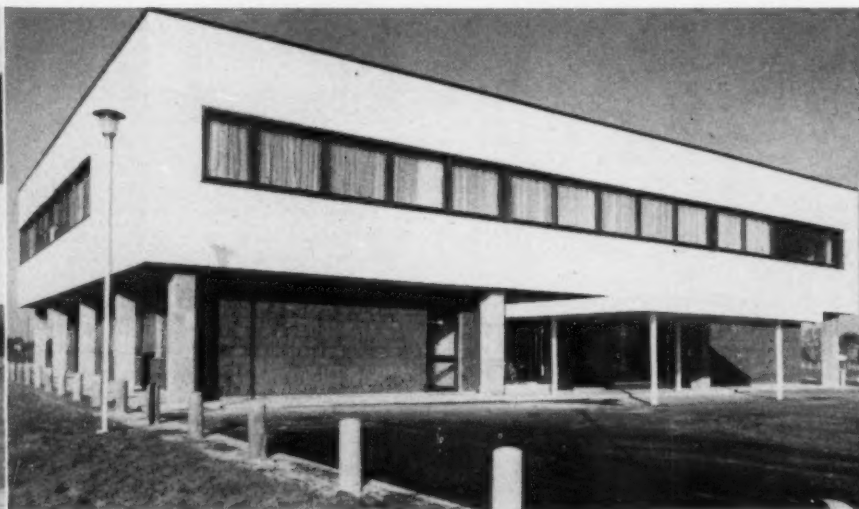
This office block at North Lynn, just outside King's Lynn in Norfolk, serves a new factory (for the manufacture of agricultural chemicals) which has recently been completed on an 83-acre site of reclaimed land. Designed by Fry, Drew and Partners, assistant architect Derek R. Preston, the block has been sited on the wide grassy bank

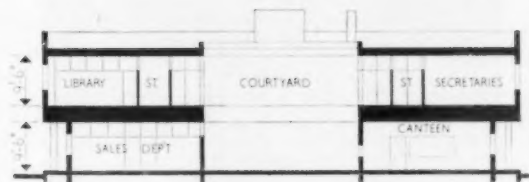
of the Great Ouse channel, which is a busy route for water-borne traffic. In terms of both broad massing and details of finishes and external colouring, the architects have deliberately developed a design to be in character with this nautical environment and with a site which is flat, open and highly exposed.

South-west corner of the block, with the Great Ouse channel beyond

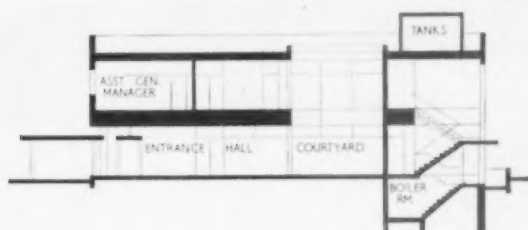


South front, with entrance canopy projecting to form a porte-cochère

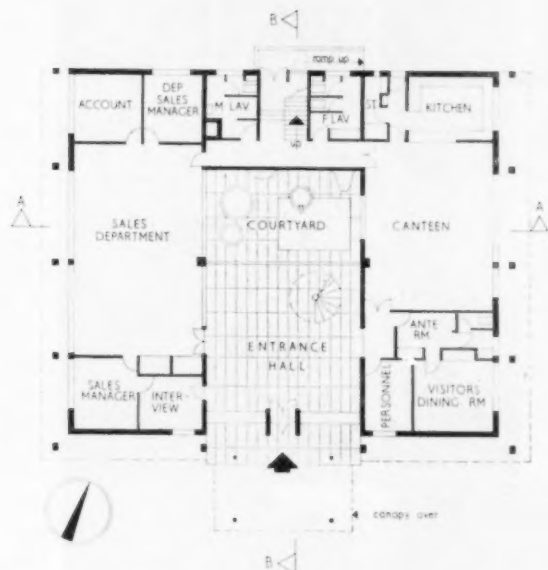




Section A-A



Section B-B

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

First floor plan

The building is planned as a simple rectangle, the accommodation being grouped on two floors round a central courtyard. Provision is made for future extension, so that the building may in future be roughly doubled in size, with a second courtyard similar to the existing one. In the final layout the lavatories will thus be in a central position. To allow for this extension partitions and external walling on

the north side of the present block are of a temporary nature. The building was started in May this year, and completed in mid-November. As an aid to this rapid erection a steel frame was chosen; this is clad externally on the first floor with vertical ship-lap boarding painted white. The recessed ground floor is finished outside with Staffordshire blues. Windows to both floors, which are double-glazed and hori-

Double windows to entrance hall, with plants between



The laboratories are fitted with perimeter benching





The top view shows the main first floor circulation area, with the 30-foot-long mural by Don Foster. Below it is a general view of the entrance hall, looking towards the central court

zonally pivoted, are carried out in oiled hardwood. The externally exposed ground floor columns are cased in precast concrete units.

The roof is formed with insulated metal decking, and there is an overall depth of three feet between the ground floor ceiling and finished first floor level to form a continuous services duct, which is particularly necessary to serve the laboratories on the first floor. Partitions are generally 4-in. concrete blocks, and ceilings suspended acoustic tiles, except for the entrance hall where beechwood strips have been used. Because of the exposed nature of the site, a high standard of thermal insulation has been provided. In addition, a wind-break of trees will be planted to the east of the block. At first sight the building is very characteristic of the work done by the architects in the thirties. It would be wrong, however, to dismiss it because of this as a facile or ill-considered piece of design. In fact it is a very carefully conceived formal structure poised above the flat landscape of grass and water, carried out with external colouring in a combination of black, white and natural materials in the very best tradition of coastal architecture.

Much of the success of the building depends also upon the spatial clarity with which the internal circulation spaces have been developed in conjunction with the entrance and central courtyard. As a result of this planning the conventional office block corridor has been completely eliminated, except where discreet screening is required to lavatory doors. The spatial relationship has been considered in detail, particularly by the use of a free-standing circular staircase, and by the continuation of the Staffordshire blues into the en-

trance hall, past the double-glazed windows with plants between. At the moment the design suffers slightly because the landscaping of the courtyard has not yet been carried out to the design shown on the ground floor plan, but this will probably be done shortly. An essential feature of this layout is that the architects intend the precast terrazzo slabs which form the floor finish to the entrance hall to run through into the court.

Completing the building in six months has been something of an achievement. Although there is evidence that the quality of finishes and some detailed work has suffered slightly as a result, there is no doubt that in the present period of shortages of material and labour, such a speed of erection can only be the outcome of very careful advance planning and close liaison between architect and contractor.

CONTRACTORS

Structural designer and general contractor: Constructors John Brown Ltd. *Furnishings:* George Milligan Ltd. *Sub-contractors and suppliers—General structural work:* Kyle, Stewart (Contractors) Ltd. *Steelwork:* Dawnays Ltd. *Structural concrete work:* Costain Concrete Co. Ltd. *Roof decking:* D. Anderson & Son Ltd. *Windows—timber:* J. Honour & Son (Joinery) Ltd.; *metal:* J. Starkie Gardner Ltd. *Electrical and laboratory equipment:* Constructors John Brown Ltd. *Spiral staircase:* S. W. Farmer & Son Ltd. *Kitchen equipment:* Falkirk Iron Co. Ltd. *Heating:* C. B. Jackson & Co. Ltd. *Movable partitions:* Tenon Contracts Ltd. *Marble work:* Fenning & Co. Ltd. *Sanitary ware:* William E. Farrer Ltd. *Floors:* Edward Stuart & Co. *Terrazzo:* Malacarp Terrazzo Co. Ltd. *Ceilings:* G. C. Horsburgh & Co. Ltd. *Light fittings:* Atlas Lighting Co. Ltd. *Flagstaff:* J. W. Gray & Son Ltd.

Interior of the General Manager's office



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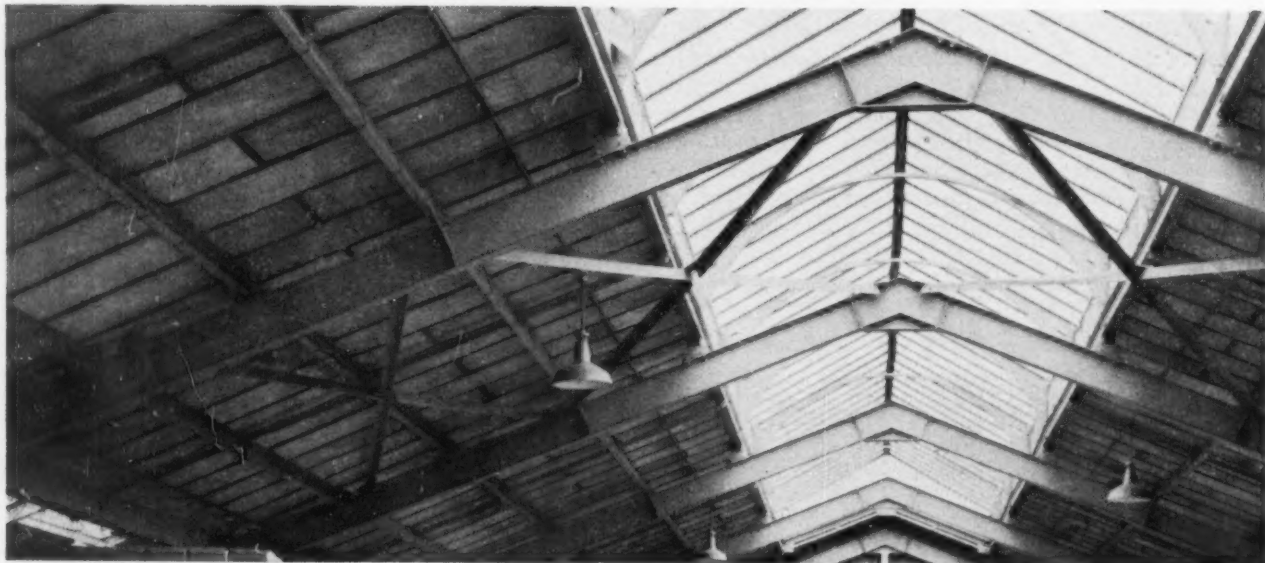


Illustration: Factory storage with textured Marlith on inverted Tee.

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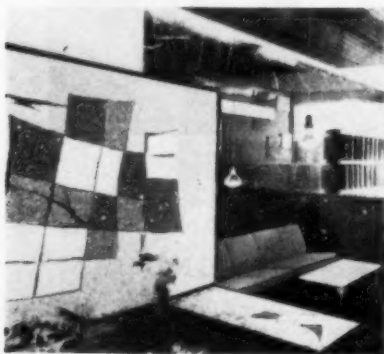
(AJ)

THE INDUSTRY

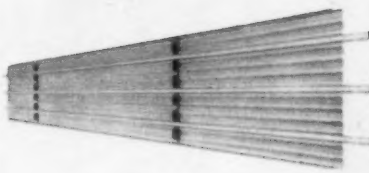
Brian Grant describes a showroom for Spanish marbles, a radiant heating unit, long span beams, domed rooflights and a unit for warm air heating.

Marble and terrazzo from Spain

New showrooms have been opened in London recently to market Spanish marbles, granites and various forms of mosaic. The marbles are from quarries in San Sebastian, Alicante and Granada, and there is also a very handsome green granite from Vigo. Prices are reasonable, no doubt largely as a result of low Spanish wage rates, 16s. 6d. a yard for glazed wall tiles and 27s. 6d. a yard for mosaic in basic colours. The showrooms are well designed and contain large panels of wall facings and floorings, so that a good idea of the appearance of large areas can be obtained, and there is also a good range of samples. (*Icona (London) Ltd., 94 Buckingham Palace Road, London, S.W.1.*)



Spanish marbles showroom



Raystrip heating unit

Radiant Heating

The illustration shows a multi-tube version of the Raystrip radiant heating units made by Copperad. The radiant surface is corrugated aluminium sheet to which are bonded the steel tubes for the heating water or steam. The units are intended mainly for overhead suspension in factories and industrial premises and can be designed for steam pressures up to 250 p.s.i. (*Copperad Ltd., Colnbrook, Bucks.*)

Long Span Beams

The Boulton & Paul group has introduced a new type of beam known as Preflex. It consists of high tensile steel and high grade factory concrete, and gives a high load bearing capacity with a greater range of span to depth ratios than has hitherto been economically possible. Both high tensile steel and prestressed concrete suffer from the minor disadvantage that deflections are sometimes higher than is desirable for building work, and concrete stiffening round ordinary joists becomes tensioned with the steel and is subject to cracking. During manufacture Preflex beams are made to take up a curvature similar to that produced by their working load. Two joists are clamped together at quarter points, one above the other and about 18 in. apart, and the ends are pulled together with hydraulic jacks. The beams are then kept in this stressed condition and concrete casings with mild steel reinforcement are cast round the tension flanges of both beams. When the concrete has developed adequate compressive strength the jacks are slowly released and the elastic recovery of the beam compresses the concrete, with a corresponding reduction in the stress of the steel beams. After erection rigidity is further increased by casing the rest of the beam in concrete. The advantages are that by using high

tensile steel to its maximum working stress less steel is required to support a given loading, and less concrete is needed, while beam depths are reduced. The beams were originally evolved in Belgium, where they have been used since 1951. Development in this country is a joint enterprise of Boulton & Paul, Riverside Works, Norwich, and Anglian Building Products Ltd., 67 Jermyn Street, London, S.W.1.

Domed Rooflights

The Coxdome Mark II Perspex rooflight is now made with a domed top and straight sides which slope at 40° as far as the inside edge of the fixing curb. The domes are produced in clear sheet with a light transmission of 92 per cent, or in opal diffusing sheet (plain or in colours) when the light transmission falls to 80 per cent. Timber or concrete curbs can be used, and the domes are supplied drilled for fixing by screws or clips. (*William J. Cox (Sales) Ltd., London Road, Tring, Herts.*)

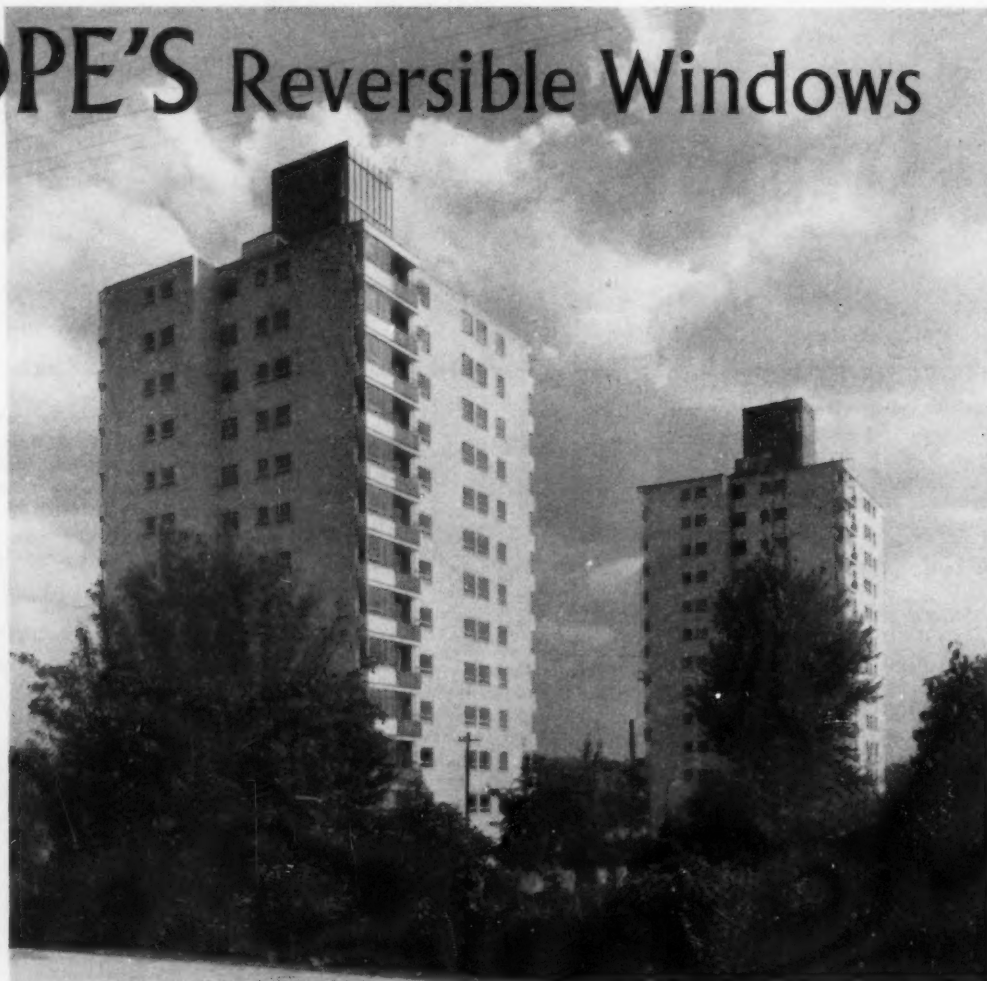


Coxdome rooflight

Electrical Heating

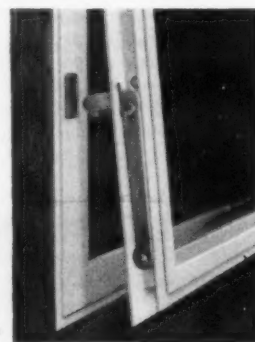
The Gnome heater consists of a 5 kilowatt electric heating unit with a power driven fan which circulates the heated air through a humidifying unit and then through ducts to outlet grilles in each room. The whole unit is comparatively small, 36 in. high by 20½ in. by 17 in. on plan, and should be sited somewhere near the centre of the plan to keep duct lengths reasonably short. Control is by thermostat, plus an automatic clock for reducing the heat output at night, and there is also a safety switch to cut off the electricity if the unit should overheat because of fan failure or the outlet grilles being left closed. Cost figures for the heating of a 790 sq. ft. bungalow near Huddersfield, insulated to Egerton standards, gave an annual heating cost of £31 13s. 6d., though this does not include hot water. (*Gnome Heaters, Moll Springs Works, Netherton, Huddersfield.*)


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6 PLANNING: SOCIAL AND RECREATIONAL

radburn planning: a reassessment, 5 design principles, 1

Having presented his evidence in favour of a return to Radburn planning,* Paul Ritter now sets down points of detailed guidance for those who wish to plan Radburn type estates. In this article he considers the layout as a whole and footpaths. In the next he will turn to cul-de-sac and house plans.

Planning of the Town

Radburn planning has nothing to say on the issue of whether neighbourhood centres are to be used, as at Cologne New Town, or whether there is to be one centre only with corner shops, club rooms, etc., to punctuate the footpaths as at Cumbernauld. Geographically the town can be laid out on a circular plan with radial roads separating wedge-shaped superblocks (Fig. 1), as at Vällingby; or it can be designed

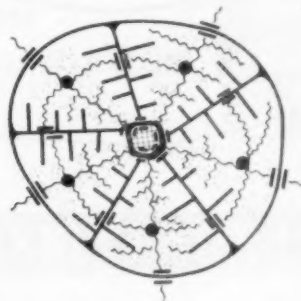


Fig. 1

with a linear town centre with superblocks lying alongside as, again, at Cumbernauld, Fig. 2. In either

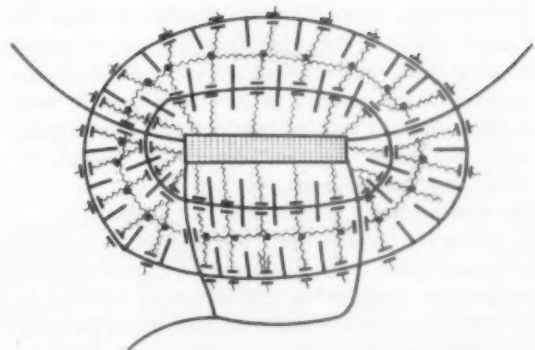


Fig. 2

case the site itself will play a large part in deciding the form chosen.

Superblocks

The main factor which (apart from the site) determines the size and shape of superblocks is the need to keep footpaths leading to bus stops, shops and schools reasonably short and direct. A second factor is the need to limit the cars garaged on the site to a number which will not be too great for the ring road to accommodate at rush hours.

Paths

To facilitate directness of path, the longest side of the superblock should be in the direction of the main

* Previous articles in this series were as follows: The classic objects, November 10; Footpath or road access?—a social enquiry, 1, November 17; Footpath or road access?—a social enquiry, 2, November 24; Comparative costs, December 8, 1960.

technical section

centre. Branch paths should merge with main paths pointing to the centre or at least be at right angles to minimise detours (Fig. 3) from what an excellent

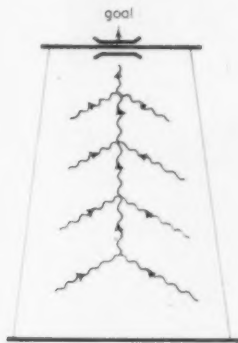


Fig. 3

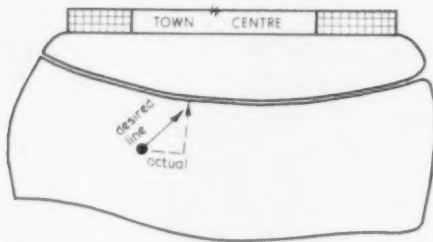


Fig. 4

report from Cumbernauld calls the "desire line." This problem of resolving the conflict between the "desire line" (as the crow flies) (Fig. 4) and actual possible paths was analysed in some detail in this report and this analysis is here employed. It must be borne in mind that, in traditional and other layout, routes to "goals" are not "desire lines" either, but often very round about.

The Cumbernauld analysis was as follows:

- (a) Since the "desire line" (either to the centre or to the underpass leading to the centre) would result in innumerable paths, some canalisation is essential.
- (b) The actual route must be the most direct available. It is made such by blocking the others with buildings, walls, etc. (Fig. 5). Connections between garage courts

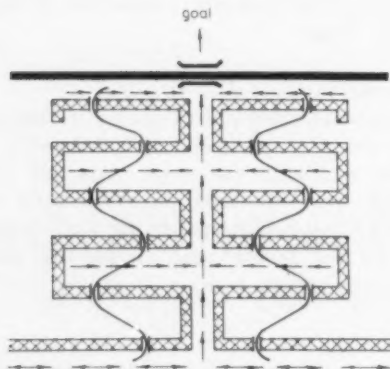


Fig. 5

(i.e., culs-de-sac) and the pedestrian side must be of local usefulness only. That is, if you use them while on your way to an underpass or to the centre or to a school, you must follow a longer route than you would if you kept to the alternative, fully segregated path (Fig. 6). If the culs-de-sac are too long, this

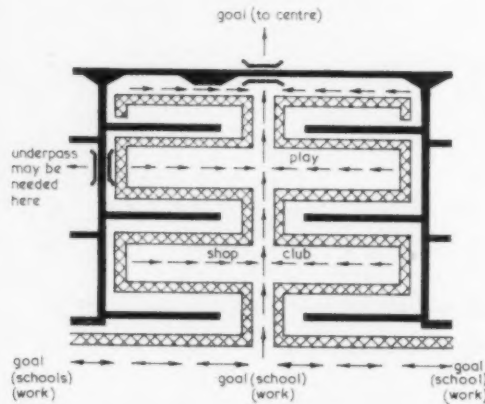


Fig. 6

doctrine will be difficult if not impossible to apply. At the LCC's Huntingdon estate, for instance, where the "desire lines" have not been blocked, 100 per cent segregation is not achieved (Fig. 10). Much turns on the *direction* of the culs-de-sac. At Wrexham there are some very long culs-de-sac, but, as these stretch in the direction of the desire line, they do not cut across routes to "goals." On the other hand, in this same estate some much shorter culs-de-sac cut across pedestrian routes.

- (c) The segregated path must also be the most attractive route, both visually and by virtue of the local "goals," placed along it (corner shops, club rooms, play areas) and of shelter against the weather (Fig. 7).

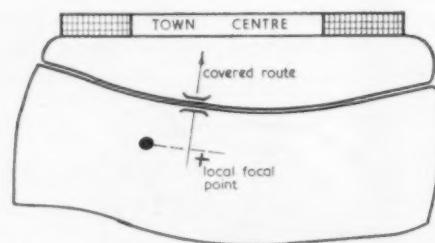


Fig. 7

In theory the superblocks at Cumbernauld might have been arranged as shown in Fig. 8. In practice the

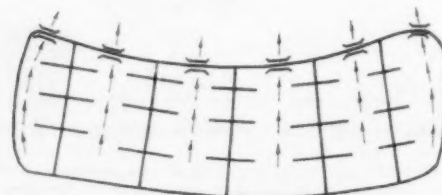


Fig. 8

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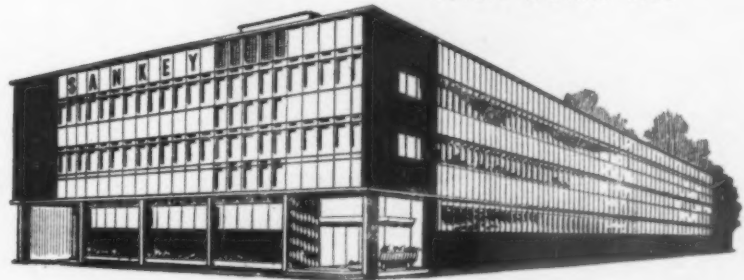
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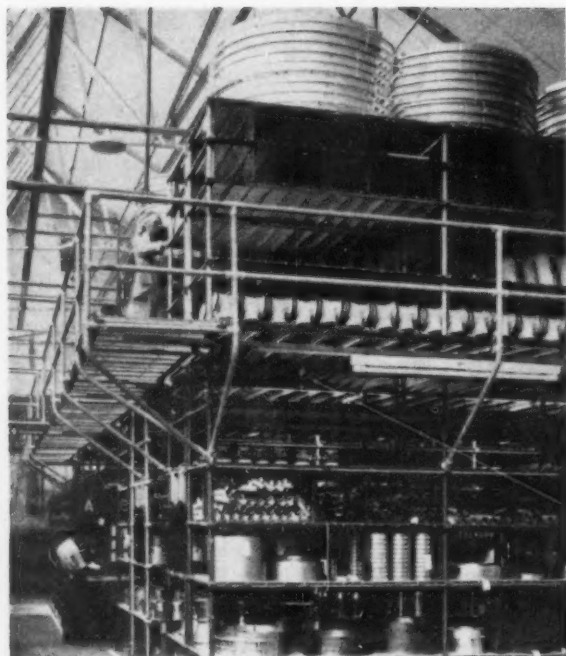
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contours made this impossible, and the arrangement shown in Fig. 9 was chosen. As can be seen, this

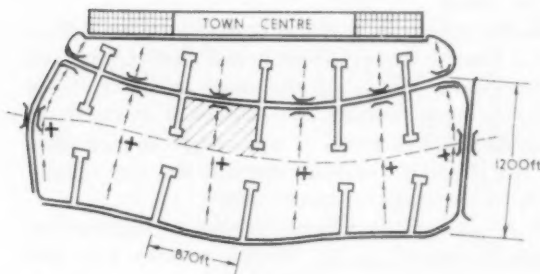


Fig. 9

employs a large superblock of 150 acres lying parallel to the town centre with an inner ring road and the second superblock lying between. Granted that the schools lie along the path which runs along the middle of the large superblock, this plan shows a considerable saving in underpasses, for, had the plan in Fig. 8 been chosen, a series of underpasses running beneath the radial roads would have been necessary.

The dimensions of the Cumbernauld superblock were in part fixed by the consideration that it was intended that each unit (i.e., an area similar to the area hatched in Fig. 9) should be large enough to support

a shop. To achieve this, it must house 1,000 people, who require 300 dwellings. The density was fixed at 23 dwellings to the acre. Therefore, the area for each unit was fixed at rather less than 13 acres. Site considerations fixed the distance apart of the two long lengths of ring road at approximately 1,200 feet. Therefore, the distance between culs-de-sac was fixed at about 870 feet.

A parallel calculation was concerned with the maximum density of traffic on the culs-de-sac. Given a 100 per cent garage provision, these would have to carry a maximum density of 300 cars per hour, a figure which was reasonable for proposed cul-de-sac width of 18 ft.

Another consideration was the distance to the furthestmost house from each main path leading to the centre. It was felt that the 400 ft. given by this layout was reasonable.

Footpaths

Footpath requirements should be considered on the basis of the number of users. From promenades which might be 20 ft. wide to allow mass movement to and from centres, to main paths which should at least allow the passing of two prams, a minimum of 5 ft. or frequent lay-bys of that width, to the access path to the front of the house for one pram, 2 ft. 6 in., or

Fig. 10. Plan (scale 1:6,000) of LCC Estate, Huntingdon. Long culs-de-sac cross the "desire line"



technical section

the equivalent in terms of wheel bases.

The distance of footpaths from house fronts should not be less than 8 ft., unless special provision is made for privacy, or more than 20 ft., unless corners are protected against damage through shortcuts across.

Although open front gardens and a strip of public green seems to be taken as essential, it can be seen that it is feasible that front gardens might be quite private, even fenced, and leave only the actual path between them to continue the Radburn footpath system. In fact this may be a welcome change from the continual openness making for monotony and expense in upkeep. This provision of narrow alleys among gardens has many possibilities.

The footpath circulation lends itself to the provision of contrast and incident through narrow apertures, both in plan and section, as in archways through blocks, narrow passages at gable ends and projecting low canopies. The underpass provides an aperture *par excellence*, when its dimensions are limited to the needs of pedestrians (Fig. 11).



Fig. 11

The alternation of narrow, say, 4-5 ft., path ways with a more open "square," into which several of the path ways may lead, some perhaps through archways, provides opportunities for articulation.

The spaces between houses seem surprisingly wide compared with normal roads and fronts, and the centre is free for forest trees.

Variety of paving should be designed for local games: smooth stretches for tricycles, and imaginative detail of cobbles, or sets, with seat and lamp post for meeting places and simple climbing for toddlers. A tree trunk can take the place of a seat and of sculpture, and is cheaper than either and more effective.

All interest possible must be concentrated into the pedestrian areas. The sculptural and social value of post boxes, telephone boxes, electric transformers, waterboard signs, fire and police alarm boxes, advertisement boards or kiosks and signs must be considered and brought into use.

The design of the *point of contact between ring road and path areas* is important. At such points the following needs must be fulfilled in the given manner or some similar way:

1. Paths in front of any houses which face on to the

ring road must lead into the pedestrian area. This can be done by placing barriers at the cul-de-sac crossings and all along the road front (hedge or bank or low fence).

2. The pedestrian area should have a clearly defined end where it meets the road so that small children can recognise it easily and the visual enclosure of the area is more complete. An increase of private front gardens at such points of entry might be used effectively (Fig. 12). Gates are desirable but very difficult. The name should be clearly shown.

3. At such points adequate lay-bys are required for visitors coming by car, hearses, wedding cars, and sometimes to serve as a bus stop.

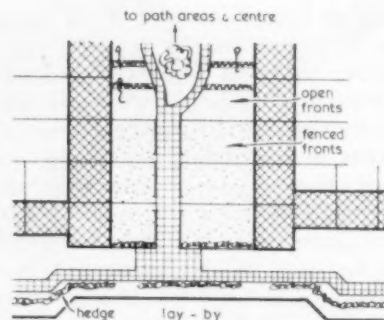


Fig. 12

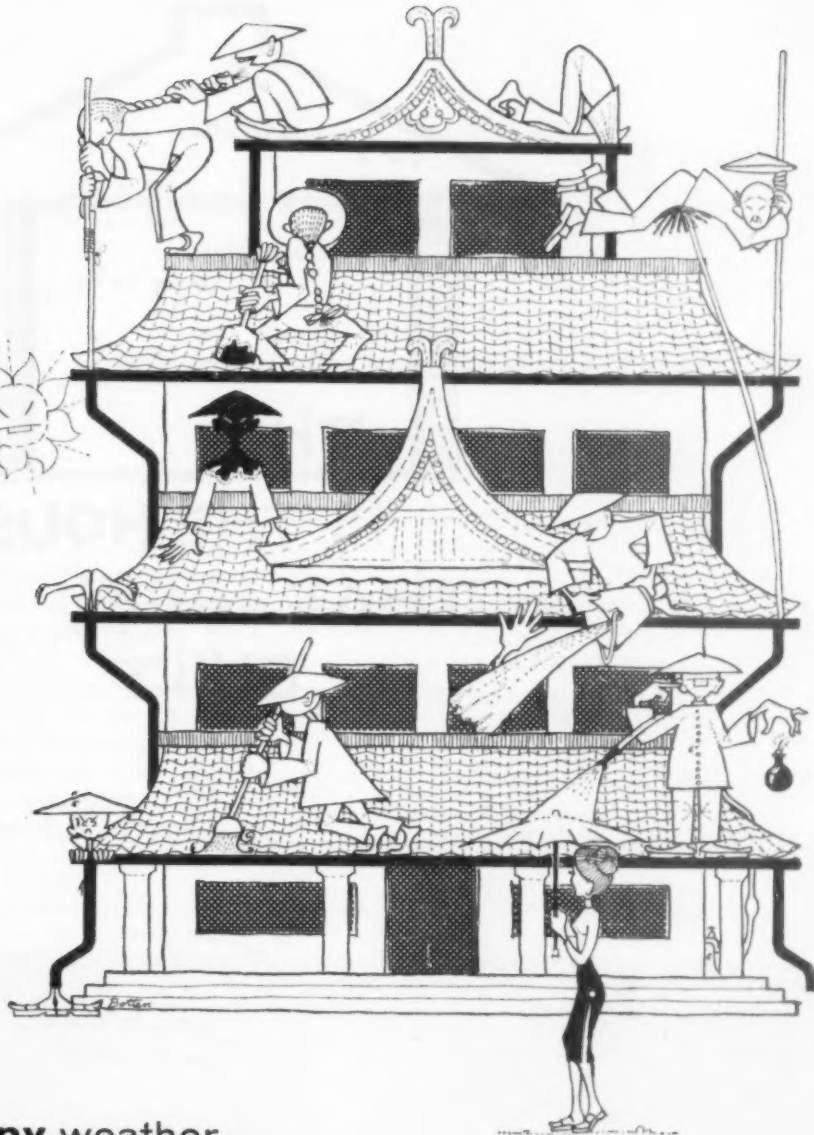
Underpasses

These should be placed with a view to making use of existing contours and catching the maximum traffic. The gradient should be as gentle as possible so that pram pushers are not put off by it. The very short, steep breaks of the gentle slope (if only one or two) are a better way of overcoming a drop than a continual intermediate sort of drag. Steps could form half the width of such steep interludes.

The use of underpasses as covered play spaces should be borne in mind and precast main drain components are suitable and adequate in diameter to form many interesting underpass shapes, halving construction cost. Much research remains to be done on this problem; very little has been tried. A recently visited underpass at Cumbernauld, still under construction, uses pipes, but threatens with too steep a gradient on one side to make pram pushing impracticable. This could be a serious point in a town planned for walking. In another new town I found an engineer's dislike of narrow underpasses because "they are dark and might lead to attacks." This must be exposed as irrational: fluorescent tubes and advertisements could make them points of special brightness and interest.

"while
it is
still
good
weather,
clean
the
drainpipes"

CHINESE PROVERB

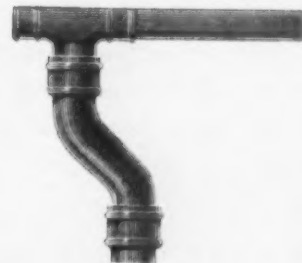


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Fire Station

at Twickenham,
Middlesex

This simple building is the result of very close co-operation between the County Architect's Department and that of the Chief Officer of the Middlesex Fire Brigade throughout the whole of the design stage and during the period of work on site. The design in principle will be repeated elsewhere in the County.

WHITFIELD LEWIS
County Architect

in succession to
C. G. STILLMAN

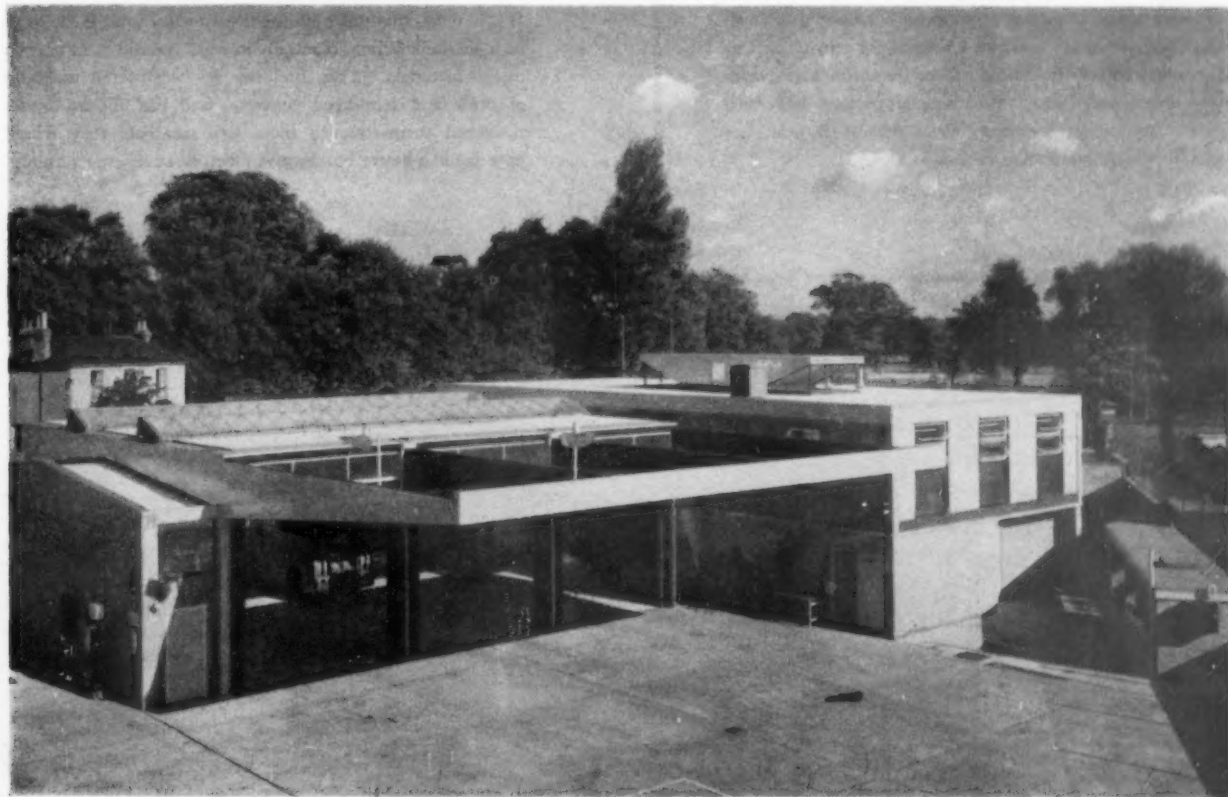
senior assistant architect
S. C. BRIGHTLING

job architect
W. F. RADLETT

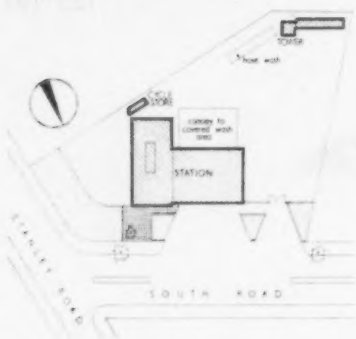
in collaboration with
MANNING & CLAMP

quantity surveyors
MERCER & MILLER

View from top of drill tower. The tank room, one nice little conceit, is normally visible only to birds



building study—2nd series



Site plan [scale: 1,536 : 1]

Section through appliance room and wash-down area [Scale: $\frac{1}{4}$ " = 1' 0"]

APPRAISAL: The fire brigade is a disciplined service, one of the few in which all senior officers work their way up within the Service by promotion. The briefing, therefore, is done by a chief officer who, although possibly conservative on some issues, knows his requirements at first hand. Twickenham fire station is a very simple building consisting of three distinct parts: a two-storey administration block, an appliance room and, on the opposite side of the drill yard, the drill tower.

The planning of the administration block is straightforward; the executive accommodation and watchroom being on the ground floor, with the men's recreation room, mess and dormitory above. Slide-poles by the main rooms upstairs arrive directly on each side of the muster bay, which forms an open-plan link between the administrative block and the appliance room.

The combined drill and hose-drying tower is a separate unit on the opposing corner of the drill yard; to this is attached a smoke-practice chamber. (A smoke chamber is a small longish badly-lit space in which a fireman has to find his way past obstructions. In addition, there should be a source of nearly insufferable heat. Breathing apparatus has been standard equipment for many years and it is heat, not smoke, to which the fireman succumbs.)

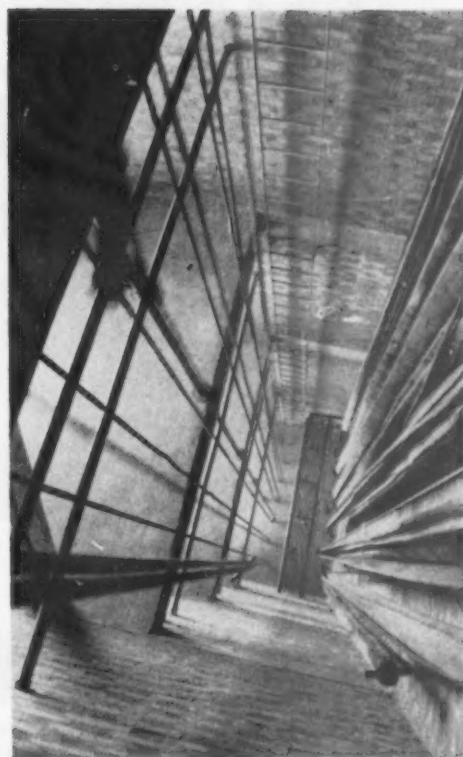
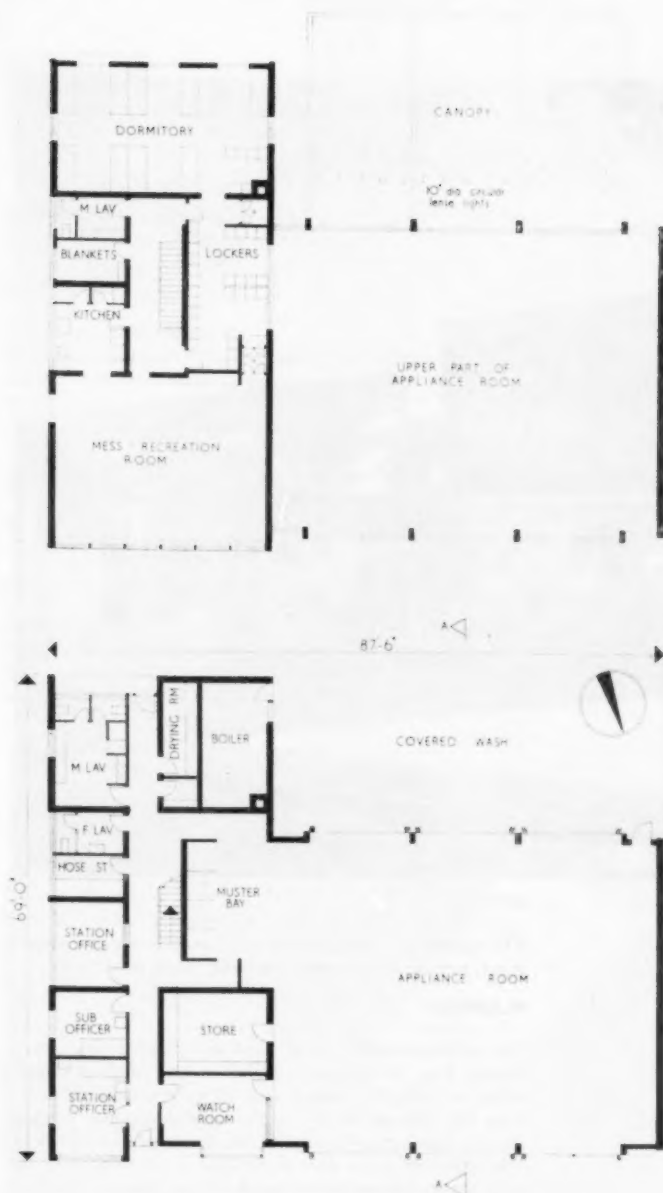
The drill tower has to accommodate a number of brick-built openings (in imitation of windows) for ladder practice. To an architect trying to build in the idiom of the late fifties this appears to present an almost insuperable problem. This last year's 'third year' at the Architectural Association school had a fire station programme, and it is interesting to note that most students did no better than the architects of Twickenham. A time will no doubt come when the practice tower must be in imitation of curtain walling; and architects will still be faced with the problem of reproducing an out-dated style of building.

The structure of the appliance room is interesting. There are three 15 ft. bays with a clear internal span of 45 ft. The main spans cantilever out over the wash-down area. The last 15 ft. of each main cantilever were attached and post-tensioned to the beam after the main structure was completed. Precast roof slabs were placed before the post-tensioning was done. (All precast units were made off-site.)

It is in detail that this building is least successful. It seems to be a common failing, especially in small buildings, to use too many materials. This building is constructed basically of brick and reinforced concrete, and had the architects restricted themselves to these two materials they would have made a better building. In fact, however, the adminis-

Probably the best view of the building. The cantilever helps to differentiate between the building units





Looking up inside the drill and hose-drying tower which is used for training

Ground and first-floor plans [Scale: $\frac{1}{4}$ " = 1' 0"]

trative block alone uses panel walling, tile facings, slate facings, rendering and, reluctantly, ordinary stock brickwork on its very limited periphery. Each change of material causes a detailing problem and it is difficult to understand why offices which are usually hard-pressed at working-drawing stage should attempt such many-splendoured things when simpler ones are more appropriate and look better. After all, the Parthenon is built of stone with stone on stone and looks none the worse for it.

Inside, things are much better. The assistant in charge said he would, if left to his own devices, have designed the building like a ship. (The closest parallel to routines at a fire station are those on a warship in which a call to action stations may be expected at any moment.) What such a design might have amounted to in total form is difficult to imagine, but the solitary staircase, detailed like a ship's gangway, seems right. Floors are finished in rubber or tessellated tile. Materials

and detailing generally are of the hard-wearing no-nonsense variety. Walls are finished in plaster, painted. There are no expensive affectations such as fair-faced brickwork painted; or dirty ones such as clinker block unpainted.

In spite of the reservations already made on matters of detail, it is fair to say that the form of this building satisfactorily expresses its function; and that the architecture as a whole, which is typical of the late fifties in England, is quite successful.

CLIENT'S REQUIREMENTS

Administrative offices linked to a three-bay appliance room; an isolated hose and drill tower unit with smoke chamber attached; drill yard; water storage tank for testing pumps.

building study—2nd series



Least successful architecturally is the front elevation, the bad correlation of heights between the two main elements not being disguised, as it is at the back, by a projecting plane. The wall containing the main entrance is fussy

Below: the drill and hose-drying tower



SITE

The station lies at the junction of South Road and Stanley Road, next to the London Transport depot at Fulwell.

PLANNING

The administration block contains watch-room, store, muster bay, drying-room, boiler house, station officer's room, sub-officer's room, general office, hose store, lavatories—on the ground floor: recreation-dining-room, kitchen, 11-bed dormitory, locker room, blanket store—on first floor. The appliance room floor is finished in non-slip tiles; end walls are tiled almost to full height for easy cleaning. Flooring in the administration block is rubber, with quarry tiles in kitchen and lavatories.

The appliance room consists of three 15-ft. bays with a clear internal span of 45 ft. Roof beams are cantilevered out over the covered wash to form a canopy, the last 15 ft. being post-tensioned to the main beam after the latter had been erected. The roof slabs were laid in position before the post-stressing took place. Reduction of the overall length of the main beams into two parts eased handling on site and in transit.

SUMMARY

Ground floor area: 4,783 sq. ft.
Total floor area: 8,143 sq. ft.
Type of contract: MCC long form of contract (with Bill of Quantities).
Tender date: October 1957.
Work began: January 1958.
Work finished: August 1959.
Tender price of foundations, superstructure, installations and finishes, including drainage to collecting manhole: £36,766.
Tender price of external works and ancillary buildings, including drainage beyond collecting manhole: £9,975.
Total: £46,741.

COST ANALYSIS

Based on tender. (AJ revised elemental breakdown in use from November 10, 1960.)

	Cost per sq. ft.
Preliminaries and insurances	1 0
3.977 per cent of remainder of contract.	4 4½
Contingencies	3 0
Work below lowest floor finish	6 3½
Excavation, hardcore beds and concrete foundations.	
Surface concrete beds (6 in. thick and reinforced under station block and drill tower).	
7 in. surface vibrated concrete bed to appliance bay.	
Semi-engineering bricks in cement mortar.	
Asphalt horizontal damp-proof membrane to administration block and appliance room.	
Asphalt tanking to inspection pit.	

STRUCTURAL ELEMENTS

Frame	7 9½
Reinforced concrete stanchions, columns and beams, reinforced concrete canopy to front of appliance room.	

Upper floors

4-in., 5½-in. and 6-in. thick precast prestressed concrete hollow floor units: 178 sq. yds., 39s. 3d. per sq. yd.

In situ concrete suspended floors 6 in. thick, with steel rod reinforcement over boiler room, staircase and drill tower: 82 sq. yds., 50s. per sq. yd.

Roofs

Station block: 5-in. and 6-in. prestressed hollow block covering on reinforced concrete beams finished with asphalt on cement and sand screed.

Appliance bay: 5½-in. prestressed hollow block roofing covered with asphalt on screed.

Wash-down: as last but with heavy waterproof membrane.

Drill tower and adjoining stores, 6-in. in situ concrete covered with asphalt on screed.

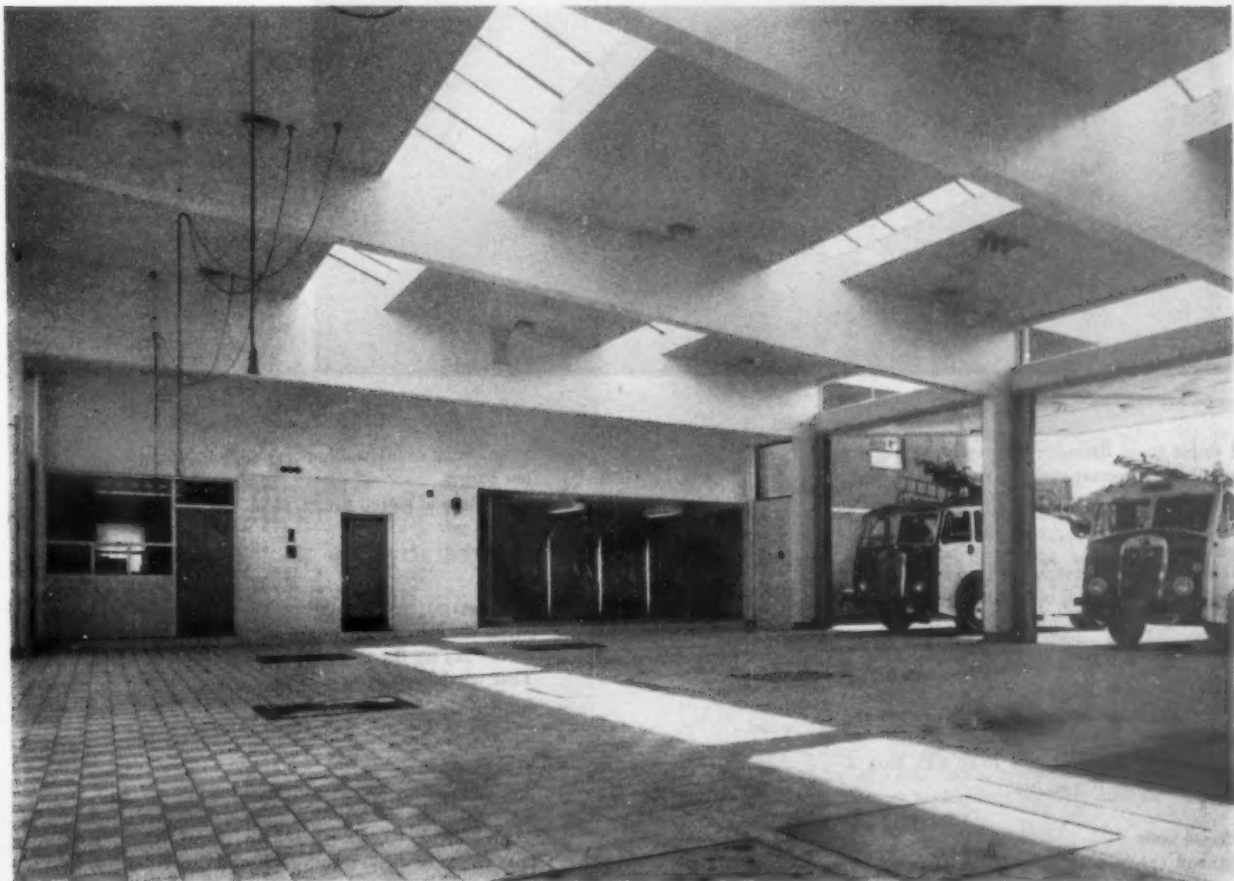
Tank room: aluminium roof sheeting.

Copper and cast iron rainwater pipes.

Rooflights

Two rooflights, each 44 ft. × 4 ft. 6 in. with lead-covered steel glazing bars and glazed with ¼-in. Georgian wired cast glass: 44 sq. yds., 118s. 2½d. per sq. yd.

The appliance room structure. To increase lighting, the roof slabs over the wash-down area are underslung. On the far wall, to the right, is the muster bay, to the extreme left the watch-room



building study—2nd series



Another view of the appliance room with the watch-room in the background. Sliding folding shutters close the entrance to South Road

42 single 10-in. diameter lens lights, 14 in. \times 14 in overall, with precast concrete frame: 6 sq. yds., 240s. per sq. yd.

Staircases

Main staircase: steel frame, 8 ft. 9 in. rise, 3-ft. 3-in. wide treads of 11½-in. \times ½-in. steel plate. Balustrade: 2 ft. 9 in. high, of steel tubing. Drill tower: four steel tubing balustrades to stage landings: each 10 ft. 1½ in. long and 3 ft. 6 in. high. Cat ladder: 47 ft. long and 1 ft. 3 in. wide, formed with 2-in. \times ½-in. strings and stays and ½-in. rungs. Steel catwalk and balustrade 10 ft. 2 in. long \times 2 ft. 1½ in. wide \times 3 ft. high.

External walls

9-in. and 13½-in. solid brick walls: 389 sq. yds., 69s. 8d. per sq. yd.

11-in. brick cavity walling: 117 sq. yds. 56s. 5d. per sq. yd. Small area of glazed tiling: 48 sq. yds., 109s. 6d. per sq. yd. Rendering: 125 sq. yds., 17s. 5d. per sq. yd.

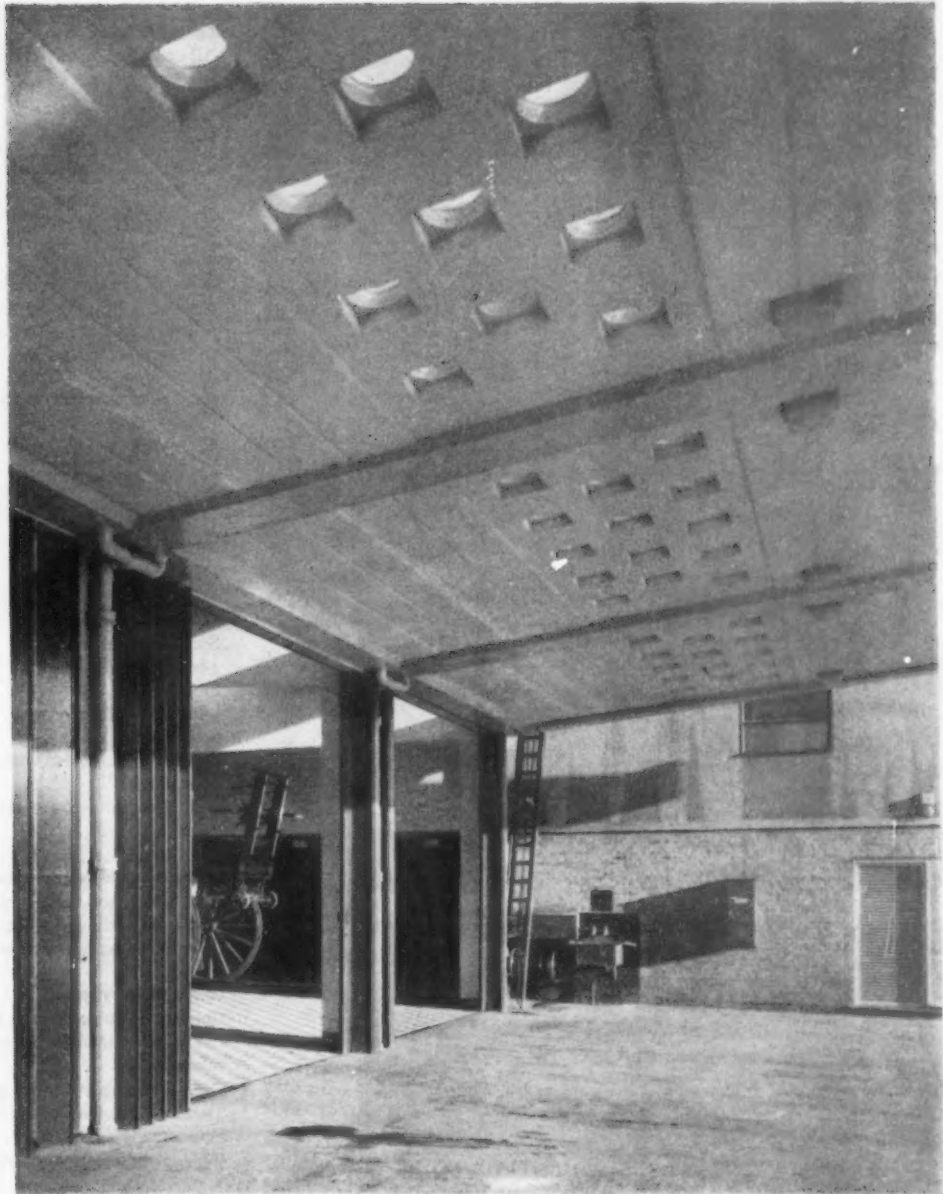
Windows

Metal windows in hardwood frames to station block: 723 sq. ft., 17s. 5d. per sq. ft. Teak windows to stores: 21 sq. ft., 29s. 6d. per sq. ft.

External doors

Station block: 1½-in. standard flush doors, 2 softwood fanlights. Stores: 2-in. teak doors. Timber doors: 264 sq. ft., 25s. 8d. per sq. ft. Oil fuel store: metal dwarf doors and frames: 18 sq. ft., 85s. 6d. per sq. ft.

The cantilevered canopy over the covered wash-down area, with the boiler house door on the extreme right and dormitory window above



<i>Single doors</i>	<i>Pairs of doors</i>	<i>s d</i>
5 standard flush		
3 teak	3 teak	
1 metal	1 metal	

Two collapsible steel gates: 585 sq. ft., 48s. 2d. per sq. ft.

Internal structural walls	1 0½
9-in. solid brick walls: 258 sq. yds., 32s. 2d. per sq. yd.	
Some plaster-finished, remainder fair-face brickwork.	

Partitions	1 0
Half-brick partitions: 138 sq. yds., 21s. 8d. per sq. yd.	
Precast concrete block, 2-in., 3-in. and 4-in.: 126 sq. yds., 18s. 1½d. per sq. yd.	

2-in. terrazzo: 15 sq. yds., 188s. 0d. per sq. yd.	s d
----------------------------------------------------	------------

Internal doors	1 3
1½-in. and 1¼-in. flush doors to station block, complete with softwood frames: 2-in. teak doors and frames to stores: 676 sq. ft., 29s. 10d. per sq. ft.	

<i>Single doors</i>	<i>Pairs of doors</i>
23 flush	3 flush
2 teak	

Ironmongery	1 0½
Hinges, door locks, indicating bolts, catches, bow handles, hat and coat hooks, overhead door closers, equipment hooks, card holders, nameplates, door numbers, padlocks, etc.	

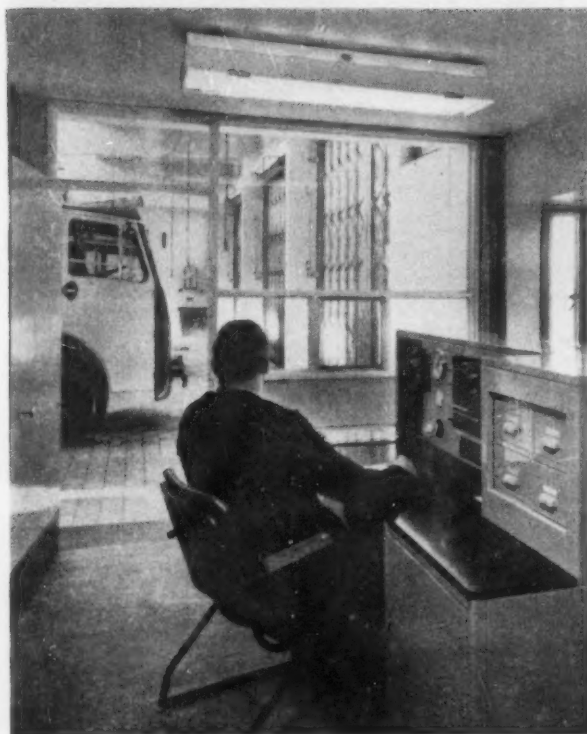
Total of structural elements: 41s 0½d

building study—2nd series

FINISHES AND FITTINGS

			s	d
Wall finishes			1	11½
Type of finish	Area in sq. yds.	Cost per sq. yd.		
Plaster	695	8s. 5d.		
Glazed wall tiling	175	56s. 6d.		
Floor finishes			7	4½
Type of finish	Area in sq. yds.	Cost per sq. yd.		
Quarry tiles	46	56s. 6d.		
Granolithic	102	26s. 5d.		
Semi-vitreous tiles	292	74s. 0d.		
Rubber tile and sheet	275	119s. 7d.		

Recreation and dining-room



Inside the watch-room

Ceiling finishes

All ceilings, except fuel store and wash-down area, two coat plaster: 683 sq. yds., 8s. 0½d. per sq. yd.

Decorations

Distemper or plastic emulsion paint on ceilings. Clear glaze on walls of boiler room, gloss paint on walls generally, emulsion paint on walls of fuel store and meter room.

Fittings

Wood benches, chair rails, cupboards, bed screens, boot racks, hardwood sills to openings in drill tower, steel drying-racks, roller shutter, sliding poles; pulleys and cleats; w.c. fittings.

Total of finishes and fittings: 13s 9½d

SERVICES

Sanitary fittings

Type of fitting	No. of each type
Lavatory basins	7
Shower tray	1
High level w.c. suites	4
2-stall urinals	2
Drinking fountain	1
Stainless steel sink	1
½-in. chromium-plated bibvalves	2
¾-in. brass bibvalve with hose union	1
1½-in. brass bibvalve with hose union	1
½-in. chromium-plated mixing valve	1

Waste, soil and overflow pipes

Lead waste, soil, anti-syphon and vent pipes.
Cast iron waste and soil pipes.
Copper tubing in overflow and waste pipes.

Cold water services

Connection to company's main and laying 4-in. cast iron water main including stopcock pit, valves, etc.
Copper tubing in service pipes.
Two storage tanks, each of 600-gallon capacity.
Four draw-off points.
Includes builder's work in connection.

Hot water services

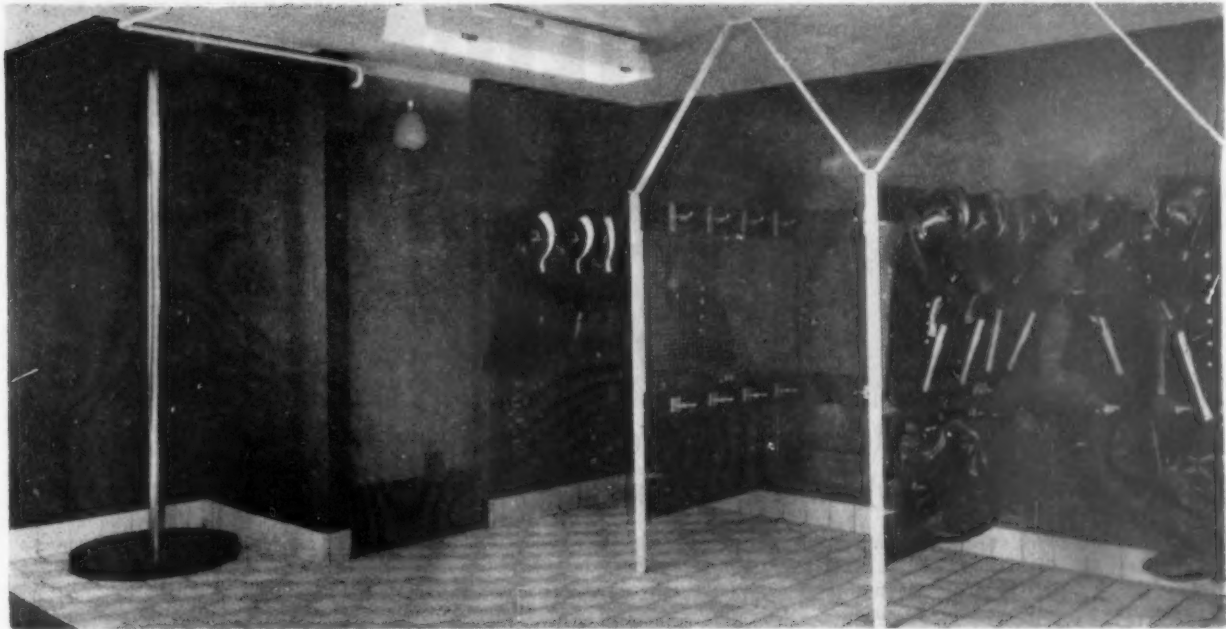
150-gallon indirect cylinder heated from heating boilers and serving all draw-offs. Control by motorised valve on primary return with immersion thermostat.
Draw-off points: 7 for lavatory basins, 1 for shower, 1 for sink.
Includes builder's work in connection.

Heating

Low-pressure hot-water accelerator system serving radiators and skirting heaters; floor heaters to appliance room.
Two oil-fired boilers. Control of heating is through a 3-way mixing valve with outside temperature compensation.
Heat load: 265,000 B.t.u. per hour.
Builders' work

Ventilation

Electric fans.
Includes builder's work in connection.



Muster bay. On the left is the sliding pole from the first floor.

Electrical services

Meter and switch gear, lighting and fittings, power, warning lights.
118 lighting points (includes 36 "on call" operated on 17 relay contacts, and 8 "dispatch signal" lights).
12 power points (13-amp.).
11 call bells.
2 electric cooker points.
3 electric fans.
4 battery charging points.
3 appliance immersion heated points.
3 electric shaver points.
Total load: 40 k.w.
Builder's work

s d
5 7

Special services

Electrical cooking equipment, petrol storage containers, petrol pump.
Includes builder's work in connection.

1 3½

Drainage

Soil and surface water drains complete with manholes, petrol interceptors, connections to sewers, etc.

3 3

Total of services: 21s 9d

External works

Site clearance, concrete paths and roads, concrete flag paving, crossover, boundary walling, wood gates, grass areas with dwarf walls, external plaque, cycle sheds, underground water-storage tanks.

24 1

Total per sq. ft. of floor area:

£36,766 (net cost excluding external works)

8,143 sq. ft. (measured inside external walls)

90 3

COST COMMENT

Three fire stations cost analysed during 1957-8 were all in the region of 55s. to 65s. per sq. ft., excluding external works. Even allowing for the increase in building costs since those earlier tenders, the cost per sq. ft. of 90s. 3d. for the Twickenham building appears high. However, the provision in this station is to a higher standard, since it includes a covered canopy over the external wash-down area (excluded from the net area). This results in a general rise in cost per sq. ft. and as a cantilevered structure such a canopy is bound to be relatively expensive; this second point is reflected in the total cost of structural elements of about 41s. The remaining main elemental groups are comparable with those of the previously published stations.

CONTRACTORS

General contractor: Prestige & Co. Ltd. Sub-contractors—
Petrol tank and pump: Avery Hardall Ltd. Fire station doors: Potter Rax Ltd. Ironmongery, plastic lettering: James Gibbons Ltd. Waterproofing: Brig Products Ltd. Mechanical engineering: J. Cooksey & Son Ltd. Metal windows and doors, patent glazing: Luxfer Ltd. Concrete frame, precast units: Concrete Ltd. Structural steelwork: C. & S. Construction Ltd. W.C. partitions: Alan Milne Ltd. Sanitary fittings: Stitsons Sanitary Fittings Ltd. Sliding poles: Parker, Winder & Achurch Ltd. Lightning conductor: R. C. Coutting & Co. Ltd. Roller shutter: G. Brady & Co. Ltd. Perspec name plates: G. & S. Allgood Ltd. Electrical installation: S. E. C. Electric Ltd. Ironmongery: W. N. Froy & Sons Ltd. Rubber flooring: Runnymede Rubber Co. Ltd. Bricks: Cement Marketing Co. Electric fittings: Londex Ltd.; Stearn Electric Co. Ltd.; Hume Atkins & Co. Ltd.; Fenton Byrn & Co. Ltd.



PHILIPS

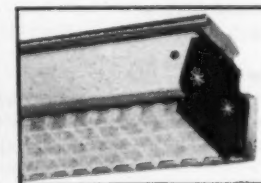
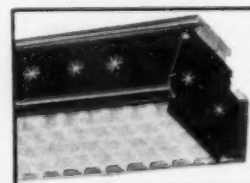
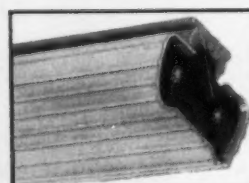
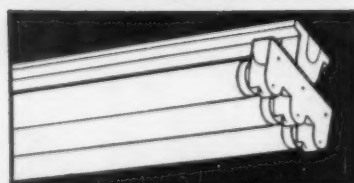
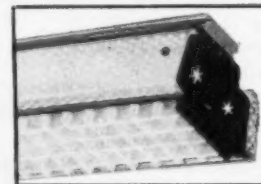
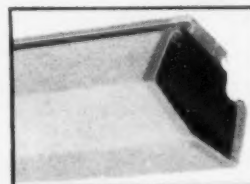
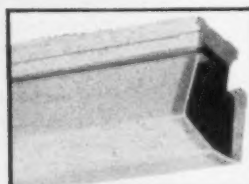
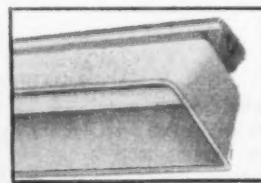
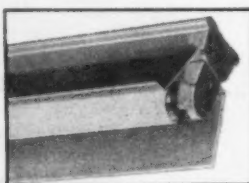
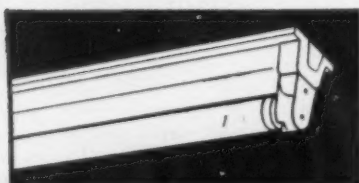
streamlite

is here!

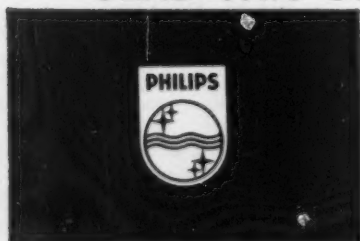
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The BASA Editor
The Building Centre
Store Street
London WC1

BASA

Monthly supplement

BASA ON RESEARCH

There is very little research in the field of architecture. Naturally, before qualifying, we all do the odd little bits of research for the individual building, but it is rarely well documented or thought out, or even useful, because the techniques of research are not taught systematically in the schools. There seem to be few architects capable of valid research, and little opportunity for the few that are. Often the fault lies in the choice of subject for design and thesis programmes: all too many are one-off prima-donna buildings (symptomatic of the "presentation-conscious" Beaux-Arts tradition). This fundamental lack of grounding in research techniques has resulted in the architect being unable or unwilling to find out the sources of useful information which are totally essential to his design brief.

We, as architects, should be able to take for granted that the Research groups attached to the schools should be making the main contribution to architectural progress. Most other professions are able to look to the research workers within their schools for continuous stimulation and directive, tempered by a changing assessment of the needs to be served by that profession. In architecture schools have come to be regarded as places from which draughtsmen and "useful assistants" are recruited: no other contribution is expected or even hoped for. Within the schools the lack of lively research is the main factor contributing to a mental inertia which finds difficulty in meeting the challenge of young minds.

For these reasons, BASA is recommending to the RIBA that

(a) A broad framework for research should be worked out defining objectives and with emphasis on research into environmental needs. Particular attention should be given to the part architects, sociologists, economists, scientists, etc., should play within this framework.

(b) Research should be co-ordinated by

i. Establishing relations with schools and research departments and in this way ensuring that the research has direction within the framework, and that duplication is avoided.

ii. The collection and publication of research material and the circulation to all schools of detailed information on what material is available.

(c) Research fellowships should be established by tapping all the sources of funds available. Profit made by the RIBA from students' subscriptions and fees could be used to promote research facilities.

(d) Courses should be established, similar to those at York, on problems of research, teaching method, assessment of ability, etc.

(e) Conferences should be held at which a cross-section of the staff can regularly discuss educational problems.

(f) There should be active lobbying for the improvement of staff salaries.

STUDENT'S VIEW

Fearing the untimely death of a promising school magazine, *STUDENT* was very pleased to receive a copy of *Polygon* 5. Among other things it contains a question and answer session with Gowan and Stirling, an account of "the Dynamics of Visual Perception," by Dr. Bannister, some remarks upon the function of drawing by many of the fashionable and not so fashionable *avant-garde* painters [the gem is Victor Pasmore's "I make two kinds of drawings (1) working drawings, (2) pure drawings"]]. Also get with the Poly boys as they campaign for staff enlightenment as the school prepares to move into Marylebone Road. Radical changes are required, it seems, even at the Poly, so there's rethinking as well as removing to be done!

The Editorial sanely subscribes to the "architect—big man responsible for total environment" school and appeals for rational analysis of specific problems. . . . There's housing, too, but any hope of an example of rational technique must sadly be abandoned: 2nd year—competent and well illustrated by a single axonometric. 3rd year—only 1 perspective and 4 elevations to illustrate 5 totally different (rational?) solutions to same problem—just formal shapes, no plans or expositions, sections or reports, and whether you're neo-lib, neo-bru, neo-flw, or neo-mack—your taste is sure to be catered for!

4th year—Otto Graser's chunky, looming, blocks of flats are an interesting extension of the cluster idea—good perspective, but again, a lack of real information. Both production and contents are worth while and stimulating.

LETTER FROM AA STAFF

SIR: In the article by James Gowan (November 3, 1960) reference is made to structures lectures at the Architectural Association and to an article by us

in the Architectural Association Journal (January 1960) on "Structures—a Qualitative Approach."

It is good that wide interest should be taken in the teaching of this important subject but perhaps a few words would be in their place to fill in and rectify the picture painted by James Gowan, who appears to have rather misunderstood our aims or—if he does understand—to be at variance with them.

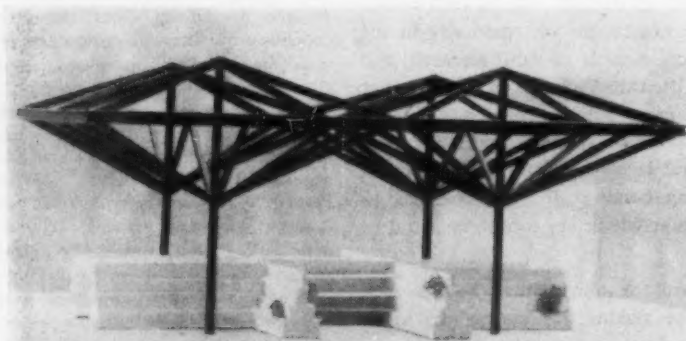
In teaching of structures at the A.A., the "main concern" is not "to integrate the study of structural elements with specific problems which are posed" by the programme referred to. This programme is one of many and it would lose its meaning unless it was considered in this way. The Qualitative Approach is the very first of all structures pro-

grammes and even precedes all theoretical lectures. Its intention is to give a true and reasonably complete appreciation of all structural problems in terms of all possible force groups, and the nature of the materials and shapes, which are suitable to resist them.

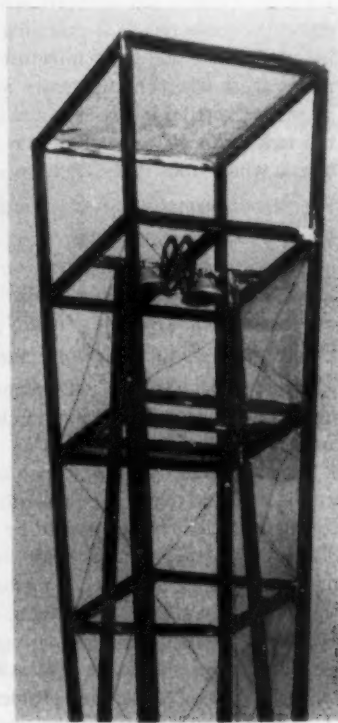
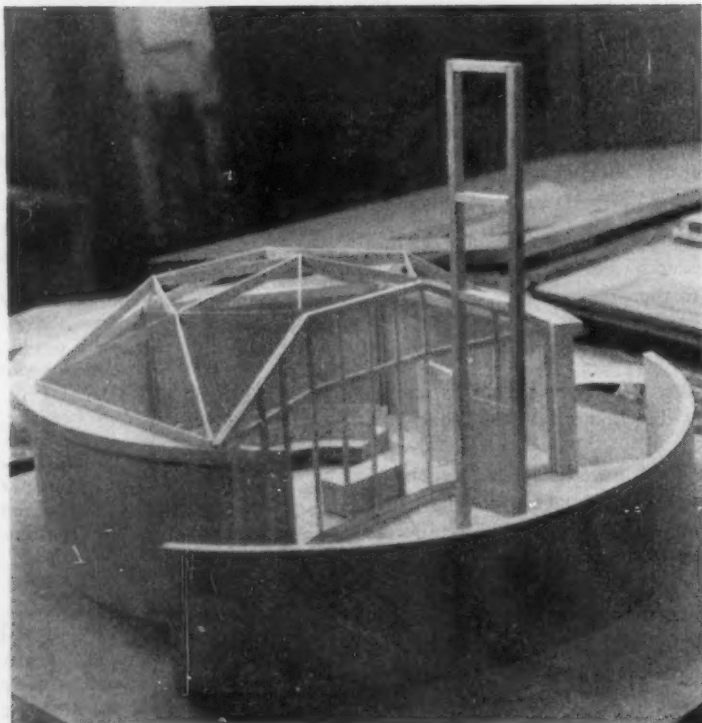
Mr. Gowan considers that a "crop of derivative structures" results from the exercises. In so far as this is probably the first time the students meet this kind of problem, it is not surprising that many of their structures depend on precedent. It would be, however, very wrong to generalise and indeed sincere attempts are made at fundamental thinking by all the students and one must credit them with amazing ingenuity in applying established principles in novel ways.

The "brick-supporting structure" is what the name implies. The brick was introduced as a load in order to make this structure real and the resulting structure is not a model; therefore the problem of scale does not arise. All this was explained on page 121 of our article in the A.A. Journal.

In your article the A.A. Structures programme is criticised because "criticisms are not primarily factual and structural but aesthetic." This is not the case but it is true to say that elements of value judgment are given proper attention. It is even considered wrong to try to "create a feeling for structure." Maybe appreciation would be a better word than feeling and it would be quite satisfactory to settle the argument on that basis. But if Mr. Gowan really



These models have been made by AA Students in their studies of structure under Niels Lisborg, whose letter appears above. This method of teaching was criticised by James Stirling in his paper "Architectural Education and its technical aspects" delivered at the BASA Oxford Conference last October and published in the BASA Supplement of November 3, 1960. Left, a flower stall, below left, a church, below, a belfry



believes it is wrong to attempt to give the students such feeling or appreciation he is much at variance with present trends. There can be no doubt that the overriding intention of nearly all structures teaching is in this direction.

Part 3 of our "Qualitative Approach" was called "Structures of intentional atmosphere," and was confessed in our article to be unsatisfactory. It may be of interest that since then considerable advance has been made and we now have an orderly programme—admittedly somewhat timid as yet—which seems to satisfy this heading. A few photographs are enclosed of some of the results of this work. Students work in groups, each group investigating a certain problem—e.g., a dance hall, a life boat house, a water tower, etc., each

with a site and in a context. Within each group each student then solves the problem using a given material. It is intended that this material with its particular characteristics is to be used so that unity of structural form and function is achieved. Since both projects and materials are varied judiciously the products of a year of, say, sixty students represent on a small scale nearly all classes of structure. The schemes are judged by juries of architects and engineers whose criticism includes both practical points and aesthetic appreciation.

For these programmes there is no claim to perfection but at the same time there appears to be no need to be apologetic about them. They are nothing more than an attempt to clear the ground

and take proper bearings before the real work begins. "Structures" is somehow a dreaded subject, and, if any claim is made at all for the qualitative approach, it is that this ground work is (in James Gowan's words) "thoroughly enjoyed by everybody."

We owe initial debt to John Denny, who as First Year Master originally conceived this programme and co-ordinated all the various efforts to carry it out.

NIELS LISBORG
BERNARD MYERS

Architectural Association,
London, W.C.1.

SUBTOPIA ATTACK

A Report from Catherine Macintosh

On October 18, 1960, it was finally announced that Edinburgh Town Council intended to commence their £18,000,000 housing programme by making package deals with spec builders for three large suburban sites, now to be cleared of prefabs.

On November 15 Subtopia Attack erected an exhibition in the main concourse of the Caledonian Station in the West End of Edinburgh. The captions read:

1. "£18,000,000 is to be spent on housing in Edinburgh" [a photograph of slums and prefabs in Edinburgh—erased with black crosses].
2. "But how is this money to be spent?" [aerial view of a typical Edinburgh suburban desert, contrasted with an aerial view of the slab blocks of Roehampton, with the wooded slopes between].
3. "Are there safeguards for the happiness and road safety of your children?" [photo of children playing in the fields bordering the Roehampton Estate, and of children in less happy surroundings in Edinburgh].
4. "The Town Council has recently allocated three large housing sites to spec. builders. Is this policy likely to result in the best possible housing?" [enlarged photostat of a photo from a spec. builder's sales catalogue, showing the wares he offered, and a photo of maisonettes in London].

On the afternoon of November 16 British Railways requested Subtopia Attack to remove the exhibition, despite

the fact that they had agreed to let us the site for 10 days. Subtopia Attack sent a letter to B.R. asking for a written explanation for this sudden reaction. On November 18 we received a letter saying:

"Whilst I did not think you had deliberately misled me as to your intentions, had the precise nature of the exhibition been made clear prior to its erection, the necessary permission to stage the exhibition would not have been granted. I visited Princes Street [railway station] and decided this was a display to which British Railways could not give facilities and apparent support."

On the afternoon of the 18th the exhibition was demolished and removed. Since this time Subtopia Attack has been much heartened and encouraged by the frequent expressions from all quarters, of disgust and disappointment at the undemocratic suppression of this exhibition.

At present the committee is struggling to arrange another exhibition and keep up with the College curricula. We have issued a petition among the citizens of Edinburgh, the wording of which is as follows:

"We, the undersigned citizens of Edinburgh protest against the pitifully low standard of housing in Edinburgh and demand that our Town Council do their utmost to ensure that in future our city is provided with houses which form a happy environment for growing children and incorporating the benefits of the available wealth of experience and knowledge on housing.

"We protest against the placing of responsibility for vitally important public amenities in the hands of commercial interests and the arbitrary

delegation of housing programmes to speculative builders.

"We call upon the Town Council to patronize a high standard of design in architecture and to open a competition for a comprehensive town plan, that some coherent solution may be found to the many problems of growing traffic and population; and that the disintegration of the city and the waste of building land in suburban sprawl, may cease."

(The Secretary of State for Scotland in his recent report on the Randolph Crescent enquiry recommended that a new town plan be made.)

Also, we hope to hold a symposium in the Spring Term and are inviting all the major people qualified to speak on housing, for and against the speculative bungalow and short term expedients.

DENYS LASDUN AT THE BARTLETT

Colour: Lasdun likes English sombre colours in buildings [viz. in Cluster Block], where bright colour is left to curtains and flowers. *Materials:* respect for intrinsic character of materials with regard to colour as well as to structural usage [slide of Mediterranean village—intense colour after 300 years of random development]. *Concrete:* mistake to use bare concrete, laymen invariably consider it unfinished. *Laymen and clients:* to produce architecture we must "lock ourselves mentally" with the client in order to assimilate and appreciate his dreams as well as ours; importance of

the users of buildings. *CIAM*: expressed present aversion to *CIAM* and the *Ville Radieuse* idea. *High density*: does not necessarily mean high buildings, surrounded by "verdure" on which no one is allowed to walk, but rather dwellings with gardens in low groups, up to 4 storeys high. *Paddington*: rejection of early scheme based on Athens Charter except for school which possessed germ of Cluster idea. *New Towns*—not valid towns but dormi-

tories for industry, would hate to live there and wouldn't expect anyone else to! *Luxury flats* [St. James's Place]: "keeping character of Georgian" effected by analysis of grain and choice of materials rather than by continuation of string courses and cornices. *Delight*: slides of smiling Hallfield schoolboy and children playing at one of the cluster block entrances gave the architect and his audience much satisfaction and pleasure.

Mike Finbow

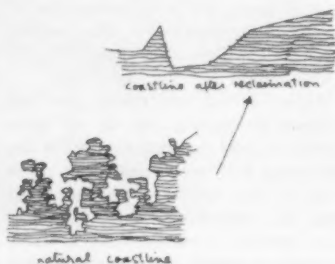


IMPRESSIONS OF AMSTERDAM TOWN PLANNING FROM THE AIR

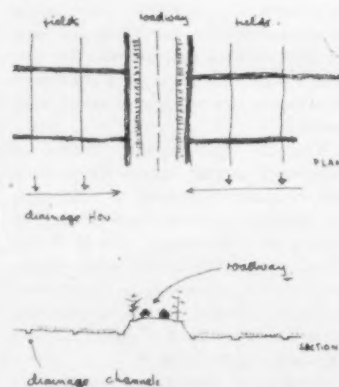
Rupert W. A. Alcock,
Robin C. Moore

On November 16 a visit was undertaken by fourth year students of the Architectural Association and Bartlett Schools in a chartered airliner to Amsterdam with a view to studying existing and new development. The flight course enabled towns in southern England and Holland to be encircled at low heights, allowing an overall impression of planning to be gained. The topographical nature of country lying to the south-west of London is one of small hills and isolated wooded areas; a gentle undulating land surface. By following the form of the land, hedges divide it into small fields of an apparent random nature. Canterbury appeared as a natural

growth and texture related directly to the surrounding countryside; the cathedral with its central tower dominated this growth forming a strong, clear focal point. It is apparent that the original streets of medieval Canterbury have now become "outworn" in terms of the motor vehicle: the problem is to reconcile these two; not an insoluble problem.

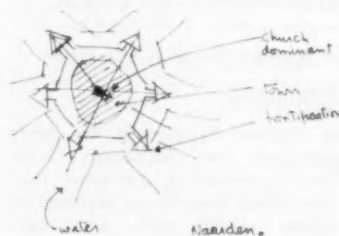


First glimpses of the Dutch coast illustrated the flatness of the land and the calculated efforts by man to repel the erosion and invasion by the sea; a regular pattern of drainage channels and dikes suffices to drain the land and divide it into areas for cultivation; this contrasted strongly with the pattern of cultivated areas already seen in England.

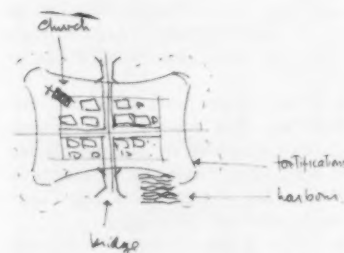


Roadways were built above the general level of the surrounding land; materials

for these embankments were obtained from the "dug-out" drainage channels. Our flight-course took us over the medieval fortified town of Naarden; the town remains in its original state; the outline formed by its fortifications expressed a strong feeling of aggression towards invading man and Nature.



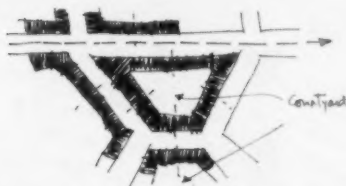
We flew next over the fortified town of Elburg; this town has, again, retained its unique medieval form and character; a clear expression; two main streets intersect to form a central square. The two focuses of its medieval life, the church and harbour, balance the plan by being at opposite corners, one within the fortifications, the other outside.



The formal regimented planning of these towns contrasted strongly with the less-ordered growth of similar English towns already observed from the air.

We encircled Rotterdam, the second largest city in Holland, at a height of a thousand feet.

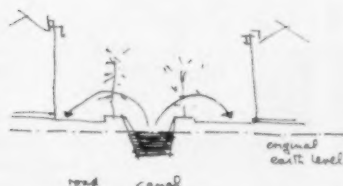
The port of Rotterdam, linked to the North Sea by a canal, formed the nucleus of the city; we noted the complete rebuilding of the city centre; dominated by a great vertical feature—the Euromast; the controlled fringe development of Rotterdam was seen in relation to the new city centre; industrial building was confined to the flanks of this outer ring and to the harbour. The Van-Nella factory, a vast complex of building, was identified; a common conception of urban housing was observed—the building round of an internal courtyard.



We landed at Amsterdam Airport, whence we began our projected tour of the old and new development in the city by coach and water-bus.



The city lies round the meeting point of the Rivers Amstel and Y; its development over the centuries has been a form of radial expansion from this meeting point; canals have formed an intricate part of this development.



The canal formed not only a means of transport but was originally dug to obtain sand and gravel to raise banks on either side to form a base for roads and buildings; the resulting ditch was then filled with water.

The pre-war concept of the street, formed on either side by continuous facades with wide boulevards allowing for garden and tree cultivation between; each street conceived as an entity with which inhabitants can identify themselves; the streets with flanking buildings had a strong horizontal character. Because of the nature of the ground,

old and new buildings cannot generally be taken above six storeys, this has produced a domestic atmosphere and scale not only to the buildings but to the spaces surrounded by them.

Originally the houses flanking the canals were built and lived in by a rich merchant class; when this class diminished the houses were occupied by many poor families; result, the buildings fell into a state of disrepair; the completion of new building programmes outside the old city absorbed these families with the result that these canal-side houses were once again occupied by the more wealthy class of people; this accounts for their now high standard of upkeep.

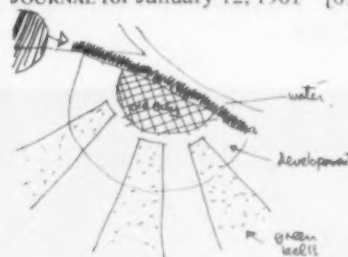


An interesting aspect of the existence of five hundred bridges over fifty canals is that the inhabitants are able to identify themselves in relation to the city; this identification of man to his city environment, a vital condition of planning too often ignored, is exemplified in both old and recent building in Amsterdam. The old city has retained its unity and character as a "place"; Amsterdam was not heavily bombed in the last war, thus it has preserved its pre-war quality; Rotterdam, whose centre was wiped out, has successfully replaced it with a new centre still perpetuating this quality; the result of the aptitude the Dutch seem to possess for clear thought in administration; something apparently lacking in the administrative attitude to London.

Because the buildings in Amsterdam are not tall and the spaces between them relatively great, one is able to perceive whole sections of the city, both in terms of individual buildings and their relationship to each other and to the general plan of the city.

The development that has taken place round the fringe of the old city is in the form of localised neighbourhood units; separated by "fingers" of green areas centring upon the old city; these "fingers" will become not only centres for sport and recreation but will form a relief to future development.

As in the old city, land for roads and building has been raised to one metre above sea-level by obtaining sand and gravel from the ground; the resulting crater is then filled with water to form a lake which is used for water sports; a focus is thus provided for each neighbourhood.



The traditional concept of planning in the old city, of buildings in relation to the square and street is present in recent development; these spaces contained by the buildings have been carefully detailed, forming successful communal areas; shops, churches and community centres are contained within such spaces.

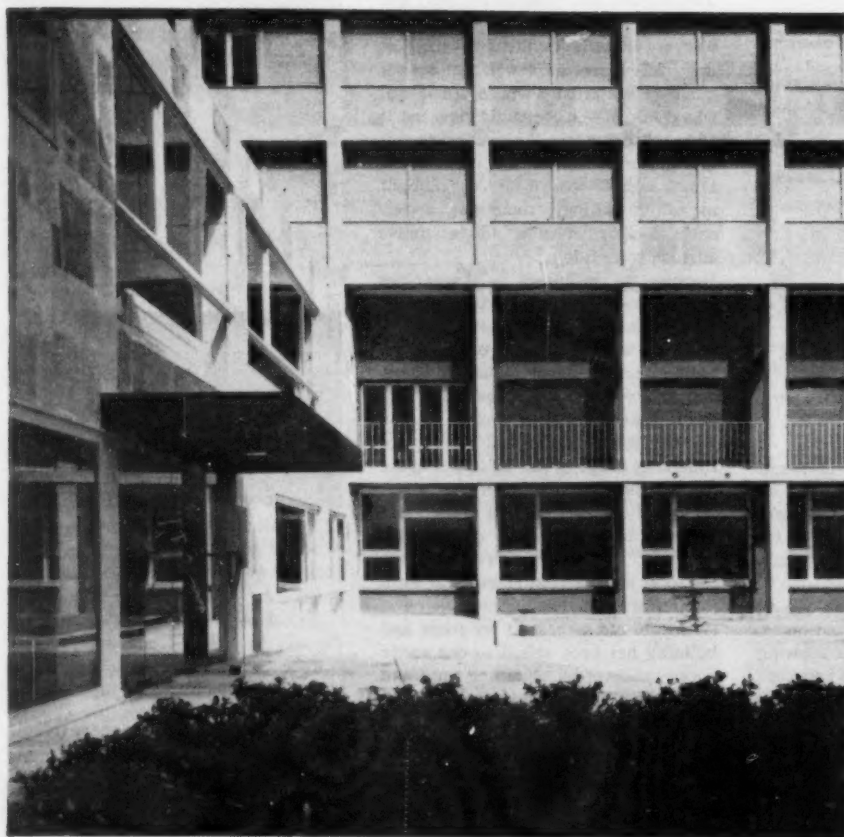
The majority of the buildings, terraced houses and flats, are low in height, usually two and three storeys; however, contrast is obtained by varying the heights of churches, old people's dwellings and the larger "flat" blocks of six storeys; this perpetuates the intimate, domestic scale of the buildings in the old city. Although the planning and treatment of the buildings are formal, this is offset and a happy contrast achieved by the informal layout of the ground around them.

The motor-vehicle has been divorced from the main living precincts and pedestrian ways, thus protecting the human and aesthetic values; an environment is thus created where buildings and spaces between them are integrated on a comprehensive basis.

We left Amsterdam after only a few hours there, realising that one can take a delight in this city.



Residential Block for Marseilles University

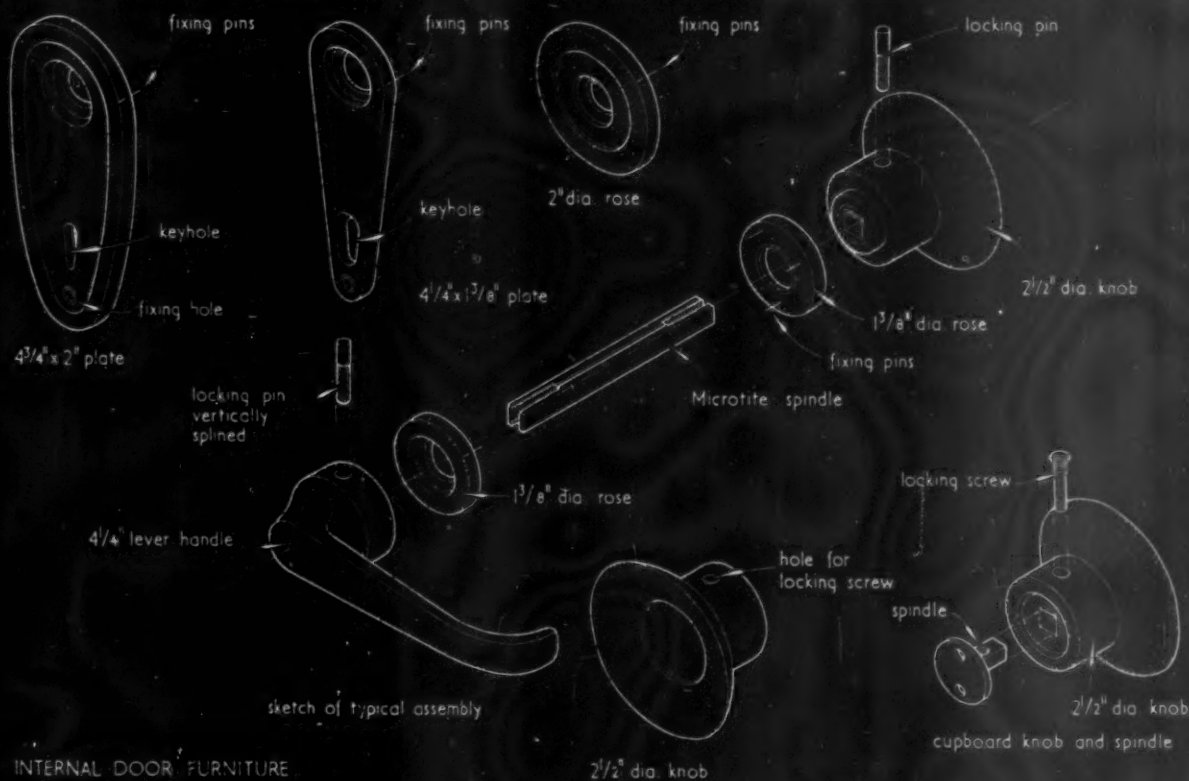


Designed by Jacques Berthelot, this building provides 400 study-bedrooms, with other facilities such as a refectory, common-rooms, lecture theatre and gymnasium. The study-bedrooms are in groups of twenty, each group having its own ancillaries such as showers and w.c.s. The structure is a reinforced concrete frame with external infill panels of stone from the Pont du Gard area. For quietness the floor finish generally in both rooms and circulation areas is rubber tiles. The building is heated by a plenum system with oil-fired boilers. Services include lifts in the bedroom block and a service lift between kitchen and refectory. Total cost of the building was about £530,000: it is estimated that the study-bedroom block cost about £690 per room.

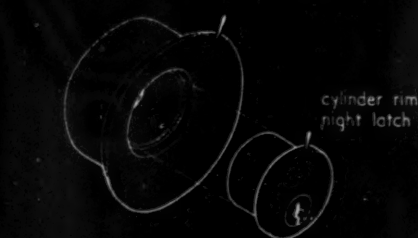
Top, a general view, with study bedrooms in the tall block and refectory in the low. Left, the main entrance at the junction of the two blocks

FITTINGS | DOORS | MISCELLANEOUS**44.Z1**

The Architects' Journal Library of Information Sheets 801. Editor: Cotterell Butler, A.R.I.B.A.

**INTERNAL DOOR FURNITURE**

2 1/2" dia. knob recessed for cylinder latch



front door knob and cylinder latch

clear plastic inserts with white printed numerals

sketch of letter plate with numerals and bell
FRONT DOOR FURNITURE

threaded bushes on reverse of fitting for concealed fixing

1'-1"

3/4"

bell-operating turn button

self-closing flap aperture size $8 \times 1\frac{3}{4}$ "

self-closing flap

section

44.Z1 · CLANSMAN · MELAMINE PLASTICS DOOR FURNITURE

This Sheet describes the Clansman range of door furniture in melamine plastics and includes handles and knobs with interchangeable plates and roses and a letter plate.

Design and Material

The range was designed by Kendrick Findlay and Partners, consulting architects to Unity Structures Limited. The fittings are moulded primarily from melamine and have a high resistance to heat, moisture and chemical reaction: they will not support combustion. They are suitable for internal and external applications.

Both knobs and handles, with the exception of cupboard and front door knobs, are interchangeable with all plates and roses. Where required, fixing pins are moulded into the plate or rose. The letter plate has removable numbers and is supplied with turn-action or push-button clockwork bell: the flap closes by gravity.

Microtite spindle: All knobs and handles, with the exception of cupboard knobs, are supplied with a Microtite patented spindle and securing pins. The spindle, which is cadmium-plated, is in two halves, as shown, the rebated ends being milled so that the securing pin, which is similarly ridged down its length, can engage with it at any point to give fine adjustment in fixing. The same length spindle is used for rim or mortise locks and latches.

Sizes

Knobs are 2½ in. in diameter and handles 4½ in. long. All other sizes are as given on the face of the Sheet.

The letter plate has an aperture 8 in. by 1½ in. which is the recommended G.P.O. size in accordance with B.S. 2911: 1957.

Colours

The range is available in the following colours: white, sylvan green, midleaf green, pewter, peacock blue, geranium, black, wild rose, daffodil, chestnut, ivory and walnut.

Further Information

In addition to the furniture described on this Sheet, the manufacturer can supply details of all types of door furniture and other fittings, e.g., clothes hooks, toilet fittings. The manufacturer will also supply on request a specimen schedule to assist in specifying Clansman furniture.

Compiled from information supplied by:

Evered and Company Limited

Address: Surrey Works, Smethwick, 40, Staffordshire.

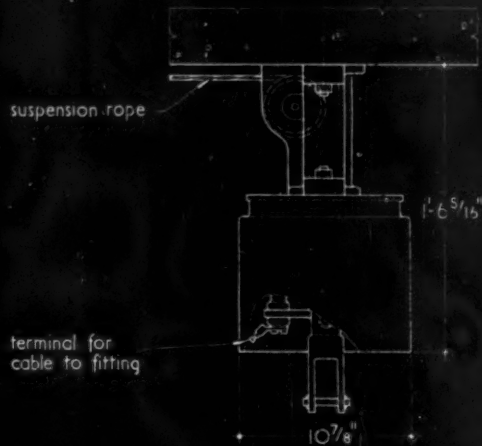
Telephone: Smethwick 0881-8.

London Office: 23, Albemarle Street, London, W.1.

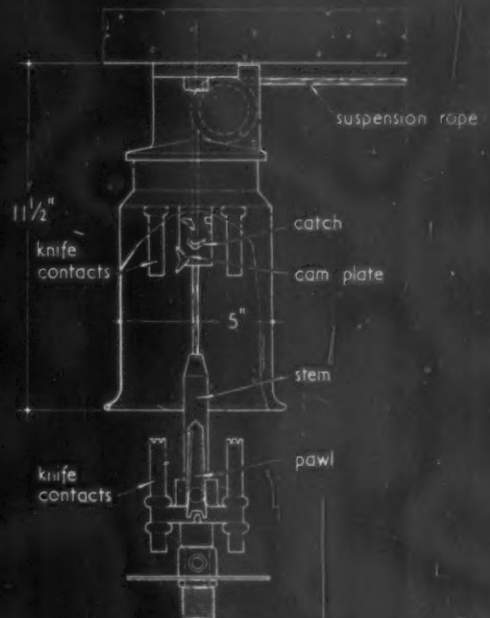
Telephone: Hyde Park 6463.

ILLUMINATION | EQUIPMENT | ELECTRIC**34.K3**

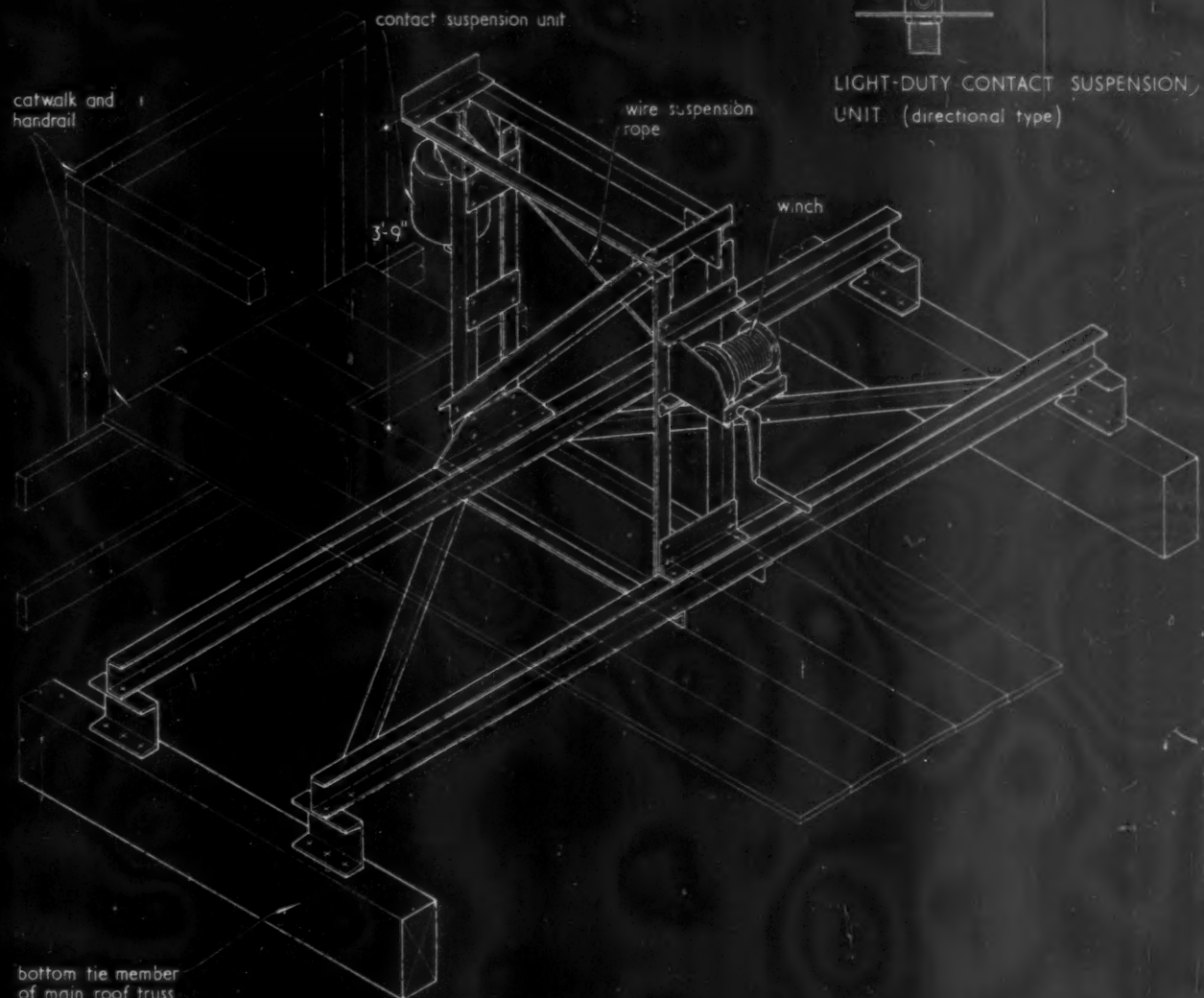
The Architects' Journal Library of Information Sheets 802. Editor: Cotterell Butler, A.R.I.B.A.



HEAVY-DUTY CONTACT SUSPENSION UNIT
(5 cwt. directional type)



LIGHT-DUTY CONTACT SUSPENSION UNIT
(directional type)



ISOMETRIC SKETCH OF TYPICAL INSTALLATION.

34.K3 RAISING AND LOWERING GEAR FOR LIGHTING FITTINGS.

This Sheet describes raising and lowering gear for interior lighting fittings, the installation of which gives a permanent means of easy access to the fittings.

General

The system provides a safe method of suspending a light fitting at any height, so that it can be lowered to ground level when required. The fixing is direct and positive, no weight being carried by the suspension cable except during raising and lowering. The raising and lowering are carried out by a self-sustaining hand winch, and the safety device is automatically locked and unlocked by the operation of this winch. The electric supply is automatically disconnected as the fitting is lowered and reconnected when it is returned to position. Two types of contact unit are available, directional, for lighting fittings that must return to their original orientation and non-directional for any fittings (e.g. circular) which have no directional bias.

Contact Suspension Unit

Directional type: The drawing on the upper right face of the Sheet shows the construction of the light-duty directional contact unit. It is self-locating in a lateral direction, so that the lamp reflector or diffuser will take up any predetermined position. The movable lower part of the unit is disengaged from the fixed upper part by the automatic release of the central suspension gear and the separation of sliding knife contacts isolates the lower portion from the electrical supply.

The automatic locking and release are effected as follows. When raising, as the rope tautens, the metal stem through which it passes enters the upper part of the unit first and steadies the fitting. Then the pawls on either side, which have pins on the inside, engage with the path in the cam and are guided above the central catches which form ledges on which they rest. Slight slackening of the rope then lowers the pins into the catches and transfers the weight of the lighting fitting from the rope on to the pawls and cam plates, giving a positive mechanical linkage. When lowering, the lock is released by tightening the rope which brings the pawl pins away from the catches to a point where they re-enter the cam path and are guided clear of the cam plate.

Light-duty units can carry fittings up to 60 lb. in weight. Heavy-duty units, as illustrated on the upper left face of the Sheet, incorporate the automatic suspension lock described above, may have up to 8 electrical contacts and can carry fittings up to 5 cwt.

The top castings of all units are obtainable to suit differing suspension rope and electrical supply entries. Lighting fitting attachments may be in the form of a loop, hook or screwed plug as required.

Non-directional type: This type works on a similar principle to the directional type, but has ring contacts. It needs a minimum weight of 20 lb. to operate it and if the lighting fitting weighs less than this a

compensating weight can be added to the movable portion of the contact unit. Rope and electrical supply entries and lighting fitting attachments are as for directional types.

Winch

Small self-sustaining hand winches are available in several sizes for loads of 60 lb. or 1 cwt. They can be supplied with a 1 to 1 or 3 to 1 ratio. Flexible steel wire rope $\frac{1}{2}$ in. in circumference should be used. For heavier lighting fittings, worm geared winches, with a self-sustaining mechanism on the worm shaft, are used.

Installation

It is important that the winch should be firmly mounted so that there is not the slightest tendency for it to wobble when operated. The position selected for it should give ample room for operating the handle in comfort and the run of rope from the contact unit should be as straight as possible, keeping the number of pulleys to a minimum: this will help to ensure smooth and easy movement when raising and lowering. Pulleys should be so mounted that the rope passes over them at right angles to their axis, so that it will not chafe the sides of the grooves in the wheels. The rope must be led onto the winch, so that it is free to wind evenly onto the drum. No pulley must be mounted too near the winch and, where the rope is enclosed in a conduit, this must not terminate too close to the winch: in both these cases there would be chafing of the rope and uneven winding on the winch drum. When the installation is complete, the winch rope should be slack if the fitting is correctly suspended on the contact unit and not on the rope.

Maintenance

The equipment requires little maintenance except for regular inspection of the winch rope, particularly where it is attached to the movable part of the contact unit.

Further Information

The manufacturer will design an installation, in consultation with the architect, and supply the equipment for the builder to put in. Schemes and estimates will be submitted by the manufacturer without obligation.

Compiled from information supplied by:

London Electric Firm Ltd.

Address: Brighton Road, South Croydon, Surrey.

Telephone: Uplands 4871.

Telegrams: Electric, Phone, Croydon.

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Editor: Cotterell Butler, A.R.I.B.A.

working detail

(26)

BALCONIES: 30

BALUSTRADE: SCHOOL IN LONDON, E.5

J. M. Austin-Smith and Partners, architects

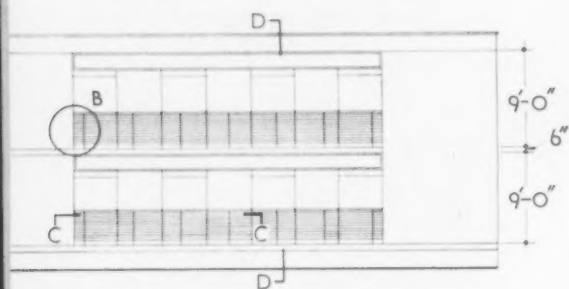


Detailed points to notice about this balustrade are the cranking of the supports to give an external face flush with the brickwork, the use of welding to give neat junctions to the mild steel members and the grouting of the uprights into tubes cast in the structural floor. The fascia and balcony edge are painted.

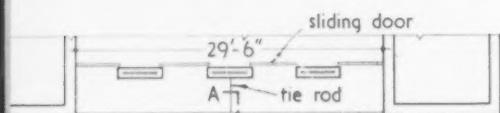
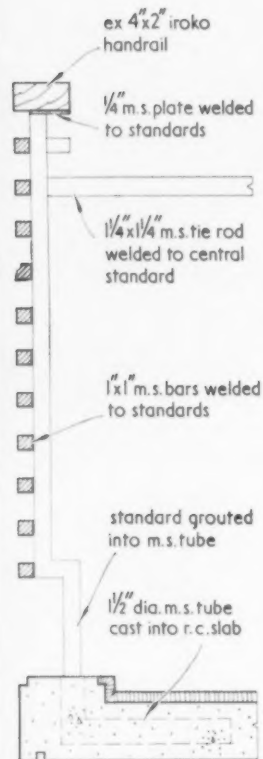
working detail

BALUSTRADE: SCHOOL IN LONDON, E.5

J. M. Austin-Smith and Partners, architects



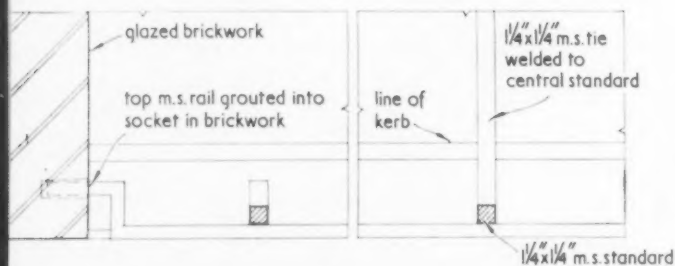
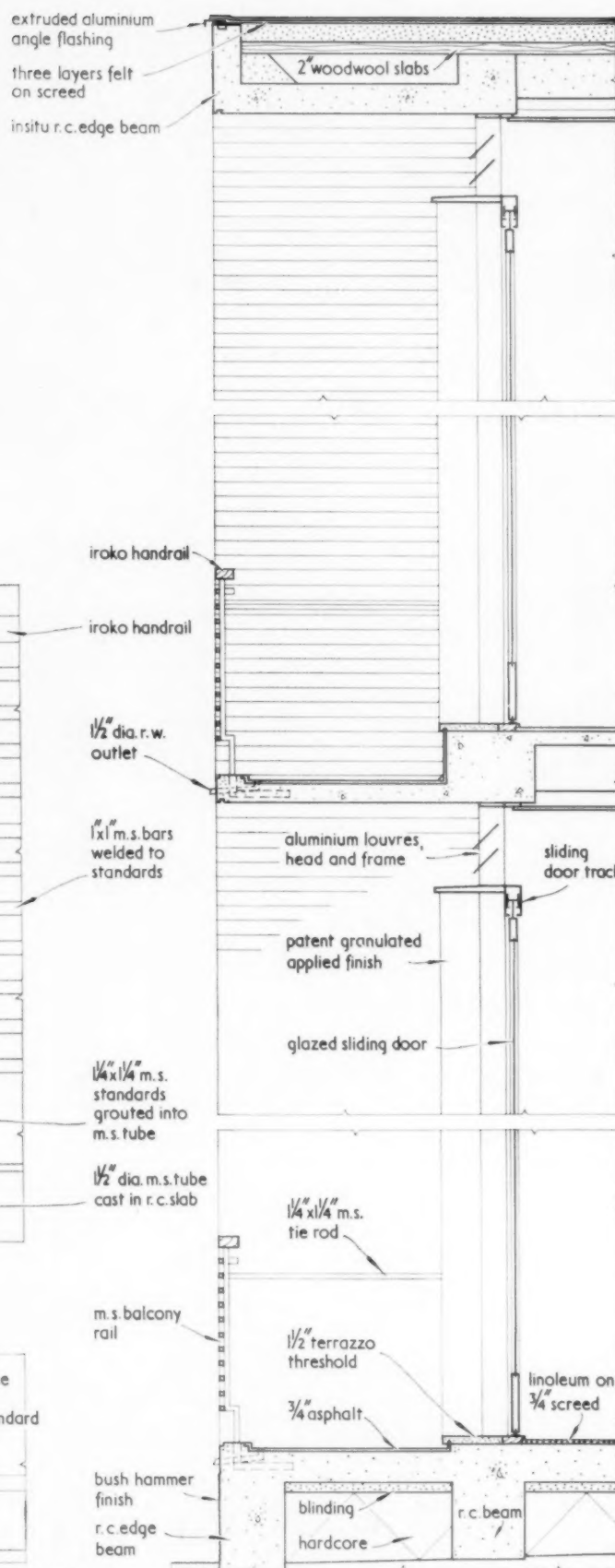
ELEVATION.

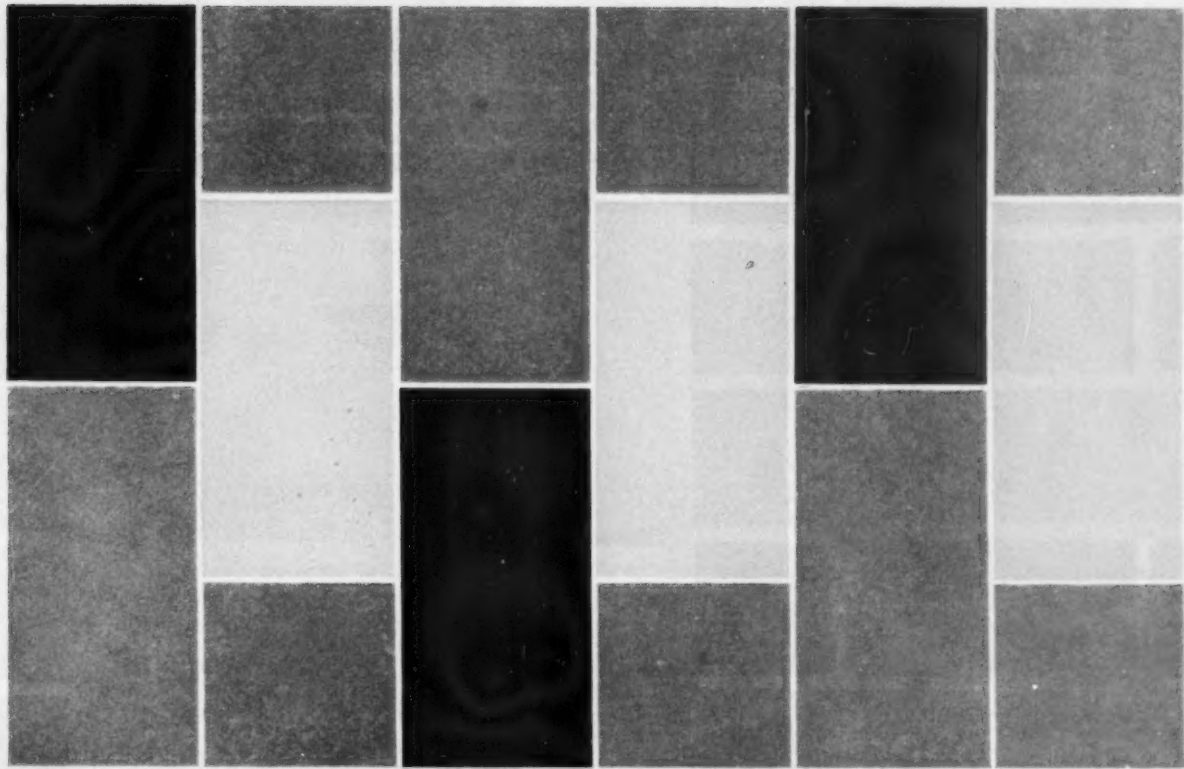
PLAN, scale $\frac{1}{8}'' = 1'-0''$ 

SECTION A-A.



DETAIL AT B.

PLAN C-C, scale $1'' = 1'-0''$ SECTION D-D, scale $\frac{3}{8}'' = 1'-0''$



MARLEY *mura*

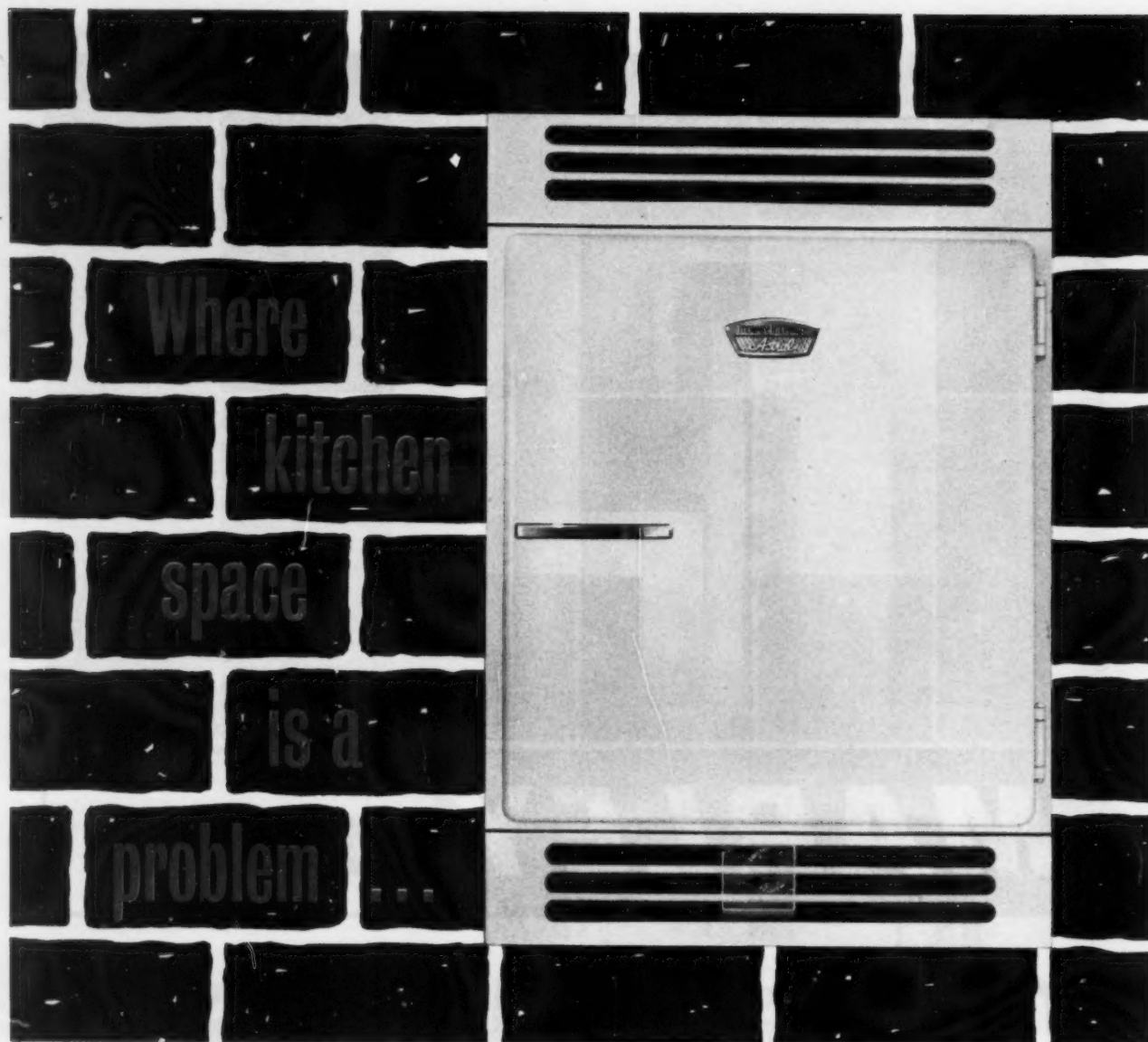
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room intended to be used by friends or relatives visiting the tenants. The purpose of the scheme, which we hope to publish in greater detail in a subsequent issue, is to encourage the elderly who are not infirm to carry on as normal an existence as possible, maintaining themselves and looking after their own flats. Above is a general view from the south-west: a second photograph appears overleaf.



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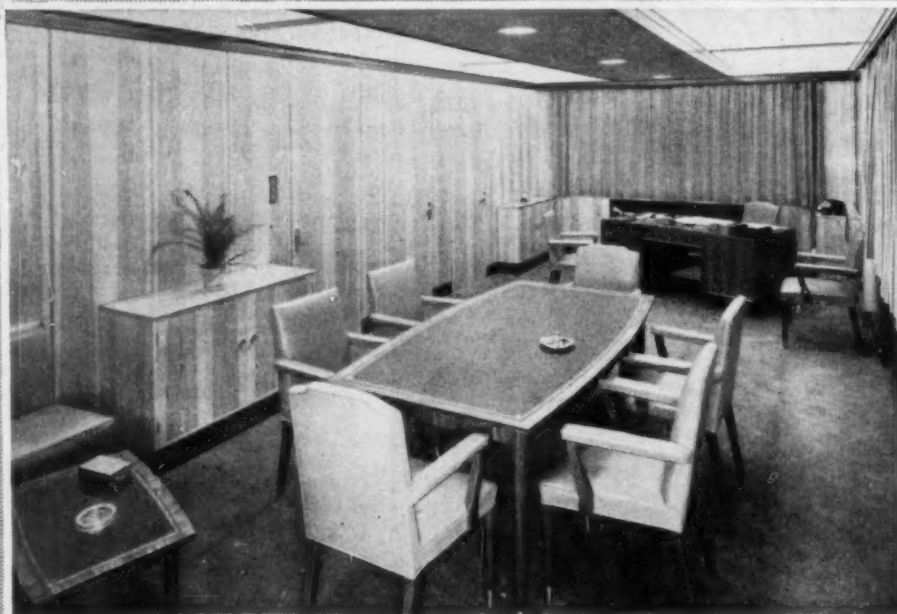
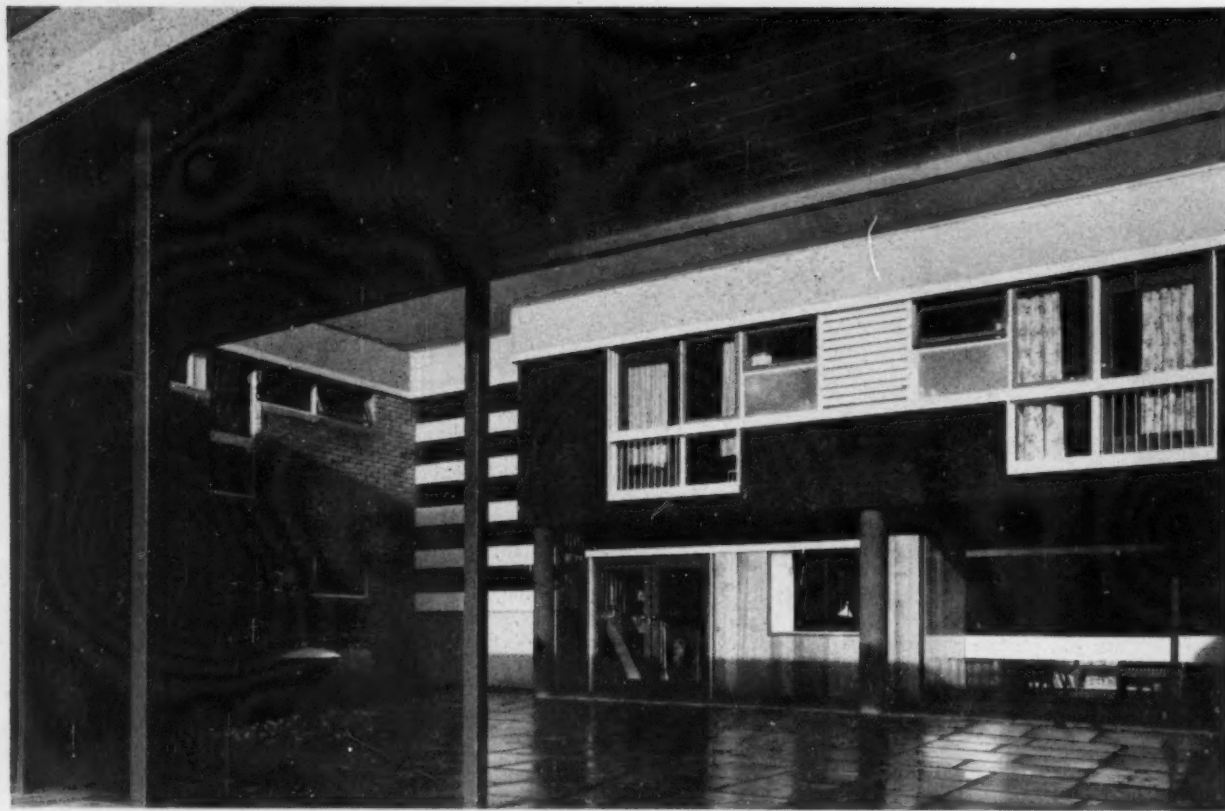
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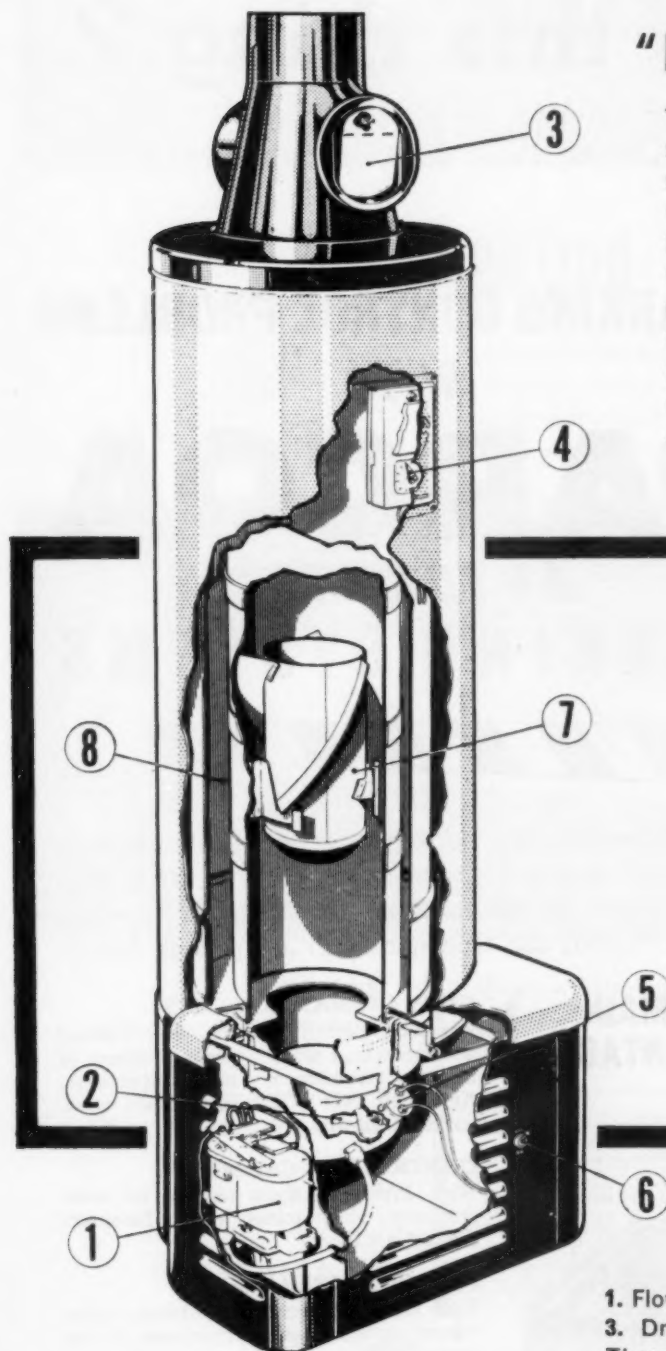
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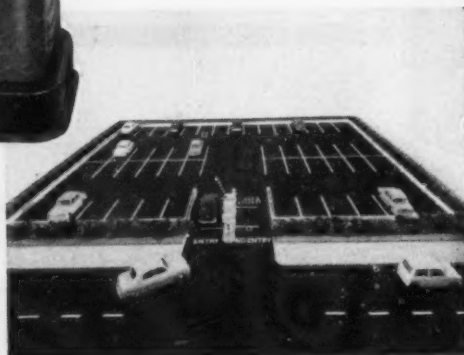
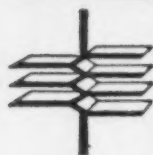
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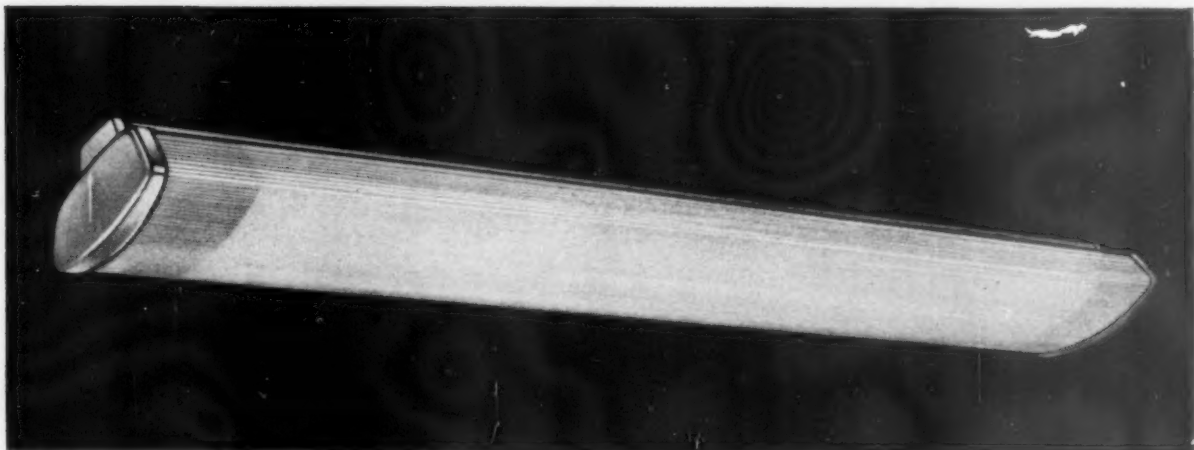
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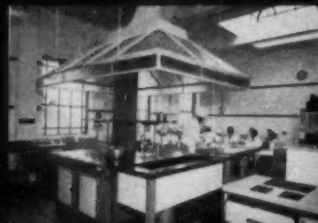
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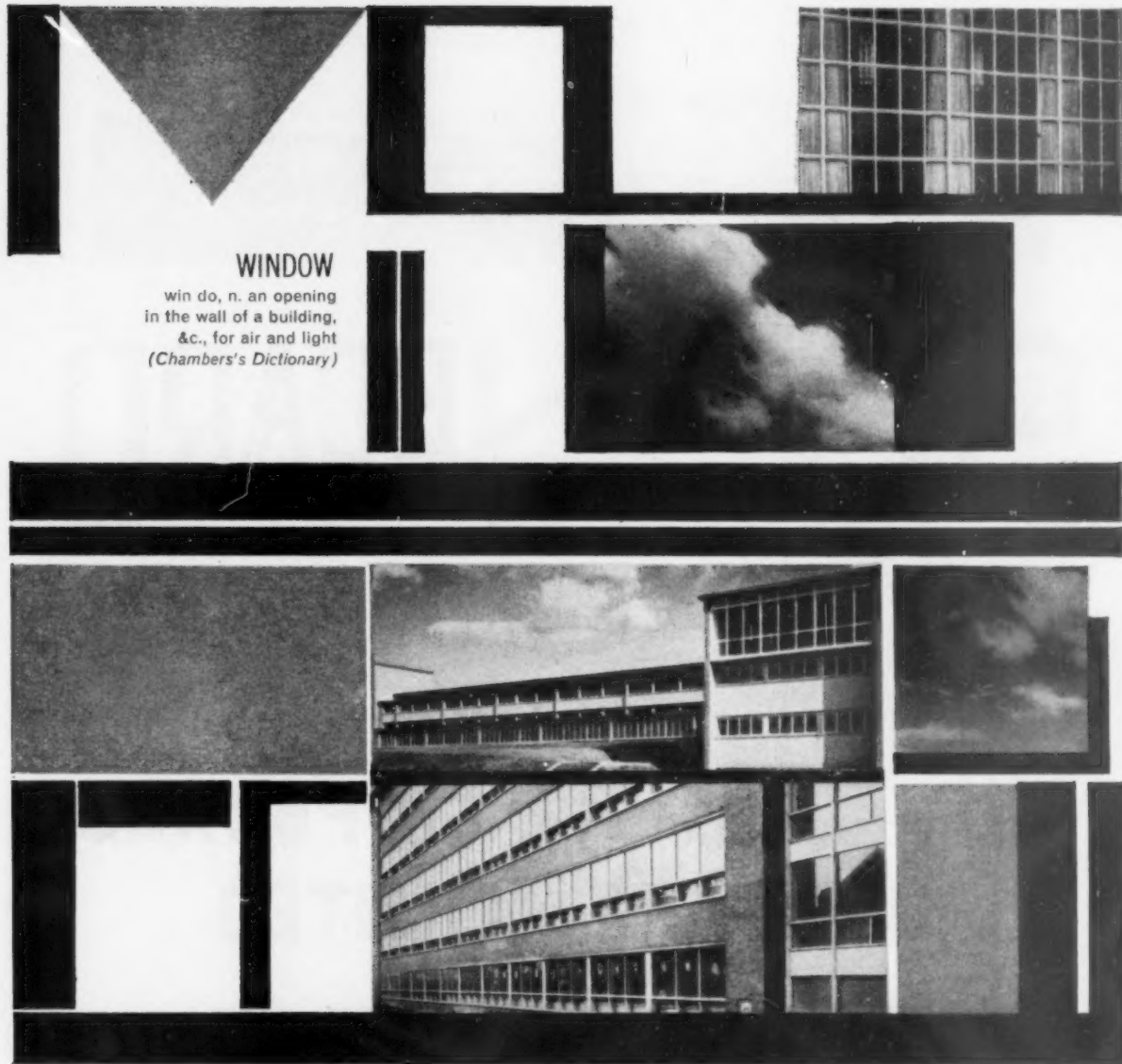
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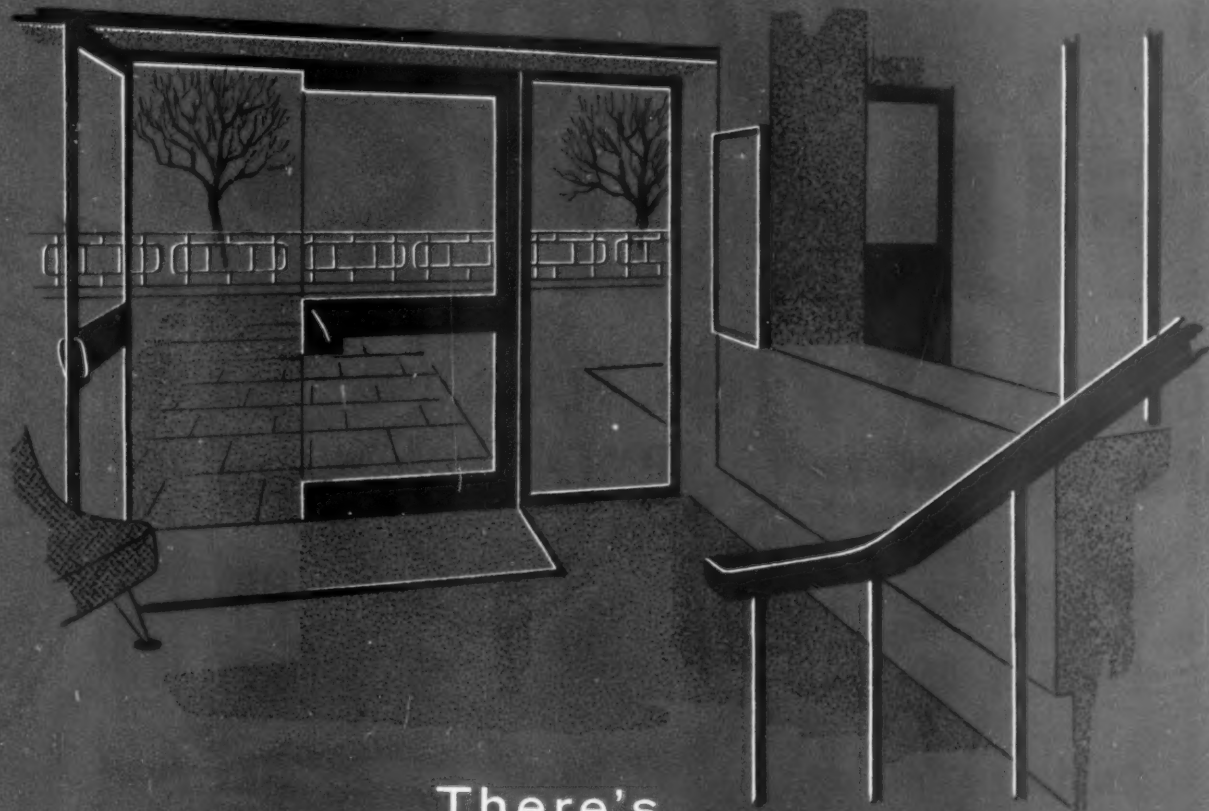
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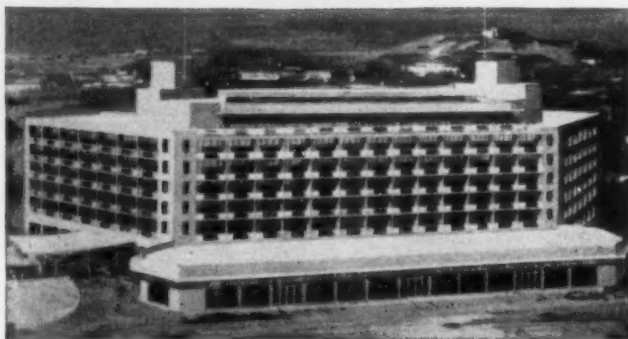
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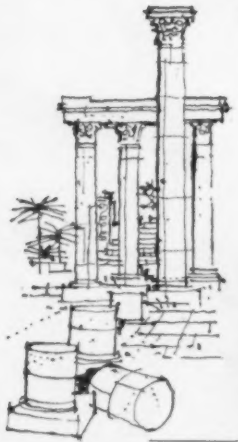
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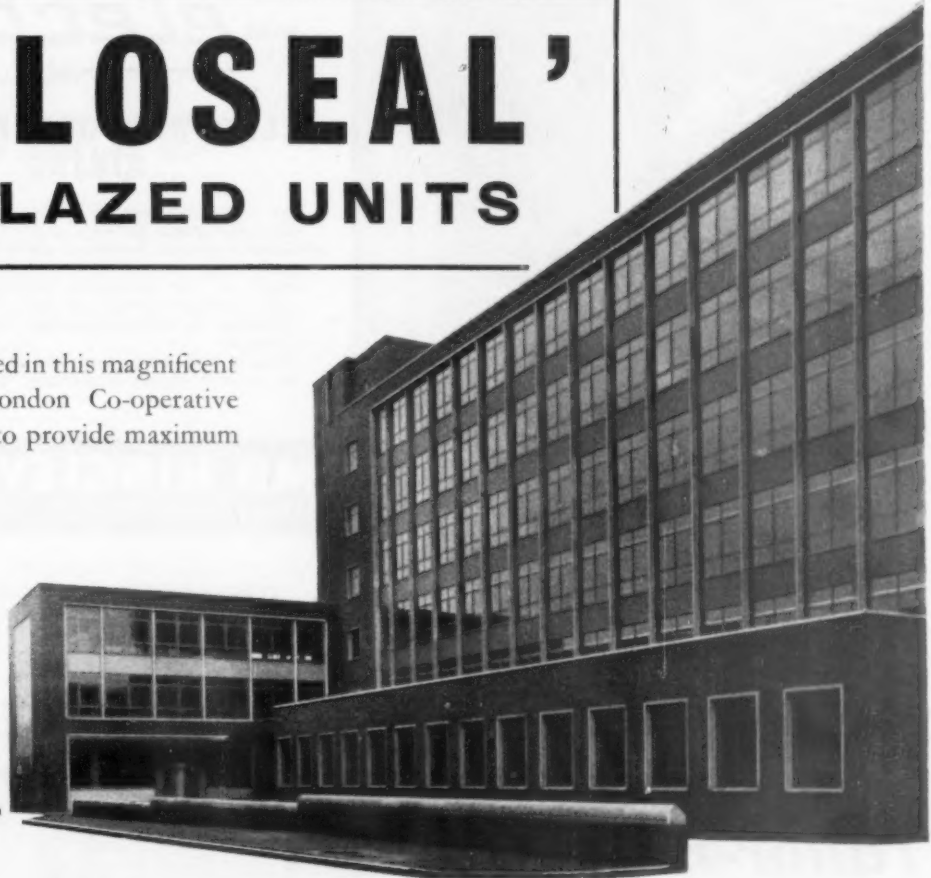
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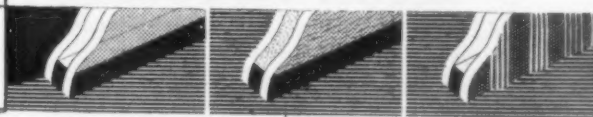
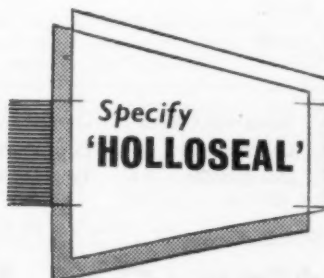
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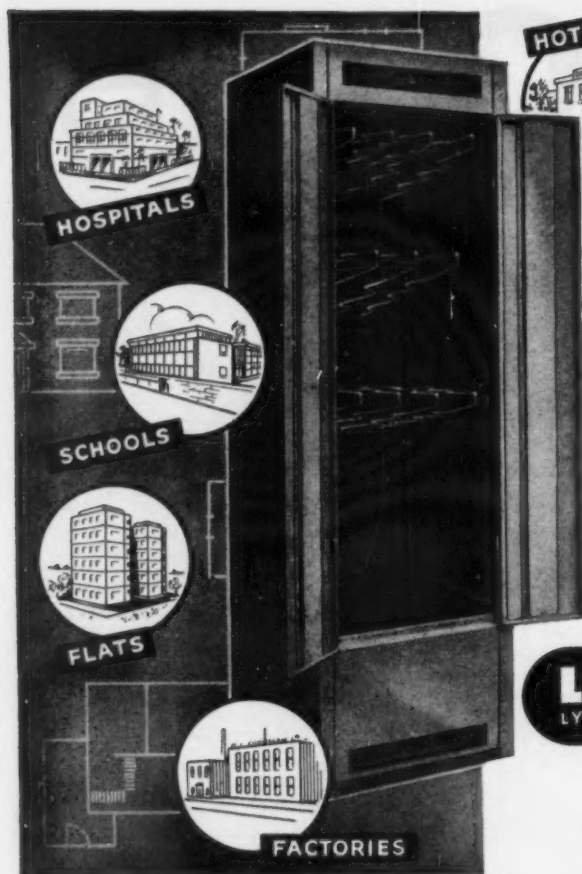
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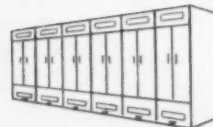


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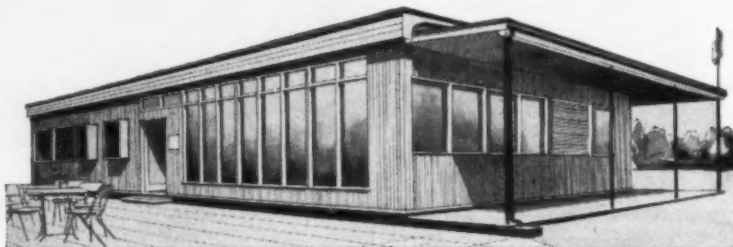
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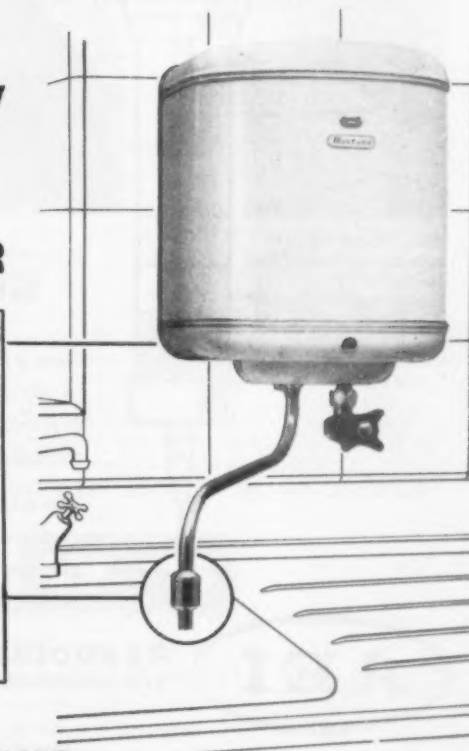
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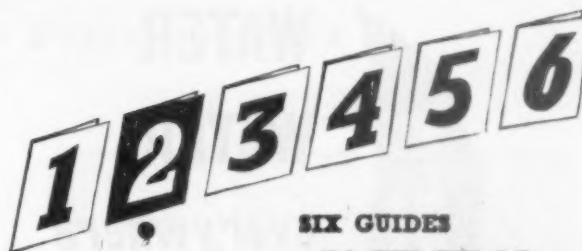
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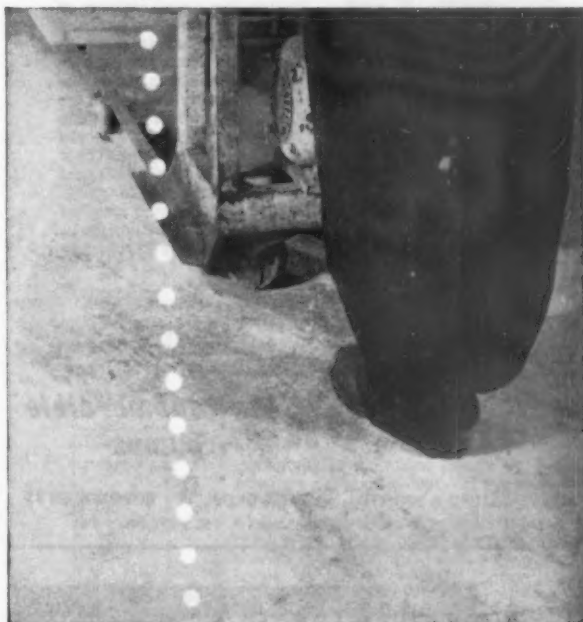
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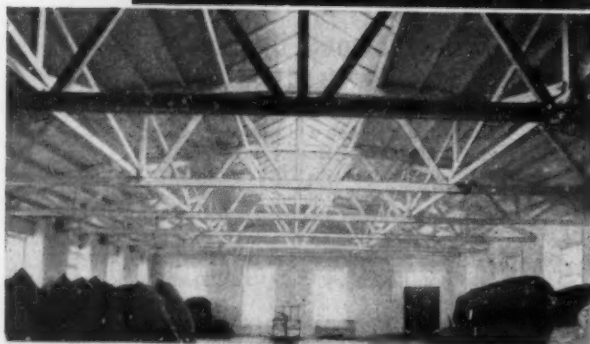
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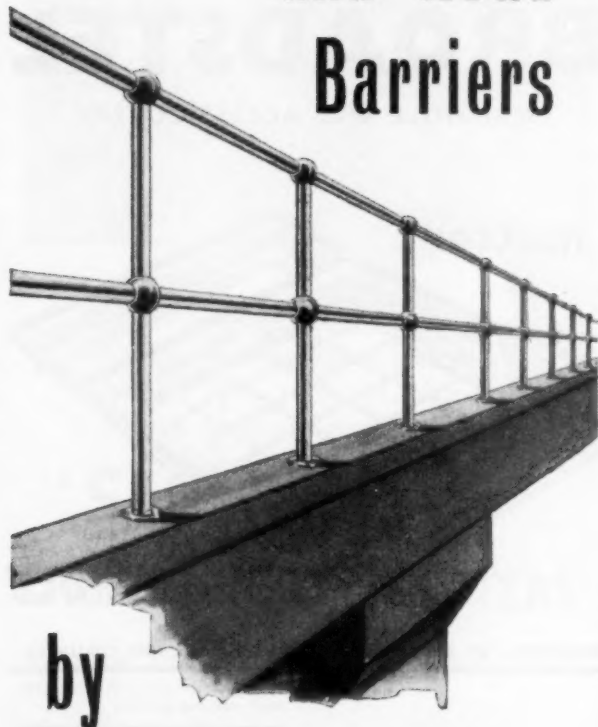
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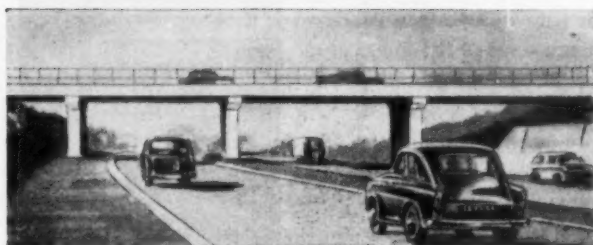
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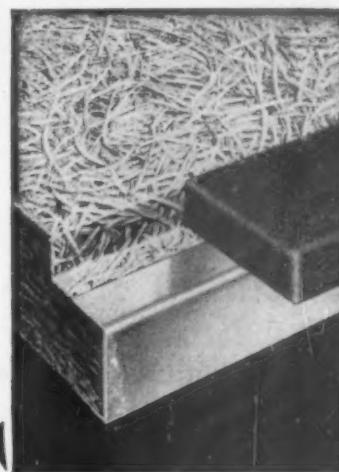


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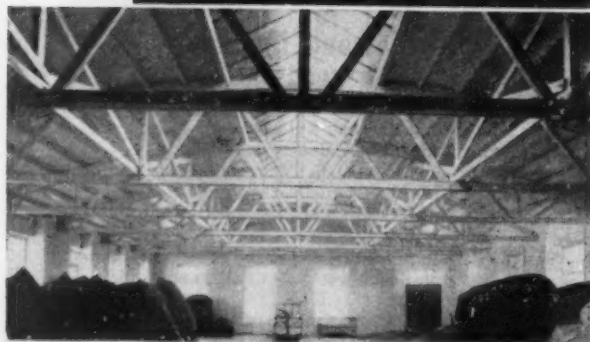
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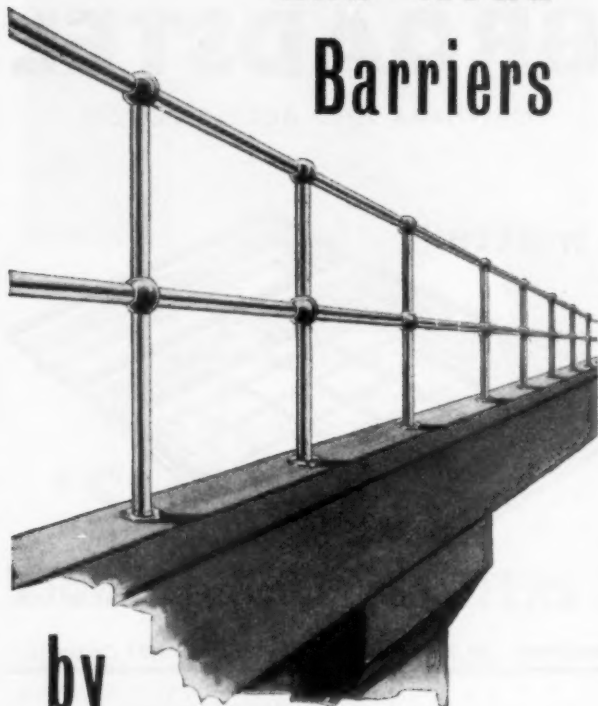
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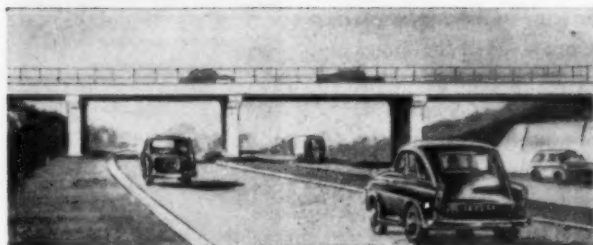
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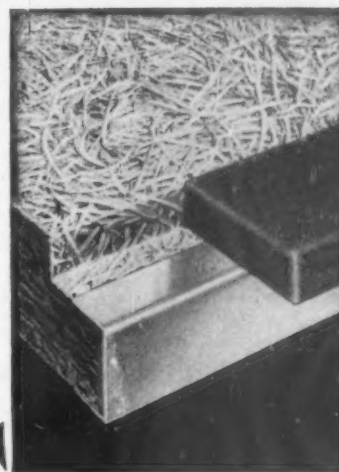
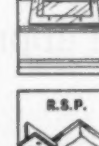
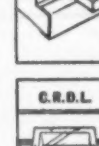
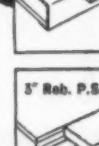


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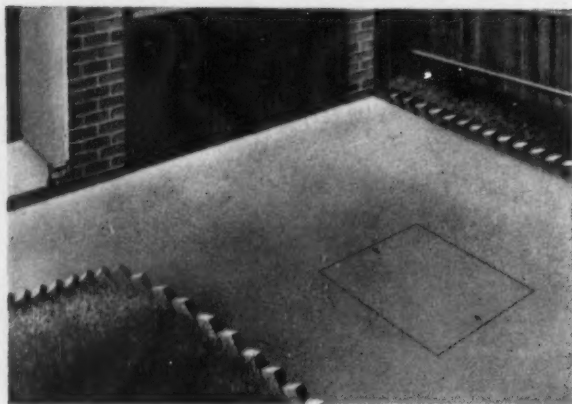
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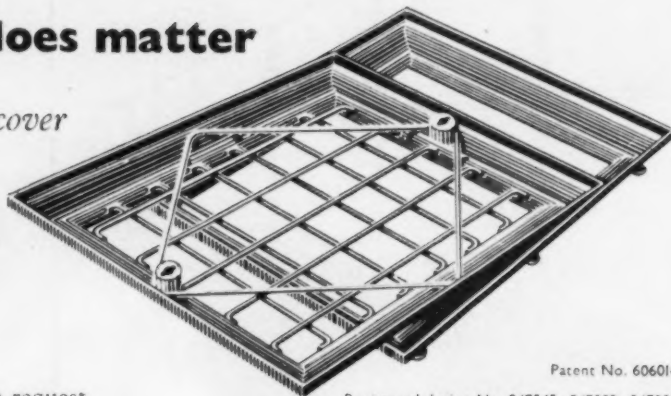
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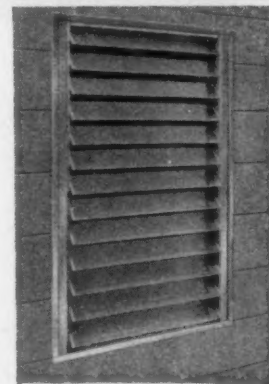
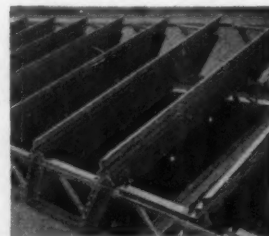
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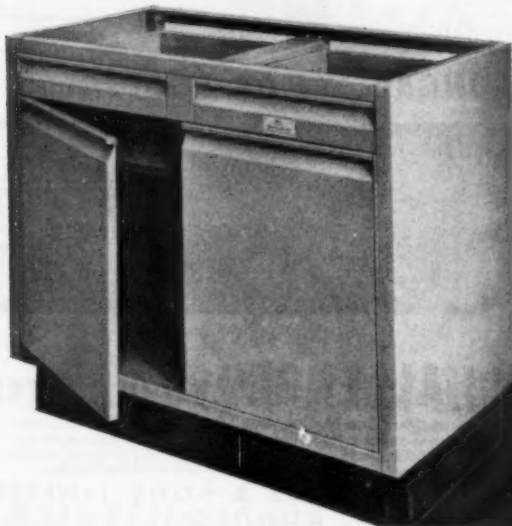
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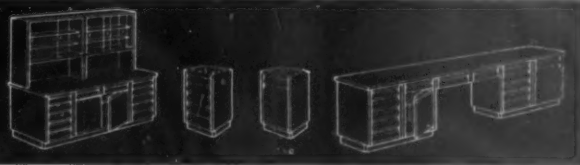
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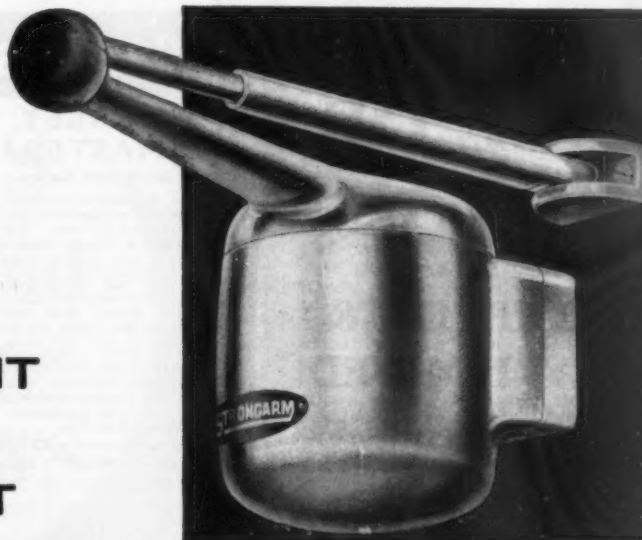
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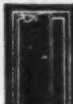
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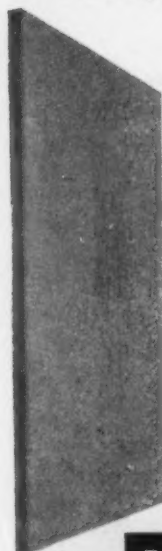


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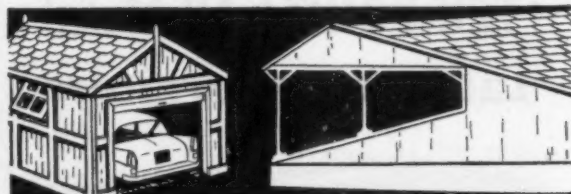
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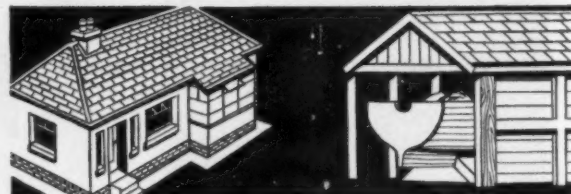
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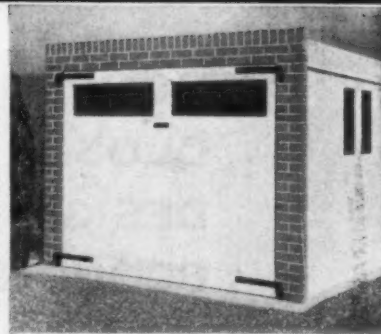
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Whether for school, factory or office the Coxdome Mark II is the only satisfactory answer. The new Coxdome Mark II brochure is now ready. Architects, Building Contractors and anyone also interested are invited to send for their copy.

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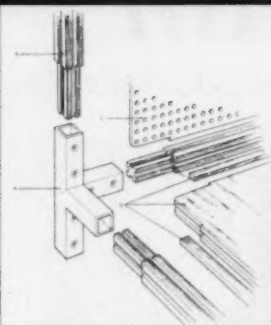
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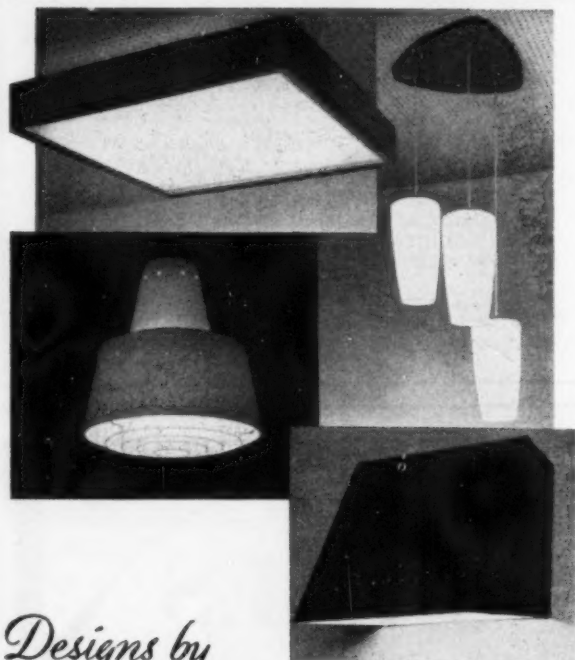
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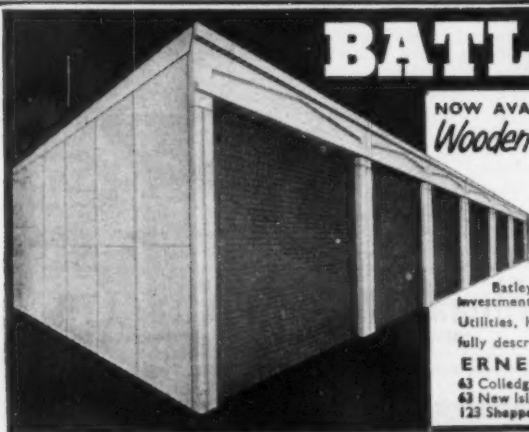
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Wooden Roller Shutter Doors!

- Any number in one block.
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CLASSIFIED ADVERTISEMENTS

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

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

AIR-MAIL SERVICE available on request. In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of this special service to Overseas subscribers will be £2. for four weeks (1s. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

Public and Official Announcements

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

COUNTY BOROUGH OF SOUTHAMPTON
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT

Applications are invited for the following appointments:—

- (a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. V (£1,310/£1,480), for duties in connection with an extensive and varied programme of housing development including multi-storey flats. Applicants must hold the qualification A.R.I.B.A. with wide experience in the design and administration of major building works.
- (b) ASSISTANT ARCHITECT, Grade A.P.T. III/IV (£960/£1,310), for duties in connection with housing estate development. Applicants must have passed Parts I and II of the R.I.B.A. Final Examination. Commencing salary according to experience and qualifications.

The appointment is subject to N.J.C. conditions of service.

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

Apply on application forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, returnable by not later than Monday, 23rd January, 1961. 5099

ARCHITECT, ARCHITECTURAL ASSISTANTS and QUANTITY SURVEYOR, required by: NATIONAL COAL BOARD—EAST MIDLANDS DIVISION. Applications are invited for the following superannuable posts on the staff of the Divisional Chief Architect at 69, Lower Parliament Street, Nottingham: (a) Architect. For this vacancy we are seeking a young qualified Architect. The commencing salary will be within the scale £900 x £35 — £1,250. (b) Architectural Assistants. We require two Architectural Assistants who should preferably have passed the intermediate R.I.B.A. and/or have had some practical experience. The commencing salary will be within one of the following scales, depending on qualifications and experience: £785 x £30 — £935 — £655 x £25 — £785. (c) Quantity Surveyor. We have a vacancy for a young Quantity Surveyor who should be an associate of the R.I.C.S. and have at least one year's subsequent practical experience in all aspects of the work in a Quantity Surveyor's office. The commencing salary would be within the scale £900 x £35 — £1,250. Applications giving details of age, qualifications and experience to:—Divisional Chief Staff Officer, National Coal Board, East Midlands Division, Sherwood Lodge, Arnold, N. Nottingham, quoting for (a) S.V. 1083 (b) S.V. 1084, (c) S.V. 1085. 5061

BOROUGH OF HENDON
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
SENIOR ASSISTANT ARCHITECTS—
GRADE A.P.T. V

Applications are invited for the above appointments in the Architectural Section, in which a general reorganization is taking place and new groups are to be formed.

Applicants must be Associate Members of the Royal Institute of British Architects.

Commencing salary according to experience within Grade A.P.T. V (£1,355 to £1,525 including London weighting). The persons appointed will be directly responsible to the Chief Assistant Architect, with opportunity for suitable applicants to act as Group Leaders. Previous experience in school work, housing and redevelopment, or civic buildings, will be an advantage.

Pensionable post, subject to National Scheme and medical examination.

The Council are prepared to consider assistance with housing in circumstances approved by them.

Applications with full details and names and addresses of two referees, must reach the Borough Engineer & Surveyor at the under-mentioned address by Monday, 30th January, 1961. Canvassing will disqualify.

R. H. WILLIAMS,
Town Clerk

Town Hall,
Hendon, N.W.4. 5077

KINGSTON UPON HULL EDUCATION
COMMITTEEAPPOINTMENT OF RESIDENT ENGINEER
FOR THE ERECTION OF THE DAVID LISTER
HIGH SCHOOL, KINGSTON UPON HULL

Applications are invited from suitably qualified men for the post of Resident Engineer for the erection of the David Lister High School, Kingston upon Hull. This new comprehensive school, which will provide accommodation for 1,440 pupils and is estimated to cost about £517,000, is being designed by Messrs. Lyons, Israel and Ellis, Chartered Architects of London, with Messrs. R. J. Samuels & Partners of London as Consulting Engineers. The commencing salary will be at the rate of £1,100 per annum and a site allowance of £150 per annum for a single man or of £200—£250 per annum to a married man depending on the particular circumstances, will be payable to a successful candidate living away from home. The appointment is for a period of about two and a half years commencing in about July, 1961. Application form and further particulars may be obtained from the undersigned to whom completed forms should be returned not later than the 27th January, 1961.

S. W. HOBSON,
Chief Education Officer.

Guildhall,
Kingston upon Hull,
Yorkshire. 4998

ARCHITECTURAL ASSISTANTS (two) required by HAYES and HARTINGTON U.D.C. Salary within Grade A.P.T. II, £815—£960 per annum plus appropriate London 'Weighting.' Candidates should have passed the intermediate examination of the R.I.B.A. and must have good general architectural experience. Five day week. Housing accommodation will be made available for one of the appointments. Further particulars and conditions of service and form of application obtainable from the undersigned, which, when completed must be returned by the 23rd January, 1961.

GEORGE HOOPER,
Clerk and Solicitor.

Town Hall,
Hayes, Middlesex. 5093

BOROUGH OF RICHMOND (SURREY)
APPOINTMENT OF SENIOR ASSISTANT
ARCHITECT

Applications are invited from qualified Architects for the appointment of Senior Assistant Architect at a salary in accordance with Grade A.P.T. IV (£1,140—£1,310) plus London weighting.

Applications should be delivered to the Borough Engineer and Surveyor, King's Road, Richmond, Surrey, not later than 23rd January, 1961, giving the names of three referees and stating relationship, if any, to members of the Council or Senior Officers.

Canvassing prohibited. No assistance can be given with housing.

CLIFFORD HEYWORTH,
Town Clerk.

Town Hall,
Richmond,
Surrey. 5021

BOROUGH OF HENDON
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
SENIOR PLANNING ASSISTANT—GRADE
A.P.T. IV

Applications are invited for the above appointment at a commencing salary according to experience within Grade A.P.T. IV (£1,185 to £1,355 per annum including London weighting).

Applicants should have a good knowledge of planning problems and policy, good general experience of administrative work in dealing with planning applications, and must be suitably qualified.

Pensionable post, subject to National Scheme and medical examination. The Council are prepared to consider assistance with housing in circumstances approved by them.

Applications, with full details and names and addresses of two referees must reach the Borough Engineer and Surveyor, Town Hall, Hendon, N.W.4, by Monday, 30th January, 1961. Canvassing will disqualify.

R. H. WILLIAMS,
Town Clerk

Town Hall,
Hendon, N.W.4. 5076

STATES OF GUERNSEY
STATES ENGINEER'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL
ASSISTANTS

Applications are invited for the posts of ARCHITECTURAL ASSISTANTS in the States Engineer's Department at a salary of £780 rising to £910. Applicants should have passed the Intermediate Examination of the R.I.B.A., and experience with a local authority will be an advantage.

The appointments are subject to the States of Guernsey Conditions of Service and to the successful applicants passing a medical examination. The appointments will be permanent subject to one month's notice on either side.

Particulars of pension and the transfer of Superannuation Acts obtainable on application.

Applications, stating age, qualifications, experience and present and previous appointments, together with the names and addresses of two referees, should be delivered to the States Supervisor, States Office, Guernsey, C.I., not later than Monday, 23rd January, 1961.

5092

CITY AND COUNTY OF KINGSTON UPON
HULL

APPOINTMENT OF CITY ARCHITECT

Applications are invited from persons who must be Registered Architects and either Fellows or Associates of the Royal Institute of British Architects, for the appointment of CITY ARCHITECT to the Council, at a salary scale within the range prescribed by the Joint Negotiating Committee for Chief Officers of Local Authorities, which has been fixed by the Council at £3,150 per annum rising by three annual increments of £125 to a maximum of £3,505 per annum.

Particulars of the appointment and forms on which applications should be made are obtainable from the Town Clerk.

Applications endorsed "City Architect" must reach the Town Clerk, Guildhall, Kingston upon Hull, not later than 20th January, 1961.

J. HAYDON W. GLEN,
Town Clerk.

Guildhall,
Kingston upon Hull.
December, 1960. 4996

BUCKS COUNTY COUNCIL

Applications are invited for the position of ARCHITECT/PLANNER in the office of the County Planning Officer. Salary J.N.C. Scale "B," £1,445—£1,670 p.a. The position offers considerable scope and prospects for man with ideas and experience.

The appointment is superannuable and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms to be obtained from the undersigned, to be returned by 28th January, 1961.

F. B. POOLEY,
County Planning Officer.

County Offices,
Aylesbury,
Bucks. 5056

ORPINGTON URBAN DISTRICT COUNCIL

Applications are invited from suitably qualified Architects for the permanent and established post of ASSISTANT ARCHITECT at a salary in accordance with A.P.T. Grade IV (£1,140—£1,310) plus London weighting allowance.

The Council has an interesting and varied programme of work scheduled for the immediate future, which includes housing of all types including Multi-storey Blocks, Swimming Pool, Crematorium and Flatted Factories, etc.

Housing accommodation will be considered.

Application forms obtainable from me to whom they must be returned not later than 12 noon on Saturday, 21st January, 1961.

L. W. FREEMAN,
Engineer and Surveyor.

Civic Offices,
The Walnuts,
High Street,
Orpington, Kent.
20th December, 1960. 5022

BOROUGH OF ILFORD
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF ASSISTANT ARCHITECT,
GRADE A.P.T. IV

Candidates should preferably have passed the Final Examination of the R.I.B.A. or equivalent, but holders of the Intermediate Examination will be considered.

The commencing salary will be fixed within the scale (£1,140—£1,310 per annum) according to qualifications and experience. London Weighting payable in addition. A five day working week is in operation.

The candidate appointed will be required for work in connection with design and working drawings for new Baths and Public Library at Fulwell Green.

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

THE COUNCIL IS PREPARED TO CONSIDER, IF NECESSARY, THE PROVISION OF HOUSING ACCOMMODATION.

Application forms obtainable from the Borough Engineer, Town Hall, Ilford, should be returned not later than 23rd January, 1961. 5096

BOROUGH OF HESTON AND ISLEWORTH
Applications are invited for the under-mentioned appointments in the Borough Engineer and Surveyor's Department:—

(a) SENIOR PLANNING ASSISTANT.

Salary in accordance with A.P.T. Grades II-III (£815—£1,140 plus London weighting).

(b) PLANNING ASSISTANT.

Salary in accordance with A.P.T. Grades I-II (£645—£960 plus London weighting).

Applicants should have passed the Intermediate examination of the Town Planning Institute or other equivalent and have had experience in a town planning department of a local authority.

Commencing salary to be in accordance with qualifications and experience.

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

Applications are to be submitted by 30th January, 1961, on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88 Lampton Road, Hounslow.

D. MATHIESON,
Town Clerk.

Town Hall,
Hounslow, Middlesex. 5138

**NORTH RIDING COUNTY COUNCIL
ARCHITECTS' DEPARTMENT**

An increase in the Staff Establishment has created opportunities for applicants of initiative and drive, and who prefer to live in the country rather than exist in urban surroundings, for the following appointments in this Department, to work on a varied programme of work for all Committees of the Council:—

QUANTITY SURVEYORS GROUP:

- (a) **CHIEF QUANTITY SURVEYOR, J.N.C.** Grade II. Salary £1,455—£1,670. The successful applicant will be in charge of the Quantity Surveying Section, and for liaison with Private Quantity Surveyors employed by the Department. Must be an A.R.I.C.S.
- (b) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T. III/IV. Salary £960—£1,310. Must be an A.R.I.C.S.
- (c) **ASSISTANT QUANTITY SURVEYOR.** Grade A.P.T. II. Salary £815—£960. Must have A.R.I.C.S. Intermediate Examination or I.Q.S. Final Examination.

ARCHITECTS' GROUP:

- (d) **ASSISTANT ARCHITECT.** Grade A.P.T. III/IV. Salary £960—£1,310. Must be an A.R.I.B.A. with at least three years' experience since passing the examination.
- (e) **ASSISTANT ARCHITECT.** Grade A.P.T. II/III. Salary £815—£1,140. Must have passed the Intermediate Examination of the R.I.B.A., but could be appointed in Grade A.P.T. III if Final Examination of R.I.B.A. has been passed.
- (f) **ARCHITECTURAL ASSISTANT.** Grade A.P.T. I. Salary £645—£815. Intermediate R.I.B.A. or the equivalent at one of the recognised Schools of Architecture.

Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, at the same address, before the 27th January, 1961. 5009

**NORTH RIDING COUNTY COUNCIL
ARCHITECTS' DEPARTMENT**

Applications are invited for the post of **ASSISTANT ARCHITECT, Salary A.P.T. Grade III/IV (£960—£1,310).**

Must be A.R.I.B.A. with at least three years' experience since passing the examination.

Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, by 27th January, 1961. 5076

**NORTH RIDING COUNTY COUNCIL
ARCHITECTS' DEPARTMENT**

ENGINEERS' GROUP:
An Engineers Group to deal with the design of engineering installations and equipment in new and existing buildings of the County Council is about to be formed, and applications are invited from Qualified Engineers. The work will also include the supervision of Engineering Inspectors engaged on the maintenance of existing installations and equipment. Ability to write clear and concise reports for Committees is essential, and the maintenance of good liaison with Private Consultants engaged on County Council projects.

- (a) **HEATING ENGINEER: J.N.C. Grade A/B.** Salary £1,380—£1,670. Candidates must be corporate members of the Institute of Heating and Ventilating Engineers, and must have a sound knowledge of all types of fuel and their comparative costs to advise the County Architect on all matters concerned with not only the design, but also the running maintenance of engineering plant. Point of entry to the Grade depending upon qualifications and experience.
- (b) **ELECTRICAL ENGINEER: J.N.C. Grade A/B.** Salary £1,380—£1,670. Qualifications must be not less than corporate membership of the Institute of Electrical Engineers, and capable of designing complete electrical lighting, heating and power installations for all buildings of the County Council, new and existing, involving H.V. and M.V. distribution and network.

This is an opportunity for applicants who prefer a full life in beautiful countryside to an urban existence.
Conditions of service and application form from R. Allport Williams, M.B.E., B.Arch., F.R.I.B.A., County Hall, Northallerton, and applications to R. A. Wotherspoon, Clerk of the County Council, at the same address, before 27th January, 1961. 5008

THE UNIVERSITY OF LIVERPOOL
Applications are invited from honours graduates in Science, Engineering or Architecture for the post of **LECTURER** in the Department of Building Science. The initial salary will be within the range £1,050—£1,350 per annum, according to age, qualifications and experience.

Applications, stating age, academic qualifications and experience, together with the names of three referees, should be received not later than 31st January, 1961, by the Registrar, from whom further particulars of the conditions of appointment may be obtained. Reference CV/AJ. 5154

**BOROUGH OF SHREWSBURY
ARCHITECTURAL ASSISTANT**

Applications are invited for the post of Architectural Assistant on the permanent staff of the Borough Surveyor at a salary in accordance with A.P.T. III, £960—£1,140 per annum, commencing according to qualifications and experience.

Housing accommodation will be provided and approved removal expenses paid. Five-day week. Varied programme of work in busy office.

Applications, stating age, qualifications and experience, and names of two referees, to be sent to the Borough Surveyor, Guildhall, Shrewsbury, by Wednesday, 18th January, 1961.

S. R. H. LOXTON
Town Clerk 5073

**WEST SUFFOLK COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT**

Applications are invited for the post of **ASSISTANT ARCHITECT on A.P.T. Grade III (£960—£1,140);** commencing salary in accordance with qualifications and experience.

If available housing accommodation may be provided.

Application forms obtainable from the County Architect, 13, Westgate Street, Bury St. Edmunds, to be returned as soon as possible. 5042

BOROUGH OF HAMPSTEAD

require in the Housing Architect's Department (C. E. Jacob, A.R.I.B.A., Housing Architect) the following permanent staff to work on area redevelopment and the design and construction of new houses and flats:—

- (a) **ASSISTANT ARCHITECT (Group Leader)** A.P.T.V £1,310—£1,480 per annum.
- (b) **TWO ASSISTANT ARCHITECTS** A.P.T.IV £1,140—£1,310 per annum.

London Weighting (maximum £45) payable in addition.

Previous local authority experience is an advantage but not essential.

Applications giving details of training, experience and the names of two referees should be sent to the Town Clerk (A.J.), Town Hall, Haverstock Hill, N.W.3, by 20th January, 1961. 5099

**FIFE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT**

DRAUGHTSMEN required. Salary scale: £640—£975 per annum. Placing on the scale may be given according to experience, qualifications, etc.

and consideration may be given to meeting housing requirements. Applications stating age, experience, present position and salary, with copies of recent testimonials by 27th January, 1961 to the County Clerk, County Buildings, Cupar, Fife. No canvassing. 5146

**COUNTY BOROUGH OF EAST HAM
ARCHITECTS**

Applications are invited for the following temporary appointments:—

**Senior
Assistant Architects
Salary £1330 - £1500**

Salaries in excess of the minimum may be paid according to qualifications and experience. The appointments are for work on a new Technical College costing more than £700,000 and are expected to be for a period of not less than two years.

Further details and application forms returnable by 19th January 1961 from the Town Clerk, Town Hall, East Ham, E.6.

**Substantial
Funds Available**

either by way of Mortgage or Purchase on good class residential shop or office property. (Freehold or long leaseholds). Preferably parcels of not less than £50,000.

IDRIS JONES & PARTNERS

F.R.I.C.S., F.A.I.

Abbey House, Westminster, S.W.1.

ABBEY 2636

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE

OFFICE OF THE COUNTY ARCHITECT

Applications are invited for the appointment of a **BUILDING ESTIMATING SURVEYOR** in the Doncaster Divisional Office at Adwick le Street. Candidates should possess a sound knowledge of building construction and have had considerable experience in estimating for all types of small building works and maintenance repairs, including the preparation of approximate bills of quantities for this purpose. Salary grade A.P.T. III (£935 rising to £1,140).

Applications, on forms obtainable from this office, to be returned not later than first post on Tuesday, 31st January, 1961.

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

Bishopgarth,
Westfield Road,
Wakefield. 5222

COUNTY BOROUGH OF BURNLEY

Applications are invited for the appointment of **ASSISTANT ARCHITECT** in the Borough Engineer and Surveyor's Department at a salary in accordance with A.P.T. Grade III/IV (£960-£1,310 per annum), the commencing salary to be fixed in accordance with qualifications and experience.

Form of application may be obtained from the Borough Engineer, 22/24, Nicholas Street, Burnley, to whom applications should be returned not later than Friday, 27th January, 1961.

C. V. THORNLEY,
Town Clerk. 5223

HAMPSHIRE COUNTY COUNCIL

ASSISTANT STRUCTURAL/CIVIL ENGINEER, A.P.T. IV/V (£1,140-£1,480) required for pensionable post in County Architect's Department. Commencing salary according to qualifications and experience. Candidates must be A.M.I.C.E. and/or A.M.I.Struct.E., and have had considerable experience in the design of structures in steel, concrete, and timber and civil engineering works, associated with schools and other public buildings. Five-day week, canteen facilities. Separation allowance and assistance with removal expenses in approved cases.

Application forms, returnable by 23rd January, from the Clerk of the County Council, The Castle, Winchester. 5227

SURREY COUNTY COUNCIL

Applications invited for following appointments—

GRADE IV (£1,140-£1,310 p.a. plus £45 p.a. London Allowance).

Approved removal expenses will be paid to successful candidates in this Grade.

ARCHITECTS. Must be A.R.I.B.A. and have had experience in preparation of drawings and specifications, and be capable of assuming responsibility for medium to large scale contracts.

GRADE II (£815-£960 p.a. plus up to £40 p.a. London Allowance).

ARCHITECTURAL ASSISTANTS. Must be of good general training, preference given those who have passed Intermediate R.I.B.A.

Candidates will be appointed at the appropriate point within the scale according to age and ability. Full details, present salary and three copy testimonials to County Architect, County Hall, Kingston, as soon as possible. 5230

CITY OF SHEFFIELD

Applications are invited for the following posts on the staff of the Estates Surveyor, Mr. W. H. Rothwell, B.Sc., F.R.I.C.S.:—

JUNIOR TECHNICAL ASSISTANTS
Grades A.P.T. I (£645-£815) or A.P.T. II (£815-£960).

Commencing salary within the above grades according to qualification and experience.

Applicants must have completed professional training and/or should have passed the R.I.C.S. Intermediate Examination or its equivalent in an appropriate branch.

Experience in one or more of the following is essential: the surveying of land and buildings and general site management; Property Management, particularly repair and maintenance of all classes of property and/or negotiation of leases and tenancies; Agricultural Management, particularly settlement of tenantright compensation and dilapidations; Mine and surface survey, levelling for subsidence data and proving of sites.

The posts are superannuable, subject to N.J.C. conditions of service and to medical examination. Applications stating name, address, age, qualifications, experience, previous and present positions with dates and salaries and the names and addresses of two referees, should be addressed to the undersigned.

JOHN HEYS,
Town Clerk. 5232

TOWN HALL, SHEFFIELD, 1.

HAMPSHIRE COUNTY COUNCIL

ARCHITECTURAL ASSISTANTS, A.P.T. II/III (£815-£1,140) required for pensionable posts in County Architect's Department. Candidates should have passed the Intermediate Examination of the R.I.B.A. and have had several years experience, preferably in the office of a Local Authority. The commencing salary will be determined by qualification and experience. Separation allowance and assistance with removal expenses in approved cases. Five-day week.

Application forms, returnable by 18th January, from the Clerk of the County Council, The Castle, Winchester. 5123

COUNTY COUNCIL OF ROSS AND CROMARTY COUNTY ARCHITECT'S DEPARTMENT

Applications are invited from qualified Architects for an appointment as **SENIOR ASSISTANT ARCHITECT** in the Dingwall Office of the County Architect on salary scale £1,039 10s.—£1,228 10s.

Housing accommodation will be provided.

Applicants must be Associates of the Royal Institute of British Architects.

Applications giving details of training and experience with attached copies of three recent testimonials should be lodged with Peter S. Leask, A.R.I.B.A., A.M.T.P.I., County Architect, Tulloch Street, Dingwall, not later than Saturday, 21st January, 1961.

W. D. ROSS,
County Clerk

County Buildings,
Dingwall, 5237

LANCASHIRE COUNTY COUNCIL

PLANNING ASSISTANTS required at WIGAN, salary within range £945-£1,145. The commencing salary will be according to qualifications and experience.

Applicants should be studying for or possess a recognised qualification in architecture, surveying, engineering and/or town planning.

Applications giving age, qualifications, present appointment, experience, etc., and two referees, to the County Planning Officer, East Cliff County Offices, Preston, by the 23rd January, 1961. 5240

SHIPLEY URBAN DISTRICT COUNCIL

APPOINTMENT OF ARCHITECTURAL ASSISTANTS

Applications are invited from appropriately qualified persons for the above appointments within A.P.T. Grades II/IV (£815-£1,310), the commencing salary being fixed according to experience and qualifications. The posts are superannuable and subject to provisions of the National Scheme of Conditions of Service.

Housing accommodation will be provided if required.

Applications giving age, details of training, qualifications and experience, together with the names and addresses of two referees, to be sent to the Surveyor, Town Hall, Shipley, Yorkshire, by Friday, 27th January, 1961.

ERNEST PEARS,
Clerk and Solicitor.

Town Hall,
Shipley,
Yorkshire. 5238

BOROUGH OF SOUTHGATE

BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT

ASSISTANT ARCHITECTS

Applications are invited for the following appointments in the Department of the Borough Engineer and Surveyor:

(a) A.P.T. Grade IV, £1,140-£1,310 plus London weighting.

(b) A.P.T. Grade III, £960-£1,140 plus London weighting.

The posts are permanent and superannuated and the starting salary will be fixed in accordance with qualifications and experience. Applicants should be Associates of the Royal Institute of British Architects or hold other equivalent qualifications.

The Council has a large programme of building works including major extensions of schools, an Indoor Swimming Pool and housing.

Forms of application may be obtained from the Borough Engineer and Surveyor, and should be returned to the undersigned not later than 12 noon on Monday, 30th January, 1961.

Canvassing, directly or indirectly, will be a disqualification.

GORDON H. TAYLOR,

Town Clerk.

Town Hall,
Palmer's Green,
London, N.13. 5242

BOROUGH OF BACUP

APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment in the Borough Engineer's Department. Salary A.P.T. Grade III (£960-£1,140).

Candidates should be energetic and imaginative, and preference will be given to those having passed Parts 1 and 2 of the R.I.B.A. Examination or equivalent.

Housing accommodation will be provided, if necessary.

Application forms obtainable from me. Closing date, 20th January, 1961.

A. D. BOND,

Town Clerk.

Municipal Offices,
Bacup. 5143

SPALDING RURAL DISTRICT COUNCIL

ARCHITECT'S DEPARTMENT

ARCHITECTURAL ASSISTANT required. Salary A.P.T. II of the National Scale (£815 to £960). Superannuation. Medical Examination. House available. One half of removal expenses paid.

Must be competent draughtsman with sound knowledge of construction and detailing.

Application with names of two referees to the Clerk of the Spalding Rural District Council, Priory Road, Spalding, not later than 20th January, 1961.

G. S. ASHWORTH,

Clerk of the Council. 5161

STAFFORDSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

APPOINTMENT OF ASSISTANT CHIEF

INSPECTOR OF BUILDINGS

Grade A.P.T. III/IV

Applications are invited for the above from persons with considerable knowledge of all branches of the building trade. Experience with a Local Authority and in supplying information for Committees will be an advantage, as also will the possession of the R.I.C.S. (Building Section) or the L.I.O.B. qualification, or similar. The commencing salary will be within Grade A.P.T. III (£960 per annum, rising to £1,140 per annum) and progression to Grade IV will be subject to the approval of the Committee when the maximum of Grade III is reached.

The post is in a busy section, responsible for the maintenance of all County properties and the supervision of some small capital works.

The officer appointed will be an Essential Car User; the Council has a scheme for loans towards the purchase of motor vehicles. The Council are also prepared to give consideration to the granting of financial assistance towards removal expenses, in appropriate cases; and has a scheme for loans to employees wishing to purchase their own houses.

The appointment is under the National Scheme of Conditions of Service, the Local Government Superannuation Acts, and the passing of a medical examination.

Forms of application, which must be returned by Monday, 30th January, 1961, may be obtained from P. Woodcock, F.R.I.B.A., County Architect, Green Hall, Lichfield Road, Stafford.

T. H. EVANS,

Clerk of the County Council. 5176

NORTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD

CLERK OF WORKS (senior) required to supervise the erection of a new hospital at Wexham Park, Slough. The contract is expected to start between January and March, 1961, and to last three to four years. Candidates must have a thorough knowledge of all building trades in a multi-storey building having reinforced concrete frame and have had considerable experience in projects of similar size and value.

Salary within scale of £900 + £40 (5) + £50 (1) to £1,050 p.a. plus special allowance of £150 p.a. Apply, giving age, qualifications and experience with the names of two referees, preferably employers, to the Secretary, North West Metropolitan Regional Hospital Board, 40, Eastbourne Terrace, London, W.2, quoting reference 881 by 23rd January. 5139

STAFFORDSHIRE COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

VACANCIES

ASSISTANT ARCHITECT (Group Leader)

Salary range £1,310-£1,480.

ASSISTANT ARCHITECTS

Salary ranges £1,140-£1,310, £960-£1,140.

Prospect of progression between Grades subject to satisfactory service and Committee approval.

ARCHITECTURAL ASSISTANTS

Salary range £815-£960.

The commencing salary within each grade will be commensurate with qualifications and experience.

The Architect's Department is a busy and expanding office, offering valuable experience within groups working on a wide variety of projects, including Fire Stations, Colleges, Schools, Police Stations, Offices, Ambulance Stations, Clinics, Libraries, Hostels, etc.

The Council may be able to assist with housing accommodation in cases of need.

Good working conditions, assistance with removal expenses, paid entry training, etc.

Forms of application from P. Woodcock, F.R.I.B.A., County Architect, Green Hall, Lichfield Road, Stafford.

Closing date 21st January, 1961.

T. H. EVANS,

Clerk of the County Council. 5129

HUNTINGDONSHIRE

COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

(a) ARCHITECTURAL ASSISTANTS, Grade A.P.T. IV (£1,140-£1,310).

Applicants will require to have passed the Final examination of the Royal Institute of British Architects.

(b) ARCHITECTURAL ASSISTANTS, Grade A.P.T. III (£960-£1,140).

(c) ARCHITECTURAL ASSISTANTS, Grade A.P.T. II (£815-£960).

Application forms and further particulars may be obtained from The County Architect, County Buildings, Huntingdon, and completed forms should be returned to the undersigned by the 31st January, 1961. Applicants should state for which post they wish to apply.

A. C. AYLRARD,

Clerk of the County Council. 5219

EDINBURGH COLLEGE OF ART

Applications are invited for the post of

ASSISTANT in the School of Architecture.

Candidates must be Associate Members of the Royal Institute of British Architects: Salary Scale £1,025 + £50-£1,575.

Form of application and conditions of appointment can be obtained from the Secretary, Edinburgh College of Art, Lauriston Place, Edinburgh, 3, to whom applications should be submitted not later than 21st January, 1961. 5251

**CITY AND COUNTY OF
NEWCASTLE UPON TYNE
CITY ARCHITECTS' DEPARTMENT**
Applications are invited for the appointment of LANDSCAPE ARCHITECT in the J.N.C. Scale "A" (£1,365-£1,565 per annum).

Applicants should be Associate Members of the Institute of Landscape Architects, and will be considered on their ability in design, experience and capacity to carry out creative work in one of the most ambitious programmes currently being undertaken in the country.

The successful applicant will be required to prepare comprehensive schemes of Landscaping for the New Town Hall, the Education Precinct in the central area of the City (which will be the largest development of its kind in the country), the major Redevelopment Areas, normal Housing Estates inside and outside the City boundaries, and such other projects as may be undertaken by the Department.

Candidates should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
30th December, 1960. 5128

**SOUTH-EASTERN REGIONAL HOSPITAL
BOARD, SCOTLAND**
Applications are invited for the following superannuated posts in the Regional Architect's Division, Edinburgh.

ASSISTANT REGIONAL ARCHITECT, £1,825 x £75 (2) x £102 (2)—£2,175. To be registered architect possessing considerable design skill not necessarily in hospital work. This is an opportunity for an enthusiastic young man interested in progressive design to be associated with large scale projects.

PRINCIPAL ASSISTANT ARCHITECT (Furnishings), £1,665 x £50 (1) x £75 (2) x £85 (2)—£2,035. To be registered architect and possessing ability in the design and selection of furnishings for hospital buildings. The successful candidate will be expected to liaise with architects and hospital staff in the development of interiors.

SENIOR ASSISTANT ARCHITECT, £1,300 x £60 (5)—£1,600. To be registered architect.

ASSISTANT ARCHITECT, £905 x £35 (1) x £45 (6) x £50 (2)—£1,310. To be registered architect.

ARCHITECTURAL ASSISTANTS, £625 x £30 (8) x £35 (1)—£900. To be of R.I.B.A. Intermediate standard.

Application forms for Assistant Regional Architect and Principal Assistant Architect may be obtained from the Regional Architect, 18, Rothesay Terrace, Edinburgh.

Applications for all other appointments should state age, experience, training, previous offices and the names and addresses of two persons to whom reference can be made and be forwarded to the Regional Architect within 7 days of this advertisement. The placing on the salary scale will depend on previous experience and ability.

**BOSTON RURAL DISTRICT COUNCIL
ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointment, commencing salary Step 3 Grade A.P.T. I (£710), with essential user travelling allowance for car not exceeding 1,199 c.c., subject to Local Government Superannuation Acts and National Scheme of Conditions of Service.

Candidate should have experience of local authority housing schemes.

Applications, giving full details with names of two referees, should reach me not later than 31st January, 1961.

S. M. FORMAN,
Clerk of the District Council.

126, London Road,
Boston, Lincs. 5179

**METROPOLITAN WATER BOARD
have vacancies for
ARCHITECTURAL STAFF**

ASSISTANT ARCHITECTS
£1,180-£1,300 per annum. Commencing salaries according to age and experience. Corporate membership of R.I.B.A. required. Provision of housing accommodation would be considered.

TECHNICAL ASSISTANT
£730 (at 21)—£1,110 per annum. Intermediate R.I.B.A. required. Permanent pensionable posts offering interesting work and good conditions.

Forms of application, including further particulars, from the undersigned (quoting ref. AJ and position applied for) to be returned by 27th January, 1961.

S. D. ASKEW,
Clerk of the Board.

New River Head,
Rosebery Avenue, E.C.1. 5191

**DEVON COUNTY COUNCIL
ASSISTANT DIVISIONAL PLANNING
OFFICER**

DARTMOOR NATIONAL PARK
Applications are invited for the above post at Exeter on A.P.T. III (£960-£1,140) with essential car user allowance. Should be A.M.T.P.I. but architectural or landscape qualification with some planning experience will be considered. House purchase and removals loans are available.

Forms of applications, giving further details and returnable by 20th January, 1961, from County Planning Officer, "Bellair," Topsham Road, Exeter, Devon. 5218

**COUNTY BOROUGH OF WEST HAM
BOROUGH ARCHITECT AND PLANNING
OFFICER'S DEPARTMENT**

Appointment of Group Architect, A.P.T. V (£1,310-£1,480 p.a.).

Applications are invited for the above permanent appointment in the Schools and Public Buildings Section of the Department. The post carries a London Allowance of £45 p.a. and the appointment may be made at a point within the salary range depending on qualifications and experience.

The successful applicant will be required to take part, within the section, in a large and varied programme of Schools and Public Buildings and will be expected to have a sound knowledge of contemporary design and construction related to this class of work.

Applications giving full details and names of two referees should be sent to Thomas E. North, O.B.E., F.R.I.B.A., Dist.T.P., M.T.P.I., 70 West Ham Lane, Stratford, E.15, by first post on 28th January, 1961. 5182

BOROUGH OF SCUNTHORPE
(Expanding town—63,000 population; area—7,895 acres; R.V.—£1,562,541).

Applications are invited for the post of SENIOR ASSISTANT ARCHITECT, Grade A.P.T. IV (£1,140-£1,310 per annum) in the Borough Engineer and Surveyor's Department. Applicants should be qualified Architects and have a good experience of architectural practice and procedure. Local Government experience is not essential and the commencing salary will be fixed within the scale according to qualifications and experience.

Housing accommodation available, if required, approved removal expenses reimbursed in full, 5-day working week.

Applications, stating age, details of present and past appointments, training, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, should be sent to F. J. Bowyer, Esq., Borough Engineer and Surveyor, Borough Surveyor's Department, Laneham Street, Scunthorpe, on or before Thursday, 26th January, 1961.

T. M. LISTER,
Town Clerk.

Municipal Offices,
34, High Street,
Scunthorpe
2nd January, 1961. 5183

**BOROUGH OF SWINDON
SENIOR ASSISTANT ARCHITECT**
A.P.T. IV (£1,140-£1,310)

Applications are invited for the above appointment in the Borough Architect's Department. The Department is engaged in a large and varied programme of development, including housing schemes, neighbourhood shopping centres, civic works and industrial buildings.

Applicants must have passed the Final Examination of the Royal Institute of British Architects and have had appropriate general experience.

Housing accommodation and assistance with removal expenses may be offered.

Applications, on forms to be obtained from the Town Clerk, Civic Offices, Swindon, must be returned by 24th January, 1961. 5216

**GLOUCESTERSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT**

Applications are invited for the following appointments:—

(a) SENIOR ASSISTANT ARCHITECTS, Grade "C" (£1,560-£1,825 p.a.). Applicants must be Registered Architects and Associate Members of the R.I.B.A. and have held a responsible architectural position with a major local authority for a number of years.

(b) ASSISTANT ARCHITECTS—"CAREER CLASS", commencing in A.P.T. IV (£1,140-£1,310 p.a.) progressing to A.P.T. V (£1,310-£1,480 p.a.), subject to satisfactory report on reaching appropriate incremental point in Grade. Applicants must be registered Architects and Associate Members of the R.I.B.A.

(c) ARCHITECTURAL ASSISTANTS—"QUALIFYING CLASS". Vacancies exist in the following grades:—A.P.T. I, salary £645-£815 p.a.; A.P.T. II, £815-£960 p.a.; A.P.T. III, £960-£1,140 p.a.; A.P.T. IV, £1,140-£1,310 p.a.

Applicants for posts in Grades I and II should have passed the Intermediate Examination of the R.I.B.A.; and for Grades III and IV the full R.I.B.A. Final Examination.

J.N.C. Conditions of Service will apply to posts (a) and N.J.C. Conditions of Service to posts (b) and (c). All posts are superannuable, subject to satisfactory medical examination, and are terminable by one month's notice on either side.

Applications stating age, present position and salary details of previous appointments, together with the names and addresses of two persons for reference, must reach the County Architect, Shire Hall, Gloucester, by 21st January, 1961.

GUY H. DAVIS,
Clerk of the County Council. 5217

**HAMPSHIRE COUNTY COUNCIL
ASSISTANT ARCHITECT, A.P.T. II (£815-£960)**

required for pensionable post in County Architect's Department. Candidates should have passed the Intermediate Examination of the R.I.B.A. Separation allowance and assistance with removal expenses in approved cases. Five-day week.

Application forms, returnable by 23rd January, from the Clerk of the County Council, The Castle, Winchester. 5186

**BOROUGH OF AYLESBURY
CONSULTANT ARCHITECT'S DEPARTMENT**

Applications are invited from suitably qualified persons for the following permanent posts:—

(a) ASSISTANT ARCHITECTS (within A.P.T. V, £1,310-£1,480).

(b) ASSISTANT ARCHITECTS (within A.P.T. IV, £1,140-£1,310).

(c) ASSISTANT QUANTITY SURVEYOR (within A.P.T. V, £1,310-£1,480).

(d) ASSISTANT QUANTITY SURVEYOR (within A.P.T. IV, £1,140-£1,310).

The Council has embarked on a scheme of town expansion under the Town Development Act 1952 for the acceptance of industry and population from the greater London area entailing a considerable architectural programme including the provision of new Civic Buildings, town centre shopping facilities, industrial and housing development.

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

It has been the Council's policy in the past to give favourable consideration in appropriate cases to the provision of housing accommodation to successful candidates upon payment of the prescribed rent.

Applications giving the names of two referees should be sent to F. B. Pooley, F.R.I.B.A., Consultant Architect to the Borough Council, 1, Church Street, Aylesbury, Bucks, not later than 30th January, 1961.

R. D. W. MAXWELL,
Town Clerk.

Town Hall,
Aylesbury, Bucks. 5162

**BIRMINGHAM REGIONAL HOSPITAL
BOARD**

SENIOR ASSISTANT QUANTITY SURVEYORS

Salary scale £1,300 to £1,600.
Qualification: Corporate Membership R.I.C.S. (Arch. 23).

ASSISTANT QUANTITY SURVEYORS

Salary scale £905 to £1,310.
Qualification: Corporate Membership R.I.C.S. (Arch. 24).

All posts superannuable. Five-day week. Applications (quoting appropriate reference) stating qualifications, age, experience, present position and salary and names of two referees to Secretary, Birmingham Regional Hospital Board, 10, Augustus Road, Birmingham, 15, by 30th January, 1961. 5164

**BOROUGH OF CASTLEFORD
APPOINTMENTS IN THE BOROUGH
ARCHITECT'S DEPARTMENT**

Applications are invited for the following appointments:—

DEPUTY BOROUGH ARCHITECT. Salary Grade A.P.T. III/IV (£960-£1,310). Applicants must be Associate Members of the Royal Institute of British Architects and have had some years' practical experience.

ARCHITECTURAL ASSISTANT. Salary A.P.T. II (£815-£960). Applicants should have passed the Intermediate Examination of the R.I.B.A. or its equivalent at one of the recognised Schools of Architecture.

N.J.C. Service Conditions; superannuable; terminable on one month's notice on either side. The successful applicant will be required to pass satisfactorily a medical examination.

Housing accommodation, if required, for successful married applicants.

Applications on forms obtainable from me, to be returned by 9 a.m. on Thursday, the 26th January, 1961.

Canvassing disqualifies.
ERNEST HUTCHINSON,
Town Clerk.

Town Hall,
Castleford. 5165

**NORFOLK COUNTY COUNCIL
PLANNING DEPARTMENT
APPOINTMENT OF
ARCHITECTURAL ASSISTANT**

Applications are invited from young men for appointment to the above post within the salary scale £645-£935 p.a. (starting point according to experience and qualifications).

The post, in the design team of the Department, offers scope and opportunity of work of an extremely varied and interesting nature and prospects of promotion.

A qualification in architecture would be an advantage, but partially qualified persons will be considered and every encouragement, both financial and otherwise, will be given to any such person appointed towards the attainment of a full qualification.

The National Scheme of Conditions of Service for Local Authorities Professional and Technical Services apply.

Applications to be submitted by the 20th January, 1961, to the undersigned, from whom further particulars may be obtained if desired.

R. I. MAXWELL,
County Planning Officer.

41/43, Thorpe Road,
Norwich, NOR. 02T. 5172

**ROYAL BOROUGH OF KENSINGTON
ARCHITECTURAL ASSISTANT. Salary £1,005**

£1,355 per annum. Borough Engineer & Surveyor's Department. Applicants must be fully qualified. Applications stating age, qualifications, etc. with names of two referees, to reach Town Clerk, Town Hall, Kensington, W.8, by 25th January, 1961. 5170

ARCHITECT'S DEPARTMENT CAMBERWELL BOROUGH COUNCIL

vacancies occur in the following grades
for architects to carry out an interesting
building programme

A.P.T. V. £1,355-1,525 p.a.

A.P.T. IV. £1,185-1,355 p.a.

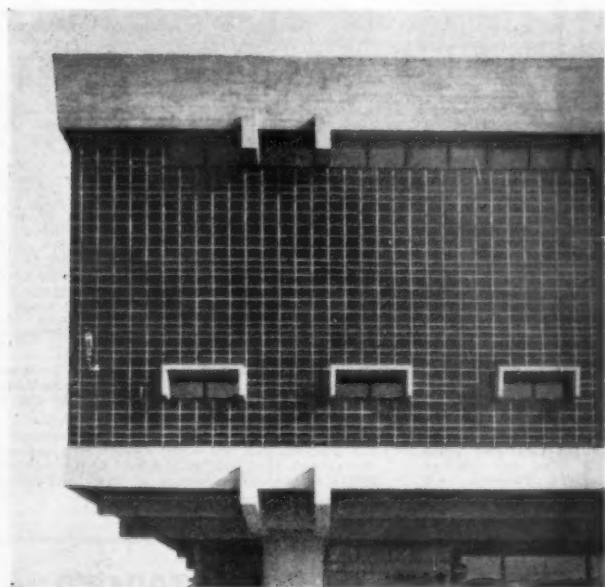
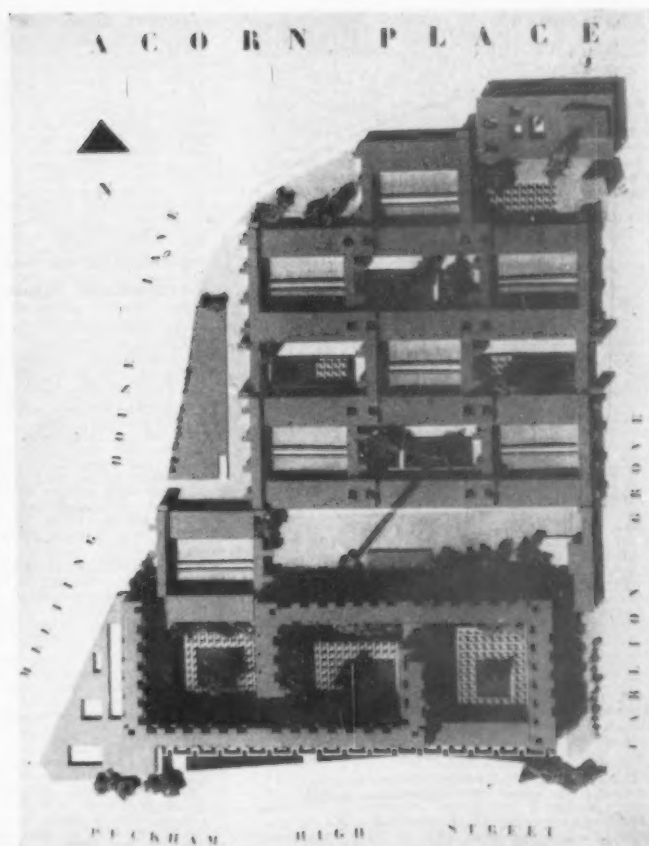
A.P.T. III. £1,005-1,185 p.a.

vacancies also occur in the following grade
for assistants who have passed in all subjects,
except professional practice,
for the Associateship of the R.I.B.A.

A.P.T. II. £855-1,000 p.a.

Application forms from the Town Clerk,
Town Hall, Camberwell, S.E.5.

Applications to be returned by the
30th January 1961



New Japanese Architecture

by Udo Kultermann

The Architectural Press

9-13 Queen Anne's Gate, London, S.W.1.

Western opinion has an ideal image of modern Japanese architecture: spare, elegant, informal. While the work of Junzo Sakakura seemed to support this, there is an increasing awareness that in Kenzo Tange Japan possesses an architect who probably ranks with the world's top ten, but practises an entirely different kind of architecture.

Dr Kultermann's book shows how different the work of Tange and other leading Japanese architects has turned out to be. It is not afraid of mass, thickness and solidity; not afraid of bold plastic and sculptural forms; not afraid to mate the most advanced technology with the most hallowed traditional usages.

All these qualities are brought out in dramatic photographs, backed by analytical texts and biographies of leading architects. Since some of these men were born within a few years of Mendelsohn and Le Corbusier, the modern architecture of Japan rests on a tradition almost as old as that of the West. As a result, Japan's new architecture has nothing unpractised or unconvincing about it, but is already so secure in its aims that the Japanese themselves speak of it not as a foreign importation, but simply as the re-awakening of Japanese architecture.

Size $11\frac{1}{4} \times 8\frac{3}{4}$ ins. 212 pages. 180 half-tone illustrations.
63s. net. Postage 2s.

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

ASSISTANT QUANTITY SURVEYOR
GRADE A.P.T. III—SALARY £960 to £1,140.
Applicants should be suitably qualified, and should have had sound experience in preparing Bills of Quantities, Interim Valuations and Final Accounts for housing and other building works. Applications stating age, experience, present position, together with the names of two referees, to be sent to the Architect and Housing Director, "Grasscroft," Archway Road, Haysdon, by the 30th January, 1961.
Canvassing disqualifies.

D. WILLGOOSE,
Clerk to the Council.

Council Offices,
Derby Road,
HUYTON.

5185

FULHAM BOROUGH COUNCIL BOROUGH ARCHITECTS' DEPARTMENT
ASSISTANTS required within the salary scales £645-£1,140 plus £25-£45 London weighting. Minimum requirements two years' continuous office experience and probationer of R.I.B.A. Commencing salary according to experience and qualification. Assisted training and promotion schemes. Five-day week. Details from Town Clerk, Town Hall, Fulham, S.W.6. Closing date 23rd January, 1961.

5171

HERTFORDSHIRE COUNTY PLANNING DEPARTMENT
PLANNING ASSISTANT (A.P.T. IV, £1,140-£1,310 per annum). Vacancy is in the West Divisional Office, Clarendon Road, Watford. Good experience in Development Control. Preferably with A.M.T.P.I. or equivalent qualification. Motor car required for which allowances will be paid. Application forms from: The County Planning Officer, County Hall, Hertford. Returnable by 21st January, 1961.

5178

COUNTY BOROUGH OF SUNDERLAND BOROUGH ARCHITECTS' DEPARTMENT
Applications are invited from persons holding appropriate professional qualifications for the following permanent posts:—

- (a) ASSISTANT ARCHITECTS (3 vacancies)—J.N.C. Scale "B" (maximum £1,670 per annum).
- (b) ARCHITECTS-IN-CHARGE (4 vacancies)—J.N.C. Scale "A" (maximum £1,565 per annum).

Applicants should have had considerable design and administrative experience on either housing, education, or other types of large public building work and will be required to design and work on these projects to completion. Appointee's removal expenses and lodging allowance payable and a generous Corporation mortgage advance obtainable for house purchase.

Application Forms, together with details of the Corporation's extensive building programme and the duties involved, obtainable from Borough Architect, Grange House, Stockton Road, Sunderland, and returnable to me not later than 28th January, 1961. Canvassing will disqualify.

G. S. MCINTIRE,
Town Clerk.

5246

ROYAL BURGH OF DUMFRIES AMENDED ADVERTISEMENT DEPUTY BURGH ARCHITECT
Applications are invited from Qualified Architects, preferably with experience in Redevelopment Work.

The appointment, within the Salary Scale £1,235-£1,300 (i.e., £100 in excess of Admin. Grade D of the N.J.I.C. Scheme) will be subject to the Town Council's Superannuation Scheme and N.J.I.C. Conditions of Service, and the successful applicant will require to pass a medical examination.

If required, the tenancy of a Council house will be given to the successful applicant.

Applications, stating age, qualifications and experience, together with copies of three recent testimonials, or the names of three referees, should be lodged with the undersigned not later than 24th January, 1961.

GEORGE D. GRANT,
Town Clerk

Municipal Chambers,
Dumfries.
15th January, 1961.

5247

COUNTY BOROUGH OF BIRKENHEAD BOROUGH ARCHITECTS' DEPARTMENT
TWO CHIEF ASSISTANT ARCHITECTS—Salary Scale "A" (£1,300-£1,565). Applicants must be fully qualified and capable of taking charge of a variety of interesting work.
TWO ASSISTANT QUANTITY SURVEYORS—Salary A.P.T. III/IV (£960-£1,310). Applicants must be fully qualified.

The appointments are supernumerary and subject to one month's notice. Consideration given to housing accommodation or up to 100% mortgage. Application form from Borough Architect, 3, Conway Street, Birkenhead, to be returned by 23rd January, 1961. Relationship to Members or Senior Officers of the Council must be disclosed.

5245

Architectural Appointments Vacant

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

HOWARD V. LOBB & PARTNERS require ASSISTANT ARCHITECTS. Salaries would be between £750 and £1,250 per year. Please write to 20, Gower Street, London, W.C.1.

3540

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

2960

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

9824

WEST END OFFICE requires ASSISTANT ARCHITECTS of Final and Intermediate standards for interesting Industrial projects in Home Counties. Good salaries offered to men with initiative and ability. Bonus Scheme, five-day week, holiday arrangements honoured. Box 2039.

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

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

7282

SIR JOHN BURNET, TAIT & PARTNERS have vacancies for ARCHITECTURAL ASSISTANTS of all grades. Salaries ranging from £1,000 to £1,500 per annum. Luncheon vouchers. Pension and Medical schemes (non-contributory). Telephone LANGham 3826 for appointment.

2113

SENIOR ASSISTANTS required immediately. Salary by arrangement. Theo. H. Birks, 38, Portland Place, London, W.1. LAN 7235.

1486

ASSISTANT ARCHITECTS required for staffing a new office opening in Southampton for work on interesting projects including University, War Department and Ecclesiastical programmes. Juniors also required. Apply stating age, qualifications, experience and salary required to Robert Potter, F.R.I.B.A., & Richard Hare, R.Arch., A.R.I.B.A., De Vaux House, Salisbury.

3167

BOOTH, LEDEROER AND PINCKHEARD require ASSISTANTS in the salary range £750-£1,250. Apply 17-20, Mason's Yard, Duke Street, St. James's, S.W.1. Tel.: TRAFalgar 1856.

3119

INTERMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks, 38, Portland Place, London, W.1. LAN. 7235.

9739

EXPERIENCED ARCHITECTURAL ASSISTANT required for busy West End office. General practice but mainly office and commercial projects. Bernard Gold & Partners, 4/6, Savile Row, W.1. REGent 7551.

3742

A VACANCY occurs in the West End Branch of large provincial Architectural Practice, for an ASSISTANT at Intermediate standard. The post offers considerable scope on varied projects. Five-day week. Luncheon Vouchers. Write giving particulars of age, experience and salary required to Box 4135.

SENIOR ASSISTANT ARCHITECTS required immediately for a wide variety of interesting work. Applicants should be experienced in all aspects of modern building design and construction. Attractive remuneration to right men capable of working on own initiative under ideal conditions for self expression. Preference given to men over 45 years of age although all applications will be considered on merit irrespective of age. Applications should be made in writing, to Kenneth F. Masson, Esq., A.R.I.B.A., Chief Architect, S.C.W.S. Ltd., Architectural Division, 76, Morrison Street, Glasgow, C.5.

4152

A QUALIFIED ARCHITECTURAL ASSISTANT required immediately in Home Counties office. Successful applicant will have the opportunity of working on widely varying industrial, commercial and housing schemes. Five-day week. Write full particulars to Box 4136.

C. H. ELSOM & PARTNERS need experienced ARCHITECTS for a wide range of public and commercial projects. VICTORIA 4304, 10, Lower Grosvenor Place, W.1.

4271

INTERMEDIATE to FINAL STANDARD. Expanding practice engaged large scale commercial projects requires ARCHITECTURAL ASSISTANTS with design and supervision initiative. Good salaries according to capabilities. Five-day week. L.V.s. Raymond Spratley & Partners, 9, Hertford Street, Park Lane, W.1. GRO 1532.

4306

WATKINS, GRAY & PARTNERS, 57, Catherine Place, S.W.1, require ASSISTANTS of Intermediate and Final standards for work on large hospital projects. Excellent opportunities for those seeking first hand experience in this most interesting and rapidly developing field. Luncheon vouchers and pension scheme in operation. Write giving full particulars. 4233

TWO first class ARCHITECTURAL ASSISTANTS required. Salary range £1,250-£1,750 p.a. depending upon experience. Write with fullest details of experience. Box 4227.

QUALIFIED ARCHITECTS looking for some really interesting new work should apply to George, Trew and Dunn at their new offices, 50, Eastbourne Terrace, W.2.

4598

ARCHITECTURAL ASSISTANTS who are looking for some really interesting work where wide experience can be gained, should apply to George, Trew and Dunn at their new offices, 50, Eastbourne Terrace, W.2.

4599

CHIEF ARCHITECT of Expanding Architects Development Company requires

SENIOR ARCHITECTURAL ASSISTANTS at new Headquarters Building in Ealing, for work on Industrial and Commercial Projects. Keenness and experience essential. Good salaries paid. Five-day week. Luncheon vouchers. Pension scheme available. Please state age, experience and salary required to Box 4697.

STOP THAT COMMUTING! To ARCHITECTS in West Sussex we offer work on a wide variety of West African projects, prospects of service abroad, and £1,000 per annum. Apply in writing to Tecnic, Architects and Town Planners, 38 Sudley Road, Bognor Regis.

4698

ROBERT MATTHEW & JOHNSON-MARSHALL have vacancies in their London office for ARCHITECTS at all levels of experience for a variety of interesting jobs. Apply to Robert Matthew & Johnson-Marshall, 24, Park Square East, N.W.1.

4734

SENIOR ASSISTANT required by Architects in West End to deal with the administration of building contracts. Salary £20-£25 per week. Reply Box 4785.

SENIOR, Experienced ASSISTANT required in growing practice with varied work extended throughout the country. Good salary commensurate with ability. Stanley R. Nevell & Partners, Abbey 3971.

5078

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TODAY'S SLATE AND TOMORROW'S WINGCLATE

INTERMEDIATE standard, office-trained ASSISTANT required immediately for small expanding office. Very varied programme of work and congenial atmosphere. Ability to work on own initiative essential. Salary by arrangement. Apply: **RAYMOND J. CECIL**, Dip. Arch., A.R.I.B.A., 3, Mill Street, Hanover Square, W.1. MAYfair 6574. 4803

ARCHITECTURAL ASSISTANTS required for busy London practice with interesting and varied work such as Power Stations, Schools, Offices, Churches, etc. Salary from £700-£1,100, depending on qualifications and experience, plus luncheon vouchers. Please write, giving full details, to Box 4854.

LOUIS DE SOISSONS, PEACOCK, HODGES, ROBERTSON AND FRANK require competent ASSISTANTS; good salaries will be offered to suitable applicants. Applications giving details of age, training and experience should be sent to 12 Baring Crescent, Exeter. 5065

SMALL office in Victoria has a vacancy for a **SENIOR ASSISTANT ARCHITECT**. The work consists mainly of Office Buildings, Factories and Supermarkets. Only experienced Architects should apply. Salary £1,200 to £1,400 according to ability. Telephone **SLOANE 0833**. 5088

BUSY London office has a vacancy for an **INTERMEDIATE ASSISTANT** anxious to gain experience in the busy-busy of modern architecture. Telephone **SLOANE 0833**. 5089

INTERMEDIATE to Final standard **ARCHITECTURAL ASSISTANTS** required for varied work of an industrial nature. Superannuation Scheme, Luncheon Vouchers and good salaries for the right men. Telephone Mr. W. S. A. Williams at **WATERLOO 5688** for an appointment. 5091

SCHERRER AND HICKS, 19 Cavendish Square, W.1, require **ARCHITECTURAL ASSISTANTS** of Intermediate standard with some office experience. Interesting work on school projects. 5-day week. L.V.s. 5105

SCHERRER AND HICKS, 19 Cavendish Square, W.1, require recently qualified **ARCHITECT** with some office experience. Interesting work on school projects. 5-day week. L.V.s. 5106

EDWARD D. MILLS & PARTNERS require additional staff at varying levels for a variety of new work including housing, schools, industrial and churches. Enthusiasm and initiative important. Five day week. Write giving full details to 9-11 Richmond Buildings, Dean Street, London, W.1. 5107

ARCHITECTS, Jackson & Edmonds, London and Birmingham, have vacancies for Assistants of R.I.B.A. Intermediate level to work on civic and university buildings, swimming pools, industrial and military buildings. Preference given to candidates with enthusiasm as well as skill—overtime, pension scheme and paid time off for further study go with salary in range £550-£1,050. Write or telephone Jackson & Edmonds, 30 Gloucester Place, London, W.1 (Hunter 1485) or 116 Colmore Row, Birmingham 3 (Central 6404-8). 5074

ASSISTANT required Intermediate to Final Standard, five day week. Write with full particulars to Reginald H. Gallanbaugh & Partners, 54 Queen Anne Street, London, W.1. 5086

SCHERRER AND HICKS, 60, Spring Gardens, Manchester 2, require recently qualified **ARCHITECT** with some office experience. Interesting work on school projects. Five-day week. L.V.s. 4994

SCHERRER AND HICKS, 60, Spring Gardens, Manchester 2, require **ARCHITECTURAL ASSISTANTS** of Intermediate standard with some office experience. Interesting work on school projects. Five-day week. L.V.s. 4995

NORTH & PARTNERS, Chartered Architects, Maidenhead, require experienced **ARCHITECTURAL ASSISTANTS**—salary range £900-£1,150—pension scheme operating. 5011

ARCHITECTURAL ASSISTANTS required by Fitzroy Robinson and Partners, 3, Gray's Inn Square, W.C.1. Apply in writing or telephone CHA 2111 reference G.W.J. Salary up to £1,200 p.a. depending on experience. 5010

PETER BAREFOOT requires **ASSISTANTS**, qualified or Final standard, initially for preliminary design stage of new flats, also hospital work and projects in L.C.C. Expanding town. Salary according to ability, five-day week, car mileage. Accommodation may be found immediately for single applicant. Apply: 22 Thoro Fare, Ipswich. 5034

MAX LOCK AND PARTNERS urgently require able and enthusiastic **ASSISTANT ARCHITECTS** to work on interesting architectural and planning schemes. Salaries from £1,100 according to experience. 109 Great Russell Street, W.C.1. MUS 2193. 5035

REQUIRED immediately. Senior and Junior **ARCHITECTURAL ASSISTANTS**. Varied and progressive work including large scale multi-storey housing schemes. Write or telephone to Collett & Hamb, 85 Prince Albert Road, Regent Park, N.W.8. PRImrose 5157. 4901

£2,000-£1,500 P.A., according to capabilities, for Private **ARCHITECTS**, medium size practice. Mainly commercial in W.1. Permanent posts. Write in strictest confidence to Box 5037.

PATRICK GWYNNE requires **SENIOR ASSISTANT** to work on important private houses and interiors. The Homewood, Esher, Surrey. Esher 3310. 5039

CMOYDON, Varied and interesting experience offered in progressive and growing practice to experienced **ASSISTANT** and **JUNIOR**. Five-day week. Please write or telephone: L. A. Macintosh & Haines, A.A.R.I.B.A., 33-35 High Street, Croydon. CRO 5780/9992. 4884

PLAYNE & LACEY require experienced and enthusiastic **ARCHITECTURAL ASSISTANTS**. Salary range £900-£1,050. Write 19 Queen Anne's Gate, Westminster, S.W.1, or ring WHI 2552 for interview. 4859

ASSISTANTS of all grades required. Salaries by arrangement. Bonus, Pension Scheme in operation. Schools, Industrial, Commercial, Hospital and Domestic work. Write to Firth, Son & Blackburn, A.A.R.I.B.A., Broadway House, Crickenedge Lane, Dewsbury. 4898

ASSISTANT required to carry out medium size projects under supervision but with scope for initiative. Preferably used to commercial or school work. Excellent prospects. Box 4376.

£850-£1,400. **ARCHITECTURAL ASSISTANTS** with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Norman, Preston & Partners, 83, Kingsway, W.C.2. HOLborn 4971. 4934

£1,250 P.A. MIN. to suitable **ARCHITECTURAL ASSISTANT** with not less than five years' experience, to assist in general practice administration and to run jobs on own initiative. Required immediately. Raymond Spratley & Partners, 9, Hertford Street, Park Lane, W.1. GRO. 1532. 4936

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

SENIOR reliable experienced **ASSISTANT** urgently required for busy progressive Office for responsible position. Write Morgan and Carr, A.A.R.I.B.A., 12, Grand Avenue, Hove, Sussex. 4946

LEEDS REGIONAL HOSPITAL BOARD

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

APPOINTMENT OF ARCHITECTS

The Architects Section of the Board's Headquarters staff is being expanded to deal with the increased capital programme for the provision of new hospitals and special treatment centres.

The Hospital Service offers opportunities for young architects to exercise initiative and to the more mature architect the satisfaction of taking a leading part in the large hospital development schemes which are planned for the next few years.

All posts are permanent and pensionable. The Board's offices are situated in pleasant surroundings in Harrogate and an excellent canteen is available on the premises.

(a) ASSISTANT REGIONAL ARCHITECT—

SALARY £1,825 x 75(2) x 100(2)—£2,175.

Applicants should possess high professional status, and be capable of accepting responsibility for a complete design section which will be handling major hospital projects.

(b) PRINCIPAL ASSISTANT ARCHITECT—

SALARY £1,665 x 50(1) x 75 (2) x £85(2)—£2,035.

Applicants should possess high professional status and should be capable of handling large capital projects.

(c) SENIOR ASSISTANT ARCHITECT—

SALARY £1,300 x 60(5)—£1,600.

New entrants to posts (a) to (c) would commence at the minimum of the appropriate scale.

(d) ASSISTANT ARCHITECTS—

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

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

(e) ARCHITECTURAL ASSISTANTS—

SALARY £625 x 30(8) x 35(1)—£900.

Applicants should have passed the Intermediate Examination of the R.I.B.A.

(f) ASSISTANT LAND SURVEYOR—

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

Applicants should be associate members of the R.I.C.S.

(g) SURVEYING ASSISTANT (LAND)—

SALARY £625 x 30(8) x 35(1)—£900.

Applicants should have passed the Intermediate Examination of R.I.C.S.

The commencing salaries for posts (d), (e), (f) and (g) are dependent on practical experience and may be at an incremental point above the minimum of the scale provided that the additional increments do not exceed the number of years by which the candidates' age exceeds 23 in the case of (d) and (f) and 21 in (e) and (g).

Applications indicating post applied for, and stating age, qualifications and experience, together with names and addresses of two referees to the Secretary, Park Parade, Harrogate, by 21st January, 1961.

HOSPITAL BUILDING PROGRAMME APPOINTMENT OF ARCHITECTS

North East Metropolitan Regional Hospital Board,

40, Eastbourne Terrace,

London, W.2.

W. G. Plant, Dip. Arch. (Liv.), F.R.I.B.A., Regional Architect

ARCHITECTS are urgently required for the Board's expanding Architectural Department in LONDON.

A considerable programme of building is now getting under way offering scope for research, imaginative design and progressive thinking, and excellent opportunities for young architects, including those just qualified, for gaining experience in a wide field ranging from specialised hospital structures to Nurses' Teaching Schools, Domestic Residential Buildings, Recreational Centres, Workshops, Nurses' Homes, etc.

Architects will either be allocated jobs of their own and be responsible under limited supervision for work involving all stages from sketch plans and office administration to site supervision, or will work, as members of teams, on the larger projects and share in the work of research design and detailed drawings.

The Region which comprises the City of London, and parts of the administrative County of London, parts of Middlesex and Hertfordshire, and the County of Essex, serves a population of over 3,000,000 and is responsible for over 130 hospitals.

Applicants should have passed the final R.I.B.A. examination, and registered architects would be appointed on the basic professional (assistant) scale £945 x £35 (1) x £45 (6) x £50 (2)—£1,360 inclusive, the commencing salary depending on age and experience. The initial salary for architects awaiting registration would be somewhat lower during the interim period.

A generous mileage allowance for use of private car when visiting sites will be paid. Promotion prospects are good and the maximum of the senior grade is £1,650 p.a.

PREVIOUS HOSPITAL EXPERIENCE IS NOT ESSENTIAL.

Leave entitlement ranges from three-four weeks p.a. Five-day/week. Posts are permanent and participate in superannuation benefits.

Applications giving age, details of education, professional training, qualifications, experience and past and present appointments, present salary and other relevant details, together with the names and addresses of two referees, should be sent to The Secretary, North East Metropolitan Regional Hospital Board, 40, Eastbourne Terrace, London, W.2, within 14 days.

GOOD salaries and varied opportunities for ASSISTANT ARCHITECTS to run jobs on Colleges, Schools (all types), Technical Colleges, Offices and Publishing House, Halls of Residence, etc. Write Charles Pike & Partners, 14, Lincoln's Inn Fields, W.C.2, or phone HOL 3632 for appointment. 4938

£800-£1,500 MALE OR FEMALE ASSISTANTS required by Architect's Department of rapidly expanding Development Company with new offices at Walton-on-Thames with all the advantages of freedom in design and detailing of economical buildings of all types. Please phone G. W. Mills, A.R.I.B.A., Walton-on-Thames 26311. 4941

NORTH LONDON—ASSISTANTS required about R.I.B.A. Intermediate standard. Wide variety of interesting work. Five-day week. Facilities for part-time day study. Apply C. M. Owen Ward, L.R.I.B.A., Midland Bank Chambers, Palmers Green, London, N.13. PAL 1186/7. 4948

ARCHITECTURAL ASSISTANT required in busy West End office. Good salary and prospects for keen and energetic young man. Apply in writing to Maurice Sanders Associates, 24, Harley Street, W.1. 4969

JUNIOR ASSISTANT required, Intermediate standard, for small office. Lush & Lester, Craven House, 121, Kingsway, W.C.2. HOLBORN 5101. 4961

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

CROYDON Architects need Intermediate and qualified ASSISTANTS. Please write for appointment giving details of experience. Graham Crump & Denis Crump, F.A.R.I.B.A., 43, George Street, Croydon. 4966

ARCHITECT required by Development Company to take charge of a number of large scale housing developments in North Wales. Preference will be given to applicants who have had experience of this type of work. The Company operate a non-contributory pension scheme and a car will be provided. Assistance will be given to providing accommodation, if required. Please write stating age, salary required, to Chief Architect, Bunting Estates Ltd., 73, Acre Lane, London, S.W.2. 5117

YOUNG partners with expanding varied practice require qualified ASSISTANT ARCHITECT, aged 30-35. Must be experienced in private practice, competent and confident, able to control staff and contracts. Salary £1,000 to £1,200 for the right man. Private office provided. Reply stating age, qualifications, experience and present salary to Silvertown & Welton, F.A.R.I.B.A., Dip. Arch., 16 Weston Road, Southend-on-Sea, Essex. Mark envelope "Staff—Private & Confidential." 5094

ERNO GOLDFINGER requires several qualified ASSISTANTS with at least 2 years' experience to take part in a growing programme of interesting work which includes large office buildings, central developments, Local Authority housing, schools and private houses. Good salaries and scope for men with sound knowledge of construction. Phone HYDE Park 5657. 5094

WEST COUNTRY Geoffrey Bazeley & Barbary require competent ASSISTANTS for their Penzance and Plymouth Offices. Intermediate or better. Details and salary required to 5, Portland Square, Plymouth. 5038

OXFORD Office requires an ASSISTANT ARCHITECT to fill position of responsibility. Applicant should preferably be qualified and able to run contracts. Starting salary, £1,000 per annum. Apply stating age and experience. Box 5043.

EXPERIENCED ASSISTANTS required for work on major schemes, able to take initiative and responsibility. Bonus, pension and life assurance schemes. Salary according to experience and ability. Full particulars to Hadfield Cawwell & Davidson, 17, Broomgrove Road, Sheffield, 10. 5048

SENIOR ARCHITECTURAL ASSISTANTS required in London Office of expanding group of companies, for work on interesting industrial projects and shop modernisation. Permanent appointments, attractive pension scheme, canteen facilities. Salaries commensurate with experience. Apply in confidence, Box 5020.

ARCHITECT (A.R.I.B.A.) and **ARCHITECTURAL ASSISTANT** required for varied and interesting work in rapidly developing area. Full details and salary required to Graham Beakley & Associates, Consulting Surveyors, 50 King St., King's Lynn, Norfolk. 5017

ASSISTANT ARCHITECT with experience and/or interest in schools and multi-storey flats. Write ERIC LYONS, MILL HOUSE, BRIDGE ROAD, HAMPTON COURT, MIDD. 3562

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon Office. Would have full charge of branch office. Box 5019.

GOLLINS, MELVIN, WARD & PARTNERS HAVE VACANCIES FOR STAFF INTERESTED IN THE DESIGN OF HOSPITALS AND EDUCATIONAL BUILDINGS. FIVE-DAY WEEK. PENSION SCHEME. QUARTERLY BONUSES. TELEPHONE WELBECK 9991. 5026

ARCHITECT. Good opportunity occurs in private office in Preston, for young, keen man with initiative for post of special responsibility working on large school project. Must be Associate R.I.B.A. Full particulars to: Walters, 18 Gaidhall Street, Preston. 5027

ARCHITECTURAL STAFF SYDNEY GREENWOOD, A.R.I.B.A., CHIEF ARCHITECT, JOHN LAING AND SON LIMITED requires

ARCHITECTS, ASSISTANT ARCHITECTS and **ARCHITECTURAL ASSISTANTS** for a recently established Regional Office in Manchester.

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

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

Assistant Architects should be qualified with two/three years' similar experience including domestic experience.

Architectural Assistants should be of Intermediate standard with two/three years' experience in Architects Office.

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

Applications giving brief details to Personnel Manager (MRO. 10), John Laing and Son Limited, Page Street, Mill Hill, N.W.7, or arrangements for interviews can be made by telephone (Mill Hill 3636). 4940

COLWYN BAY—Lingard & Associates require ARCHITECTS. Commencing salaries around £1,000. School trained with a few years of office experience. Completely contemporary work. 90, Conway Road, Colwyn Bay 2838. 5173

EXPERIENCED ASSISTANT ARCHITECT required for newly opened Bournemouth Office. Must be competent designer and administrator. Interesting varied work, five-day week, luncheon vouchers, £900-£1,200 p.a. according to experience and ability. Write: Gotch & Partners, 29, Richmond Hill, Bournemouth. Phone: Bournemouth 20337/8. 5175

LIVERPOOL £900 - £1,200

Starting range reviewed annually or more frequently if willingness and ability shown. Five-day week. Interview and removal expenses paid and assistance in solving any accommodation problem. Write full particulars to G. de C. Fraser, Son and Gearey, 27, Dale Street, Liverpool, 2. 5177

BRISTOL Architects with small, informal but hectic office require JUNIOR ASSISTANT with some experience, prepared to work hard and use initiative in return for good salary and a minimum of messing about by the partners. Beckingsale & Partners, 36, Whiteladies Road, Bristol, 2. 5213

ARCHITECTURAL ASSISTANT required of Intermediate standard with or without previous experience, for interesting varied work. Apply Victor Bloom & Partners, 12, Gloucester Place, London, W.1. HUN. 2069. 5213

ASSISTANT, male for Premises Department, must be willing to travel in the provinces and be able to prepare schemes, specifications, carry out surveys and be a good draughtsman. Knowledge of Shopfront design an advantage. Good commencing salary with Pension Plan. Please write giving fullest particulars of age, experience, etc., to Personnel Manager, The National Cash Register Co. Ltd., 206-216, Marylebone Road, London, N.W.1. 5215

JOSEPH MENDLESON AND PARTNERS require experienced competent ARCHITECTS and offer first class prospects and top salaries. Apply: 71, Wimpole Street, London, W.1. HUN. 0361. 5224

We have just a few places left to fill in our new office for Senior and Intermediate ASSISTANTS. We are looking for one or two more really good people—at really good salaries. Our staff share the responsibility and profits of an enormous range of interesting work.

Write ref. KAM or 'phone HUN. 1711 for an appointment to see the office and meet people and for details of current work and our Associateship and Pension Schemes. Beard, Bennett, Wilkins & Partners, 101, Baker Street, London, W.1. 5212

ARCHITECTURAL ASSISTANTS of all grades required by the Architects Department of a Major Building Company based upon Liverpool. The successful applicants will join the groups responsible for the design and development of multi-storey offices and flats, housing, shops and industrial buildings. Applications with full particulars and salary desired to Box No. F917, Lee & Nightingale, Liverpool. 5229

ARCHITECTS with extensive general practice (Churches, Hospitals, Schools, Flats, Commercial and Industrial) require experienced ASSISTANTS, post-Intermediate level or recently qualified. Ivor Day & O'Brien, 9, Clare Street, Bristol, 1. 5231

TRAVEL against THE RAT RACE. ASSISTANT required in North London Office to work on Airline Sales Offices, Exhibitions and Schools. Woman, with experience of interior work, preferred. Should be qualified or about to qualify R.I.B.A. Phone BAK. 7384/5 or write S. S. and de S. Hollybush, Hadley Green, Barnet. 5243

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SENIOR ASSISTANT required by City Architects. Varied and interesting work. Generous salary and bonus. Five-day week. Vigers & Co., 4, Frederick's Place, Old Jewry, E.C.2. 5188

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OLDHAM firm of Chartered Surveyors require **ARCHITECTURAL ASSISTANT** (Intermediate standard). Salary commensurate with capabilities. Apply to Box 5195.

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ARCHITECTURAL ASSISTANTS, to Intermediate standard or above, required in Wimbledon office for interesting work U.K. and overseas. Five-day week; no travelling to town. Apply J. E. K. Harrison, F.R.I.B.A., Eagle House, Wimbledon, S.W.19, or 'phone WIM. 4244. 5209

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SENIOR ASSISTANT ARCHITECT required for Cardiff Office. Applicants to give full particulars including qualifications, past experience and salary required, to: F. G. Bruton & Mace, 31, Cathedral Road, Cardiff. 5206

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The Landscape of Roads

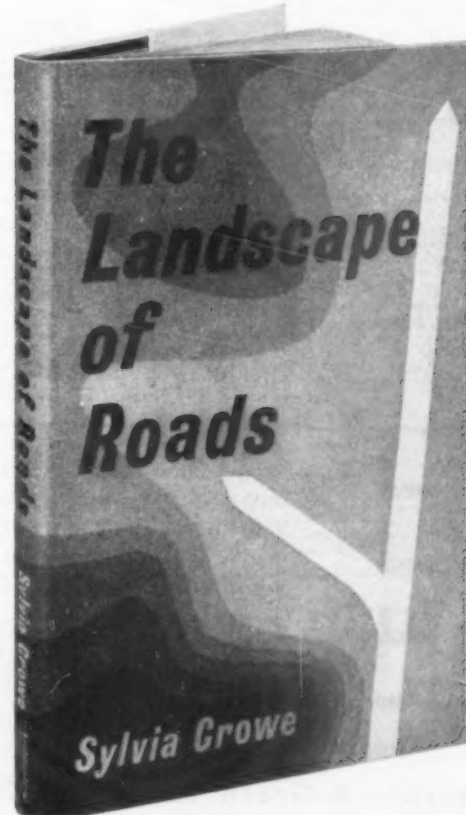
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£230 million will be spent during the next three years on the construction and improvement of roads in Britain. This vast programme is of national interest, not only because new roads are so badly needed, but also because if they are not handled with infinite care, they will certainly ruin much of what remains of our landscape.

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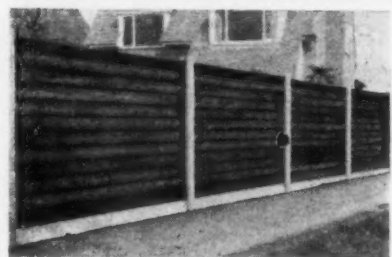
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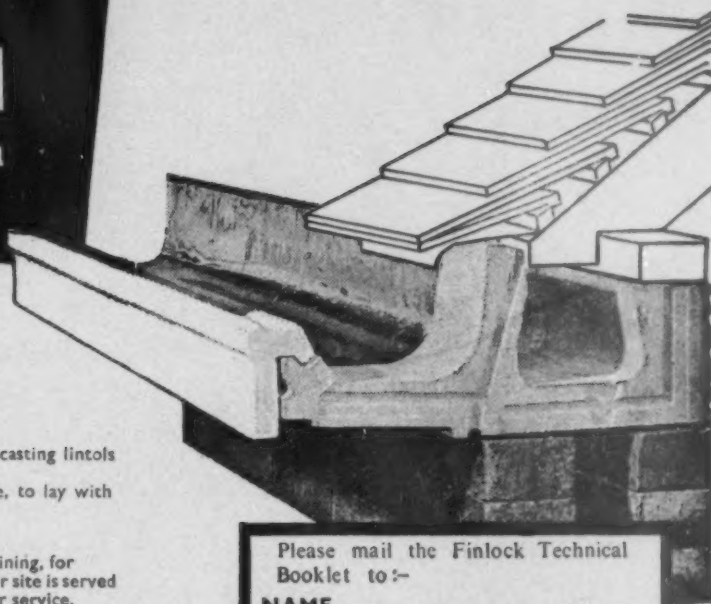
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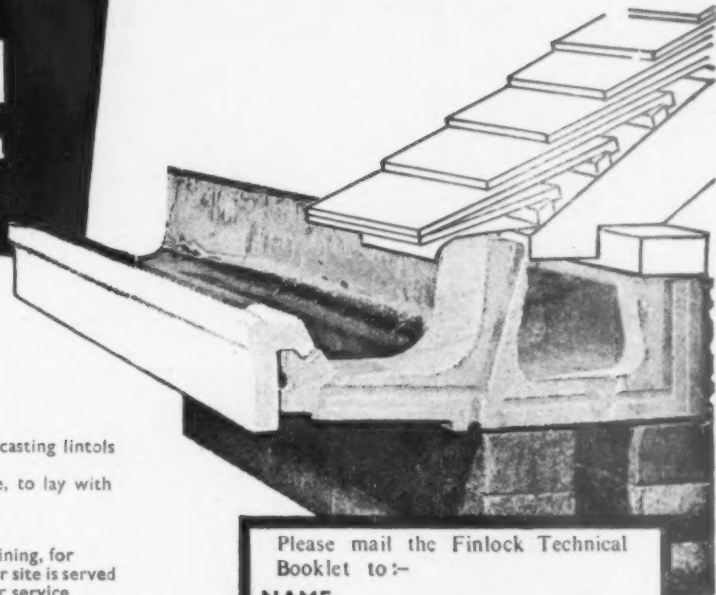
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.. SPECIFY **LUXOL**
Polyurethane Lacquer
ON ALL FLOORS

Upstairs and downstairs and everywhere there are people, Luxol Polyurethane Lacquer is the supreme floor coating that takes the hardest of wear yet keeps a continually cheerful lustre. Luxol Polyurethane Lacquer gives a beautiful glossy build that coats and protects at the same time. Feet never touch the actual floor surface because Luxol Polyurethane Lacquer shields it from wear and dirt. Instead, you get an aristocratic finish that stays lustrous for months without polishing. And its non-slip surface (ideal for dining room or dance floor) makes it safe for young and old alike; will not chip, mark or flake. Luxol Polyurethane Lacquer is a practical luxury for all suitable floor surfaces.

AND FOR CLADDING

Luxol Polyurethane Lacquer gives a handsome protective finish to exterior cladding that withstands the severest of outdoor conditions.

Luxol Polyurethane Lacquer is a two pack product that is easily applied on site. Whether brushed or sprayed on it can be overcoated in 4 - 6 hours and dries to a rich deep build that neither cracks, chips nor flakes. Has exceptionally low flame spread.

For full details of Luxol Polyurethane Lacquer write for Technical Information Leaflet 11/28.



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