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THE ARCHITECTS' JOURNAL

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THE ARCHITECTURAL PRESS

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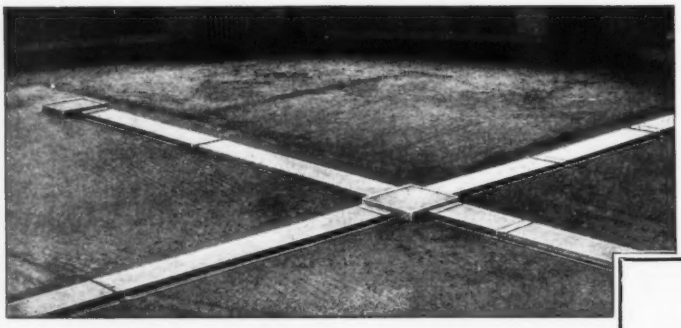
Registered as a Newspaper.

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

IHVE	Institution of Heating and Ventilating Engineers. 49, Cadogan Square.	Sloane 1601/3158
IIBDID	Incorporated Institute of British Decorators and Interior Designers. 100, Park Street, Grosvenor Square, W.1.	Mayfair 7086
ILA	Institute of Landscape Architects, 2, Guilford Place, W.C.1.	Holborn 0281
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2.	Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1.	Museum 7179
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. 47, Victoria Street, S.W.1.	Abbey 6172
ISE	Institute of Structural Engineers. 11, Upper Belgrave Street, S.W.1.	Sloane 7128
LDA	Lead Development Association. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1.	Museum 3891
LSPC	Lead Sheet and Pipe Council. Eagle House, Jermyn Street, S.W.1.	Whitehall 7264/4175
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1.	Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1.	Mayfair 9400
MOH	Ministry of Health. 23, Savile Row, W.1.	Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1.	Whitehall 4300
MOLNS	Ministry of Labour and National Service. 8, St. James' Square, S.W.1.	Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2.	Gerrard 6933
MOT	Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.	Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1.	Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council. 94/98, Petty France, S.W.1.	Abbey 1010
NAS	National Association of Shopfitters. 9, Victoria Street, S.W.1.	Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, Regent's Park, N.W.1.	Welbeck 0619
NCBMP	National Council of Building Material Producers. 10 Storey's Gate, S.W.1.	Abbey5111
NEFMAI	National Employers Federation of the Mastic Asphalt Industry. 21, John Adam Street, Adelphi, W.C.2.	Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street. W.1.	Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4.	Macaulay 4451
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1.	Whitehall 1693
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1.	Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington.	Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1.	Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1.	Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1.	Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1.	Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh.	Fountainbridge 7631
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1.	Whitehall 5322/9242
RFAC	Royal Fine Art Commission. 5, Old Palace Yard, S.W.1.	Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1.	Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2.	Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1.	Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19.	Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1.	Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1.	Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3.	Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, London, W.C.1.	Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1.	Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen	
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1.	Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.	Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4.	City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1.	Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4.	City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1.	Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1.	Grosvenor 6636



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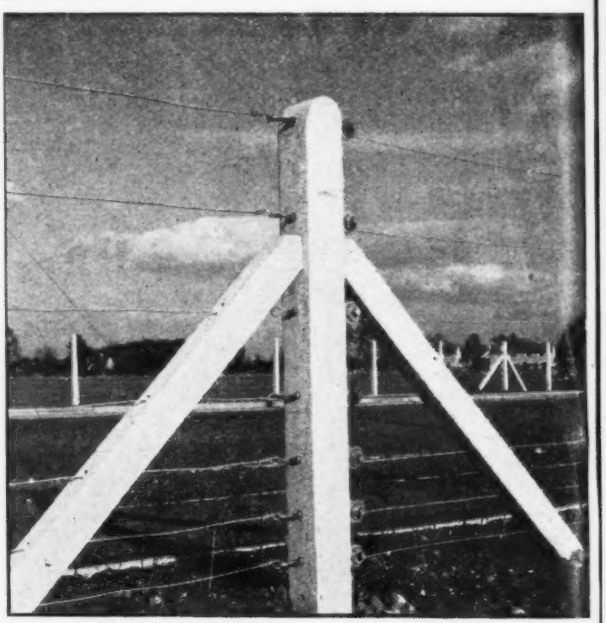

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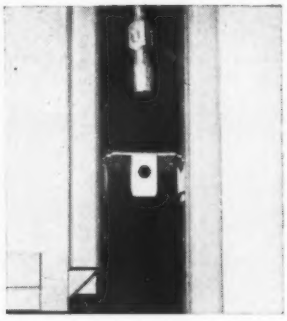
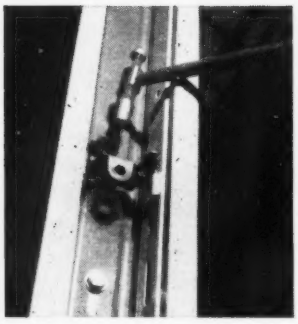
1 Two steel sole plates for each unit of partitioning are screwed to the floor with wood screws.

2 The 40" wide, modular units are bolted to the sole plates. All units are interchangeable.

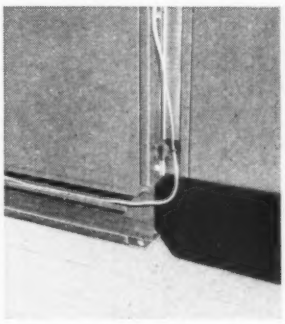


3 Five link plates, at 15" centres, drop into ready pressed out pockets and fix each unit to the next.

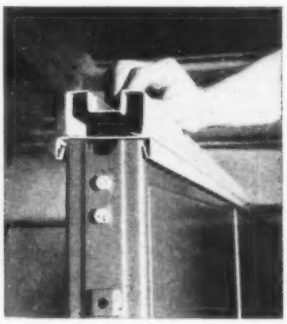


4 Link plates are also used for 3-way fixing — but in this case they are finally bolted in for extra strength.

5 The 40" wide modular door frame, linked in with the rest of the system, is firmly anchored at the foot by a cleat.



6 Electric wiring runs down between partitioning units and along specially provided channels at the bottom.



7 A head channel, cold rolled like all Roften Modular Partitioning sections, finishes off the top of the free-standing screening.

8 Pilasters are clipped on to the notches of the link plates to finish off the joins between units.

9 Skirting is clipped on to the bottom of each unit. Plinths cover the joins in between.

10 Four rubber-buffered glazing beads clip in. Special beads are available for double glazing.

11 Any type of 32 oz. glass slips into the opening, followed by the second set of four glazing beads.

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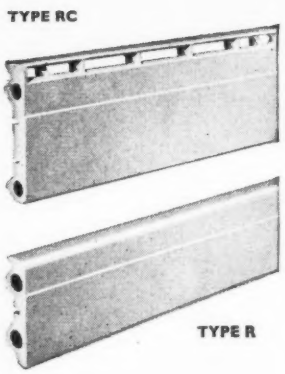

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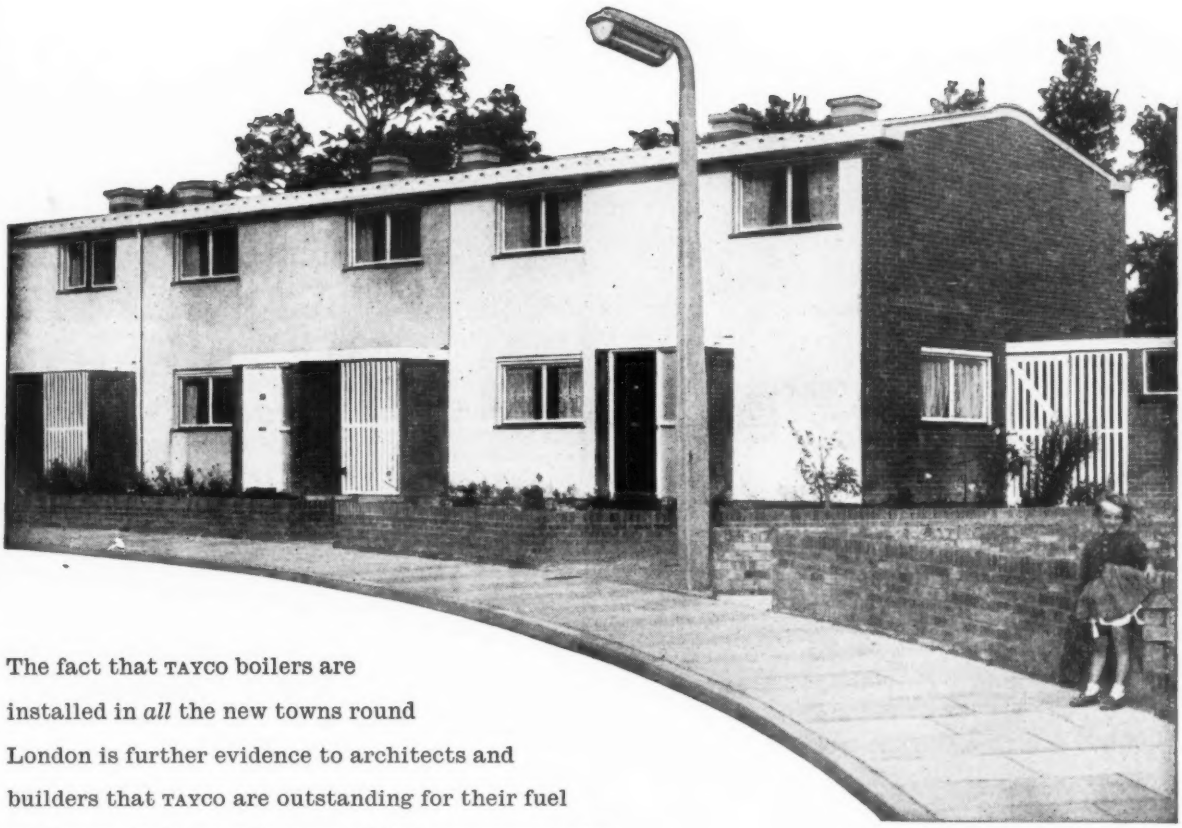

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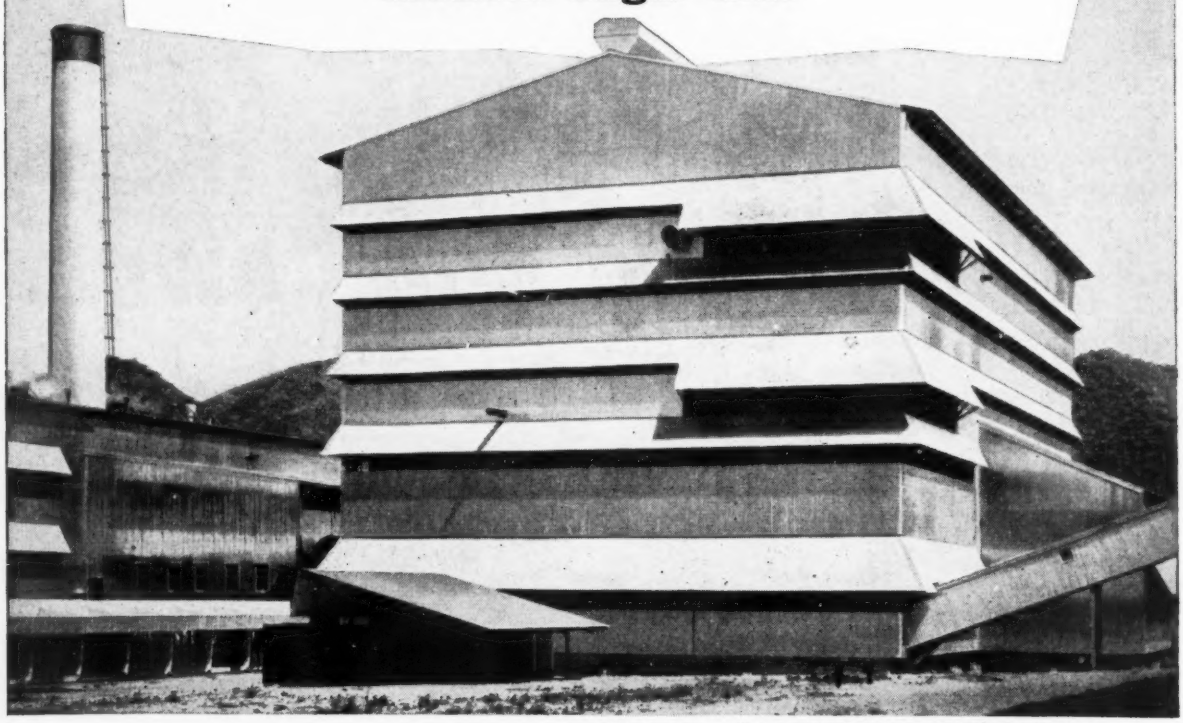

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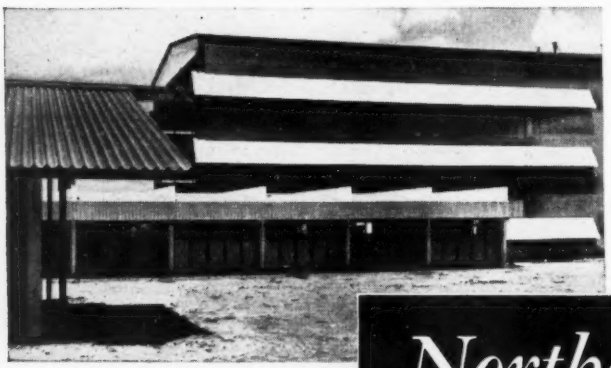

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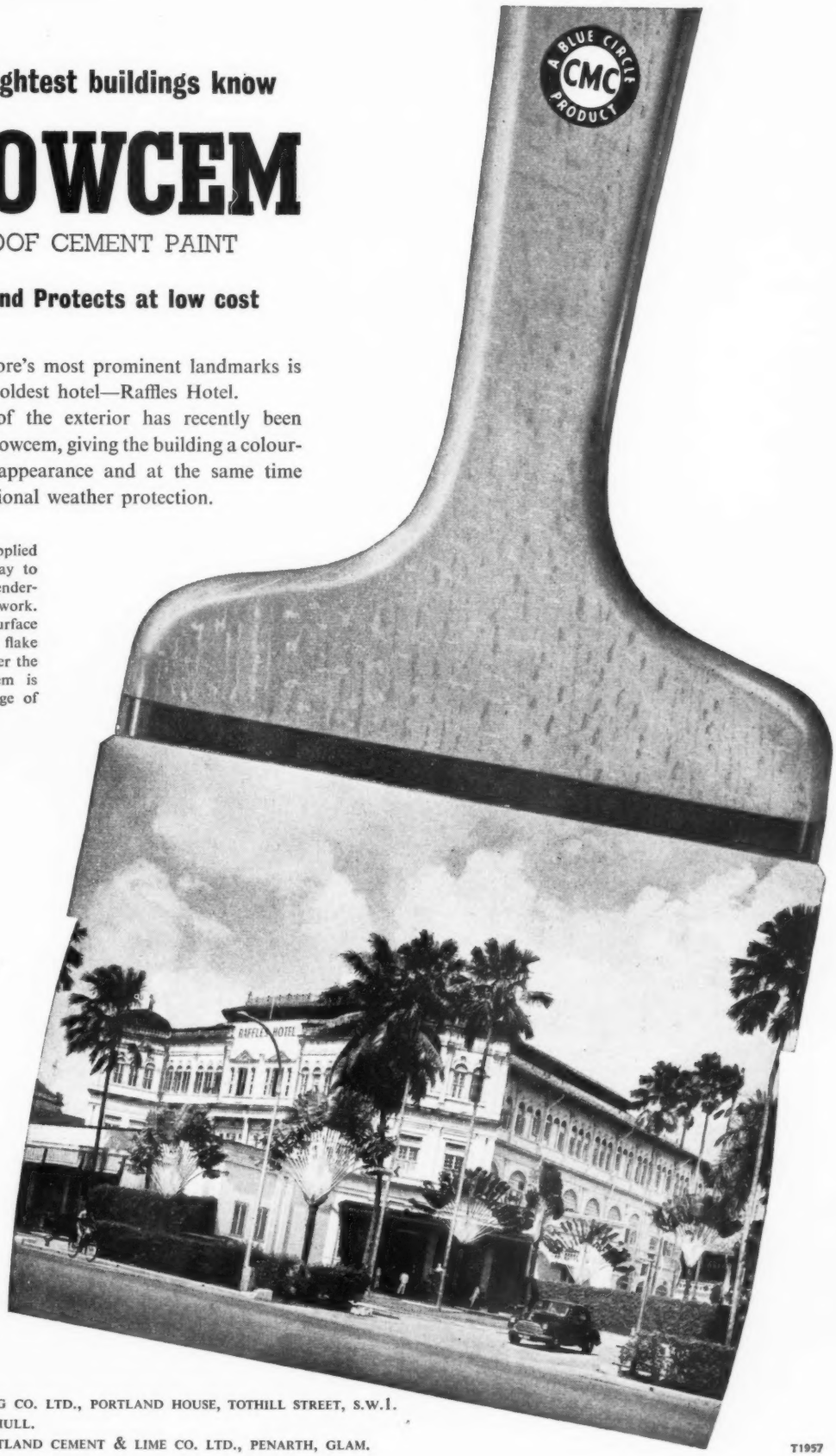

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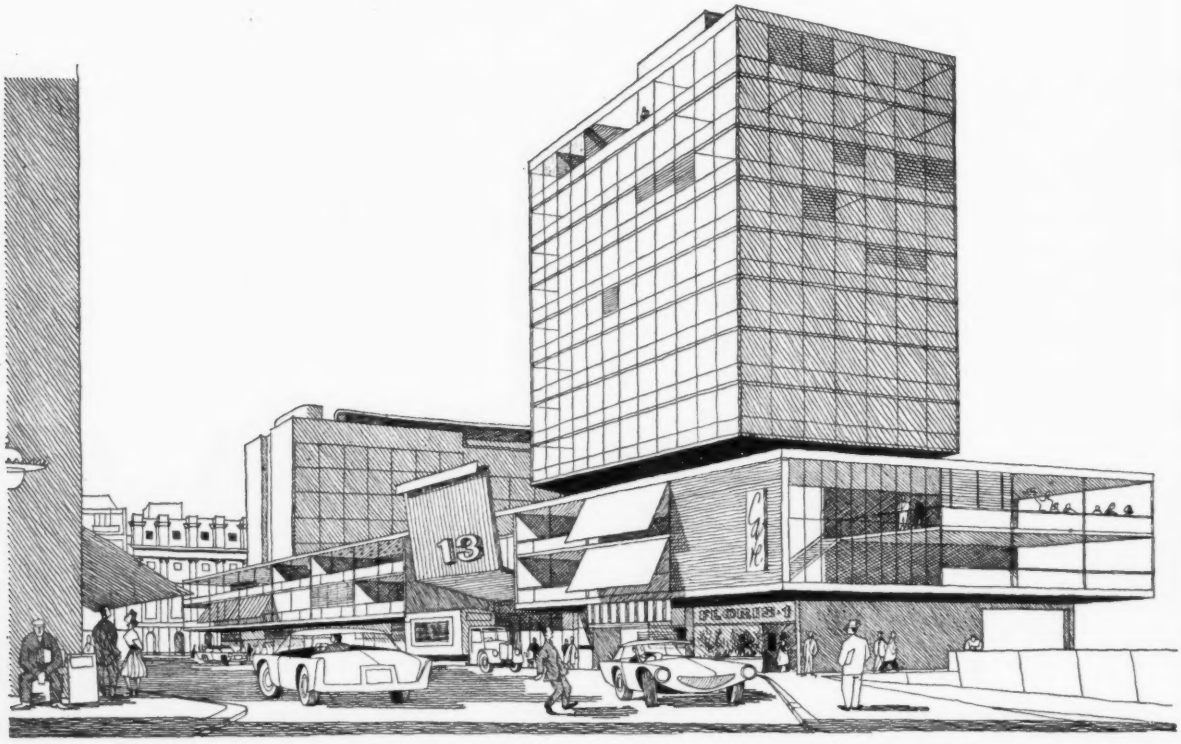

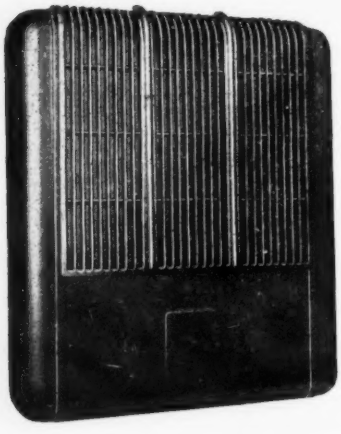

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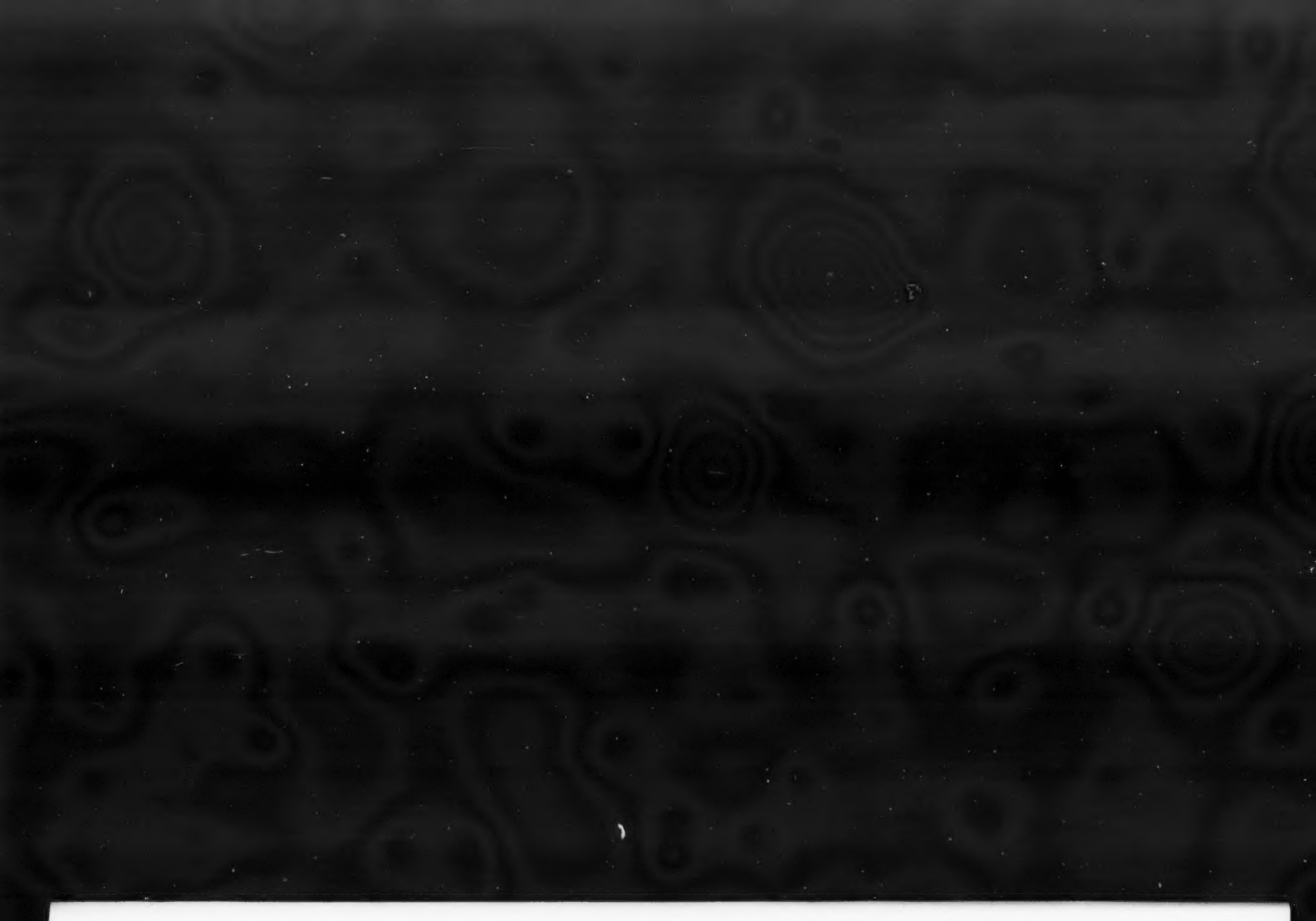

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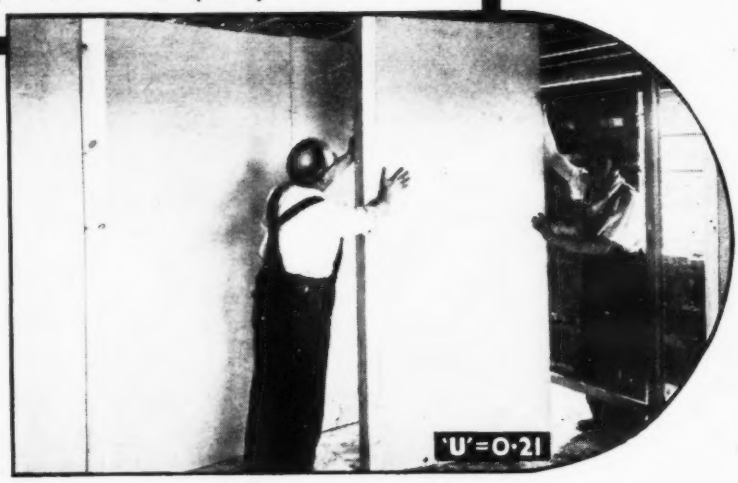

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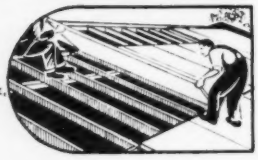
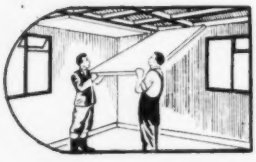


CEILINGS



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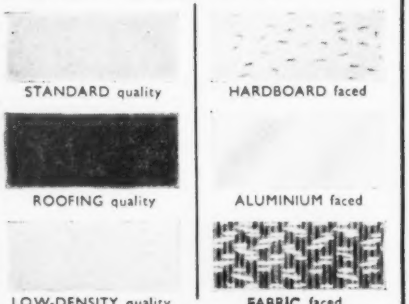

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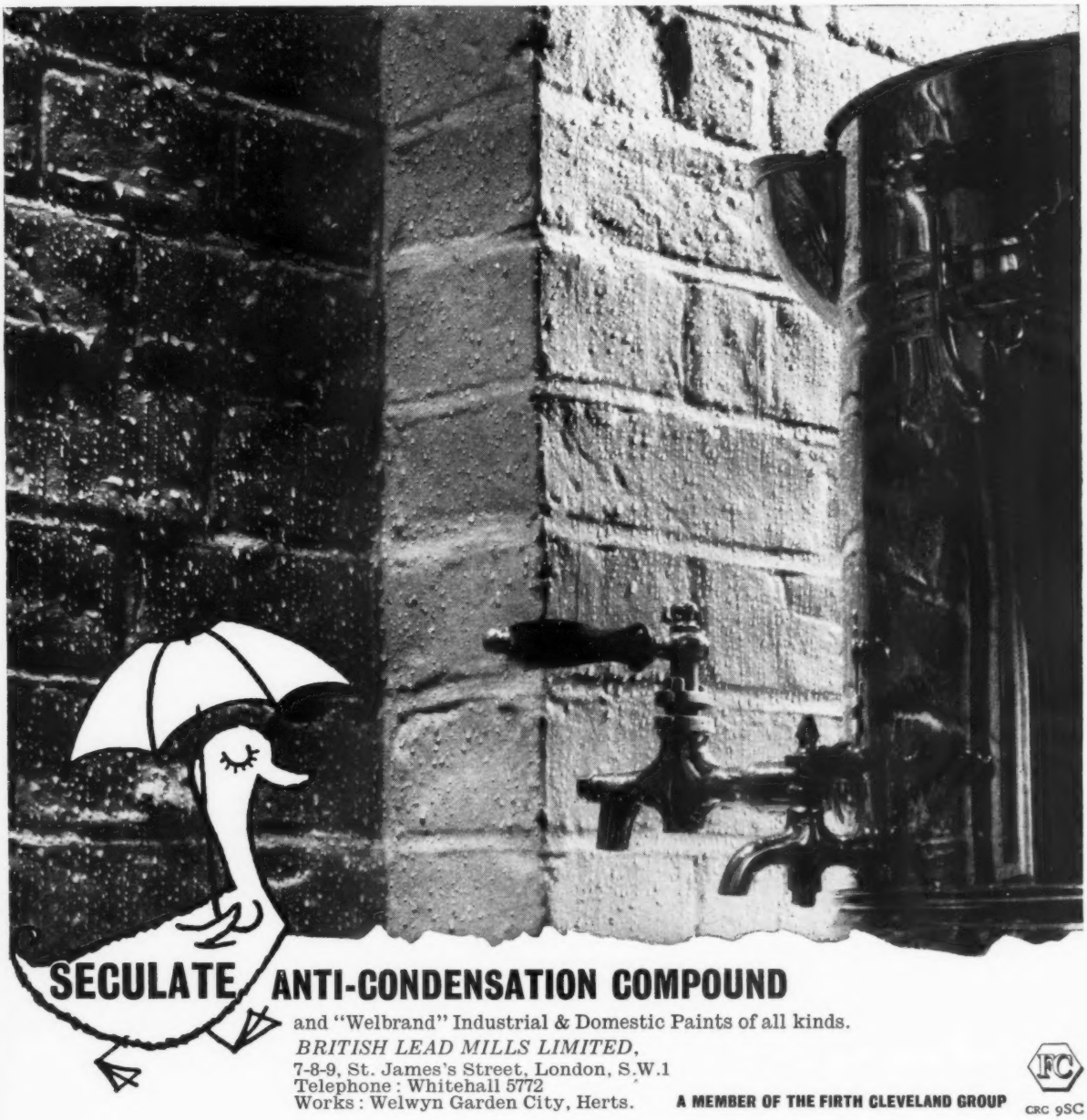

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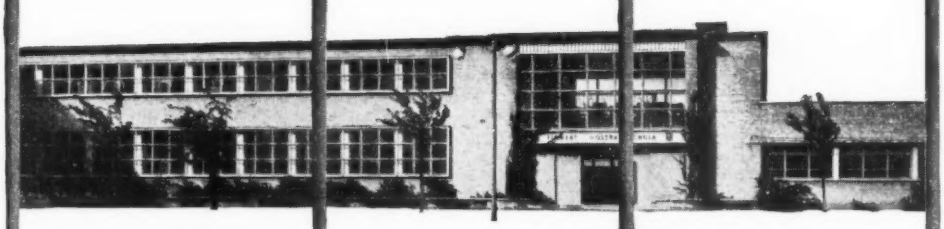

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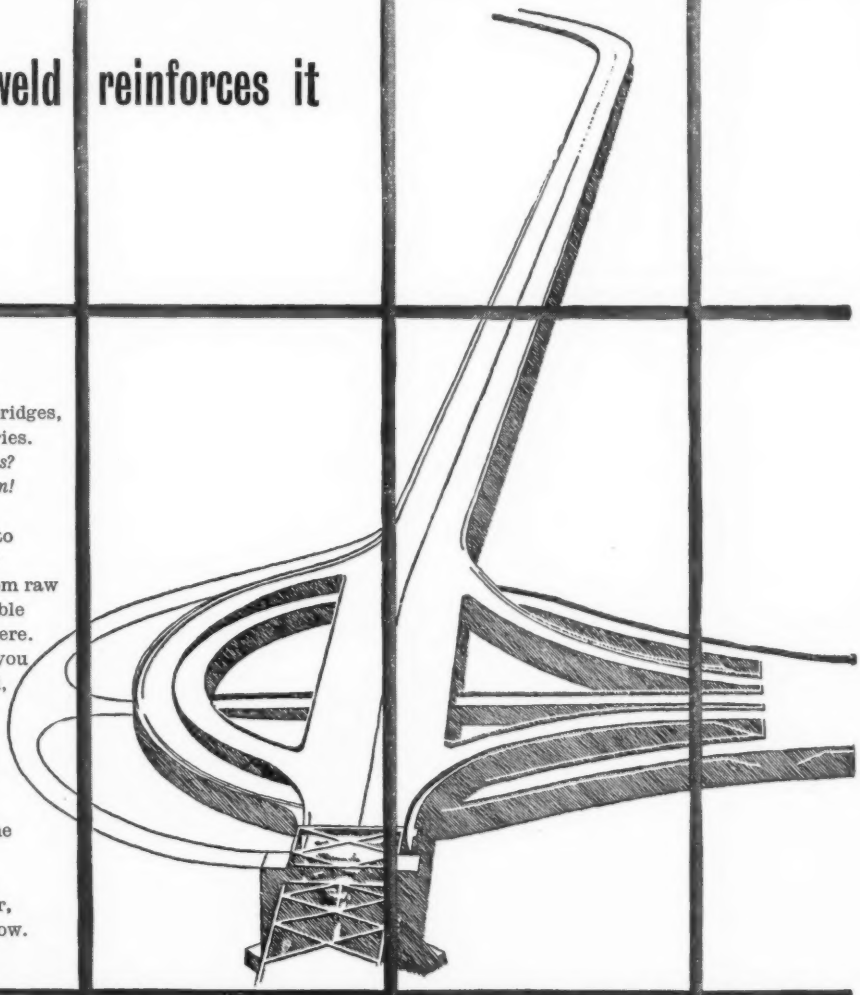

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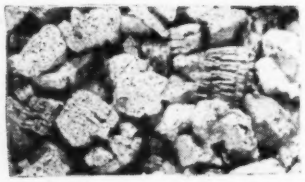

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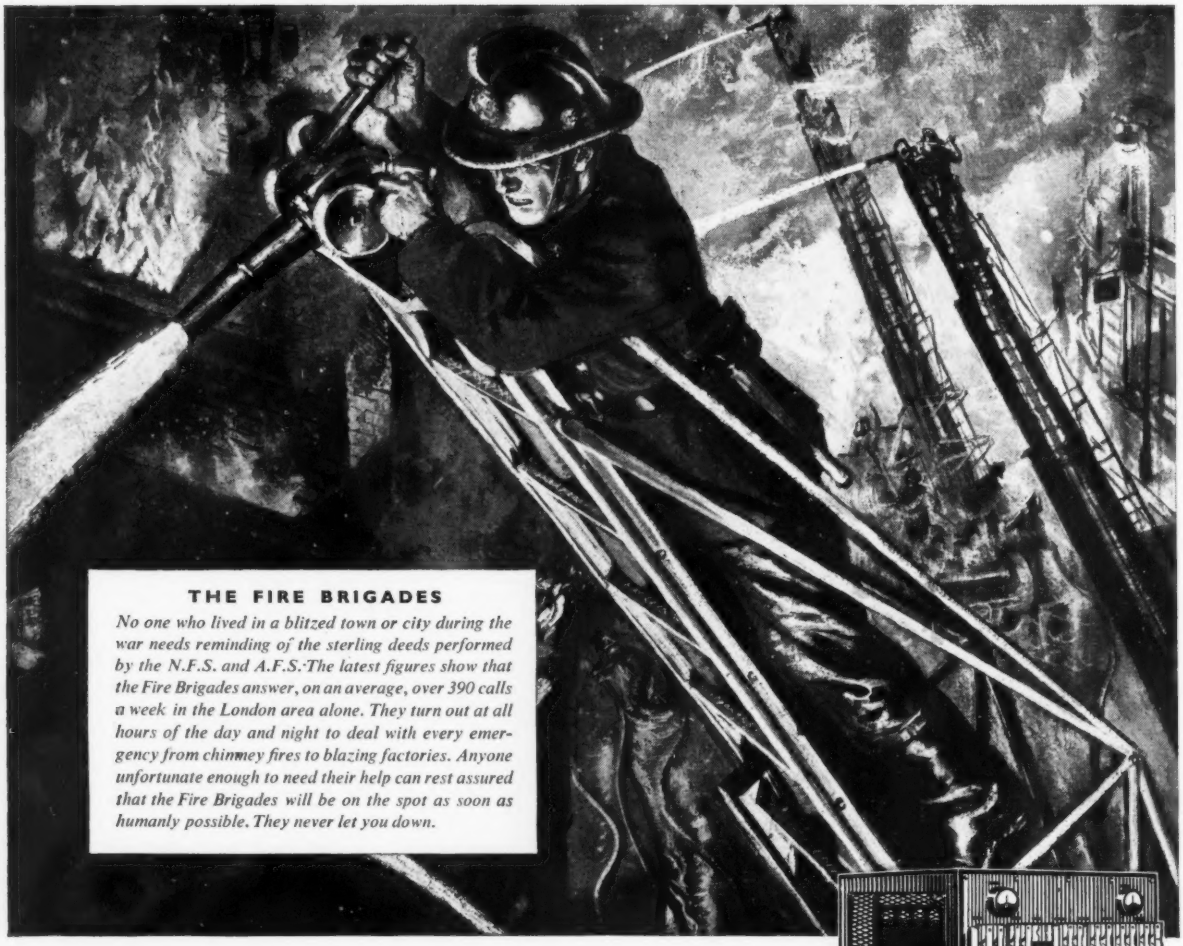

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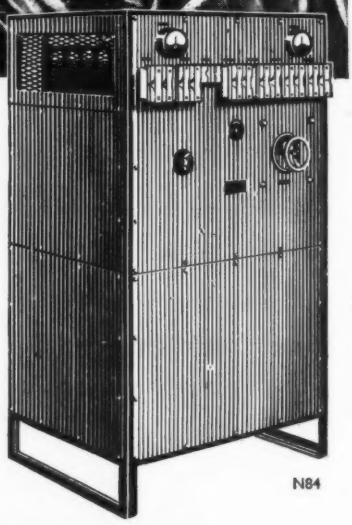

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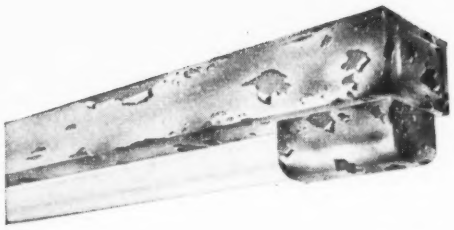
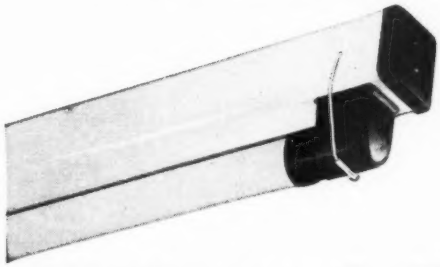


an end to this

Corrosion . . . dampness . . . acid vapours . . . dust-laden atmospheres all are enemies of durability and economy: yet some or all of them are part of every plating shop, laundry, laboratory, dockyard or cotton mill. They are unavoidable on railways, in dye works, on so many places essential to our industry and economy. Corrosion is the enemy of all lighting installations; it costs money



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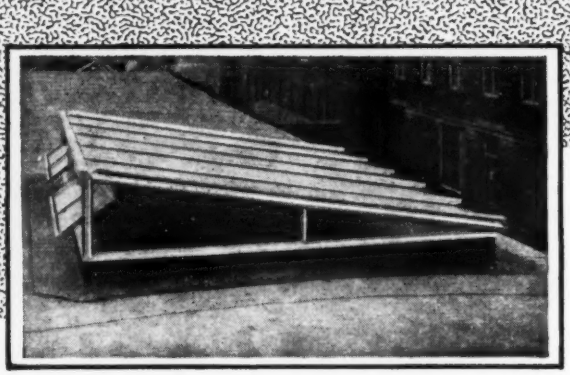

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When the reel is recessed no obstruction is caused. If required, a door, decorated to conform with the general scheme, can be fitted to conceal the reel.

WALL-TYPE AND EXTERNAL SWINGING-TYPE REELS ARE ALSO AVAILABLE

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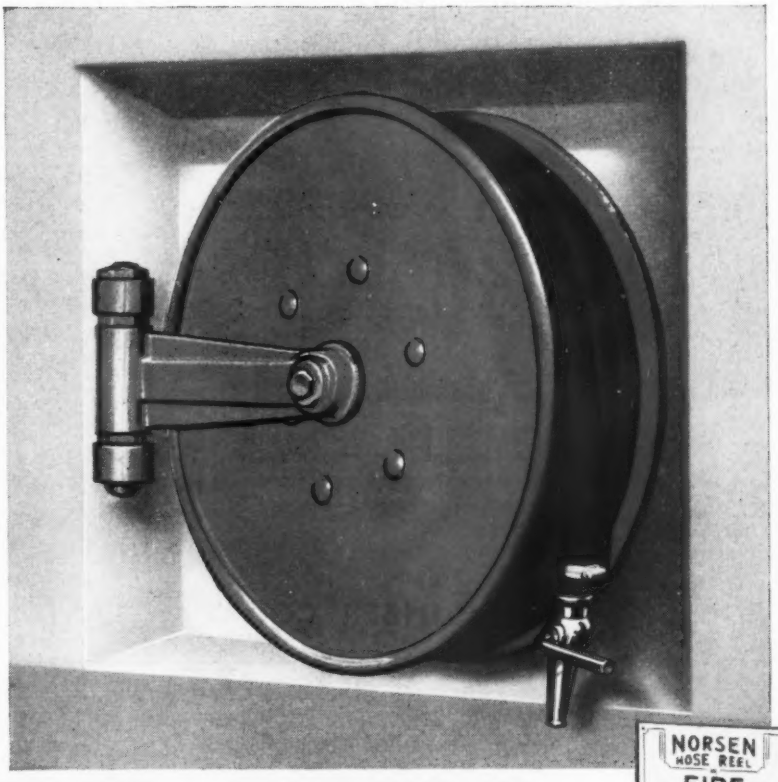

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SIMPLICITY OF OPERATION
MINIMUM WATER DAMAGE
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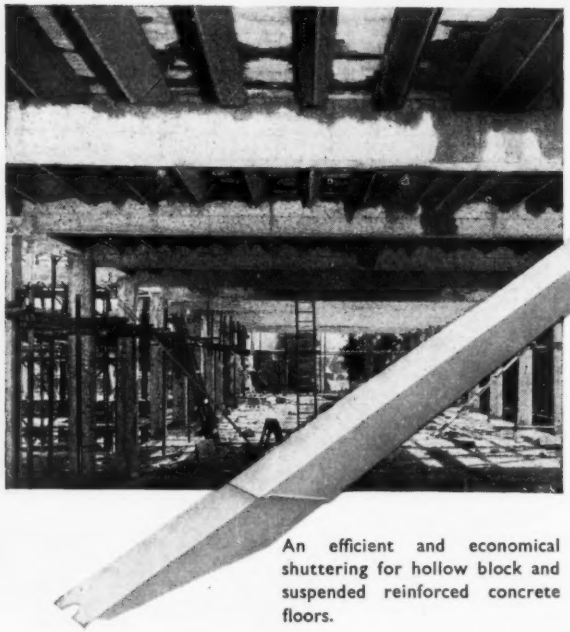

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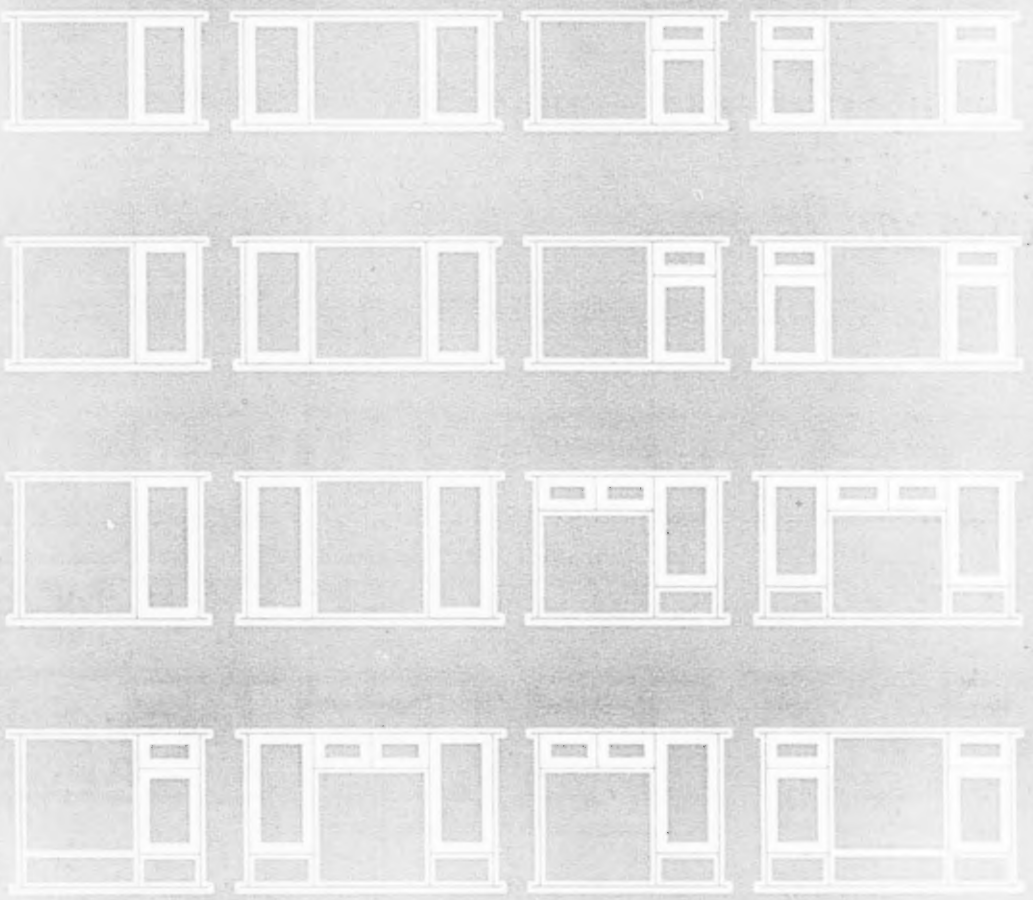

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for good looks and functional efficiency

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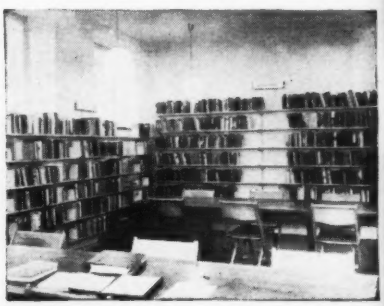

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Shelve those problems of support on

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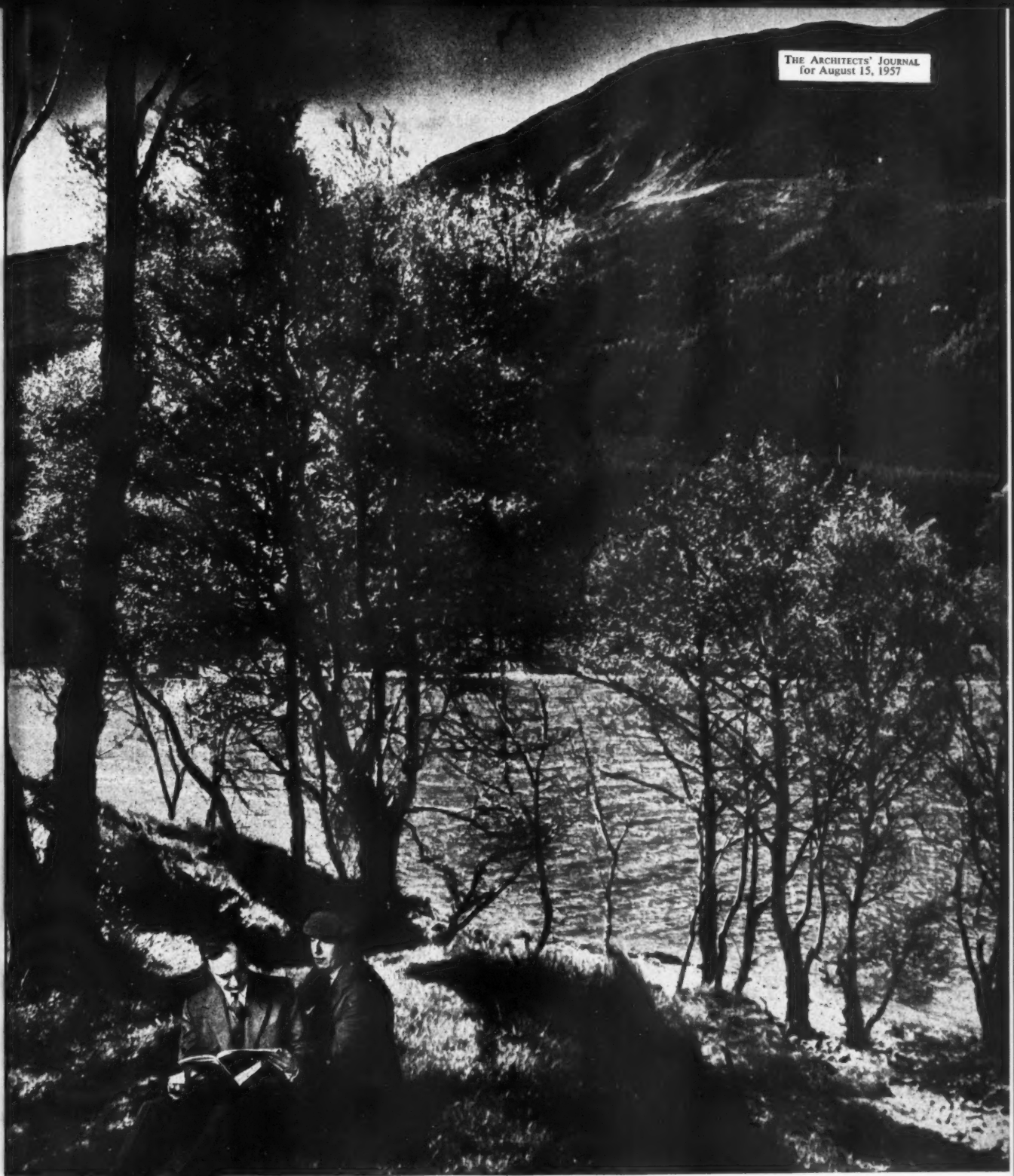

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"Well, listen to this — 'It is very low in cost, extremely easy to fix and will enhance the beauty of any room'. Sounds too good to be true!"

"*Actually it* is *true, John. You're quoting a 'Paramount' Moulded Cove advertisement — correct?*"

"Correct".

"*So is their claim. I know... I've used it again and again*".

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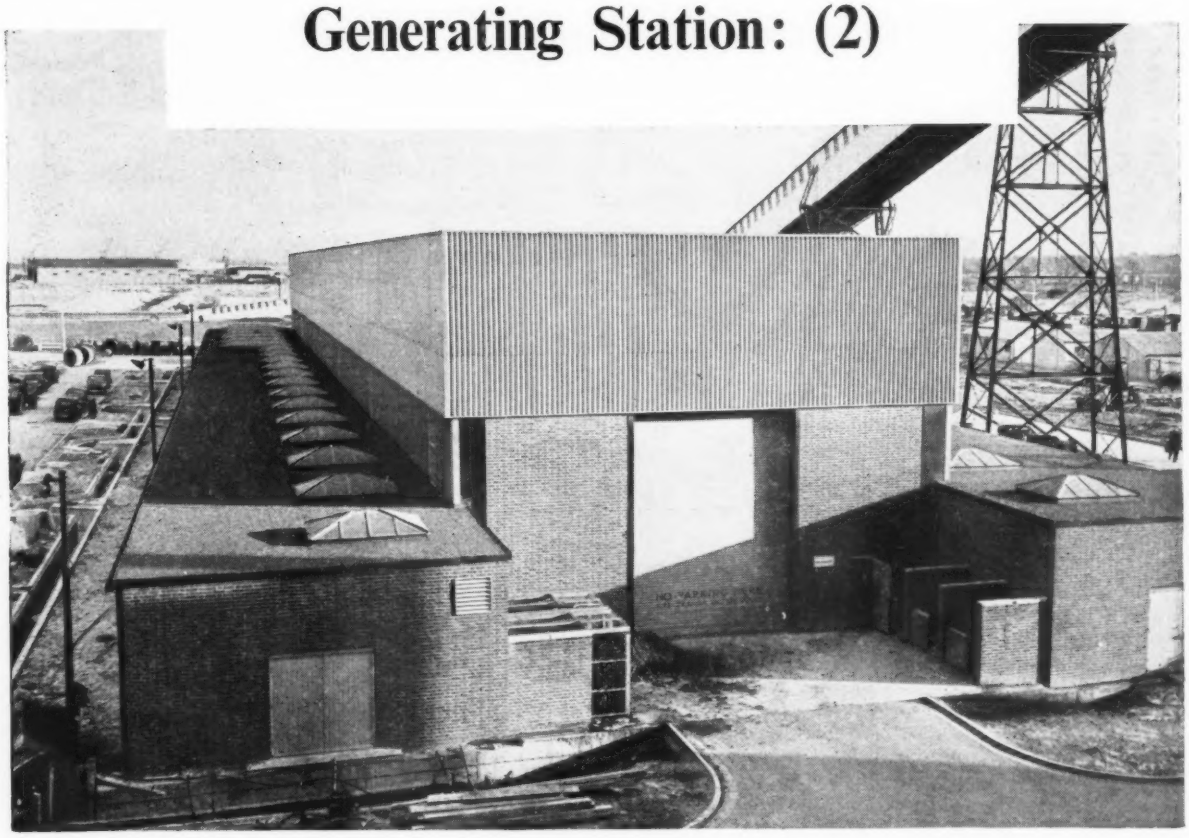
British Aluminium at Marchwood Generating Station: (2)



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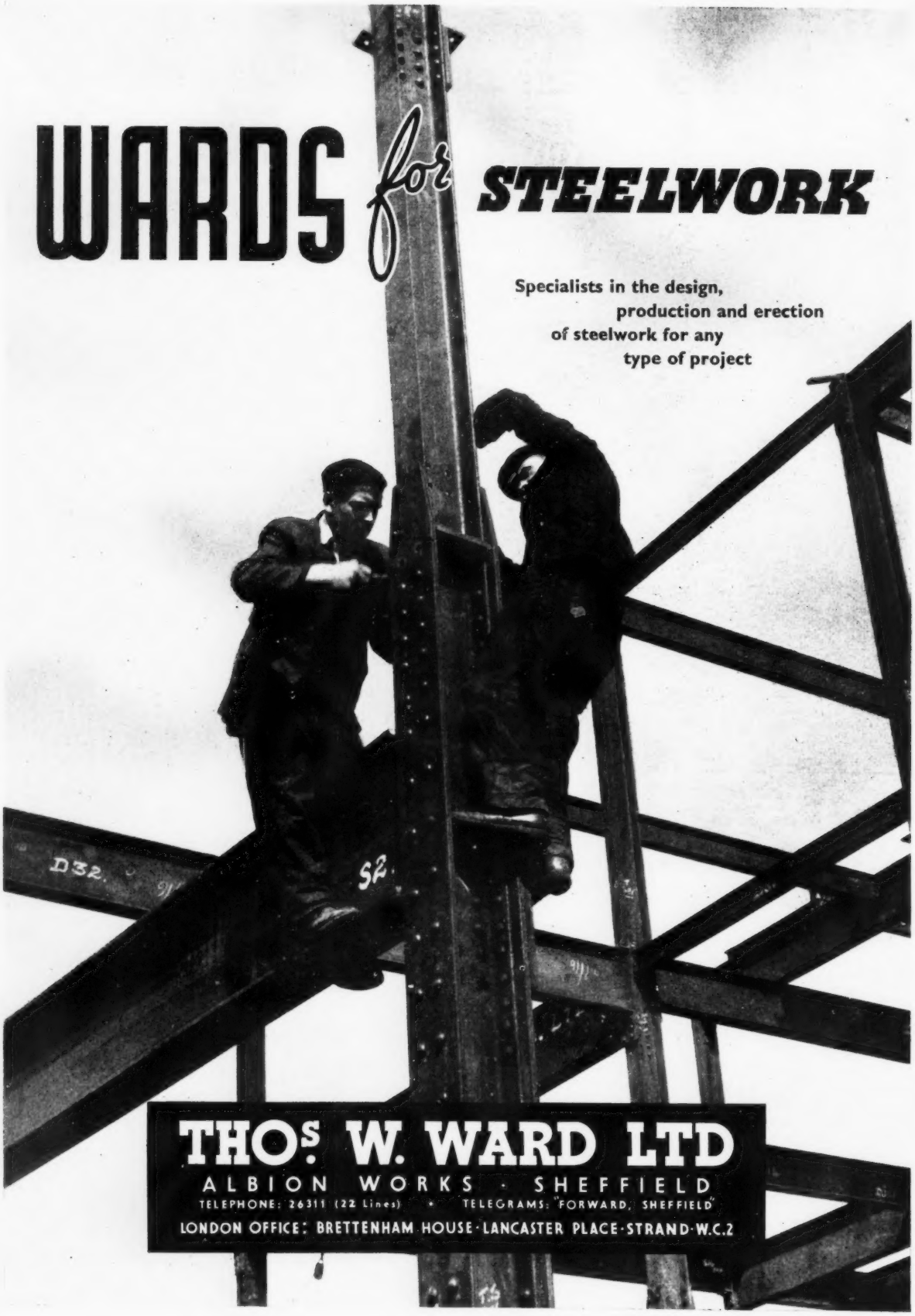
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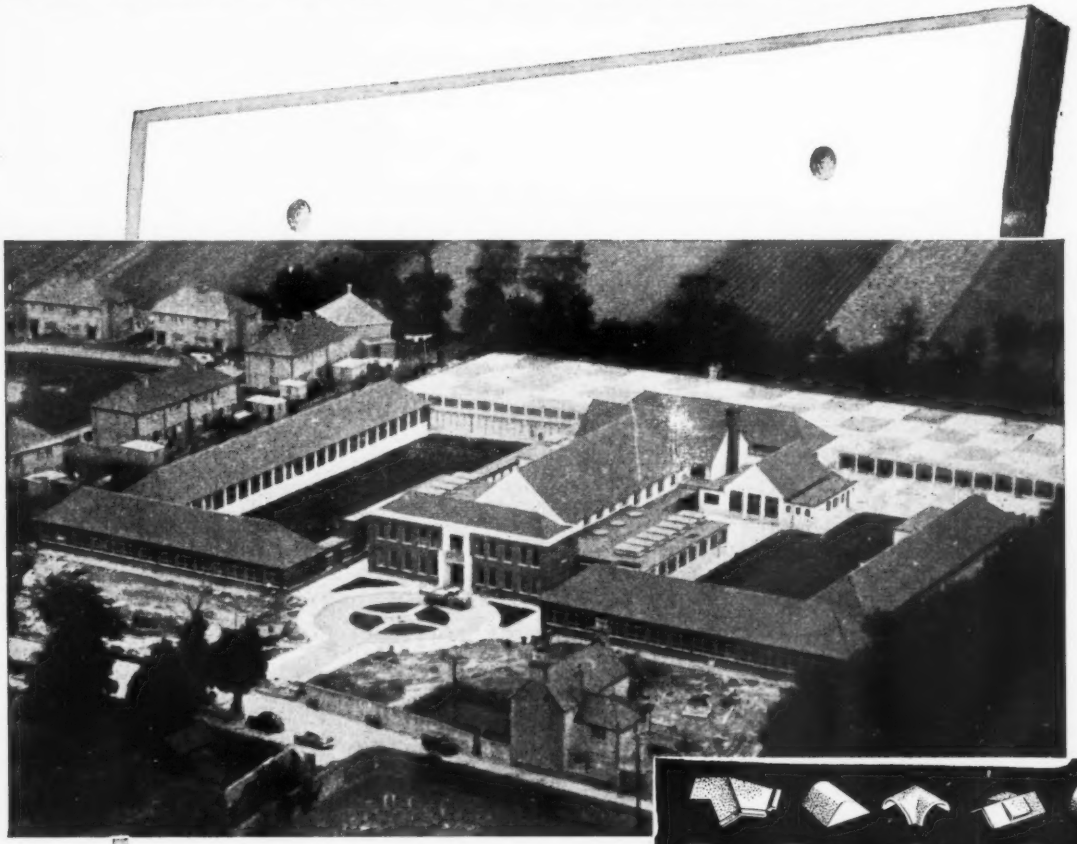
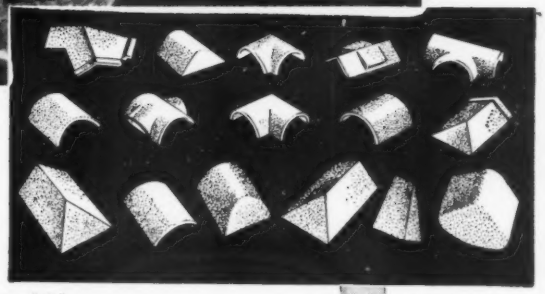


Designers: States Engineers Dept., Jersey. States Engineer: G.C. Law Esq., A.M.I.C.E., M.I.Mun.E. Contractors: Messrs. C. W. Construction Ltd. Photograph by courtesy of the Jersey Evening Post.



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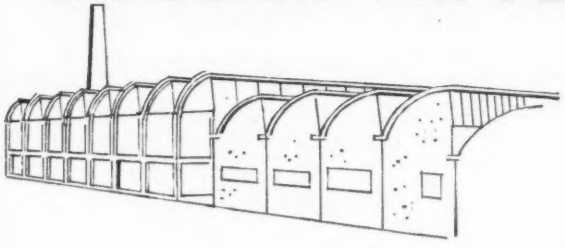

Shown in the act of being removed is a large, convex form of Canadian fir plywood used to mould the "thin shell" concrete roof at the new Cadbury factory* in Cheshire. Use of the big, 32-square foot, waterproof-bonded panels results in smooth, ridge-free concrete surfaces, with important savings in time and labour . . . one of the many ways British builders are taking advantage of lower cost Canadian fir plywood. Other uses for the strong, split-proof panels are: roof decking, floor underlay, laminated trusses and beams, hoardings and contractors' huts.

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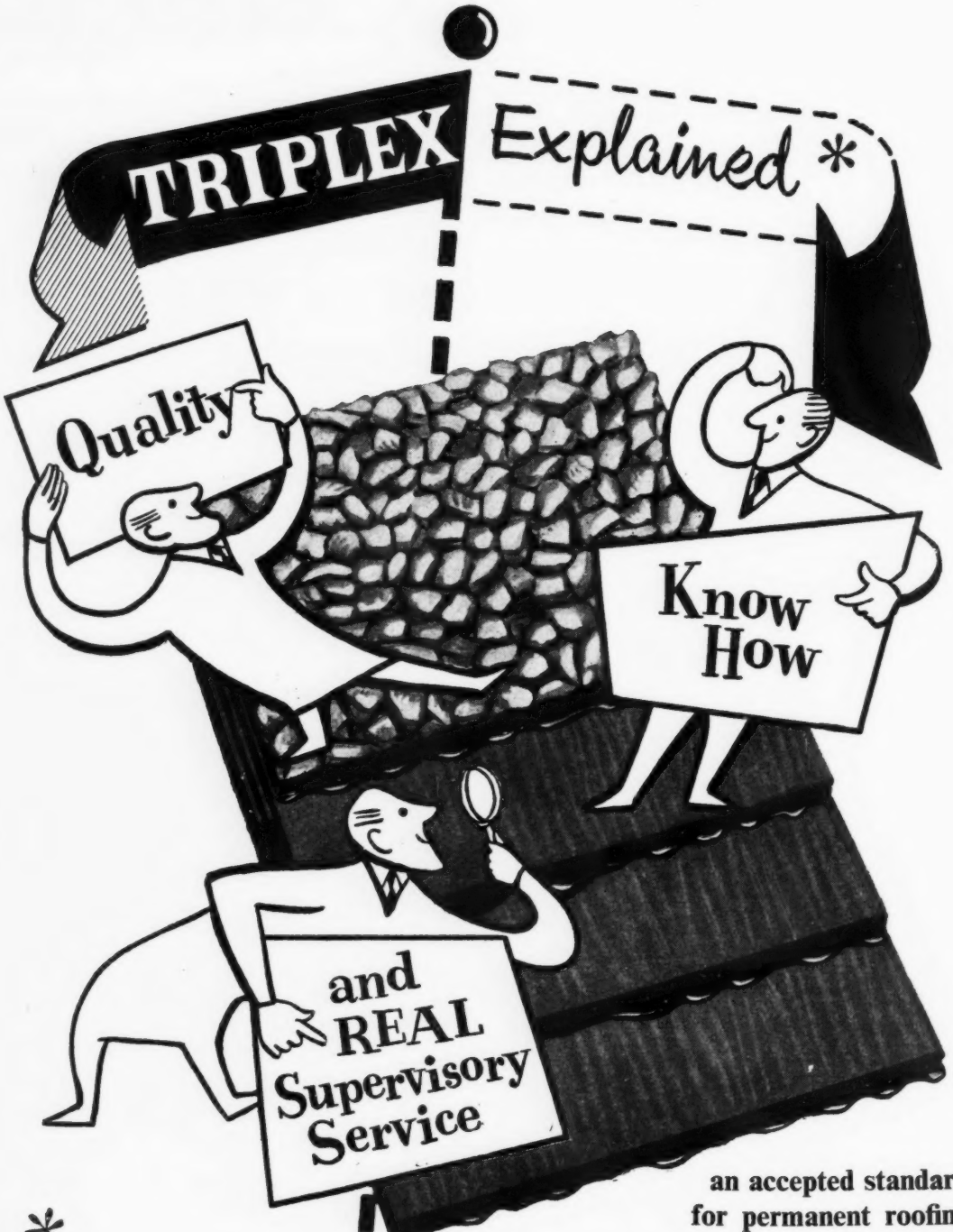

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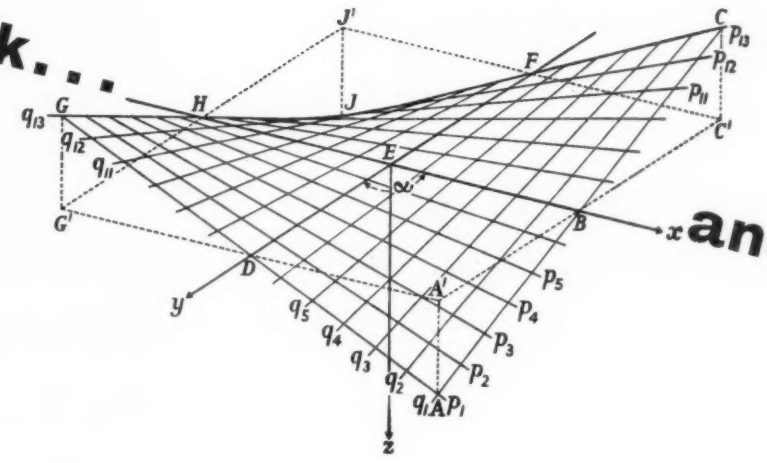

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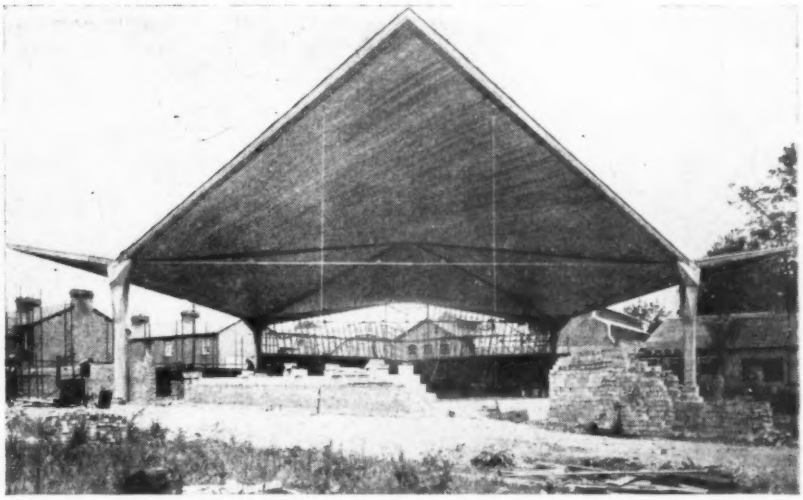

Hyperbolic paraboloid roof, the first of its type in the world to be built of timber, at the Wilton Royal Carpet factory. Architect: Robert Townsend Esq. F.R.I.B.A. *Photograph by courtesy of Timber Development Association Ltd.*

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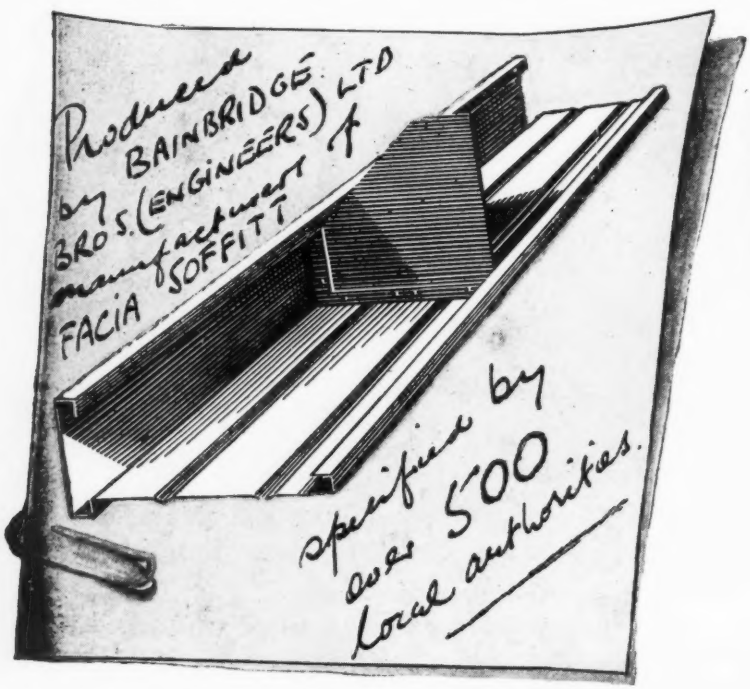

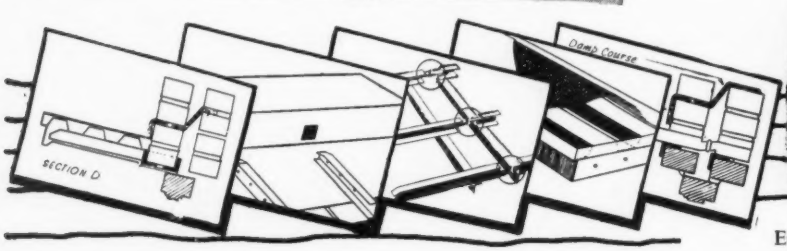

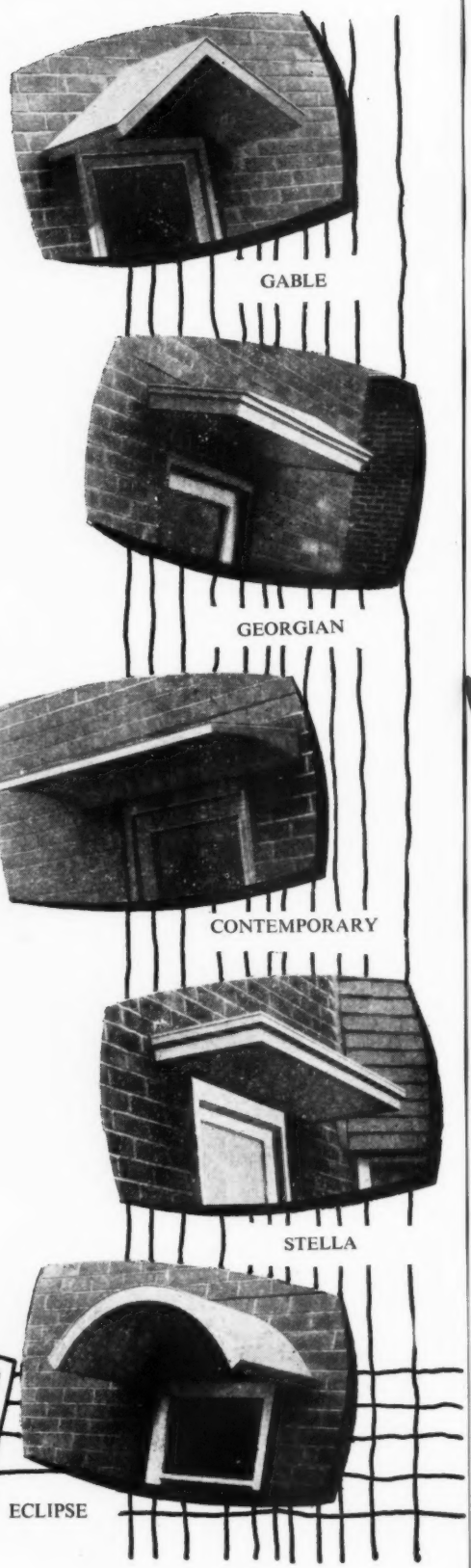

I knew it when it was a tree . . .

Not seeing things are you Sir?
Yes, George, I am. I'm seeing that fancy wall up there. Maybe I cut down the trees that made it.

Would it be wood, then, Sir?
Wood that's been through the Bowater Board Mill, George—wood dressed up and with plenty of places to go. Here's looking at you, George, and your Bowater Reeded Hardboard. Long may you decorate this bar.

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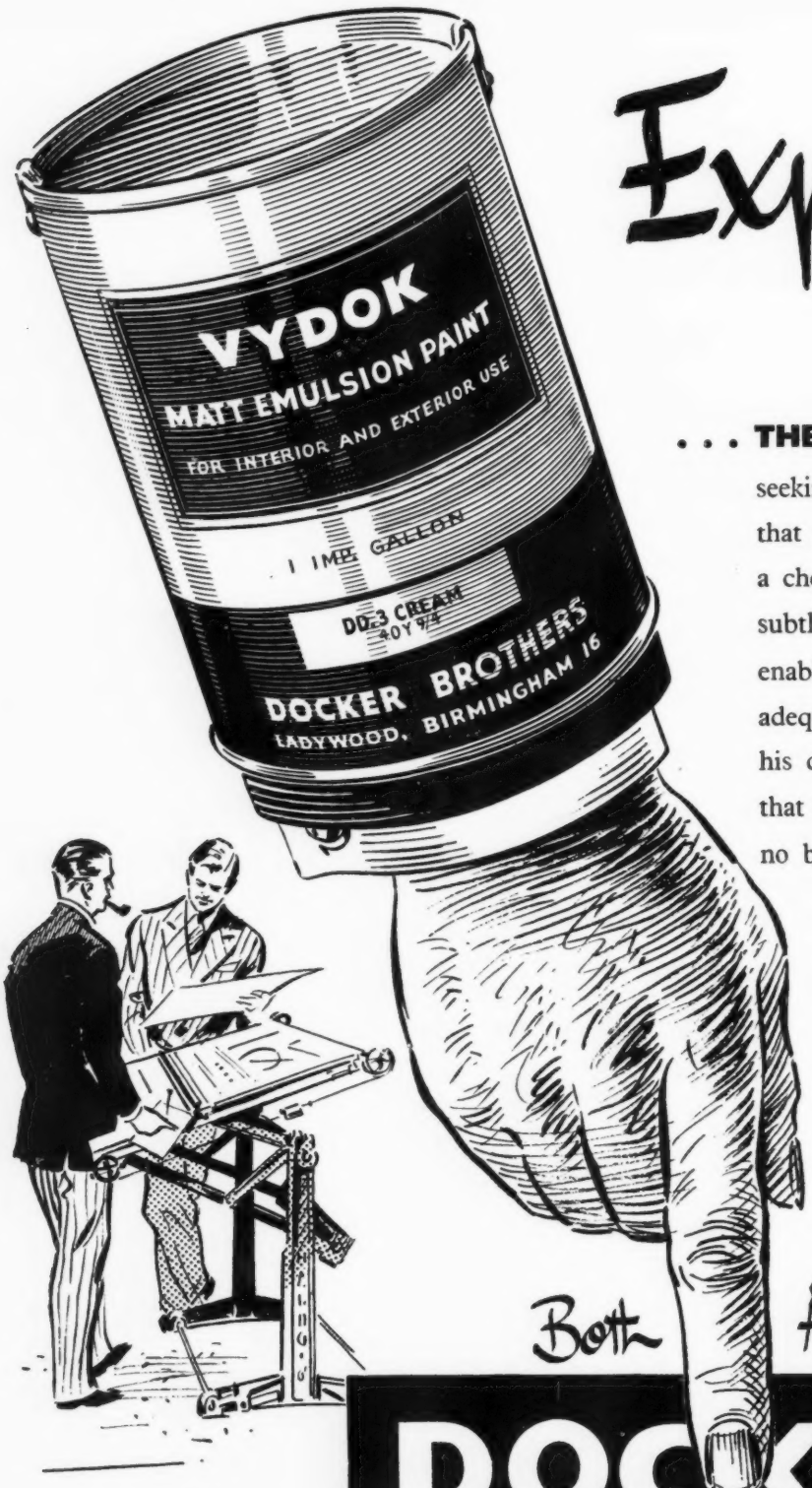

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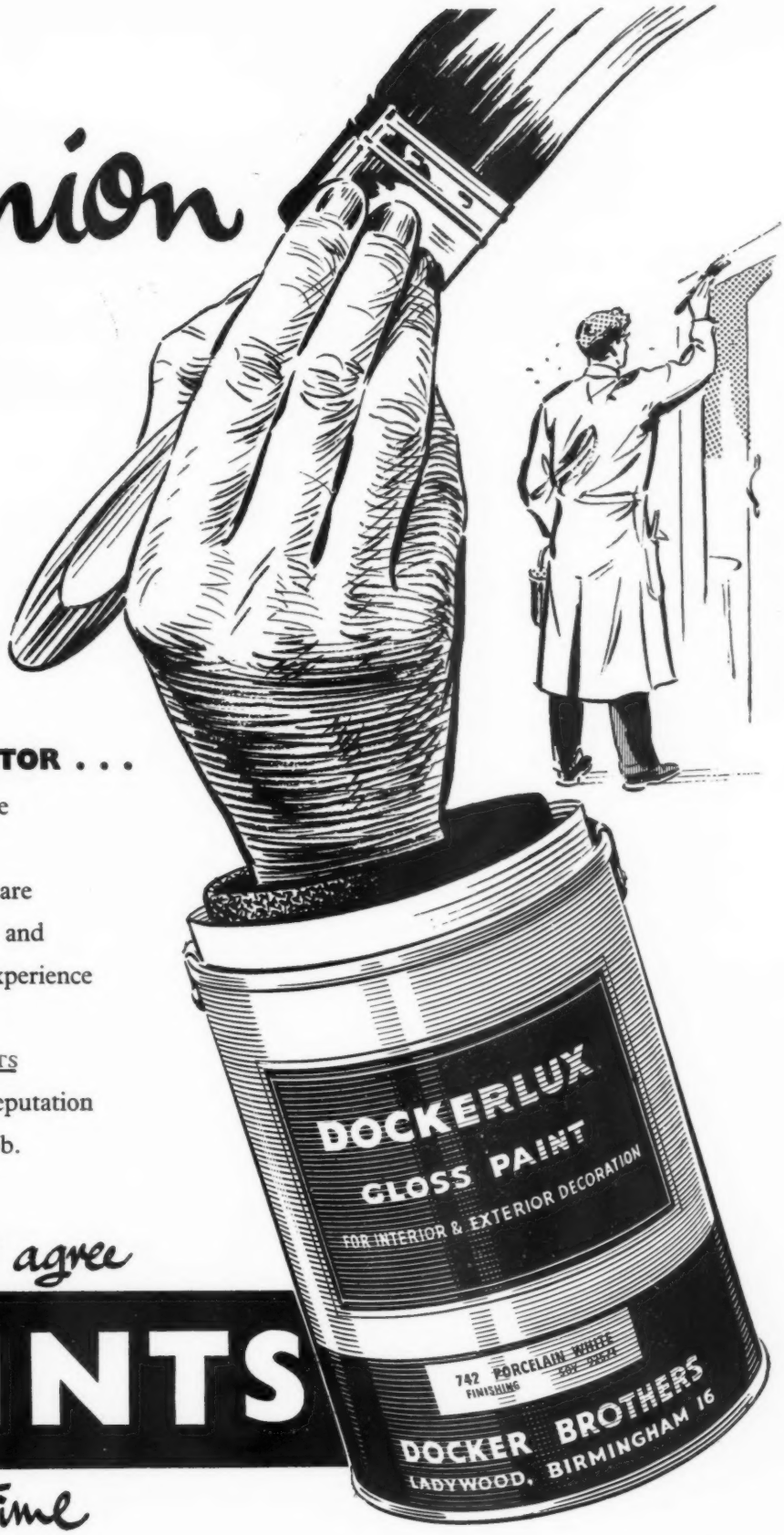

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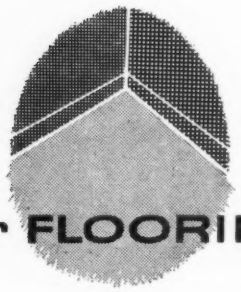

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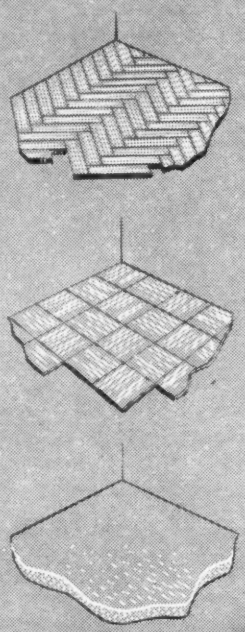

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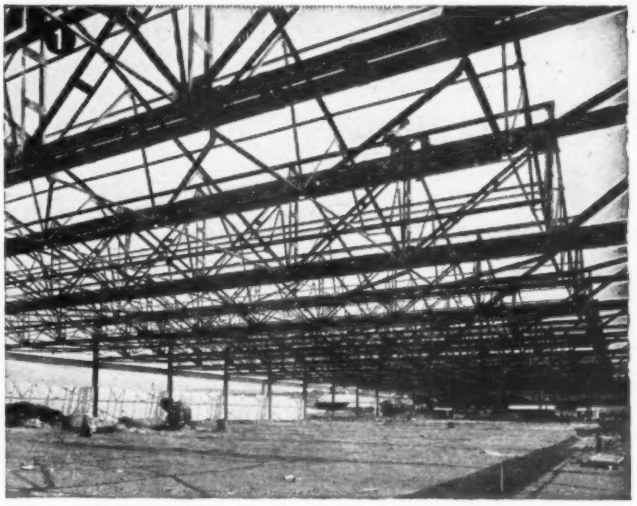

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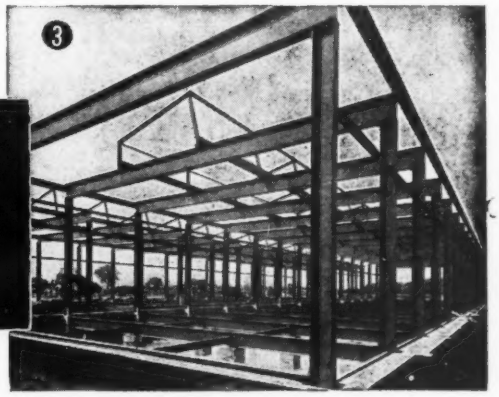

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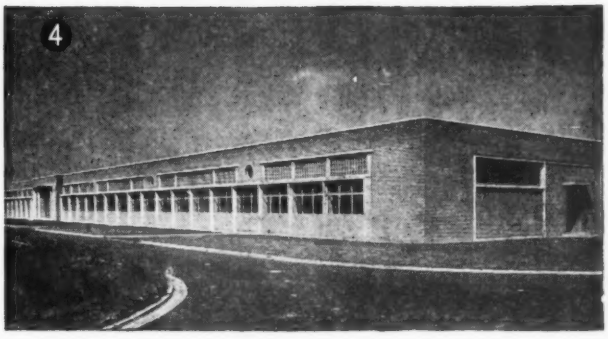

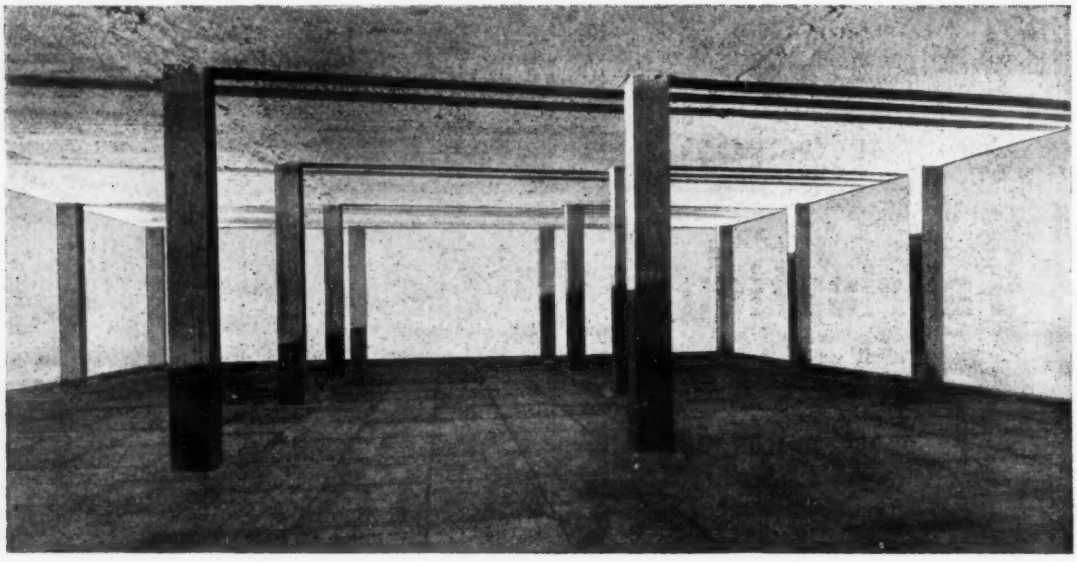

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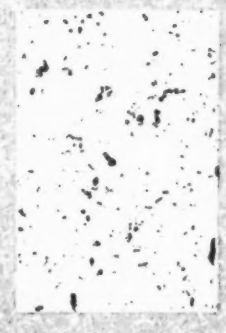
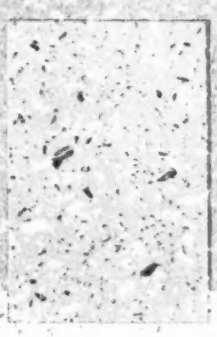
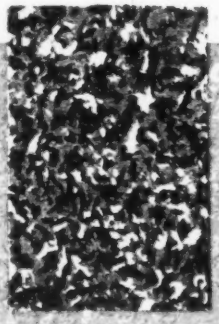
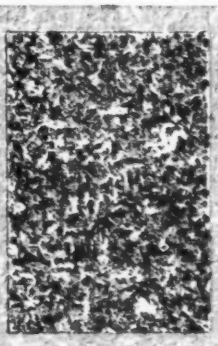




A FEW OF THE 17 COLOUR-FLECKED PATTERNS





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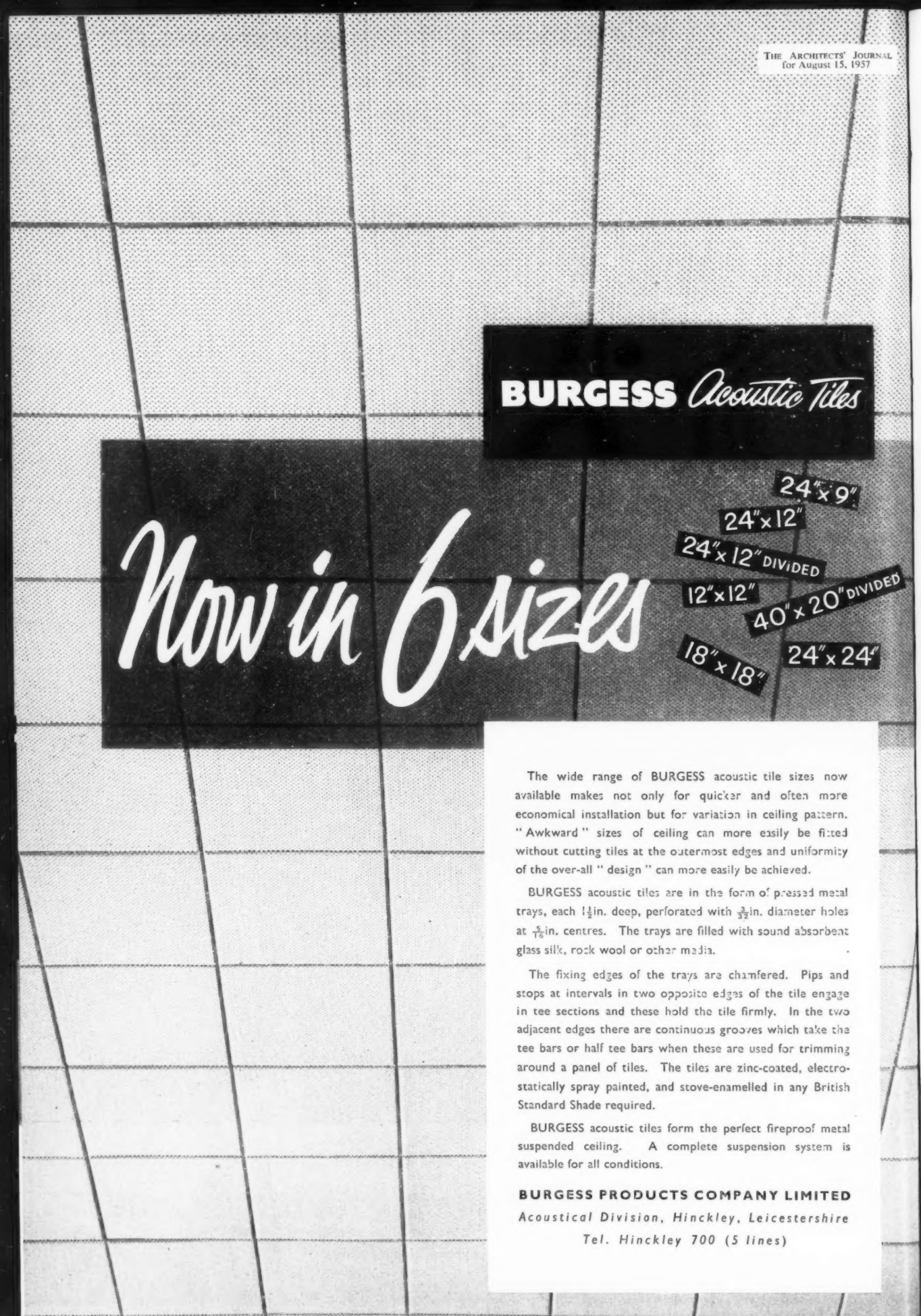

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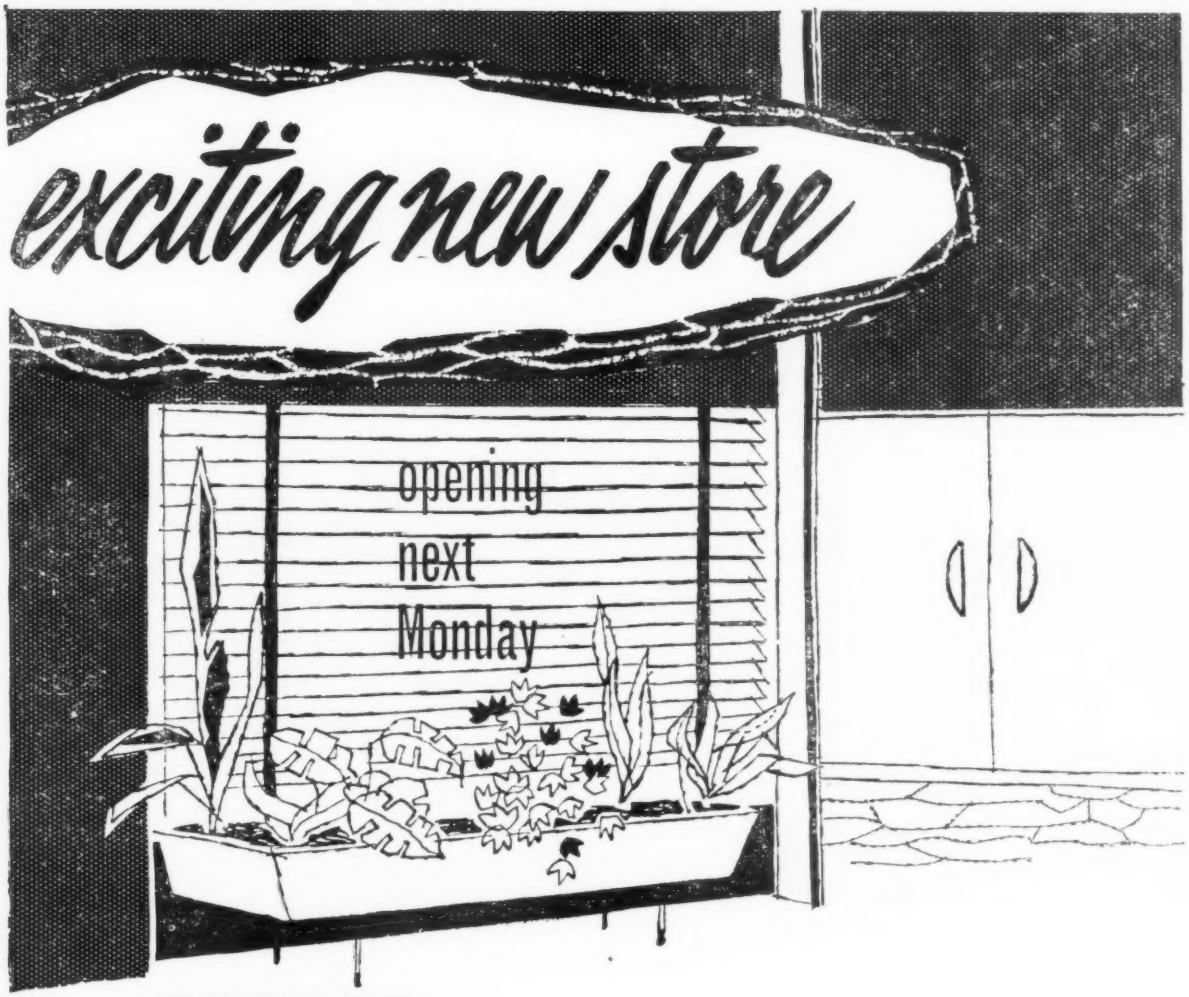

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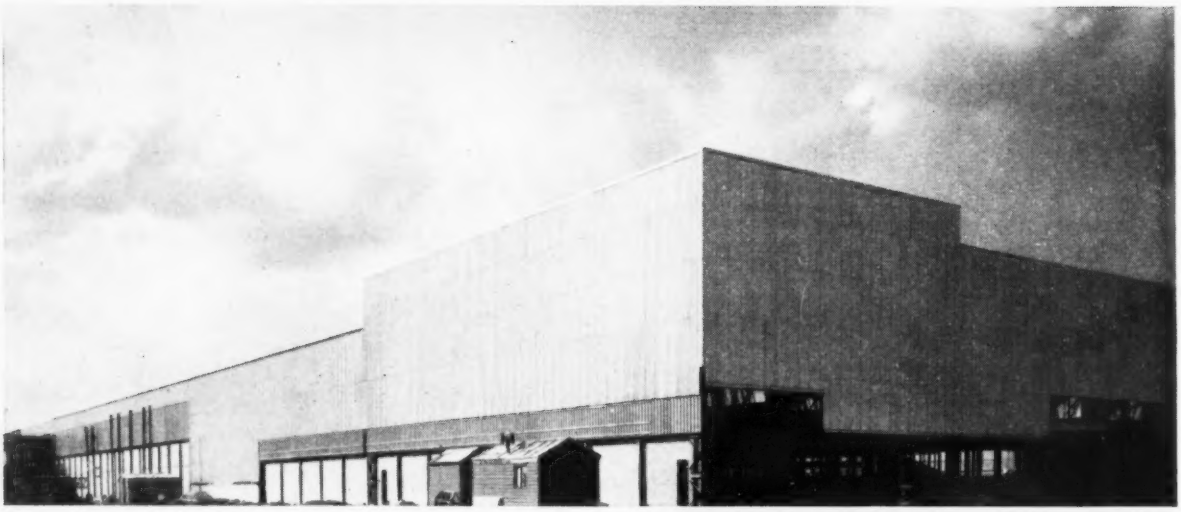

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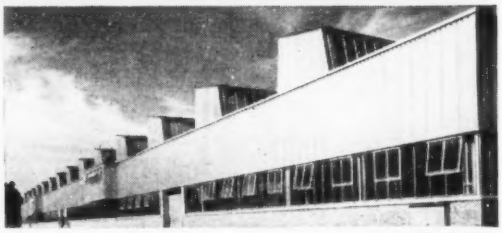
Top : Robertson Q-Panel, Type QSG, being erected at the Caterpillar Tractor Company, Tannochside. Architects : Wilson, Hamilton and Wilson, Glasgow.

2 : Robertson Q-Panel, Type QF, at the Rover Company, Solihull. Consulting Engineer : Thomas Bedford, A.M.I.C.E. Architects : Hasker and Hall, London.

3 : Robertson Q-Panel, Type QSA, at the Chance-Pilkington Works. Architects : Ormrod and Partners, Liverpool.

4 : Robertson Q-Panel Type QF, at the British Thomson-Houston Works at Larne, Northern Ireland. Contractors : Holland & Hannan and Cubitts.

5 : Robertson Q-Panel, Type QF, at Metropolitan-Vickers Electrical Company, Manchester. Design by Metropolitan-Vickers Architects Department.



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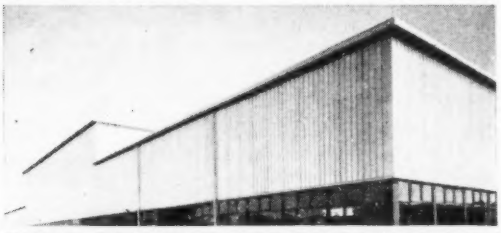

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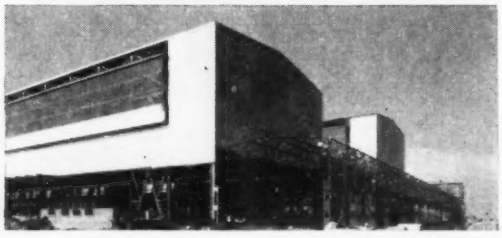

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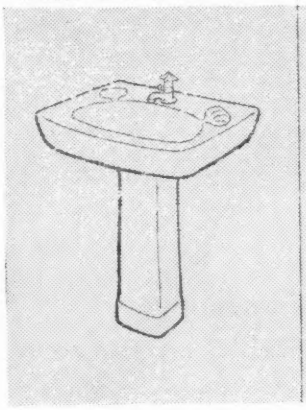
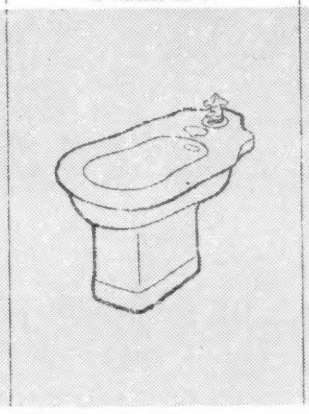
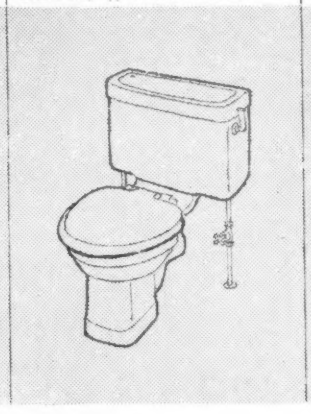


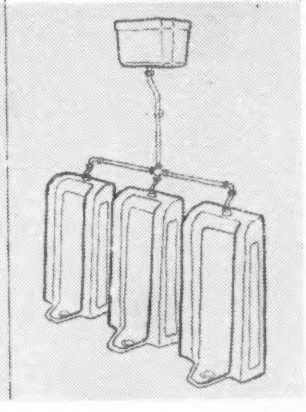
1047 M/VC "Orlux" in Vitreous China



116/VC "Unisyla" double trap syphonic in Vitreous China



3009/VC "Sanvit" in Vitreous China



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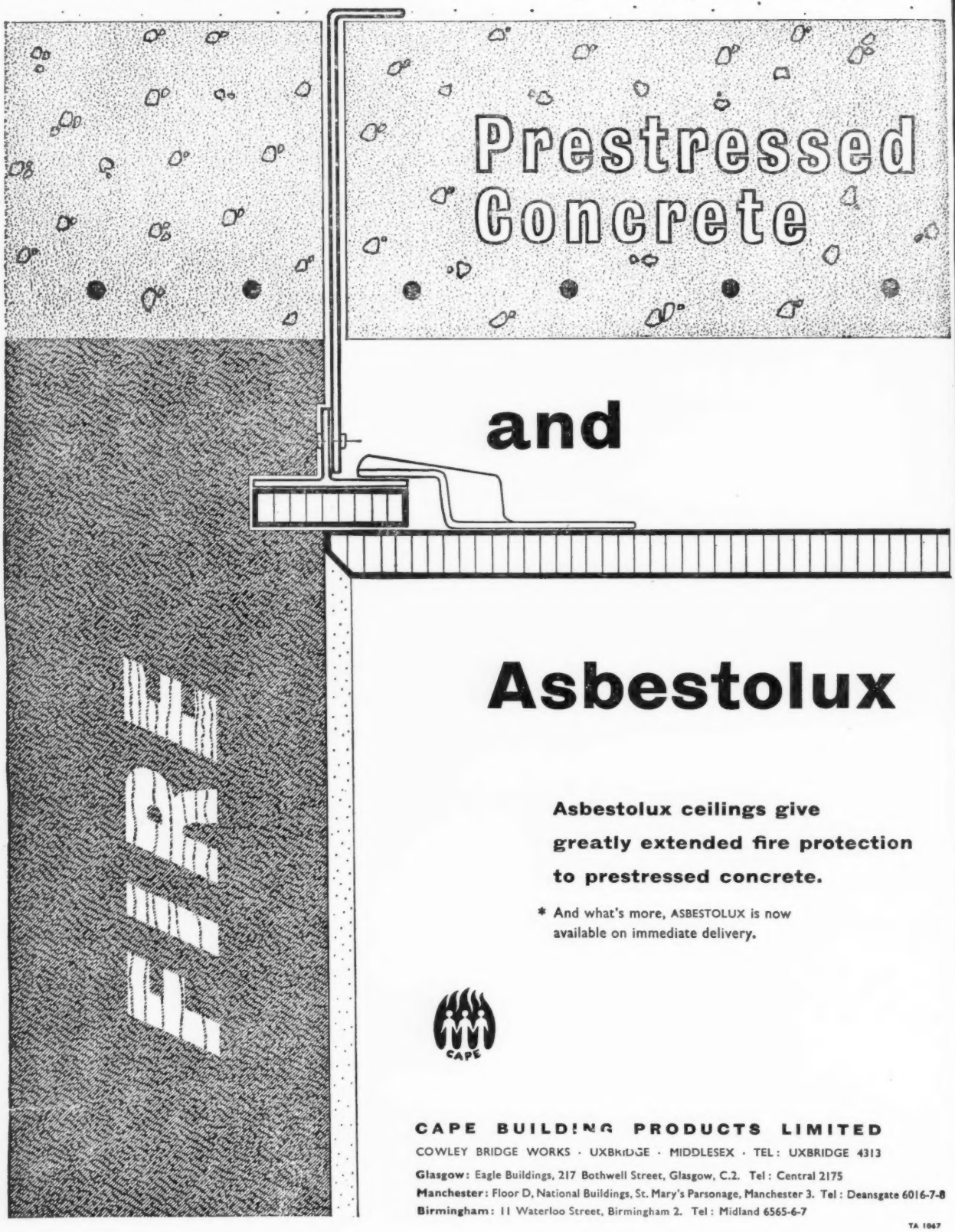
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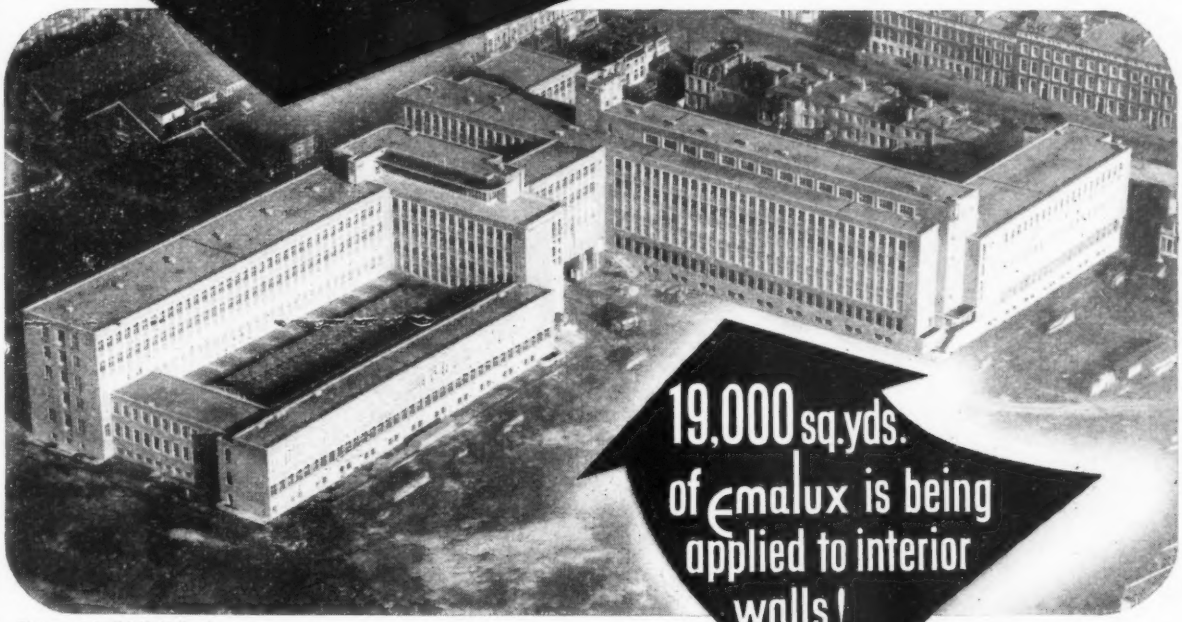

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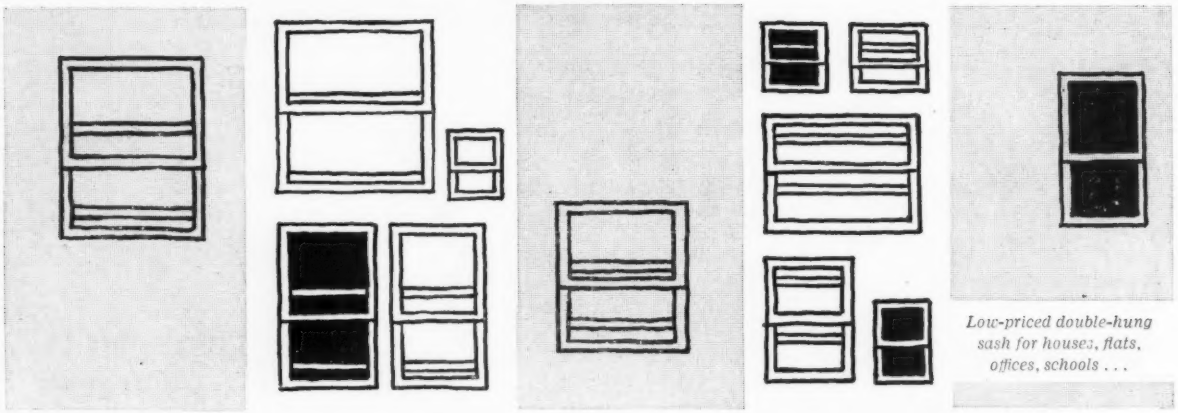

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Type 35, 4′8⅜″ x 2′8½″	Type 45 4′8⅜″ x 3′5½″
Type 16, 5′8⅜″ x 1′2½″	Type 26, 5′8⅜″ x 1′11½″
Type 36, 5′8⅜″ x 2′8½″	Type 46, 5′8⅜″ x 3′5½″

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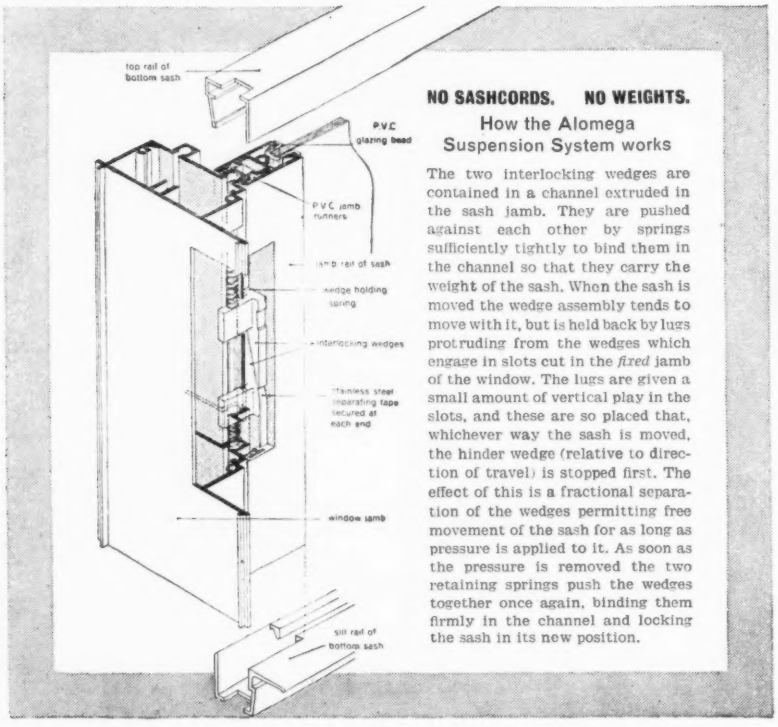

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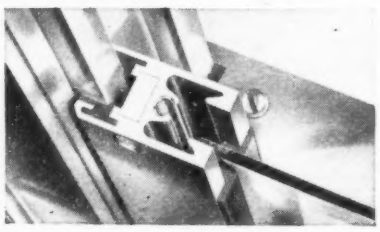

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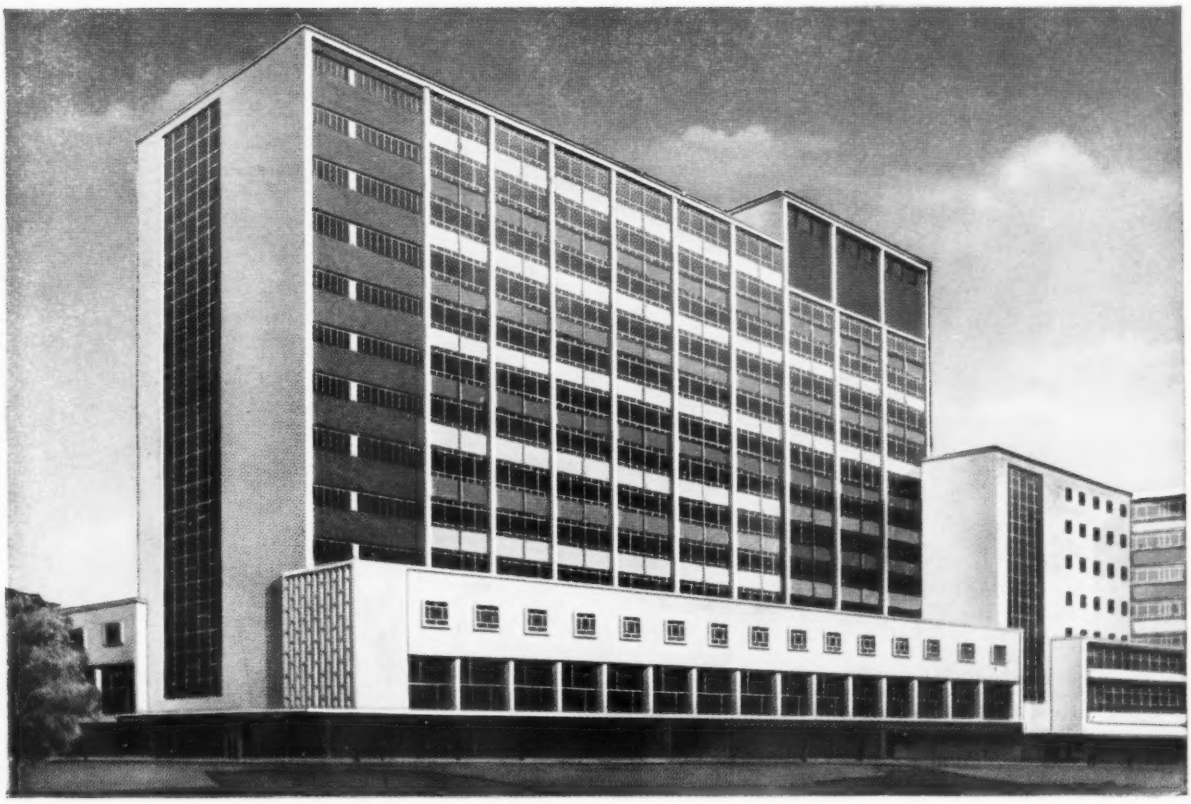

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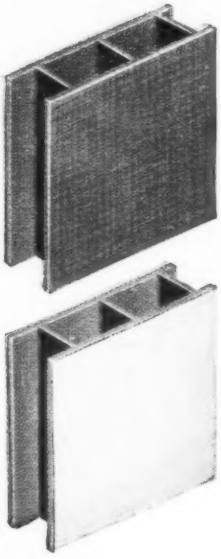

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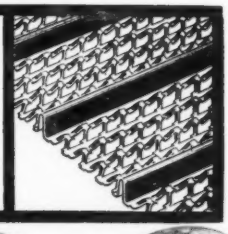

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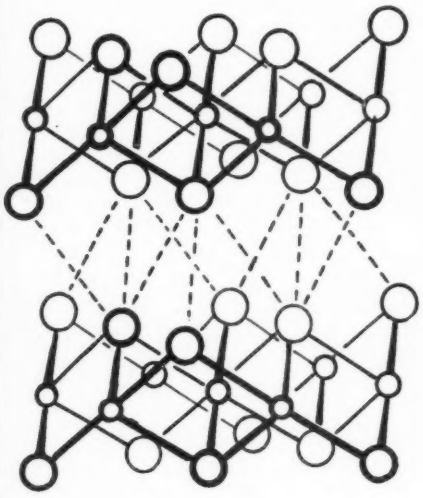

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NOT QUITE ARCHITECTURE

UNGRAB THAT GONDOLA

Once upon a *dreadful* day, a tall, dark neo-Palladian yawned at the mention of "Divina Proporzione," and the panic was on. It had been a terrible season: a ranking Brutalist had been rude about Alberti, a man at the ICA had described *Bicycle Thieves* as "creep," *Vogue* had spoken up for ordinary coffee, and old ASTRAGAL had treated an exhibition of Italian Industrial Design with what sounded like tolerant amusement, instead of the loutish self-abasement required by protocol. In other words, the bright boys had eased the skids under the Italian influence just when it was building up nicely, and it has now slipped so far that an Espresso bar is a place where you have Devonshire teas in Cuban décor to the strains of a skiffle group, and a copy of *Domus* lasts for ever, instead of getting shredded in a fortnight.

*

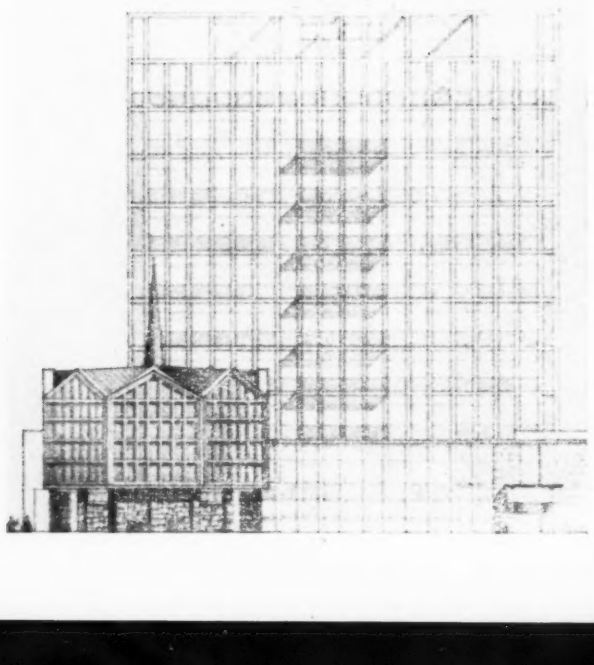
At this point, the weekend egg-heads—always prompt to flog the dead horse of a stationary band-waggon—have begun to take it up (as a lost cause, presumably) and at the Café Royal one dull evening recently a team of middle-essayists, lady film-critics and Establishment art-pundits wagged their heads gravely over the influence of *espresso*, scooters and Italian films on the English way of life. It was the kind of discussion that makes the average symposium on elemental bills sound like dialogue by Oscar Wilde, but it left a question uppermost in one's mind—what made the Italian influence tick?

*

Leaving aside the purely trade reasons operative on architecture students, *viz.*, the refusal of their elders and betters to teach them anything about architecture, and the permanent manic-depressive influences like Venetian honeymoons, lady water-colourists, Ruskin, Norman Douglas and Our Gracie, what was it hit the English about 1950 and left them spin-dizzy for over half a decade? The answer was briefly sighted by Paul

The Living and The Dead

Neither Rolf Rosner, who writes about the Berlin building exhibition on page 242, nor Dr. Nikolaus Pevsner, who gave a Third Programme talk about it the other day, is entirely happy about the layout (left) of this "live" exhibition. "Surely," said Dr. Pevsner, "in such a quarter you want to convey a sense of unity—not uniformity but unity." But he went on to say, forgivingly, that this display of design by more than fifty architects (working within an overall plan by Professor Kreuer) was a complete success *as an exhibition*, and that what it lost in unity it made up for with "zest, energy and faith in the twentieth century." This "faith in the twentieth century" is not just an idle catch-phrase. As Dr. Pevsner said, Berliners seem to take modern building in their stride. And he referred to the group of office buildings, and the magnificent new cinema—the *Zoo Palast*, which have recently been completed (left) near the exhibition area. But is there something shaky about this twentieth-century faith? Why is it that many Berliners (and Dr. Pevsner) defend the retention of a ruined church (below left) among these new buildings? Any architect who has seen this view from the Kurfurstenstrasse (and it is not really photogenic) will agree that there is a visual rightness here about taking the rough with the smooth. But is there more to it than that? Dr. Pevsner says that "the style of the twentieth-century, whether we like it or not, lacks fullness and richness." This statement is too disturbing to throw away with the daily epigram on the office diary. Isn't it partly this desire for richness that makes business tycoons and local government officials demand heavy pseudo-classical details on buildings? And isn't it also the reason why the architect who won the Carlisle competition (below, and pages 237 and 249) was impelled to set a quaint folly beside a slick tower block? Charles Pearson's mock ancient monument was described by the assessor as "a most dignified setting for council meetings". But was the architect thinking of the "dignified" *function* of his building when he designed it. Or did he simply think that his modern facades would look too deadpan without a foil that kept out of keeping?



Reilly in the course of the Café Royal forum, when he observed that *espresso* machines as such seemed to be designed to fit into chromium, American-style bars, not the Espresso bar as it is understood in the Brompton Road.

*

That was the first clue to the answer, and the rest followed by checking what had occupied the vacuum left by the fading of Italian influence—Jayne where Lollo had been, Plymouth where Ferrari had been, Mies where Ernesto had been, Aspen Congress where the Triennale had been, Norbert Wiener where Croce had been, and so on all down the cultural line. Italy, in fact, had been a "clean" substitute for America in the panic years when the onset of the Cold War had forced puzzled pinks, tweedsmen and do-gooders generally to face the fact that FDR was dead, and that you couldn't incline to the gusto and busto of the American Way of Life while leaning to the Left.

*

Italy, undergoing a maximum wave of American influence (the first post-war Italian car I saw on Italian soil was an imitation Studebaker crammed on a *Topolin* chassis in 1950) and in many ways outdoing the US at its own game (remember those side elevations of Silvana Mangano?), but rendered respectable to the veterans of the Pink Decades by virtue of the biggest Communist Party and the worst social problems in Europe, was the perfect let-out. Add the traditional connections mentioned earlier, and a modicum of guilt for having won the War, and we didn't stand a chance, did we?

*

Those days look as if they have gone for ever. Give it a decade, and someone will make a fortune by reviving *Grab me a Gondola* as a period musical.

REYNER BANHAM

DIARY

Mr. Therm at Home. Gas Council exhibition at the Tea Centre, 22, Regent Street, S.W.1. 10.30 a.m. to 6.30 p.m.

UNTIL OCTOBER 4

An Exhibit. At the ICA, 17-18, Dover Street, W.1. "A game, an artwork, an environment; pre-planned, individuated and verbalized by Richard Hamilton, Victor Pasmore and Lawrence Alloway; to be played, viewed and populated." Monday to Friday, 10 a.m. to 6 p.m., Saturday 10 a.m. to 1 p.m.

UNTIL AUGUST 24

Townscape Course. At York Institute of Architectural Study, Micklegate, York. Tuition fee: £5 5s. Lecturers include J. L. Berbiers, G. F. Chadwick, H. F. Clark, J. Haslegrove and D. L. Thomas.

SEPTEMBER 20-24

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

The Editors

MANAGEMENT FOR ARCHITECTS

ON page 267 you will find news of a joint management course for architects, quantity surveyors and builders at Sundridge Park Management Centre, at the end of November. The fee is 20 guineas and there are 8 places for architects. The lectures will be on management generally—its relevance to building and architectural problems being worked out in the discussions.

Management—as a recognized and separate discipline—began to penetrate the upper crust of the building world only two or three years ago, but its value to greater efficiency was quickly recognized. In the architectural world, except for the York Institute courses, its significance has yet to be accepted. The widely-held view still is that an architect's own work, by its nature cannot be programmed and that programming of work on the site is entirely the builder's affair. This idea stems from the traditional notion of the architect's role in society—one consequence of which is the recent growth of the "all in" service organizations who boast that the client suffers no delays, can be sure what he will have to pay, gets his building more quickly, and does not have to deal with several professional advisers as well as the builder. The position of the architect in such an organization raises the question of the quality of the buildings so produced, but if the profession is to maintain or even improve its control of architectural quality, architects must learn management. Hence we welcome this lecture course, and particularly that it is a *joint* course.

The architect's traditional skill has always been the planning and integration of *spaces*. Management has been essentially the planning and integration of *events* in time. Thus management techniques are not innately foreign to the architect's professional role. Indeed we think it possible that the architect can in time add another dimension to management skills.

CONTEMPORARY ANCIENT MONUMENT

Lewis Mumford's long-standing moan about the UN building—that the Secretariat visually overwhelms the Assembly, and gives a poor symbolic picture of democracy at work—is one that will strike a chord with everyone who has ever tried to wrap a building around any democratic body; but ASTRAGAL takes leave to doubt that anything smacking even faintly of a gimmick solution will ever give more than momentary satisfaction. This reflection is prompted, as you may have suspected, by the prize-winning design for Carlisle Civic centre, which you will find on the opposite page and on page 242. The idea of getting the Council Chamber out into the open, where rate-paying passers-by can see it, seems basically admirable, though the sight-lines south along Rickergate will leave it largely concealed—spire or no spire—until one is practically on top of it; with those acres of empty pavement to play with, it could surely have stood out even more proudly.

*

But the actual shape employed for it seems open to profound and disquieting second thoughts. The unaccented octagon of identical elevations suggests a centrally-focused interior, but the focus is, in fact, towards the centre of the southern face. Furthermore, the use of such an octagon raised on apparent stone piers, does indeed suggest a traditional focus of local life, but a commercial, not a governmental one, and a southern, not a northern one. Both form and materials suggest the market-crosses, butter-markets, or what-have-you, that can be found across the southern counties from Wymondham in Norfolk to Shepton Mallett and beyond, and one cannot help a sneaking suspicion that this not-quite-contemporary edifice is—on a large scale and in 3-D—a reflection of that municipal penchant for Cotswold detailing that Ian Nairn kept belting away at in *Counter-attack*. To change this single isolated building would not involve drastic overhaul of the design at large. May one hope that the architects and the Burghers of Carlisle will put their heads together and dream up something that is proud to be local, appropriate, honest and contemporary?

BRUNEL

The work of the pioneer engineers of the time of the industrial revolution seems to be very much in the news. The *Architectural Review* has long shown its interest in them, and has not failed to point out that the functional tradition in English architecture, to which the best modern work owes so much, reaches one of its creative climaxes in their bridges, docks and similar buildings.

*

The *New Yorker* recently discovered, in a series of long articles, the dramatic and tragic story of Brunel's "Great Eastern" steamship, an exhibition about Telford has just been staged by the Institution of Civil Engineers (I commented on it a couple of weeks ago), and now there has appeared a new biography of the younger Brunel by canal-expert Rolt who is also, I am told, preparing a biography of Telford.

*

His Brunel book* is a most readable account of a veritable giant among men, and even if it does not give the intimate picture of his character that emerges from Lady Noble's well-known book on him and his father—which isn't surprising seeing that she is his grand-daughter—it more convincingly relates Brunel's achievements to the technical and social developments of the time.

Architects may regret that Rolt puts so much emphasis on Brunel's ship-building activities, but as these occupied so much of his energies in the last years of his very short life—he died at 53—I suppose it is justified. What a life of daring and application. At least we can say that few men have so fine and appropriate a memorial as Brunel has in the Clifton suspension bridge.

LAMINATED AND LAMENTABLE

It is humiliating to recall that, while we write books and stage exhibitions to commemorate men like Brunel, the inspiration and impetus they provided in the field of railway design has now run itself out as far as this country is concerned. There is no modern British station to compare even remotely with that at Rome or the projected one at Naples, while Continental visitors to Britain arrive at Victoria in the middle of a special, exclusively-British-Railways form of Subtopia. The latest effort in station design is illustrated opposite; an experiment in laminated timber at Preston by the London Midland Region Chief Civil Engineer. The use of this material is in itself salutary, but ASTRAGAL feels that it must take some considerable ingenuity to produce such clumsy details.

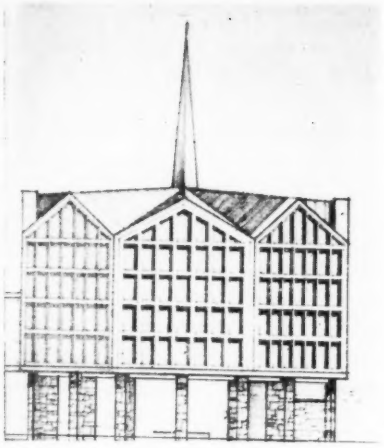
CRITICISM CRITICISED

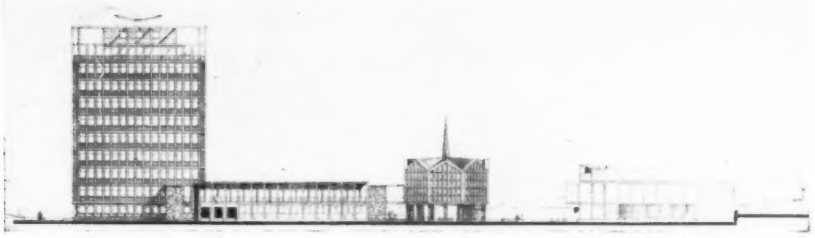
Jules Langsner, the sharp-toed art editor of *Arts and Architecture*, has recently delivered some smart kicks to the shins of a number of well-established schools of architectural criticism, though not—one hastens to add—the kind of criticism that tries to make sensible evaluations of actual buildings. His targets were the standard brands of "arcane jargon, euphemisms, incantations, fustian and obfuscations" that get aired on Gold Medal days, axe-grinding sessions, in slanted editorials and in student publications.

*

His examples are imaginary, but they have an awful ring of truth. Those who can remember Aalto Week will surely find something uncomfortably familiar about "His daring, profound intellectual grasp, unmatched intuitive power, and complete independence of conventional solutions, assure our time the designation—Epoch of the Master." Nor should you have any great difficulty in tracing the following back to

**Isambard Kingdom Brunel*. By L. T. C. Rolt. Longmans, Green & Co., Price 25s.





The building on the left is not a market-cross, but a council chamber—part of the winning design (above) in a competition for Carlisle's Municipal Offices and assembly hall. The architects were Charles Pearson and Son, of Manchester. See note on opposite page.

a source embarrassingly close to a bow-tied grey eminence of German extraction: "We must bring industrial anonymity to the æsthetic level of mediæval anonymity. Architecture becomes great when the individual designer and craftsman loses his identity in the common effort. The best products of the machine age . . . etc."

*

Other schools punctured by Langsner's Pocket Guide to Architectural Criticism are the Hosannas-to-Purity, Our-Way of Life (a shrewd raspberry for *House Beautiful*), Build-for-the-Whole-Man (which sounds like CIAM at its silliest) and Architectural-Science-Fiction, which, he says, is "clearly seen in visions of glistening spheroids and ovoids spread before the homeward-bound, helicopter-borne electronic-computer operator. Once inside his ejection-moulded, all-in-one-piece retreat he can, if he likes, hose down his cornerless, washable plastic interior. An additional side-benefit is that his house weighs only thirteen pounds."

*

Hatchets, anybody?

BUY A PARTNERSHIP

Do you want a partner? Or do you want to be a partner? If your answer is "yes, but what about the money?" ASTRAGAL has a useful tip for you. An insurance company has recently introduced a scheme by which, if you are under 50, you may borrow anything between £1,000 and £3,000 for the purchase of a partnership in an "established practice."

You pay six per cent. per annum interest on the loan, and you repay the money by means of an endowment assurance (10 to 15 years) for a sum equal to the amount of the loan. This includes "incapacity benefits," which means that you do not have to pay premiums during prolonged illnesses, and that you give up paying altogether if you are permanently put out of action. Incidentally, if you survive, this excellent scheme also reduces your taxable income.

*

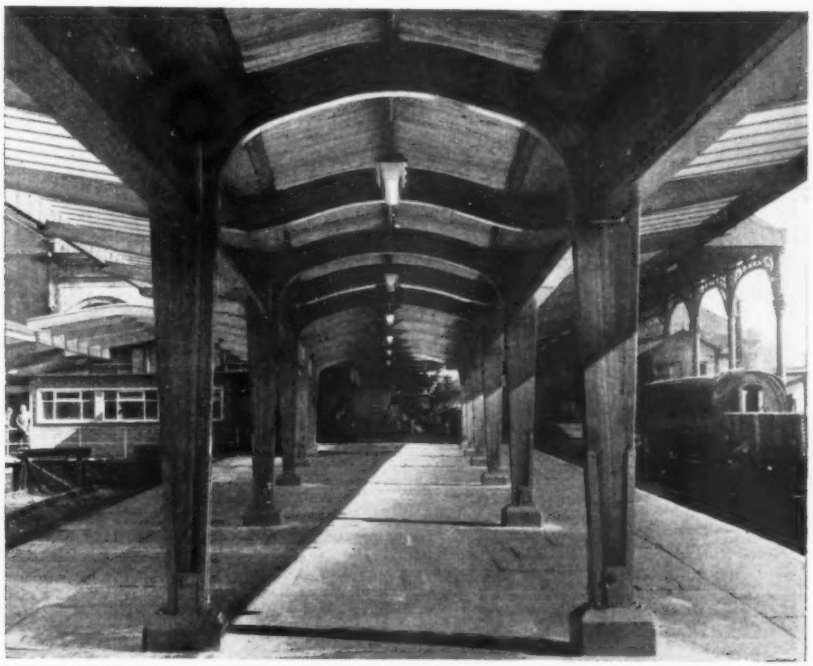
Before you all swamp me with letters, asking for more details, let me give you a rough idea of what the scheme would cost you. If you are 30 and you want £2,000, you will have to pay just over £18 each month. And you will pay that—you hope—out of your partnership's profits.

NO RAILING YET

ASTRAGAL, who always had a great affection for the old wrought iron suspension bridge over the St. James's Park lake, does not much like the MOW's new prestressed concrete job. It is, however, quite economically designed, and will be a lot better when the very flabby fish in relief on the piers have disappeared under a good coat of grime. The railings are not yet in place, but several people have called my attention to a centre row of sockets which suggest there is to be a one-way traffic system with "keep left" notices. The MOW tell me that the centre rail will only be used during Colour Trooping and on other occasions of great national rejoicing—when the public is too excited to know if it is coming or going.

ASTRAGAL

The experimental platform canopy in laminated timber at Preston, referred to by ASTRAGAL *opposite. It was designed by J. Taylor Thompson, London Midland Region Chief Civil Engineer. The experiment is reported as successful, and further use of the material is likely to be made by British Railways.*



CRITICISM

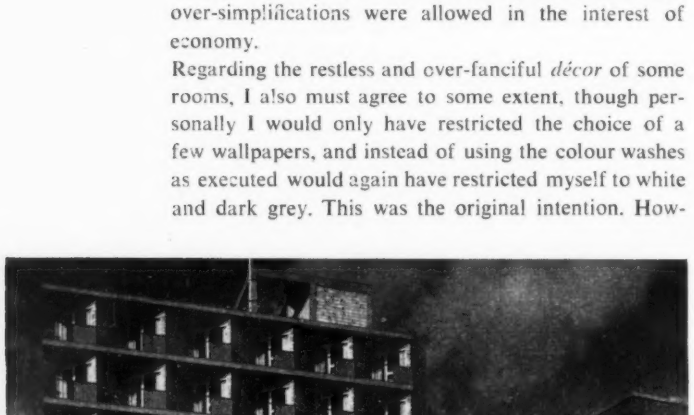
The Architect Replies

Last week we published a criticism by J. M. Richards of Louis Erdi's hotel design, The Dover Stage. (We also published a full description and cost analysis of this building). This week the architect replies to his critic.

From what I have seen in the past, architects replying to the critic of their edifice are happy to accept praise but somewhat intolerant of censure. I do not wish to take such an attitude, particularly as I largely agree with what your critic has to say about the shortcomings of this building.

Much of the adverse criticism centres on certain finishes. Most of the "rough and ready" trim has been tried out on other buildings and it was only after having been found that given reasonable maintenance —all hotels must have some permanent maintenance staff and this hotel is part of a chain already operating in the district—they wear reasonably well, that these over-simplifications were allowed in the interest of economy.

Regarding the restless and over-fanciful *décor* of some rooms, I also must agree to some extent, though personally I would only have restricted the choice of a few wallpapers, and instead of using the colour washes as executed would again have restricted myself to white and dark grey. This was the original intention. However, the client made himself at least partly responsible for certain interior *décor* with the obvious difficulty of control on our part. I must add that the result, in my opinion, is not as damning as suggested. In fact, with certain restrictions, he has made a commendable effort for a layman, and in numerous cases has co-operated and helped me to some considerable degree. His point, understandable of course, is that he is willing to accept contemporary architecture as long as his clients like it, and what they will like is best known to him and it is useless to argue æsthetics.



Concerning the odd shapes of the rooms, lack of bathrooms, etc. Finance was the main factor; after all, every square foot saved, particularly in the tall block, where it was saved on all floors, brought the scheme nearer not only to financial success, but in this case to realization, since the project was a shot in the dark and, as such, highly chancey.

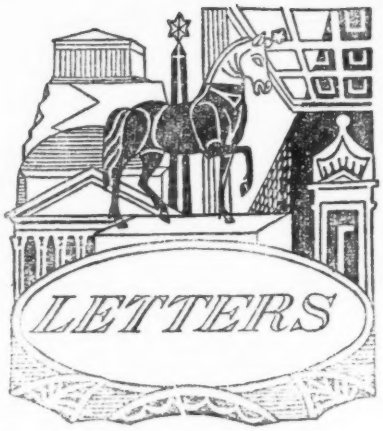
Similar considerations prompted the use of shingles as facings for infilling panels. They are the cheapest facings, which will last for decades, if not centuries, without practically any maintenance. In addition, they are a traditional Kentish material, weather well and, in my opinion at least, possess great character and a good colour and texture. They also add a considerable heat-insulating quality to the wall. Looking at them now, on the completed job, I do not feel any incompatibility in their use as a cladding element between a structural frame.

Concerning the dreary aspect of a grey roof; there seems to be some mistake here, for it is covered with ½-in. white marble chips, just in order to give a pleasant aspect both from the bedroom windows and the new block of flats.

So much for the adverse points. May I now be allowed to criticize the "Criticism." This building may not be brilliant, it certainly is not without faults, but it *is* one thing, namely, the result of co-operation between hotelier, tourism specialists and architect. As such, every problem was re-thought to its logical conclusion. The nett result of this is that a bedroom costs a fraction, probably only a third, of the usually-quoted figure. The lesson, if indeed there is a lesson to learn from this building, is the value of the co-operation between the people who have the "know-how" and the importance of a proper analysis of all functions to be performed, no matter how trivial. It is a pity, in my opinion, that this matter was not dealt with more forcefully in your article, particularly as this co-operation is so much advocated in your paper, mostly without any opportunity of a striking proof of its advantages, as in this case.

Finally, I wish to say that the Assessor of the Dover Flats competition was retained by the Dover Corporation as Planning Advisor, for approving our scheme, and co-ordination of the two schemes was discussed at great length. I must add that he has been most helpful and understanding and deserves much sympathy, for his difficulties in trying to not only melt into one composition two buildings of such different functions and financial background, but also two such extreme approaches to the æsthetic problem, were insurmountable.

LOUIS ERDI.



F. C. Porter, Metallurgist of the Aluminium Development Association

"F.P.C."

G. Stoddard, A.R.I.B.A.

D. Lees, A.R.I.B.A.

David W. Lloyd

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

E. Carr,
Building Engineer, Copper Development Association

Maintenance In The Festival Hall

SIR,—Our attention has been drawn to the excellent article on the Festival Hall (July 11): we welcome the positive manner in which the question of maintenance has been treated. This is of particular importance in a building which combines traditional and modern building materials.

We should like to clarify the position regarding aluminium windows, where a distinction must be drawn between utilitarian and decorative uses. The surface weathering—thickening of the original oxide film—which occurs after exposure to the exterior atmosphere, protects the metal and ensures that no structural weakening will occur. Without regular cleaning, however, this weathering will form a rough surface which, as your authors stated, quickly collects dirt and has a less attractive appearance. Regular cleaning serves to maintain a smoother appearance and even the natural washing received by some parts from rainwater gives a most marked improvement in the appearance of those parts.

We therefore recommend that for decorative purposes the window frames should be cleaned at the same time as the windows—the additional work involved once the window-cleaner is in position is comparatively small. In this connection, we should like further information as to how the relative cost of the cleaning of windows and window-frames was calculated. As windows have to be cleaned in any case, we presume that only the additional time spent at each window and the cost of appropriate cleaning materials is chargeable to the window-frame maintenance. If this is so, we would not expect the cost of each operation to be the same—£1,000.

The stains below the aluminium mullions interest us. We are at a loss to account for them as aluminium is a non-staining material. The cause of this discoloration is being investigated.

In the absence of information regarding the cleaning materials used, we cannot comment on this possible cause of the discoloration. In general, scrubbing with soap and warm water is adequate for cleaning purposes and would not cause discoloration.

While the use of aluminium in buildings is now a standard practice, further developments and improvements are continually being evaluated. In particular, there have been great advances in anodizing techniques: by using the thicker anodic films now recommended than have previously been the practice. Recently, also, the British Standards Institution completed revising B.S. 1615 "Anodized Aluminium" to include films of 0·001-in. thickness, while the Aluminium Development Association is drafting an Acceptance Specification for "Anodized Aluminium for External Building Applications." This will include coloured finishes where applicable, but caution is necessary as many colours are of limited light fastness. There is also an active interest in vitreous enamelled aluminium, which has a large market in the USA, but is not yet in production here.

F. C. PORTER.

London.

Gnashing About Nash

SIR,—All this Nashing about the Park Terraces! We would all love to keep the front elevations, but I expect the "backs" are pretty rotten and useless for modern requirements.

Now I have a mad thought: let's keep the fronts—gut out the backs and build theatres on to them. Shift "theatreland" completely, the London theatres are the very devil to get at with a car—and this keeps a lot of people away. There is little parking space, and to get to a theatre in time after parking is a nightmare, and one is worried all the time as to what is happening to the car.

In Regent's Park there could be plenty of space for parking and the Nash façades would not be ruined by entrance doors; well-designed announcement pylons or drums could be erected in a seemly fashion, and what a beautiful setting! How graciously one could arrive and depart and how easily the traffic could be handled.

F. P. C.

Pinner.

Discretion In Westminster—If Not In Piccadilly

SIR,—I have been wondering if anyone agrees that the blue colour with which the lamp posts are annually painted in the Westminster area is wrong.

I think the desire to use gay colours probably arose during the 1951 festival and again in the Coronation of 1953, when lamp posts were charmingly painted and decorated with leaves and flowers, gilt spheres and so forth. In festival times like these, I think it is quite appropriate to have bright colour on linear forms like lamp posts, because, after all, we are then returning to exuberant and unsophisticated and primitive sorts of enjoyment and celebration.

It is the sort of primitive decoration which goes with the fair ground, on barges and costermongers' carts. But for everyday living in a great civilized community, I am sure it is wrong to decorate linear features in bright colour. It would be all right, say, in Piccadilly Circus, where discretion is flung to the wind, but not in Regent Street, Whitehall, Millbank and elsewhere.

G. STODDARD.

London.

Eternal Rectangle

SIR,—I hope I did not say "The essence of a work of art is unity" (AJ: June 27) because the essence of a work of art is derived from the creative spirit and skill and force of the artist. But surely ASTRAGAL must agree that it is very important for the various parts in a work of art to relate to the whole.

Does ASTRAGAL deny that a "square is always a square?" This statement was intended as a simple means of expressing the permanency of mathematics. Mathematics is the easiest subject upon which to prove eternal truth, or does ASTRAGAL believe that the joist upon which his chair is resting was calculated according to a wandering bending moment formula? Also a square is one of the profoundest and simplest geometric statements.

The material world is composed of retained and released energy, combined in atomic and chemical structure. The nature of that structure corresponds with natural laws and with atomic and chemical formulae. All the natural laws and formulae are constant, and therefore eternal, so that one can say that the whole universe is set within eternal, natural laws and formulae.

Living creatures in addition are shaped according to growth, continuity and purpose; a living creature in detail and as a whole is the physical manifestation of continuity and purpose.

It is the architect's task to design buildings which are the physical manifestation of their continuity and purpose, both scientifically and as the environment of human beings.

Having mastered this problem the architect has at his disposal a great deal of flexibility in shaping the sculptural form of his buildings and in elevational treatment. I would say that design according to geometry and systems of proportion is more relevant today than ever before, where an elevation derived from a grid system can be mainly composed of the relationship of rectangles. It is important that there should be real relationship, meaning that the rectangles are in themselves mathematical and relate mathematically. (Thereby incorporating an eternal, stable element.) The elevation possessing visual, proportional systems of continuity, the parts relating to the whole elevation. Part of the architect's task, in fact, of creating order out of chaos.

DERRICK LEES.

Middx.

Up The Planners!

SIR,—Peter Smithson, in his outspoken and general condemnation of all planning control (AJ: August 1) is reported to have said that ribbon development is now as widespread as before the war. I wonder if Mr. Smithson is quite clear as to what ribbon development is? It can be defined as housing development, one deep, fronting a pre-existing road with open undeveloped land behind. I challenge Mr. Smithson to name any place where new ribbon development has been permitted since the war, except in cases where the land at the back is also scheduled for some future development (*e.g.*, schools, or further housing).

The positive achievements of planning control may not always be very evident to those who have not visited Coventry, Canterbury or a few other places. But its *negative* achievements are tremendous. Take Kent as an example. Until about 1930 the country still came up almost within smell of Blackheath, and continued unbroken save for local towns to the coast. Then there was a rush of Subtopian expansion among the electric railways, which sprawled out to the Cray valley, and well on the way to Sevenoaks, and in sporadically ribbon fashion for miles further along

the main and some lesser roads. The war called a timely halt. So successful has post-war planning control been that the inner fringe of the green belt is almost everywhere the *1939* limit of solid development, the only real incursion being the LCC's quasi-satellite at St. Paul's Cray. There has been plenty of post-war consolidation within the already spoiled areas, but in Kent the green belt is still truly green, its only blemishes being of pre-1939 origin. Had there been no planning control, the development would have sprawled at the same rate as before, or faster. It would certainly have engulfed Sevenoaks, would have spread over the beautiful Darent valley and raged along the main roads. At the same time the local towns would similarly have disgorged. The sprawl would not have been solid, but it would have been thick enough to have banished the beauty of Kent to a few backwaters.

I suggest that Mr. Smithson and similar sceptics should take a train to St. Mary Cray, which was turned from a pleasant place to one of the worst subtopian backyards in England, and then go on a few stations to Shoreham, on the Darent, to see what has been delivered from such a fate through planning control.

DAVID W. LLOYD.

Bristol.

Ditto the Dittos

SIR,—I was very interested to read the report (AJ: August 1) of the discussion on æsthetic planning controls held at the ICA recently.

As I spent some eighteen months in a planning office and played some part in applying these controls, I feel I might offer a few comments from my admittedly brief experience.

Firstly, the amount of building work requiring planning permission that is handled by architects seems to amount to about 20 per cent. of the total (this is a generous estimate).

Secondly, much of this 20 per cent. is probably worse (from a design point of view) than that submitted by unqualified persons (spec. builders, draughtsmen, engineers, etc.).

The remainder is mainly conventional competent stuff which could not offend the most reactionary committee or district surveyor.

The all-too-rare exciting scheme is welcomed by the design-starved architect in the planning office and even if a committee should refuse permission, an appeal to the Minister stands a very good chance of success.

Architects may feel aggrieved and justifiably so when an unusual modern design is rejected by an unsympathetic planning authority, and I agree that it is wrong that such designs should be treated in this way. These cases are, however, relatively few in relation to the total number of applications received and, whilst the standard of these is so appallingly low, I do not think the problem should be tackled by the abolition of all æsthetic control.

"ARIBA, AMTPI."

Corrosion Correction

SIR,—With reference to the summary of the six papers given at the symposium on the corrosion of metals in building, we wish to draw your attention to a slight inaccuracy on page 181. Under the heading "Copper," Mr. Kennedy states "Tarred felt, as opposed to inodorous felt, is preferred as an underlay." This, of course, is quite the reverse of what we stated in our paper, the relevant extract being as follows:—

"The use of possibly corrosive materials as an underlay for the copper may result in failure, and therefore tarred felt for instance is not recommended for this purpose, though inodorous felts are perfectly satisfactory."

London. E. CARR.

LAW CASE

Ex-Student Called Himself Architect: Fined £1

An application by a West Cumberland man for the post of assistant architect to the Carlisle City Council led to his being summoned in his absence before the Carlisle City Bench for three offences.

He was J. C. Stewart of Ferndale House, Westfield, Workington, and he was summoned for carrying on business under the name, style and title containing the word "architect" while not registered under the Architects (Registration) Acts 1931 to 1938 in that in his application for the appointment he described himself as an architect; for practising under the name, style or title containing the word "architect" in the application; and for attempting to practise under the name, style or title containing the word "architect" in the application.

He pleaded "not guilty" through I. M. Banner Mendus, a Workington solicitor, to all three summonses.

The first summons, for carrying on business, was dismissed; in regard to the second, for practising, the chairman, T. White, said the Bench was not a court of morals but it felt there had been a technical offence and a fine of £1 was imposed; the third summons was dismissed, of attempting to practice, and there was no order made for costs.

Guthrie Jones, prosecuting, explained that the advertisement for a principal assistant architect for Carlisle was inserted in various professional newspapers. Requirements were a university degree and/or Associateship of the Royal Institute of British Architects, and architectural experience. The defendant called in January at the office of the deputy City Architect and applied for the appointment, stating that he was fully qualified, that he had a diploma from the University of Sheffield and he was an ARIBA.

He was given an application form and filled it in the same day at a nearby hotel, inserting the words "assistant architect" in the appropriate place, while the form also stated that he had been an articled pupil from 1942 to 1944, held the diploma and was an ARIBA. He had, however, never been registered with the Architects' Registration Council or been an Associate Member of the Royal Institute, said Mr. Jones.

He had been a student at Sheffield University but failed to satisfy the examiners and was required by them to attend a subsequent examination and submit drawings of an approved subject. He had not taken the subsequent examination and had never held the Diploma of Architecture at Sheffield.

Mr. Banner Mendus said the defendant had agreed to make a statement that he was not an ARIBA and had never held the diploma.

The Carlisle City Deputy Architect, Ronald A. Stewart, said the defendant told him he was an ARIBA and held the diploma.

Mr. Banner Mendus suggested that "the great big steam hammer" being applied to the defendant had not even succeeded in cracking the nut. There was nothing to stop him practising as an architect so long as he did not use the name "architect" and he found it difficult to understand that filling in an application form for a job as assistant architect amounted to practising or carrying on business as an architect, because he was clearly not doing architectural work.

Mr. Jones pointed out that by filling in the form defendant was holding himself out to be an architect and clearly practising.

MILFORD HAVEN

Conditions for Industrialization

The proposed industrialization of parts of the Pembrokeshire coast National Park, and the development of Milford Haven as a major oil port, have aroused growing concern. The National Parks Commission's view has been expressed in a letter signed by its Welsh members, G. P. Hopkins Morris and W. H. Vaughan, published in the *Manchester Guardian* on Saturday. The Milford Haven developments will be the subject of an article in an early issue of the Journal. The letter is as follows:

SIR,—On July 17 the Minister of Housing and Local Government held an inquiry at Haverfordwest into an application by the Esso Petroleum Company for outline permission to construct a £20,000,000 oil refinery on the north shore of Milford Haven. Their proposal is one of a number of major industrial developments planned for the Milford Haven area. These developments are attracted by the deep-water facilities of the haven, and will be the forerunners of future developments of a like kind which would, in the long run, make great changes in the appearance of the area and considerable inroads into the Pembrokeshire coast National Park.

So far as the Esso proposal is concerned nearly three-quarters of the proposed developments would be in the area within the national park confirmed by the Minister of Housing and Local Government in February, 1952. One of the objects of creating a national park is to secure that its natural beauty is preserved and enhanced. No one would suggest that a refinery could do this. In the National Parks Commission's view there must be the strongest presumption against the establishment of any large-scale industrial undertaking in a national park, except where it can be clearly proved that the choice of site is in the overriding national interest. If such a case can be made and the developers can show, beyond any doubt, that there in no other site available outside a national park which will meet the national requirements, then the developer should, in the commission's opinion, be required to spare no pains and, within generous limits, no expense to ensure that as little damage as possible is done to the landscape.

We feel that the Minister should satisfy himself on these points before coming to any decision and should in particular consider where this first step might lead. If the Minister grants the Esso application in principle it would seem almost inevitable that further developments, not only by Esso themselves but by ancillary industries, will follow. Permission for this development will raise a strong presumption that in time to come expansion and ancillary developments will be sanctioned. This first step will decide the future course of events in this area.

Should, however, this particular development be sanctioned, it is the view of the

commission that conditions should be attached to the consent such as will secure not only the appointment of a landscape consultant but a measure of control over the siting and design of the works which should reduce the damage to the landscape.

It would in addition seem to us, as Welsh members of the commission, that unless there is a general plan for the whole Milford Haven area, and unless westward and eastward limits are set for industrial development within this national park area, very great damage will be done to the countryside, both inside the park and on its confines. There is, we feel, a case for the establishment of some advisory or supervisory body, aside from the local planning authority, which could take into consideration all aspects of the proposed new land use of the area and give both the Minister and the planning authority the benefit of its study of the various problems involved.

G. P. HOPKINS MORRIS.
W. H. VAUGHAN.

RIBA

The Council for 1957-8

Following is a complete list of the RIBA Council for the session, 1957 to 1958.

President: Kenneth M. B. Cross. *Past-Presidents:* C. H. Aslin and A. Graham Henderson. *Vice-Presidents:* Harold Conolly, J. H. Forshaw, Leonard C. Howitt, Thomas E. Scott. *Honorary Secretary:* Basil Spence. *Honorary Treasurer:* E. D. Jefferiss Mathews.

Fellow Members of Council: Hubert Bennett, Dr. Ronald Bradbury, Lionel Brett, A. G. Sheppard Fidler, E. Maxwell Fry, Frederick Gibberd, Leonard C. Howitt, Arthur G. Ling, Professor Sir Leslie Martin, Professor Robert H. Matthew, Edward D. Mills, Richard H. Sheppard, Basil Spence, Gordon T. Tait, Ralph Tubbs.

Associate Members of Council: W. A. Allen, G. Grenfell Baines, Eric Bedford, D. E. E. Gibson, S. A. W. Johnson-Marshall, Sergei Kadleigh, Tom Mellor, Peter F. Shepheard, J. C. Stillman.

Licentiate Members of Council: Bernard H. Cox, Gwyn H. Morris, R. W. Toms.

Ordinary Members of Council: Harry Durell, Professor R. J. Gardner-Medwin, P. E. A. Johnson-Marshall.

REPRESENTATIVES OF ALLIED SOCIETIES IN THE UNITED KINGDOM OR THE REPUBLIC OF IRELAND.

(1) *Six Representatives from the Northern Province of England:* Donald McIntyre, Robert Mackison McNaught, Leslie W. M. Alexander, Cecil Leckenby, Norman H. Fowler, H. B. S. Gibbs.

(2) *Five Representatives from the Midland Province of England:* Herbert Jackson, Ernest W. Parkinson, Harold A. Rolls, Stanley F. Barrell, Birkin Haward.

(3) *Six Representatives from the Southern Province of England:* Ailwyn G. Bazeley, Robert F. Fairhurst, Colin Cooper, P. McG. Corsar, Laurence J. Selby, R. Duncan Scott.

(4) *Four Representatives of Allied Societies in Scotland: nominated by the Council of the Royal Incorporation of Architects in Scotland:* J. A. Carrick, Thomas S. Cordiner, J. A. H. Mottram, T. H. Thoms.

(5) *One Representative of Allied Societies in Wales:* Cyril A. Hughes.

(6) *Two Representatives of Allied Societies in Ireland:* W. J. Cantwell, J. D. McCutcheon.

REPRESENTATIVES OF SOCIETIES IN ALLIANCE WITH THE ROYAL INSTITUTE OVERSEAS: *UK representatives (respectively)* For Canada, Australia, New Zealand, South Africa and India. Thomas E. Scott, A. Graham Henderson, R. H. Uren, Michael T. Waterhouse, Stuart Bentley.

REPRESENTATIVE OF THE ARCHITECTURAL ASSOCIATION (LONDON): John Brandon-Jones.

REPRESENTATIVE OF THE ASSOCIATION OF BUILDING TECHNICIANS: Kenneth J. Campbell.

CHAIRMAN OF THE BOARD OF ARCHITECTURAL EDUCATION: R. E. Enthoven.

CHAIRMAN OF THE RIBA REGISTRATION COMMITTEE: S. Vincent Goodman.

TWO REPRESENTATIVES OF THE RIBA SALARIED AND OFFICIAL ARCHITECTS' COMMITTEE: Dr. F. F. C. Curtis, F. G. Southgate.

CHAIRMAN OF THE RIBA ALLIED SOCIETIES' CONFERENCE: Harold Conolly.

President's Tour

There are still a great many difficulties to be overcome before it will be possible for architects trained anywhere in the Commonwealth to practise anywhere in the Commonwealth, but a beginning has been made in overcoming this, and they are not insuperable. This was the substance of a report on his round-the-world tour by Kenneth M. B. Cross, the president of the RIBA, when he and the secretary, C. D. Spragg, spoke to the press recently. Apart from conveying formal greetings to the Allied Societies he visited in Malaya, Australia, New Zealand and Canada, Mr. Cross raised two main questions wherever he went. The first was the question of registration and education which was, he said, particularly acute in Australia. To enable the man trained in London to practise in Singapore, West Africa, Canada or anywhere he liked (or vice versa) the president suggested on behalf of the RIBA council that the syllabus be divided into two parts. There would be, first, the basic architectural qualification, and then a local examination to deal with local conditions, methods and practice. Both parts of the examination would be necessary to receive the ARIBA qualification. This, said Mr. Cross, would give freedom of movement that would be particularly valuable for New Zealand students who came to London for two years' practical experience but were compelled willy nilly to go back to New Zealand because they could not practise here. All that should be coupled with the idea of one standard of architectural qualification for the Commonwealth, so that the qualification ARIBA should denote the same standard in every part of the Commonwealth.

The reception given to these proposals was the same everywhere, said Mr. Cross. The Allied Societies were with the RIBA "up to the hilt," but it was bound to be a slow job, though there was no question whatever that the difficulties were not insuperable. In Canada, particularly, where the president was rather apprehensive about the reception his proposals were likely to get, he was pleasantly surprised: the Canadian Council in fact passed a resolution approving the proposals in principle. Among the difficulties to which Mr. Cross referred was the fact that not only each Commonwealth country, but in Australia each state had its own Registration Act.

It is obvious, of course, that the proposals taken by Mr. Cross to the Allied Societies would not, in fact, confer freedom of movement except to those who first take a local examination in the part of the Commonwealth in which they wish to practise. The ARIBA qualification conferred in one part would not, of itself, confer the right to practise anywhere else. Mr. Spragg also agreed that initially the effect of agreement would be to limit the right of British qualified architects to practise in certain parts of the Commonwealth which now admit them without taking a local examination.

The next step is that the Board of Architectural Education is to prepare a draft syllabus for the first part of the course. In this, Mr. Cross thought, the RIBA would have to make concessions to the viewpoint in Australia where architects were trained rather as engineers than as architects, where consultants were not much employed, and most of the structural work was left to the architects. The RIBA, he said, could go a little way to meet the allied societies on construction, and they could go a little way to meet the RIBA on design. But he added that the standard of design in Australia and in the other countries visited was high.

The second main point made by Mr. Cross was to suggest that there should be an overseas conference every three years or so held in the countries of the various allied societies in turn, with two or three delegates from each. This, he said, was particularly important in these days when a revolution had taken place in building construction, and design, and the same sorts of problems were arising everywhere. There was trouble everywhere, for example, in keeping the weather out of buildings finished with cladding. They should get together on structural problems, methods of design and methods of tendering. This proposal, also, seems to have had a favourable response, although here too there are difficulties to be overcome, such as the basis of representation.

NATIONAL TRUST

Appeal for Croft Castle

An appeal is being made for contributions to a fund to enable Croft Castle and grounds to be saved from threatened destruction and transferred to the National Trust.

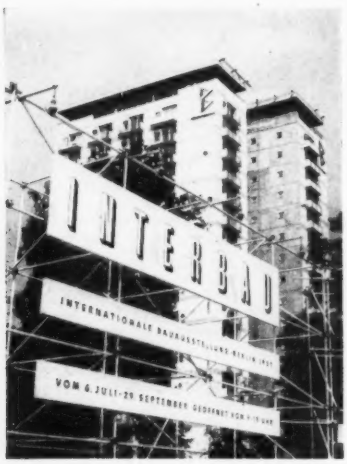
The Minister of Works, on the recommendation of the Historic Buildings Council, is prepared to make a grant to enable the National Trust to buy the property, and they will then be able to acquire it for permanent preservation if the necessary endowment fund can be raised. Various members of the Croft family have already subscribed, but a further £5,000 is required if this historic Castle and estate are to be saved for the nation.

If Croft Castle can be saved (it is at present in serious need of repairs and likely to become derelict, while its splendid woods have been marked for felling) the house would, of course, be open to the public and the exceptional beauty of the grounds would be enjoyed by numbers of people. The castle grounds include avenues of trees 400 years old, the XVIII-century landscaped Fish Pool Valley, and one of the finest pre-Roman camps in the border country from which a view of 13 counties may be enjoyed.

Croft Castle gives its name to the Croft family, who are recorded as the owners of the property in Domesday. Though in the mid-XVIII century the property passed to the Knights, the Johnes of Hafod, and the Kevill-Davies families successively, it returned to the Crofts in 1923. There can be few properties in England in the same family today as in the eleventh century. The medieval castle, which was "modernized" in the XVIII century, contains fine decorations, in particular Jacobean panelling and "Gothick" plaster work of the mid-XVIII century. There are family pictures dating from the XVI century onwards, and a fine collection of topographical paintings and prints of the neighbourhood (XVIII and early XIX centuries) which will remain on view in the house. It is also intended that the castle shall house a library of works concerned with the history of Herefordshire and the neighbouring border country.

The "Gothick" decorations in the interior bear so close a resemblance to Shobdon church (a few miles away) as to suggest that the same architect and craftsmen may have been employed. It is likely that Thomas Johnes the elder carried out the gothicising improvements in about 1753, and undoubtedly Croft with its "Gothick" dress and romantic situation had an influence not only on the builder of Hafod, Thomas Johnes the younger, but on his cousin, Richard Payne Knight, the builder of Downton, and on Uvedale Price, author of the "Essay on the Picturesque."

(*More News on page* 267)



" Plenty of prima-donnas without a conductor," said Bruno Zevi, when he had seen the international building exhibition in Berlin. Other people have said much the same thing. Dr. Nikolaus Pevsner told a Third Programme audience (see page 234) that the scheme lacked the unity to be found in Coventry and Roehampton. And Rolf Rosner, in this article, speaks of " unimaginative grouping " and suggests that the exhibition area is meant to be an experimental workshop. But like every critic of this tremendous exhibition, Mr. Rosner is obviously impressed by what he has seen. He concludes his article by saying how vitalising such imaginative architecture can be, and has a wishful thought about such an experiment in reconstruction in any of Britain's decaying towns and cities.

EXHIBITION, OR NEW CITY?

By Rolf Rosner

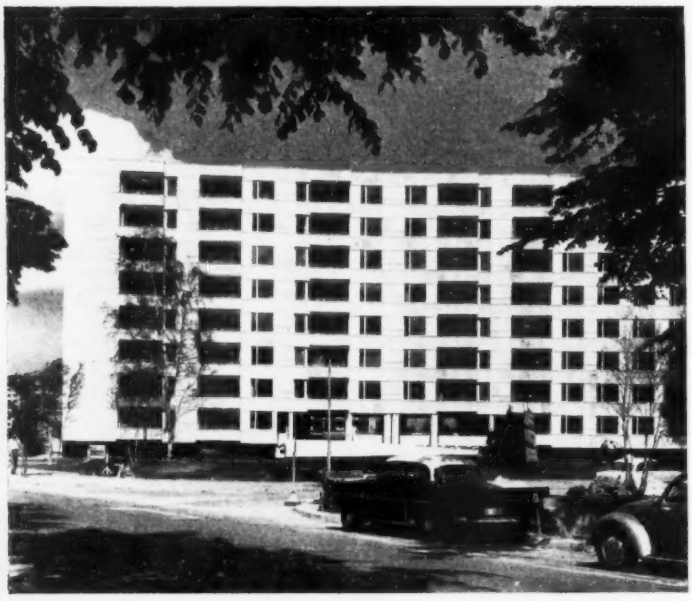
" The whole district is like this: street leading into street of houses like shabby monumental safes crammed with the tarnished valuables and secondhand furniture of a bankrupt middleclass." So opened Isherwood's *Berlin Diary*.

But no one could react today as he did in 1930, passively recording and not thinking. Even 12 years after the war one is awed by the massive destruction. Drive down any major road: gap upon gap on either side; here and there a side street freakishly preserved, with ornate stucco façades, stained, dusty and crumbling and then suddenly the vista of a super-Coventry neatly tidied-up, the grey backs of tenements in the far distance glowering sullenly. The bizarre atmosphere of this townscape is intensified by the wild-cat development which clutters up the gaps; shacks, sheds, primitive bungalows, Nissen huts, shops and, occasionally, a new block of flats rendered and finished in sombre or gaudy colours; and further on at local squares or in the centre of town, the magnificent slab blocks of some public authority, bank or insurance company delighting the gluttonous instincts of a traditionless managerial class, and fulfilling all the dreams of some of the most capable German architects.

But now the people of Berlin are getting more than piecemeal reconstruction. The International Building Exhibition, which opened last month, shows the construction of the devastated Hansa district. The acquisition of large tracts of land for this purpose was complicated. German town planning legislation is rather cumbersome and a stockholding company had to be formed which has so far bought 138 plots. Only in seven cases was a compulsory purchase necessary. These properties are to be resold eventually to private interests. It does seem a little difficult to understand how this can be done effectively. If you look at the lay-out as a whole, the individual conceptions of the various blocks and the unimaginative grouping of buildings tend to give you an impression of disorder. As Bruno Zevi recently remarked in the Roman paper *L'Espresso*: " Plenty of prima-donnas without a conductor!" There is no subtle interplay of heights and arrangement of interlocking squares which are so characteristic of the best British housing estates. The German architects are sun-worshippers and until recently have tended to prefer monotonous lay-outs with uniform south-western aspect; but now the most go-ahead among them are beginning to pay attention to both aspect and the enclosure of space by making their blocks face either south or west. This trend is not yet evident in the Hansa district. One cannot help feeling that the place is meant to be an experimental workshop; even so, teams of landscape architects are likely to work wonders when their time comes. In various German towns I have seen surprising improvements of rather dull housing estates by sensitive landscape planning. In the Hansa district dense clusters of fast-growing shrubbery will shield the northernmost blocks within the vicinity of the encircling elevated railway line. Along the southern boundaries local open spaces will link with Tiergarten Park. The whole district has been divided into 5 sectors, each of which will be jointly laid out by German and foreign landscape planners. In the new lay-out, land occupied by buildings has been reduced to half the area built upon before the war. The lay-out is based on the winning design of an international competition which was subsequently modified by the city's town planning authority and a committee of participating architects. Groups of one-and-two-storey houses cover the southern and eastern areas of the Hansa district within 50 yards of the Tiergarten Park; further north and west lies a belt of slab blocks ranging from three to eight storeys in height and at the northern and southern extremities of the

The model on the left shows why Bruno Zevi has described the Exhibition as "plenty of prima donnas without a conductor." At present less than one-third of the buildings are up: three of the point blocks are not begun, only one of the nine groups of one-storeyed villas is up and one of the six slabs is not yet under way. Below left: the 17-storey flats by Klaus Mueller-Rehm; the church (spire in centre) by Ludwig Lemmer; the Gropius flats (behind church) and the 8-storey block by Pierre Vago. Below: the 10-storey block by Jaenecke and Samuelson (left), and the 8-storey block by Niemeyer-

Below: the building in the foreground is the block of flats by Gropius and Ebert.



site are point blocks of up to 17 storeys high. This neighbourhood of 1,160 dwellings will also include a school, a nursery, a library, a cinema, a restaurant and many shops. A new station will give access to one of the two underground railway lines now under construction. One of two churches has been completed, its tall spire oddly competing with the point blocks. Considering the high standard of current German ecclesiastical architecture, this building is anything but an outstanding example.

According to estimates, the costs per cube foot for the various buildings are likely to be 50 per cent. above the cost per cube foot for normal subsidized housing. Several factors account for this: 1. better equipment of flats, *e.g.*, central and floor heating; 2, the wide variety of buildings for experimental purposes which makes cost-saving repetition impossible; 3. the erection of tall blocks—generally 4-storey blocks of flats are regarded as the most economical. The cost per cube foot of the tallest blocks is estimated to work out at 5 shillings to 6 shillings per cube foot. Special

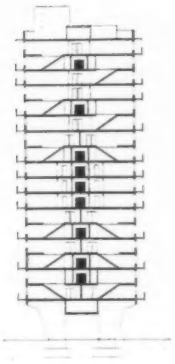
Left, and above left: flats by Alvar Aalto. Also shown is the tower of the Roman Catholic church designed by Professor Willy Kreuer, of Berlin. Opposite: the 17-storey flats designed by Klaus Mueller-Rehm and Gerhard Siegmann, of Berlin. Ten landscape architects planned the setting of the Hansa district where 800 trees, 15,000 shrubs and 20,000 perennials have been planted.

provisions had to be made to finance the project. In addition to the usual subsidies the Federal Government has given a grant of up to £260 for each dwelling, and the City of Berlin is covering the remainder by means of a special loan. Monthly rents will range from 2·3 pence to 2·5 pence per square foot. In the case of particularly well-equipped dwellings the rent will rise to 3·2 pence per square foot. A medium-range flat with a habitable area of 600 sq. ft. (*i.e.*, according to German methods of calculation, an area exclusive of internal walls and partitions) will be rented at 33 shillings a week. Compared with British rents this figure might appear rather low were it not for the special grants and loans given in this particular instance. Normally German flats with subsidized rents ranging from 2·3 pence to 3·2 pence per square foot have less emenities than the Hansa dwellings.

Like any other exhibition this one is not without disappointments. For inexplicable reasons Arne Jacobsen has been asked to build only one of his three terraced patio houses and is now refusing to have anything put up at all. The point block of van den Broek and Bakema, surely one of very best in this great experiment, won't be started either. The two Dutchmen are little known in Germany. Perhaps their approach appears to be rather severe to many architects here who, in a somewhat anarchic post-war mood and after the customary visit to Italy, decided to get away from right-angles at all costs. This gradually waning mood is still to be found in a few of the bungalow designs at the southern end of the site: here in a few cases sculptors and architects co-operated on the design. A terrace of houses by F. R. S. Yorke is Britain's contribution. This is disappointing in view of the advances of British housing and town-planning since 1945 and seems to express a general inability to advertise our achievements abroad. Just to take another example, during the past year British Centres in Germany have either been closed down or their activities curtailed drastically whilst impressive America Houses are being built in various towns.

"Zero eight-fifteen" is a widely used expression in Germany; originating from an army term it now covers anything that is commonplace and mediocre. I have heard that expression used more than once when people talked about the 8-storey slab block

Pierre Vago's flats. This block has an unusually wide range of flats, with one to five rooms. 24 flats incorporate spacious living rooms of 1½-storey height which are ingeniously interlocked so that their ceilings are either 4 ft. above the general ceiling level or their floors are 4 ft. below the level of adjoining floors.



Model and section of "Unité d'Habitation, Type Berlin" which Corbusier has designed for the Exhibition. This block of 527 flats is going up near the Olympic stadium on a special site: it would not have fitted into the Hansa district because of its size. Corbusier's first designs were based on the Modulor, with ceiling height of 7 ft. 5 in., but the city authorities insisted on the established height of 8 ft. 2 in. They were afraid that once the housing shortage had passed these flats would be difficult to let.

designed by Gropius and Ebert. The curved front with staggered balconies and the careful detailing of the staircases make a splendid façade, but the type plans are plainly stuff in common usage a generation ago. There is no sizeable entrance hall but a narrow corridor. The living room lacks the feeling of space so noticeable in many other schemes; generally there is no clear separation of functions, and bathroom, kitchen and bedrooms are just grouped any way. Not even any structural experiments have been attempted. How much more exciting is Niemeyer's block of flats! When I saw it there had just been the "Richtfest." This is an ancient rite starting off with the hoisting of a be-ribboned wreath to the completed top-storey and ending with a drawn-out feast. Niemeyer's building rests on triangular supports, each of which takes the load of two cross walls. Apart from staircase entrances the ground floor is being kept entirely open. Normally two flats are accessible from each major landing with the exception of the fifth floor, which contains half the usual number of flats. For the common use of tenants the remaining floor space has been divided by glass partitions into areas for various activities. The lift, housed in a detached structure, serves only this floor. From here tenants walk up to the sixth and seventh floors and down to the fourth and third floors by way of the six internal staircases which are accessible from the fifth floor. The first- and second-floor flats can be reached from the ground floor. The building has concrete cross-walls and balconies and windows extend across the whole frontage of a dwelling, not unlike the 10-storey block of Jaeneicke and Samuelson. The two inventive Swedes are not unknown in Britain. Their block of flats in Malmö which consists almost entirely of prefabricated units was illustrated in the special issue of the ARCHITECTS' JOURNAL (March 17, 1955) on cross-wall construction. A major drawback in their Berlin block is the surprising narrowness of the access balcony; it is barely 3 ft. wide, but somehow the whole is saved by a clever innovation: the level of the access balcony lies 7 in. below that of the main floor and as a result the eyes of a passer-by of average height are just level with the sill of the kitchen windows. The tenants are therefore assured a certain measure of privacy. All flats will be floor-heated and windows are to be treble-glazed. The external walls consist of prefabricated-timber panels with a covering of asbestos sheets. The continuous balconies will be finished with emulsion paint. Judging from samples I saw, this is going to be a gay affair. Most of the 68 dwellings will be four-room flats with an area of about 800 sq. ft. On top there are some studio maisonettes with an area of 1,450 sq. ft. and the ground floor will be taken up by shops and business premises.

The eight-storey block by Pierro Vago has an unusually wide range of flats with one-, two-, three-, four- and five-rooms respectively. Twenty-four flats incorporate spacious living rooms of one-and-a-half-storey height which are ingeniously interlocked so that their ceilings are either 4 ft. above the general ceiling level or their floors 4 ft. below the level of adjoining floors. The external walls will be kept in grey, yellow, blue and white.

The 16-storey point block by the German architect Schwippert should be completed this summer. Here

32 flats and 28 maisonettes have been grouped round a central staircase. Each dwelling has a roomy balcony with an area of up to 120 sq. ft. All external walls and internal partitions consist of storey-high, lightweight concrete panels cast on site. These panels are hoisted into position with doors and window frames already inserted.

From here it takes five minutes to Tiergarten Station, whence fast trains transport the eager pilgrim to the sports stadium; here Corb's block has a magnificent site on top of a hill. The size of the building excluded its construction in the Hansa district. When it is complete the tenants will have an extensive eastward view of Berlin westwards of the river Havel and its surrounding woodlands.

Le Corbusier's first designs were based on the Modulor, with ceiling heights of 7 ft. 5 in. The City's Senator of Works doubted whether low ceilings and the proposed type plans were suitable for Berlin conditions. The Senator, Herr Dr. Schwedler, came in for a difficult time when Corb fans rose to a man. However, the city authorities insisted on the established height of 8 ft. 2 in. because they feared, with some justification, that once the housing shortage had passed these flats would be difficult to let.

The Berlin building authorities also are of the opinion (widely held in Germany) that multi-storey blocks are not ideal for families with children and far more suitable for single persons and couples without children. Le Corbusier eventually accepted these objections and designed a building which he has labelled "Type Berlin." Ceiling heights are 8 ft. 2 in. and the frontage of the individual units has been increased from 12 ft. 1 in. used for Unité to 14 ft. 2 in. The bedroom which at Marseille lies at the rear end of the two-storey living room will now have an external window. The whole block contains mostly small flats and therefore more than the buildings at Nantes and Marseille. Four-hundred-and-twenty-eight of a total of 527 flats will have only one or two rooms.

There are three basic units which can be differently combined. The first unit includes the entrance hall off the "rue interieure," the kitchen and the living room. The second one includes the parents' bedroom, the toilet and the bathroom. The third unit comprises one further room, the study or children's room.

Single persons or couples without children are to have a "Type B" flat with only one unit. "Type C" with two units, living room and parents' bedroom, is suitable for parents with one child. Families with several children are to get "Type E" flats with three units occupying two storeys. The third room can be divided by an extra wall if the tenants wish it. The "Type E" maisonettes always have the unit containing kitchen and living room on the level of the entrance door. The parents' and children's rooms of this type are either one storey above or below the entrance level. They extend across the whole width of the house from east to west so that light and sun are available from both sides. All dwellings with more than a single room occupy two storeys.

A year ago I had the fortunate opportunity of visiting Ernst May's Frankfurt neighbourhood Römerstadt. Some of the flats had just been redecorated and looked as new. Even the "Frankfurt" kitchen fitments, the first of their kind in subsidized dwellings, were still in use. Römerstadt was built 30 years ago and few people visiting it would find the flats and houses noticeably inferior to the average type of dwelling being put up to-day in various countries of the Western world. The lay-out may now appear monotonous but its saving grace is a compactness which clearly separates the neighbourhood from the surrounding country. One realizes the lack of really substantial progress during a quarter of a century: two world wars, a slump and creeping inflation since 1945 have left their mark.

The experiment in reconstruction at Berlin, with its wealth of new ideas, could give a new impetus in the field of housing.

When I arrived in the city it struck me as desolate and utterly provincial. Perhaps it was the spring gale which swept brickdust and sand across the streets and drove people indoors, perhaps the limited size of the Western sectors. But I left with quite a different impression: how vitalizing new and imaginative architecture can be! The impact of the Hansa district will, one feels certain, spread to every destroyed and crumbling corner of Berlin; and one reflects how any of the decaying British towns and cities would be transformed if several neighbourhoods were reconstructed simultaneously.

Two ways of viewing the Exhibition: an inspection crane, carrying a cage which will hold eight to ten people, and a seilbahn.

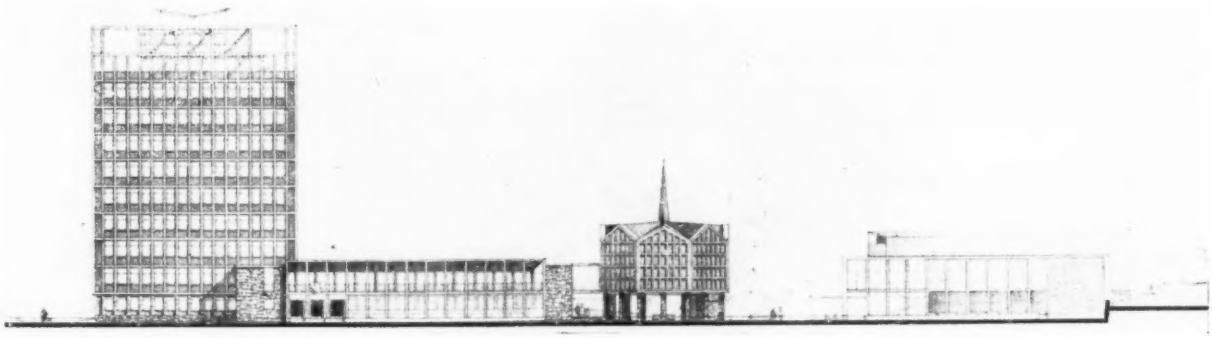
WINNING DESIGN FOR CARLISLE'S MUNICIPAL BUILDING

Illustrated here is the winning design, by Charles Pearson and Son (of Manchester), in Carlisle's corporation-sponsored competition for an assembly hall and municipal offices. Six competitors were chosen to take part in the final stage of the competition. Their names were published in last week's JOURNAL. For comments on the winning design, see ASTRAGAL and page 234.

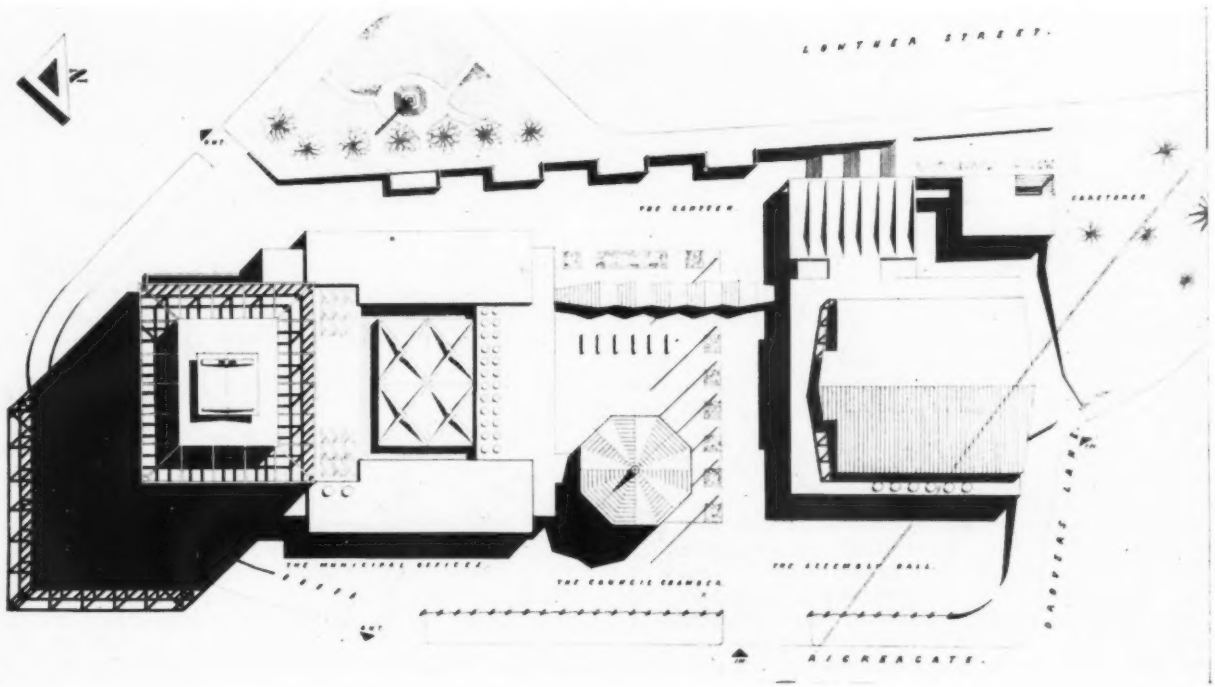
Here are extracts from the winner's report: " The author feels that the solution of the problem will be brought about by the incorporation of the various items in a scheme which will satisfy the civic dignity of the City and Corporation of Carlisle. The new municipal buildings should be regarded as the civic centre of the city, and a successful solution will be brought about, the author feels, if the civic group dominates the immediate environment, particularly the Lowther Street development, and the approaches from the north and from the south. In dominating the environment the civic group should, at the same time, portray the dignity of the function of the building: it should, also, in the opinion of the author, break the continuous façade treatment of Lowther Street and Rickergate. In breaking the façade treatment, there is a possibility of allowing the citizens of Carlisle to use a portion of the site as a thoroughfare between Lowther Street and Rickergate, and even form a small place for quiet retirement and contemplation. Dominance could be well established in viewing the group from the northern approach, when the whole vista of Carlisle may be complementary to the civic group. From the south via Lowther Street and Rickergate, no closing of the street vista is possible. The opening up of the site for traffic, pedestrian and vehicular, the informal yet dignified massing and changing of plane of façade, should provide an interest worthy of such a group when advantage is taken also of the change in street level between Rickergate and Lowther Street.

" The like units in the building programme have been grouped together to form a ten-storeyed office block which has been placed at the northern extremity of the site, thus satisfying the requirements of a dominant feature. By grouping all like components together, the author feels that a satisfactory and pleasant, yet dignified façade may be obtained visually, with the minimum of expenditure financially.

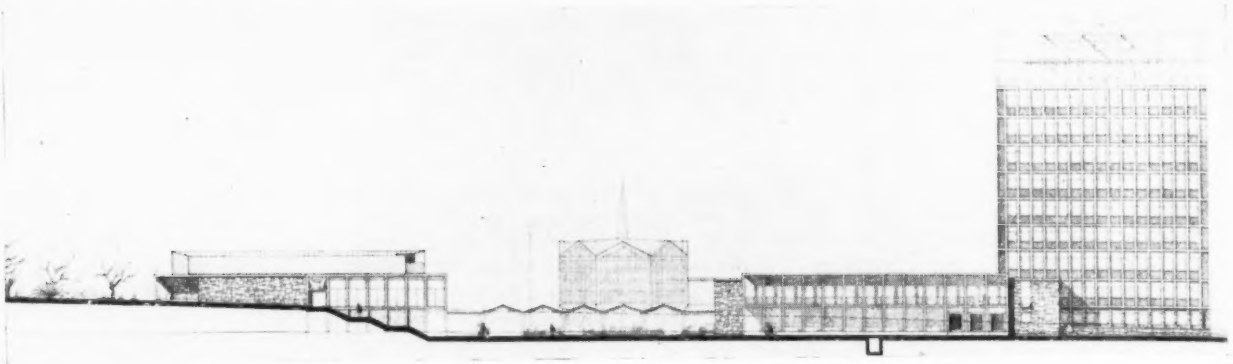
" The author visualizes the grouping of the civic suite over the ground floor of office accommodation, treated in a dignified



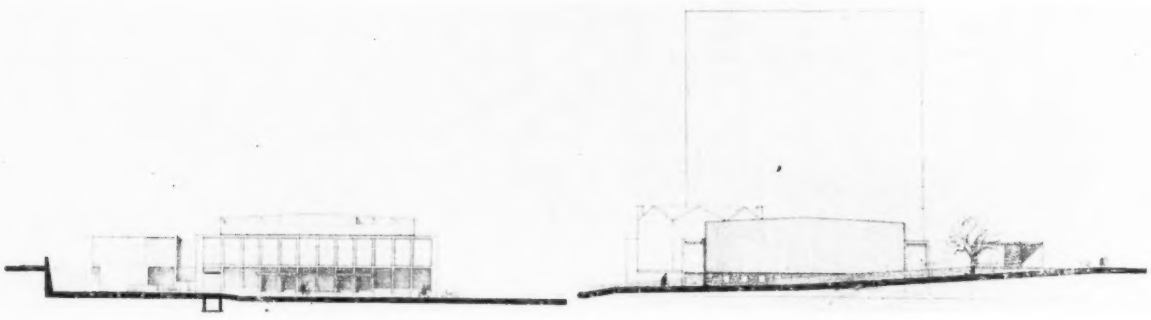
West elevation



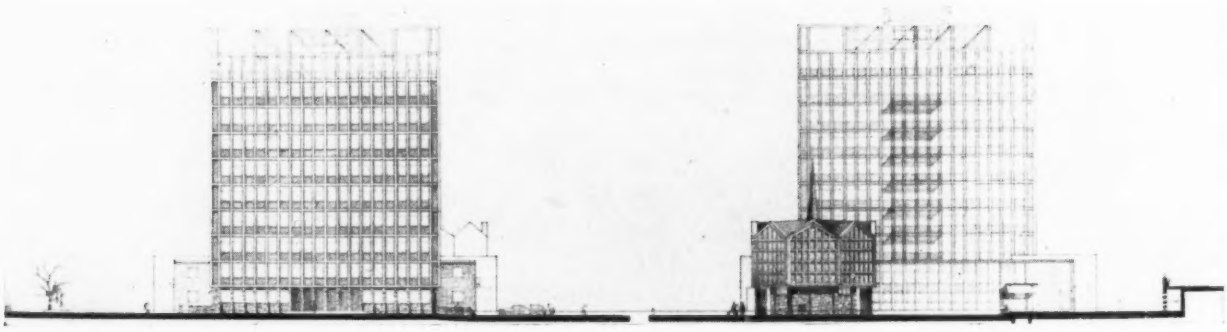
CARLISLE'S MUNICIPAL BUILDINGS: WINNING DESIGN BY



East elevation



Hall from the north, and from the south



North elevation

manner, with the council chamber itself placed externally in order that the treatment of the façades and the physical aspect of the building may be admired and viewed by all, particularly from the southern approaches.

" The assembly hall and canteen has been designed as a separate block, mainly due to the fact that it is suggested that this portion of the work will not proceed at the same time as the main civic building."

The assessor, Professor W. B. Edwards, writes: " The competitor has elected to make a clear division between (1) the offices, (2) the civic suite, (3) the council chamber, and (4) the assembly hall. These sections are easily identified in both plan and elevations. The offices are contained in a tower block at the northern end of the site. The committee rooms and reception space are contained in two two-storeyed wings adjacent to the tower block. The hall is a completely separate unit connected to the offices only by means of a covered colonnade, thus forming an open court in which stands the council chamber. The disposition of these separate units is excellent, resulting in an open development of the site and an economic use of the land available. The tower block will be an interesting feature viewed when entering Carlisle from the north and it will prove an adequate termination to the vista from the bridge. Its height and general proportions will conform in scale and size with the spaciousness of the proposed roundabout at the junction of Rickergate and Lowther Street.

" The planning and grouping and architectural treatment generally will relate admirably to the siting and design of the proposed Government buildings and it is important from the standpoint of civic design that this relationship should be obtained.

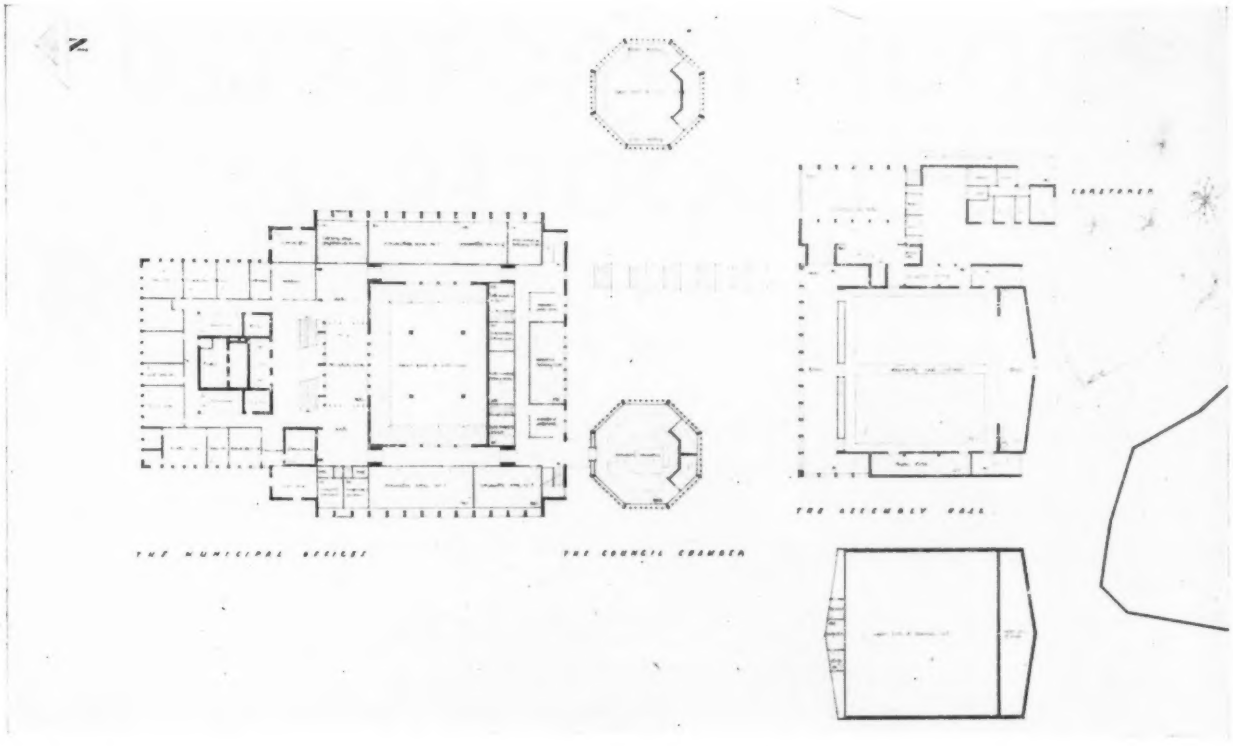
" By building high here the competitor has eliminated long lengths of corridor in his planning and this in turn will eliminate loss of time and fatigue in circulation.

" The assembly hall plan makes adequate, indeed excellent, provision for reception and circulation. The foyers and staircases are spacious and well lighted and narrow corridors have been avoided. The canteen is a good shape and well serviced and the service to the hall is well arranged. The council chamber,

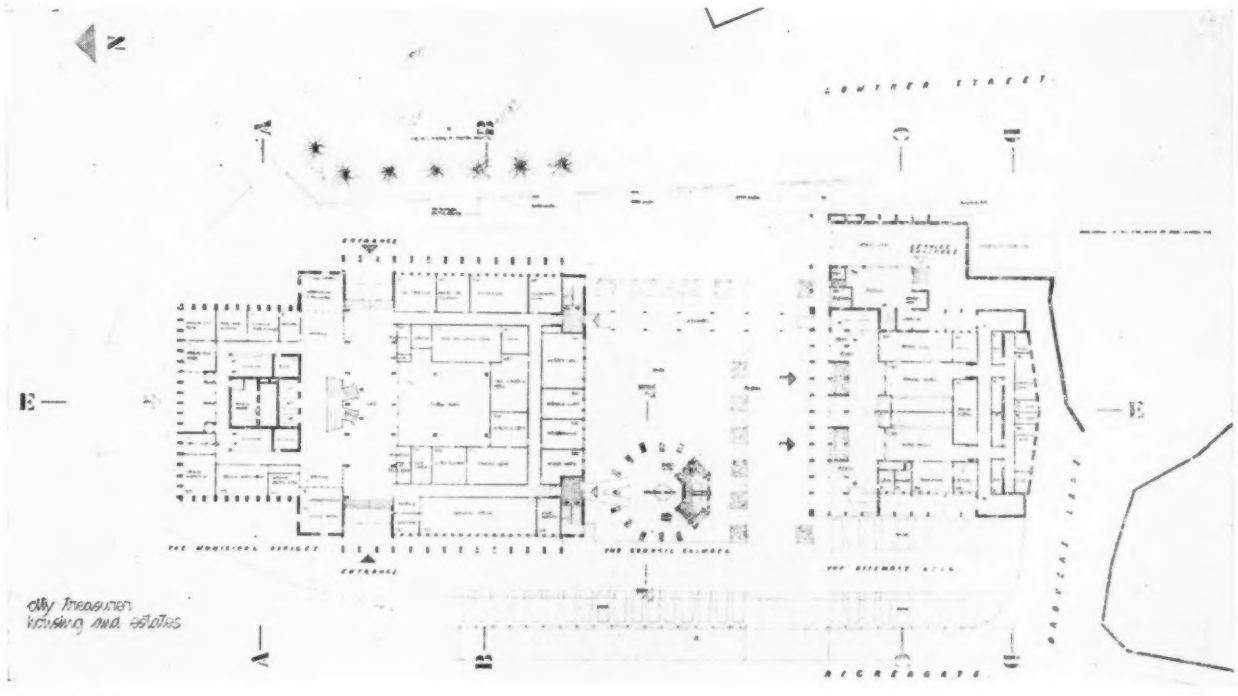
CHARLES B. PEARSON AND SON

supported on an open colonnade, is almost a free-standing structure. The seating is well planned and the interior architecture should provide a most dignified setting for council meetings. This detachment of the council chamber enables the designer to give expression to and emphasize the importance of the chamber as the dominant feature in the layout. It is expressed as the heart of the entire scheme.

" I select this scheme because it is a direct, clear and open statement in plan and because its elevational character, while being a positive step forward in design and a dignified essay in the contemporary manner, will also harmonize admirably with and indeed pay tribute to the marked local characteristics of Carlisle."



First floor plan



Ground floor plan

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technical section

THE INDUSTRY

From the industry this week Brian Grant reviews a new range of door furniture, a room thermostat, a booklet on wire ropes and a range of skirting heaters.

DOOR FURNITURE IN PLASTICS

The photograph on the right shows a polka dot design by Jacqueline Groag for a set of plastic door furniture. The two finger plates are both 2⅛ in. wide, and are 7 in. and 10 in. long, selling at 6s. and 6s. 9d. Round door handles in the same pattern cost 9s. 6d. per set either with a drilled through or a floating spindle, and a 4 in. drawer handle costs 2s. 2d. In general appearance this door furniture looks very much like china. (*Lacrinoid Ltd., Stafford Avenue, Gidea Park, Essex.*)

NEW ROOM THERMOSTAT

The photograph on the right shows a new Honeywell modulating room thermostat which will directly control motorised valves, dampers, and the various sequence switching devices which form part of the manufacturers electronic temperature control system. Two scale ranges of 42 to 75 or 56 to 84 degrees F. have been standardised and control is accurate to within 2½ degrees. Both the plastic cover and the base are of low thermal mass and this, with bellows operation, gives rapid response to temperature changes. Dimensions are 2⅞ in. by 5 in. with a projection of 2¼ in. (*Honeywell-Brown Ltd., Wadsworth Road, Perivale, Middlesex.*)

PRESTRESSING WIRES

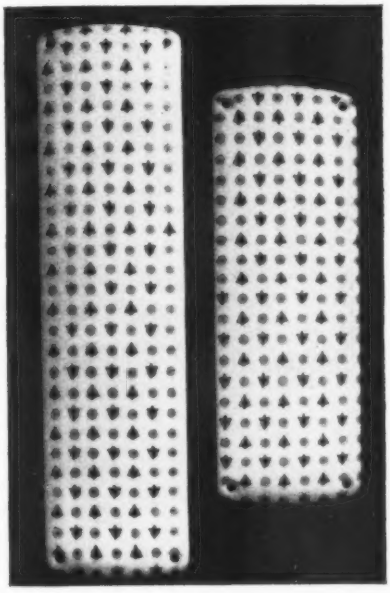
Anyone who assumes that prestressing wires are just wire, or even high tensile wire, ought to read a booklet recently issued by British Ropes which deals with the whole subject very thoroughly, from the optimum size of coils for wires of different diameters to the possibility of strength loss due to corrosion on sites where storage conditions are bad. In the latter, it is interesting to note, the loss is only just over 2 per cent. after 3 months' storage in the open during bad weather. While quite a lot of the information is naturally of more interest to the consulting engineer than to the architect, it is most certainly worth reading from the point of view of general background information. (*British Ropes Ltd., Doncaster.*)

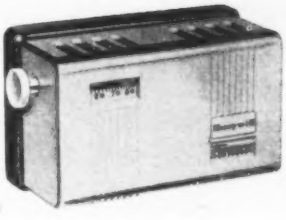
HEATING FROM SKIRTING BOARDS

A 32-page booklet from Copperad describes the firm's new Wallstrip system of heating, which makes use of various types of skirting board heater. There are two basic types, one of which (type C) provides mainly convected heat from a tinned tube inside a pressed steel casing, the other (type R), consisting of two steel tubes electrically welded to the casing, and emitting mainly radiant heat. There is a further version (type RC) which is virtually the same as type R, but the casing has inlet and outlet grilles and provides a proportion of convected heat as well. Total heat outputs of the three types are mainly in the proportion of 8, 3 and 4½ for the types C, R and RC.

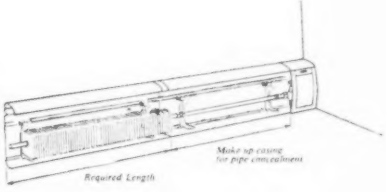
The system has been designed primarily for use with low and medium temperature hot water systems with pump circulation. High temperature hot water or steam up to 100 p.s.i. can also be used, but with these the front plate temperatures of the R and RC heaters may be uncomfortably high, and guards will probably be necessary.

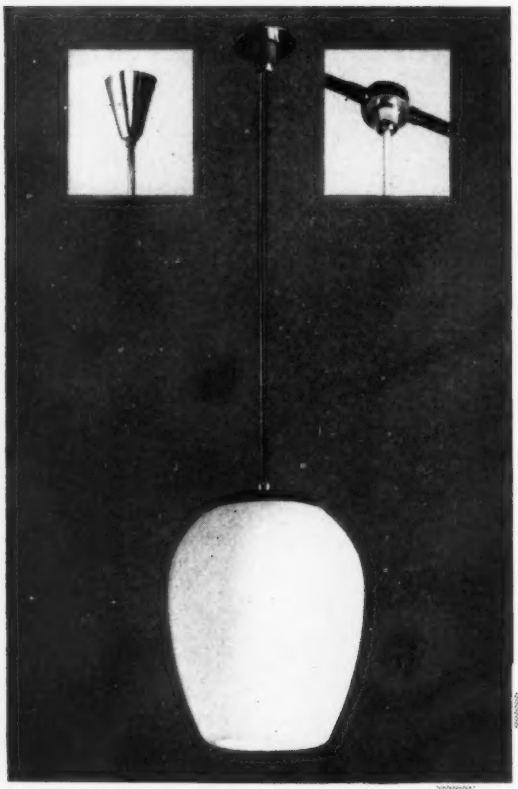
The advantages of the system are that it has only a low thermal storage capacity, so that it warms up quickly, and that the heat input to the room is distributed at a comparatively low intensity over a fairly long length of wall, so that the cold patches which may be produced when individual radiators are used should be avoided. Once the heat requirements of the room have been calculated the Wallstrips are made up in lengths from 3 ft. increments of 1 ft., the standard casing being used for the full length of the wall to cover the flow and return pipes. With all types of heater there are the necessary stop ends and internal and external corners. (*Copperad Ltd., Colnbrook, Bucks.*)



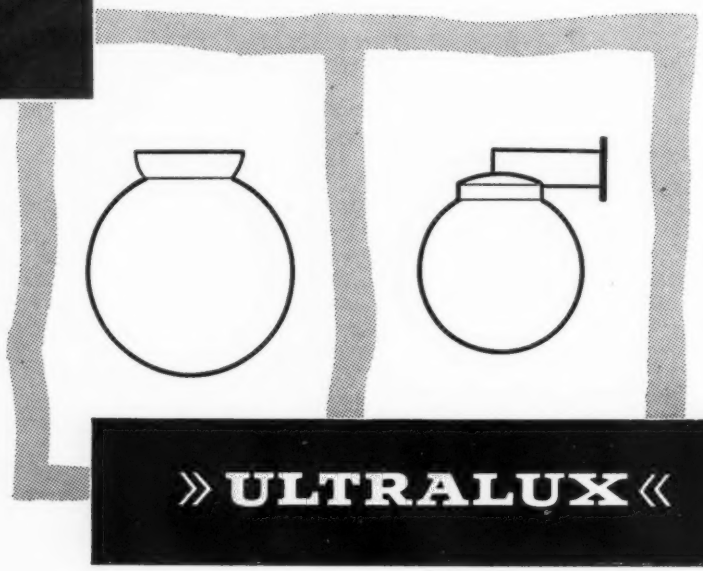


Top, plastic door furniture designed by Jacqueline Groag. Above, a Honeywell room thermostat. Below, Copperad wallstrip skirting heating, Type C.





general lighting



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7.61 practice
AMERICAN BUILDING COSTS

Building Cost Manual : Joint Committee on Building Costs, Chicago Chapter, American Institute of Architects, and the Appraisor's Division of the Chicago Real Estate Board. (Chapman and Hall Ltd. for John Wiley and Sons Inc. 120s.)

For twenty different types of building this book gives (final not tender) unit costs broken into four " elements "—structure and finish; heating and ventilating; plumbing; electrical. Thus for a six-storey office building (there are three examples) the costs of the above mentioned elements, in dollars per sq. ft. are: 11.12, 5.68, 2.79, 1.31, total: 20.90 (or about £7 10s.). Each example gives the type of construction and equipment, the area and cube of the building and a photograph—not necessarily of the actual building costed. The major portion of the book consists of scores of these very clearly presented examples.

Introductory chapters explain the origin and use of the book. 150 architects, builders and realtors supplied 500 example buildings, which were edited to remove the exceptional building and to present an even range of quality and cost within each building type, and to adjust cost figures to a common date. A table of cost indices for 21 American cities is given. (Atlanta cheapest at 0.86, New York most expensive at 1.13.) Chicago, the home of the book, is 1.00. It is well known that the American national economy makes it profitable to tear down and rebuild a comparatively new building. This the book reflects in its emphasis on " replacement " cost in a short chapter on " depreciation," and it is a revealing commentary on the difference between American and English architectural climates that the book was prepared by and is intended for use by architects, builders and real estate agents. The photographs of what is evidently rank and file architects' work have a raw touching immediacy that adds for this reviewer to the book's appeal.

12.65 materials: metal
ALUMINIUM

Aluminium in Modern Architecture. Vol. I by John Peter, Vol. II by Paul Weidlinger. (Published by Reynolds Metal Co., and distributed by Chapman & Hall Ltd. for Reinhold Publishing Corporation, 80s. and 140s.)

These two volumes, though " promotional " probably contain more good photographs and more engineering information about aluminium than can be got from any other single source. The first volume is a picture book—and a very good one—illustrating, we are inclined to guess, all the buildings of note which have sprung up since the war anywhere in the world and on which aluminium (or, as the Americans prefer it, " aluminum ") has been used. This volume concludes with a feature which is so popular in American technical journalism (and which is such a crashing bore), namely, reprints of tape recordings of 27 leading American architects speaking on " the future of aluminum in modern achitecture."

The second volume is of a different sort. It " aims to supply sufficient theoretical information to acquaint engineers and architects with the physical, mechanical and fabricating characteristics of the material pertinent to its application in the building industry." The first three of its eight chapters relate to the manufacture of aluminium products. The remaining five chapters represent a curious alternation between an engineer's handbook and an architect's information sheets. Chapter four, which deals with jointing is particularly interesting as it deals not only with " traditional " jointing methods—riveting, welding and the like—but with the more unorthodox methods such as wire stitching and resin bonding. The fifth and sixth chapters form a structures textbook and the seventh chapter, entitled " Architectural Design and Details," describes with careful (but not always fully dimensioned) drawings the full range of aluminium products now on the American market, from complete curtain walls down to items of trim such as stair treads and handrails. The final chapter gives data on piping and ductwork and the book ends with a series of appendices which recap the official US Codes and the Reynolds Company's own Handbooks. The whole is a great labour, if not of love, of enlightened self-interest. Aluminium structures owe their elegance to the fact that the ratio of material cost to labour cost is so great (it is about 2 to 1 where that of steel is 1 to 2) that it justifies the expenditure of more labour to cut down the weight of raw material. Records like these of the kinds of solutions which have been found economic are of real value, for where they are not at once usable by architects in this country they may serve as a stimulus to manufacturers.

19.208 construction: details
CONCRETE FLOORS

Residential flats, Eaton Terrace, Westminster. (Concrete & Constructional Engineering. January 1957. pp.52, 53)

Floors of an unusual design in a nine storey block of flats.

The superstructure is of reinforced concrete columns, peripheral beams and cross beams at the party walls between flats, but there are no beams within any flats. There are two internal columns at the corners of rooms in each flat. The floors are 8 in. thick, 5 in. of reinforced concrete and 3 in. finishes except at the columns where upstands 2 in. high are added to the structural slab for an area 4 ft. 6 in. square. These panels perform the same function as the dropped panels in flat slab construction. By this means the floor to floor height was kept down to 8 ft. 3 in.

26.127 services and equipment: miscellaneous
ELECTRICAL INSTALLATIONS

Electrical Installations: Edited by Brian Grant (Architectural Press Ltd., 16s.)

One of the architect's major problems is how to deal with the many engineers whose co-operation is now necessary for the completion of a building. Whether he relies for advice on the specialist sub-contractor, or retains a consultant, he is still faced with the problem that few engineers realize that their own problems are only part of the building as a whole, and many tend to insist on the most elaborate technical installations even although work elsewhere has to be skimped for lack of money.

On the other hand, buildings in which vast sums have been spent on marble facings and oak panelling, but in which the heating, lighting and ventilating installations are totally inadequate are all too common.

Ideally, the engineers concerned in the building industry should have some knowledge of architecture, while architects should know more than they do of engineering. Experience seems to have shown that it is idle to expect the average engineer to take an interest in architectural problems, and so, for the time being, progress of this kind must depend on those architects who are prepared to spend some time studying engineering. But unfortunately there is a great shortage of textbooks which are designed to give the non-specialist a coherent picture of the various branches of building engineering and the few that there are often tend to talk down to the reader and avoid the real problems.

Electrical Installations, edited by Brian Grant and published by the Architectural Press, is an attempt to fill this gap in the field of electrical engineering. It is based upon the issue of the ARCHITECTS' JOURNAL published on November 18, 1954, which was devoted entirely to electrical work. It does not claim to be a textbook, but only to give the architect an outline of the subject.

It contains a great deal of information, which is accurate, if not always relevant, and touches at least on the majority of the aspects of electrical installation work. It should be most useful to architects who have some knowledge of the subject and wish to know more. It will probably be less helpful to those who know little or nothing of the subject already, as it is not arranged in such a way as to be readily digestible, and in some cases it might be actually confusing to someone reading it with no previous knowledge. For example, while so many misconceptions exist about fluorescent lighting, it is a great pity that the subject was not tackled in a more orderly fashion, and preferably in greater detail. Nevertheless, this should prove a most useful reference book.

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technical section

26 SERVICES AND EQUIPMENT: MISCELLANEOUS

small electrical installations. 3 a small house installation in TRS cable (concluded).

In their last week's article* our authors, Peter Jay and Clive Wooster, began their exposition of the electrical installation in a small house by taking an actual house (kindly " lent " to them for this purpose by G. A. Clark, the owner, and Kenneth Steel, the architect) and by describing an installation in tough rubber sheathed cable. They discussed the intake, the number of circuits required, and the routing of the ground floor lighting circuits. This week they complete the job.

* The first article of the series appeared on July 25, 1957.

Fixing and protection of cable

UNDER FLOORBOARDS: Apart from the short length of cable to the light under the porch, all the other main wiring runs in the interfloor space, and there are no special problems in securing it. Cable should not be allowed to span a distance of more than three feet without support, but where it can rest on the ceiling below it need be fixed to the joists only at about five foot centres, and at either side of each ceiling rose, leaving enough slack for the rose to be unscrewed and withdrawn to obtain access to the terminals.

The cable should be fixed by means of buckle clips as shown in Fig. 2. Nails, wall nails, lugs and driven staples should never be used for securing cable.

Where cable runs transverse to the joists it may either be dropped into notches or passed through holes drilled in the joists. Notches weaken a joist to some extent, and the cable resting in a notch can be pierced when the boards are being nailed down, while holes are difficult to drill properly, and it takes longer both to feed the cable through them, and to make alterations or additions later. Joists should not, of course, be notched in the middle third of their span, and it is as well to specify that all notches should be under the second board out from the skirting. They should be deep enough to allow ¼" clearance between the top of the cable and the floorboards.

Where the cable is passed through holes, these holes must be drilled with a special tool having a flexible joint, so that they run at right-angles to the joist and not skew, otherwise the cable will follow a zig-zag path.

Cable should not be run diagonally across a room with a suspended floor, but should run between two joists for as far as is necessary, and then be turned to cross them at right-angles. Diagonal runs, apart from necessitating notches or holes in the middle of the joists, are very hard to trace afterwards, and often involve taking up a whole floor for some very minor repair. The cable should never be made to bend sharply, the minimum radius bend being about eight times the maximum diameter of the cable, and additional support should be provided at bends. Notches

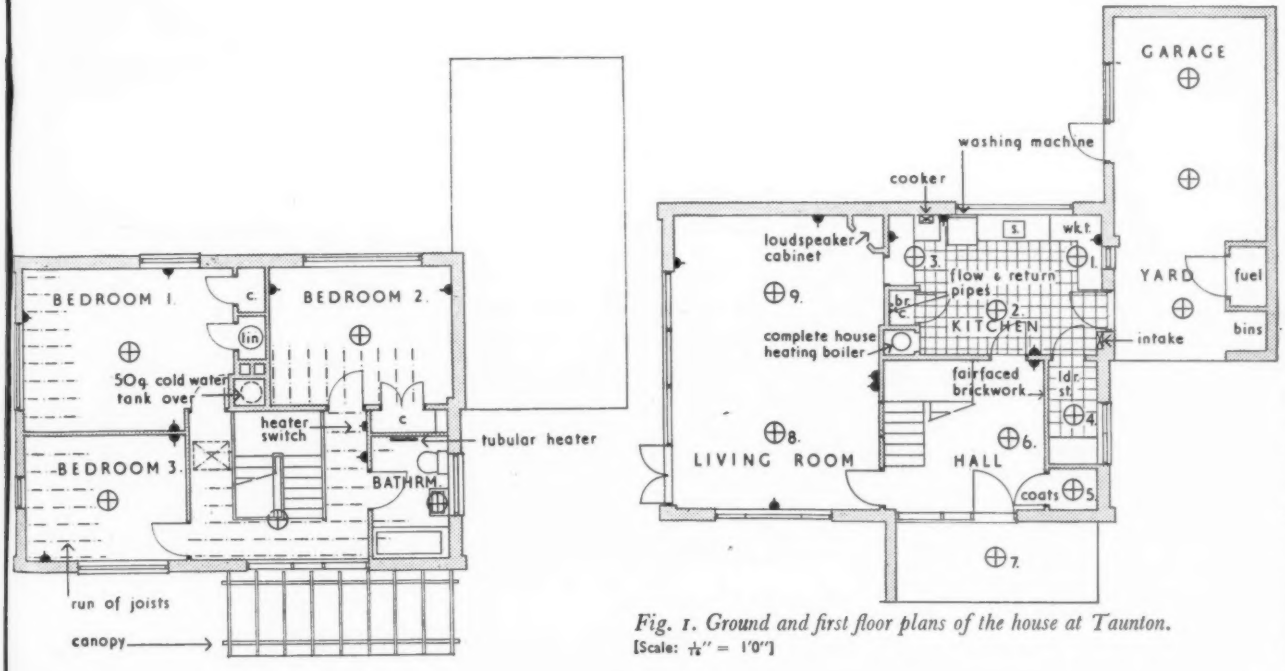

Fig. 1. Ground and first floor plans of the house at Taunton.
[Scale: ⅛" = 1'0"]

The cocktail bar of the Royal Hotel, Cardiff. *By courtesy of Messrs. Ind, Coope & Allsopp Ltd.* Architect: John Morton, A.R.I.B.A., A.A. Dipl. Chartered Architect. Fitted by Gaskell & Chambers (London) Limited.

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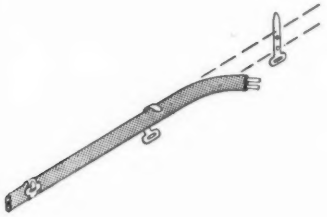


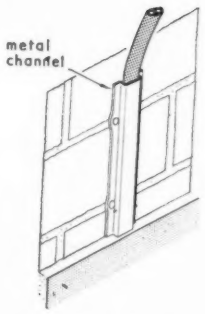


Fig. 2 (above left). Drawing of the method of fixing cable with buckle clips. Fig. 3 (above right). Use of light metal channelling to shield insulation from plaster.

in joists, etc., should be finished off so that there are no ragged edges against which the cable can chafe. When running at right-angles to joists, the joists themselves give adequate support, and fixing need be at no closer centres than the five feet already mentioned.

If a cable has to pass through brickwork, it should be enclosed in a short length of conduit, bushed at either end. In passing through an R.S.J. or metal partition the hole should also be bushed, in this case the bushes should preferably be of insulating material.

ROUTING AWAY FROM PIPES, ETC.: Cables should always be kept well away from flues and hot water pipes, at a distance of at least eighteen inches, and should never be run in an enclosed duct provided for water pipes. In such a duct condensation from cold pipes causes as much trouble as the heat from hot pipes.

This requirement has already been mentioned briefly in explaining why the intake could not be placed in the kitchen broom cupboard, which might otherwise appear an excellent place for it.

In a small kitchen, especially if the ventilation is poor, particular care is necessary with the wiring, and the intake should never be placed in such a kitchen.

If a cable has to cross a hot water pipe, it should do so at right angles and pass beneath it. If it is not possible to maintain the minimum distance of 18 inches at such a crossing (for example, in an inter-floor space) some effective insulation (1 in. thickness of building board or equivalent) should be placed between the cable and pipe for this distance.

In a boiler house, if there are any houses now being built with separate boiler houses, we do not think that T.R.S. cable is at all suitable, and this type of installation will be dealt with in a later article. This does not apply, of course, to a kitchen which contains a boiler, although in such a case it is necessary to keep the cable well away from the flue.

CABLE BEHIND PLASTER: In most cases, wiring to switches will run down the wall behind the plaster. It is here protected from mechanical damage, but many plasters will in time attack the insulation, and the cable should therefore be covered with light metal channelling nailed to the wall before rendering (Fig. 3). The channelling itself acts as fixing so that buckle clips are unnecessary. Oval conduit is sometimes used in place of channelling.

The channelling and nails should be painted with red lead or some similar paint, otherwise they may rust out through the wall in time.

CABLE IN WALL CAVITIES: It is common practice with certain contractors to drop cable through wall cavities in order to save time. As a time-saving method this is deplorable, and should never be employed.

In the vast majority of cases, it is infinitely preferable to run the cable behind the plaster, but where no route other than the cavity is available, the cable should be fixed to the inner leaf, with buckle clips at 12 in. centres, as for a surface installation. Where the cable passes through the brickwork, a short length of conduit, bushed at either end, should be set in the mortar, and the cable passed through it.

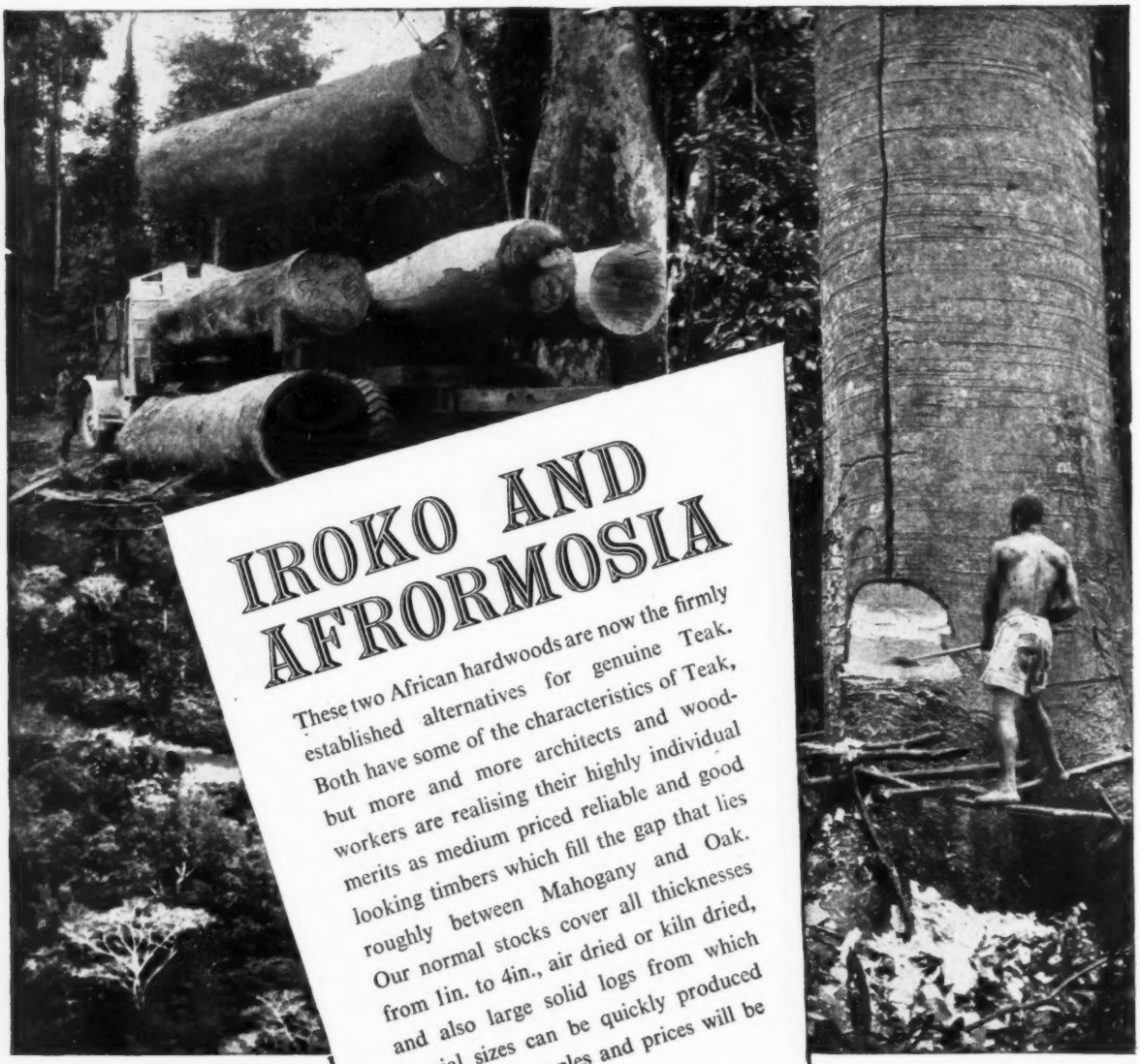
The purpose of the conduit is obvious, and the fixing is necessary because a vertical run of cable should never be allowed to carry its own weight, as this places an undue strain on the insulation at the top, and in some cases has been known to lead to the cable "drawing," or pulling out.

CABLE UNDER SOLID FLOORS: Where it crosses under a solid floor, the cable should be ducted, and it is surprising how large this duct must be if T.R.S. cable is to be drawn into it. Conduit, bushed at both ends, is quite a convenient material for ducting, but the bends at each end must be of large radius. Provided that the outer sheath passes undamaged right through the conduit there is no requirement to earth it, although it is much better to do so.

In cases where more than about six feet of ducting is required it is usually cheaper not to use T.R.S. cables at all, but to make it an ordinary conduit installation with the conduit buried in the floor screed. For a given size of cable the conduit can then be very much smaller, and the radius of the bends appreciably less, as the cables will have no thick outer sheath.

The house we are discussing has a solid ground floor and since these two articles are concerned with T.R.S. cables only, we shall describe a method of avoiding the use of floor ducts, so that this cable is quite economical. In a later article the same installation carried out in conduit, will be described, in which the conduit enclosing the wiring to the ground floor sockets will be embedded in the screed. In such a case, of course, the conduit must always be earthed.

PROTECTION OF CABLE AGAINST MOISTURE: Under the porch, and in the covered yard and garage it is useless to try to prevent the cables and fittings becoming damp in bad weather by covering them in, or in some other way. It is, however, most important that the cable and fittings should be so fixed that they will dry out quickly as soon as the weather improves. The cable should therefore be run on a wooden batten fixed to the underside of the roof, and the lighting point should be mounted on a wooden block fixed



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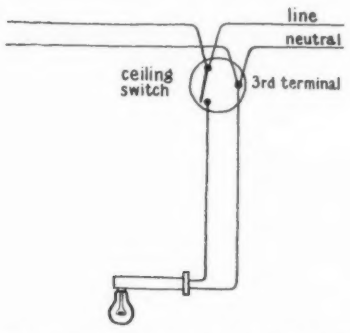

Fig. 4. Circuit diagram for ceiling switch in bathroom.

below the roof, with a half-inch clearance between. Under the porch the cable can be fixed to one of the joists. In the covered yard and garage a batten will have to be provided specially. The other precautions described below, which apply to surface work generally, should always be followed.

FIXING AND PROTECTION OF SURFACE CABLES: Horizontal cable runs on the surface should be fixed with buckle clips at not more than 9 in. centres, and vertical runs at not more than 12 in. centres. Anyone who has once seen an electrician solemnly plugging a brick wall at these centres for his buckle clips will probably prefer in the future to have a 1 in. × ½ in. batten screwed up for him along the cable route, to which the buckle clips can be nailed. When, as in the covered yard here, the installation is liable to become damp, this wooden battening also serves to assist the cable to dry out, as mentioned above. T.R.S. cable should not be placed where it is liable to be exposed to direct sunlight, unless it has been specially treated in manufacture, which involves incorporating a fabric braid in the sheath. In practice, it is better to site the cables where they do not get any sun.

Cables should also be protected against mechanical damage to which they may be liable, "having regard to the nature of the sheath"—thus far the Regulations of the Institution of Electrical Engineers. Interpretation of this requirement varies widely, but it is generally held to mean that cable above a height of about 4 ft. 6 in. from the floor need not be protected unless it is in the sort of room where large and heavy objects are wont to be carried about, *e.g.*, a workshop or coal cellar. Below this height of 4 ft. 6 in., it should be passed through a length of conduit, bushed at both ends, which need not be earthed provided that the sheath of the cable passes unbroken through the conduit.

If the cable runs beside some substantial projection from the wall, it needs no metal covering, so that a switchdrop beside a projecting door frame needs no other protection, nor does a cable dropping down from the switch, and then running above the skirting board to a socket. However, a cable emerging from the floor and rising 3 in. on the surface to a socket is particularly vulnerable to attack by vacuum cleaners, etc., and should therefore be passed through a length of conduit.

In the special cases we mentioned above, such as workshops and coal cellars, all switchdrops should be protected, and the switch should be of metal, in which case it must be earthed.

In case of doubt about the necessity for special protection of T.R.S. cables in a given situation, or indeed about any other matter concerning standards of practice, etc., the best thing to do is to write to the National Inspection Council for Electrical Installation Contracting, 13, Victoria Street, London, S.W.1, who will either answer queries directly, or refer them to their inspector in the district concerned. We include a fuller account of the National Inspection Council in the fourth part of this series.

All the above paragraphs on the fixing and protection of cable in various situations apply generally, and in dealing with the remainder of the installation we shall not refer to them specifically, since their application will be taken for granted.

FIRST FLOOR LIGHTING: Twin 3/·029 cable is run from fuseway 2 straight up the wall, protected by metal channelling, into the roof void, and from there runs to every ceiling rose, as described. In this case, there is no particular advantage in branching, and the most convenient route will be:

Bedroom 2 — Bathroom — Landing — Bedroom 3
Bedroom 1

It would save no cable to branch from bedroom 2 to Bedroom 1 and it would be difficult to avoid the pipework and flue.

In the bathroom the light must be controlled by a ceiling switch, and in place of a ceiling point a wall bracket over the mirror will be more useful. In this case, it will therefore be better to loop from the ceiling switch, and switches are available with a third terminal for this purpose. The circuit diagram for this is shown in Fig. 4. It will be seen that without a "loop-in" switch it would be necessary to use a connector. In place of a ceiling switch an ordinary plaster depth switch is sometimes placed outside the bathroom door. There is no particular objection to this, but it is a little more expensive as the work involved in fixing a switch in the ceiling is less than in dropping down the wall.

Lighting fittings made entirely of insulating material in which the lamp is completely enclosed should always be used in bathrooms and are best supplied and fixed by the electrical contractor when the house is built. Fittings employing opal glass are comparatively cheap and are amongst the best for this purpose. Over a mirror a wall bracket has obvious advantages, so long as it is so placed to light the face and not the mirror (an obvious point, this, but so often overlooked), but in living-rooms wall brackets are more valuable as a decorative effect than a source of light. Considered as decoration they are comparatively expensive, especially if the cost of wiring is included, and where money is limited they should be placed very low on the list of priorities.

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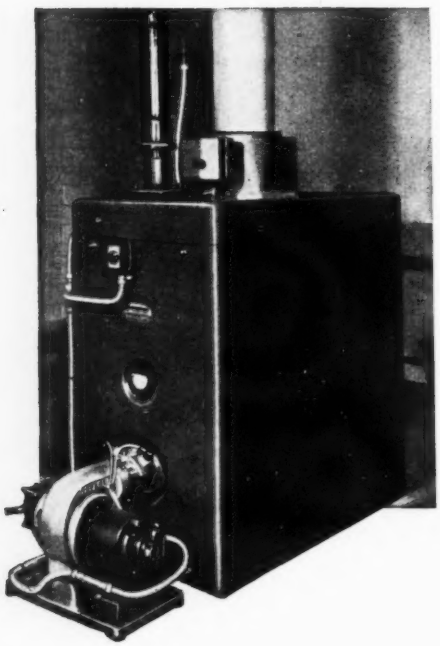

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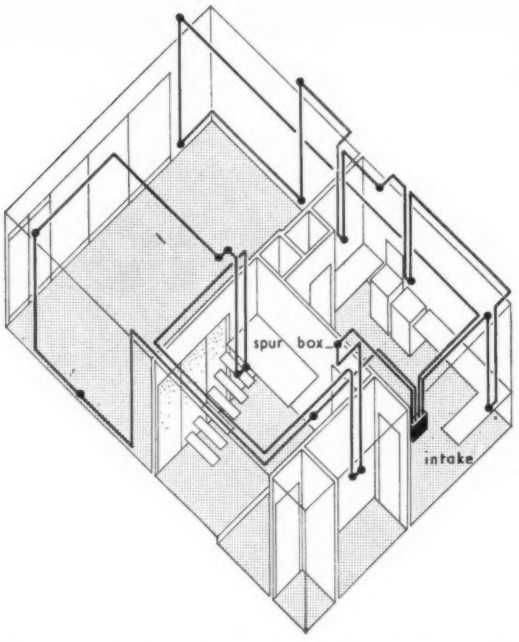

Fig. 5. Axonometric diagram showing routing of ring circuits.

The point on the landing will be two-way switched from the ground and first floors, and the cable interlinking the two switches will have to run down the only piece of plastered wall available, outside the door to the living-room.

If so desired, a light can be placed in the roof void, although probably a 2 amp. 3 pin switched socket (which can be connected to the lighting circuit) will be better, and a portable handlamp, long length of cable and plug can be kept for use up there. The same inspection lead can also be used in the garage.

13 AMP. SOCKETS. CABLE ROUTES: As explained earlier, if we wish to run cable to the ground floor sockets under the floor, we must provide duct. 7/·029 twin with earth cable, which has a current rating of 20 amps, must be used for these sockets, and the cost of the cable is 1s. 5d. per yard (at the time of going to press). Where a duct is employed, it is likely to cost very much more than the cable running through it. Apart from this, the exact routing of ducts, and therefore the positions of sockets, must be settled in the earliest stages of planning and there is no possibility of altering them later without great expense. As we suggested earlier, where it is decided to run through the floor, a duct to accommodate two 7/·029 twin with earth T.R.S. cables has to be so large that it is in nearly all cases much cheaper to use conduit. In this house we can conveniently avoid the use of ducts, and conduit, by running behind the skirting boards, and dropping down from the first floor. In the kitchen there are three points at work surface level, and it is as convenient to drop down from the ceiling as to rise from the floor. Further, where a cable comes down and then goes up again by the same route, both runs can be accommodated behind the same metal channelling, so that the additional cost of fixing is negligible.

Rather than having one ring to serve each floor, we shall therefore arrange matters so that each ring serves one half of the house, the dividing plane being vertical. This system also spreads the probable load between the rings more evenly than would division by floors.

The best routes are therefore as follows:

Ring A: Rise from fuseway 3 into the interfloor space, thence to one point in bedroom 2, down to the kitchen, up, over and down again to the point for the washing machine, again up over and to the second point in bedroom 2, down to the point beside the servery hatch, up and along to bedroom 1, down to the living room, run behind the skirting board and up again to bedroom 1, and thence return to the fuseway, keeping as far away as possible from the hot water system, as shown on the axonometric Fig. 5.

Ring B: Rise up to the tubular heater in the bathroom, down to the skirting board point in the kitchen, also picking up the point in the hall, up again and round the stair-well (avoiding the corner with the flue), and then down to the twin point in the living room, up again to the two points back to back on the partition dividing bedrooms 1 and 3, thence to the second point in bedroom 3 and down to the socket under the south-east window in the living room, up again, and so back to the fuseboard, taking in the landing point on the way.

On the first ring we have nine points, on the second, ten; it would not have mattered had the distribution been, say, seven and twelve, provided that there was one ring for every 1,000 sq. ft. of floor area, and the points were "reasonably distributed among the ring circuits."

The amount of cable used is as follows: Ring A, 160 ft.; Ring B, 180 ft., making 340 ft. in all, let us say 115 yds. This is allowing 15 per cent. excess over measured lengths for contingency.

If the ground floor had been of joist construction, and the rings had been divided by floors in the normal manner, the lengths of cable used would have been for the ground floor 163 ft., and for the first floor 147 ft., making a total of 105 yds., to the nearest 5 yds.

The additional length of cable involved in using the method proposed here is therefore about 10 yds., the cost being less than 15s. Had ducts been employed they would have cost very much more than this.

Had the intake been centrally placed, and whichever way the rings were wired, that is, by floors, or as described here, it would have taken less cable than does the corresponding method when the intake is against an exterior wall. Moreover, it may be seen by inspection of the axonometric figure that with a central intake, to divide the rings by floors would have taken *more* cable than the system we describe.

In view of our earlier remarks about spurs, we shall examine their application to this installation. The point on the north-east wall in the kitchen could have been spurred from that above in bedroom 2, while the two points in the kitchen by the cooker could have

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technical section

been spurred from the second point in bedroom 2. This makes a total saving on Ring A of 9 ft. of cable, and to save this much it is necessary to spur two sockets separately from one on the ring, which is very difficult to do properly.

On Ring B we could spur the two points which lie back to back in the kitchen and hall from the bathroom tubular heater, and the twin point in the living room from the two points on the partition separating bedrooms 1 and 3. The saving in cable on this ring is therefore 11 ft. The total saving on both rings comes to 20 ft. at a cost of just under 10s.

As we shall see later on, a contractor does not always make a precise estimate of quantities when quoting for individual houses. This installation will use up a 100 yd. coil of cable, and a short length from a 50 yd. coil. 125 yds. of cable will almost certainly be allowed for the job, and will be charged whether used or not. If this sounds unfair, it must be pointed out that the increase in bookkeeping involved under any more precise system of costing would put up the overheads. When quoting for an entire estate, of course, the position is rather different, and the quantities will in most cases be worked out precisely.

This is why we think that spurs save little or no money to the employer, and should not be allowed in new installations.

THE INDIVIDUAL OUTLETS. Every outlet of a ring circuit, whether it be a fused spur box or a 13 amp. socket should be mounted in a metal box, which may either be set flush in the wall or skirting board, or mounted on the surface. In this house all outlets are flush, which is the neatest system, and also the most reliable, since surface fittings can be jarred loose in time.

As described earlier, cable should be gripped in a bonding nipple where it enters a box, and even where two cables enter the box from the same side, they should be passed through separate holes, each fitted with a nipple.

In this case the earth wires are secured in the earth terminal at the back of the socket, and where a fused spur box which is not already provided with an earthing terminal is used, the electrician should fix such a terminal to the back or side of the box.

Where sockets are mounted in the skirting board it is advisable to set the box on the wall before the skirting board is fixed. Enough loose cable should be tucked away to allow the box to be eased out afterwards in case of need, since the bonding nipples cannot be slackened off once the skirting board has been placed in position.

Ring A. Socket outlets must not be placed less than six feet from a tap, which limits their position in the kitchen. For this reason, the washing machine cannot be connected to a socket outlet, and must be permanently wired in, through a *switched fused spur box* (Fig. 6). We have described the function of a spur box in an earlier part of the article, and in this case the ring wiring runs to the box only, which is fitted with a 13 amp. fuse, and a short length of 7/·029 twin with earth cable runs behind the plaster from the spur box to a round conduit box set flush in the wall at the level of the cable entry to the washing machine.

This box is fitted with a *domed lid* (Fig. 7), through which passes a 3 core flexible rubber covered cable to the machine, the entry either being bushed, or, preferably, fitted with a gland which grips the cable at the entry point. The flexible cable is connected to the T.R.S. cable inside the conduit box using a three way connector block, the third terminal being for the earth (Fig. 8). We have condemned the use of connectors in the run of T.R.S. cables, but it is no more possible to avoid their use in a case like this than in connecting an internally wired lighting fitting. At least it is quite clear that a connector has been used, and where it is.

The earthing is completed from the fused spur box to the machine via the connector block in the conduit box, but the box will not itself be earthed unless a short length of wire is run from the connector to a terminal specially provided adjacent to it, as shown in the figure. This wire should not be clamped under one of the fixing screws of the domed lid, where it may work loose, and so soon cease to give proper protection. As this type of washing machine has a fixed water entry, it does not require bonding to earth (see under bathroom).

There are no other outlets on Ring A which require special comment.

Ring B. The tubular heater in the bathroom must be

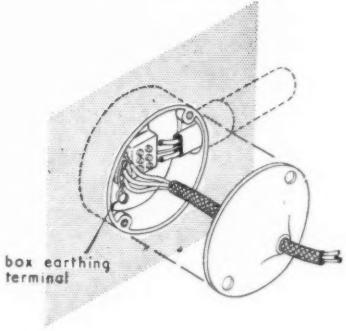
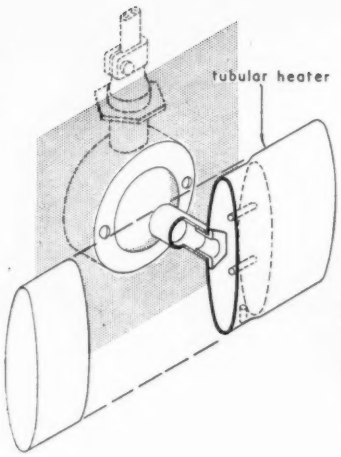
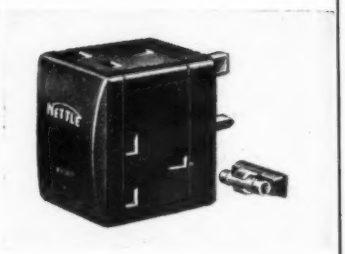


Fig. 6 (above). Switched fused spur box. Fig. 7 (above right). Domed lid for a round conduit box. Fig. 8 (right). Connection of flexible cable to T.R.S. cable in conduit box.

technical section

Fig. 9 (left). Double pole switch with indicator light. Fig. 10 (right). Drawing of connection to tubular heater. Fig. 11 (far right). Multiway adaptor for 13-amp. socket outlet. Fig. 12 (below left). Switched plug.





connected through a fused spur box, since no socket outlets are allowed in a room containing a fixed bath. The ring wiring is therefore taken through a fused spur box, this time without a switch, set in the skirting outside the bathroom door and fused at 2 amps. From here 7/·029 twin with earth cable runs up the wall to a double pole switch with an indicator light (Fig. 9) mounted at eye level. From the switch, cable runs down again to a conduit box set flush in the bathroom wall under the towel rail, opposite the end of the tubular heater, which should be securely fixed in position above the skirting board. The flush box should be fitted with a bonding nipple and connection to the tubular heater is by means of a domed lid with an extension collar connected to the entry hole of the heater by means of a bush, as shown in figure 10.

Although the outer case of the tubular heater is earthed by connecting the earth wire to the terminal provided under the end cap, in a bathroom an electrical appliance must be rendered still more secure by *bonding*, that is firmly connecting all exposed metalwork to the water pipes. From the earth terminal inside the end cap of the heating tube, 7/·036 earth wire is passed through the conduit box, out through the bonding nipple and under the floor to the water pipes, to which it is firmly secured by means of adjustable clamps. This earth wire should be connected to every section of piping, that is, to the cold water feed, the hot water feed, and to the waste pipes from both bath and basin. If there should be any other section of piping not connected to one of these runs by a plumbed joint, it must also be bonded, as water connections to a bath, etc. do not always afford electrical continuity through the joint.

All pipes should be thoroughly cleaned under the earthing clamp.

The earth wire running with 7/·029 cable is a bare 3/·036, and the requirement that 7/·036 shall be used for earth bonding in the bathroom is more to ensure mechanical strength than for current carrying capacity.

The only other remark on Ring B is the use of a twin socket-outlet in the living room. Twin sockets are very much cheaper to install than two single sockets placed side by side, and their use is recommended whenever it is felt that a multiway adaptor (Fig. 11) might otherwise be necessary.

SELECTION OF SOCKET OUTLETS: Flush plastic sockets are normally used in private houses and are generally available in brown or cream, while there is at least one firm which manufactures several pastel shades. Pure white accessories are very hard to find, apparently because cream is thought to be more popular.

There is very rarely any need to use switched sockets, the switch adds to the expense, it usually projects and is therefore liable to damage, while many portable appliances do not need additional switches anyway. Where a switch is necessary, it can be provided on the plug (Fig. 12) which is, in our opinion, a preferable system.

ROOMS WITH BATHS AND TAPS, ETC.: It is worth while including a short summary of the special precautions necessary in certain circumstances:

1. In a room with a tap, *e.g.* a bedroom with basin:
No socket outlet should be placed within 6 ft. of the tap.
No switch except a ceiling switch with insulating cord should be placed where it can be reached by someone also within reach of the tap.
Any electrical appliance with exposed metalwork should be bonded to all the water pipes and to the waste pipes.
Where there is no electrical appliance as described, the earth pins of the socket outlets should be bonded to the water pipes, in addition to their normal earth connection.
Skirted lampholders should be used.

2. In a room with a stone floor:
Skirted lampholders should be used.
If the room is at all damp, ceiling switches should be used.

3. In a room containing a fixed bath:
No socket outlets are allowed.
Switches should either be ceiling switches or be mounted outside the door.
Double-pole switches should be provided for appliances other than lights.

technical section

If there is an electrical appliance with exposed metalwork, it must be bonded to the water pipes with cable not smaller than 7/·036, whether also bonded by reason of its internal construction or not.

Lighting fittings should contain no exposed metalwork, and should enclose the lamp completely.

INSTALLATION OF THE COOKER: 7/·044 twin with earth cable is run from fuseway 5 up to the interfloor space and down the kitchen wall terminating in a cooker control unit mounted in the position shown at a height of about 5 ft. above the floor. The cooker unit should be fitted with a 13-amp. socket, and, preferably, with two indicator lamps, one for the cooker and the other for the socket. 0·5-watt neon lamps should be used for these indicators.

From the control unit a length of 7/·044 T.R.S. cable is run down the wall, behind the plaster, terminating in a 3 in. × 3 in. rectangular sheet steel box set flush in the wall mounted at the same height as the terminals of the cooker and to one side of it. From the lid of this box flexible metallic conduit is run to the cooker itself. The flexible conduit is soldered to a brass gland at either end, and a separate earth wire is necessary. This is run through the conduit, and passed to the exterior through a hole drilled in each gland, where it is soldered to the outside of the gland. Asbestos-covered cable should be passed through the flexible conduit, and be connected to the T.R.S. cable inside the 3 in. × 3 in. box (Fig. 13).

The cooker control unit should be bonded to the water pipes by means of 7/·036 earth wire, as described for the tubular heater in the bathroom.

N.B.—Bonding is not necessary for the washing machine, as this is itself connected to the water supply.

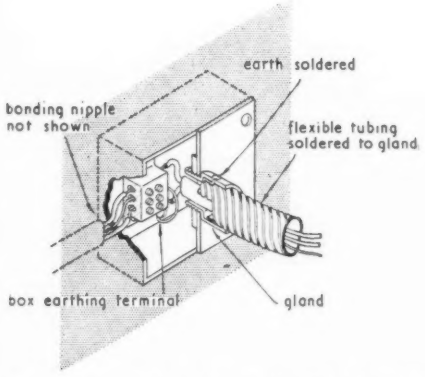
INSTALLATION OF THE IMMERSION HEATER: A 3-kW. immersion heater should be big enough in this case, and it had best be controlled from the kitchen if it is required for intermittent use. 7/·029 twin with earth cable is therefore run up into the interfloor space, over and down the kitchen wall beside the servery where a switched indicator unit (Fig. 9) is mounted. From here it goes up again to a metal double-pole switch mounted inside the linen cupboard, at the same level as the immersion heater. From the switch asbestos-covered cables run through flexible metallic conduit to the immersion heater itself. The entry gland of the immersion heater cannot be relied upon to give a good bonding to the tank, so the metal switch should be additionally bonded to the cold water feed pipe, using 7/·036 earth wire as described.

Had the linen cupboard been in the bathroom, the switch for the immersion heater could not have been fixed in the cupboard itself, but would have had to go outside the bathroom door.

This second metal-clad switch adjacent to the heater is necessary as a safety measure when an electrician or plumber may be working on the tank. It introduces a difficulty, as the indicator lamp in the kitchen will stay alight even if the switch in the linen cupboard is off. To get over this difficulty a dual unit is available consisting of two two-way switches, with indicator lights, one for mounting in the kitchen, the other for fixing adjacent to the heater, so arranged that the indicator lamps will light only when the immersion heater is actually on. The switch for mounting adjacent to the heater is also provided with an isolating device for use by the electrician or plumber (Fig. 14).

Although the hot water system in this house is quite a common one, we think that separation of the functions of water and space heating is generally preferable. The Electrical Development Association (EDA) published an excellent booklet entitled *The Design of Water Heating Systems in New Houses* which describes the various possibilities extremely clearly, and we shall devote no further space to the matter here.

GARAGE AND YARD: 3/·029 twin with earth cable is run from fuseway 7, through the wall and out to the yard, whence it runs along the bottom of a joist to the yard lighting point for which the most suitable fitting is a bulkhead. This, being of metal, must be properly earthed, and cable should be taken into it from such a direction that water cannot run down into the interior through the cable entry hole. From the bulkhead, twin with earth cable is taken back along a



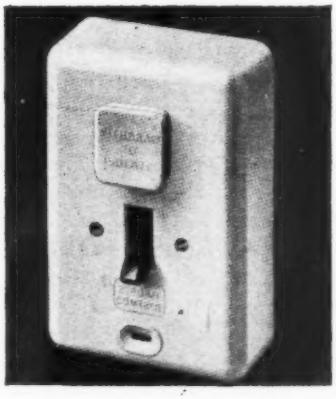


Fig. 13 (above). Drawing of connection to cooker. Fig. 14 (right and extreme right). Two-point water heater control unit.

technical section

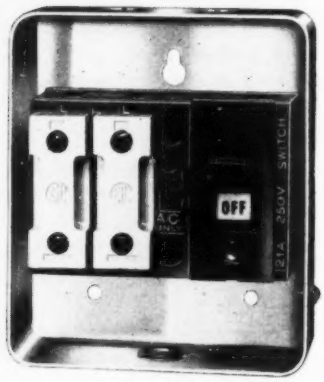


Fig. 15. Switchfuse with two sets of fuses, called a "splitter."

joist, and then down the wall, fixed to a wooden batten, to a watertight switch mounted outside the back door. Cable should be brought into the bottom of such a switch, to prevent water trickling in, as explained for the bulkhead.

From the bulkhead in the yard, the cable runs in to the garage to one, or preferably two, lighting points, one at least of which must be two-way switched. All switches should be metal clad, and should be protected from damage by being tucked behind the door framing. Battenholders are often used in garages, but short pendants are very much better, as these swing and do not break when knocked. Skirted lampholders and rubber-covered flexible cable must be used throughout rather than the silk covered flex used for pendants inside the house.

At least one socket should be provided for an engine heater and/or battery charger. If this is all that will be required, a 2 amp. 3 pin metal-clad socket will be sufficient, mounted adjacent to one of the switches. It will also be suitable for the working light suggested for the roof void, which can be used in the garage as well.

If, however, a workbench is to be provided, at least one 13 amp. socket will be necessary for a heater and power tools. In this case, the ring can be diverted through the garage by running back through the wall from one of the sockets at work surface level in the kitchen. Surface metal-clad sockets should be used, and in this case they should be switched.

GARAGE NOT ADJOINING THE HOUSE: If the garage did not adjoin the house, the mains would have to be run underground, for which purpose mineral insulated, copper covered cable would be quite suitable. It should be run down the wall from the Consumer's Unit protected by a metal channel which must in this case be made of copper or brass, to avoid the risk of electrolytic corrosion. The cable should then be run underground at a depth of not less than 18 in. either ducted or covered by curved tiles. In the latter case the cable must be wrapped with bituminized felt. Having entered the garage the cable should be brought up the inside wall, protected in conduit, and terminated in the lighting switchbox. Wiring from this switch can be in T.R.S. cable, and as we shall be discussing mineral insulated cables in a subsequent article, do not propose to say any more about them here.

If a 13 amp. socket is required in the garage, the fuseway at the Consumer's Unit must be changed to 15 amp., and the mineral insulated cable should terminate in the garage in a *splitter* (Fig. 15). This is a switchfuse with two sets of fuses. The lighting is connected to one fuseway, and the 13 amp. socket to the other. The fusewire on the lighting side must, of course, be of 5 amp. rating. Wiring on from the splitter can be in T.R.S. cable, with earth wire, provided that it is protected where necessary, and all switches and sockets are of metal.

BELLS: The bell transformer can conveniently be mounted in the Consumer's Unit, and connected to either of the lighting fuseways. It must have its own switch which in this case should be metal-clad, mounted in the Unit beside the transformer. The latter should be fitted with fuses on the low voltage side, and in addition, fuses on the mains side are an advantage. One pole of the low voltage side should be earthed, as should the metal cover and core of the transformer.

The bell can also be mounted in the Consumer's Unit in this case, but had the intake not been in the kitchen, it would have been better to mount the bell separately. In any case, it must be kept well away from the cooker. Wiring for the bell inside the Consumer's Unit must be so insulated as to withstand mains voltage, and ordinary "bell wire" will not be adequate. In wiring to the push, P.V.C. insulated twin cable, with an outer sheath of a grade to withstand mains voltage, is taken from the transformer and bell down to the push at the back door, and up into the interfloor space, over and down beside the front door. It is desirable to protect it by means of metal channelling where it runs behind the plaster, but in any case it should be kept well away from the mains wiring.

Watertight pushes should be used, as the ordinary kind corrode quite rapidly in damp or dirty atmospheres, and then fail to work properly.

If so desired, there can be two bells, one for each door, or a combined unit with a bell and a buzzer in one housing, but it is scarcely necessary in such a small house. There is also a large variety of chimes and other noises available for those who prefer something more exotic than a bell.

TELEPHONES: Nothing is more infuriating than to see an installation in all other respects neat and tidy desecrated by surface telephone wiring. Even where it is not expected that a telephone will be installed in a new house for some time, simple ducts can be provided for the necessary wiring at the time of building. The Postmaster-General has recently issued a booklet which was drawn up in collaboration with the RIBA which describes the necessary provision for concealed telephone wiring in all types of buildings, and the reader is referred to Section 5 of this booklet for further information regarding small houses.

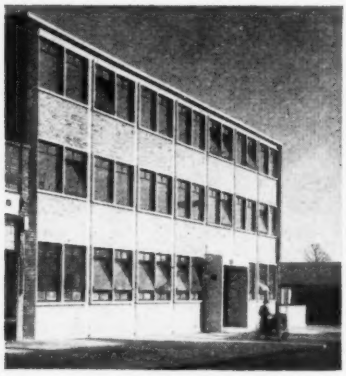
OFFICES

in HIGH STREET, SIDCUP, KENT; designed by HUCKLE & DURKIN; quantity surveyors E. C. HARRIS & PARTNERS

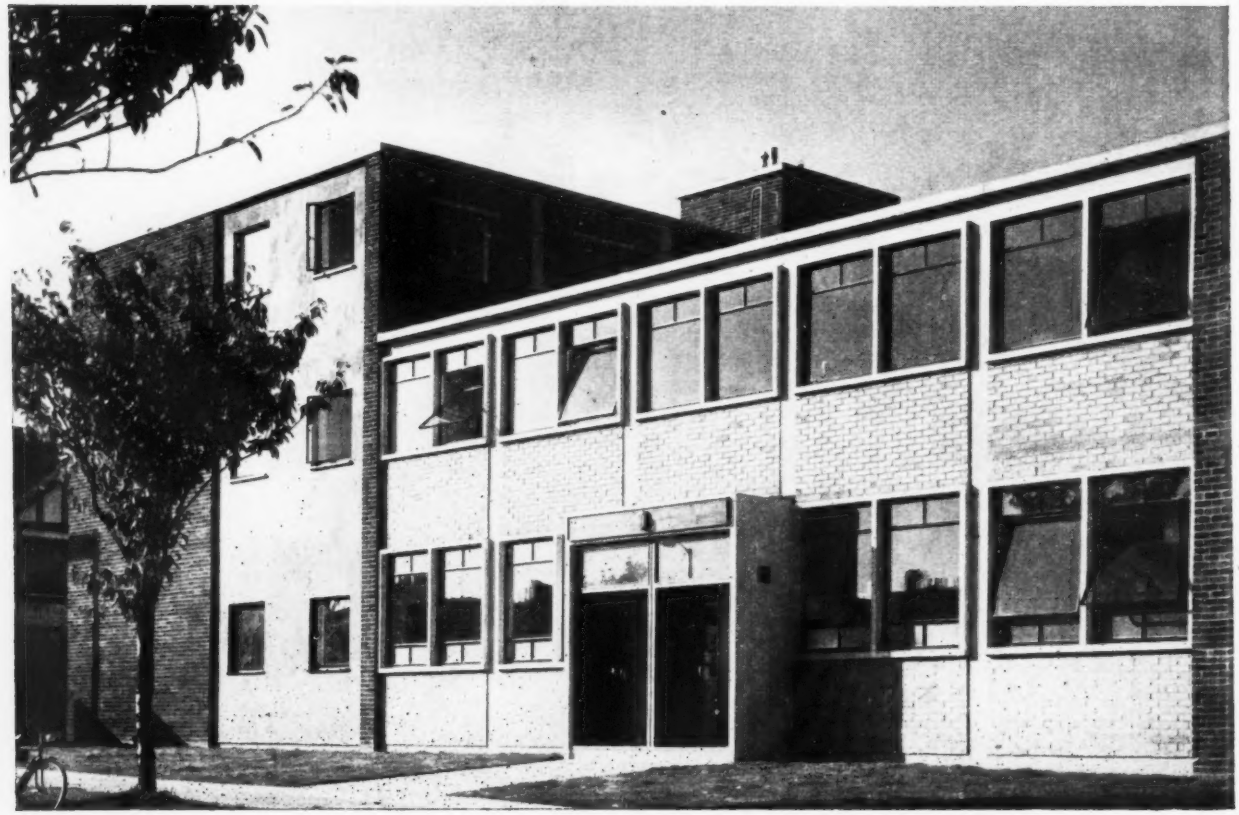
A lettable office building was required at low cost for the Cumberland Property Investment Trust Ltd. Maximum lettable office space was required with good lighting generally; planned to suit the tenants who are the Ministries of Labour and National Service, Pensions and National Insurance and the W.V.S. department.

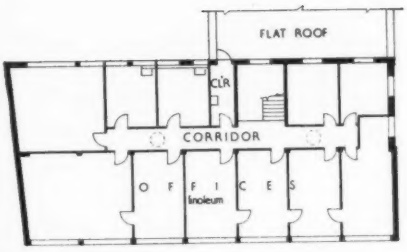
A general view from the junction of the High Street and Craybrook Road.

building illustrated



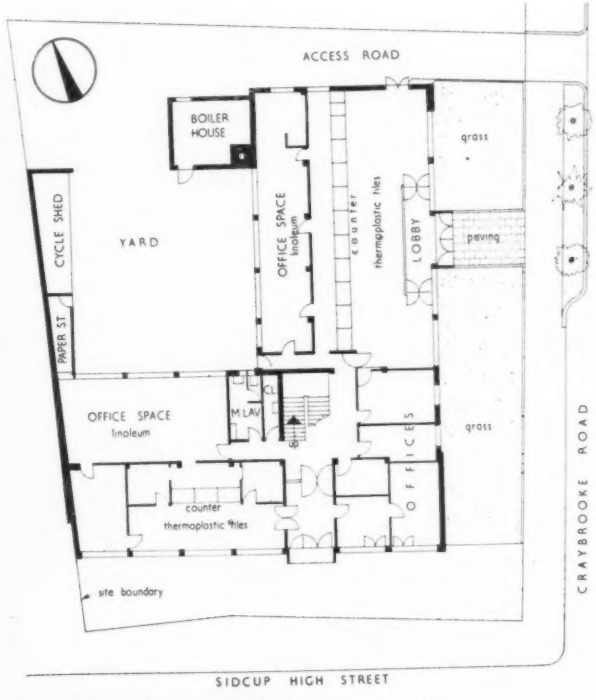
Top left: from the south-west. The facing bricks on the south facade are London stocks and on end walls are dark-brown brindled wirecuts. Left: the entrance from the High Street to the offices of the Ministry of Pensions and National Insurance and the W.V.S. Below: the east facade and the entrance from Craybook Road. This entrance leads to the offices of the Ministry of Labour and National Service. Above: offices of the Ministry of Pensions on the first floor.





Second floor plan

First floor plan



Ground floor plan and site layout [Scale: $\frac{1}{32}$" = 1' 0"]

analysis

	s	d
cost per sq. ft.		
preliminaries and insurances	3	5½
contingencies	2	8½

STRUCTURAL ELEMENTS

Work below ground floor level 3 6
Reinforced concrete bases, ground beams, strip foundations to load bearing walls. Oversite blinding and pitch-mastic damp-proof membrane.

Frame or load bearing element 11 9½
Reinforced concrete frame with *in-situ* concrete floors and roofs.
Cost includes upper floors, staircase and roof structure.

External walls 5 3½
Stock brick panels between reinforced concrete frame. Dark brown Brindled wirecuts to end walls. Coloured cement rendered panel. All walls cavity with 3-in. inner skin of hollow clinker block.

$$\text{ratio } \frac{\text{solid wall}}{\text{floor area}} = \frac{0{\cdot}76}{1}$$

Windows 1 9¾
Medium universal section metal, purpose made and set in art. stone surrounds.

$$\text{ratio } \frac{\text{windows}}{\text{floor area}} = \frac{0{\cdot}150}{1}$$

External doors 3¾
Hardwood frames and doors, part glazed and with fanlights, Georgian wired plate glass. 4 pairs, 2 single.

Upper floors
All reinforced concrete with *in-situ* panels spanning 10-ft., 5-in. thick. Beams spanning 17 ft. and 20 ft., no cross beams between internal columns. Cost included in frame.

Staircases
1 No. 4 ft. clear width, 21 ft. total rise. Cost included in frame.

Roof construction
5-in. reinforced concrete slab with *in-situ* copings.

Roof lights ½
2 No. dome glass lights; total area 24 sq. ft.

Glazing 3¾
32-oz. clear sheet externally except for some rough-cast in rear windows and lower panes of ground floor. 24-oz. clear sheet internal borrowed lights.

Total of structural elements 23 0½

PARTITIONING

Internal partitions and screens 2 10¾
3-in. and 2-in. hollow clinker block with borrowed lights to corridors.
Area 940 sq. yds.

Internal doors 1 6½
Purpose-made hardwood faced ply-flush doors; 1¾ in. finish, 25 per cent. with glazed observation panels. 49 single and 5 double.

analysis

	s	d
Ironmongery BMA lever furniture generally; BMA pull handles and anodised aluminium external door handles.	1	1¾
Fittings		4¾
Total of partitions and fittings	5	11½

Balastrading to stairs; anodised aluminium hand-rail on m.s. painted rod and flat balustrade; access ladders m.s. painted.

FINISHINGS

Floor finishes 2 0¾

Type of finish:	Accotile	Pressed red tiles	Terrazzo
Area in sq. ft.:	1,629	405	*816
Price per sq. yd.:	30s.	33s.	*106s.

*These figures include coves, skirtings, etc.

Screed for lino	Granolithic
7,668 sq. ft.	20 sq. ft.
7s. 10d. per sq. yd.	8s. per sq. yd.

Wall finishes 1 2½
Plaster generally; terrazzo dado to lavatory walls

Ceiling finishes 1 6
Plastered.

Roof finishes 1 1¾
½-in. cork; 3-ply felt spar chippings; asphalte to tank room floor; area 4,200 sq. ft.

Decorations 1 4½
Generally; all walls and ceilings 2 coats distemper.
Staircase and entrance halls: oil paint, gloss walls and matt ceiling.
Cement paint to all exposed external concrete including entrance porches.

Total of finishes	7	4

SERVICES

External plumbing 2½
4-in. cast iron r.w.p.'s, soil pipe and copper over flow pipes.

Hot and cold water installation 10
Heavy and light gauge copper tube with capillary fittings. Gas operated hot water circulator.

Sanitary fittings 5¾

W.c.'s	Basins	Urinal	Sinks	Incinerator
5 low-down concealed flushing cisterns	7	2 stall type	3	1 gas

Heating and ventilation 6 8½
Automatic oil fired-low pressure hot water system; "neo-classic" type radiators.
"U" roof = 0·20, "U" of walls = 0·22

Gas installation ½
5 points

Electrical installation 3 1

Type of point:	Ceiling pendants	Watertight external fittings	Wall sockets	Clock points
No. of each type:	129	3	33	15

	s	d
Drainage 4-in. and 6-in. sgw pipes laid on concrete bed; brick M.H.s and interceptors. Soil and rain-water separate system.	1	1½
Total of services	12	6
(net cost excluding external works) £30,489 = (floor area measured inside external walls) 11,087 sq. ft. =	55	0

COST SUMMARY

Ground floor area	4,408	Tender price of foundations, superstructure, installation and finishes	£30,489
Total floor area	11,087		
Type of contract	RIBA with quantities		
Tender date	July, 1955	Tender price of external works and ancillary buildings	£1,284
Work began	September, 1955		
Work finished	September, 1956	Total	£31,773

COST COMMENTS

Client's requirements of a low costing office block have been carefully expressed by the architect by simple planning and a considered expenditure of money as shown by the analysis.
Examination of the analysis in detail will show that the superstructure totalling 19s. 6½d. incorporates the majority of the elements in this section under the structural frame element. Note that under the section "Finishings", the lavatories and communal staircases have more expensive and elaborate finishes and that the main office accommodation is left with the minimum of finishes and decorations, e.g. the floor coverings are supplied by the tenants. Built-in furniture or fittings are also provided by the tenants.
Note that the oil-fired heating installation is quite independent of the hot water installation, which is gas fired. This cost analysis generally gives more quantity factors in certain elements and it is, therefore, possible to ascertain the actual cost of individual items such as internal and external doors, although ironmongery costs are still grouped under the one heading.

CONTRACTORS

General contractor: Frederick Smith & Co. (Builders) Ltd. *Sub-contractors—heating:* Henry White & Son. *Electrical:* Spicers Ltd. *Sanitary fittings:* Stitsons Ltd. *Terrazzo:* Art Pavements & Decorations Ltd. *Windows:* Middlesborough Casements Ltd. *Art Stone:* Broadmead Products Ltd. *Bricks:* Hall & Co. *Ironmongery:* Comyn Ching and A. G. Roberts. *Balustrade:* S. W. Farmer & Son Ltd. *Paint suppliers:* Joseph Freeman & Sons Ltd.

working detail

WORKROOM BENCH: LIBRARY AT BEACONSFIELD, BUCKINGHAMSHIRE

Frederick Pooley, Architect to the Buckinghamshire County Council

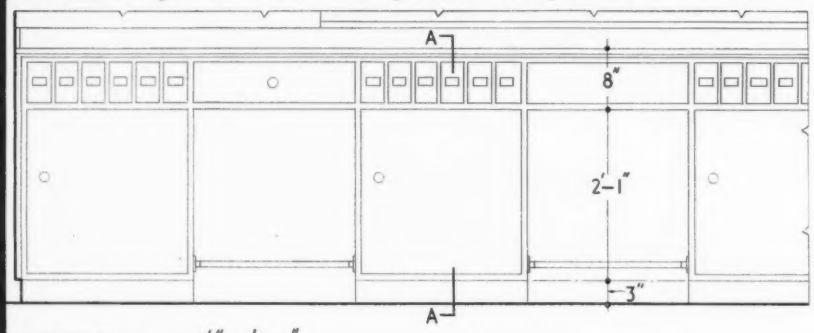
We record this piece of specialised furniture because it shows the orderly accommodation of that most troublesome adjunct, the card index cabinet.

working detail

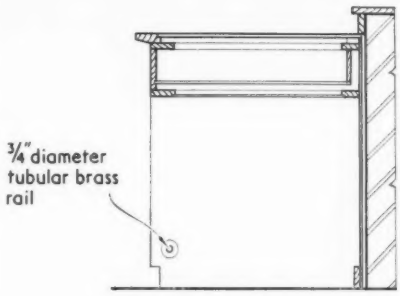
FURNITURE AND FITTINGS: 71

WORKROOM BENCH: LIBRARY AT BEACONSFIELD, BUCKINGHAMSHIRE

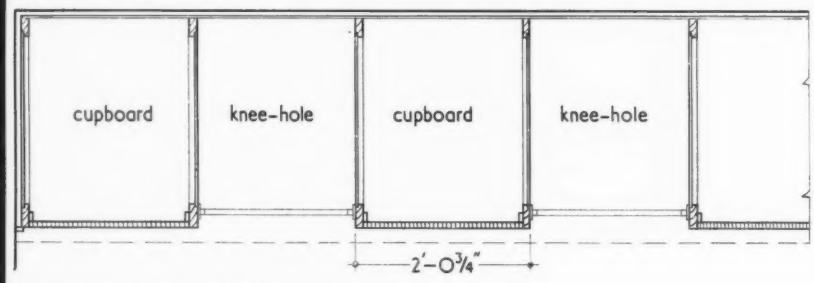
Frederick Pooley, Architect to the Buckinghamshire County Council



ELEVATION. scale ½" = 1'-0"



CROSS SECTION.



PLAN. scale ½" = 1'-0"

SECTION A–A.
scale ½ full size

working detail

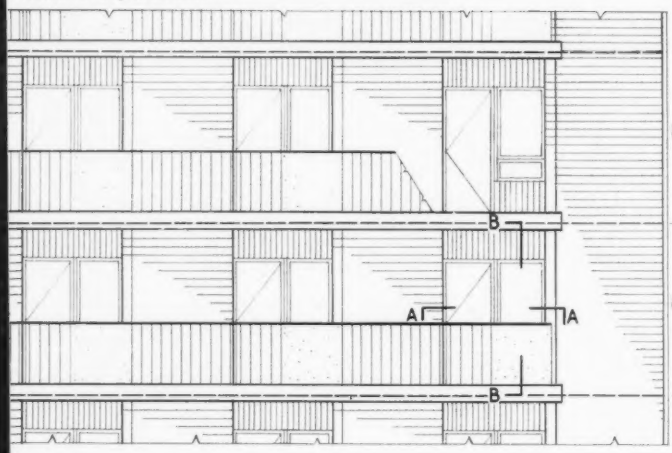
WINDOWS: HOTEL AT DOVER

Louis Erdi, architect

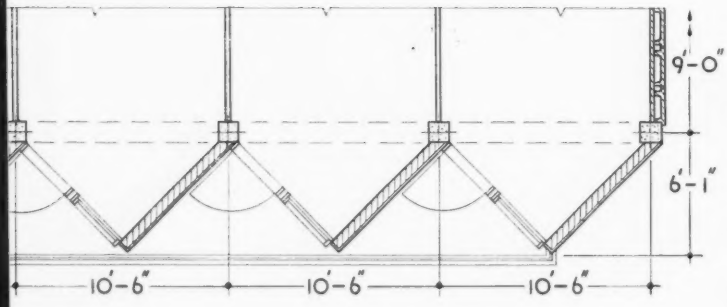
The plan shape of the balconies and of the bays in which they are formed was determined by the desire to give each bedroom a clear view on to the sea. The blank wall in each case is formed of 6-in. concrete blocks to which have been fixed red cedar shingles, laid at 7-in. gauge. It is to be noticed that the opening light (as distinct from the french window) is of a special sliding pivoting type: the head of the light slides downwards as the bottom pivots outwards so that, when fully open, the light projects forward of the opening in a horizontal position above eye level.

WINDOWS: HOTEL AT DOVER

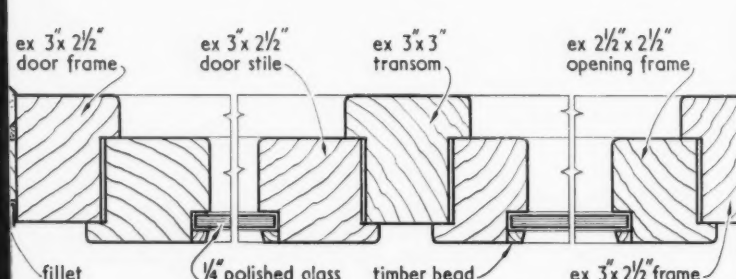
Louis Erdi, architect



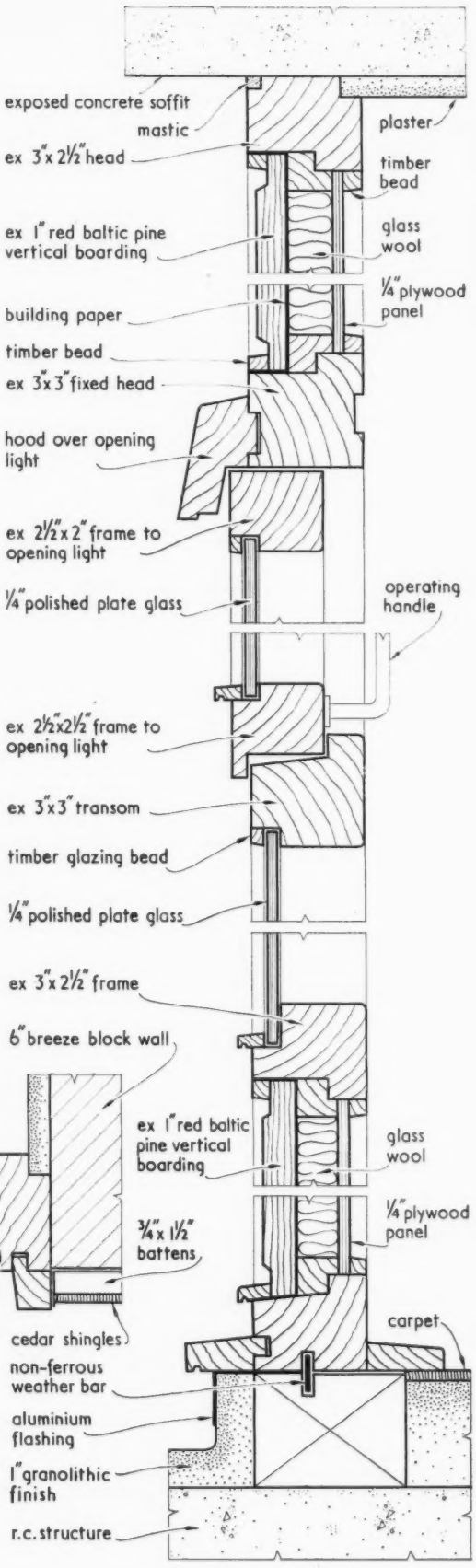
ELEVATION. scale 1/8" = 1'-0"



PLAN. scale 1/8" = 1'-0"



SECTION A–A. scale ¼ full size



SECTION B–B.

News

RIB

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News (continued)

RIBA

Course on Management

A Joint Course in Management, which is sponsored by the Joint Committee of London Architects, Quantity Surveyors and Builders will be held at the Sundridge Park Management Centre, Bromley, Kent, from Thursday, November 28, to Saturday, November 30, 1957. The Sundridge Park Management Centre specializes in short courses on the general principles of management and administration which apply throughout industry and the professions. The object of the joint course will be to examine the application of these general principles to the particular problems of the building industry and the allied profession. The course will consist of a series of lectures on general aspects of management, followed by discussions in which the subject matter of the lectures will be considered in relation to the building industry.

There will also be one or two lectures on specialized subjects more immediately applicable to the industry. The course is planned to begin with an introductory talk by D. E. Woodbine Parrish on the structure of the building industry. The draft syllabus also includes lectures and discussions on economic productivity problems, work and method study, the economics of mechanization, management responsibility, contract planning and executive succession. The lectures on general subjects will be given by members of the staff of the Sundridge Park Management Centre but it is felt that the success of the experiment will depend to a very large degree upon the nature and calibre of the discussions.

There are vacancies for eight architects and it is hoped therefore that those attending will include one or two senior and experienced members of the profession who will be able to give a lead in these discussions. The course will last from 11 a.m. on Thursday to 2 p.m. on Saturday. The fee will be 20 guineas, inclusive of meals and accommodation, payable on arrival at Sundridge Park. For "non-residents" the fee will be 15 guineas. Applications from architects wishing to attend should be sent to the Secretary, RIBA, and should arrive not later than September 20. If more than eight applications are received the Executive Committee of the Council will make the appropriate selection.

WIGAN

School's Exhibition

An exhibition of architectural students' work of the Department of Architecture, Civil Engineering and Building of the Wigan and District Mining and Technical College, was held recently.

The work which was shown in that exhibition consisted of studio work and testimonies of study in preparation for the Intermediate and Final examinations of the RIBA. There were also a number of models.

The exhibition was the first of its kind. Although the Wigan Department of Architecture and Building has quite an architectural history, very little architecture was taught for a number of years and only during the last four years has the architectural section of the Department been brought to life again. The Department incorporates not only Architecture but also Civil Engineering and Building.

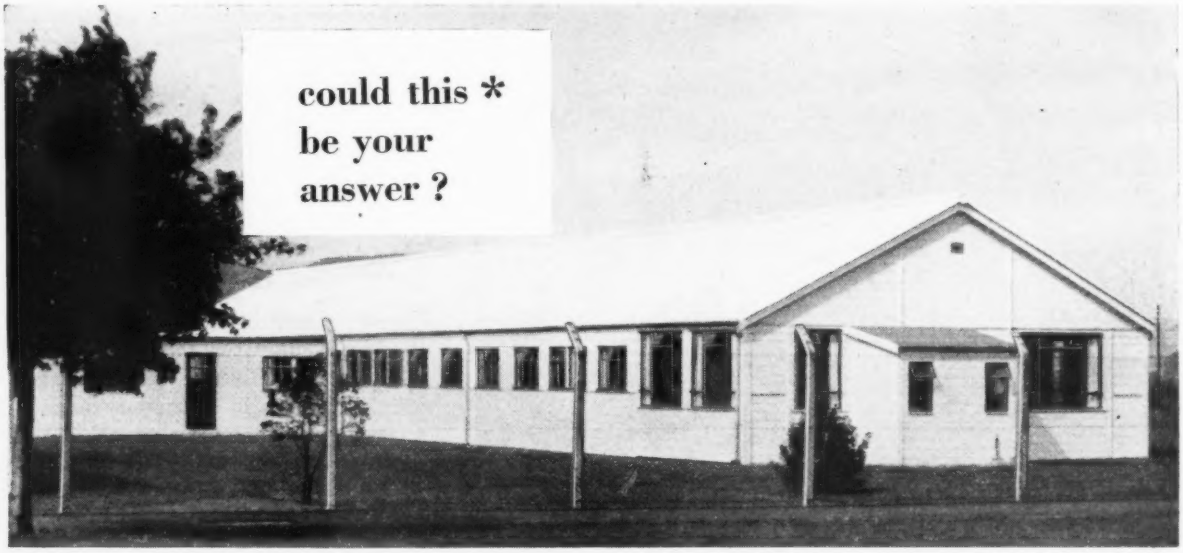
A number of firms and authorities offered prizes to students for best designs, working drawings and models. The work shown in the exhibition was assessed before the opening by members of staff and by E. Prestwich, a Lancashire architect who, together with Sir Percy Thomas, has recently been appointed to design the new town hall for Wigan.

There are at present over 40 students attending part-time day and evening courses in preparation for the Intermediate and Final RIBA examinations.

LCC REQUIREMENTS

Appeal Under London Building Acts

After hearing legal argument, the Tribunal of Appeal under the London Building Acts, sitting in London last week, decided it had no authority to hear an appeal by Hulton Press Ltd. against the requirements of the LCC under the Restriction of Ribbon Development Act Entrance and Egress (London Order) 1936. The London County Council had decided that the ramp from Fleet Street into the new Hulton building should be used as an entrance. Hulton Press Ltd. wished to use it as an exit and their appeal was based on this ground. For the LCC, Mr. K. F. Goodfellow submitted that, under the regulations, Hultons were "out of time" in that they should have given notice of appeal within 28 days of the Notice of Requirement of December 4, 1956. This argument was resisted by Mr. J. C. Burge (for Hultons), who argued that the notice was delivered to the builder's agent and not to Hultons. After consultation with his colleagues, the Tribunal President (Mr. N. H. Moller, O.B.E.) upheld Mr. Goodfellow's submission. Mr. Moller said the Notice required under the regulations was written on December 4, and, as the appeal was not lodged within 28 days as required, the preliminary point would have to stand, as the Tribunal had no discretion to extend the time of appeal.



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Announcements

TRADE

Monsanto Chemicals Ltd. have divided their organization into two parts, a Chemicals Division, under the directorship of D. R. Mackie, and a Plastics Division, under the directorship of J. W. Barrett.

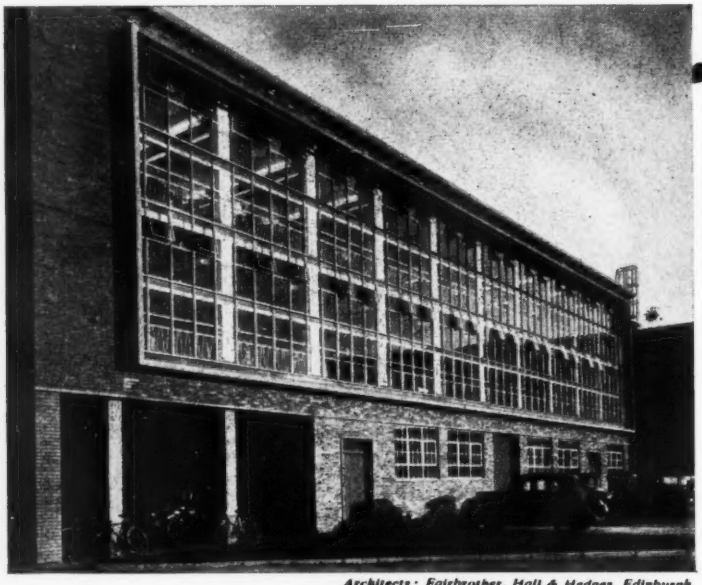
Holloway Brothers (London) Ltd., building and civil engineering contractors, announce that E. C. Uren has been appointed chairman of their board, and W. M. Johnson deputy chairman.

Thorn Electrical Industries Ltd., announce that all their lighting activities have been transferred to their subsidiary Atlas Lighting Ltd., with registered offices at 233, Shaftesbury Avenue, W.C.2.

Southern Areas Electric Corporation Ltd. announces that the name of Gillott Electro Appliances Ltd., of Chelford, Glos., has been changed to New Day Electric Ltd., where all the domestic electric appliances in the Southern Areas Group will be manufactured. Also New Day Electrical Accessories Ltd. is being merged into New Day Electric Ltd.

F. Hills and Sons Ltd., of Stockton-on-Tees, announce that Arthur Saul Ltd., of St. Helens Wharf, Bishopgate, Norwich (telephone Norwich 21441) and Palgrave Brown and Co. Ltd., of New Quay, Haven Road, Colchester (telephone Colchester 6106) have been appointed distributors for Duramel, plastic-faced plywood.

The Irish Wallboard Co. Ltd. announce that their name has been changed to Bowaters Irish Wallboard Mills Ltd. at Athy.



Architects: Fairbrother, Hall & Hedges, Edinburgh
General Contractors: Wm. Arnott McLeod & Co. Ltd.

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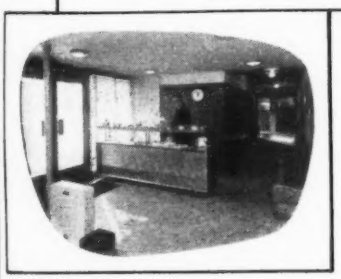

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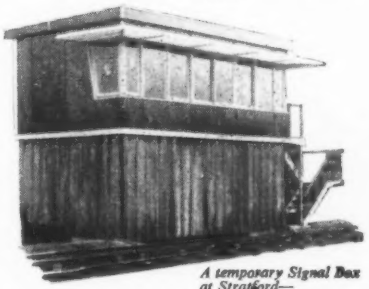

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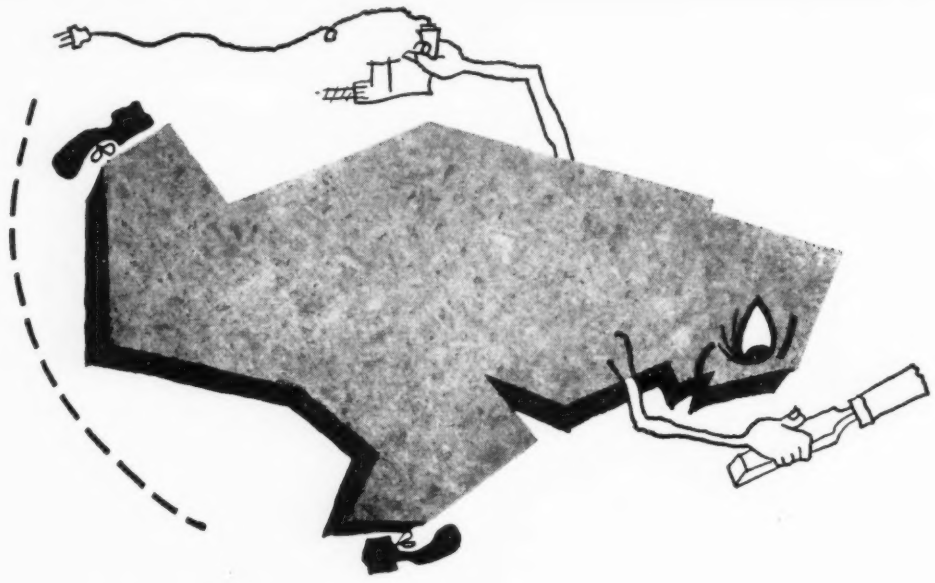

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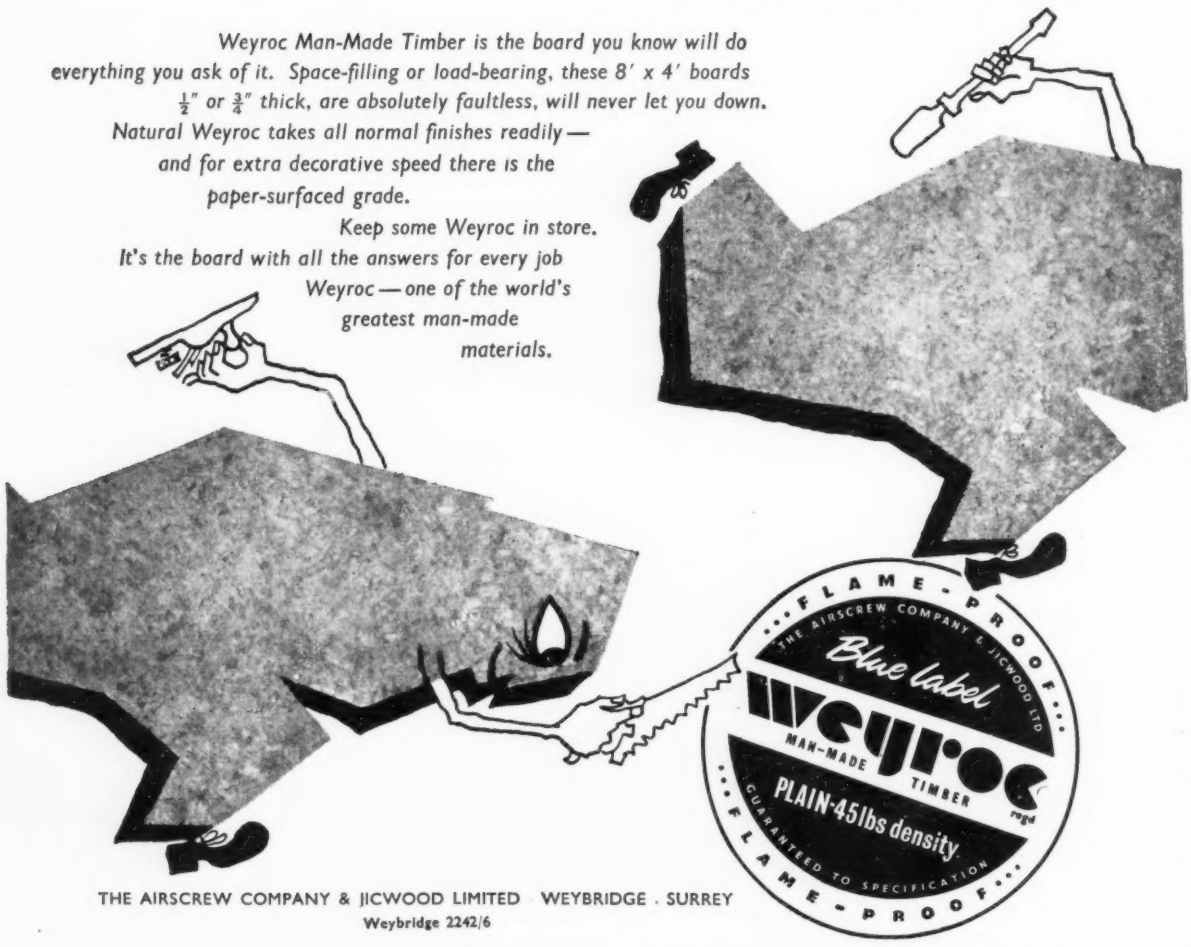

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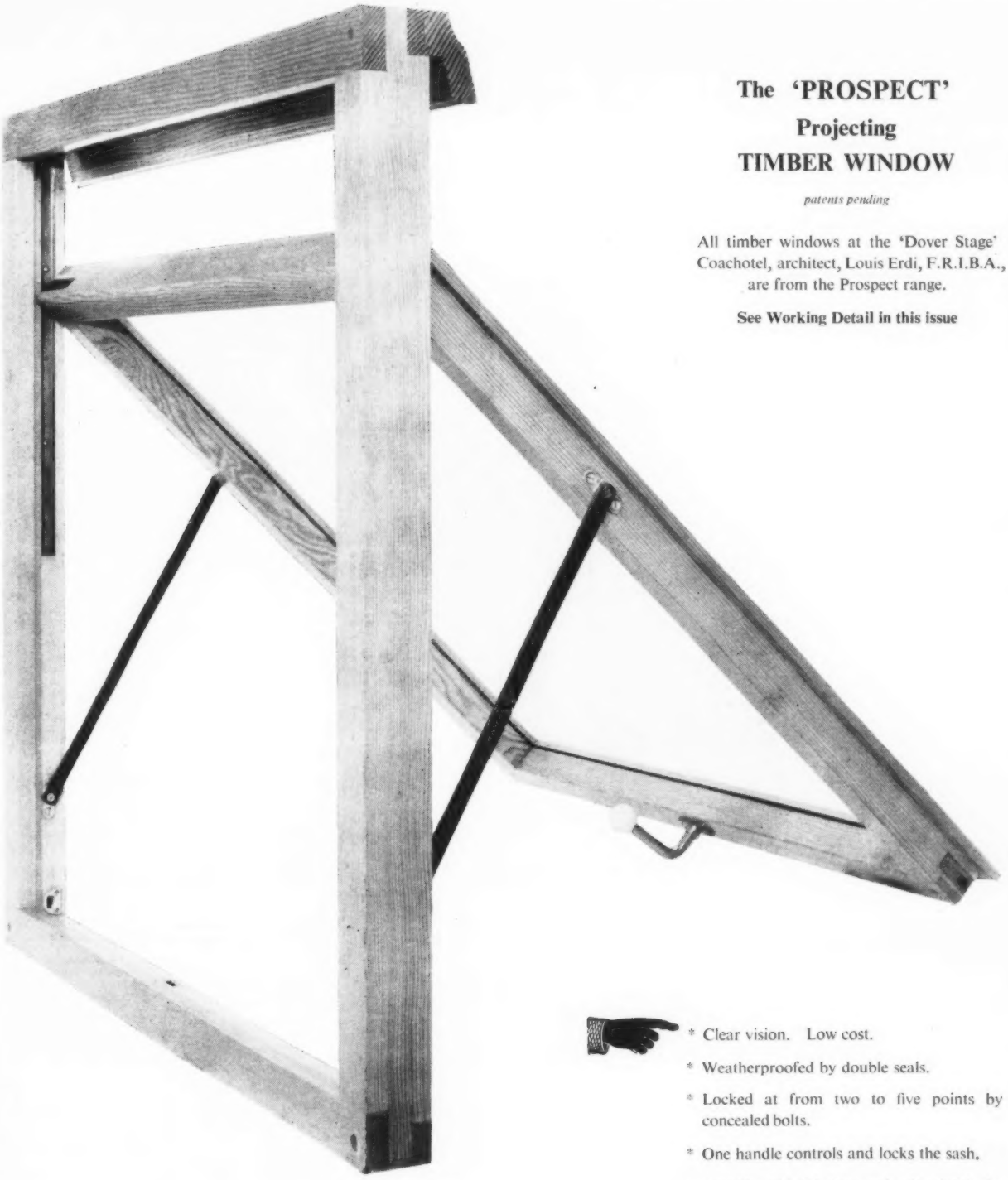

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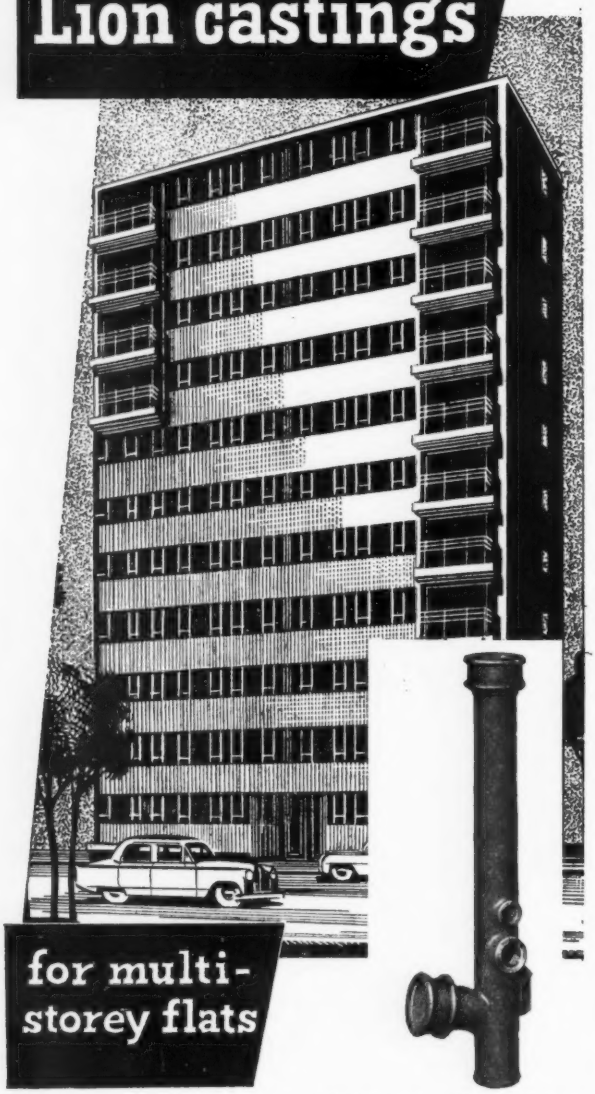

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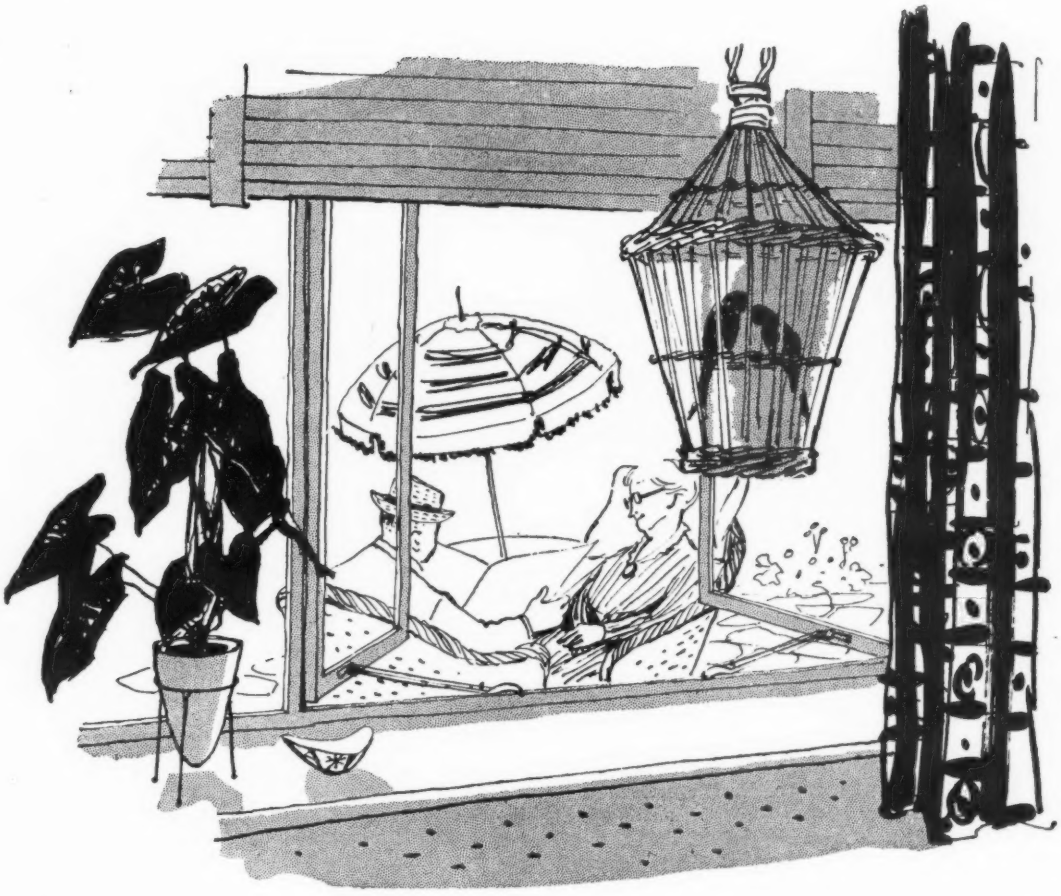

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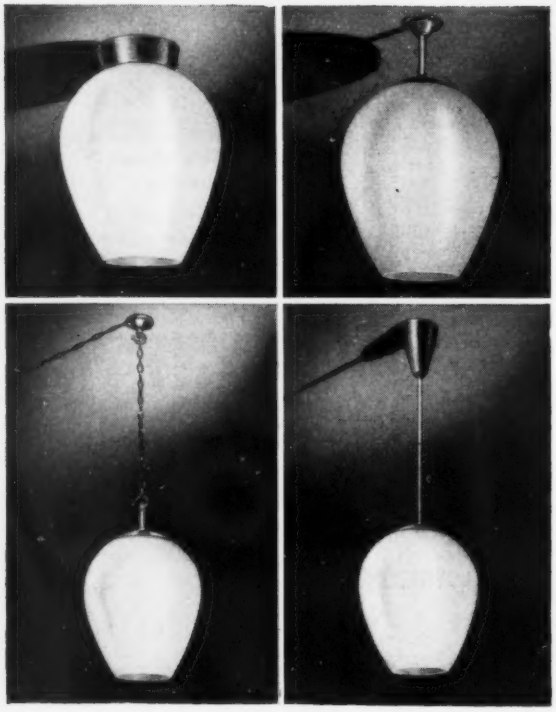

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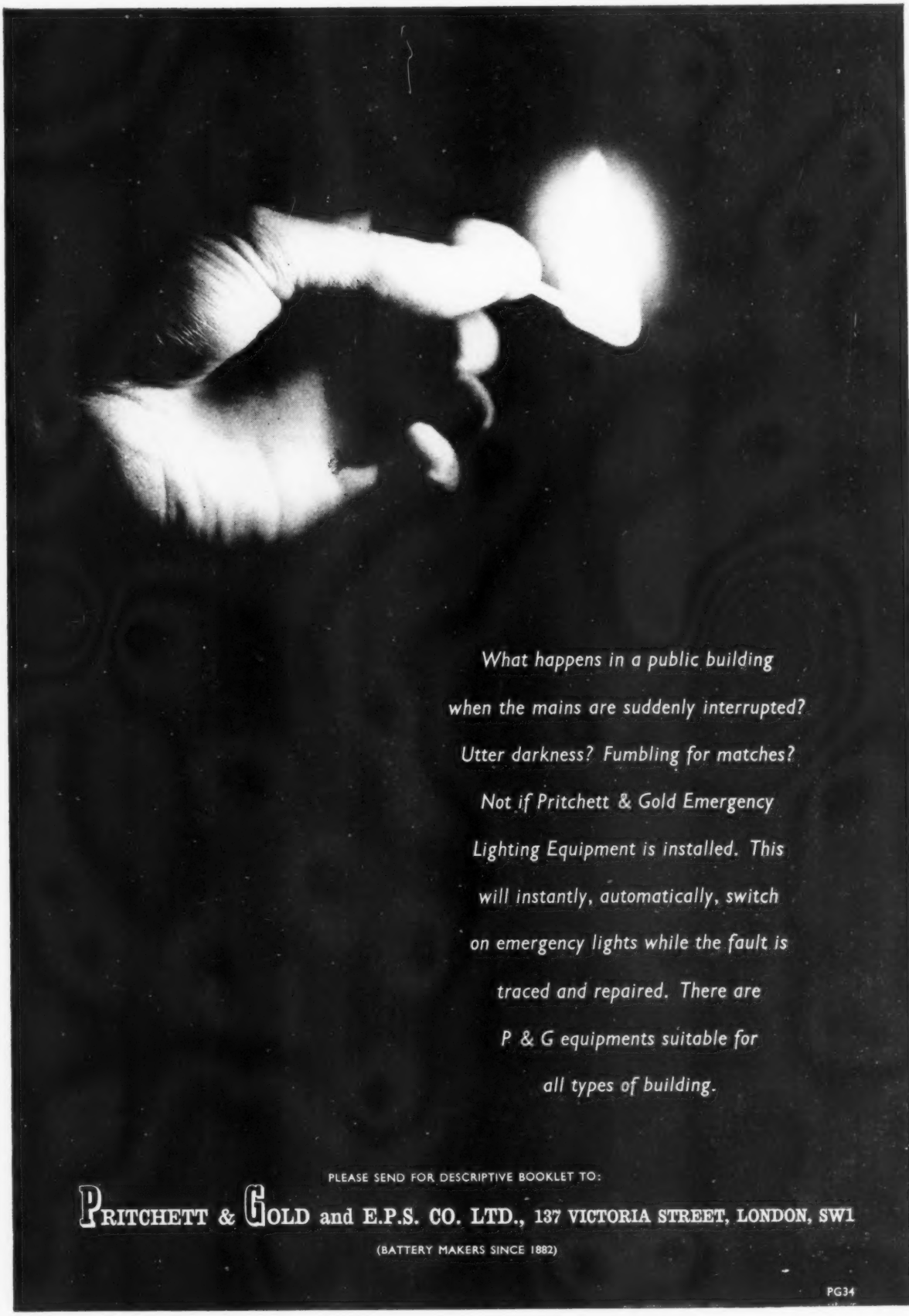
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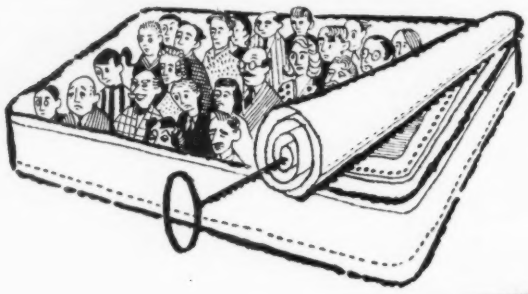

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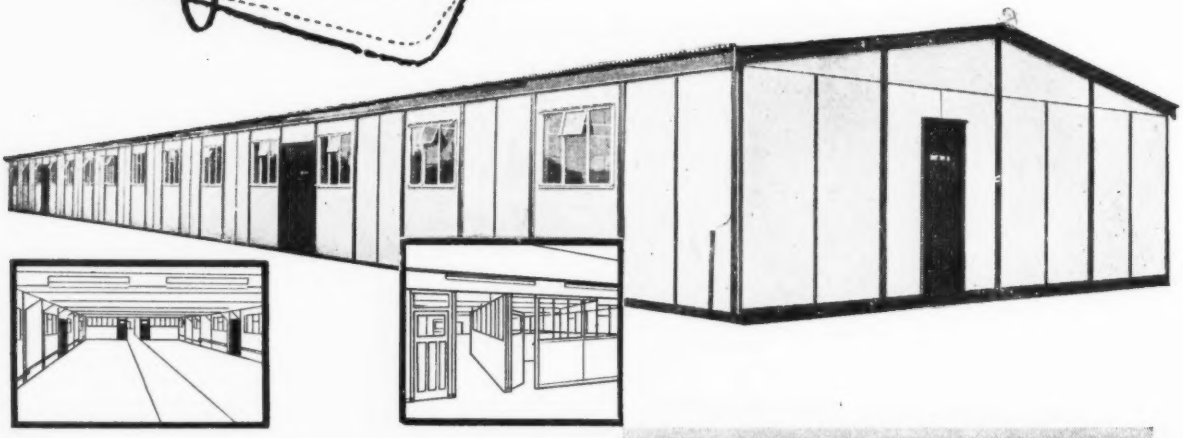

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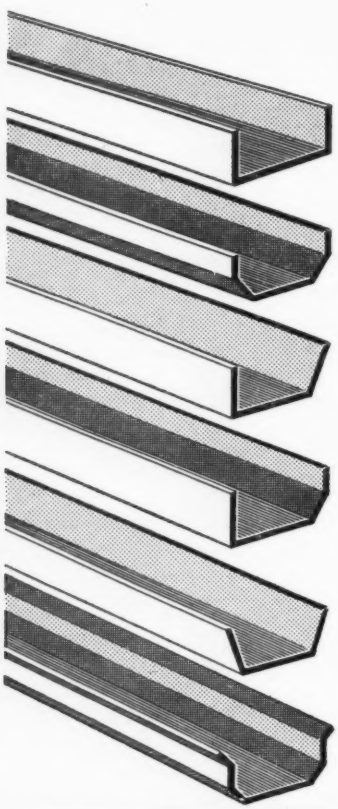

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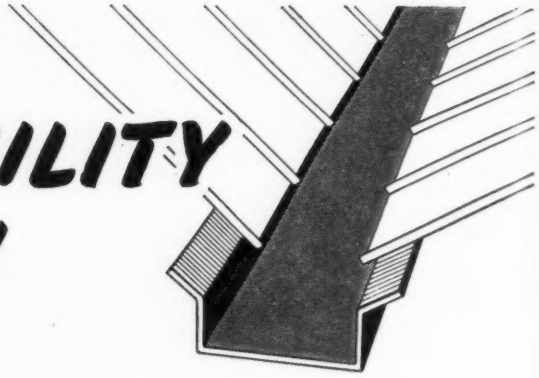

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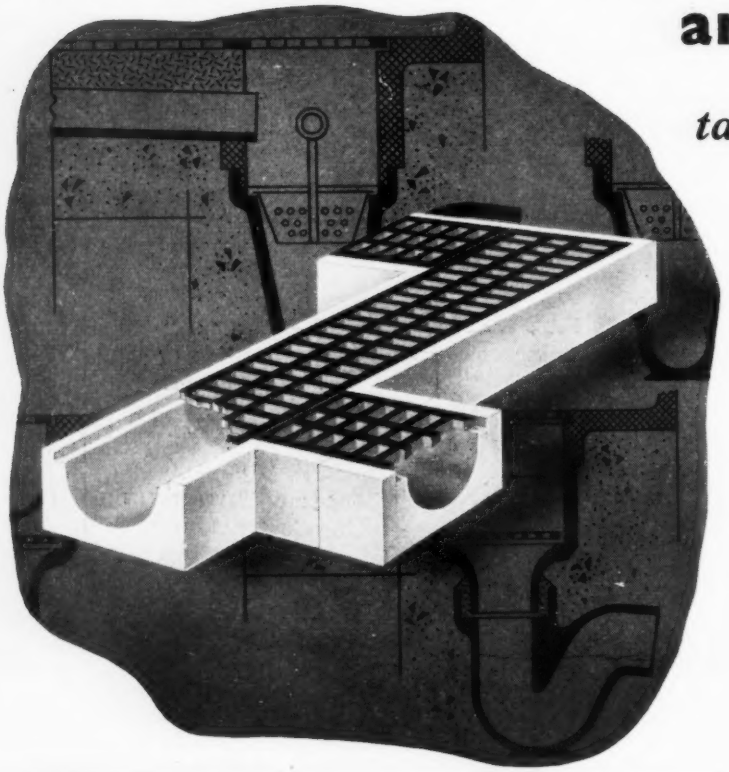

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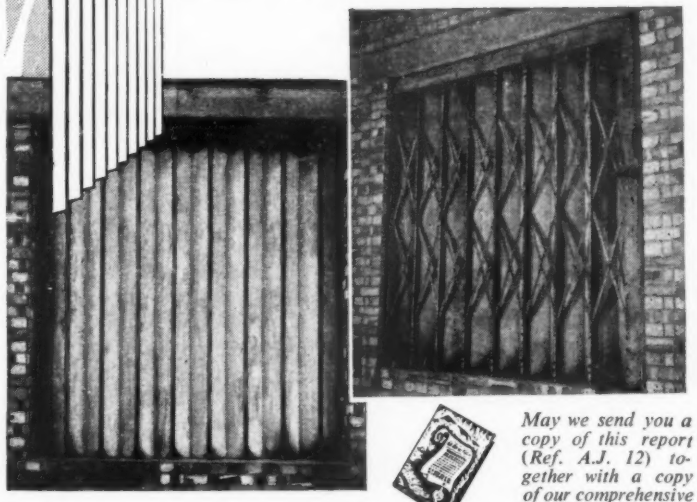

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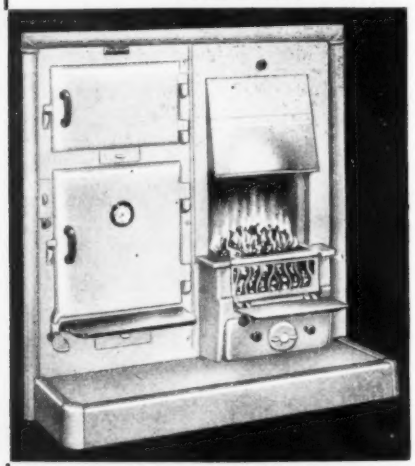

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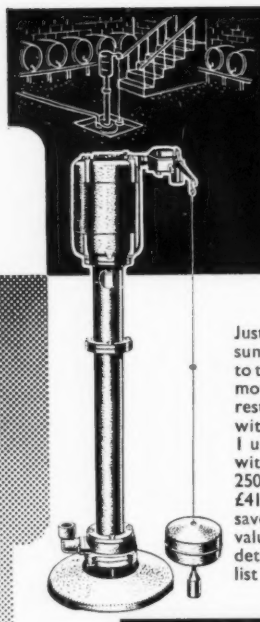

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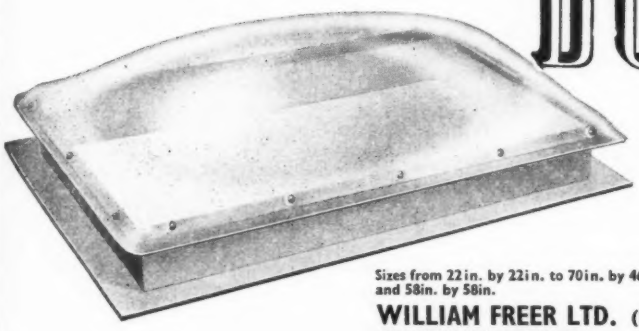

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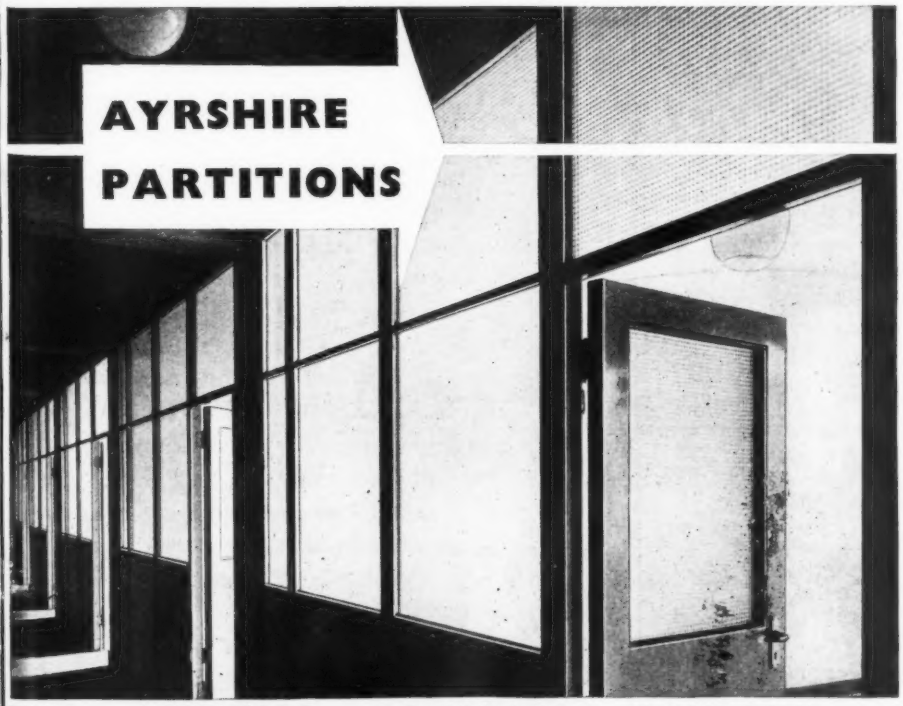

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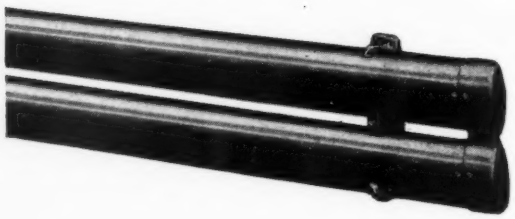

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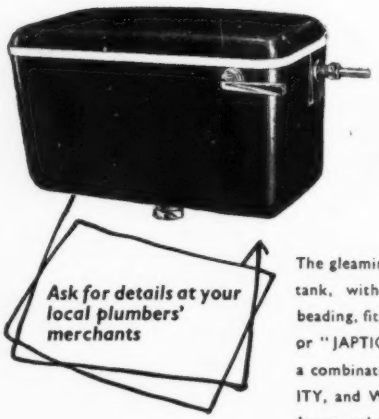

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August Architectural Review

The year-round English draught makes *Weather-stripping* a subject of perennial interest and in the August issue of the Review, Peter Whiteley will make a study of the products available for remedial work on both doors and windows, as well as the kind of preventive design that is better than even the best of cures. Two hotels of outstanding interest will be described and illustrated; the *Malmen*, by Wallander and Varhelyi in Stockholm, and Louis Erdi's *Coachotel*. A creative and broadminded approach to a vexed question, outdoor publicity, will be outlined in the new proposals for *Advertising in Stevenage*, and the social and architectural problems of building new *Urban Nuclei* in rural areas will be considered in an article by Hilda Selem on recent re-settlements in Italy, and a study of Richard Llewelyn Davies' and John Weeks' rebuilding programme for *Rushbrooke*

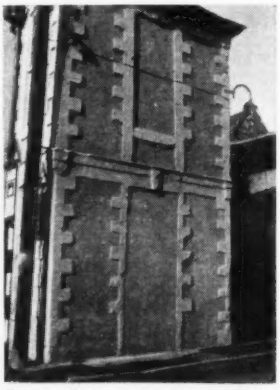
Model of a village at Rushbrooke, Suffolk, by R. Llewelyn Davies and John Weeks, to be illustrated with pilot houses.

in Suffolk. Historical features in this issue will cover the early romantic days at the Weimar *Bauhaus*, whose expressionist and religious fervours are recalled by Helmut von Erffa; a sheaf of notes on out-of-the-way aspects of Italian architecture, and a study of Bernardo Bellotto's four magnificent views of the mysterious *Wilanow Palace* outside Warsaw, now on view at the Whitechapel Gallery. In *Skill*, the *Interior* of the Month will be the new offices for the Orient Line, and in *Design Review*, John Blake will survey recent developments in wallpapers and furnishing fabrics.

Curtain Walls
Roman and Gothic
Shepton Mallet

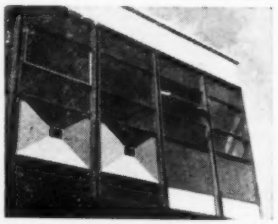
September Architectural Review

A major feature of the Review's *Machine Made America* issue, and rapidly becoming a dominant topic in discussions of the economics, technics and aesthetics of building today, *Curtain Walling* will bulk large in the September number of the Review. Michael Brawne will contribute a full scale study of the potentialities and perils, scope, materials and methods of this fully industrialised means of clothing buildings, while in *Skill* there will be a supplement on some of the products and systems that are available on the British Market. Also in *Skill* will be new Jaeger shop *Interiors* by Dennis Lennon, as well as *Design Review* and other regular departments. Aspects of the diversity of English nineteenth-century architecture are covered by Hugh Honour's account of the improbable *Roman Church at Everingham*, in Yorkshire, whose decorators were a suitably incongruous combination of Yorkshire and Rome, and a narrative of the building activities at *Strawberry Hill* of Frances Waldegrave, recounted from original sources by Osbert Wyndham Hewett, author of a recent full-dress biography of Lady Waldegrave. September *Townscape* features will deal with *Shepton Mallet*, whose multi-



House in the lower town Shepton Mallet

level town-centre will be discussed by Gordon Cullen, and *Hampstead Garden Suburb*, source of so much good and so much evil in English planning, whose status after a half-century of existence will be evaluated by Ian Nairn. And, as usual, the *Counter-Attack Bureau* will give the latest battle-bulletins on the continuing fight against Subtopian blight.



Curtain Walling detail of the new BEA terminal now under construction off Cromwell Road, Kensington.

Universities
Staircase
Arcadia

October Architectural Review

Vexed by conflicting interests and lack of comprehension of the issues at stake, the design of *Universities* has become a problem that excites passion and prejudice, rather than constructive thinking. In the October number of the Review, Professor Pevsner and the Hon. Lionel Brett will attempt to put the problem back on a realistic basis in a special feature covering both the historical growth of *universities* and their present needs, emphasising the diversity of concepts, both in organization and architecture that the term embraces. Two articles in the same issue will deal with problems of architectural lettering; Nicolete Gray

3—D. shop lettering in Dublin.

contributing a study of *Lettering in Three Dimensions* and *Skill*, surveying the design of *Fascia Boards*. Also in *Skill* will be an illustrated description of Arne Rudberger's stunning staircase for the MEA department store in Stockholm, and other recent structures to be illustrated will include a small house by Sir Hugh Casson on the South Coast, and another well-designed adjunct to a department store—G. A. Jellicoe's roof garden on top of Harvey's at Guildford. Two historical features will deal with developments in the first quarter of the present century: Ian Nairn's delayed study of Hampstead Garden Suburb is now expanded into a larger study of

Staircase at the MEA store, Stockholm.

Arcadia as a place to dwell in, and Reyner Banham will investigate the implications of recent publications on the position of *Mondriaan* both as a pioneer of modern design, and as a model to be set up for emulation by architects in the future. Robert Melville's survey of art exhibitions will continue, and *Marginalia* will maintain its running commentary on world architecture.

aj

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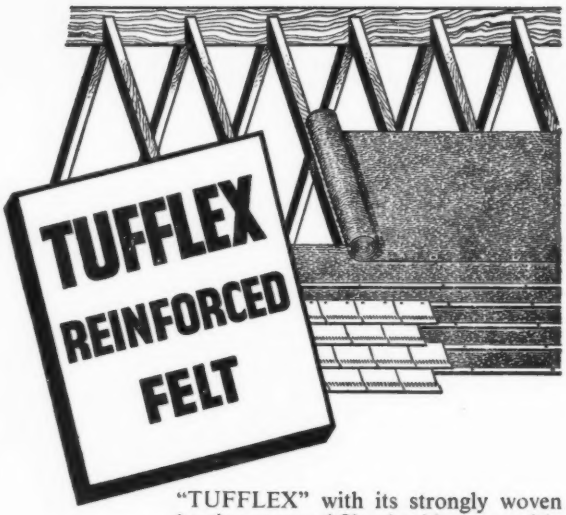

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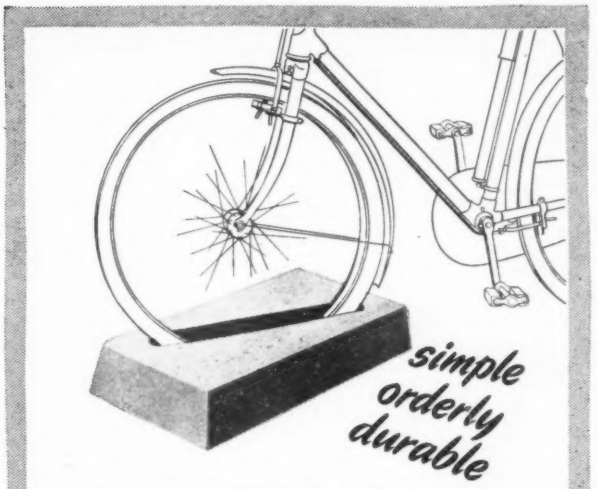

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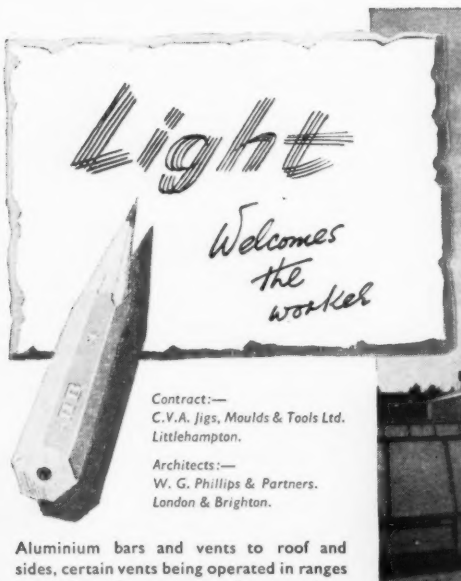

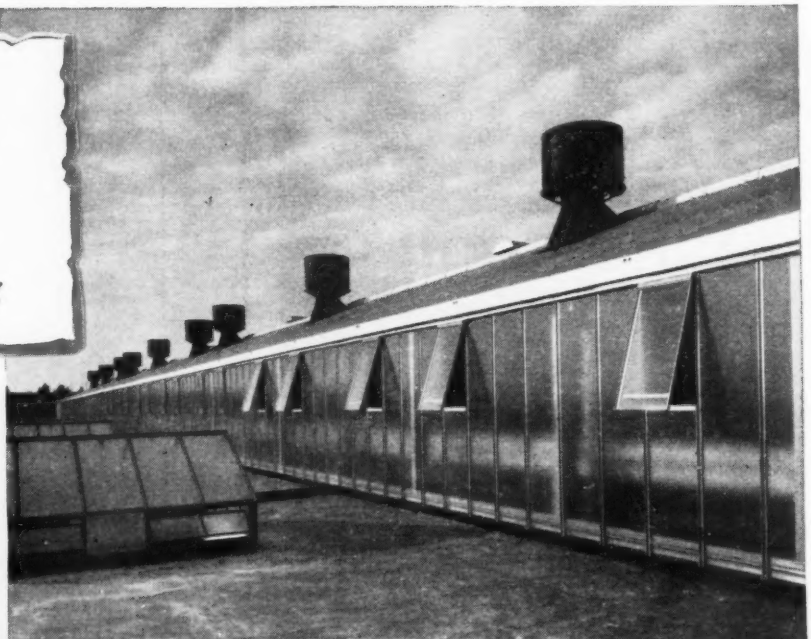

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CLASSIFIED ADVERTISEMENTS

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

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

Public and Official Announcements

30s. per inch; each additional line, 2s. 6d.

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

Selections for appointment are now being made from students at architectural schools who will take their final examinations this summer. Starting salary up to £676. Vacancies also for ARCHITECTS of experience at starting salaries up to £1,036. Full programme of houses, flats, schools and many other interesting buildings.

Application forms and full particulars from the Architect (Ref. AR/EK24/572), The County Hall, S.E.1. (895) 6290

AIR MINISTRY require workers-up in Quantities Division London, must be fully experienced and competent to work-up entire bills of quantities. Preference holders C. & G. (Quantities), O.N.C., or equivalent technical qualification. Salary range £660 at age 26 to £980 starting pay dependent on age, qualifications and experience. Pensionable and promotion prospects. Five-day week. Over three weeks leave a year. Applicants normally should be natural born British subjects. Write, stating age, qualifications and previous appointments including type of work done to P.E.104 Manager P. & E. Register, Ministry of Labour and National Service, 1-6, Tavistock Square, London, W.C.1. No original testimonials should be sent. Only candidates selected for interview will be advised. 6781

THE CORPORATION OF GLASGOW
ARCHITECTURAL AND PLANNING DEPARTMENT
ASSISTANT ARCHITECTS
ASSISTANT QUANTITY SURVEYORS

Vacancies exist for a number of Assistants as above, minimum qualification Intermediate examination of the appropriate professional body. Salary scale £595—£1,180 with placing according to age, experience and qualifications.

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

A. G. JURY,
City Architect and Planning Officer.
7141

S.V.742—ARCHITECT, GRADE II

Salary: £700 × £30 to £1,000.

Candidates should be corporate members of the R.I.B.A. with varied practical experience.

S.V.730—ARCHITECTURAL ASSISTANT, GRADE I

Salary: £625 × £25 to £750 p.a. (exceptionally £900).

Preferably Intermediate R.I.B.A. although regard will be paid to good practical experience.

The architectural work of the department covers the design of colliery surface buildings of all types, including workshops, stores, power plants, offices, pithead baths, canteens, medical centres and recreation buildings.

The point of entry into the salary scales of the respective grades will depend on qualifications and experience. The posts are superannuable and superannuation rights under Local Authority and certain other schemes are transferable.

Facilities for part-time study at the Nottingham School of Architecture may be granted to Assistants in certain circumstances.

Applications giving age, present salary and full details of education, qualifications and present appointment should be addressed to The Divisional Chief Staff Officer, National Coal Board, E.M.D., Sherwood Lodge, Nr. Arnold, Nottingham, within 14 days. Please quote appropriate reference number. 7143

CARLTON URBAN DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment at a salary in accordance with A.P.T. Grade IV *viz*: £727 15s. 0d. × £35 17s. 6d.—£907 2s. 6d. the point of entry to be determined having regard to the applicant's experience.

Qualifications—Final R.I.B.A. or Registered Architect.

The appointment will be subject to the provisions of the Local Government Superannuation Acts 1937 to 1953, the National Scheme of Conditions of Service and the satisfactory passing of a medical examination.

Applications stating age, qualifications and details of experience, together with names of three referees to be forwarded to the undersigned by 10 a.m. Wednesday, 21st August, 1957.

Housing accommodation will be made available if required and removal expenses will be paid by the Council.

Canvassing either directly or indirectly will disqualify.

A. E. F. WALKER,
Clerk of the Council.

Council House,
Burton Road,
Carlton,
Nottingham.
24th July, 1957. 7112

BOROUGH OF EALING

(*a*) SENIOR ARCHITECTURAL ASSISTANT, A.P.T.IV-V, £757 15s. 0d.—£1,024 5s. 0d. inclusive. Candidates must be Associate Members of the Royal Institute of British Architects or possess a recognised equivalent qualification.

(*b*) DRAUGHTSMAN for Civil Engineering work. Miscellaneous Scales of Salaries Grade IV, £502 5s. 0d. to £589 7s. 6d., plus London Weighting.

No housing accommodation is offered with these posts, but generous help with removal expenses will be given to successful applicant.

Full particulars and application forms obtainable from the Borough Surveyor, Town Hall, Ealing, W.5.

Closing date 29th August, 1957.

E. J. COPE-BROWN,
Town Clerk.

Town Hall,
Ealing, W.5. 7118

QUANTITY SURVEYING ASSISTANTS required by Air Ministry Works Directorate in London and Provinces. Grade and commencing salary based on not less than 3 or 5 years' previous experience under Quantity Surveyor or Building Contractor. Approved full time study will count towards 5 years period. Normally technical qualifications in Builders' quantities or building, *e.g.* C. & G. Final or O.N.C. or proof to equivalent standard. Duties include abstracting and billing, site measurement and preparation of estimates. Salary range £520 at age 25 to £830 London rate starting pay dependent on age, qualifications and experience. Salaries somewhat lower in Provinces. Pensionable and promotion prospects. Five-day week, 3 weeks leave a year. Appointments carry liability for service anywhere U.K. or overseas. Applicants normally should be natural born British subjects. Write stating age, qualifications and previous appointments including type of work done, to Manager, Professional and Executive Register, M.L.N.S., 1-6, Tavistock Square, London, W.C.1, quoting reference PE.105/745. No original testimonials should be sent. Only applicants selected for interview will be advised. 7188

BOROUGH OF LEYTON

Applications invited for appointments:—

SENIOR ARCHITECTURAL ASSISTANT, Grade A.P.T. VI (£902—£1,107 per annum).

ARCHITECTURAL ASSISTANTS (TWO), Grade A.P.T. V (£814 17s. 6d.—£994 5s. per annum).

Plus London weighting at £30 p.a. at age 26 or over in each case.

HOUSING ACCOMMODATION will be made available to the successful candidates, if required.

Candidates must be Associates of the Royal Institute of British Architects, and for the senior post must have had extensive general experience of local authority building projects. The other two posts are for duties in connection with the Corporation's programme for Redevelopment Areas, and require considerable experience of contemporary design and construction of multi-storey flats.

Full details and form of application can be obtained from the Borough Engineer and Surveyor, by whom completed forms must be received not later than Friday, 23rd August, 1957.

D. J. OSBORNE,
Town Clerk.

Town Hall, Leyton, E.10. 7134

CITY OF NOTTINGHAM
ASSISTANT PLANNING OFFICER, GRADE A.P.T. VI (£902—£1,107 p.a.).

Applications are invited for the above position in the City Engineer's Department.

The post is next in seniority to that of the Chief Assistant Planning Officer, and there is a technical staff of 21 in the Town Planning Section of the Department. Applicants should have good experience of re-development schemes and Development Plan work with an urban authority. Preference will be given to Associate Members of the Town Planning Institute.

Commencing salary will depend on ability and experience, and will be within the range £902 to £1,107 per annum in Grade A.P.T. VI.

Applications, on forms to be obtained from R. M. Finch, O.B.E., M.I.C.E., City Engineer and Surveyor, Guildhall, are to be made to him not later than 31st August, 1957. 7132

CITY ARCHITECT'S OFFICE
MANCHESTER

Applications invited for the undermentioned permanent appointments.

SENIOR ASSISTANT ARCHITECT, salary A.P.T. Grade V, £814 to £994 per annum.

SENIOR ASSISTANT ARCHITECT, salary A.P.T. Grade IV, £727 to £907 per annum.

ASSISTANT ARCHITECT or ARCHITECTURAL ASSISTANT, Salary A.P.T. Basic Grade £707 to £861 per annum.

ARCHITECTURAL ASSISTANT, salary A.P.T. Grade I/II, £543 to £691 per annum.

SENIOR ASSISTANT HEATING, VENTILATING & MECHANICAL ENGINEER, salary A.P.T. Grade IV, £727 to £907 per annum (applicants must be competent draughtsmen).

SENIOR ASSISTANT STRUCTURAL ENGINEER, salary A.P.T. Grade IV, £727 to £907 per annum.

STRUCTURAL ENGINEERING ASSISTANT, salary A.P.T. Grade I/II, £543 to £691 per annum.

ASSISTANT ELECTRICAL ENGINEER salary A.P.T. Basic Grade £707 to £861 per annum.

Forms of application from the City Architect, P.O. Box 488, Town Hall. Returnable by August 23rd. 7185

BOROUGH OF WIDNES
APPOINTMENT OF HOUSING MANAGER

This is a new appointment. The maximum salary, according to experience and qualifications, will be within the range £1,300—£1,500 per annum, to be reached by four annual increments of £50. The Council require, as a basic qualification, Associateship of the Royal Institution of Chartered Surveyors or its equivalent.

In the case of applicants who, in the opinion of the Council, possess exceptional qualifications for this post, the Council are prepared to offer a higher maximum salary.

Further particulars from me. Closing date Monday, 26th August, 1957.

FRANK HOWARTH,
Town Clerk.
7059

NEW ZEALAND MINISTRY OF WORKS
PROFESSIONAL AND TECHNICAL STAFF

The Ministry of Works, New Zealand, invites applications for the following vacancies on the Permanent Staff. Positions, qualifications desired and commencing salaries are as follows:

ARCHITECTURAL DIVISION

9. ARCHITECTS Corporate Membership of the Royal Institute of British Architects.
Commencing salaries from £895 to £1,465 per annum in accordance with experience.

10. ARCHITECTURAL DRAUGHTSMEN General Certificate of Education or Ordinary or Higher National Certificate (Building) plus five years' draughting experience.
Commencing salaries up to £1,225 per annum in accordance with qualifications and experience.

Enquiries mentioning this paper and quoting reference No. 3/74/133, also stating the type and number of position sought, should be addressed to the High Commissioner for New Zealand, 415 Strand, London, W.C.2. Full details of duties, experience desired, and general information on the conditions of employment in the New Zealand Public Service, together with application forms will then be furnished. 7110

GOVERNMENT OF NORTHERN IRELAND
ASSISTANT ARCHITECT CLASS II

Applications are invited for pensionable posts in the Chief Architect's Branch, Ministry of Finance. Candidates must be Registered Architects by examination, with at least two years' experience in an Architect's Office in the preparation of working drawings. Salary scale £744 (at age 25)—£1,002 (age 34 and over)—£1,160. Transfer of existing pension rights may, in certain circumstances, be approved. Preference will be given to ex-Servicemen. Application forms may be obtained from the Secretary, Civil Service Commission, Stormont, Belfast. 7150

BIRMINGHAM REGIONAL HOSPITAL BOARD

(*a*) ASSISTANT QUANTITY SURVEYORS (Two): £700—£1,015. Final R.I.C.S. or recognised qualifications of I.Q.S. or I.A.A.S. and experience in taking off and preparing bills of quantities and settling final accounts essential.

(*b*) QUANTITY SURVEYING ASSISTANT (One): £525—£730. Intermediate R.I.C.S. or equivalent essential.

All appointments superannuable. Apply naming two referees to Secretary, 10, Augustus Road, Birmingham 15, immediately. 7190

AIR MINISTRY Works Designs Branch require in London and Provinces ARCHITECTURAL ASSISTANTS experienced in planning/preparation of working drawings and details for permanent and semi-permanent buildings. Salaries in London up to £965 per annum for men and £886 for women. Somewhat lower in Provinces. Starting pay dependent on age, qualifications and experience. Long term possibilities with promotion and pensionable prospects. 5-day week, 3 weeks 3 days leave a year. Liability for overseas service. Normally natural born British subjects. Write stating age, qualifications, employment details including type of work done, to any Employment Exchange quoting Order No. Borough 609. 7187

COUNTY BOROUGH OF WOLVERHAMPTON
PRINCIPAL PLANNING ASSISTANT GRADE V
SENIOR PLANNING ASSISTANT GRADE IV OR SPECIAL

Applications are invited for the above appointments in the Planning Section of the Department of the Borough Engineer & Planning Officer at salaries in accordance with the National Scales, as under:—

(*a*) PRINCIPAL PLANNING ASSISTANT, Grade V (£814 17s. 6d.—£994 5s. 0d. per annum). Candidates for this appointment should be corporate members of the Town Planning Institute, preferably with an appropriate additional qualification, and must have had considerable experience in a Town Planning Office, including administrative experience in a responsible position. Further particulars of this post may be obtained from the Borough Engineer at the address below.

(*b*) SENIOR PLANNING ASSISTANT, Grade IV (£727 15s. 0d.—£907 2s. 6d. per annum) or Special Grade (£707 5s. 0d.—£861 0s. 0d. per annum) according to qualifications and planning experience.

N.J.C. conditions of service. One month's notice on either side. Medical examination. Superannuable post. Housing accommodation will be offered in respect of both these posts.

Applications stating age, training and experience and naming two referees should be sent to the Borough Engineer & Planning Officer, Town Hall, Wolverhampton, by 4th September, 1957. 7234

HUYTON-WITH-ROBY URBAN DISTRICT COUNCIL

ARCHITECTURAL STAFF required for work on large building programme which will include flats, houses, shops and community centres.

Housing accommodation will be provided, if required.

Full details stating age, experience, qualifications, present salary, salary required and the names of two referees to be addressed to the Architect, "Grasscroft," Archway Road, Huyton, by the 31st August, 1957.

F. A. EDMONDSON,
Acting Clerk of the Council.
7193

OXFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited from Assistants anxious to participate in interesting and responsible work on substantial new projects, principally schools, making full use of contemporary methods and materials.

The appointments offered are :—
(i) Within the salary range of £727 15s.—£994 5s.
(ii) Within the salary range of £609 17s. 6d.—£691 17s. 6d.

Applicants for appointment (i) must have passed the R.I.B.A. Final Examination or have equivalent practical and professional experience, (ii) must have passed their Intermediate R.I.B.A. Examination.

Applications, accompanied by the names of two referees and one recent testimonial, must give particulars of qualifications, education, experience, age and other particulars of qualifications, education, County Architect, Park End Street Offices, Oxford, not later than Wednesday, the 28th August, 1957.

GERAID GALE BURKITT,
Clerk of the Council.
County Hall, Oxford. 7189

ROYAL BOROUGH OF KINGSTON-UPON-THAMES
APPOINTMENT OF PLANNING ASSISTANT A.P.T. Grade III

Applications are invited for the above-mentioned appointment. Experience in development control essential. Preference will be given to candidates who have passed the Intermediate Examination of the Town Planning Institute or equivalent.

Details and application forms obtainable from Borough Surveyor, Guildhall, Kingston-upon-Thames. Applications to be returned by 31st August, 1957.

A. B. ROGERS,
Town Clerk.
Guildhall,
Kingston-upon-Thames.
31st July, 1957. 7192

BUCKS COUNTY COUNCIL

Applications are invited for the appointment of Assistant Architects in the County Architect's Department on Architects' Special Scale, £707 5s. to £861 p.a. and A.P.T. Grade IV, £727 15s. to £907 2s. 6d.

The appointments are 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 provided, must be returned by 31st August, 1957.

F. B. POOLEY,
County Architect.
County Offices,
Aylesbury, Bucks. 7191

COUNTY BOROUGH OF CROYDON
ASSISTANT ARCHITECT

Applications are invited from members of the R.I.B.A. for this appointment to lead a small team engaged on housing schemes including multi-storey flats. Salary scale £757 15s. to £1,137 per annum, commencing according to qualifications and experience.

If necessary, the Corporation will endeavour to assist with living accommodation at a full economic rent.

Further particulars and application form from Borough Engineer, Town Hall, Croydon, Surrey. Closing date 29th August, 1957.

E. TABERNER,
Town Clerk.
7183

GOVERNMENT OF BAHAMAS
TOWN PLANNING OFFICER

To act as EXECUTIVE OFFICER to the Town Planning Committee and to advise Government concerning town planning, zoning and building regulations generally in the Out Islands.

Appointment on contract for three years. Salary £1,950 p.a. Free passages for officer, wife and up to two children. Assistance towards payment of quarters. Seven days' leave for each completed three months' service.

Candidates must be A.M.T.P.I. Regular engineering or architectural qualification in addition will be an advantage, *e.g.* A.M.I.C.E., A.R.I.B.A., A.R.I.C.S. or A.M.I.Mech.E.

Write Director of Recruitment, Colonial Office, London, S.W.1, giving briefly age, qualifications and experience, quoting BCD 62/27/01. 7235

HERTFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications invited for appointment of ASSISTANT ARCHITECT (Special Class—£707—£861). Previous Local Government experience not essential.

Applications, with names of two referees, to County Architect, County Hall, Hertford, Herts., by 26th August, 1957. 7217

EDINBURGH COLLEGE OF ART

Applications are invited for the post of ASSISTANT INSTRUCTOR IN ENGINEERING in the School of Architecture, salary scale £850 × £50—£1,350 per annum; placing according to qualifications and experience.

Forms of application and conditions of appointment obtainable from the Secretary, Edinburgh College of Art, Lauriston Place, Edinburgh, 3.

J. R. BROWN,
Secretary.
7184

SURREY COUNTY COUNCIL

Applications invited for following appointments :—

1. ASSISTANT ARCHITECT Grade IV, £727 15s.—£907 2s. 6d. p.a. plus £30 London Allowance. Must be A.R.I.B.A.

2. ARCHITECTURAL ASSISTANT Grade II, £609 17s. 6d.—£691 17s. 6d. p.a. plus London allowance up to £30 p.a. Must be of good general training, preference given those who have passed Intermediate R.I.B.A.

3. ASSISTANT BUILDING SURVEYOR Grade III, £656—£784 2s. 6d. p.a. plus London allowance £30 p.a. Preference given those who have passed Intermediate R.I.C.S. (Bldg. Sub. Div.). Capable drafting specifications in all trades, prep. schedules of dilaps. detailed estimates for gen. maint. works and surveys of properties.

Full details, present salary and three copy testimonials to County Architect, County Hall, Kingston, as soon as possible. 7186

CITY AND COUNTY OF NEWCASTLE UPON TYNE
CITY ARCHITECT'S DEPARTMENT

The City Architect will be pleased to receive applications for the following established posts in the Quantity Surveying Section of his Department :—

(*a*) PRINCIPAL ASSISTANT QUANTITY SURVEYOR, A.P.T. Division, Grade VII (£999 7s. 6d.—£1,230 per annum).

(*b*) SENIOR QUANTITY SURVEYOR, A.P.T. Division, Grade VI (£902—£1,107 per annum).

The above posts will be subject to the provisions of the Local Government Superannuation Acts, 1937-1953, and to one month's notice on either side. The successful candidates will be required to pass a medical examination.

Further particulars and form of application may be obtained from George Kenyon, A.R.I.B.A., A.M.T.P.I., City Architect, 18, Cloth Market, Newcastle upon Tyne, 1. Candidates must state the position applied for when requesting particulars.

Closing date for receipt of completed applications: Saturday, 31st August, 1957.

JOHN ATKINSON,
Town Clerk.
Town Hall, Newcastle upon Tyne, 1.
1st August, 1957. 7160

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

Applications are invited for the following appointments in the above Department :—

(*a*) TWO ASSISTANT ARCHITECTS (one for Education Section and one for Housing and General Section) A.P.T. Grade IV (£727 15s.—£907 2s. 6d. p.a.). The commencing salaries will be fixed within the scope of the grade according to qualifications and experience. Applicants should be Registered Architects with good architectural experience and a knowledge of local government procedure. Housing accommodation may be made available if required.

(*b*) TEMPORARY CLERK OF WORKS for a period of approximately 1¼ years in connection with the erection of a New Primary School—salary £13 13s. 8d. per week.

The appointments will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Acts. The successful applicants will be required to pass a medical examination.

Applications stating age, education, qualifications, full particulars of training and experience, together with copies of two recent testimonials, should be sent to the undersigned not later than Monday, 2nd September, 1957, in envelopes endorsed with the name of the appointment applied for.

A. NORMAN JAMES,
Town Clerk.
Town Hall,
Dewsbury.
2nd August, 1957. 7163

COUNTY BOROUGH OF DONCASTER

Applications are invited for the post of ASSISTANT ARCHITECT in the Borough Architect's Department. Salary in accordance with Grade A.P.T., IV (£727 15s.—£907 2s. 6d.).

Applicants must be Associates of the R.I.B.A. and have had good experience in design and working drawings. Experience and keen interest in contemporary design will be an advantage.

The appointment will be subject to one month's notice on either side and to the terms of the Local Government Superannuation Acts, 1937 to 1953, and the successful applicant will be required to pass a medical examination.

Housing accommodation will be available if necessary.

Application forms may be obtained from the Borough Architect, L. J. Tucker, Esq., A.R.I.B.A., F.I.Hsg., 15, South Parade, Doncaster, to whom they must be returned by 10 a.m on Monday, 2nd September, 1957.

H. R. WORMALD,
Town Clerk.
1, Priory Place, Doncaster. 7159

Applications are invited for the following permanent and pensionable posts on the staff of the B.E.A. Property Branch.

To work under the direct control of the Chief Staff Architect.

SENIOR ASSISTANT ARCHITECT. Salary £1,025 per annum rising to £1,250 per annum. Applicants must be Registered Architects with not less than five years' post qualification experience, have a keen sense of contemporary design and a thorough knowledge of all stages in the production of working drawings. The successful candidate must be capable of assuming full responsibility for large contracts.

ARCHITECTURAL ASSISTANT. Salary £832 10s. per annum rising to £970 per annum. Applicants must at least have passed the Intermediate examination of the R.I.B.A., and have had considerable experience in the rapid production of working drawings.

Initially the successful applicants will be required to work on the design of a large Air Training School and Hostel for which experience of educational projects would be an advantage.

The architectural work of the Branch is interesting and varied and ultimately may involve limited travel at home and on the continent. Working conditions are good and a vigorous and practical approach towards first class contemporary design is encouraged.

Further particulars from Personnel Officer, Head Office, British European Airways, Keyline House, Ruislip, Middlesex. 7166

CITY OF NOTTINGHAM
ESTATES DEPARTMENT

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

(*a*) One ASSISTANT ARCHITECT at a commencing salary within A.P.T. Grade V (£814 17s. 6d.—£994 5s.). Applicants should be Registered Architects.

(*b*) Two ARCHITECTURAL ASSISTANTS at commencing salaries within A.P.T. Grade III (£656—£784 2s. 6d.). Applicants should preferably have passed the intermediate examination of the R.I.B.A.

(*c*) One JUNIOR ARCHITECTURAL ASSISTANT at a salary within the General Division scale (£184 10s.—£512 10s.).

The appointments will be subject to the National Joint Council's Scheme of Conditions of Service.

Applications, stating age, qualifications, experience, present appointment and salary and naming two referees, should be sent to the Estates Surveyor and Valuer, Guildhall, Nottingham, by Saturday, 31st August, 1957.

T. J. OWEN,
Town Clerk.
The Guildhall,
Nottingham. 7216

BOROUGH OF ILKESTON
ARCHITECTURAL ASSISTANT, A.P.T. V
(£814 17s. 6d. to £994 5s.)

Applications are invited for the above appointment. Applicants must be A.R.I.B.A. with appropriate experience.

Housing accommodation available. Canvassing disqualifies.

Application forms and conditions of appointment obtainable from A. O. Marshall, M.I.Mun.E., M.I.Struct.E., F.I.A.A., Borough Surveyor and Water Engineer, Town Hall, Ilkeston, to whom they are to be returned by Saturday, 31st August, 1957.

J. YATES,
Town Clerk.
7215

HEMEL HEMPSTEAD DEVELOPMENT CORPORATION

Applications invited for SENIOR ARCHITECT (Vacancy No. 71A). Salary scale £815—£994 p.a.

Applicants must be A.R.I.B.A. and have good experience in the design and execution of large scale housing schemes or town centre or industrial development. Starting salary according to qualifications and experience.

Conditions of service similar to those in Local Government. Housing accommodation available.

Applications, endorsed "Vacancy No. 71A," giving age, education, qualifications and experience and names of two referees, should reach General Manager, Westbrook Hay, Hemel Hempstead, by 24th August, 1957. 7214

COUNTY BOROUGH OF DONCASTER

Applications are invited for the post of ASSISTANT ARCHITECT in the Borough Architect's Department. Salary in accordance with Grade A.P.T. V (£814 17s. 6d.—£994 5s.).

Applicants must be Associates of the R.I.B.A. and have had good experience in design and working drawings. The appointment offers scope for experience in large scale central area redevelopments and educational projects and preference will be given to those with a keen interest in contemporary design.

The appointment will be subject to one month's notice on either side and to the terms of the Local Government Superannuation Acts 1937 to 1953 and the successful applicant will be required to pass a medical examination.

Housing accommodation will be available if necessary.

Application forms may be obtained from the Borough Architect, L. J. Tucker, Esq., A.R.I.B.A., F.I.Hsg., 15, South Parade, Doncaster, to whom they must be returned by 10 a.m. on Monday, 9th September, 1957.

H. R. WORMALD,
Town Clerk.
1, Priory Place,
Doncaster.
8th August, 1957. 7227

BOROUGH OF MANSFIELD

Applications are invited for the following appointments in the Architects' section of the Borough Engineer and Surveyor's Department.

(1) **TWO GENERAL ARCHITECTURAL ASSISTANTS.**

Salary. Special Grade £705—£861.

Applicants must have passed parts I and II of the R.I.B.A. Final or Special Final or their equivalent and have had at least five years' experience (including training).

(2) **JUNIOR ARCHITECTURAL ASSISTANT**

Salary (*a*) A.P.T. I, £543 5s.—£625 5s. or (*b*) A.P.T. II, £609 17s. 6d.—£691 17s. 6d.

Salary (*a*) will be paid to a person having attended a full-time course of architecture and having passed the R.I.B.A. Intermediate examination and having had less than one year's office experience.

Salary (*b*) will be paid to a person who has had the same training and qualification for (*a*) but with more than one year's office experience or has served articles with an architect or had three years' minimum experience in an architect's office and has passed the R.I.B.A. Intermediate examination or equivalent.

Applications giving the following particulars:—

(1) Age.
(2) Training.
(3) Qualifications.
(4) Present and past appointments with salaries.
(5) Experience in (*a*) housing development including 2 and 3 storey flats; (*b*) shops; (*c*) swimming baths; (*d*) crematorium.
(6) Names and addresses of not more than three referees should be sent to the Borough Engineer and Surveyor, Carr Bank, Mansfie'd, not later than Monday, 26th August, 1957.

A. C. SHEPHERD,
Town Clerk.

Carr Bank,
Mansfield. 7228

CITY OF OXFORD

ARCHITECTURAL ASSISTANTS required in City Architect and Planning Officer's Department; salary within range £728 10s.—£994 10s. per annum according to qualifications (minimum required, A.R.I.B.A.) and experience. Housing accommodation provided.

For further details and application form (to be returned by 7th September) apply City Architect and Planning Officer, Town Hall, Oxford.

HARRY PLOWMAN,
Town Clerk.
7224

CITY OF OXFORD
CITY ARCHITECT AND PLANNING OFFICER'S DEPARTMENT

CLERKS OF WORKS required to supervise erection of housing, schools and other buildings. Salary £687 per annum. Pensionable post.

Housing accommodation provided.

Apply, stating age, qualifications and experience, giving names of two referees, to City Architect and Planning Officer, Town Hall, Oxford, by 31st August.

HARRY PLOWMAN,
Town Clerk.
7226

THE URBAN DISTRICT COUNCIL OF FELLING
SURVEYOR'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the permanent appointment of Architectural Assistant in the Department of the Surveyor. The salary payable will commence at £727 15s. per annum rising by annual increments to a maximum of £907 2s. 6d. per annum in accordance with Grade A.P.T. IV of the National Salary Scales.

Applicants must have passed the Final Examination of The Royal Institute of British Architects.

Forms of application together with particulars and conditions of employment can be obtained from the undersigned to whom they should be returned not later than the 28th August, 1957.

Housing accommodation will be provided if necessary.

Canvassing will disqualify any applicant.

JOHN DONKIN,
Clerk of the Council.

Council Buildings,
Felling,
Gateshead, 10. 7213

EAST KILBRIDE DEVELOPMENT CORPORATION

The Corporation invite applications for the following posts:—

(1) **ARCHITECTS.** Salary scale £815/£1,107 per annum. Applicants must be A.R.I.B.A. with at least 2 years' qualified experience.

(2) **ASSISTANT ARCHITECTS.** Salary scale £656/£784 per annum. Applicants should at least have passed the Intermediate examination of the R.I.B.A.

(3) **JUNIOR ASSISTANT ARCHITECTS.** Salary Scale £543/£692 per annum. Applicants should be probationer members of the R.I.B.A.

The commencing salary in each case will be in accordance with qualifications, experience, etc. The appointments are subject to the Corporation's conditions of service and superannuation agreement. Selected candidates will require to pass a medical examination. A house or flat will be made available as required. Application forms may be obtained from the General Manager, Torrance House, East Kilbride, to whom completed forms should be returned not later than 26th August, 1957. Canvassing, directly or indirectly, of the members of the Corporation will constitute an absolute disqualification. 7169

CITY OF WAKEFIELD
CITY ENGINEER'S DEPARTMENT

Applications are invited for the following superannuable appointments:—

(*a*) **ELECTRICAL AND HEATING ASSISTANT** (Post No. 24)
Grade A.P.T. IV, £727 15s to £907 2s. 6d.

Applicants should have had experience in the design and supervision of the various types of electrical and heating installations, and preference will be given to those holding the Higher National Certificate or similar qualification.

(*b*) **ARCHITECTURAL ASSISTANT** (Post No. 12)
Grade A.P.T. II, £609 17s. 6d. to £691 17s. 6d.

Applicants should have passed the Intermediate Examination of the R.I.B.A. and preference will be given to those having municipal experience.

(*c*) **ARCHITECTURAL ASSISTANT** (Post No. 11)
Grade A.P.T. I, £543 5s. to £625 5s.

Preference will be given to applicants having had previous municipal experience and who have completed approved professional training.

Applications stating age, training, qualifications and experience together with the names of two referees to be sent to **J. N. Sedgwick, A.M.I.C.E.,** City Engineer, Town Hall, Wakefield, by the 30th August, 1957. 7164

COUNTY BOROUGH OF HALIFAX
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF PRINCIPAL ARCHITECT FOR EDUCATION

Applications are invited for the above appointment at a salary in accordance with the combined Grades A.P.T. V—VI, £814—£1,107 p.a.

The commencing salary will be fixed having regard to the candidate's experience, qualifications, and present salary. Accommodation in a flat will be provided if required. The person appointed will be responsible for the design and construction of new schemes and other architectural work under the control of the Education Committee, and his work will entail close co-operation with the Chief Education Officer. The appointment will be terminable by two months' notice on either side. The position is a superannuated one. Applications stating age, qualifications, present position and experience, accompanied by three recent testimonials should be delivered to the Town Clerk, Town Hall, Halifax, by 26th August, 1957. 7225

COVENTRY CORPORATION

Vacancies on Schools and Housing projects (including Multi-storey Flats) for Architects and Assistants of imagination and ability.

Salary: Qualified, Special Grade (£707—£861); Intermediate R.I.B.A., A.P.T. II/III (£609—£784). Plus £26 p.a. in certain circumstances.

Appointments subject to appropriate qualification and experience and within Grades if necessary.

Housing accommodation, also loan towards removal expenses, available in approved circumstances.

Application forms, etc., from City Architect and Planning Officer, Bull Yard, Coventry, returnable within 10 days publication. 7167

HALTEMPRICE URBAN DISTRICT COUNCIL

Applications are invited for the post of **ASSISTANT ARCHITECT** on the staff of the Engineer and Surveyor. Salary grade A.P.T. IV (£727—£907 p.a.) subject to appropriate professional qualification and experience. Permanent superannuable appointment subject to the National Conditions of Service.

Applications, giving full details of age, qualification and experience, together with the names of two referees to be forwarded to the undersigned not later than noon on Thursday, 22nd August, 1957.

A. B. GLASSPOOL,
Clerk of the Council.

Anlaby House,
Anlaby, E. Yorks. 7165

BOROUGH OF CHATHAM
APPOINTMENT OF CHIEF ASSISTANT ARCHITECT

Applications are invited for the appointment of Chief Assistant Architect, within Grade VI (£902—£1,107 per annum).

Housing accommodaion will be made available if required.

Conditions of appointment and form of application may be obtained from Mr. J. A. T. Richards, Borough Engineer and Surveyor, Town Hall, Chatham to whom completed application forms should be returned not later than Saturday, 31st August, 1957.

ROWLAND NEWNES,
Town Clerk.

Town Hall,
Chatham. 7168

CUMBERLAND COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments to the architectural staff. N.J.C. Service Conditions. Posts pensionable. Subject to medical examination.

(*a*) **ASSISTANT ARCHITECTS:** A.P.T. Grade V/VI (£814 17s. 6d.—£1,107). Must be A.R.I.B.A. with experience of handling large contracts and supervision of staff.

(*b*) **ASSISTANT ARCHITECTS:** Special Grade (£707 5s.—£861). Must have passed Final R.I.B.A. Examination.

Applications forms and further particulars may be obtained from John W. Baughan, F.R.I.B.A., County Architect, 15, Port'and Square, Carlisle, to whom completed applications should be returned not later than Friday, 6th September, 1957.

G. N. C. SWIFT,
Clerk of the County Council.
7218

NORTH WEST METROPOLITAN REGIONAL HOSPITAL BOARD

Applications are invited for the following appointments:—

(*a*) **ASSISTANT ARCHITECT**—good experience of design and construction necessary preferably in hospital work. Salary scale £700 × £25 (3) × £30 (1) × £35 (6)—£1,015 plus £20—£50 London weighting.

(*b*) **ARCHITECTURAL ASSISTANTS**—to give technical assistance to professional officers. Salary scale £525 (age 21 and over) × £20 (4) × £25 (5)—£730 plus £20—£30 London weighting.

Applicants for (*a*) above must be Associate Members of the R.I.B.A., and for (*b*) must have Intermediate R.I.B.A. Commencing salary above minimum may be paid to successful candidates according to relevant practical experience appropriate to the posts Posts are subject to Whitley Council conditions and are superannuable.

Apply, stating which post and giving age, qualifications (with dates) and experience, with names of two referees, to Secretary, North West Metropolitan Regional Hospital Board, 11a, Portland Place, W.1, by 16th August. 7170

BOROUGH OF STOCKTON-ON-TEES
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment in the Borough Architect's Department. Salary A.P.T. Grade II.

Application forms can be obtained from the Borough Architect, 28, The Square, and must be returned to him by 24th August.

Canvassing disqualifies. Relationship to be disclosed.

JOHN B. HAWORTH,
Town Clerk.
7241

BOROUGH OF RICHMOND (SURREY)
JUNIOR BUILDING SURVEYOR, Grade II/III

Salary in accordance with A.P.T. Grade II/III, £609 17s. 6d.—£784 2s. 6d. plus London weighting. Preference will be given to candidates who have passed the Intermediate examination of the R.I.C.S. (Building) or some other appropriate diploma. Applications to the Borough Engineer and Surveyor, Hotham House, Heron Court, Richmond, Surrey, naming two referees, by 31st August, 1957, and stating relationship, if any, to Members of the Council or Senior Officers. No assistance with housing. Canvassing prohibited.

CLIFFORD HEYWORTH,
Town Clerk.
7221

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

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

Applications are invited for the following appointments:—

1. **DEPUTY DIRECTOR** of the School. Salary Burnham Scale for Senior Lecturers, £1,350 × £50—£1,550.

2. **LECTURER** for duty in various sections of the School and to give certain construction lectures. Salary Burnham Scale for Lecturers, £1,200 × £30—£1,350.

These posts may be on either a full-time or 5/6ths full time basis.

Forms of application and further particulars may be obtained from the Principal, College of Art and Crafts, Margaret Street, Birmingham, 3. Closing date, 31st August, 1957.

E. L. RUSSELL,
Chief Education Officer.
7223

STAFFORDSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
APPOINTMENT OF CLERK

Applications are invited for the appointment of a Clerk on Salary Grade A.P.T. IV (£727 15s.—£907 3s.).

Preference will be given to applicants with some technical knowledge, and experience in an Architect's, Estate Agent's or Surveyor's Office, or in Local Government procedure will be an advantage. A knowledge of the acquisition of land and buildings and with associated contract Agreements also will be helpful.

The appointment will be subject to the National Scheme of Conditions of Service, and the County Council will approve for a period not exceeding six months, the payment of a temporary lodging allowance of £1 15s per week, plus second class rail fare home every two months to newly appointed married staff whose homes are outside the geographical county and who are unable to secure housing accommodation. The Council will also consider granting financial assistance towards reasonable removal expenses.

Applicants must disclose whether or not they are related to any member or senior officer of the County Council and canvassing of members of the Council will disqualify.

Applications, together with names and addresses of three referees should be forwarded to P. Woodcock, F.R.I.B.A., Deputy County Architect, Martin Street, Stafford, not later than the 26th August, 1957, giving full details of experience, past and present appointments, qualifications and stating age and present salary.

T. H. EVANS,
Clerk of the County Council.

County Buildings,
Stafford.
8th August, 1957. 7239

BOROUGH OF CHIPPENHAM
ARCHITECTURAL ASSISTANT

Applications are invited from suitably qualified persons for the above-mentioned post in the Borough Surveyor's Department. Salary either Grade A.P.T. II (£609—£691) or Special Grade (£707—£861) according to qualifications and experience.

The appointment is subject to one month's notice on either side; housing accommodation will be provided if required, and the successful applicant will be required to pass a medical examination.

Applications including the names of two referees to be submitted to the Borough Surveyor by the 6th September, 1957.

S. F. A. CLARKE,
Town Clerk.

10, Market Place,
Chippenham,
Wilts. 7240

CENTRAL ELECTRICITY AUTHORITY
HEADQUARTERS

Applications are invited for the appointment of CIVIL ENGINEERS at the RESEARCH LABORATORIES, LEATHERHEAD, SURREY, to carry out investigations into the properties of pulverised fuel ash concrete, the applications of such concrete to civil engineering projects, and the further use of p.f. ash. Candidates should have a degree or H.N.C. in Civil Engineering. Salary £550—£995 per annum according to qualifications and experience. Applications stating age, experience, present position and salary, should be forwarded to D. Moffat, Director of Establishments, Winsley Street, London, W.1, by 31st August, 1957. Quote reference AJ/348. 7219

CITY AND COUNTY OF BRISTOL
APPOINTMENT OF PLANNING ASSISTANTS

Applications invited for appointment of Planning Assistants in Grades A.P.T. V, A.P.T. IV, and Special N.J.C. Scale in City Engineering and Planning Department.

All applicants must have passed Final Examination of Town Planning or other approved Institutes; also have had following experience:—
GRADE A.P.T. V (£814 17s. 6d.—£994 5s. p.a.).
Extensive planning experience, particularly in connection with preparation and administration of a Development Plan and preparation of layouts for redevelopment areas.
GRADE A.P.T. IV (£727 15s.—£907 2s. 6d. p.a.).
Good general planning experience, particularly in connection with Control of Development.
SPECIAL N.J.C. SCALE (£707 5s.—£861 p.a.).
Experience in preparation and administration of a Development Plan.

Applications, indicating post applied for and stating age, qualifications, experience, present and previous appointments, with two referees, to reach City Engineer and Planning Officer, Arno's Court, 470, Bath Road, Bristol 4, by 4th September 1957. 7243

Architectural Appointments Vacant

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

RONALD WARD & PARTNERS require ARCHITECTURAL ASSISTANTS with contemporary outlook and willing to use own initiative. Salary range £600 to £850. Congenial working conditions. Apply 29, Chesham Place, Belgrave Square, S.W.1. Telephone Belgravia 3361. 6322

CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT, MANCHESTER

APPLICATIONS are invited for the following appointments:—(*a*) SENIOR ASSISTANT ARCHITECTS with experience of work on commercial and industrial projects (salary range £820 to £975 per annum). (*b*) ASSISTANT ARCHITECTS capable of preparing working drawings from preliminary details (Salary range £550 to £820 per annum). There is a five-day week in operation and both appointments offer prospects of upgrading. Applications stating age, experience, qualifications and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society Ltd., 1, Balloon Street, Manchester 4. 6023

SENIOR ASSISTANT required of Intermediate/Final standard in Croydon office. Varied practice of interesting work. Good draughtsman and sound knowledge of construction essential, together with ability to manage jobs. Five-day week. Salary according to experience. Apply George Lowe & Partner, 4, High Street, Croydon 3608/9. 6851

YOUNG ARCHITECTURAL ASSISTANT (male) required in West End office. Write stating age, experience and salary required. Box 6683.

ARCHITECTURAL ASSISTANT required in busy London Office with varied practice. Good salary and prospects for suitable applicant. Five-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 851 c/o 7, Coptic Street, W.C.1. 6376

ASSISTANT required Intermediate standard; also JUNIOR, in West End office. Write stating age, experience and salary required to Box 6724.

NORFOLK Architect requires competent office trained ASSISTANT. Qualified man would be considered.—Reply, with full details of experience and salary required, to Box 7076.

LONDON office with widely varied practice urgently requires all grades of ASSISTANTS, preferably with London experience. Five-day week. Lewis Solomon, Son & Joseph, 21, Bloomsbury Way, London, W.C.1. Holborn 6108. 6531

ASSISTANT ARCHITECT. Co-operative Wholesale Society, Ltd., invite applications for the position of Assistant Architect. Must be capable of preparing working drawings from preliminary details. The post is superannuable, subject to medical examination. 5-day week in operation. Applications, giving details of age, experience and salary required, to—W. J. Reed, F.R.I.B.A., Chief Architect, C.W.S. Ltd., 99, Leman Street, London, E.1. 6350

NORTH & PARTNERS, Chartered Architects with extensive practice, seek partner's personal ASSISTANT. Position will afford excellent opportunity for capable assistant. Reply: 40, Broadway, Maidenhead. 6502

RAMSEY, MURRAY, WHITE & WARD require recently qualified ASSISTANTS, with two to five years' practical experience, to work on interesting industrial and office buildings. Salary by arrangement.—Apply 32, Wigmore Street, W.1. 5929

WELL-KNOWN London Architects require ASSISTANTS between Intermediate and Final standard. Interesting projects. Five-day week. Write Box 853, c/o 7, Coptic Street, W.C.1. 6583

NORTH AND PARTNERS, Chartered Architects, with large and varied practice, require a capable experienced ASSISTANT for drawing office, salary by arrangement. Reply: 40, Broadway, Maidenhead, Berks. 6573

ASSISTANT, Intermediate standard, required, busy West End office. State age, experience, and salary required.—Box 6046.

CO-OPERATIVE WHOLESALE SOCIETY, LTD. ARCHITECT'S DEPARTMENT, BIRMINGHAM

APPLICATIONS are invited for the following appointments in the above Branch Office undertaking interesting and varied commercial and industrial projects:—

(*a*) ASSISTANT QUANTITY SURVEYOR, with good experience in the preparation of Bills of Quantities, measuring and adjusting variations and estimating under supervision (salary range £550 to £820 per annum).

(*b*) ASSISTANT ARCHITECT, capable of preparing working drawings from preliminary details (salary range £550 to £820 per annum).

There is a 5-day week in operation, and the appointments offer prospects of upgrading.

Applications, stating age, experience, qualifications and salary required, to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester. 7073

ARCHITECTURAL ASSISTANT required by large Midland food manufacturing business. Applicants must have had sound architectural training up to Intermediate standard. The work is interesting and varied, embracing as it does new work, alterations and maintenance carried out in part by its own Building, Joinery and associated shops. Applicants to give full details of qualifications, experience, etc. Commencing salary within the range of £650 to £750 per annum. Box 7122.

ARCHITECTS

SCOTTISH SPECIAL HOUSING ASSOCIATION, LIMITED, invite applications for the following superannuable posts—(*a*) ARCHITECT, Grade I, salary scale £1,015—£1,195 per annum; (*b*) ARCHITECT, Grade II, salary scale £665—£1,005 per annum with placing for age on entry up to £870 at age 31. A house may be available if required. Application forms with full particulars obtainable from the Secretary, 15/21, Palmerston Place, Edinburgh, with whom completed application forms must be lodged within 14 days of the appearance of this advertisement. 7242

ASSISTANT ARCHITECT required by Doncaster architects. Salary £1,000 p.a. Reply Box No. 7244.

ARCHITECTURAL DRAUGHTSMAN is required for American Oil Company in Kuwait, Persian Gulf. Minimum five years' experience. Salary £125 per month, plus free food, accommodation, medical attention, etc. No family quarters. Write quoting ref. 63/40 to O.T.S., 5, Welldon Crescent, Harrow. 7245

CIVIL ENGINEERING DRAUGHTSMAN is required for American Oil Company in Kuwait, Persian Gulf. Minimum five years' practical experience. £125 per month plus free food, accommodation, medical attention, etc. No family quarters. Write quoting ref. 63/41 to O.T.S., 5, Welldon Crescent, Harrow. 7246

ARCHITECTURAL ASSISTANTS required, must have London experience and be able to take responsibility. Salary £650—£750. Please apply in writing giving details of experience to Ellis, Clarke & Gallannaugh, 37, Soho Square, W.1. 7145

ARCHITECT'S ASSISTANT wanted in small office, work of great variety and much in Country. Post-Intermediate standard needed. Write, giving experience and salary required, to Quick & Lee, Chartered Architects 41 Waterloo Place, Leamington Spa, Warwicks. 7144

NEW ZEALAND Architectural Practice mainly engaged commercial, bank, and industrial work, requires either ASSISTANT ARCHITECT, with A.R.I.B.A., salary range £825 to £900; or ARCHITECTURAL ASSISTANT, with at least 7 years' sound office experience, salary range £700 to £800. Prefer single man, but could consider married. Salary rate applicable influenced by ability and qualifications, being commencing salary, subject good increases according progress. Splendid opportunity, minimum 2 years' assured engagement, applicants' passage provided, subject some minor conditions. —Apply airmail, with snapshot, and personal and experience details, plus small recent working drawing, to Mitchell & Mitchell and Partners, P.O. Box 187, Wellington, N.Z. 7069

SENIOR ASSISTANT not necessarily qualified but capable of carrying through small contracts and supervising work; must be quick and speedy draughtsman. Box 7116.

SENIOR ASSISTANT required. State age, experience and salary. Charles E. Ware & Son, 20, Richmond Road, Exeter. 7108

GEORGE WIMPEY & CO., LIMITED

THE Architect's Department seek SENIOR and INTERMEDIATE ASSISTANTS, with ability to apply their knowledge to new construction techniques covering Multi-Storey Flats, Houses, Offices and Industrial Buildings for contracts throughout the U.K.

Appointments are at Head Office, Hammersmith, on a permanent basis, with a 5-day week.

For applicants interested in work in the Midlands, our Regional Office at Birmingham has similar appointments open for Architectural Staff (excepting 5-day week).

Salaries according to qualifications and experience, and, subject to satisfactory service, there is a Pension Scheme available.

Applicants should write, giving particulars, to: E. V. Collins, A.R.I.B.A., Chief Architect, 27, Hammersmith Grove, London, W.6. 7220

ARCHITECTS.—A.R.I.B.A., min. 3 years' post-graduate experience. Progressive outlook essential.—Apply Munce & Kennedy, Chartered Architects, 133, University Street, Northern Ireland. Interviews in London during last week in August. 7222

AUSTRALIA.—Established office in Brisbane, Queensland, with varied contemporary practice, require qualified ASSISTANTS, with 2 or 3 years' experience; good salary. Partner now in London will interview applicants.—Please make written application, with copies of references, to Box 7204.

BRIAN PEAKE requires ASSISTANT, interested and capable of running small contracts. Tel. GRO. 7888. 7229

ASSISTANTS required in medium sized busy office. General practice, including Housing Schemes, Office Blocks, Factories, etc.—Apply in writing only, stating age, qualifications, if any, experience, and salary required, to Thomas Sibthorp, F.R.I.B.A., A.R.I.C.S., A.M.T.P.I., 10, Manchester Square, W.1. 7230

MATTHEWS & SON require a fully qualified ASSISTANT, with minimum of 18 months' office experience. The work will cover all aspects of a medium sized private practice. 5-day week. Salary from £600—£750, according to experience and suitability.—Reply 91, Gower Street, W.C.1, stating age, qualifications and experience. 7206

SENIOR ASSISTANT required in busy West End Architects' office. Should be qualified and thoroughly experienced. Age about 35.—Write: Stone, Toms & Partners. Mayfair 6363. 7198

ASSISTANT ARCHITECT required by Harry S. Fairhurst & Son. Applicants should have had experience. The scope of work is varied and interesting, and salary would be according to abilities and experience.—Apply to 55, Brown Street, Manchester, 2. 7197

MANCHESTER.—Responsible ASSISTANT required by London Architects for their newly established office in Manchester. Good salary and prospects.—Box 7196.

ASSISTANT ARCHITECTS are required in London office for interesting tropical work in Ghana.—Kenneth Scott Associates, 177, Kensington High Street, London, W.8. WEStern 0864. 7195

YOUNG male JUNIOR ASSISTANT required for Sussex practice, with offices in Chichester and Horsham. Ring Horsham 3444. 7194

ARCHITECTURAL ASSISTANTS required, with particular emphasis on working drawing and detailing ability. Work will be mainly on Nuclear Power Stations, in London office of Maurice H. J. Bebb, L.R.I.B.A.—Write: 23/25, Maddox Street, London, W.1. 7201

ASSISTANT required, Intermediate standard, for design and detailing of interesting contemporary domestic work. Must be progressive and not one of the decadent school. 5-day week, and salary by arrangement.—Apply to Turner & Kitching, A./A.R.I.B.A., 20, Stone Street, Gravesend, Kent. Telephone: Gravesend 6996. 7181

JUNIOR ARCHITECTURAL ASSISTANTS required immediately. 3 years' experience minimum. Intermediate standard.—Write full particulars, R. H. Gallannaugh, L.R.I.B.A., 54, Queen Anne Street, London, W.1. 7175

EXPERIENCED SENIOR ARCHITECTURAL ASSISTANT required in old-established practice, Richmond, Surrey. Must have practical experience of industrial and school work. First-class long term opportunity for suitable man.—Box 7180.

ARCHITECTS.—SENIOR ARCHITECTURAL ASSISTANTS required immediately for a wide variety of work. Salary range £800—£1,000 per annum (according to experience and qualifications). Superannuation Scheme.—Application should be made in writing to Kenneth F. Masson, A.R.I.B.A., Chief Architect, S.C.W.S., Ltd., 76, Morrison Street, Glasgow, C.5. 7179

ARCHITECTURAL ASSISTANTS required, Intermediate and Final standards, for Industrial and other varied work. Salary between £500 and £850 per annum, according to experience. —Eric G. V. Hives, L.R.I.B.A., 46, Queen's Road, Reading. Telephone 55484. 7177

NOTTINGHAM.—ARCHITECTURAL ASSISTANT required, with contemporary outlook for varied practice. Salary range £500—£700 per annum.—Michael F. H. Moss, Newcastle Chambers, Angel Row, Nottingham. 7174

ARCHITECTS' ASSISTANTS required to work on major industrial and commercial projects. Intermediate and Final standards. Salary between £500—£850 p.a. 5-day week.—Eric Firmin & Partners, Welbeck 2849. 7172

QUALIFIED ASSISTANT ARCHITECT of experience and character required before October to represent the firm and supervise work in Lagos, Nigeria. Salary £1,200 p.a. 18 months' tour with 3 months' leave, house, car, etc. Single man preferred.—Write to Fry, Drew, Drake & Lasdun, 63, Gloucester Place, London, W.1. 7171

MONRO & PARTNERS, Chartered Architects, require all grades of ARCHITECTURAL ASSISTANTS for employment on varied Industrial and Commercial work in their London and Watford offices.

Salary range:
Juniors up to Intermediate standard (£400—£600).
Intermediate-Final standard (£600—£800).
Qualified with experience (£800—£1,000).
5-day week. Non-contributory Pension Scheme.
Apply 32, Clarendon Road, Watford. 7176

URGENTLY required, Temporary Assistance on overseas projects in London. Appointments could be filled by advanced Students on vacation. Salary by arrangement.—Richard S. Nickson, 33, Welbeck Street, W.1. WELbeck 1681. 7156

SIR ALFRED McALPINE & SON, LTD., require an ARCHITECTURAL ASSISTANT in their Design Department. Applicants should be of Intermediate R.I.B.A. standard and capable of producing working drawings and details from sketch schemes.—Apply to Head Office, Hooton, Wirral, Cheshire. 7158

SIR ALFRED McALPINE & SON, LTD., require a JUNIOR ARCHITECTURAL DRAUGHTSMAN in their Design Department.—Please apply to Head Office, Hooton, Wirral, Cheshire. 7157

INTERMEDIATE to Final standard ASSISTANT required in Birmingham office. Starting salary £750, approximately.—Box 7178

ASSISTANT, Intermediate to Final standard, wanted in London office. Wide field of interesting work. Salary according to ability and experience.—Apply to W. Curtic Green, R.A., Son & Lloyd, 5, Pickering Place, St. James's Street, S.W.1. Telephone Whitehall 8926. 7155

ARCHITECTURAL ASSISTANTS required for busy Glasgow practice.
Seniors, experienced in schools, hospitals and industrial work, and capable of controlling staff.
Juniors, of Intermediate standard.
Apprentices, with Higher Leaving Certificate.
Excellent prospects and salaries up to £1,000, with twice yearly bonus for suitable applicants.—Box 7161.

NUCLEAR POWER

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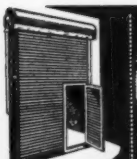
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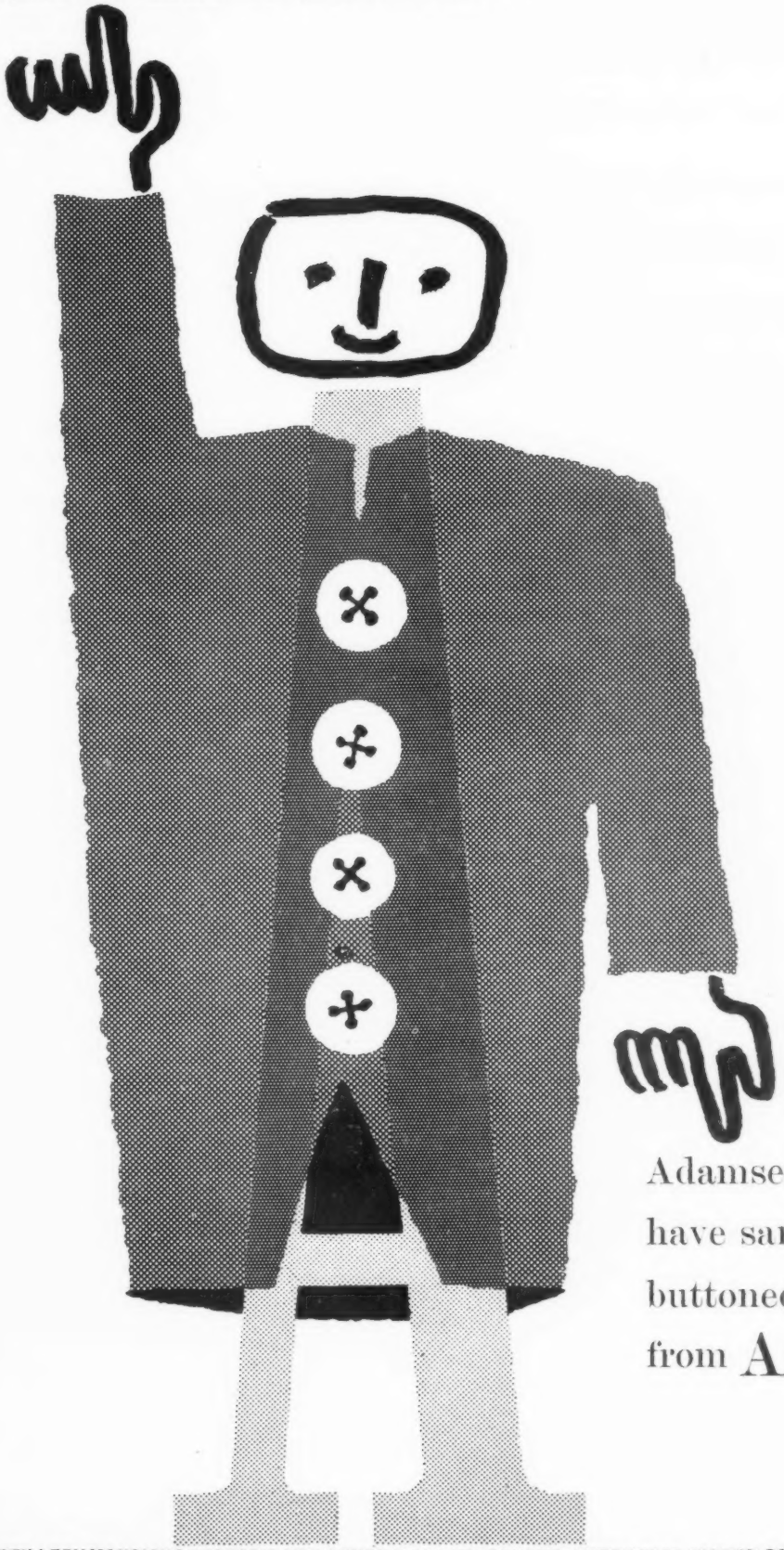

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