

THE ARCHITECTS' JOURNAL

JAN 27 1960

FINE ARTS



standard contents

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

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[No. 3377

[Vol. 131

THE ARCHITECTURAL PRESS

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

ILA	Institute of Landscape Architects. 1, Park Crescent, Portlan Place, W.1. Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1. Welbeck 4966
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee). Fire Research Station, Boreham Wood, Herts. Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2. Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Hyde Park 7070
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council. 14 Howick Place, Victoria Street, S.W.1. Victoria 1600 & 6477
NAS	National Association of Shopfitters. 2, Caxton St., S.W.1. Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers. 10 Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalte Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1. Whitehall 1693
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1. Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5533
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1. Whitehall 5322/9245
RFAC	Royal Fine Arts Commission. 5, Old Palace Yard, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1. Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4. City 5040
WDC	War Damage Commission, 6, Carlton House Terrace, S.W.1. Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636



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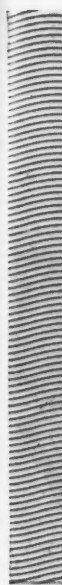
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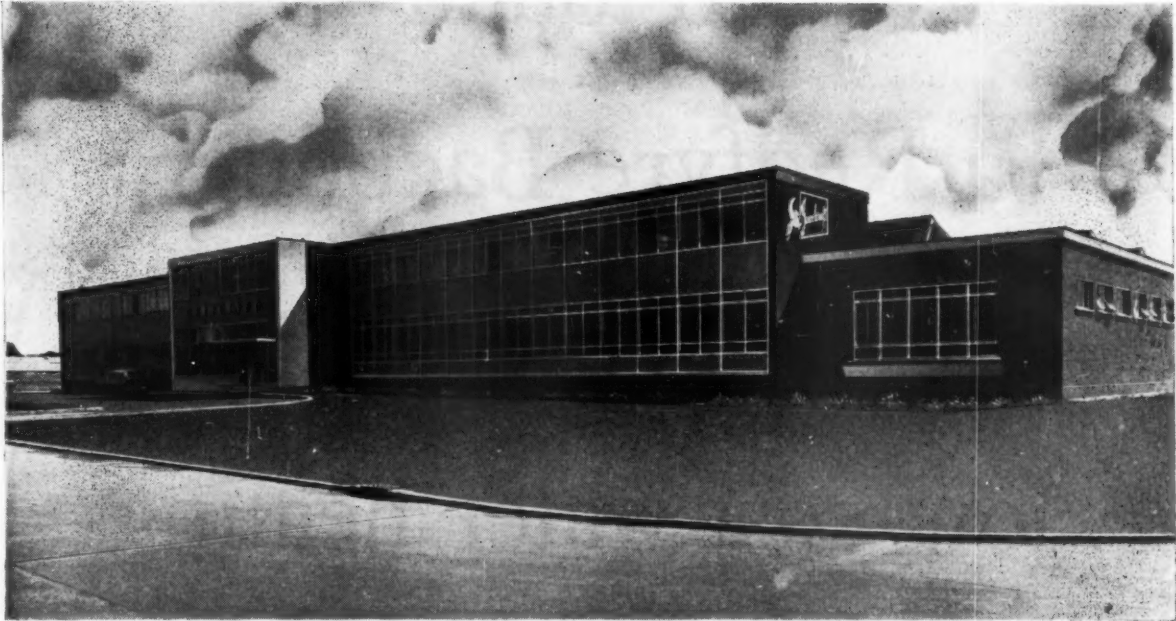


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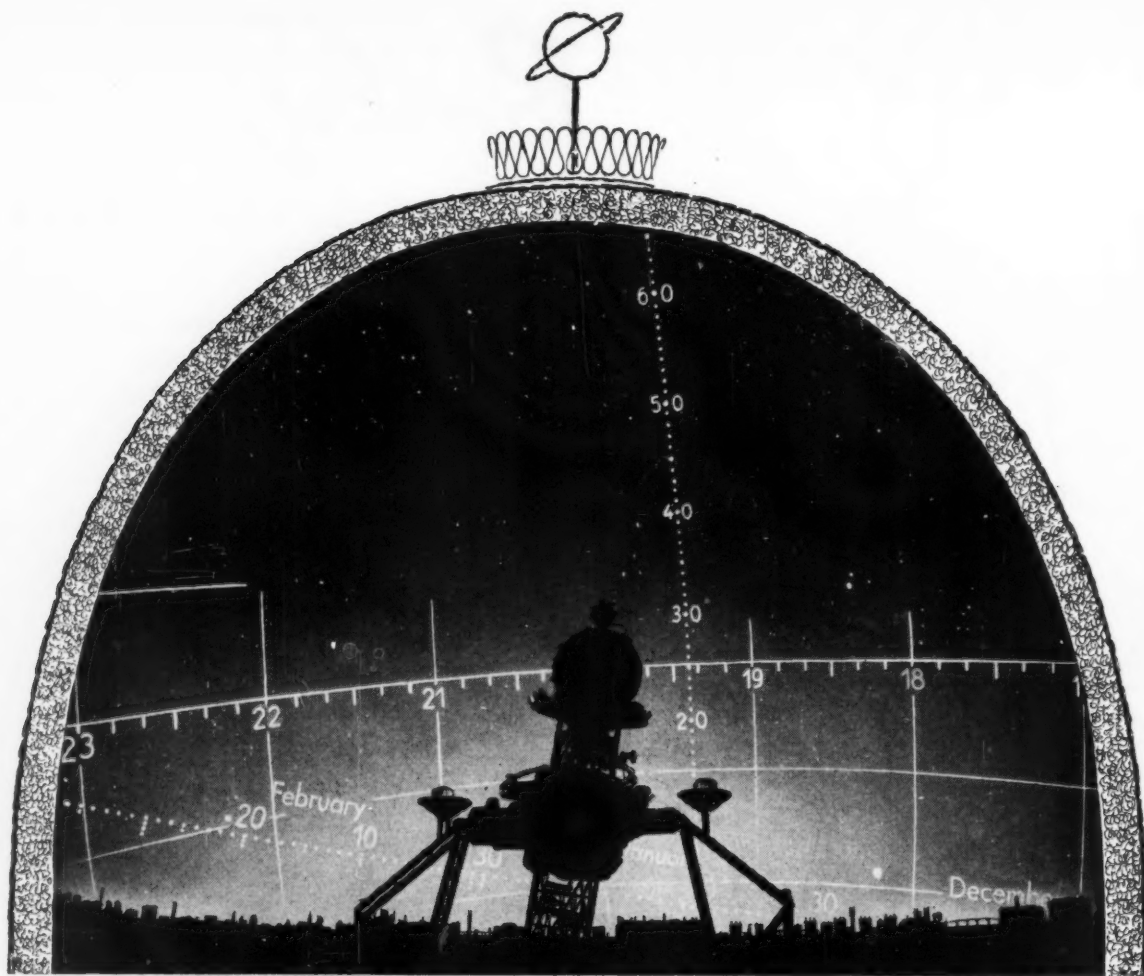


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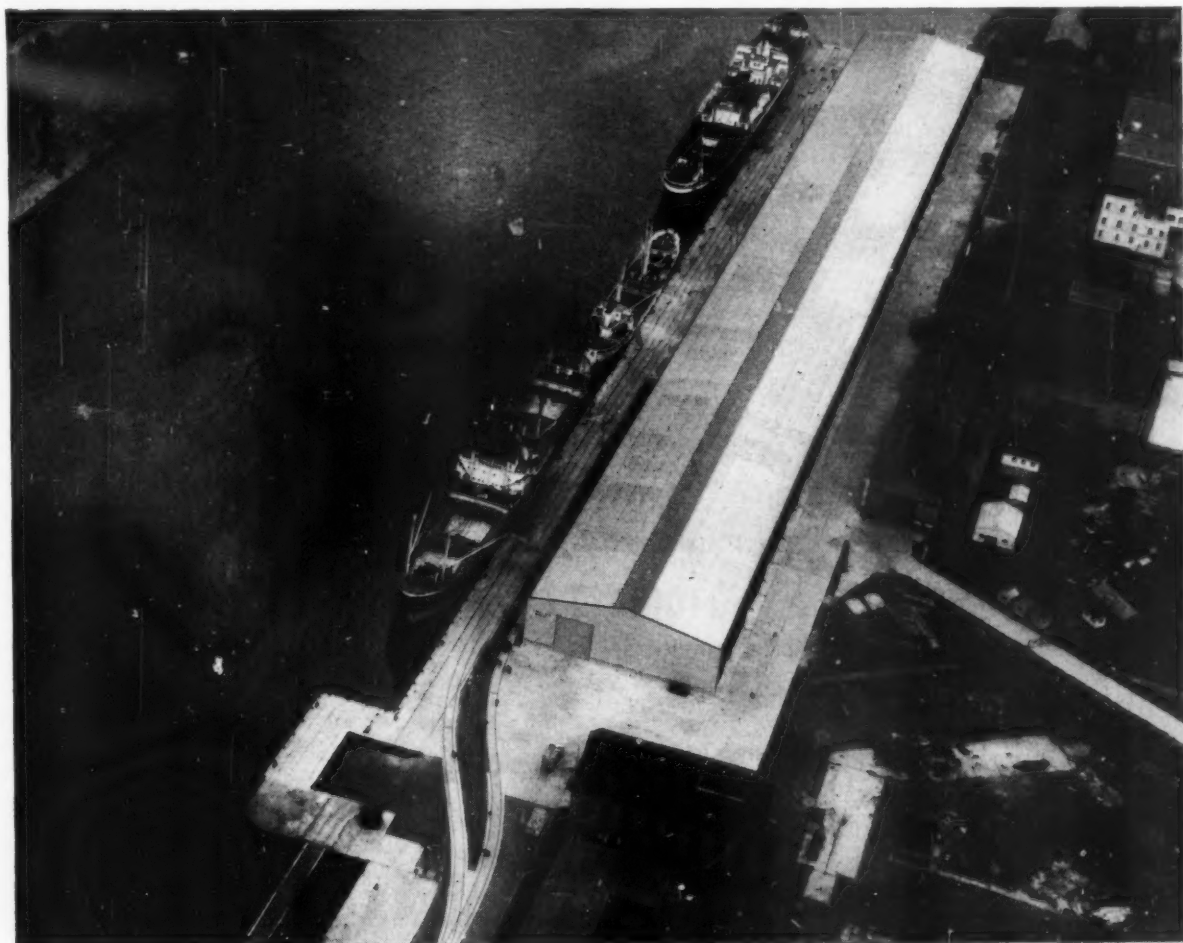
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














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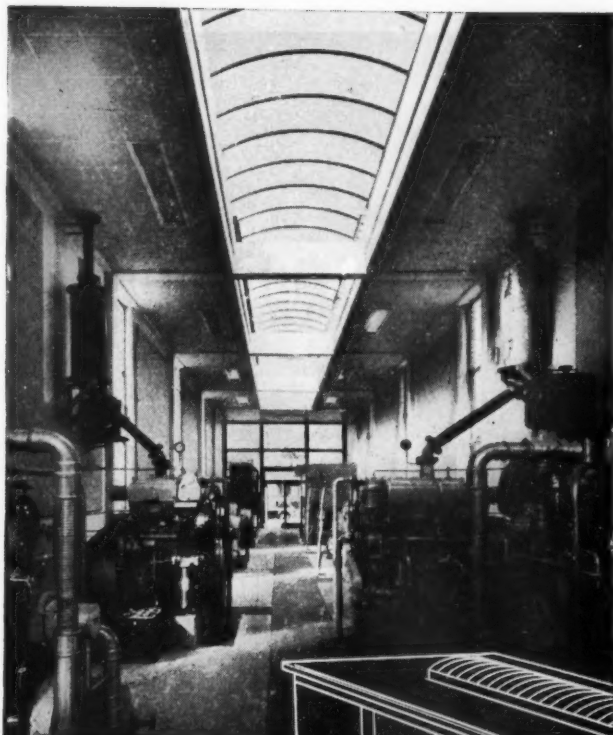
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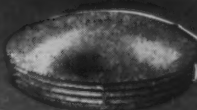
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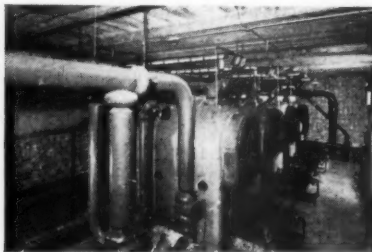
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Pioneers...

One of the earliest recorded applications of the screw is the device invented by Archimedes (287—212 B.C.) for raising water; but nothing resembling the modern screw can be recognised before the sixteenth century when a book dated 1588 illustrates a wood screw forming part of a bellows. Machine-made screws appeared about 1760, but in spite of many improvements in manufacturing, their quality was poor and their use was limited. Then in 1846 Thomas Sloan of New York patented a machine which could successfully produce pointed screws. Sloan's initiative was to be decisive in making the wood screw an indispensable means of fastening.

This transition from limited to everyday use is also evident in the development of ceiling switches. These were originally tumbler switches modified for operation by two cords; but in the early 'twenties the Crabtree Company introduced the first single-cord ceiling switch in this country and thus initiated what is now regarded as an indispensable wiring accessory.

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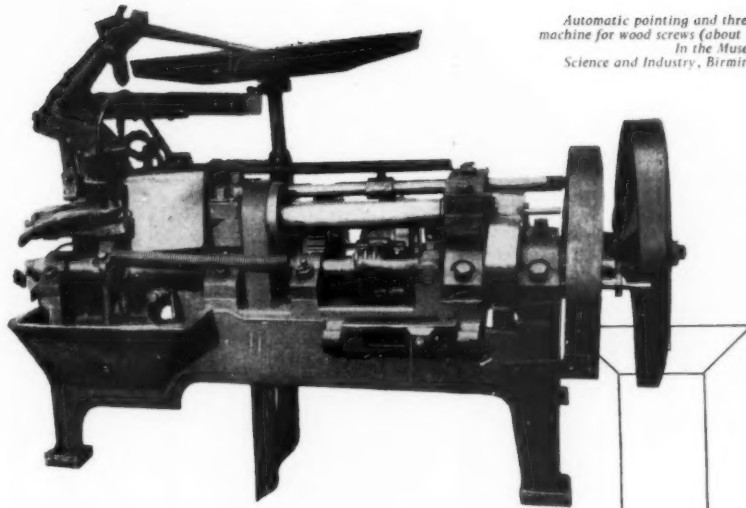
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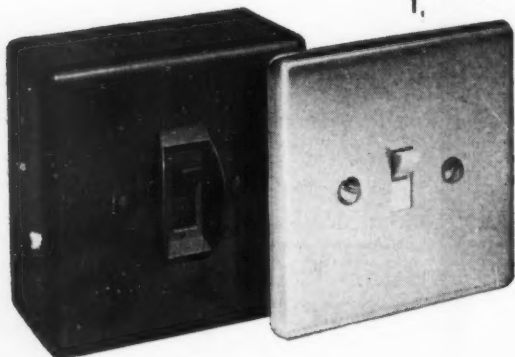
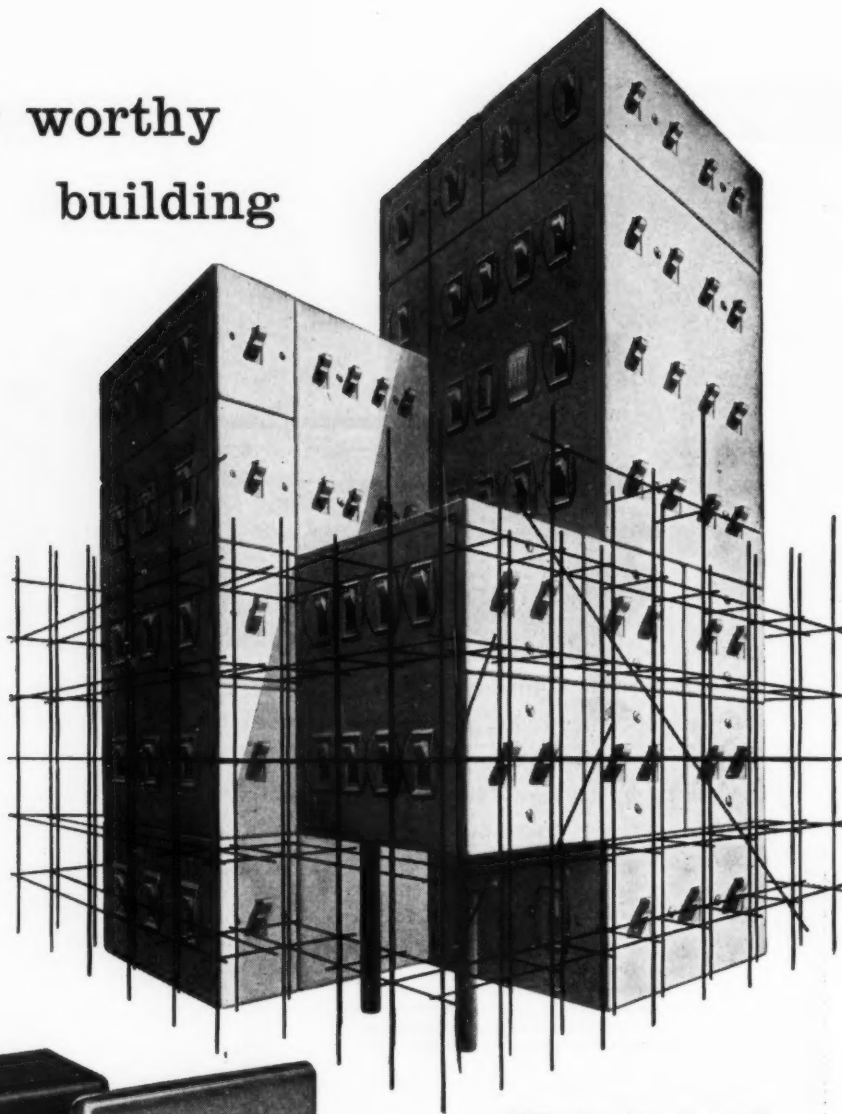
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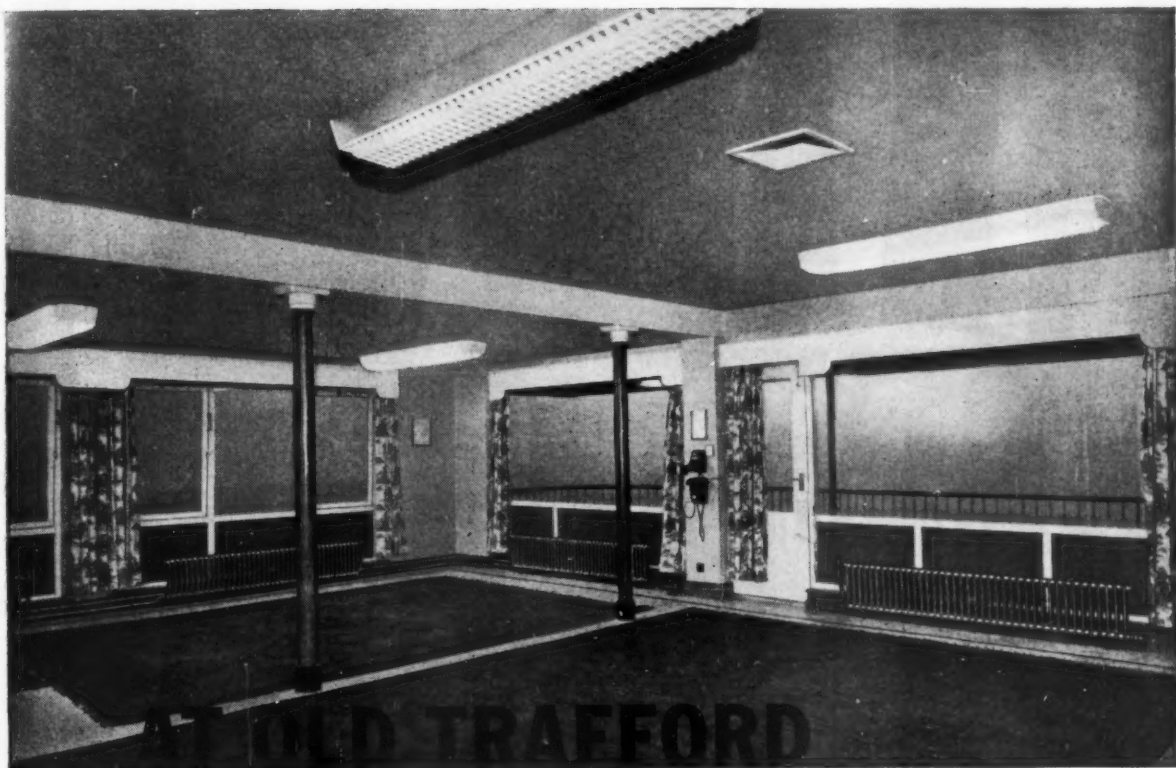
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HEATING BY CRANE

Old Trafford, the Manchester headquarters of the Lancashire County Cricket Club, is one of the most famous cricket grounds in the world. Almost every touring team that visits England plays one Test here.

The Club's premises now have a new heating system—by Crane, of course. One No. 37L Whitehall Sectional Boiler, oil burning, has been installed; and throughout the Pavilion building 46-5½" wide Crane Hospital Pattern Radiators provide the friendly warmth that this form of heating can give. Crane radiators were chosen for their good appearance; because they are smooth castings with adequate space between sections for easy cleaning; because they are made of cast iron for long life; and, most important of all, because they do such a lot for the comfort of the Club members! Shown above is the newly decorated Committee Members' Dining Room.

Heating Engineers: Saunders & Taylor Ltd., Manchester 3.
Architects: Bradshaw, Gass & Hope, Bolton.



CRANE

HEATING EQUIPMENT

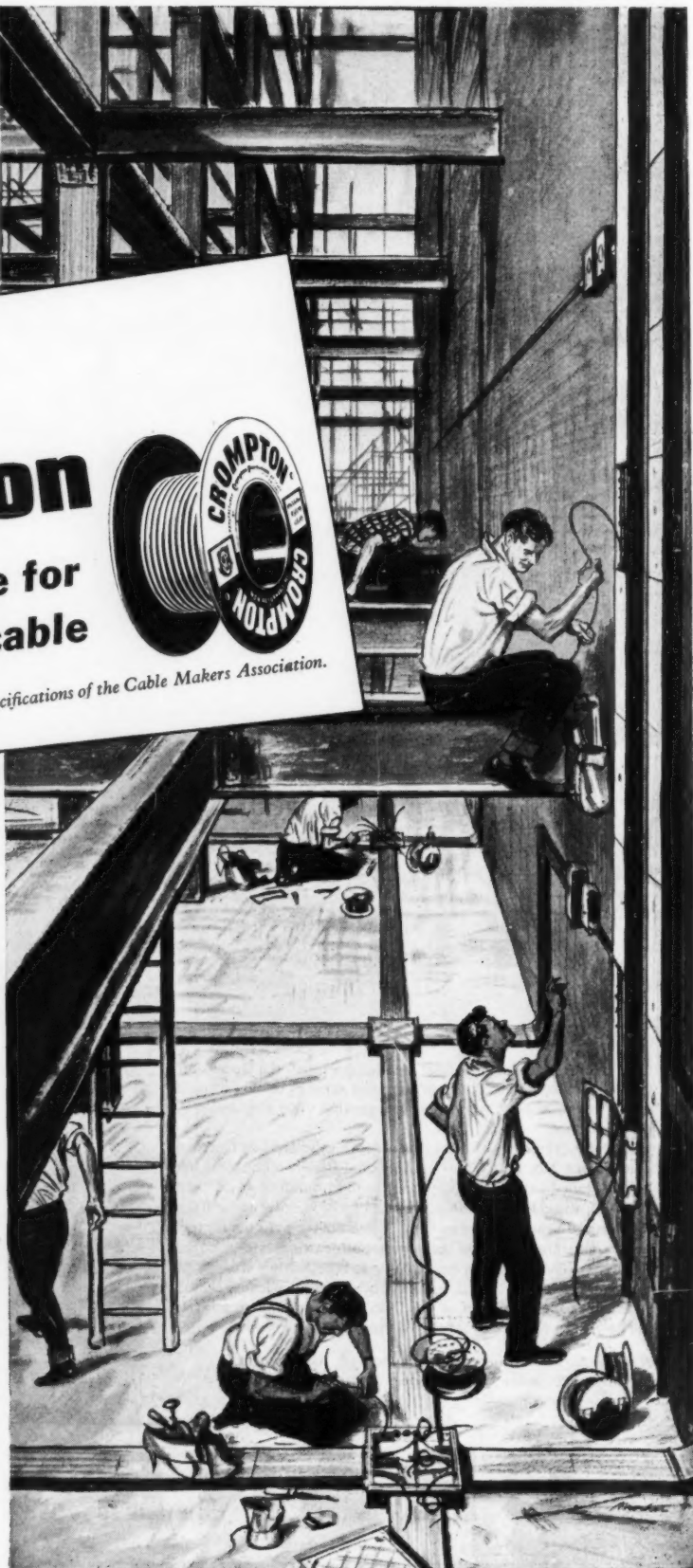
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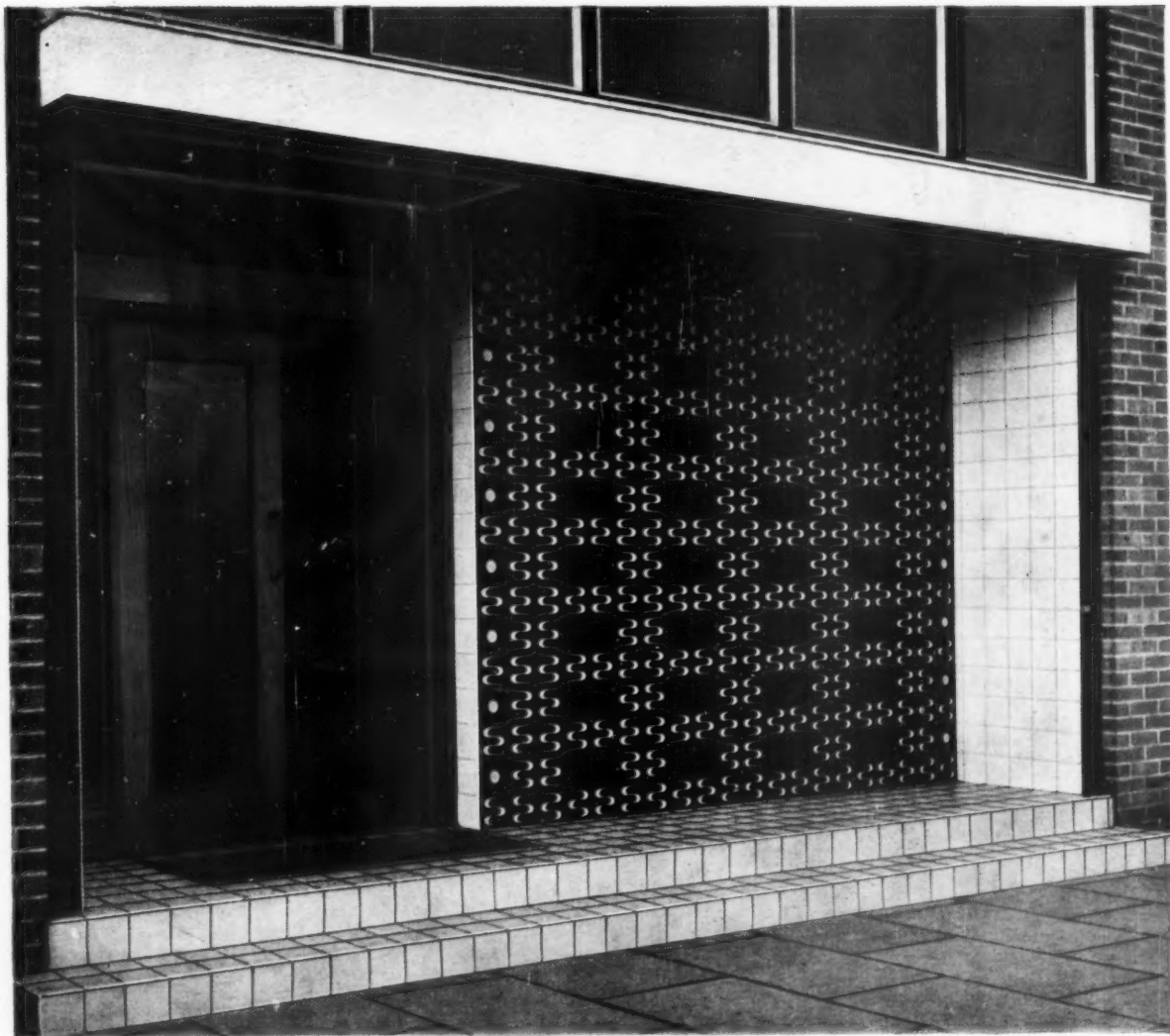


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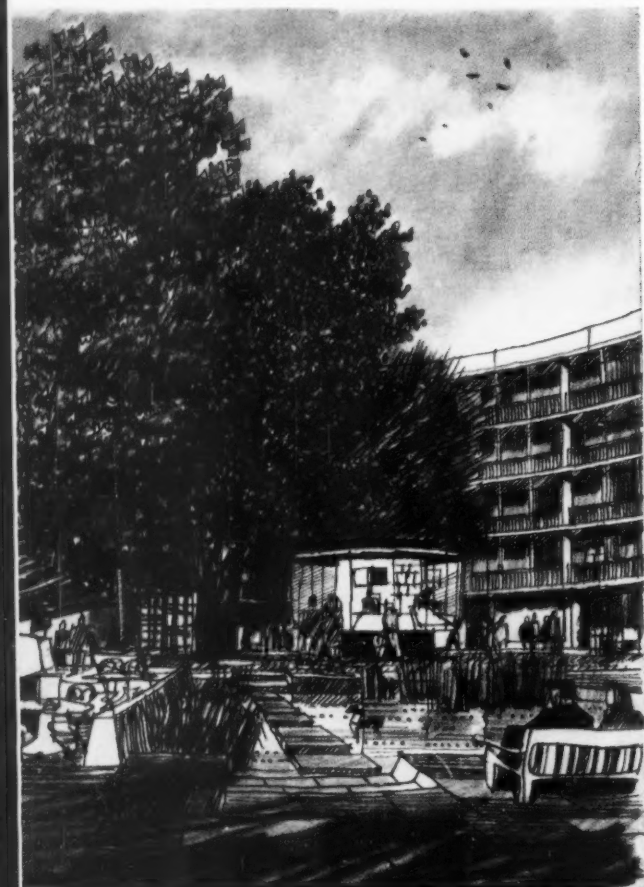
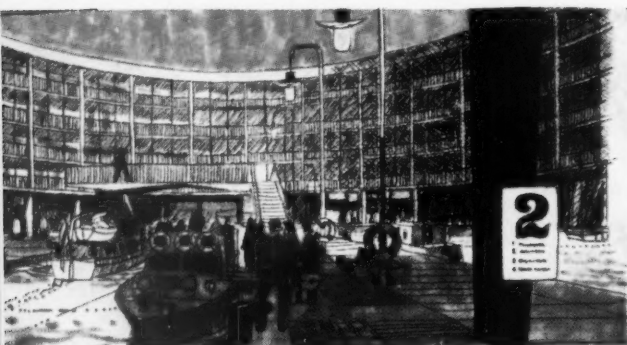
*Architects: Scherrer & Hicks, London.
Main Contractors: J. Gerrard & Sons Ltd., Swinton.*

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Motopia

A GLASS AGE DEVELOPMENT COMMITTEE STUDY

3—The varied pattern of the roundabouts.

The 35 roundabouts which link the residential terraces of Motopia have an important part to play in the overall plan.

In the traffic system they link the roof-top main roads to the news level access roads, which will have service and filling stations sited in the roundabouts.

The areas within these circles of buildings will be the centre of community life, and will provide settings for travelling theatres, open-air entertainments, public houses, tea shops, clubrooms, nursery schools, and the like.

Provision will be made for some shops, but twenty of the roundabouts will also accommodate open markets.

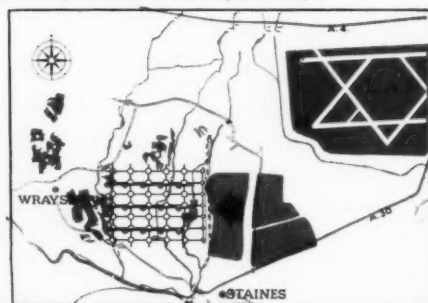
The aim would be to make these areas as attractive, colourful and as varied as possible, and illustrated are an artist's impressions of how this would be achieved.

RIGHT: An open market.

TOP LEFT: One of the fifteen water-bus stops.

MIDDLE LEFT: The view along a canal from a water-bus stop.

LOWER LEFT: A place to relax, with open-air cafe.



Motopia is designed to overcome the unhappy effects of congestion by placing the roads upon continuous terraces, built in great squares which provide accommodation for 30,000 people. This is the fourth post-war study prepared by the Glass Age Development Committee, consisting of Jellicoe, Ballantyne and Coleridge, F/A.R.I.B.A., Edward D. Mills, F.R.I.B.A. and Ove Arup and Partners, and convened by Pilkington Brothers Limited.

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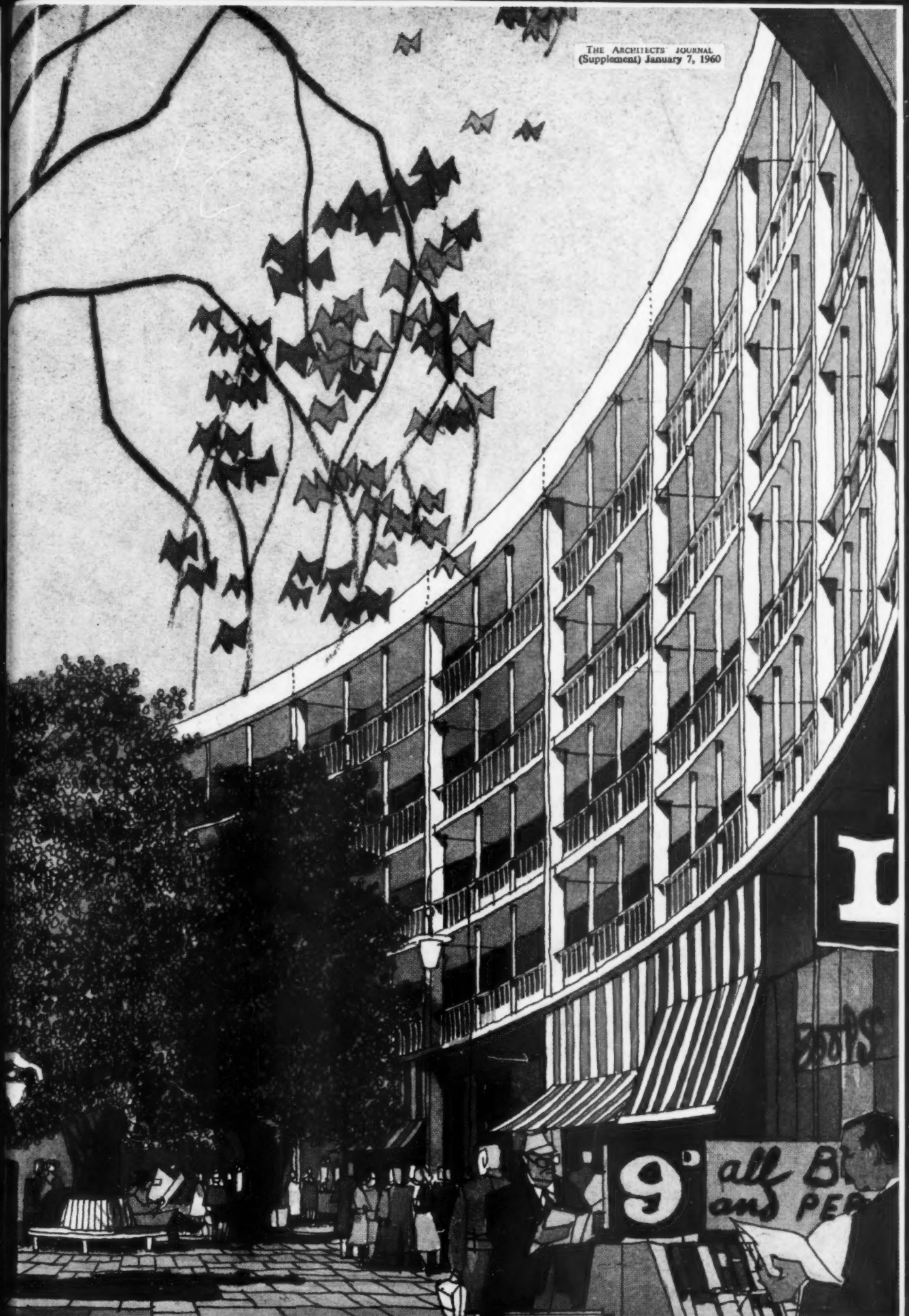
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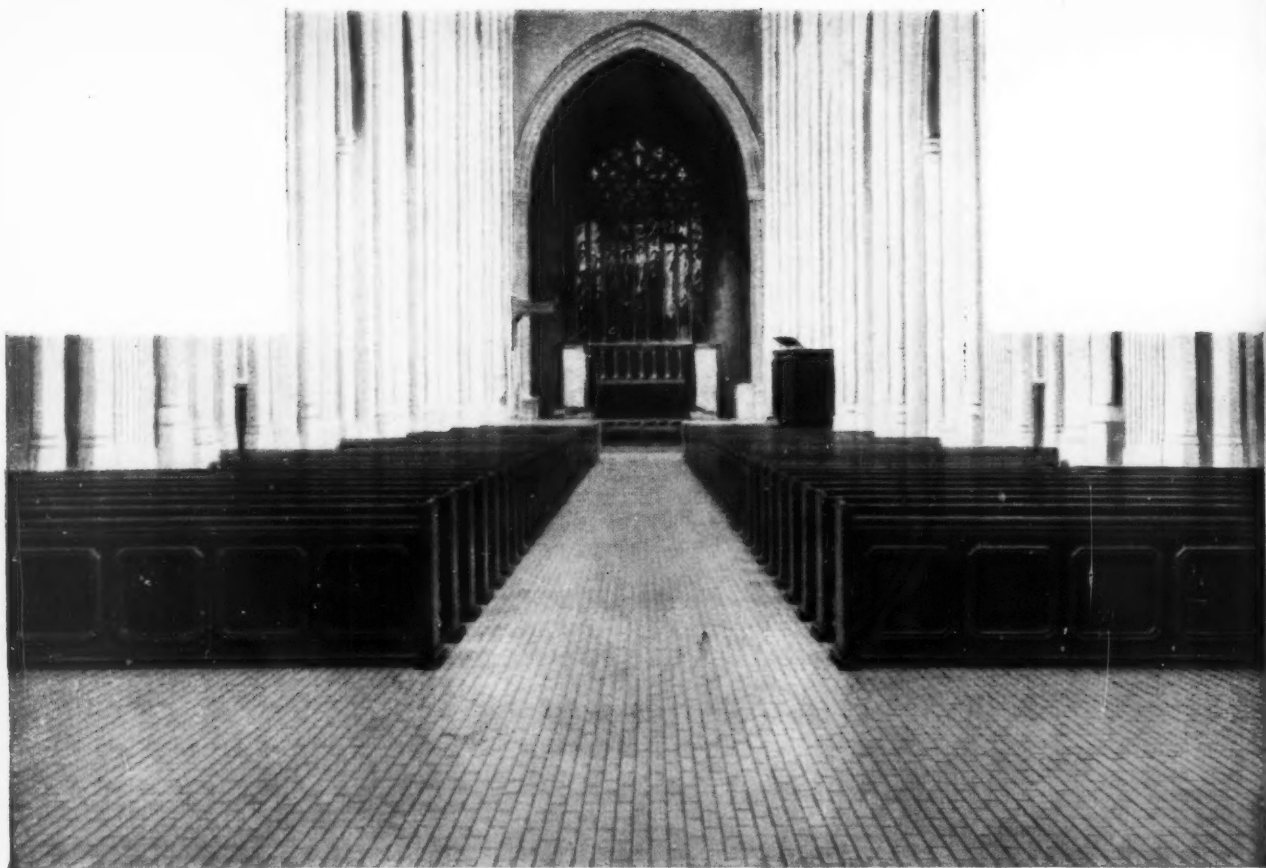
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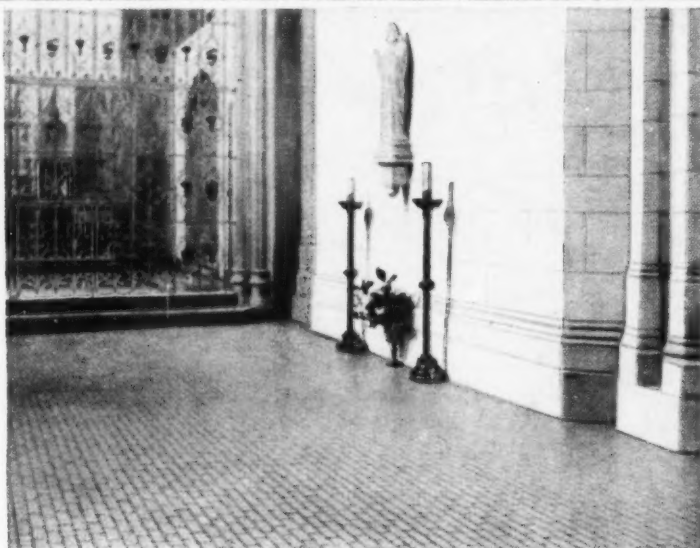








Architect
Romilly B. Craze of Milner
& Craze, FF.R.I.B.A.



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—Cathedral Administrator.

St. George's Roman Catholic Cathedral, Southwark, London, S.E.1

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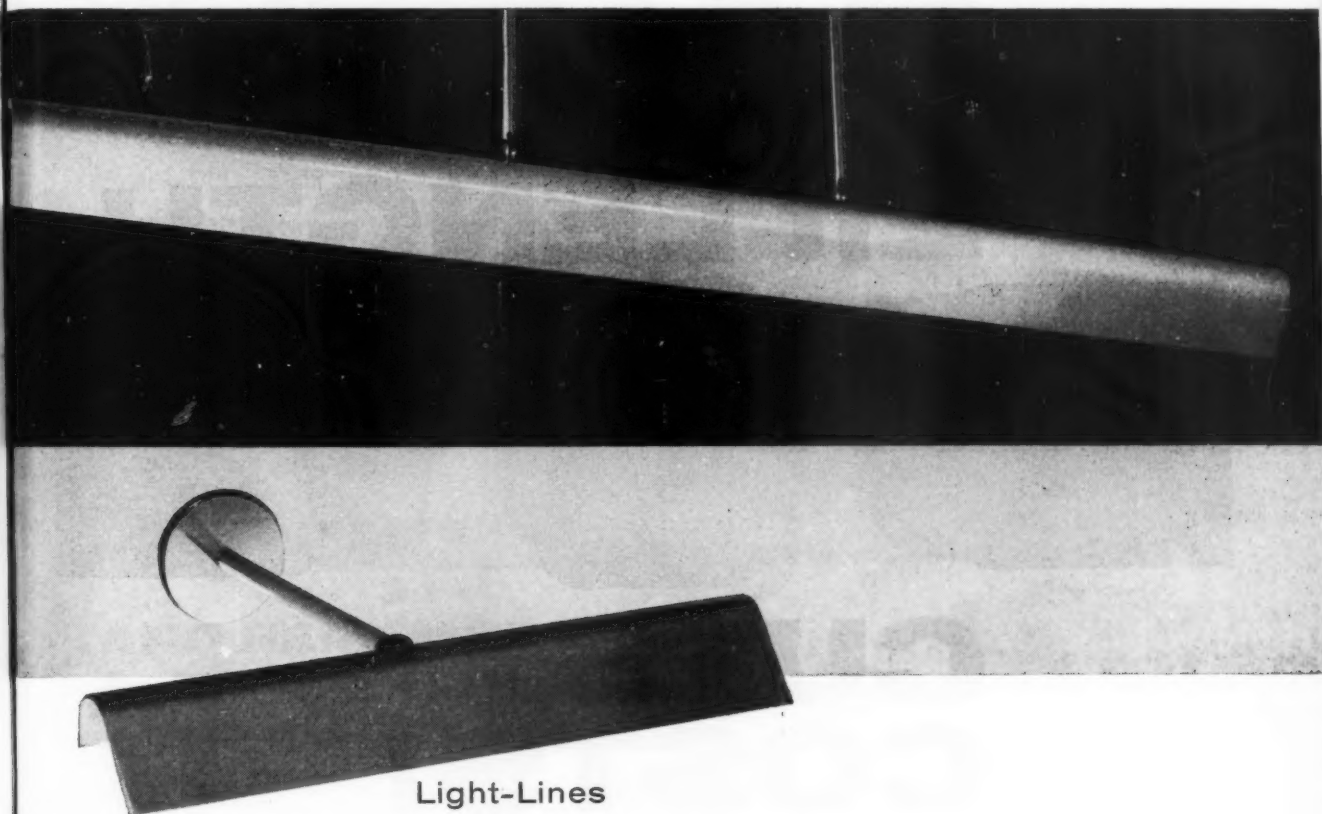
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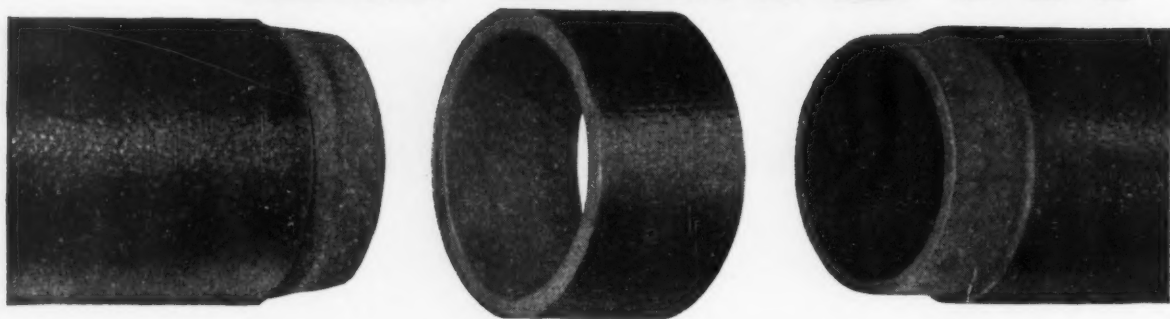
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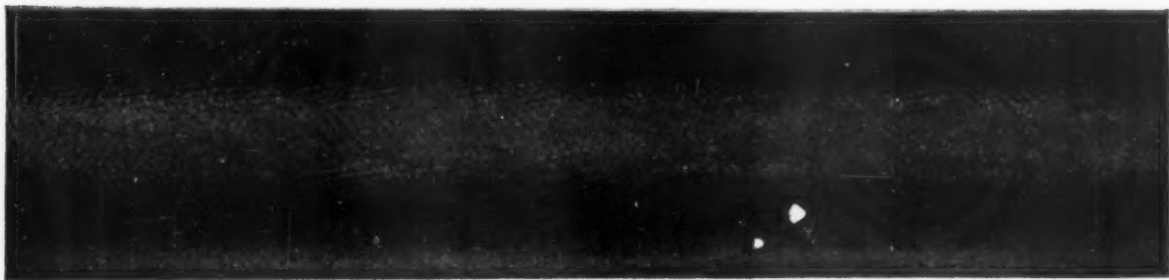
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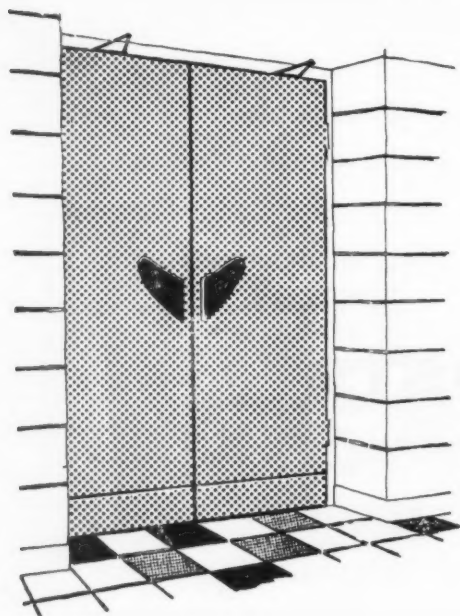
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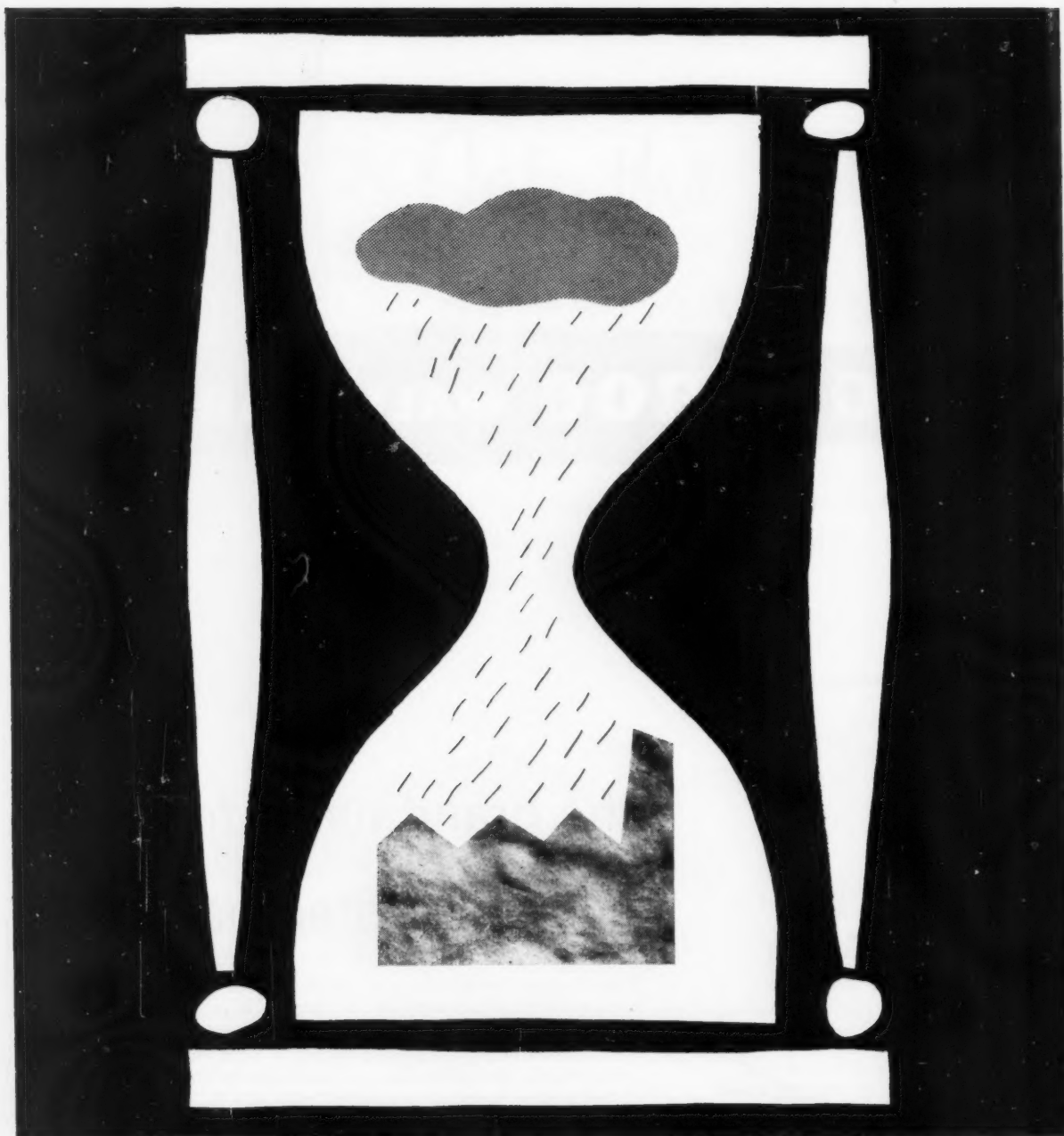
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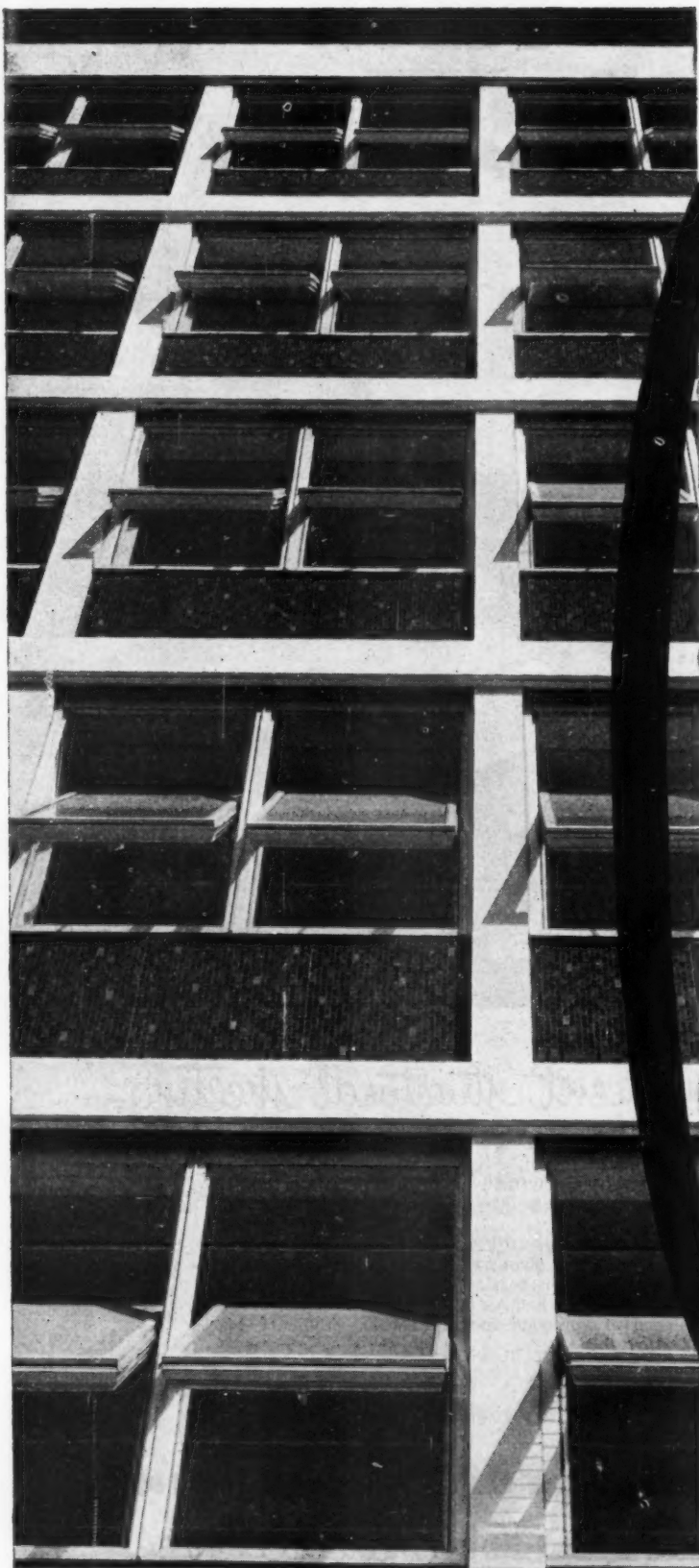
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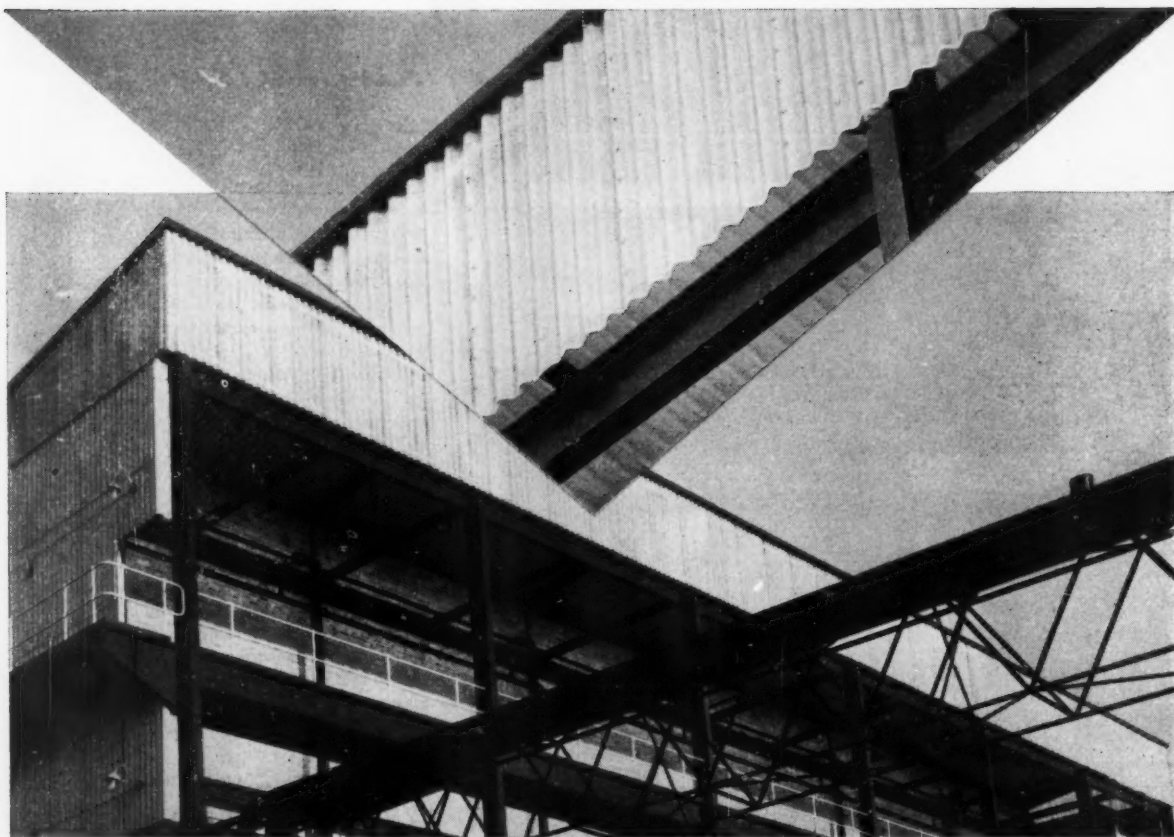
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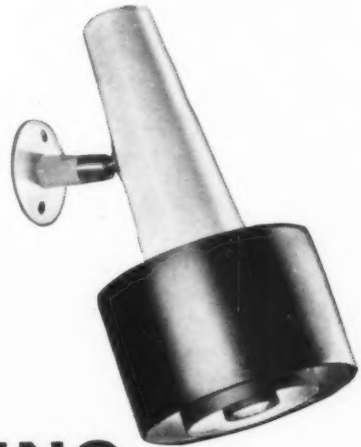
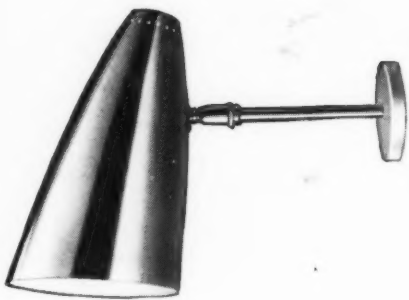
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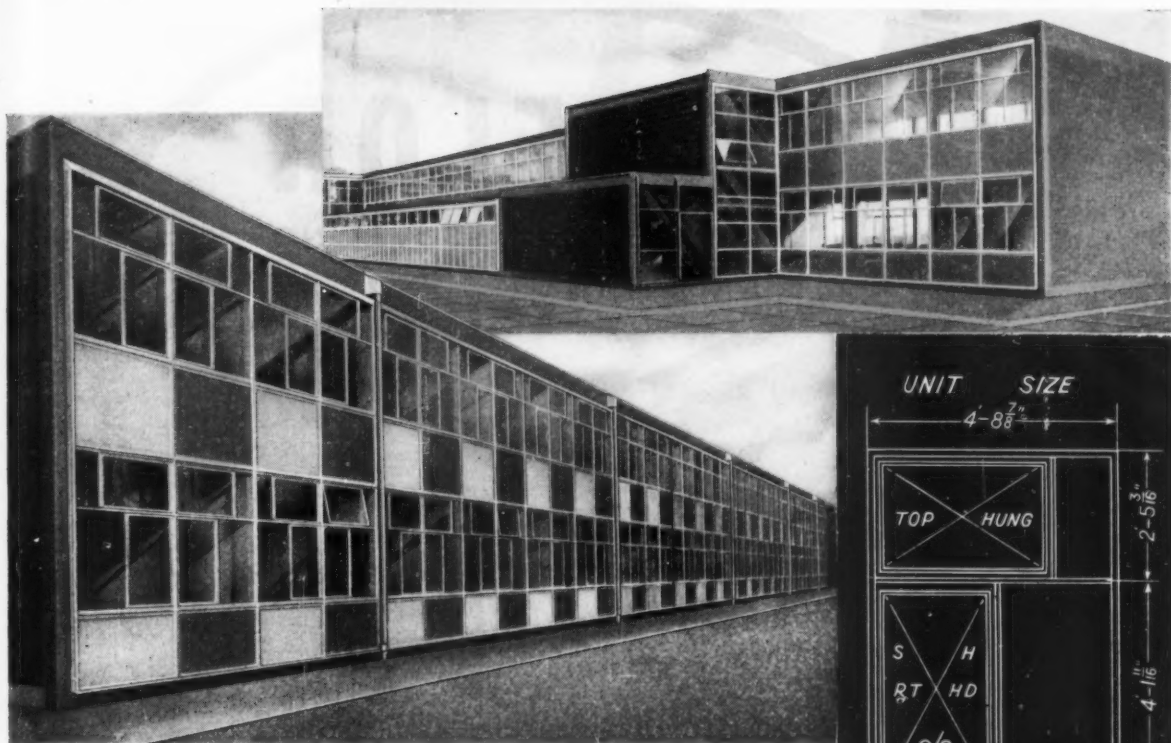


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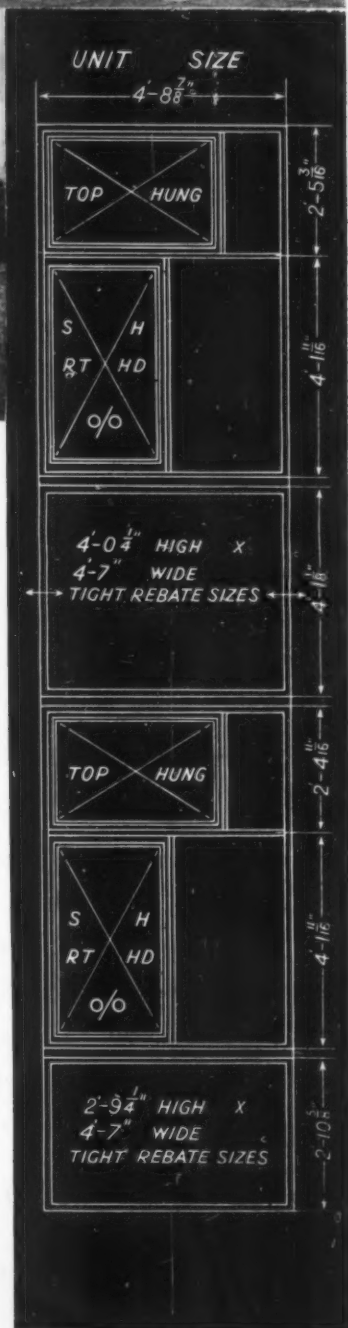
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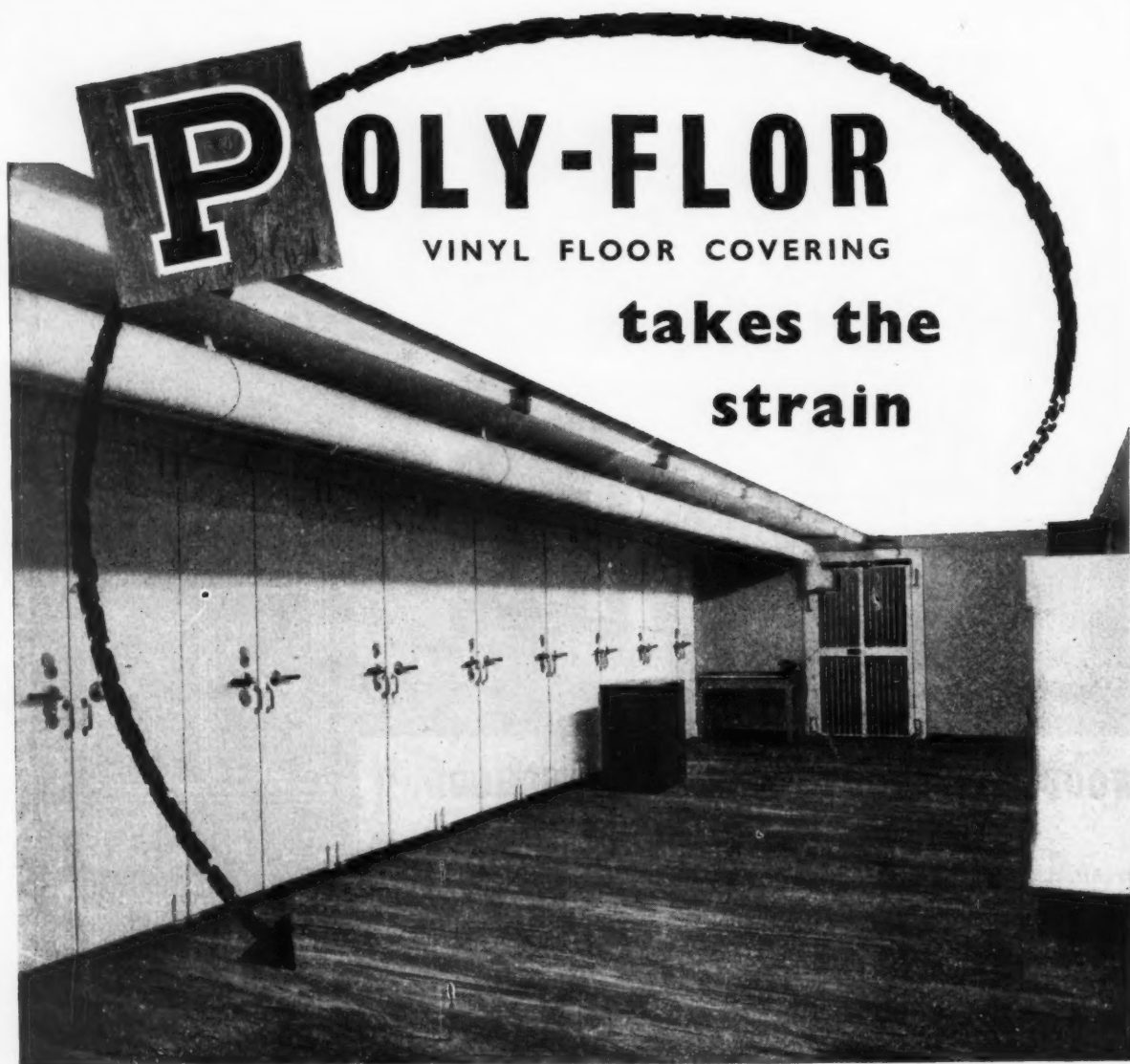


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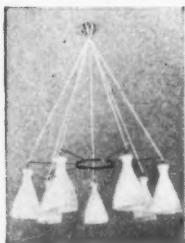
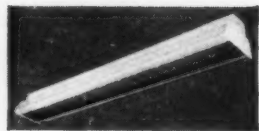
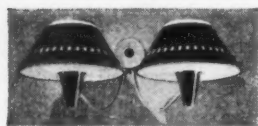
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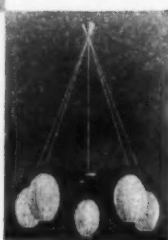
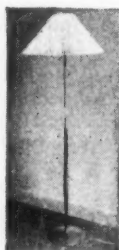
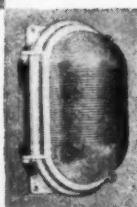
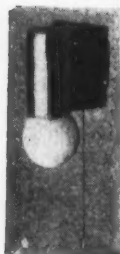
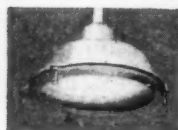
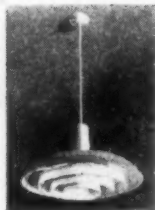
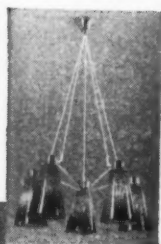
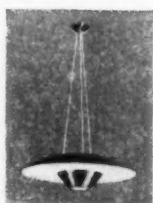
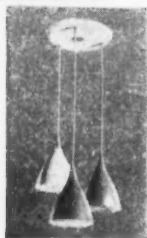
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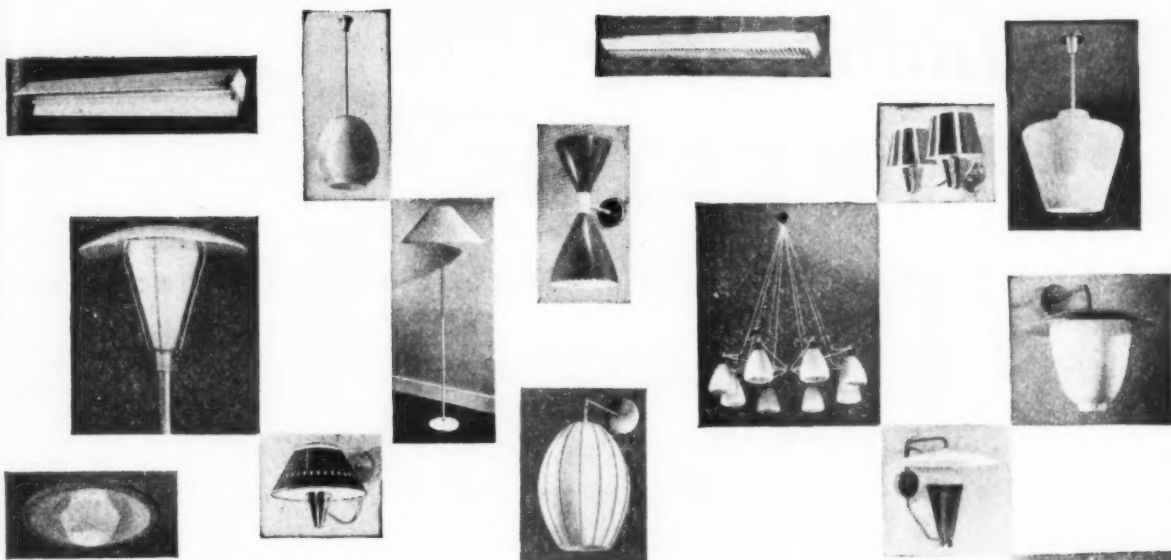
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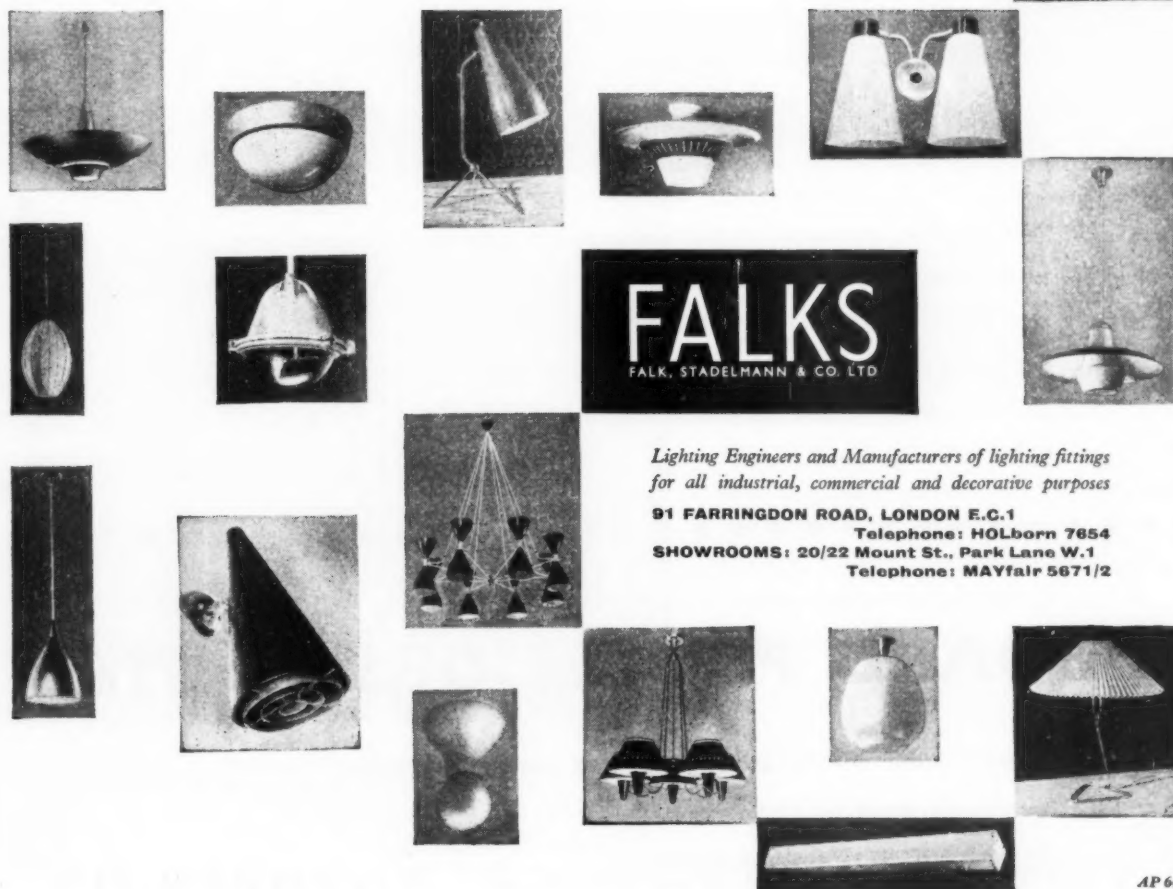
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AP 64

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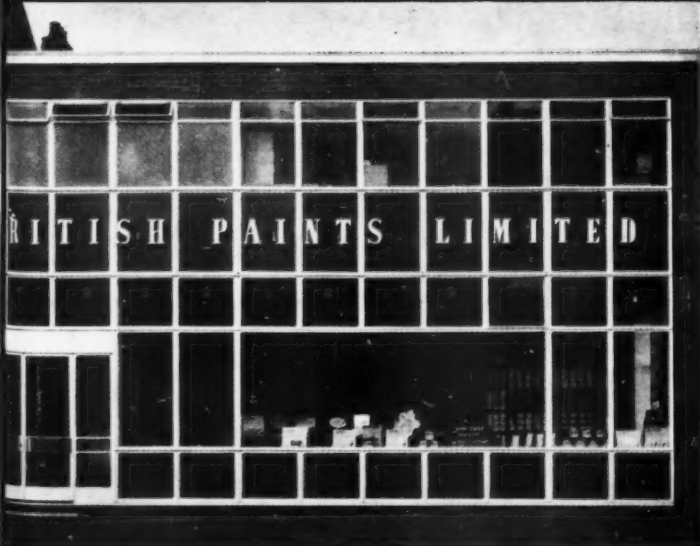
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Architect: A. C. H. Stilman, F.R.I.B.A.,
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Architects: Mauchlen, Weightman and Elphick, Newcastle-upon-Tyne.*

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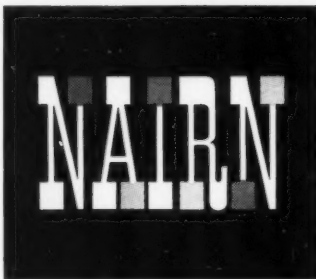
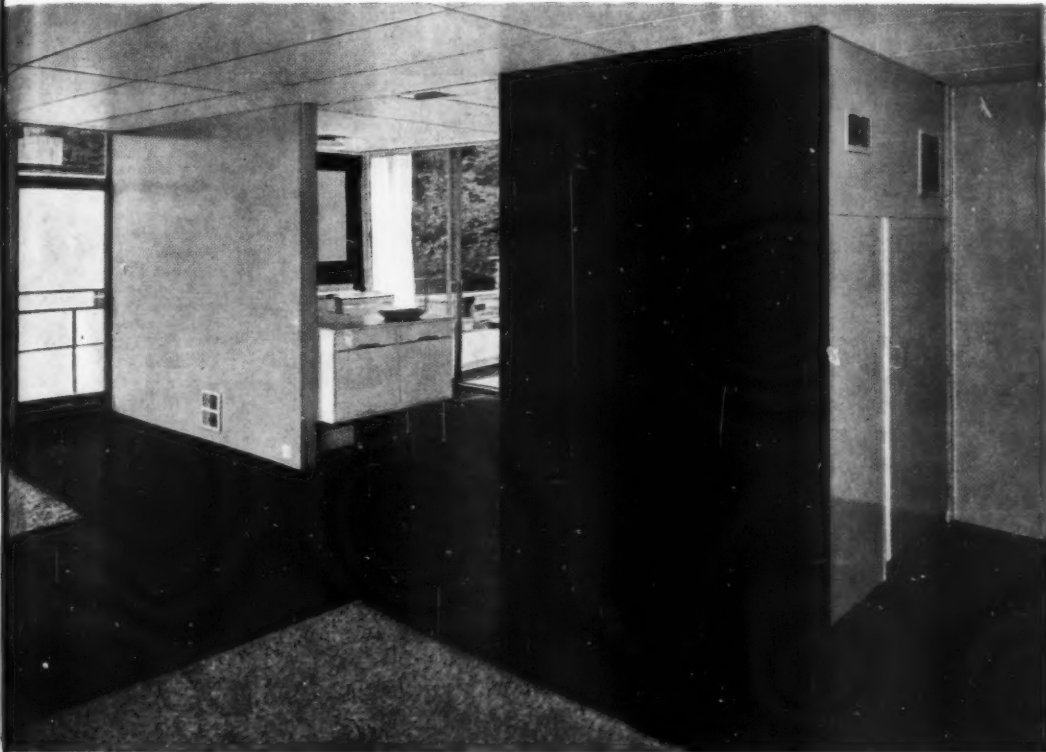
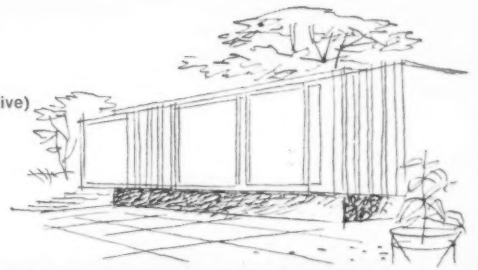
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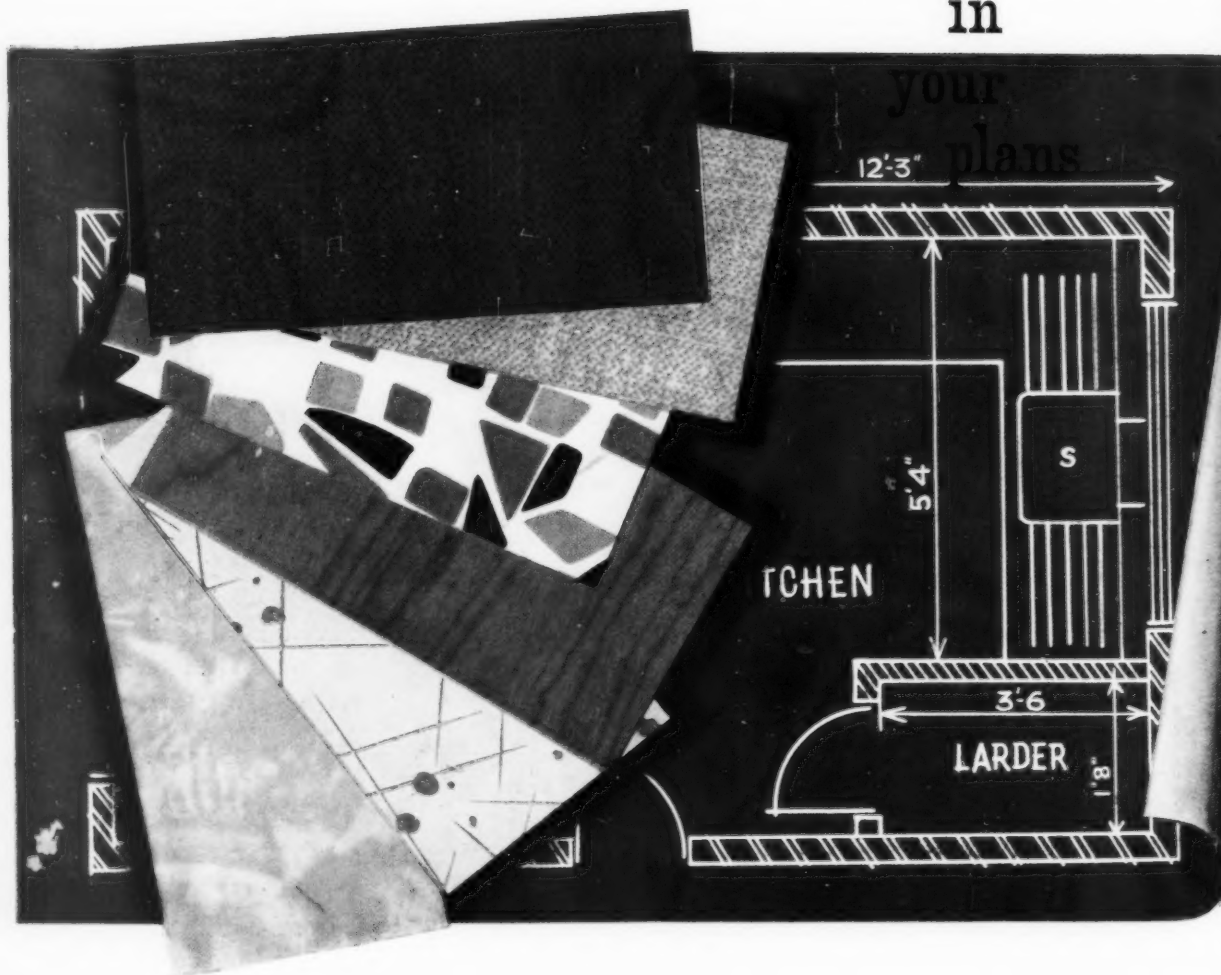
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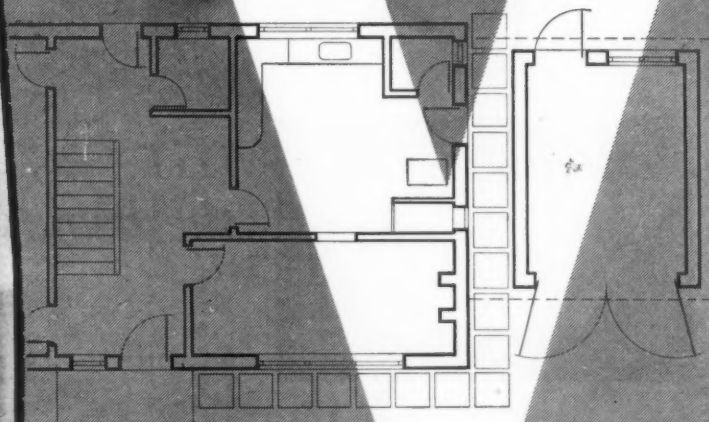
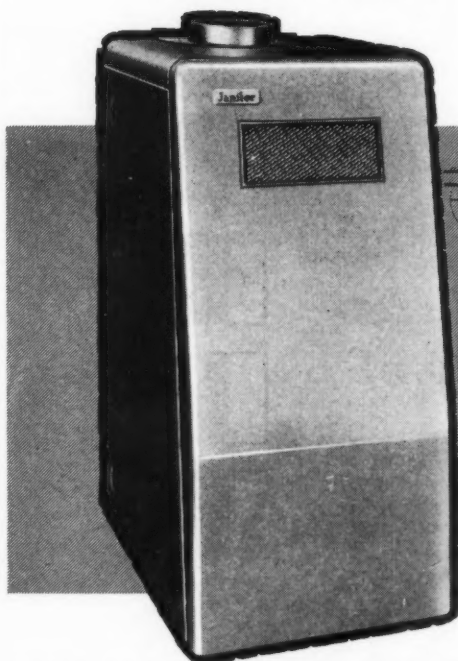
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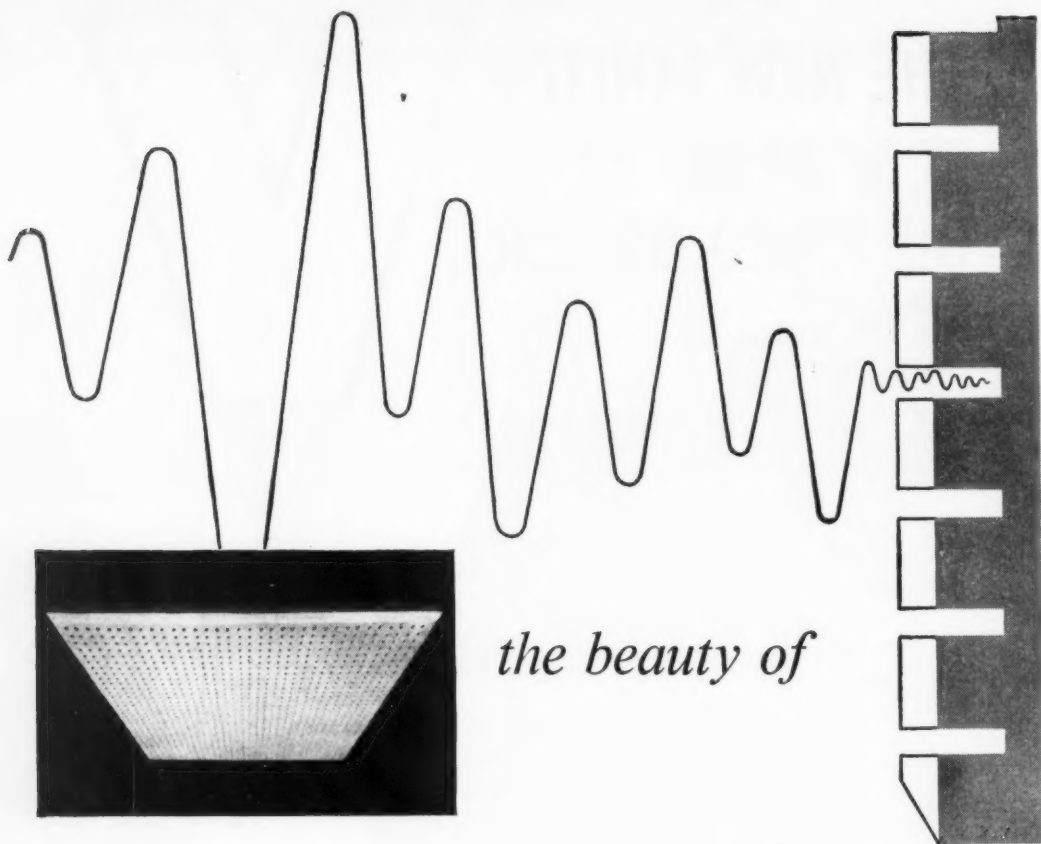
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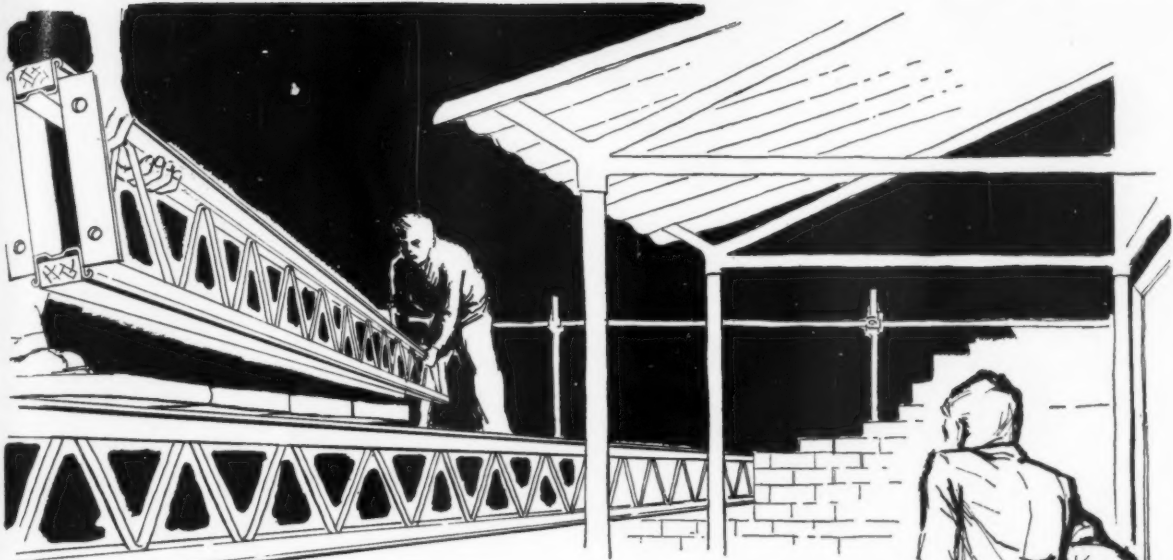
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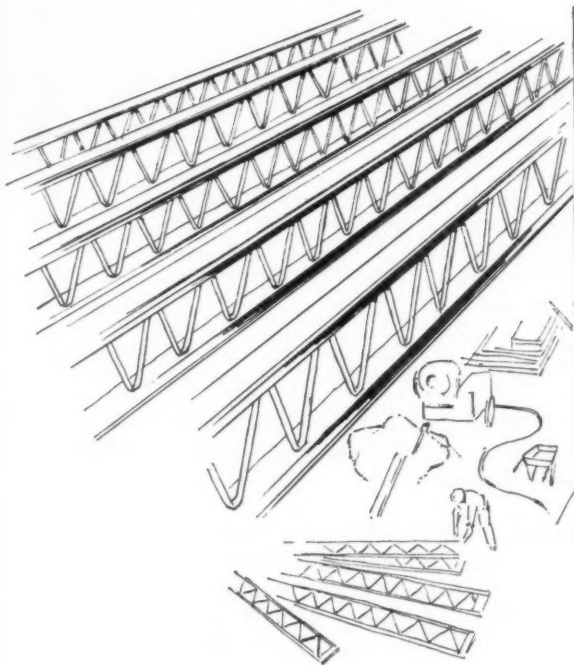
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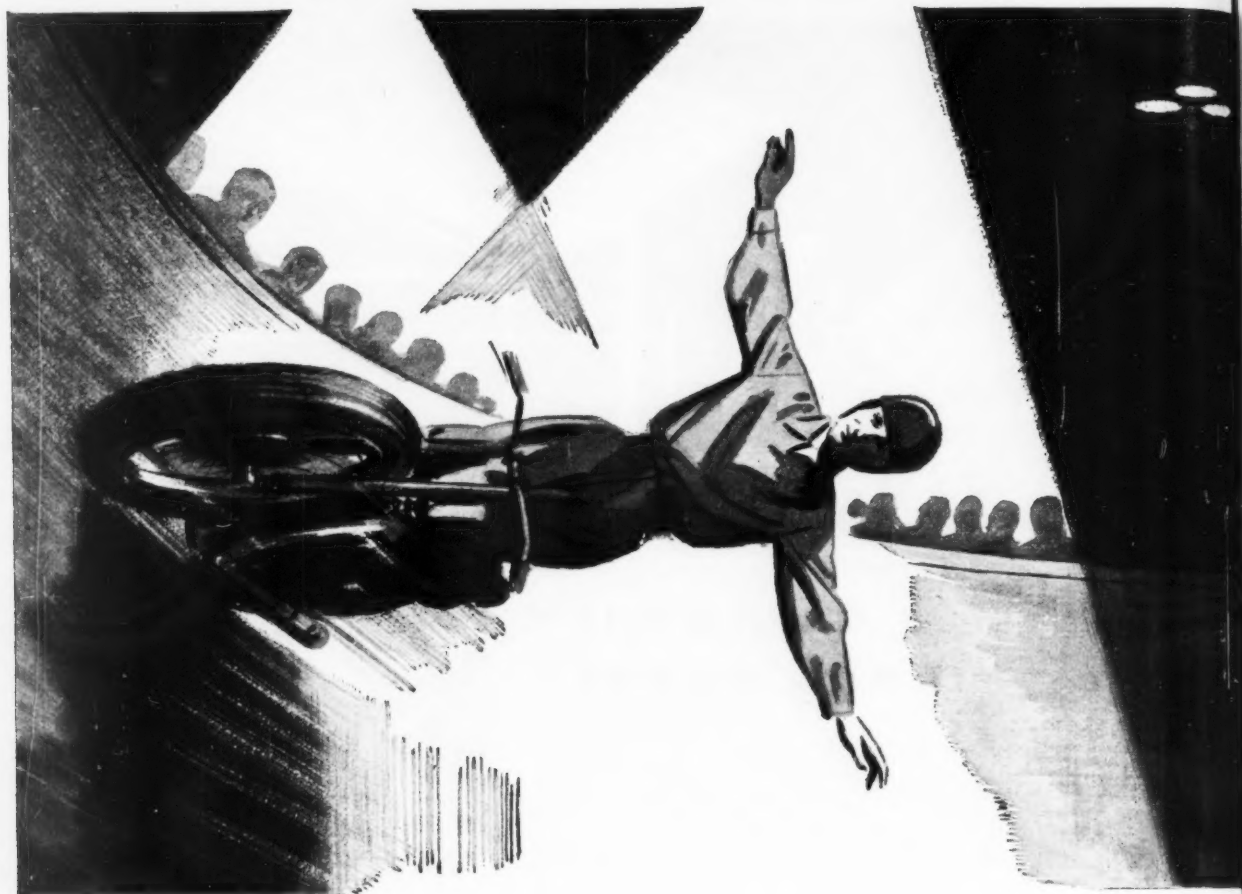
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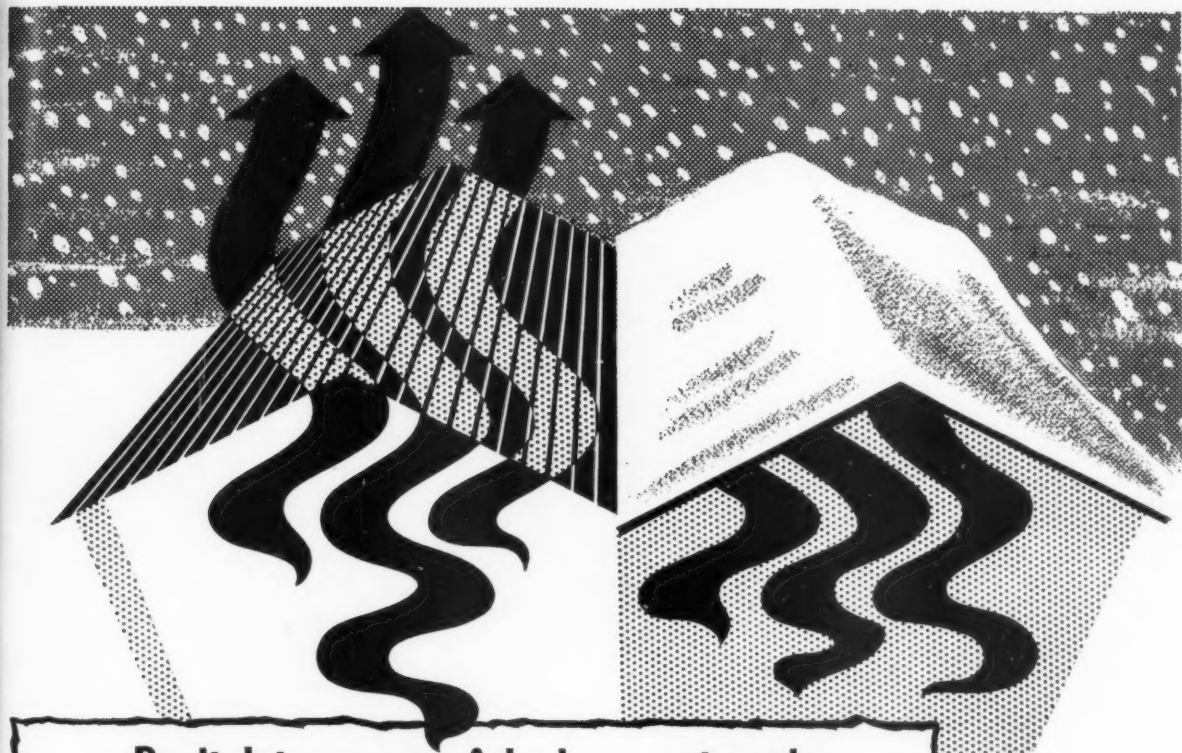
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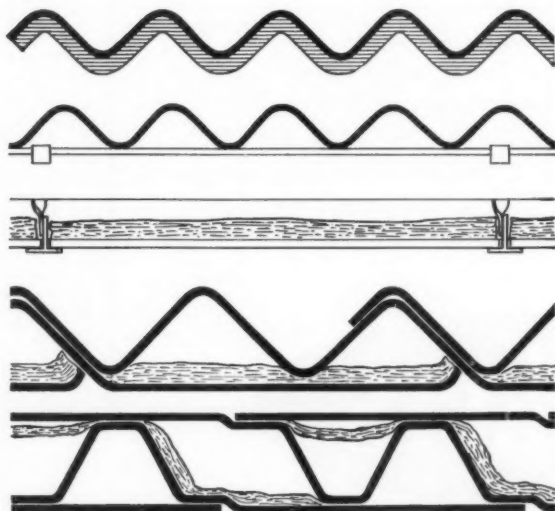
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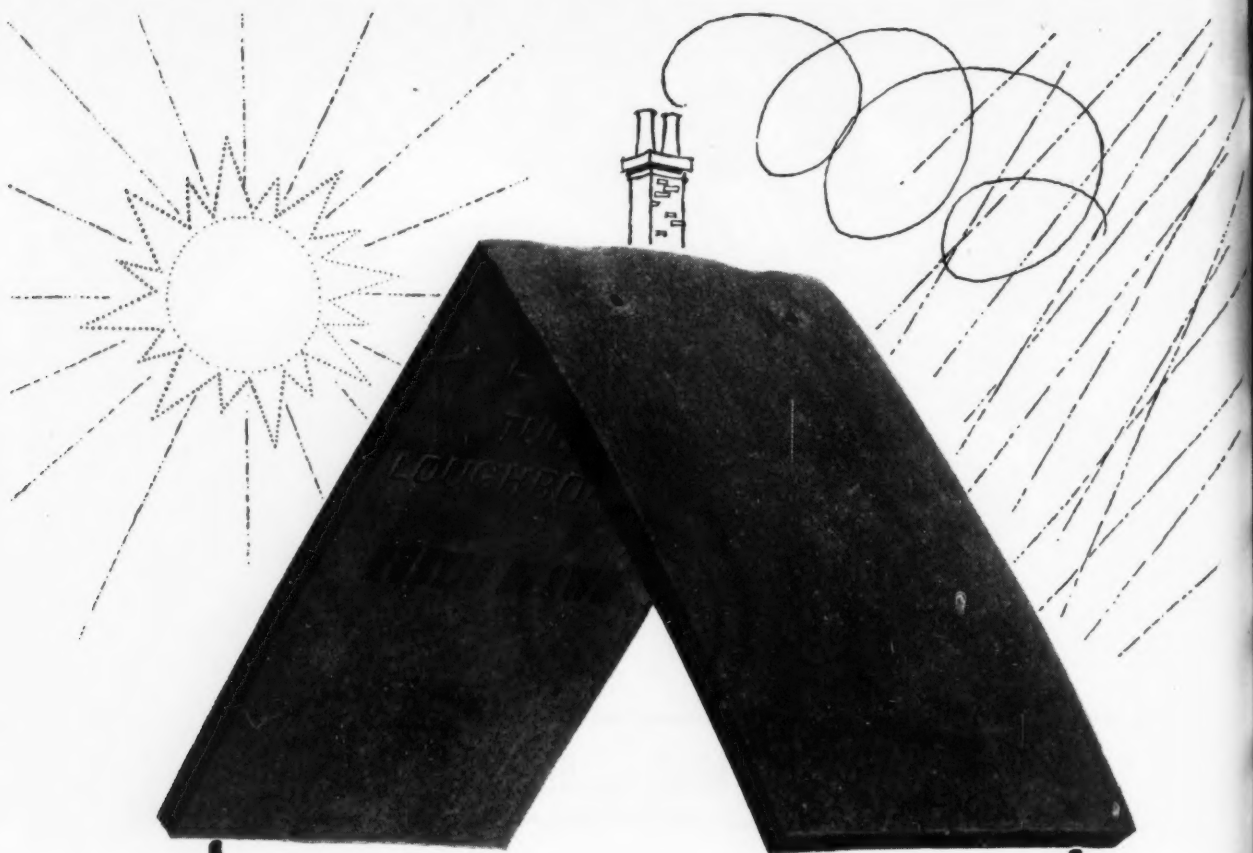
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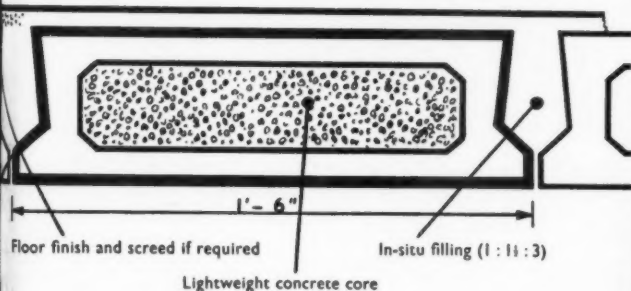
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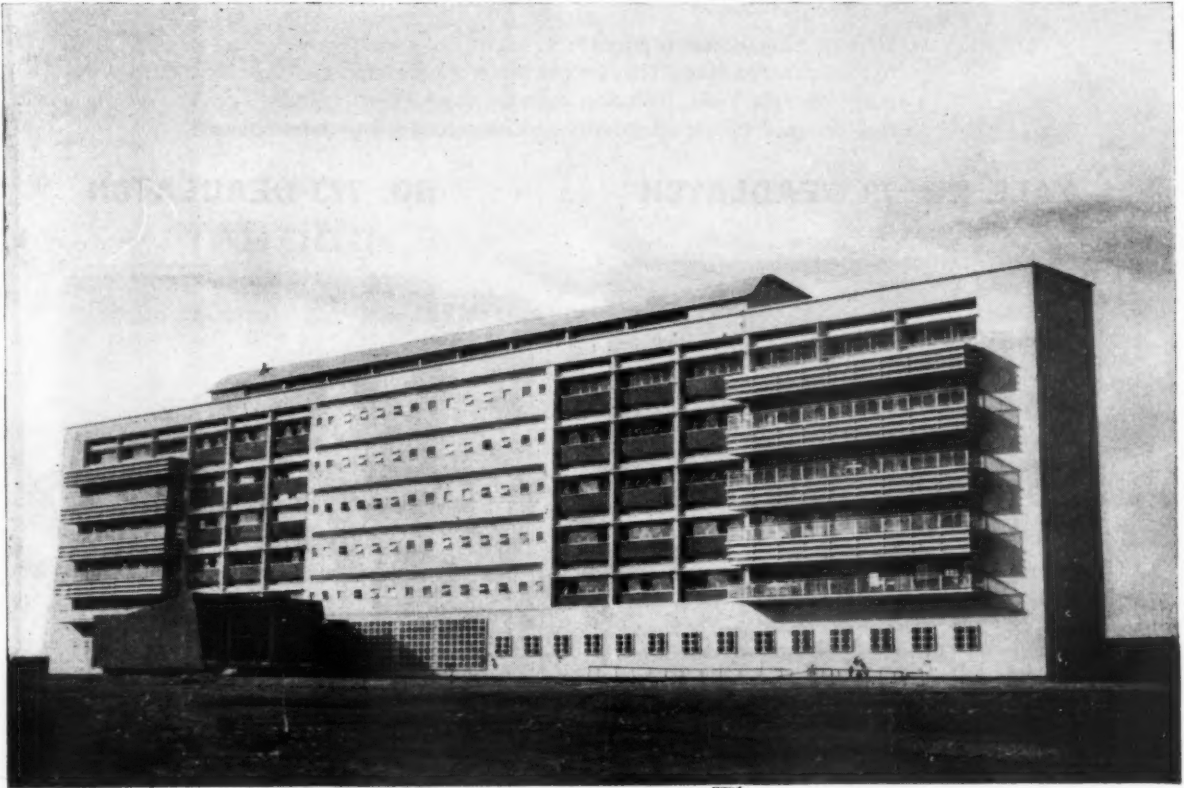
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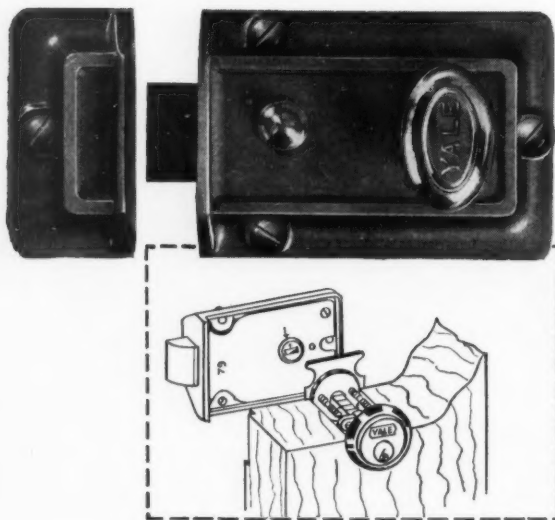
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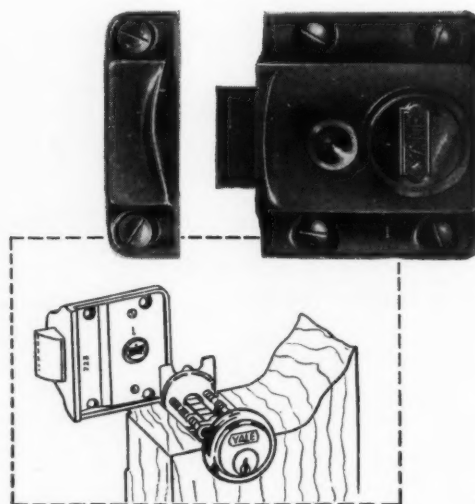
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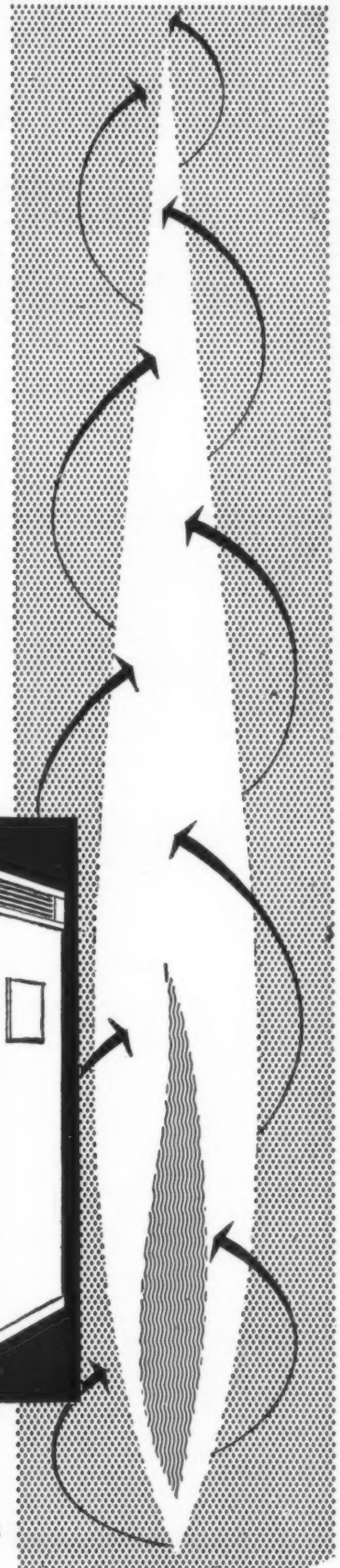
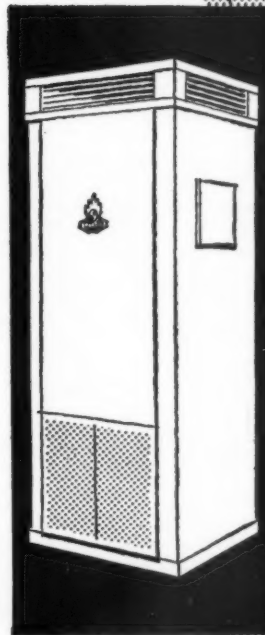
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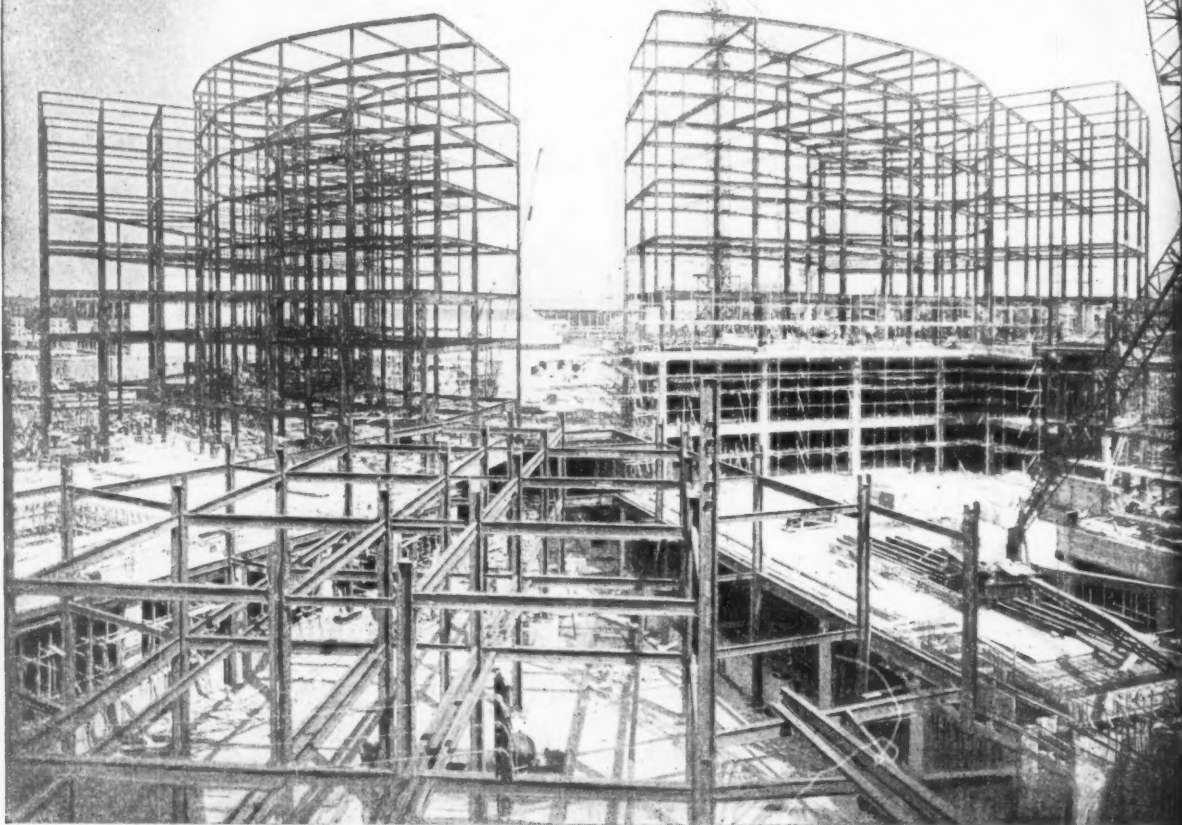
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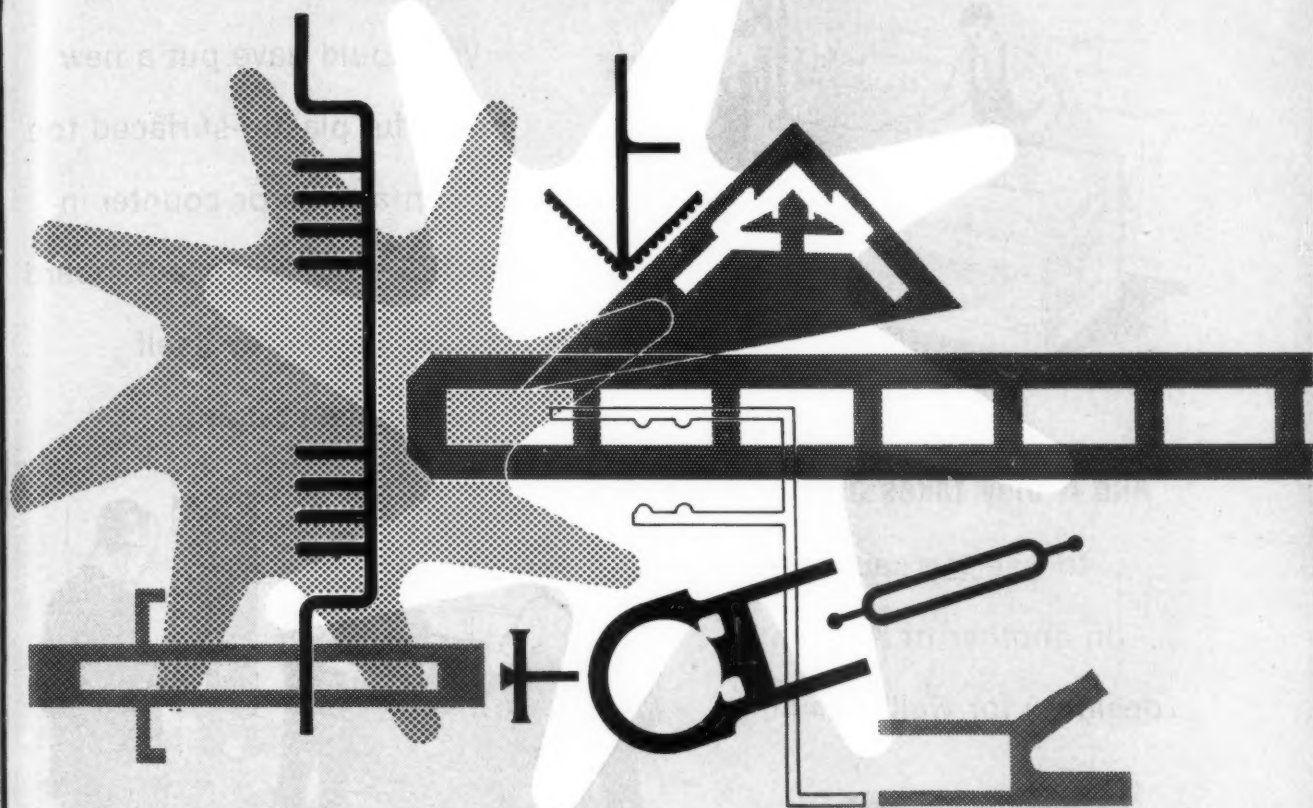
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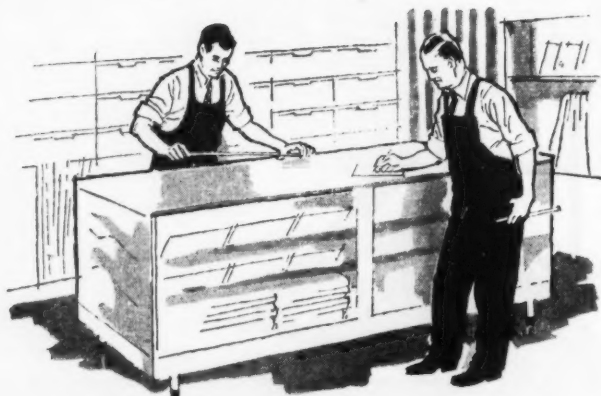
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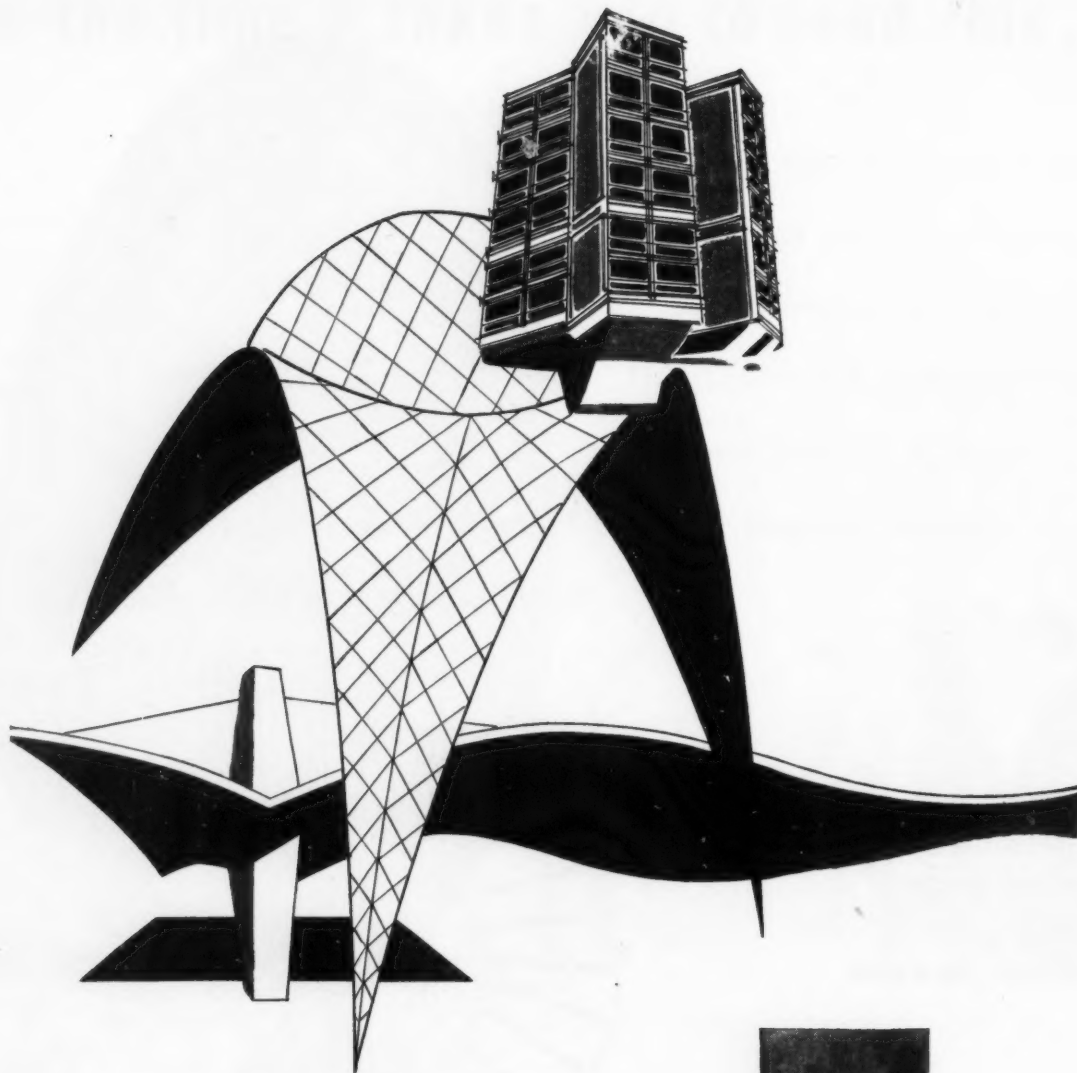
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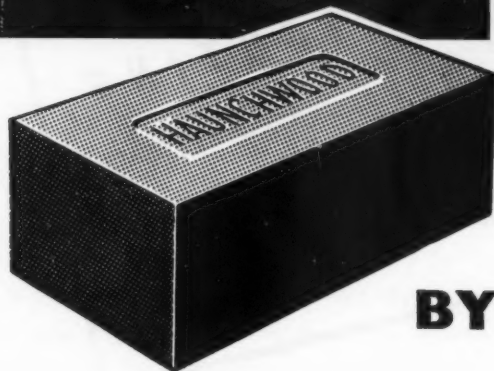
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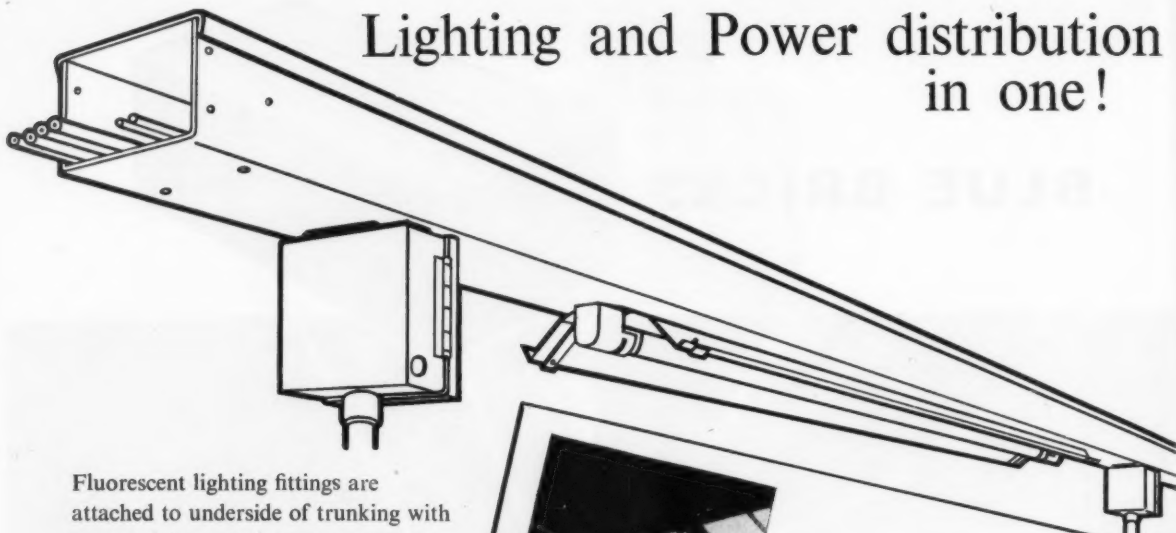
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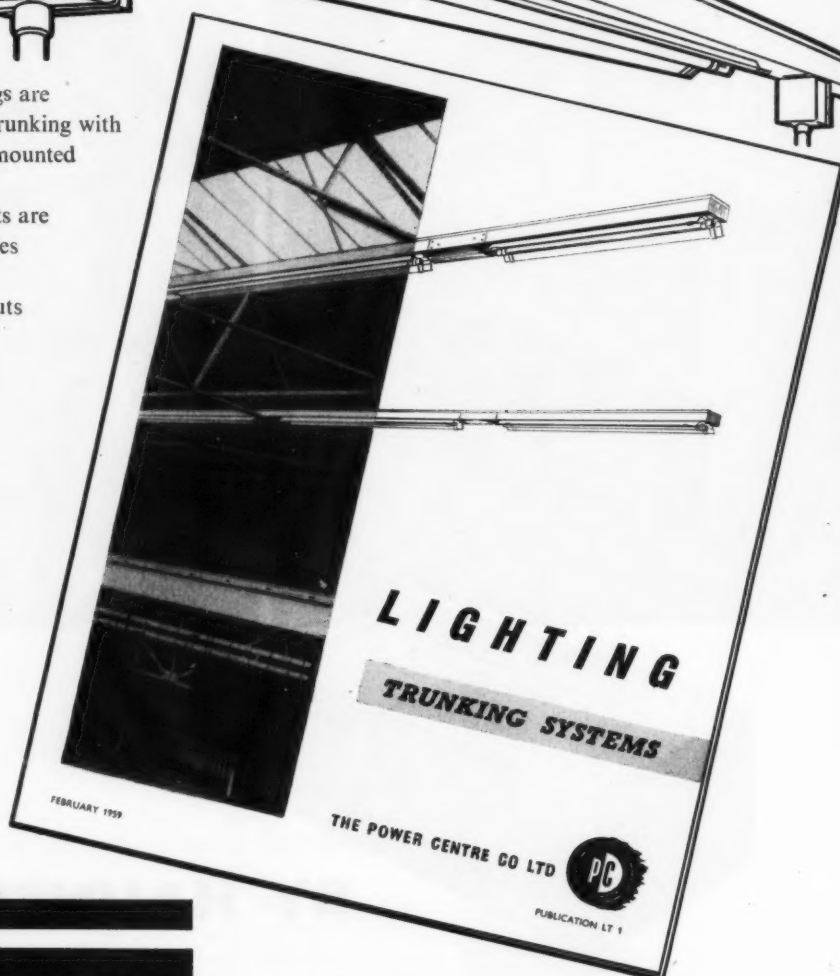


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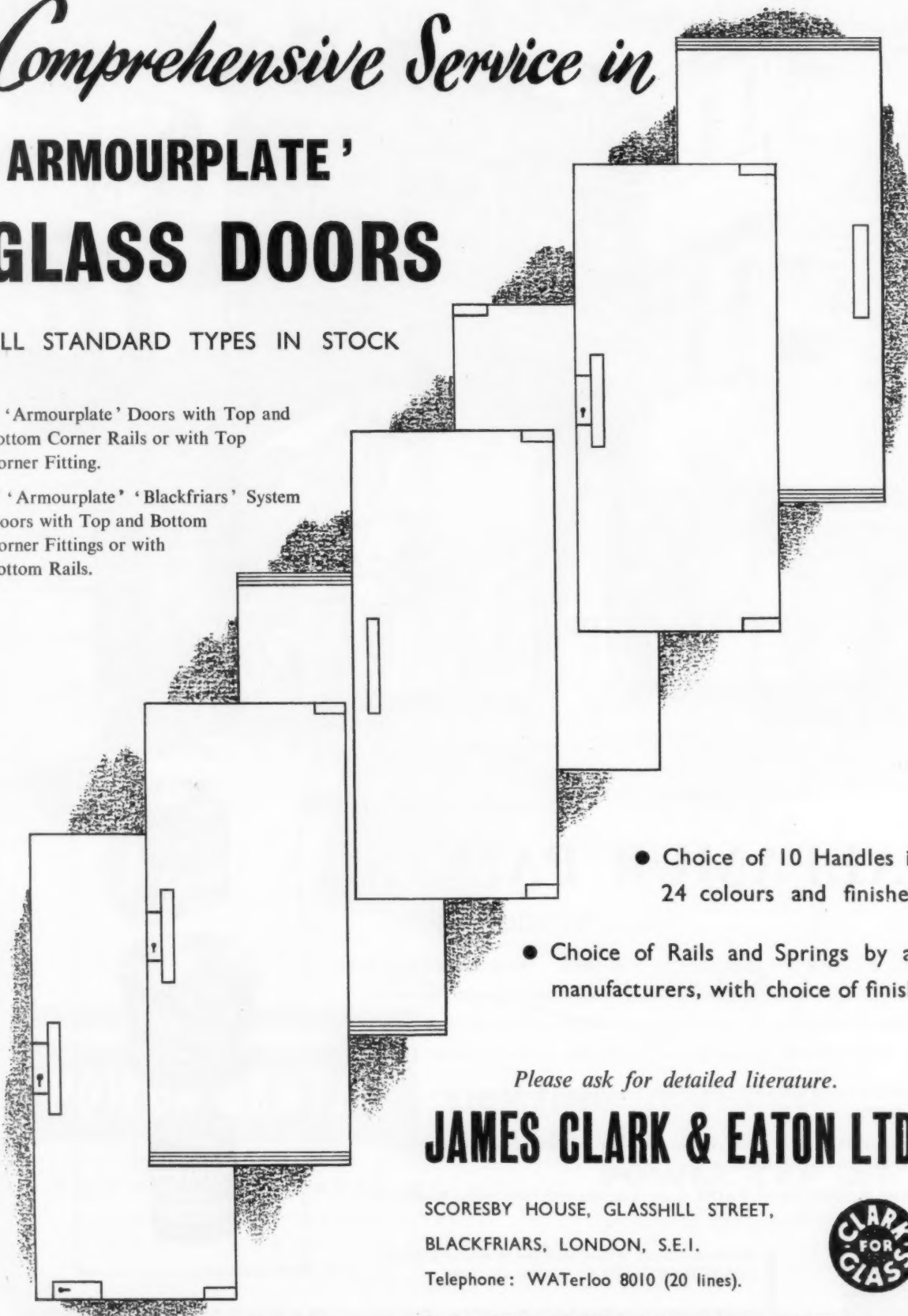
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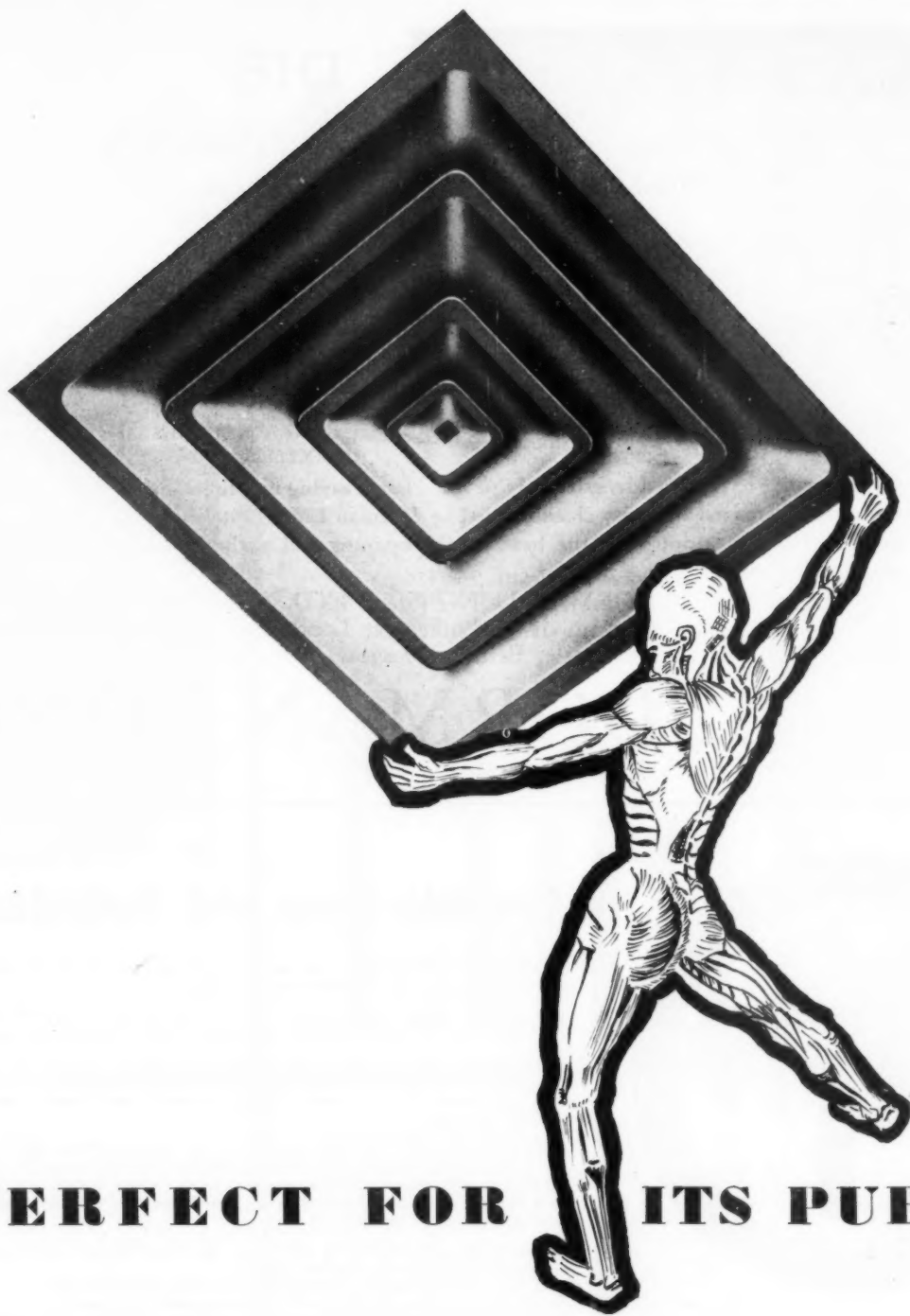
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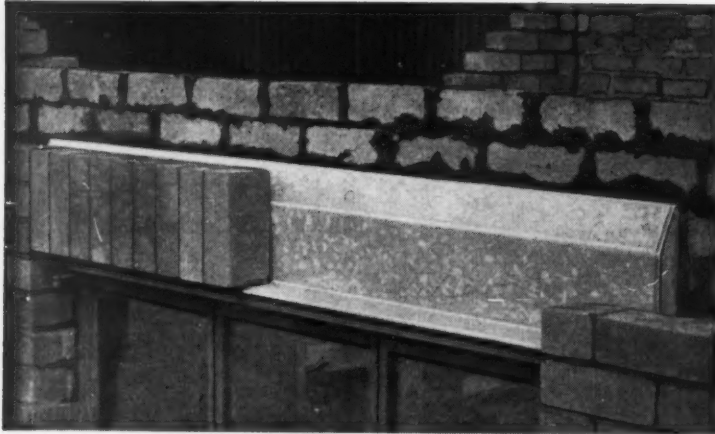
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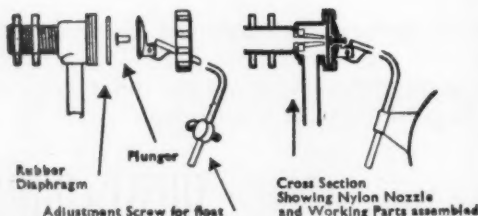
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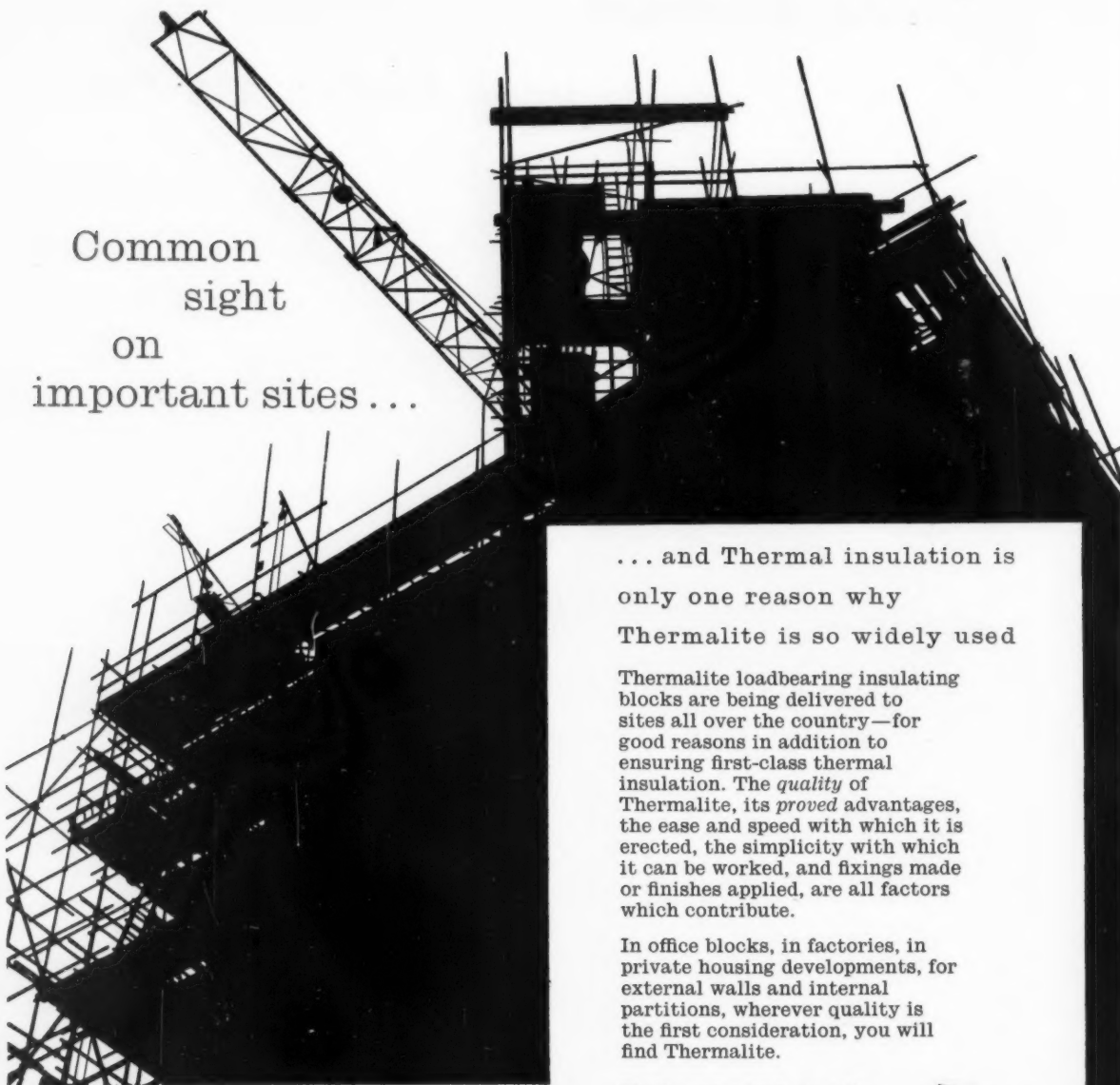


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The Architects' Journal

No. 3377 Vol. 131. January 7, 1960

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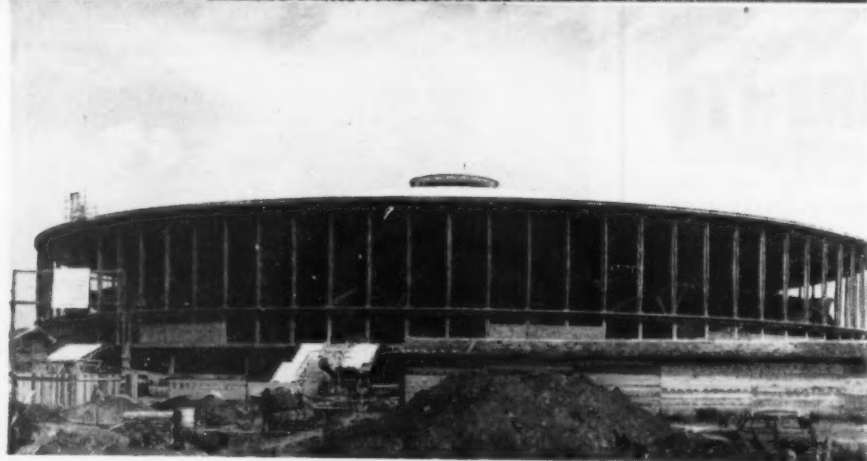
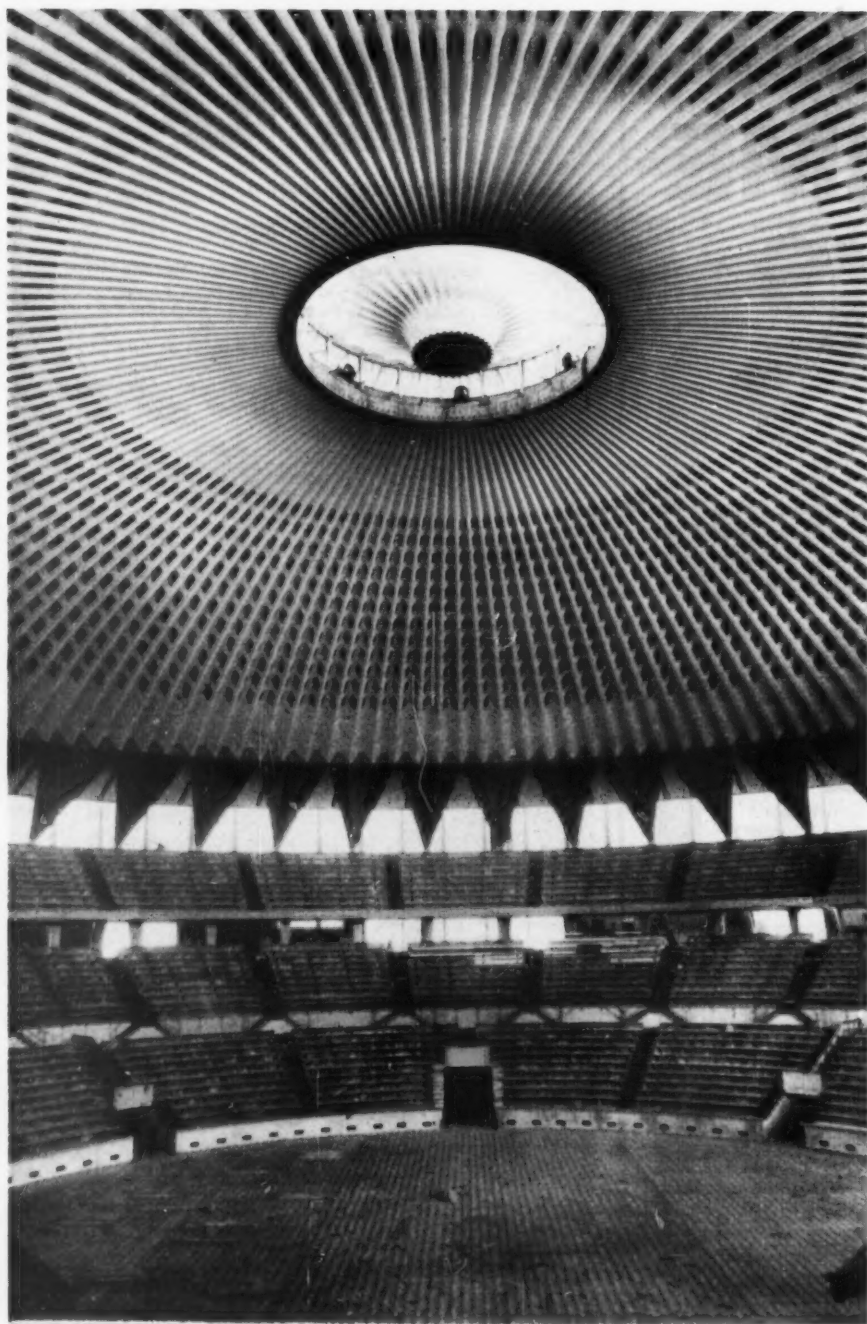
The proceedings were symbolic—they always are. On a wet English Boxing Day at a place with so strong an anti-snob tradition as Brands Hatch, motor-racing can never be what it was at Brooklands, and good ride-dance says I. The mere proposal to have a race at such a time and venue is a ceremonial act of re-interment of all that was worst in the older dispensation, with its mystique of sunshine, the Continong, the well-bred, well-heeled Hoo-rays gathered in a sufficiently tight bunch to keep out the hoi-polloi—barring the few like Freddy Dixon who were tolerated as licensed jesters.

*

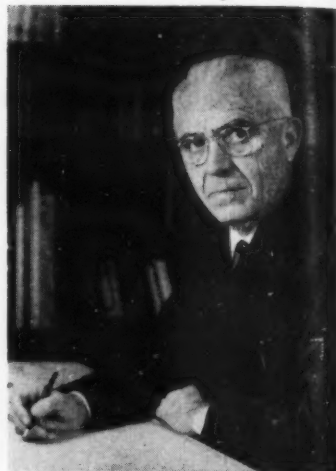
At Yuletide Brands, motor-racing is what it should be—a technological culture letting off its surplus head of emotional and inventive steam, with racing, rather than the social register, the main aim of the meeting—and the added spice that coming attractions for the real season may be quietly trailed there. Thus, two years ago, we saw Jack Brabham—one of the new type technician-drivers if ever there was one—break the lap record in the Alf Francis modified Cooper in which Moss later won the Argentine Grand Prix.

*

This year we saw the first real race on British soil of Formula Junior machinery—which turned out to be the best race of the day, one of those desperate affairs in which someone, in this case Peter Ashdown on the new FJ Lola, comes through from the back of nowhere about half-way through the race and mixes it with the leaders, finishing a rousing second within striking distance of the winner, Arundell on the works Elva. This race also gave us the best bit of track-manship of the day—de Selincourt, on another Elva, spinning on the sopping track, but killing the spin dead when the car was facing in the right direction again and moving off smartly without having endangered a soul.



Nervi: Gold Medallist, 1960



The Royal Gold Medal for Architecture for 1960 has been awarded to the Italian engineer, Professor Pier Luigi Nervi, above. Now that the RIBA has wisely abandoned the principle of sharing the award between British and foreign architects, the Gold Medal is fast attaining the status intended when it was instituted. Gropius, Aalto, and Mies have all received the award in the last four years, and the fact that this year the Medal goes to an engineer suggests that at least the cream of the architectural profession have, however belatedly, received the recognition due to them. Luigi Nervi, born in 1891, first achieved international fame with his sports stadium in Florence (1930-32), the result of a competition. But it was not until the 'forties that he developed extensively the precast unit construction seen in his aircraft hangars, the Tortona salt store and the more famous Turin exhibition halls for which he is so universally admired by architects. As engineer Alan Harris pointed out in an excellent and provocative review of the book *The Works of Pier Luigi Nervi** in the JOURNAL of December 19, 1957, Nervi's achievements could only have been accomplished by his owning a contracting firm. While no one would deny his brilliance at emphasizing structure, he sometimes does so to the detriment of structural clarity and even at the risk, apparently, of dazzling the onlooker, as the view, top, of the interior of the Palazzo della Sport, Rome, suggests. This building, Nervi's latest triumph, will seat 16,000 and is being built for this year's Olympic Games. Left, the incomplete exterior (photo. by G. E. Kidder Smith).

* Architectural Press, 56s.

But should conditions sions to t ing for a a fair am the FJ m less direct of cars illusion could be signs, se functionin

Internatio attempt t for the one suspo attempt— vest-pock finally p car that design to

The regu birth th clever a number car to b touring most no very wel would But the most of Boxing mula by models particul mensely

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But should that spin have happened? Track conditions were such as to lend new dimensions to the phrase "mobile accidents looking for a chance to happen," and there was a fair amount of spinning in most races. But the FJ machines, taken globally, appeared less directionally stable than any other class of cars. This may have been an optical illusion brought on by Christmas, but it could be true, because FJ, as I read the signs, seems to have a degree of malfunctioning built into the contract.

International Formula Junior is yet another attempt to devise cheap second-class racing for the lads (particularly the Italian lads, one suspects). Formula Three was an earlier attempt—and it finished up as expensive vest-pocket racing for the big boys, and finally produced, in the 500 c.c. Cooper a car that is still, probably, the most advanced design to appear since the war.

The regulations for FJ attempt to throttle at birth this tendency of small-time to get clever and go big-time, by requiring a number of important components in the car to be stock parts from small production touring cars, not too drastically modified—most notably the power plant. This is all very well, and if the lads were dim enough, would guarantee second-rate motor-cars. But the lads aren't that dim, and although most of the cars that came to the line on Boxing Day honoured the spirit of the Formula by being, in most respects, underscale models of real racing cars, some of them—particularly the Lola—were clearly immensely sophisticated designs.

Now, if you have to work stock parts into an advanced design, you are apt to get a bastard rather than a mongrel, if you see what I mean. Other components have to be underdesigned or overdesigned in a wasteful manner to compensate, and the total product is liable to be a committee of compromises rather than an integrated precision instrument such as a racing car must be for everybody's safety. There was too darned much twitching and sliding going on for my peace of mind.

Over and above this, there seems to be a serious moral objection to FJ. It is the proud boast and real social justification of all mechanized sports that—quite apart from fun and games—they improve the breed. "Yesterday's racing car is tomorrow's family saloon"—it's a corny pitch, but means something real. Disc Brakes for instance. But Yesterday's family buzz-box is going to be tomorrow's FJ car by the look of things, and all the Formula seems likely to teach anybody is how far you can go with stock components before something—like the flywheel of Graham Warner's Gemini on Boxing morning—gives up. And the big manufacturers have simpler and less dangerous ways of finding that out, thank you.

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

The Editors

A FIELD FOR INTER-PROFESSIONAL CO-OPERATION

A MOST valuable, though profoundly disturbing, report on the study of urban traffic problems has been made by the Research Committee of the Town Planning Institute. Overall plans, says the report, are rarely soundly based on traffic studies, and road schemes are demonstrably incapable of meeting future needs. Where traffic studies are carried out they often ignore or flout land use considerations, and plans ignore the multiplicity of local traffic movements. Traffic surveys often ignore pedestrian movements, and the most carefully designed schemes for free traffic flow fail abjectly if the complex pedestrian factor is not properly evaluated. New "pedestrian-generating uses" (we apologize for the use of this jargon) are commonly sited in town centres in such a way as to force pedestrians across heavy traffic flows, and children are forced to cross roads to reach new schools or libraries. Factories are allowed to grow on backland sites using residential roads to reach main traffic routes. New shops are still being built fronting main traffic routes, where most accidents to pedestrians occur, and buildings of many types are daily being erected in the certainty that it will be usual for vehicles to be stationary on the road outside them. Insufficient use is made of footpath access in residential layouts, and road patterns invite the abuse of residential roads by main road vehicles seeking short cuts, or avoiding main road congestion. Traffic is often diverted through residential areas along roads not designed for it.

The Committee emphasizes the importance of arranging land uses in such a way as to avoid unnecessary movement of passengers and goods. It believes that the planning profession's greatest contribution might be to set down the principles which should govern town design and town adaptation with specific reference to the achievement of free traffic flow and density. It would consider the zoning of land and the design and siting of buildings in relation to the pedestrian and vehicular movements they would engender. "It cannot be emphasized too strongly," says the Committee, "that the advent of the motor vehicle necessitates a radically new approach to the design of towns." Here, of course, town planning and architecture merge. Is this not a field in which, since the engineers seem reluctant to co-operate, the RIBA and the TPI could work together? A joint report on the principles to be observed would be invaluable at the present time.



HATS OFF

Congratulations to my one-time colleague, John Betjeman, whose C.B.E. is a well-merited award to a man who has opened so many eyes to the country's less easily-digestible architecture. Congratulations also to Sir Alfred Bosson on his baronetcy, to L. G. Vincent (C.B.E.) Stevenage's chief architect and E. G. S. Elliott, until recently chief technical planner of the MOHLG.

IMPORTANCE OF BEING EARNEST

A little while ago Ernest Marples, Minister of Transport, said he was thinking of appointing a group of architects and planners to work full-time on traffic problems. This isn't something that can be arranged in a week or two: it isn't easy to lure the right people away from their existing work. So what can we make of Mr. Marples's statement that he will announce the membership of his study group *very soon*? Has he dropped the idea of having a full-time team? Is he landing us with a part-time committee made up of distinguished and overworked people whose names will look nice on paper?

*

I hope my fears are wrong and that the right people are being offered the right kind of salaries—and that they will be working on behalf of other ministries, including Housing.

CIRCUS PERFORMER

Back to the Piccadilly story. On March 19 last year I said that the proposed Monico block looked too squat, its podium was shapeless, its low wing blocks accidental, its tall block very poor in arrangement and proportion and its silhouette graceless. Yet Ramsay Willis, Q.C., for Cotton, Ballard and Blow, has repeated the story that no comment was made in the architectural press when the building's picture was first published.

*

As Mr. Willis is very keen that other people should withdraw their imputations, may I ask him to withdraw his?

ENOUGH TO MAKE NASH HIS TEETH

Have you seen the plan for running four motorways into Regent's Park and puncturing the Nash terraces? Don't worry; it's only one of the runners-up in the Road Campaign Council's competition. You can see it, together with other entries—including the winners, of course, in the exhibition area at Charing Cross Underground Station. There's some amusing stuff. One competitor jacks roads up 60 ft.; another spatters the skyline with a series of conical towers (containing parking garages and interchanges) linked by elevated motor roads; and a third has failed to realize that you can make about as much mess by sinking a motorway in a park as you do by raising it.

GEORDIAN KNOT

So Newcastle is to have its own city planning officer, to employ four times as many people on its planning staff and to spend four times as much on planning. Splendid. This takes town planning away from the city engineer's department, whose inadequacies were shown at a recent public inquiry into the Pilgrim Street roundabout. But the proposed set-up (see page 7) is a little worrying. Why burden the planners with a separate admin. section? And why is it only under "Development Control" that there is a reference to the need for staff with architectural qualifications? I hope this doesn't mean that architects are to be used for elevational control and not for long-term planning and development. In spite of the Piccadilly fiasco, the most successful post-war planning in this country has been in London and in Coventry, where planning is an in-

tegral part of the architects' departments.

*

It's possible that Newcastle would have followed these good examples if the RIBA hadn't sat for so long on the Brett report on the architect's rôle in planning. Anyway, the important thing now is that the very best architectural planners should apply for the job.

THINK AGAIN

Inverness town council has invited developers to submit bids and plans for a key site, lying between Bridge Street and the castle hill. This is even worse than the usual "secret competition" between developers, which is troubling the RIBA so much because councils tend to choose the highest bid rather than the best design. For I learn that neither the planning committee, nor the planning officer, nor the town's planning consultant (J. Naismith, of Edinburgh) have been asked to give their ideas on the future of the site.

*

Even if the local councillors are indifferent to the beauty of their town, they should remember that beauty is what draws visitors to the Highlands. Inverness should think again.

NOT WORTH MISSING

The theme of the Royal Academy Winter Exhibition—*Italian Art and Britain*—is well-worn. It contains few masterpieces and one or two pictures I'm sure have appeared in other RA Winter Exhibitions in recent years. But don't write it off as back-ground stuff or production-line culture: there are plenty of good things for those who are prepared to ferret around, and especially for architects. There's a screen of Ruskin's Italian drawings, a Canaletto of Warwick Castle and another Canaletto showing the Pantheon in Rome when it had the two baroque side-towers by Bernini on the porch. Further along the same wall is a copy after Pannini's wide-angle painting of the interior of the Pantheon. Also Rysbrack's busts (presumably somewhat imaginative) of Palladio and Inigo Jones, and another extremely interesting Pannini showing a false front run up over the Palace of the Stuart Exiles in Rome for a fiesta of some sort. Another sort of falsification appears in a view of Colen Campbell's Mereworth House set in an imaginary Italian landscape,

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which doubtless has quite a lot to do with English landscape gardening.

*

My favourite among the architectural pictures is a Philip Hackaert from Attingham Park, showing the ruins of Pompeii. In this—as you can see from the detail reproduced on this page—the ruins are set out with quite unromantic precision and an obvious interest in the way the buildings were put together, much more in the style of one of those late-nineteenth-century tomes on archaeology than of 1799 when it was, in fact, painted.

JIBING JOSEPH

The Olivetti-sponsored magazine-de-luxe, *Zodiac*, has printed an extraordinary attack on the *Architectural Review* by the wandering Italophile, Joseph Rykwert. Poor Mr. Rykwert builds up his case by asking readers to look back to wartime numbers of the *Review*, and rounds off the argument with a hostile criticism of the South Bank exhibition which he attributes to the *Review*'s influence. Somewhere in between he brushes off serious articles on theory, criticism, etc., by picking on two of them, dismissing one as not good enough (Walter Manthorpe on *The Machinery of Sprawl*) and objecting that the other is about Buckminster Fuller, whose ideas "have no bearing on the day-to-day problems of an architect." Apparently Mr. Rykwert wants it both ways because he complains that the *Review* is superficial and doesn't concern itself "with deeper issues." It seems odd that *Zodiac*—professedly an international magazine, and backed by

a liberal progressive—can publish such stuff.

JUST A TRIM

A lot of curious invitations reach my desk, but none more curious than the one that reached it last week, when I was asked to allow "a principal skilled in the tonsorial arts to cut my hair." Being suitably shaggy I accepted and was very nicely done, thank you, in the new establishment designed by Courtney Pope for Messrs. Horne Brothers, the men's outfitter. The service and the fittings were good, but I was reminded that although designers and decorators are quick at picking up the tricks of architects they make mistakes over elementary things. Each customer in this barber's shop stares at close range into a dark mirror in the centre of a panel of strong yellow. Other colours used—need I say?—are grey, white and red.

SPECTRE AT THE FEAST

Sir John Burnet, Tait and Partners gave a very enjoyable party at the Ritz the other day. It was attended by a number of impressive clients and acquaintances of that firm, including an eminent and outraged gentleman who had obviously met Gordon Tait too late. He complained bitterly of the

service he received from his elderly architects on an important job of a type most of the younger generation of architects would give their back teeth for. The architect, working a short week with two or three assistants, had collected £15,000 in fees over two years and yet the builder was held up for lack of drawings before he'd even completed the foundations. What was the client to do? Sack the architect and lose more time starting with another architect from scratch? Appoint another architect to support the first and pay a second lot of fees, using the precious funds given by charities? How easily one man can damage the standing of a profession.

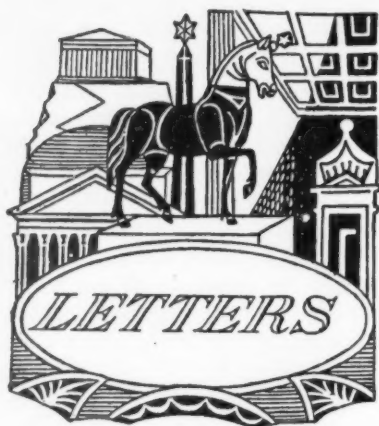
HIGH FASHION FURNITURE?

It's a crazy world we live in. The Furniture Development Council has produced a report showing what is likely to happen to the furniture industry in the next three years. It looks as though the industry won't be too prosperous, so the Council suggests that the public should be jerked out of its idea that furniture ought to last twenty or twenty-five years. "Manufacturers," says a Council handout, "should take steps to overcome this attitude and make new furniture match the attraction of a new car."

ASTRAGAL

A detail showing the ruins of Pompeii from a Philip Hackaert painting at the Royal Academy Winter Exhibition. See "Not Worth Missing."





W. K. Smigielski

Peter Brigham, Gerald E.
Latter and Bruce W. Mecartney,
A/A.R.I.B.A.

Geoffrey L. Price, A.R.I.B.A.

Howard Mason, A.R.I.B.A.

Eric de Maré

J. Mackay-Lewis

President, British Architectural Students' Association

Geo. S. Bamford, A.R.I.B.A.

London Roads Competition

SIR: Hats off to the ARCHITECTS' JOURNAL for the excellent feature about the London Roads Competition, well illustrated, lucidly written and more informative than the very brief and surprisingly superficial Assessor's report.

I humbly submit to the patronizing tone of the anonymous critic, assuming that he is older and more experienced in town planning, in particular as I was privileged to receive more patting on the shoulders than the other competitors! However, I cannot let him get away with some gross misinterpretations of my scheme.

He noticed that my "London Axis"—the existing historic route stretching from Buckingham Palace to the Tower of London with the historic buildings strung along it like precious jewels—which is not an "invention" but "discovery" forms the backbone of my road system and then he dismisses it as an "undeveloped" idea. If he dismisses this—the only thing of value—better to dismiss the whole scheme. I recommended the following treatment of this route (page 20 of the report): (a) it should be reserved only for local traffic and on state occasions used as a processional way, (b) wide pavements and wherever possible the whole width of the road used for pedestrian traffic, (c) special architectural control. What more can a town planner do?

He criticises the central sector of Inner London ("sector" not "superblock"!) contain-

ing this historic route and embraced by elevated motorways as too large, failing to notice that this area is served by three additional new roads (six lanes each) at ground level with two tunnels under St. James' Park. What would be the alternative solution? An elevated motorway piercing through Birdcage Walk to Parliament Square, which he so severely criticized in the first prize-winning design?

I fail to understand why the policy of concentration recommended by me should defeat my scheme. I believe in town planning as a successful economic enterprise and I am not the only one who thinks that decentralization of London is a myth economically unsound and nationally undesirable. I am criticized that public transport "does not figure" in my scheme. It does. What of fringe car parks combined with terminal railway, underground and bus stations in order to utilize public transport to its utmost capacity?

The critic, allergic to draughts, does not like my three level piazza in Soho, an attempt to create a larger urban space in the maze of narrow streets (law of contrasts), which would be in the scale of a metropolis. All right, let him fill this area with more buildings—after all, a town planning scheme is only a framework.

My entry, which violated the rules of the competition and overstepped its terms of reference, found itself among the prize-winning designs by mistake. My attempt to create out of London chaos a civic composition (how foolish, who cares?) was ignored. But the Assessors liked the presentation of my model (it pays more to be a model maker than a town planner) for which I am grateful to them.

The main conclusion to be drawn from this competition is that architect-planners, divided and not supporting each other, are losing ground, while civil engineers, with their noses buried in traffic densities and sewers, when given a free hand will destroy our cities.

Leeds

Our correspondent writes: I am surprised that Mr. Smigielski feels so strongly about my comments because I thought it was quite clear that I considered his scheme to be unquestionably the best solution to the problem set by the competition. But I had to be critical of those aspects of it which appeared to me to be mistaken or ill-conceived.

I have by no means dismissed his idea for a "London Axis"—on the contrary, I called it a particularly attractive idea. True, I said it had not been properly worked out and I think this is shown, *inter alia*, by his statement that the whole width of the road is to be used for pedestrian traffic "where possible." Mr. Smigielski takes my mild reservations far too seriously since it is obviously quite impossible to work his idea out fully without a good deal more data and time.

I had noticed his roads diving under St. James's Park, and indeed I pointed out that one of them involved the site of New Zealand House now in course of erection, and contributes to a solution of the Piccadilly

Circus problem. But they are multi-purpose roads and my criticism related to the extent of the area bounded by motor roads.

I consider Mr. Smigielski's policy of concentration a serious error of judgment. Excessive concentration and high land values already present insuperable financial and other obstacles to the kind of redevelopment he wants; even greater concentration will only aggravate the difficulties.

Mr. Smigielski is right to say that public transport *does* figure in his scheme of things and I was wrong in saying it doesn't. But it does not figure very prominently, and it is not at all clear what happens, for example, to buses within the central area. Do they use his "London Axis."?

Soho is a matter of opinion, and we need not quarrel about it. In any case, Mr. Smigielski is right in saying that his scheme is only a framework and if he can—as indeed he suggests—fill the area with more and preferably small and intimate buildings, he is likely to improve his scheme.

With Mr. Smigielski's last paragraph I entirely agree. I fully support his three-dimensional comprehensive approach to the problem.

SIR: We greatly appreciate your coverage of the London Roads Competition. Your contributor states that "no new ideas have emerged for the architectural solution of the conflict between fast elevated and curving motorways on the one hand and existing buildings on the other, short of complete redevelopment."

On this point we feel you may be interested in a fuller explanation of our proposals. Within the central area our treatment of the curves and ramps of overhead motorways, is literally architectural—we have put them inside buildings—canned the spaghetti. One of these "motorway stations," at Tavistock Place, has been selected as an example and detailed on our drawings.

In the report we say: "a motorway station would combine three functions: (a) point of intersection between two motorways, (b) access point to motorways from street system, (c) off street car park. In form the 'station' would be a compact multi-storey building redeveloping a large site. The lower levels would accommodate the motorways, their interchange or access ramps and provide parking space in the interstices. The upper levels would be parking decks."

It is possible for us to fit these different functions into a building of manageable size because the two intersecting motorways are one-way, and because the design speed is relatively low. The only land required is that which is needed for the intersection. Its use for parking would provide revenue. Access for parking is direct from the motorways.

May we also offer this thought: the site on which two routes intersect (and on which a revenue earning motorway station would be built) can only be deflected a certain distance from the "ideal" determined by traffic loading. If a new commercial building occupies the land it simply points the

moral—10 years ago the site was vacant and could have been reserved.

PETER BRIGHAM, GERALD E. LATTER,
BRUCE W. MECARTNEY

London

Advert-Architecture

SIR: Who is responsible for the apparently very real threat of really large scale illuminated advertising signs on many of our larger new buildings? From what one reads of the Piccadilly Inquiry it seems it could be the new chief LCC architect, Mr. H. Bennett. It is a frightening thought—the proliferation of flashing signs plastered over our new buildings. Are we as architects prepared to stomach this form of decoration (or desecration) of our buildings?

As an architect in the same age-group as Mr. Bennett I cannot view his ideas with anything but horror. It would be interesting to hear what other architects feel about this new "advert-architecture."

GEOFFREY L. PRICE

Newcastle upon Tyne.

SIR: It would appear from his comments that ASTRAGAL is unaware of the civic design aspect of the problem of the Monico site. He suggests that I was "providing subsidiary interest in my sketch to distract the eye" from Frank Booth's design for the building. "The main purpose" of my drawing was not to show the building by itself, but how Piccadilly Circus would appear if that proposal were carried out.

If anything, my drawing failed to adequately portray the visual distraction of pedestrians and moving traffic, of street signs, lamp posts and other civic clutter, which is so much part of the Circus.

HOWARD MASON

London

Water Solution

SIR: ASTRAGAL quotes Robin Best as stating that no less than three and a quarter million acres of farmland are used for such things as reservoirs. I am sure that the only intelligent solution to the growing problem of water supplies and distribution lies in Pownall's Grand Contour Canal Project. This would run as a ship canal as well as a water distributor from all the main ports to the industrial centres at the natural canal line of 310 feet without any locks. It could be carried out piecemeal; it would catch the winter rains which are now largely wasted; it would link up well with existing waterways; it would ease traffic on road and rail; it would make a pleasing landscape feature and, unlike most man-made things since the start of the Industrial Revolution, it would work with nature instead of against her; it would make an attractive tourist route as well as a commercial one.

Because it has nobility, because it has beauty, because it is a big scheme and would cost a lot of money, it is usually dismissed without adequate study as being cranky. But, my God, if this country needs anything just now, it is a few more inspired cranks like J. F. Pownall.

ERIC DE MARE

London.

BASA Associate Membership

SIR: The main object of BASA is to represent and co-relate the opinions and activities of all architectural students in the British Isles, and to promote a closer liaison between architectural students and members of the profession, and in time to encourage architects to become associate members of BASA.

Since April, 1957, when the idea of BASA was first conceived, the Society has gone from strength to strength, and the Executive feels that, as BASA is on a firm foundation, the moment has come to invite members of the profession to become associate members. Will all those who are interested in becoming associate members of BASA please write to the Secretary, c/o The Building Centre, Store Street, W.C.1.

May I take this opportunity, as I will be abroad in Jamaica until April 27 and, therefore, be unable to be present at the Bristol Conference, to thank all those who have helped me in the last two and a half years by working so conscientiously to make BASA possible.

J. MACKAY-LEWIS

President,

British Architectural Students' Association

London

Nominated Sub-contractors

SIR: I am employed by a firm of building and civil engineering contractors who, like many other progressive firms, are adopting new methods of management and contract planning procedures to increase their efficiency. This usually involves the setting up of a planning department under a suitably qualified engineer to prepare the "master" programme, progress works at tender and construction stages, site checks, etc. Method statements giving details of all plant and equipment required on the job are prepared by a Method Statements Engineer who must be very experienced and have a wide knowledge of building techniques. On occasion there may be a dozen senior members of the firm with the managing director in the chair at pre-tender or main planning meetings.

This expert and top level direction must be paid for and I should like to make this point: At the present time there appears to be a tendency to increase the nominated sub-contractors in bills of quantities to such an extent that the actual work carried out by the general contractor is quite a small percentage of the total contract. This may be the result of architects not being given sufficient time to prepare their drawings and specifications and seeking the help of "specialists" to make their "deadline." The methods referred to do ensure more economical and speedier building operations and builders should be encouraged to adopt them and architects as leaders of the team can help by giving them a larger "slice of the cake."

GEO. S. BAMFORD

Manchester



NEWCASTLE

City Planning Officer

The City of Newcastle upon Tyne has decided to set up a separate Town Planning Department under a separate City Planning Officer who will have the status of a chief officer of the Corporation. Professor J. S. Allen, F.R.I.B.A., the President of the Town Planning Institute, collaborated with the Town Clerk in preparing a report upon which the Council's decision is based.

Town planning in Newcastle upon Tyne is at present the responsibility of the City Engineer. The new department is expected to have a staff including 20 qualified officers; the cost of running the department is expected to be about £52,500 a year, compared to £9,245 now being spent on the town planning section of the City Engineer's office. The City Planning Officer's salary will be £2,930 to £3,265 a year.

His department would be divided into four sub-divisions: 1. *Planning Policy*: its major function would be to deal with long range problems such as employment and population trends, density of development, etc., and to review policy in the light of changing circumstances. This section would require staff of a first rate calibre. 2. *Development Plan*: implementation of policy. This section should include qualified town planners, some possibly with specialist qualifications. The staff should certainly include members highly qualified in site planning and traffic planning. It is recommended that the Traffic Officer be placed under the control of the City Planning Officer. 3. *Development Control*: this section should include qualified town planners and staff with additional architectural and engineering qualifications. 4. *Administration*: this section would include non-technical and clerical staff.

SHEFFIELD

Professor of Building Science

John K. Page, B.A., has been appointed Professor of Building Science in the Department of Architecture at Sheffield University. Mr. Page has been lecturer in Building Science at Liverpool University since 1957, with special responsibility for the Environmental Physics course.

The Piccadilly Circus Inquiry adjourned on December 23 until January 6, when the Civic Trust was to begin the presentation of the case against the design proposed for the Monico site. In this issue we publish further excerpts from the evidence by Hubert Bennett, Architect to the LCC (in which he gave his views on the problems of architectural design in the context of town planning within central areas) and a summary of the speech by Ramsay Willis, Q.C., on behalf of the architects, Cotton, Ballard and Blow. Next week we begin to report the case for the Civic Trust.

PICCADILLY CIRCUS INQUIRY

Is the Day of Creative Design by a Single Mind Over?

Mr. Elwyn Jones, q.c., for the Civil Trust, questioned Mr. Bennett about the role of Cyril H. Walker, the former LCC Valuer and Housing Architect.

Elwyn Jones: I wonder whether you could enlighten me about one consultant Mr. Cyril H. Walker; it is a letter of the 23rd February 1959, addressed to you marked "personal," signed "Yours faithfully, Cotton, Ballard and Blow (signed) Cyril H. Walker (Consultant)." Was he a consultant, in what respect? A. He is a consultant to the firm of Messrs. Cotton, Ballard and Blow.

Q. Presumably as architect, would you say? A. I do not know; he is Consultant on the headed paper with his qualifications* attached to his name.

Q. Does he also appear on the headed paper as director of Island (Piccadilly) Developments Ltd? A. Not to my knowledge.

Q. But you know he had a company interest *qua* director in this matter?

A. Yes.

Q. It makes it difficult for him to be an objective professional consultant architect, does it not? A. That is not a matter for me to decide.

Q. No, perhaps you would like as an architect yourself to express a view about it? A. I have no views on that matter.

Q. Is it customary in your profession of architects to be involved *qua* director in a building? A. I do not think these are matters which affect the Council.

Q. When a man is consulted by a firm of architects as consultant and at the same time he is a director of the company which is going to exploit the building, it is not necessarily a harmonious relationship, either professionally or in any other way, perhaps, is it? A. It may be quite harmonious.

Q. It is rather contrary to the traditions of the architectural profession is it not? A. I should say it is contrary to the tradition in this country, but not to the tradition in other countries.

Have-a-go system

At the close of Mr. Bennett's evidence he was questioned closely by Mr. Buchanan on the problems of architectural design.

Buchanan: I dare say a lot of people—perhaps some people at this Inquiry—always had the idea that a fine building was the creation of a single mind. Anyone having that view I dare say has had a bit of a shock in the last few days, because we have seen in this case that the design which is now before the Minister started off with a submission to the Council which was totally unacceptable to the Council. A. Bennett: that is correct.

Q. Architecturally and in daylighting and in every way it was unacceptable? A. That is correct.

Q. It has reached its present shape by a complicated process of consultation, discussion and suggestion, and at a late stage another architect was brought in for the treatment of the elevation? A. That is correct.

Q. This process was rather aptly described yesterday as the "have a go" system. The developer has a go, not in any great detail because he knows what he is going to submit is going to be amended? A. Yes.

Q. It then goes to the planning authority, they have a go. A. Yes.

Q. It goes back to the developer. He has a go. It may go to somebody else? A. Yes.

Q. I think what is bothering people is this: what is the chance of a really fine design emerging from that kind of process? Is that sort of process absolutely inescapable today in this large-scale development? We are beyond the time when one single mind could exercise decisive influence over a design?

New breed of architects

A. I think that an explanation of the point you are making could be put forward in this way. The LCC will be receiving this year some 14½ thousand planning applications in its own administrative area. The planning know-how in the various planning groups of the Department is such that I am quite sure that a very small percentage of the architectural profession understands the implication of designing a building in a central area in the way in which it is part of a comprehensive development. I must include in the people who are not aware of the planning implications today many of the well-known persons in the architectural profession.

The most brilliant people in the profession today who come to the correct answer in the shortest possible time are not very well-known people in many cases. A great many people who are perfectly happy architecturally on an isolated site, or outside the environment of the Central Area, or dealing with something smaller, can do their work in a very attractive way; but immediately their clients' proposals go outside that, all the planning implications that surround their site, and the amount of information which is known in the Planning Department, unknown to them, has to be stitched into their proposal.

I should say that 40 per cent. of the applications that are received either from architects, surveyors, engineers or estate agents, wherever they come from, are only of mediocre quality. With regard to a similar amount they are of a very much lower standard indeed, and a great deal of time, effort and expense has to be put in by the planning authority in order even to take them out of the range of something that is quite inappropriate to London. There are unknown architects who are extremely able architecturally, and extremely able in the planning sense of obtaining a piece of work which covers every planning point of view. Q. You are saying, I think, that there is being bred a race of architects who can see their way through this? A. Yes.

A traffic improvement

Mr. Buchanan, in questions about the shape of the northern side of the new square which Piccadilly Circus will become, asked if Mr. Bennett was concerned about the way Shaftesbury Avenue and Great Windmill Street would slew off at an angle, injuring the sense of enclosure. Mr. Bennett said that the idea of turning Shaftesbury Avenue into the Circus in a southerly direction had been considered, but not pursued. He confirmed that the new and enlarged Piccadilly Circus was really a traffic improvement "in its own right," the creation of a large roundabout. He confirmed, also, that while reports on possible measures to remove the load of traffic from the Circus altogether had been prepared by the LCC's Chief Engineer and the Ministry of Transport, Piccadilly Circus was to continue to be a heavily trafficked intersection.

Mr. Buchanan, after questioning whether the design of the podium was really unalterable, and had to cover the whole site, turned to the difficulties of comprehensive development, and suggested that Mr. Bennett was being unduly pessimistic.

Mr. Buchanan: As I listen to your evidence I find myself at one moment rather depressed by the difficulties you outline about getting one block to line up with another block, having regard to the fact that there might be a five year interval between the two. The next moment I find myself quite excited by your description of the scheme and extent of redevelopment, particularly applications which were now brewing up? A. Yes.

Q. You mentioned this redevelopment proposal in the offing, as it were of the whole of Shaftesbury Avenue? A. Yes.

* These are F.R.I.C.S., F.R.I.B.A.,

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Q. I would have thought myself that the lesson of recent years might be that redevelopment was an accelerating process? A. That is correct.

Q. I wondered on and off whether you were being a little pessimistic as to the chances of getting on with all this Piccadilly Circus redevelopment with one scheme spread over a good deal shorter period of time? A. I think our views are that the planning of 15 to 20 years would be the right conclusion.

Pedestrian segregation

When he questioned Mr. Bennett about the two-level shopping proposal that had been put to the developers Mr. Buchanan said "I have never myself quite been able to understand why anyone should go upstairs for a shop when he can go in on the ground floor." Mr. Bennett said, in reply, that at Barbican there was no ground floor shopping, no entrances to buildings except for storage, the Council had strongly resisted the inclusion of a footpath along Route 11, and buildings were entered at the first floor. "Unless very drastic planning steps are taken to ensure the success of this system on a site scale," he said, "there are difficulties." In Piccadilly the primary shopping use was going to remain on the pavement, but the Council had not rejected the possibilities of first floor pedestrian ways on the east of the Circus.

Mr. Buchanan: Suppose that big area, most of it covered by applications, on the south side of Shaftesbury Avenue could all be redeveloped at one go, would you see a future there for upper pedestrian segregation on the lines of Barbican. A. Definitely.

Q. Your general policy is that various circumstances force you to go underground at intersections? A. That is correct.

Q. But provided you can get big enough areas to develop between intersections, on the hinterland, you go up above? A. That is entirely correct.

Q. I understand that the scheme or the suggestion which was put to the developer in this case was two-level pedestrian shopping pavements. A. That is correct.

Q. Do you think that that, as a scheme for separating pedestrians from vehicles, is really of any great value, or do you think that to achieve a real measure of segregation you have really got to get the pedestrians completely separated by levels? A. I think the fundamental approach to Piccadilly Circus must be one where the very finest method of segregation that could be obtained over the whole of the area is the obvious go in planning.

Upper level shopping

Q. If you had a shopping frontage wholly raised above street level with no shops on the frontage, then people would have to go up? A. That is correct.

Q. But if you have shops at ground floor level and at first floor level, you have the old difficulties on ground level, but also I do not understand how you make the first floor a commercial success when people have access to the first floor. A. The real functional segregation is obviously with the traffic at ground level and the pedestrian below. We felt that the additional level segregation

at the 20 ft. was purely an incidental and an extra value to be obtained in segregation.

Q. Did you consider the possibility of having no-shopping frontage at street level. Yes. It was considered that this would probably be the last place where the Committee would seriously consider the abandonment of shopping at street level.

At the close of Mr. Bennett's evidence Elwyn Jones for the second time asked the LCC to reconsider its decision not to call Mr. Lane, the LCC's Senior Planning Officer, but Mr. Buchanan considered that Mr. Bennett's evidence was sufficiently full to enable him to report to the Minister. Mr. Buchanan did, however, again ask counsel for the developers to call a witness who could speak about the "design policy" of the building. In response to this request J. R. Crickmay, one of the two chief estate surveyors of the Legal and General Assurance Society Ltd., appeared.

Coventry 'not a success'

Mr. Crickmay explained that, as more than 5,000 sq. ft. of the 36,000 sq. ft. site were being given up for road widening, it was considered right to have the ground and first floor shops covering the whole of the site. These were their most valuable letting space, and the terrace above the podium was seen as an attraction. He denied that they had dismissed upper level pedestrian circulation lightly. His objections were that the walkways would lead nowhere, and that two-level shopping was not a success at Coventry. There was also the practical problem of control where the walkways entered the building.

On the size of the advertising displays Mr. Crickmay said that the existing advertisements were 12,000 sq. ft. There would be 18,000 on the new building, and they had received applications for 30,000 sq. ft. over and above the existing sign tenants who had to be reinstated.

Finally Mr. Crickmay put the cost of the development at £7 million, which he divided into £4 million for dealing with the land (including buying Moon's garage and a new pub to accommodate a tenant) and £3 million for the new building, including the cost of financing and loss of income.

Mr. Buchanan also asked Mr. Crickmay, who was very emphatic in his view that the only way of dealing with shopping is at ground floor level, if he could imagine a new ground level—with the building jacked up, and the pavement with it. Suppose, he suggested, the centre of Piccadilly Circus went up as well, and there was an escalator from the Underground to the new level so that people could walk into the ground level shops which would be up one. Mr. Crickmay replied, however, that the area was too small, only four or five acres compared to 40 or 50 at the Barbican. People would not go up, and there were all sorts of problems with prams, parcels and so on. He agreed with Mr. Bennett's view that any upper level pedestrian use was a non-starter on a big intersection like this.

Ramsay Willis, Q.C., who appeared for City Centre Properties Ltd., made a speech on behalf of his other clients, Cotton, Ballard and Blow, the architects, but he called no

witnesses. Without ever pointing the finger at anybody specifically, he referred frequently to an alleged smear campaign in the course of which offensive references had been made to Cotton, Ballard and Blow. It would surely have been fair, he said, to have stated that the firm's total complement in London, Newcastle and Birmingham was some 68 people, excluding Mr. Cotton, and comprised as partners or technical assistants six chartered surveyors, 11 qualified members of the Royal Institute of British Architects, two members of the Institute of Registered Architects, and a general consultant, Cyril Walker, who was an F.R.I.C.S. and an F.R.I.B.A.

It had been stated quite untruthfully in a broadcast talk that a design consultant had been appointed only by pressure from the RFAC, whereas Mr. Booth had been appointed nearly a year before the RFAC considered the matter. The Civic Trust, Mr. Willis complained, had through Elwyn Jones renewed and pressed this smear campaign at the public inquiry. It seemed a remarkable thing that the Civic Trust embarked upon its first public attack on the architectural design of a new building, without consulting Sir Howard Robertson, the only architect on the Board of Trustees.

Mr. Jones would, he hoped, now withdraw the insinuations of incompetence or unworthiness that he had been instructed to make on behalf of the Civic Trust. "It was impossible to maintain them in the face of Mr. Bennett's evidence. If they were not withdrawn it would show clearly that the Civic Trust was allowing itself to be used, and its authority given, as cover for a continuance of the sniping campaign against Cotton, Ballard and Blow. And that would be a very unfortunate and inauspicious start for the intervention in public debate of the Civic Trust.

What sort of building would be likely to arise, Mr. Willis asked, if the suggestion of the 66 architects who had been lobbied to sign Mr. Cadbury Brown's letter was followed? "Is it going to be a noble building, the creation (unhindered by the problems which hamper the site in our hands) of a top architect of high quality who will be allowed to have his memorial at Piccadilly Circus—a noble building, no doubt, but possibly one which no one would build because, as we know, this is a commercial site and a commercial building is going upon it? Or would it be merely a hopeless compromise of the conflicting views of a number of highly qualified architects trying, as every architect must do, to meet the desires of the developer who is employing him?"

Mr. Willis also asked the Inspector to report to the Minister that the powers of comprehensive development in the 1947 Act would be "entirely inappropriate for use in the case of Piccadilly Circus or an area which extends beyond it. This, we all agree here, is a commercial site. It is a complete site, and on it there must arise a building which will make the commercial proposition a viable one."

Reginald W. Bell supported the proposed building, on behalf of Westminster City Council, and called as a witness Mrs. Mar-

garet Ball Wilson, A.R.I.B.A., the chairman of Westminster City Council Town Planning Committee, who indicated her Council's approval of the buildings and particularly the inclusion of panels of illuminated advertisements instead of splashing advertisements across the windows.

PRESTON SYMPOSIUM

Architects Under Fire

After last year's fireworks when architects, builders, quantity surveyors, consultants and sub-contractors did all but tear each other to pieces the Symposium at Alston Hall this year (December 4 to 6) was a very decorous affair. It was the better for that because constructive suggestions take root much quicker and are formulated much more readily when people are freed from the pressure of having to think of retorts to provocations. In fact this year's meeting was an unqualified success.

Consultants and sub-contractors were omitted and for the first time a client was invited to give his comments on the efficiency of the building team. R. A. Rainford, Bursar of Manchester University, was in a unique position to speak in this capacity because he has supervised and is preparing to supervise the spending of millions of pounds on extensions to Manchester University.

The builder he let off lightly, merely asking why he could not build buildings like the UN Secretariat in nine months. The QS was exonerated completely and had Mr. Rainford's complete sympathy in all his problems. It was the architect who came in for the thick end of the Bursar's stick. Two thirds of his talk was devoted to a catechism of (to him) appalling examples of mismanagement, bungling, inefficiency and total failure to lead the team. Mr. Rainford was categorical in his view that the architect *should* lead the team and the wonder is that he still retains this view in the face of his abject experiences with our profession.

Speakers later pointed out that two things had escaped him. Firstly, a client who consistently had this type of experience with the men of his choice must bear some responsibility in respect of that choice. Secondly, as Peter Dunham put it, it is quite unrealistic to ask the architect to "hole out in one" and some of the speaker's examples of inefficiency made one thankful he had not yet, apparently, got around to a judgment of architecture in, say, Brazil. (To write off the Harvard dormitories because of the unfortunate interreflecting acoustic qualities of the study-bedroom windows is, to put it mildly, overstating the case.)

Architects are aware of these failings and Peter Dunham spent a great deal of his paper outlining the methods employed in his office to correct the major and more valid of the client's criticisms. A serious attempt was being made, for instance, to programme work within his office so that principals could see precisely what each man would be doing over the next nine months and when he would run out of work. This type of research is invaluable because, armed with a clear picture of his office resources,

the architect can give realistic starting dates to the client and furthermore correlate the picture—shown by means of coloured pins in a pegboard—to office financial targets. Mr. Dunham's contribution made one wonder when some pooling of information will take place between architects because, working completely independently, Grenfell Baines had just evolved a remarkably similar pegboard with like expenditure of overheads in research time.

One great difference between building and other much-quoted industries like the aeroplane and automobile manufacturers is that whereas the latter spend years of research and construct perhaps a dozen prototypes, the architect is frequently given no time for research and the building has no prototypes to experiment on. We are all familiar with the client who plays secretly with the idea of building for a year or so, gets some land, then rings up the architect and asks if he can make bye-law and town planning application for a committee meeting a week next Friday. Thus Mr. Dunham tries to be firm with his clients on time for research and in lieu of prototypes his offices circulate a news letter containing good and bad experiences with builders and materials. His firm's encouragement of the secretaries' intelligent interest in building met with wide approval, but not every architect agreed with his site procedure and there were some gasps of horror at his advice to make quick decisions at site meetings to keep the job moving—"even if you have to reverse them next morning!" He rightly drew attention to the embarrassment of small jobs in large offices, but his suggestion that there should be an association of large and small offices would, delegates thought, need a lot of working out. The builders were superbly led by Peter Shepherd of York, whose firm's interest in management and productivity made him an ideal contributor to the Symposium. He outlined the techniques used in his office and made it quite clear that building to him is primarily a task of management and until the industry gets round seriously to training men capable of looking at the problem in this context, we are not likely to get the efficiency ratings we are looking for in the industry. A foreman in particular is now required to have a wide grasp of organizational and productivity methods and Mr. Shepherd would like to see special qualifications set up by the Institute of Builders for which these men should strive. Speakers thought the danger of this is that such men may lose touch with the craft trades and be insensitive to their problems (architects who have worked with civil engineering firms turned builder felt this very keenly). Others felt that this would be a criticism of the syllabus rather than of the idea. On one point Mr. Shepherd was very firm. Quantity surveyors habitually undervalue certificates and the total loss of working capital to the industry was £100 million a year. This staggering total became a major topic of the conference for, as Gontran Goulden said, even if you decimate it, the figure is still both colossal and immoral. Mr. Shepherd was adamant, however, and there was a good deal of wriggling and manoeuvring by the QS's, but the shaft went home and there

is quite obviously a real injustice here which actively militates against the industry's efficiency.

W. James spoke for the QS's and though he quite failed to dislodge Mr. Shepherd from his figure of £100 million he talked a great deal of good sense in recommending efficiency measures for all three partners in the building team. He particularly commended himself to architects by his extremely rare (for a QS) understanding of what an architect is about when designing a building. He said that not only should an architect not be expected to "hole out in one" but that he never will—by his very nature—and that a QS can help the design process by thinking with him, raising queries on his suggestions, and (this is really revolutionary!) think of a constructive answer himself before he picks up the telephone.

Finally, W. S. Forbes of BRS gave an illustrated talk on the principles of method study which showed clearly that architects are still a long way from a true appreciation of building operations. We too often fail to appreciate the extent to which a design whim throws trades out of sequence and how expensive a thoughtless piece of modelled concrete can be if the shuttering problem is not borne in mind. Mr. Forbes' talk was academic perhaps in such statements as "I cannot possibly see how an architect can design a building composed largely of precast units unless he knows the type of crane to be used." In fact an architect just does not design this way, and the competitive tendering system precludes any knowledge of the eventual contractor's plant. In the same way, an architect does not interpret his client's brief in terms of sufficiently broad areas of floor to justify the use of a mechanical float. Mr. Forbes, some members thought, had very sound and conclusive logic to back his beliefs, but a revolution in architect's thought processes and in the industry's method of working will be necessary to bring it about.

DIARY

The 50's. Talk by Peter Hammond at the ICA, 17/18, Dover Street, London, W.1. 8.15 p.m. JANUARY 7

The Motorway—London to Yorkshire. Talk by J. Gregg, Junior, organized by the Junior Organization of the RICS, 12, Great George Street, S.W.1. 6.15 p.m. JANUARY 7

The Design and Construction of the New Assembly Building for the Ford Motor Co. Ltd., Dagenham. By D. Lax and F. T. Bunclark. At the ISE, 11, Upper Belgrave Street, London, S.W.1. 6 p.m. JANUARY 14

Meeting of the Prestressed Concrete Development Group. The following four papers will be read: "Prestressed Concrete Bridges in the British Isles" by A. Goldstein; "Prestressed Concrete Bridges Abroad" by A. J. Harris; "Research on Prestressed Concrete Bridges" by R. E. Rowe, and "Bridges on the Maidstone By-Pass" by H. Bowdler. To be held in the Lecture Theatre of the ICE, Great George Street, S.W.1. 10 a.m. JANUARY 14

Report on the AJ cost analysis study group

This week we publish a report on the finding of the AJ Study Group on Cost Analysis which included a number of architects, quantity surveyors and a builder. The group was formed to examine ways and means of improving the present form of cost analysis as published in the JOURNAL. The Editors of the JOURNAL wish to express their great appreciation of and gratitude for the work done, and the time spent by the disinterested and dedicated members of the group in helping to establish an improved basis for published cost analyses. There will, of course, be a considerable timelag before cost analyses prepared on the basis of this report can be published. The members of the group were:

J. M. Austin-Smith, F.R.I.B.A. (chairman)
J. K. Carless, F.R.I.C.S.
H. G. Edwards, F.R.I.C.S.
John Musgrove, A.R.I.B.A.
James Nisbet, F.R.I.C.S.
C. M. Nott, A.R.I.C.S.
E. R. Parrinder, F.R.I.C.S.
Michael Smith, A.R.I.B.A.
Ivan Tomlin, F.I.B.E. (Howard Farrow Ltd.)
A. E. Towler, A.R.I.C.S.
John Wilkinson, A.R.I.B.A.
E. H. Wilson, F.R.I.C.S. (secretary)
John Carter, A.R.I.B.A. (AJ Costs Editor)

The AJ published its first cost analysis on February 24, 1955, using a list of element headings adapted from the one published in the MOE Building Bulletin 4 (1st edition). At that time and since, architects whose buildings the AJ wished to publish were asked to give brief descriptions of them, together with the cost figures, on a standard questionnaire. The figures were usually filled in by the quantity surveyor but no special guidance was given as to the composition of each element. It was left to the architect (or his q.s.) to indicate on the form what items the costs represented. It was decided to wait until some more experience in the use of this form of expressing building costs had been accumulated before an attempt was made at standardization of definition. About two years later, this information was brought together in a series of lecture discussions organized by the AJ in collaboration with the Regent Street Polytechnic School of Architecture, where it was unanimously agreed that some standardization should be introduced. Accordingly a group of architects, quantity surveyors and a builder was invited to look into this. The terms of reference given them were these. First, to review the present list of element headings and the type of information normally published under these and to put forward any changes which might increase their value to architects, quantity surveyors and builders. Second, the group was asked to provide notes for the guidance of those who prepare analyses as to which items in a

bill of quantities should be included in each element—the aim being to ensure uniformity of published data. And third, to keep in touch with other bodies interested in cost analysis so that AJ analyses could be co-ordinated with cost information published elsewhere. This report is based on their findings and is followed by a schedule of definitions drawn up by them.

The study group was influenced by two main principles. Firstly, that the division of a building into elements is basically a division into distinct architectural functions (as defined in MOE Bulletin 4). The new set of elements is a little closer to this definition than the old, though for reasons explained later certain strictly "non-functional" elements remain. Secondly, as the purpose of analyses is threefold (cost planning, cost comparison and approximate estimating), to improve their usefulness for these purposes equally. The last of these terms is self-explanatory but the first two require definition. Cost planning is the process of designing a building from the very earliest sketch stage with the final cost in view from the outset, or the budgeting of element costs to achieve a balanced whole. Cost comparison helps in this and analyses can be a source of historical information useful in comparing different approaches to similar buildings.

Analyses are usually prepared from bills of quantities priced in trade order. Preparation of analyses in the new form may, in some cases, take the q.s. longer than

before, but the improvement should make this worth while. In essence, the existing order, beginning with Preliminary and ending with External works, has been kept (see comparison of element lists on p. 14). Within this, certain elements have been reshuffled to give a more logical grouping. For example, Frame, Upper Floors and Roof come together, to be followed by External Walls, Windows and External Doors.

There are the same total number of headings (31), but some of these have been renamed or taken out altogether and replaced by others. Those taken out are "Glazing," "Screens," "Roof Finishes" and "External Plumbing," which go more appropriately with "Windows," "Internal Partitions" and "Roof." New headings to appear are "Waste and Overflow Pipes," "Internal Structural Walls," "Special Services" (e.g. lifts, cooking equipment, etc.). Certain combined elements such as "Hot and Cold Water" and "Heating and Ventilation" have been split up. Perhaps the most interesting change, and also the most difficult to decide on, is "Work below Lowest Floor Finish" which was formerly "Work below Ground Floor Level." The old element was meant to represent, broadly, the cost of supporting a building, but where there was a basement a number of difficulties arose in giving a true cost picture.

A basement might contain partitions, finishes, stairs and similar items which properly belonged to the body of the building. Although the new definition solves this problem, "Work below Lowest Floor Finish" does bring the difficulty that basement walls (perhaps tanked and reinforced) go with the cost of external walls. Therefore, to avoid distortion, the cost and amount of external walls above ground floor level must be shown separately from those of external walls in basements.

Chimneys are a further example of the type of factor which is hard to place. As yet there is no agreement on how these should be handled. At times, when the chimney is little more than a metal pipe it can be included with the cost of heating. A brick stack, however, can be included with the external walls if it forms part of them without too much distortion of the cost picture. If the chimney is a part of an internal cross wall it should be included under the heading for these. A free-standing stack should be treated separately and the fact mentioned.

Because of the impossibility of making hard and fast rules as to what exactly is to be included under the various headings for every case and every building type, the definitions given are really definitions of principle, with the important proviso that where any departure from them seems necessary the description of all the elements affected must state what items the element price includes or excludes.

A number of non-functional definitions and elements remain. For example, Decoration and Ironmongery, which are retained partly to avoid the difficulty and extra time needed to apportion them among the elements and partly because of their usefulness as separate elements for approximate estimating.

It was considered by the group that cost analyses would be more useful if more detailed and precise

information could be given as to the quantity of material in each element. They suggest, therefore, that for all elements where it is appropriate, the following information should be given:

1. The net quantity of each distinct type of material in the element and its individual cost.
2. An overall cost of the whole element.

This increases the number of figures given with each element but the information is not usually difficult to extract from a priced bill. In some cases it is a by-product of the calculation of the cost per sq. ft. of the floor area.

Before going on to the definitions of the elements, there are some general points to be made about the compilation of an analysis.

Descriptions of the elements and their costs should include all their component parts as indicated by the definitions. The description of each element should be sufficient to leave no doubt as to what items the cost includes, and should also give some idea of the quality of the work.

In cases where the definitions cannot be followed, the description is to make clear what items the element cost covers. For example, if windows in curtain walling are included in external walls, the element "Windows" should be marked "included in external walls." If there is nothing to be put to a particular element, the word "Nil" should be shown against the heading. The floor area used for the calculation of element costs is to be the gross area of enclosed floor space measured within the internal faces of the external walls, overall partitions, stair wells, etc., except in the case of multi-storey dwellings in which it is to be the net area of the dwellings only, excluding the area of public access space. A statement of the gross area should, however, be given in these cases.

The areas of walls, finishes, etc., are to be the net areas after deduction of openings.

This report is far from being the last word on the subject of analyses: there are weaknesses in the system and misuse of the information can be misleading. The costs analysed are costs to the client and not to the builder and they are priced by the builder for the purpose of establishing the rates for valuing variations. The builder often prices the earlier work high in order to get a large amount on his first certificate and this gives a distorted cost for this work.

In spite of the fact that true builders' costs are not often available and not likely to be in the near future, the study group are of the opinion that the process of cost analysis is the only worth-while source of information available, and as such should be supported. In the national interest of greater productivity in the building industry, it is essential that architects should not design regardless of cost, and to achieve this they must have a feedback of basic cost information whether their designs are worked out in collaboration with a builder or not.

The work entailed in producing analyses on the new basis will undoubtedly be greater for all concerned, but the study group feel that this will be worth while and hope that the result will be to bring about the more general adoption of definitions and procedures.

Definitions of elements for cost analyses

1 Preliminaries and Insurances includes

Priced items in Preliminary Bill and Summary excluding quantity surveyor's fees and contractor's price adjustments. Besides the cost per sq. ft. of floor area, this element should be expressed as a percentage of the whole cost of the contract less preliminaries and insurances.

2 Contingencies includes

Sums reserved for unforeseen expenditure. If the analysis is based on the final account no cost should appear against this element.

3 Work below lowest floor finish includes

Work below the underside of the screed including damp-proof membrane, relevant excavation, and foundations.

4 Frame includes

Load-bearing framework of concrete, timber or steel. Main floor and roof beams, ties and roof trusses. Casings to stanchions and beams where these are for structural purposes.

5 Upper floors includes

Structural floors and balconies including structural screeds. Beams, other than main beams which are included in Frame. This element should also include any suspended floors over a basement if one occurs, in which case this fact should be stated. Further information required is the area and cost of each type of floor in sq. ft. and sq. yd. respectively.

6 Roof includes

Construction of roof. Beams other than main beams in Frame. Gable ends, internal walls above wall plate and parapet walls if any. Screeds and coverings. Gutters, flashings and rainwater pipes. Also to be given is the area on plan of each type of roof, and the cost of each type of roof in sq. ft. The area being measured to the external edge of the eaves but excluding the area of rooflights in sq. ft., and the area of glass in northlights and monitors.

7 Rooflights includes

Frame, glazing and opening gear. The area of structural opening for each type of light measured parallel to the roof surface in sq. ft. should be stated. The cost of each type of light in sq. yd. is also required.

8 Staircases includes

Staircases and intermediate landings. Finishes to treads, risers, strings and soffits. Balustrades. Other information required is the number and total vertical height of each type of staircase giving the width overall of the tread.

9 External walls includes

External walls of building excluding windows, doors and shop fronts. Curtain walling and sheeting rails giving horizontal and vertical spacing and fixings.

External applied finishes.

Lintels, sills and cavity damp-proof courses.

If the wall is self-finished internally this should be stated.

If proprietary curtain walling is used the area and cost should be given as a whole, including opening lights.

The area of each type of wall excluding window and door openings and their costs in sq. ft. and sq. yd. respectively are required.

If basement walls are included this should be stated and the amount and cost per sq. yd. given.

10 Windows includes

Sashes, sub frames and frames. Glazing.

Ironmongery where fixed before delivery to site.

The area of clear openings in walls for each type of window and the cost, in sq. ft. and sq. yd. respectively, should be given.

11 External doors includes as for windows.

12 Internal structural walls

N.B. This refers only to cross-wall construction. Often it is impossible to define which internal walls are load-bearing and which are not, as in traditional house construction. In the case of cross walls the delineation is clear. If the walls are self-finished this should be stated. The area of each type of wall excluding openings and their cost, in sq. ft. and sq. yd. respectively, should be given.

13 Partitions includes

Internal structural walls.

Lights except where included in internal structural walls.

Lintels.

If wall is self-finished this should be stated.

If room-dividing cupboards are treated as partitions this should be stated.

If proprietary partition is used the area and cost should be given as a whole, including doors, etc., in same.

The area and cost of each type of wall excluding openings, in sq. ft. and sq. yd. respectively, should be given.

14 Internal doors includes

Doors, frames, linings and architraves, fanlights, glazing, and ironmongery when fixed before delivery to site.

The area of clear openings in walls for each type of door in sq. ft., and the number of doors, single and double, to be given separately.

15 Ironmongery includes

Supply and fixing of all ironmongery except that which is delivered to the site fixed (e.g. to metal windows).

16 Wall finishes includes

All preparatory work and finishes applied in situ to the internal wall surfaces.

Surfaces which are self-finished should be described under the appropriate headings.

Area and cost of each type of finish in sq. ft. and sq. yd. respectively.

17 Floor finishes includes

All preparatory work, top finish and labours to form surfaces.

Skirtings.

Area and cost of each type of finish, in sq. ft. and sq. yd. respectively.

18 Ceiling finishes includes

All preparatory work, finishes applied in situ, and labours to form surfaces. Suspended ceilings and framings.

Cornices.

If a ceiling is a source of heat or light it should be included in the appropriate engineering service and reference to this made here.

Area and cost of ceiling finishes, in sq. ft. and sq. yd. respectively.

19 Decorations includes

All decorations both internal and external, including wall mosaics, murals and sculptures. The total cost of these latter items or similar ones should be shown separately.

Definitions of elements for cost analyses continued

20 Fittings includes

All built-in equipment and furniture giving detailed list of what items are included.

All major or special fittings should be listed and priced separately, if possible with the quantity involved (e.g., cost per ft. run of benching).

21 Sanitary fittings includes

Supply and installation of fittings, including taps.

Number, type and quality of each fitting.

22 Waste, soil and overflow pipes includes

Traps, waste and soil pipes.

Stack pipes as far as gully or join to drain at ground level.

Overflows.

23 Cold water services includes

Rising main, storage tanks, pumps and distributing piping to draw-off points and boilers. Builder's work in connection should be shown separately.

Number of cold draw-off points.

24 Hot water services includes

Any system for distribution of hot water including boilers, calorifiers, instantaneous heaters, piping to draw-off points and lagging.

Builder's work in connection should be shown separately.

The number of hot water draw-off points should also be given.

25 Heating services includes

Any system for distribution and emission of heat, including boilers, controls, radiators, piping and storage tanks, etc.

If the system is gas or electric it should be included here.

The cost of the following should be shown separately if possible.

(i) oil fuel tank and feed to boiler.

(ii) automatic stoking equipment to boiler.

(iii) gas service to boiler.

Builder's work in connection should be shown separately.

The heat load in B.t.u. per hour should be given.

26 Ventilation services includes

Mechanical ventilation and air treatment plant, ducts and isolated fans.

Builder's work in connection should be shown separately.

27 Gas services includes

Installation from and including meter and distribution to outlets.

When a gas service is primarily for heating or for hot water it should be included under the appropriate element heading.

The cost of builder's work in connection, shown separately, and the number of outlets is required.

28 Electrical services includes

Installation from, and including, meter, switch gear, etc., and distribution to outlets and fittings.

The figures should be broken down as follows:

(i) meter and switch gear.

(ii) lighting installation.

(iii) power installation.

(iv) lighting fittings.

The number of points should be given together with the total electrical load.

Services to such items as lifts, escalators, warning lights, cloaks, etc., are to be shown separately if possible.

29 Special services includes

Lifts, escalators, cooking equipment, laboratory equipment, pneumatic tube message systems, sprinkler installation and fire-fighting equipment and other similar special services, and the information required is such as will indicate the extent of each service (e.g., for lifts, the number, capacity and speed of each and the number of stops should be given).

30 Drainage includes

Soil and surface water drainage from foot of stacks to and including the last collecting chamber.

31 External works includes

Roads and paths, playgrounds and paved areas, fences and gates, outbuildings, external steps, site planting and landscape work, connections to service mains. Drains from last collecting chamber to main sewer, including connection or disposal plant.

Comparison of existing and proposed lists of elements

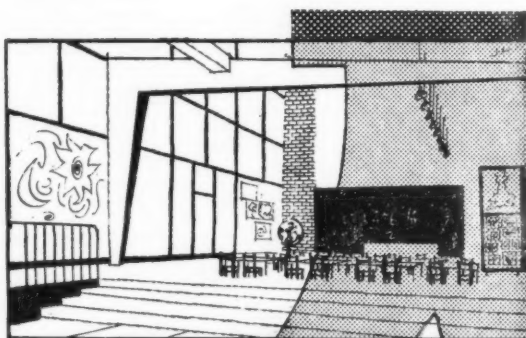
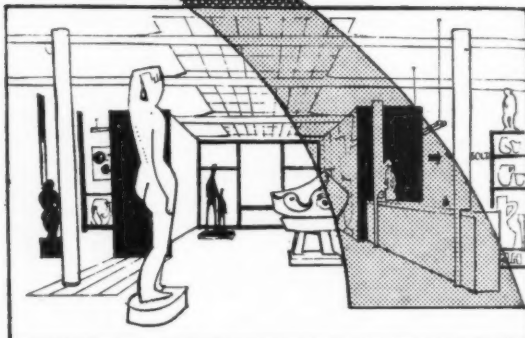
Existing	Proposed
1 preliminaries and insurances	1 preliminaries and insurances
2 contingencies	2 contingencies
3 work below ground floor level	3 work below lowest floor level
4 frame	4 frame
Structural	Structural
5 external walls	5 upper floors (including floor over basement)
6 windows	6 roof
7 external doors	7 rooflights
8 upper floors	8 staircases
9 staircases	9 external walls
10 roof	10 windows
11 rooflights	11 external doors
12 glazing	12 internal structural walls (cross walls)
	13 partitions
	14 internal doors
	15 ironmongery
Partitions and fittings	
13 internal partitions	
14 screens	
15 internal doors	
16 ironmongery	
17 fittings	
Finishes	Finishes
18 floor finishes	16 wall finishes
19 wall finishes	17 floor finishes
20 ceiling finishes	18 ceiling finishes
21 roof finishes	19 decorations
22 decorations	
	Fittings
	20 fittings
	Services
Services	21 sanitary fittings
23 external plumbing	22 waste, soil and overflow pipes
24 hot and cold water installation	23 cold water services
25 sanitary fittings	24 hot water services
26 heating and ventilation	25 heating services
27 gas installation	26 ventilation services
28 electrical installation	27 gas services
29 lifts	28 electrical services
	29 special services
30 drainage	30 drainage
31 external works	31 external works

Index to the AJ's cost analysis

Published in the JOURNAL since the first one appeared on February 24, 1955

Type of building and classification	Architect	Date published	Type of Building	Architect	Date published
Churches (and church halls) (96) 726.4/.5			Educational (Higher, and Training Colleges) (97) 727.4		
Church hall, Chessington	Kenneth Wood	11.8.55	Training College expansion (Assembly Hall), Great Offley, Herts.	Woodroffe, Buchanan & Coulter	7.6.56
Church hall, Fernhill, Hawley, Hants	Alec Livode	11.8.55	Theological College, Montagu Place, London, W.1.	Yorke, Rosenberg & Mardall	19.6.58
Church at Coventry	Lavender, Twentyman & Percy	30.5.57	Educational (University Buildings) (97) 727.8		
Church and hall at Darlaston	Lavender, Twentyman & Percy	7.11.57	Sheffield University Library	Gollins, Melvin, Ward	31.12.59
Congregational church hall, Ipswich	Johns, Slater & Haward	4.12.58	Educational (laboratories) (97) 727.5		
Congregational church, Crawley	Lomas & Pooley	4.12.58	Laboratories and Hostel for Worcs. Institute of Horticulture	Richard Sheppard & Partners	26.4.56
Church and presbytery, Glenrothes	Gillespie, Kidd & Coia	5.2.59	Sherborne Girls' School, Dorset	Architects' Co-Partnership	21.11.57
Educational (Schools, Primary) (97) 727.1			Westcliff High School for Boys	P. F. Burridge, county architect	3.7.58
Sugar Hill, Durham	Grenfell Baines & Hargreaves	29.9.55	Magdalen College School, Oxford	Booth, Ledeboer & Pinckheard	3.7.58
Crawley, Sussex	Woodroffe, Buchanan & Coulter	5.4.56 and 24.5.56	Entertainment (95) 725.81		
Ladyloan Avenue, Glasgow	A. Buchanan-Campbell	30.8.56	Little Theatre, Middlesbrough	E. de Pierro	13.2.58
South Bolton Gardens, London	Chamberlin, Powell & Bon	13.9.56	Belgrade Theatre, Coventry	Arthur Ling, city architect	7.8.58
Stevenage, Herts.	Samuel Morrison & Partners, and C. H. Aslin, county architect	18.10.56	Theatre workshops for Old Vic, London	Lyons, Israel & Ellis	19.2.59
Hackenthorne, Derbyshire	Samuel Morrison & Partners, and F. H. Crossley, county architect	18.10.56	Health Buildings (Hospitals) (94) 725.5		
C. of E., Bexhill, Sussex	Hilton and J. M. Wright	14.3.57	Vale of Leven Hospital, Dunbartonshire	J. L. Gleave (Keppie and Henderson and Gleave)	3.11.55
Alderman's Green, Coventry	Architects' Co-Partnership	2.5.57	Admission Unit, Fairmile Hospital, Wallingford, Berks.	Powell & Moya	19.4.56
Woodside, Amersham, Bucks.	MOE	1.8.57	Radiotherapy Dept., Western General Hospital, Edinburgh	John Holt	27.12.56
Mansfield, Notts.	D. E. E. Gibson, county architect	24.10.57	Rest home and Annexe, Geriatrics Hospital, Oxford	R. Llewelyn Davies	1.5.58
Batford Infant, Harpenden, Herts.	Architects' Co-Partnership	4.9.58	Nurses' home and training school, Western General Hospital, Edinburgh	John Holt	18.9.58
Woolton, Liverpool	Bernard Miller & Duncan Stewart	4.9.58	Hospital Extension, Musgrave Park, Belfast	R. Llewelyn Davies	9.4.59
Newark Barnby Infants' School, Notts.	W. D. Lacey, county architect	30.5.59	Hospital extension, Casualty Block, Dunfermline	John Holt	10.9.59
Alderman's Green Nursery school and St. Michael's Primary School, Coventry	Arthur Ling, city architect	29.10.59	Admission block, Stone Hospital, Aylesbury, Bucks.	Gollins, Melvin, Ward	15.10.59
Educational (Schools, Secondary) (97) 727.2			Operating theatre and Boiler House, Western General Hospital, Edinburgh	Basil Spence & Partners	10.12.59
Barnet, Herts	C. H. Aslin, county architect	24.2.55	Health Buildings (Miscellaneous) (94) 725.5		
Parson's Cross, Sheffield	Basil Spence & Partners	24.3.55	Gooseacre Health Centre, Welwyn Garden City	C. H. Aslin, county architect	2.2.56
Durrington-on-Sea, Worthing	MOE	4.8.55	Group Practice surgery, Brentwood, Essex	Cullerne Pratt	20.3.58
Bellingham, London, S.E.	J. L. Martin (LCC)	25.8.55	Pathology Laboratory, Highcroft Hospital, Birmingham	Denys Hinton (Live Project)	3.4.58
Hatfield	Architects' Co-Partnership	8.9.55	Hotels (98) 728.5		
Broad Lane, Coventry	MOE	13.10.55	The Dover Stage, Dover	Louis Erdi	8.8.57
Lyng Hall Comprehensive, Coventry	MOE	15.12.55	The Washington Hotel, extension, London, S.W.1	Bronek Katz and Vaughan	22.1.59
Herne Bay, Kent	Lyons, Israel & Ellis	24.11.55	Houses and flats (private) (98) 728		
South Belper, Derbyshire	MOE	15.12.55	West Mersea, Colchester, Essex	Richard Finch	30.6.55
Mayfield Comprehensive, Putney	Powell & Moya	2.8.56	Houses, Joppa, Midlothian	Alan Reiach	29.12.55
Abbey Road Comprehensive, Coventry	Arthur Ling, city architect	28.2.57	Hertingfordbury, Herts.	G. Woodward	19.7.56
Sydenham, London, S.E.	Basil Spence & Partners	12.9.57	Oulton Broad	John and Sylvia Reid	19.7.56
Earnock, Hamilton, Lanark	Scottish Education Department	30.1.58	Digswell, Welwyn, Herts.	Maurice Lee	30.8.56
Balls Park, Hertford	C. H. Aslin, county architect	24.4.58	Scarborough, Yorks. (conversion)	J. G. L. Poulson	10.1.57
Tuxford County Secondary and Retford Ordsall Secondary Modern, Notts. (C.L.A.S.P.)	W. D. Lacey, county architect	30.5.59	Birch Lane, Purley, Surrey	R. G. R. Haggard	26.9.57
Secondary Modern, Dawley, Salop	Yorke, Rosenberg, Mardall	20.8.59	Thames Ditton, Surrey	Michael Lyell	26.9.57
Hillside Secondary Modern, Folkestone	Elie Mayorcas	6.11.59	Studio House, Hampstead	R. W. Trebilcock	12.12.57
Arnold, Nottingham	MOE	17.12.59	Edwalton, Notts.	Paul Ritter	12.12.57
Educational (Further Education, Technical Colleges) (97) 727.4			Newstead Abbey, Notts.	Bartlett and Gray	13.3.58
Dartford Technical College	E. T. Ashley Smith, county architect	28.4.55	Old Windsor, Bucks.	F. W. Lancaster	13.3.58
Gymnasium, Bedford College of Physical Education	S. V. Goodman, county architect	10.1.57	Rickmansworth, Herts	Dore and Wurr	26.6.58
College of F.E., Slough	F. B. Pooley, county architect	8.5.58	Reigate Heath, Surrey	John Stammers	26.6.58
College of F.E., Oswestry	C. H. Simmons, county architect	12.6.58	Dorking, Surrey	Gerald F. Jones and Sykes	26.6.58
Mander College, Bedford	S. V. Goodman, county architect	29.1.59	House and surgery, Stevenage, Herts.	Margaret and Stirling Craig	26.6.58
Cleveland Technical College, Redcar	Gollins, Melvin, Ward	14.5.59	Staines Green, Hertford	Glyn Davies	16.10.58
Colchester Technical College	Harold Conolly, county architect	8.10.59	Great Missenden	R. Plincke and Peter McKinley	16.10.58

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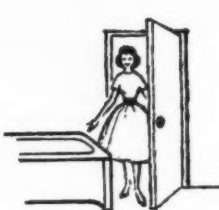
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Type of building	Architect	Date published	Type of building	Architect	Date published
Houses and flats (private)			Industrial (Miscellaneous) (93) 725.4		
Diss, Norfolk	J. Fletcher Watson	16.10.58	Boiler house, MAFF Research Institute, Pirbright	Westwood, Sons & Harrison	14.3.57
Colchester, Essex	J. E. C. Brand	16.10.58	Pithead Baths, Dudley, Northumberland	Richard Sheppard & Partners	22.8.57
Cramond, Edinburgh	Morris and Steedman	1.1.59	Pithead Baths, Pye Hill, Notts.	Elie Mayorcas	31.7.58
House at Cuilfail, Lewes, Sussex	Russell Diplock & Associates	19.3.59			
Houses at Fallowfield, Stanmore, Middlesex	H. J. Montague	20.8.59	Offices (92) 725.23		
House at Abington, Cambridge	Hughes and Bicknell	17.9.59	Edgware Road, N.W.9	Walter Segal	28.7.55
			Chiswell Street, E.C.1	Handisye & Taylor	21.6.56
			Dock Labour Board, S.E.1	Frederick Gibberd	18.10.56
Housing (Local authority) (98) 728.2			Hypothetical office building	Stil'man & Eastwick-Field	25.10.56
Flats in Bedford	Max Lock	7.7.55			24.1.57
Flats in Osnaburgh St., St. Pancras	Davies and Arnold	29.12.55	High Street, Sidcup	Huckle & Durkin	25.4.57
Maisonettes	Study by R. O. Whittington	26.7.56	Heath Road, Twickenham	MOW	15.8.57
Fitzhugh Estate, London, S.W.17	J. L. Martin (LCC)	29.11.56	Traffic Manager's office at Cambridge for BR	H. H. Powell & R. T. Walters	7.11.57
Claremont Estate, West Ham	T. North, borough architect	17.10.57	Engineering and Allied Employers' HQ, Edgbaston	John Madin	10.4.58
Demonstration maisonettes at Canterbury for MOHLG	John L. Berbiers, city architect	27.3.58	Armour House, Liverpool	Stephenson, Young & Partners, Robert Gardner-Medwin	6.11.58
Millpool Hill Estate, Birmingham	A. G. Sheppard Fidler, city architect	17.4.58			
Alton Estate, Roehampton	Hubert Bennett (LCC)	5.11.59	Public buildings (fire stations) (92) 725.191		
Fountain Square, Gloucester	J. V. Wall, city and county architect	11.11.59	Fire and ambulance station, Slough, Bucks.	F. B. Pooley, county architect	31.1.57
			Fire station, Eastern Avenue, Gloucester	J. V. Wall, city architect	18.7.57
Housing (for old people) (98) 728			Fire station, Wythenshawe, Manchester	Leonard C. Howitt, city architect	3.10.57
Plymouth (bedsitting rooms)	H. J. W. Stirling, city architect	21.11.57	Fire station, Harlow	Harold Conolly, county architect	30.1.58
Old People's bungalows, East Horsley, Surrey	Clifford Culpin	24.7.58			
Flats at West Hartlepool	A. G. Sinclair	24.7.58	Public buildings (miscellaneous) (92) 725		
Bungalows at Harlow	Frederick Gibberd	7.5.59	Community Hall, Roe Green, Hatfield	Lionel Brett & Kenneth Boyd	1.9.55
Industrial buildings (factories) (93) 725.4			Cattle Market, St. Oswalds Road, Gloucester	J. V. Wall, city architect	3.5.56
Factories and offices, Stevenage	D. P. Reay and L. G. Vincent, Dev. Corporation architects	31.3.55	Library, Beaconsfield, Bucks.	F. B. Pooley, county architect	25.7.57
Standard Telephones, Harlow	Frederick Gibberd and Victor Hamnett	26.5.55	Law Courts, Slough, Bucks.	F. B. Pooley, county architect	26.12.57
Peterlee, Jeremiah Ambler Mills	Sir William Holford & Partners	15.9.55	Public buildings (police stations) (92) 725.188		
Silenthloc, Crawley	J. M. Austin-Smith & Partners	6.10.55	Police HQ, Stretford, Manchester	G. Noel Hill, county architect	5.5.55
Loewey Engineering, Poole	Farmer and Dark	17.5.56	Police HQ, Wellington, Shropshire	C. H. Simmons, county architect	1.11.56
British Tabulating Machine Co., Stevenage	L. G. Vincent (Dev. Corp. Architect)	6.9.56	Police HQ, Earls Court Road, London, W.8	J. I. Elliott	9.5.57
Paint factory, Hemel Hempstead	Ove Arup & Partners	20.12.56	Police HQ, Hull	Priestman & Lazenby	3.10.57
Corset factory, Shrewsbury	W. Marmorek and L. Weaver	24.1.57	Shops (92) 725.21		
Allen & Hanbury's, Ware	Dunham, Widdup and Harrison	23.5.57	Department store, Portsmouth	T. P. Bennett & Son	13.9.56
Universal Grinding Wheel, Stafford	Edward D. Mills & Partners	13.6.57	Shops and maisonettes, Basildon, Essex	Noel Tweddell, Development Corporation architect	8.11.56
Factory and offices, Camberley	John Bickerdike	31.10.57	Department store, Southampton	Yorke, Rosenberg & Mardall	6.12.56
Flatted factories at Birmingham	Philip Skelcher & Partners	20.2.58	Shops and maisonettes, Coventry	Arthur Ling, city architect	21.2.57
Aspro-Nicholas, Slough	J. Douglass Mathews & Partners	17.7.58	Furniture shop at Bromley, Kent	Bertram Carter	5.12.57
British Diamond Wire Die Co., Poole	Farmer and Dark	31.7.58	Shops in Above Bar Street, Southampton	Oliver Carey	20.3.58
Extension to Pullins Optical Co., Brentford	Joseph Mendleson & Partners	28.8.58	Sports buildings (95) 725		
Pickle Factory, Hackney	Walter Segal	2.10.58	Werneth Golf Club extension, Oldham, Lancs.	George A. Hayes	5.9.57
Unit Workshops, Long Street, Stepney, London	Hubert Bennett (LCC)	23.4.59	Sports Pavilion, Hayes, Middlesex	Pite, Son & Fairweather	27.2.58
Factory extension, Gotham, Notts.	Bartlett and Gray	4.6.59	Sports pavilion, Acton, London, W.3	Hening & Chitty	27.2.58
Industrial (laboratories) (97) 727.5			Cricknet pavilion, Oundle School	Hughes & Bicknell	27.2.58
Sylvania-Thorn Colour TV Shell, Egham	G. A. Jellicoe & Partners	15.11.56	Swimming pool, Hornchurch, Essex	Vincent Williams, borough engineer	27.11.58
ICI, Welwyn Garden City	P. A. Cranswick	14.2.57	Empire Pool, Cardiff	John Dryburgh, city architect	27.11.58
Fison's Research Centre, Levington, Suffolk	J. Douglass Mathews & Partners	25.4.57			
	Johns, Slater and Haward	6.3.58	Transport buildings (93) 725		
Industrial (warehouses) (93) 725.4			Potters Bar railway station	H. H. Powell & R. T. Walters	8.12.55
Warehouse and processing building, Witham, Essex	Chamberlin, Powell & Bon	14.6.56	Airport terminal buildings, Edinburgh	R. H. Matthew	5.7.56
Warehouse and offices, Cardiff	Grenfell Baines & Hargreaves	28.3.57	Garage and service station, Harlow, Essex	Ramsey, Murray, White & Ward	29.8.57
Warehouse and offices, Nottingham	J. M. Austin-Smith & Partners	18.4.57	Traffic Manager's offices, BR, Cambridge	H. H. Powell & R. T. Walters	23.1.58
Warehouse and factory, Dublin	Michael Scott	5.6.58	Hangar, offices and workshops for Transair, Gatwick Airport	Clive Pascall & Peter Watson	13.11.58
Farmiloes, Nine Elms Lane, London, S.W.	J. M. Austin-Smith & Partners	30.10.58	Service station and showroom, Poole	Farmer and Dark	24.9.59
Depot and offices, Leeds	T. Trepas	4.6.59	Service station, Knaphill, Surrey	Wells & Hickman	22.10.59

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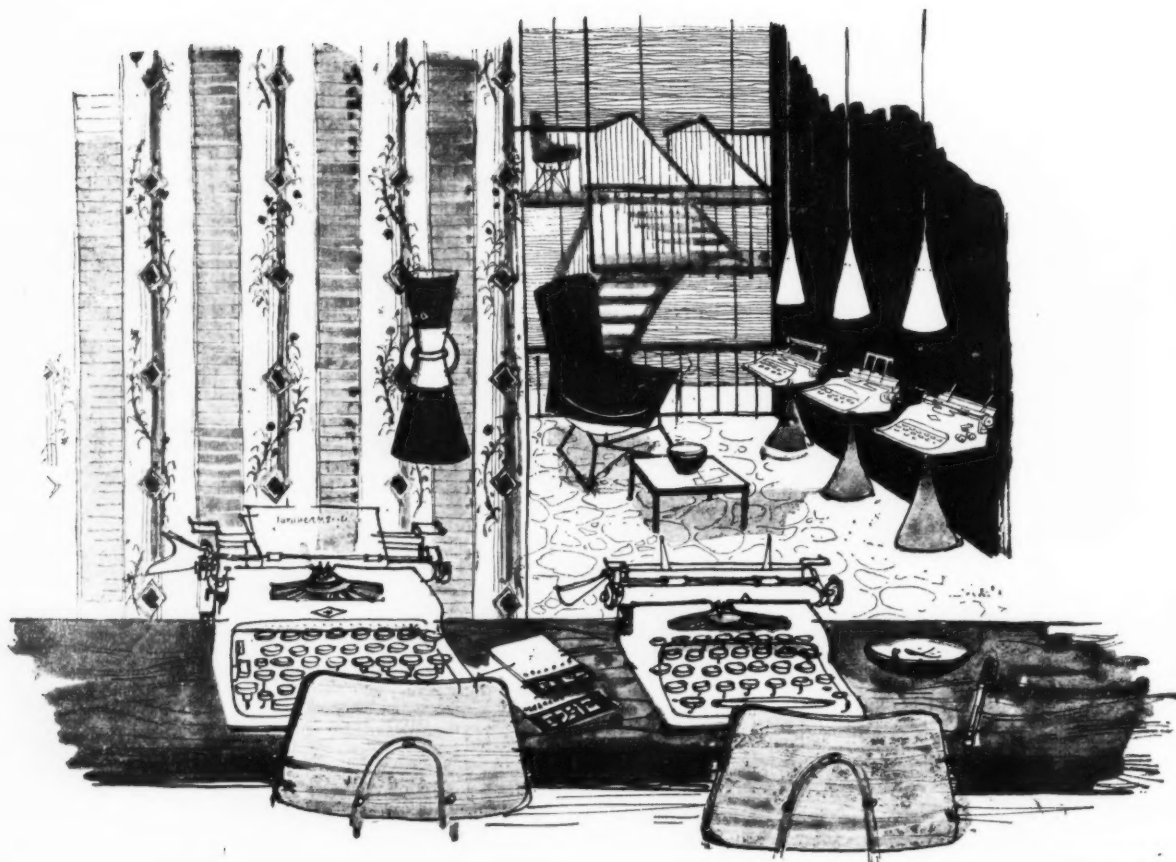
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Index of technical articles published in the Journal during the past five years

We print below a "cumulative" index of all the technical articles published in the JOURNAL since January, 1955, ordering them according to the SfB/UDC Classification. (Readers who do not know what this is should turn to their JOURNAL of September 17, 1959.) This index is additional to the usual Technical Section index which will be available as usual some time in April.* In this cumulative index we have included the Gas Supplements and summaries of papers given at the Institute of Fuel's Symposium on Domestic Heating and at the RIBA's symposia on Laboratories. We have excluded the quarterly prices and measured rates.

* The Technical Section Index covers the past year only, includes Information Centre items and Technical features as well as articles and is arranged alphabetically.

<i>SfB/UDC classification</i>	<i>Title of article</i>	<i>Author</i>	<i>Date published</i>
(1) GROUND			
(12) Drainage Below Ground	(12)n2/696.13	Pitch-fibre pipes for drainage	D. Bullivant 10.3.55
(14) Roads, Paths, Paved Areas: General	(14)/625.8	Minor roads and external pavings, 1: Introduction, the sub-grade	W. Houghton-Evans 12.11.59
	(14)/625.8	Minor roads and external pavings, 2: Sub-base and base	W. Houghton-Evans 26.11.59
(16) Foundations: General	(16)/624.151	Foundations for tall buildings	G. Williams 5.11.59
(2) PRIMARY ELEMENTS, STRUCTURES	(2)/624.9	Lift slab technique on new office block in Sydney	Kenneth McGonnell 10.12.59
(21)G Walls, External, Non-Loadbearing	(21)G/96.022.325	Curtain walling on the Lever building, New York	The Editors 16.6.55
	(21)G/96.022.325	The glass curtain wall, 1: Daylight transmission	T. A. Markus 7.11.57
	(21)G/96.022.325	The glass curtain wall, 2: Heat transmission	T. A. Markus 21.11.57
	(21)G/96.022.325	The glass curtain wall, 3: Fire resistance and sound transmission	T. A. Markus 12.12.57
	(21)G/96.022.325	The glass curtain wall, 4:	T. A. Markus 23.1.58
	(22)/69.022.4	Cross walls	Peter Dunican 17.3.55
(22) Walls, Internal, Loadbearing, Cross Walls		Cleeve Barr	
	(22)/69.022.5	Sound insulation of office partitions	Specialist Editor 19.9.57
(22) Walls, Internal, Partitions	(23)G/69.025.2	Tests on composite plank flooring	J. M. Beskine 15.9.55
(23) G Floors, Structural Units	(24)/69.026.1	A Continental method of constructing stairs	T. Ritchie 30.6.55
(24) Stairs, Ramps: General	(24)/69.026.1	Cost variations in common building items, 4: Domestic stairs	Handisyde & Taylor 27.8.59
		and Willis & Thompson	
(25) Ceilings, Suspended	(25)/69.025.4	Noise reduction by acoustic tile ceilings	Specialist Editor 22/29.3.56
(27) Roofs: General	(27)/69.024	A recent application of the "cement-gun" process	Dr. A. Flint 22.10.59
(3) SECONDARY ELEMENTS	(3)/69.027	Cost study of infill panels	Johns, Slater & Haward 9.5.57
		and Caston & Porritt	
(31) Windows, Wood: General	(31)/69.028.1:674	Cost variations in common building items, 1: Wood windows	Handisyde & Taylor 23.4.59
		and Willis & Thompson	
(32) Doors, External and Internal	(32)/69.028.1	Cost variation in common building items, 2: Internal doors	Handisyde & Taylor 28.5.59
		and Willis & Thompson	
	(32)/69.028.1	Cost variation in common building items, 3: Internal door frames and linings	Handisyde & Taylor 18.6.59
		and Willis & Thompson	
(4) FINISHES	(4)	The Royal Festival Hall after six years	J. Stillman 11.7.57
		J. Eastwick-Field	
(5) SERVICES INSTALLATIONS (SANITATION, HEATING, VENTILATION)			
(53) Hot Water Fittings	(53)/621.646	Hot water services by gas	Gas Council 26.9.57
(54) Installations, Gas	(54)/696.2	Gas appliances and flues in tall buildings	Gas Council 8.10.59
	(54)/696.2	Domestic kitchen	Gas Council 26.11.59
(54) Installations, Refrigeration	(54)/621.56	Tailor-made refrigeration	Robert Scutt 14.4.55
(56) INSTALLATIONS, HEATING	(56)/697	Domestic hot water and central heating boilers fired by solid fuel	C. Fishlock 28.6.56
		A. J. Forder	
	(56)/697	Present position and future development of heating appliances fired by gas	L. W. Andrew 28.6.58
		D. R. Wills	
	(56)/697	Domestic space heating	Gas Council 29.11.56
	(56)/697	Hot water services by gas	Gas Council 26.9.57
	(56)/697	Simplified floor heating	William Allen 21.4.55
	(56)/697	The use of oil for domestic heating	L. J. Fowler 6.10.55
		G. T. K. Dean	
	(56)/697	The use of the list of recommended solid fuel appliances	A. G. Ludgater 28.6.56
		W. C. Moss	
	(56)/697	Present position and future development of heating appliances fired by gas	L. W. Andrew 28.6.56
		D. R. Wills	
	(56)/697	Present position and future development of domestic heating appliances operated by electricity	E. M. Ackery 28.6.56
		J. W. Moule	
	(56)/697	Oil-fired appliances for domestic heating	G. J. Gollin 5.7.56
	(56)/697	Warm air systems	Dr. W. Davidson 5.7.56
	(56)/697	Architectural problems of heating multi-storeyed flats	Cleeve Barr 5.7.56
	(56)/697	Domestic oil heating	J. Eastwick-Field 20.9.56
	(56)/697	Domestic space heating, 1	Gas Council 29.11.56



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<i>SfB/UDC Classification</i>	<i>Title of article</i>	<i>Author</i>	<i>Date published</i>
(56)/697	Heating costs	R. Baden Hellard	6.12.56
(56)/697	Small pipe central heating, 1: Design	R. J. Playle	
(56)/697	Small pipe central heating, 2: Installation and cost	D. V. Brook	17.10.57
(56)/697	Domestic heating: Coke	D. V. Brook	24.10.57
(56)/697	Domestic heating appliances fired by solid fuel; open fires, stoves and cookers	Gas Council	22.1.59
(56) Central Heating: General	(56)/697.3 Domestic hot water and central heating boilers fired by solid fuel	F. J. Eaton	28.6.56
	(56)/697.3 Central heating systems	S. Stephens	
	(56)/697.3 Automatically controlled small-pipe central heating	C. Fishlock	28.6.56
		A. J. Forder	
		H. H. Bruce	28.6.56
		D. V. Brook	28.6.56
		Dr. S. A. Burke	
		G. H. Bye	
(56) Chimney Flues	(56)/697.3 Domestic space heating, 2: Central heating by gas and coke	Gas Council	25.4.57
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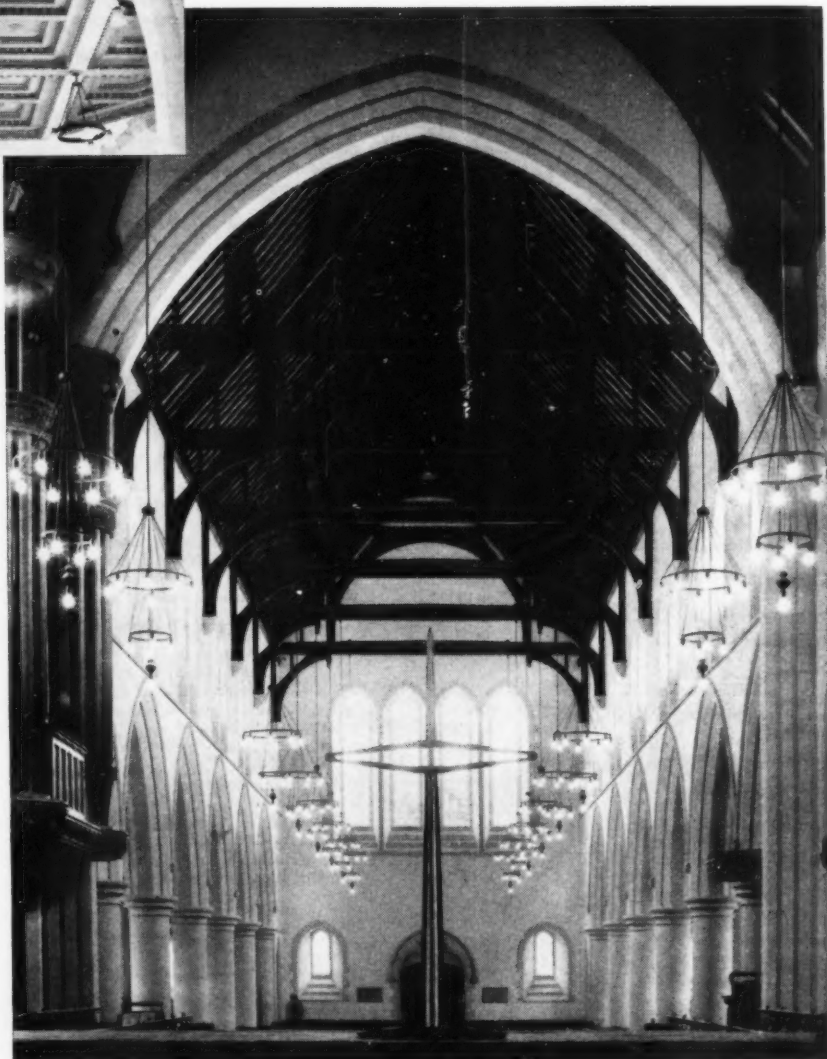


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	Hi	Timber construction in Canada	K. B. Wood	2.10.58



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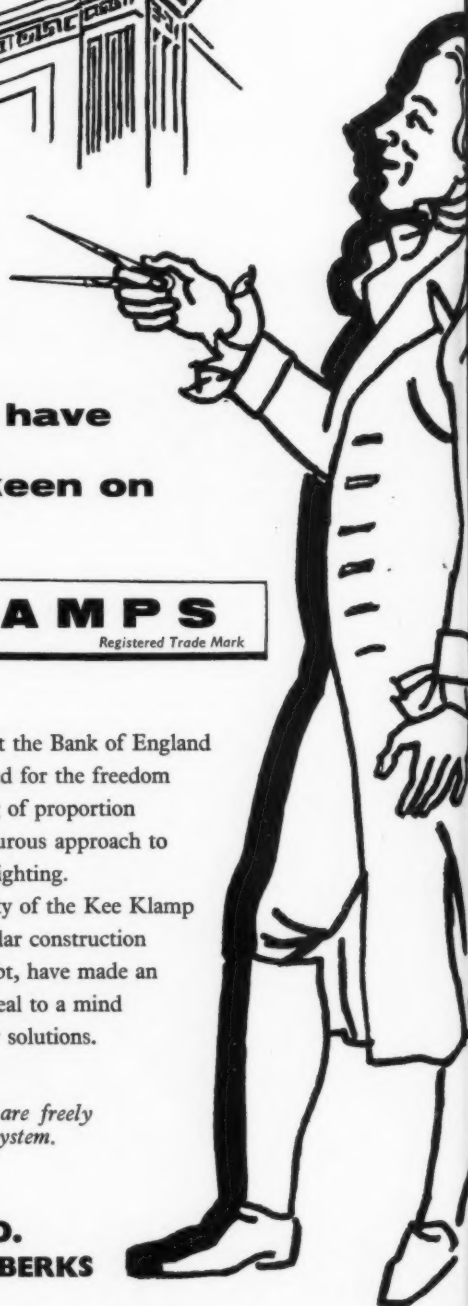
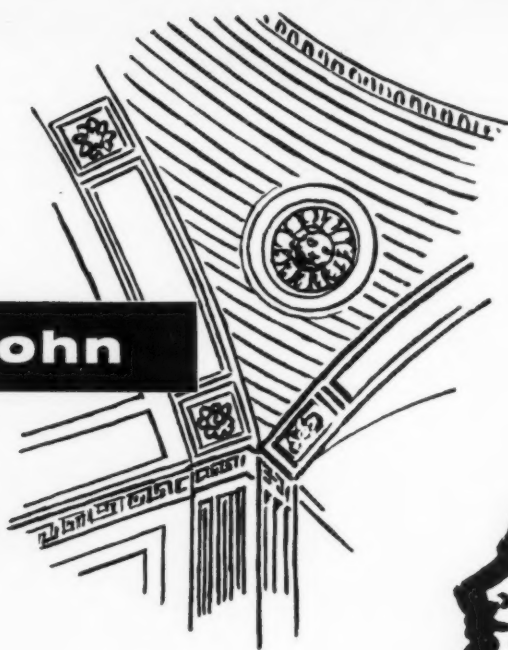
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A 15

HOUSING

at SCEAUX GARDENS,
PECKHAM ROAD, LONDON, S.E.
for CAMBERWELL BOROUGH
COUNCIL

designed by F. O. HAYES, borough architect
deputy borough architect H. C. CONNELL
senior architect A. W. BUTLER
architect-in-charge H. P. TRENTON
assistant architects A. M. JEFFRIES, M. L. M. WHITE
W. S. SOLMAN, J. HACKWORTH
consultant (structural) W. V. ZINN
quantity surveyor OSWALD E. PARRATT

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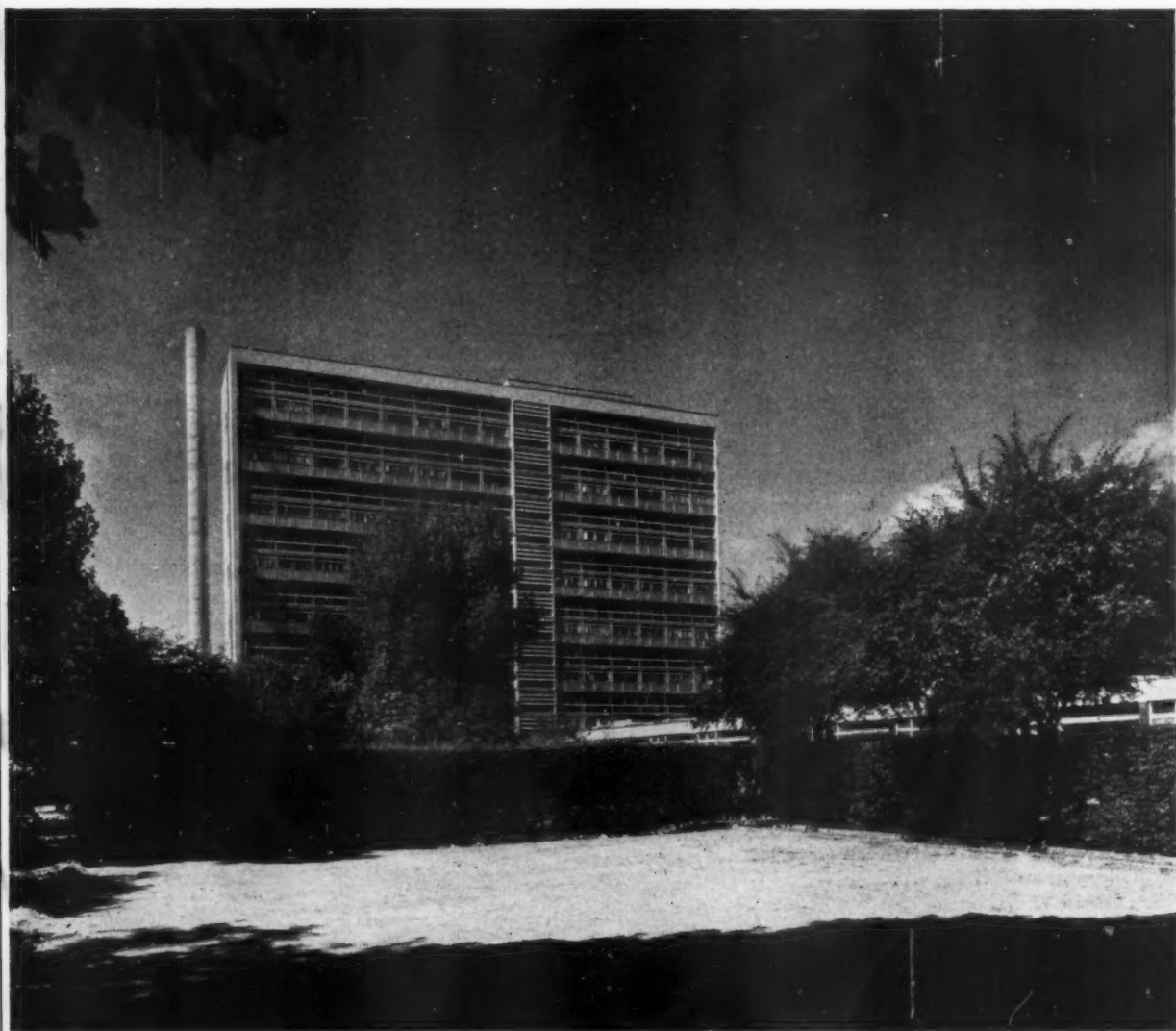
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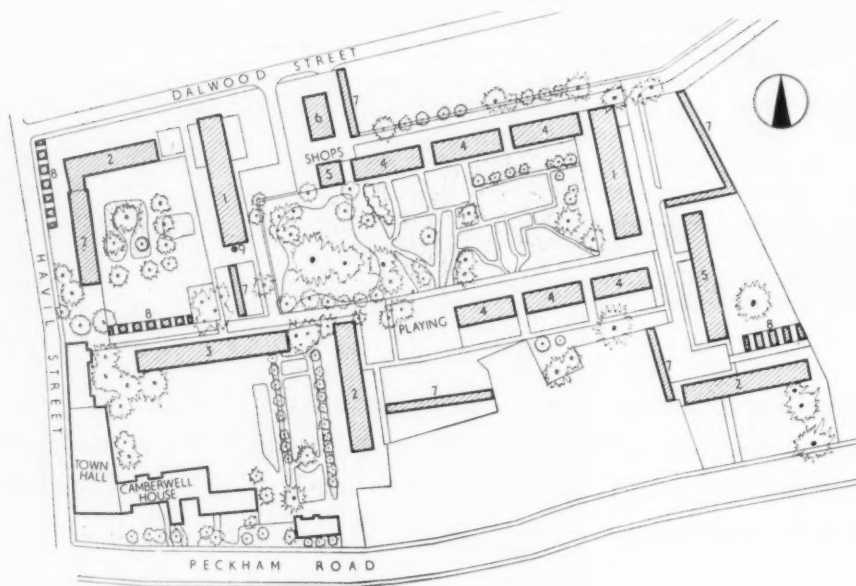
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The Sceaux Gardens estate, now nearing completion for the Camberwell Borough Council, is the most interesting housing scheme to have come from a Metropolitan Borough Architect's Department and compares very favourably with the best of recent LCC work. The two 15-storey blocks which dominate the estate are the subject of this week's cost analysis.

A 15-storey block from the east, with free-standing chimney of the boilerhouse which serves the whole estate.



building illustrated



Opposite, top: glimpsed through acacia leaves, the boiler house chimney looks quite romantic.

Opposite, bottom: eastern elevation, with ground floor boiler room windows to the left.

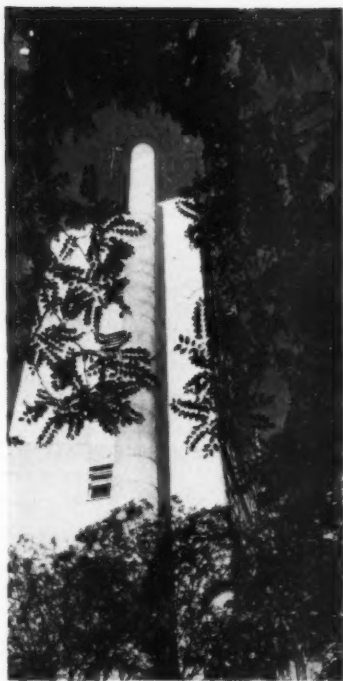
Below: view taken from one of the tall blocks, looking west, over the old trees and lawns, and the one-storey houses, to the second tall block. The well-designed paving is carried under parts of the building.

Site plan

KEY:

1. 15-storey maisonettes
2. Six-storey maisonettes
3. Six-storey flats
4. Single-storey flats
5. Shops
6. Projected shops with community centre above
7. Garages
8. Tenants' stores
9. Boilerhouse chimney





APPRAISAL: The site of Sceaux Gardens—so named to commemorate a wartime friendship with the municipality of that name south of Paris, but presenting Londoners with some pronunciation difficulties—is on the north of Peckham Road, in a district which contains some of the original Georgian and Regency buildings of Camberwell. Many of these lie to the south in a remarkable area of housing, containing a network of narrow pedestrian ways linking public gardens and streets.

The architects have succeeded admirably in continuing this tradition. The handling of the site works shows great skill in the use of changes of level and the re-use of old materials found on the site. The mature gardens and trees already on the site have been used to great advantage, and where these are shared by the new buildings and existing houses a rare feeling of integration has been achieved. The placing of the blocks of various heights and the formation of enclosed spaces is very satisfying. A number of these spaces, accessible only to pedestrians, are attractively paved—areas of brick paving are particularly successful—and are linked by footpaths. The paving is continued under part of the two fifteen-storey blocks.

Economies imposed by the Ministry account for the absence of play facilities here, apart from a rather bald play deck at mezzanine level in one of the tall blocks. Other amenities also are missing: so far only two of the six proposed shops are built, and it has not yet been decided whether a community centre will be built on the site.

A number of well-designed garages have been carefully fitted into the layout although judging from trends in other comparable schemes these are likely to prove inadequate in quantity. The tenants' stores have not been so successfully integrated and some of them are contained in detached blocks which, although neat enough in design, detract from the clean layout around the blocks.

The two tall blocks of interlocking maisonettes dominate the scheme, and provide tenants in their upper storeys with some unusually fine views of London.

The maisonettes are reached by corridors on alternate floors. The entrance door of each maisonette opens into a small hall, which gives access to the two bedrooms and internal bathroom, and from which a staircase leads up to the living room and kitchen above. The heating unit is placed opposite the foot of the stairs and supplies warm air direct to the living room. LCC byelaws for ventilation, means of escape and fire protection appear to have been inflexibly enforced and result in elaborate and costly planning requirements, some of which are of doubtful value: a minute ventilated lobby has had to be provided for the bathroom and lavatory as there is no separation between the living room and the entrance hall; the bedroom and lobby doors are fire-resisting, although there are clear glass fanlights over the bedroom doors, and the two bedrooms are directly linked by a dwarf door, while the understair cupboard in the main bedroom gives access to the corridor by means of another dwarf door. At the upper level, the living room is separated from the kitchen by the balustrade of the staircase and by a glazed screen, though the two rooms tend to read as one, with windows at each end. At this level continuous balconies are provided along both sides of the block as a further means-of-escape requirement, but these are not wide enough to be used for sitting out.

Owing to the interlocking plan of the maisonettes, the

kitchens and living rooms alternate along the block at both sides and this may have decided the architect's choice of a constant sill level at a height suitable for the kitchen. This decision gives the over-all unity to the scheme which the architects sought and at the same time the feeling of security which some people feel necessary in high buildings. But it effectively cuts out the fine view from the living room for anyone sitting there in a low chair.

The discipline imposed on the window design has not been followed in the treatment of the structural concrete, where the architects have used in each place the finish which seemed to them most appropriate. The result, if not entirely logical, is agreeable. The large areas of flank wall on the high blocks have been faced with pearl grey mosaic, and the areas around the lifts and staircases are similarly treated but with a bolder colour. The only areas of untreated concrete occur at ground floor level, which may prove a mistaken decision as it is here that the effect of weathering and dirt will be most noticeable. The continuation of the concrete cross walls down through the ground floor, imposed on the architects because of costs, has hampered the planning of this area, a laundry is accommodated in each block and a boiler house in one. The other block contains the play deck. It is a pity that the boiler house is enclosed in obscured glass, instead of clear glass as the architects intended, as clear glass would have enabled tenants to see the plant.

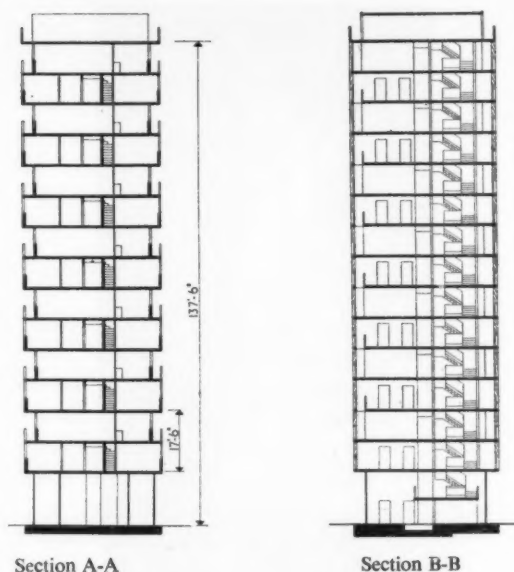
The aluminium-faced plasterboard backing to the glazed panels beneath the windows is one of the doubtful elements of the scheme, as this material gives considerable glare even without sunshine, and it imparts a metallic effect to the blocks, with little colour to give relief. Moreover many of the panels are disfigured by what appears to be crazing of the aluminium: the lines are thought to have been caused by the sheets touching one another during handling, when damp with condensation, and that this could have been eliminated by wiping the aluminium before fixing the glass. These panels, together with the rigid window design, are used throughout the scheme, but are perhaps more acceptable in the lower blocks, where they contrast with the dark bricks of the cross-walls, although the elevations on the private sides of these blocks are somewhat severe.

The lower blocks are of load-bearing brick construction, and consist of two single storey terraces of two-room flats and a number of six-storey blocks containing further two-room flats and four-room maisonnettes.

The two-room flats, especially those in the single-storey blocks will be occupied by older people and this adds to grave doubts about the unorthodox placing of the bedroom on the north side, which in the six-storey blocks adjoins the access balcony. To retain privacy, these rooms are lighted by clerestorey windows and anyone who spent much time there might find it very depressing.

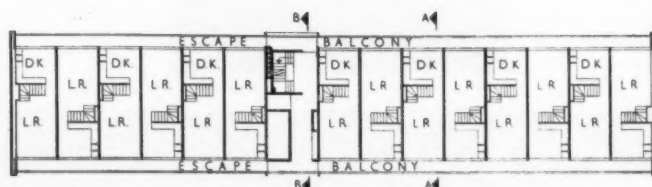
While the occupants of the lower blocks do not have the fine views which can be enjoyed from the higher dwellings, they gain by being less remote from the pleasant garden spaces which surround them. In this respect the architects have achieved the right balance by using just sufficient high blocks to give contrast and to enable the remainder to be reasonably low and intimate in character.

The standard of fittings and finishes through the scheme is high. For example, studded rubber floor tiles in the corridors of the high blocks give a slight feeling of luxury, although the mottle colouring is not altogether satisfactory.

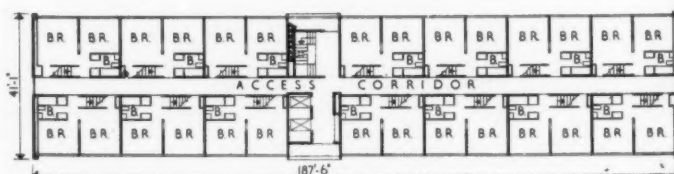


Section A-A

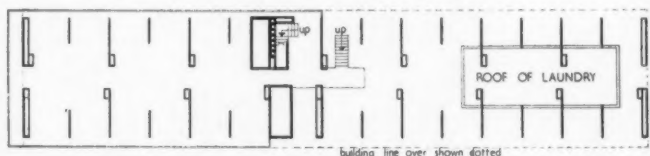
Section B-B



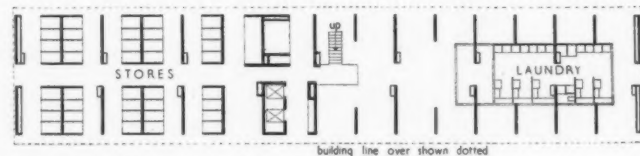
Typical upper floor plan of two-bedroom maisonette block



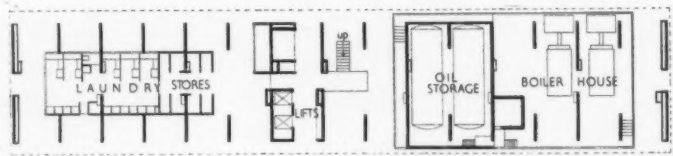
Typical lower floor plan of two-bedroom maisonette in 15-storey block 2



Mezzanine floor, 15-storey block 2. Left portion of this area is used as play deck

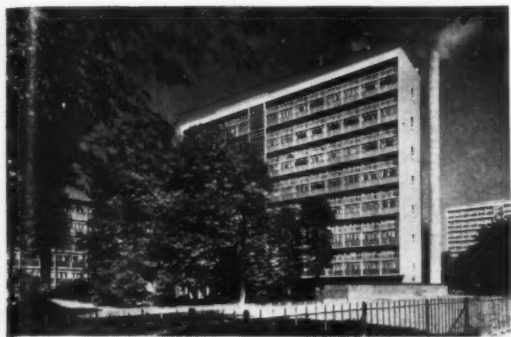


Ground floor plan, 15-storey block 2



Ground floor plan, 15-storey block 1 [Scale: 1/4" = 1' 0"]

building illustrated



Left: west elevation of a 15-storey block, with glimpses of six-storey maisonettes through the trees to the left, and of the second 15-storey block on right.

Below: west elevation of the tall block, with brick-paved courtyard in foreground.

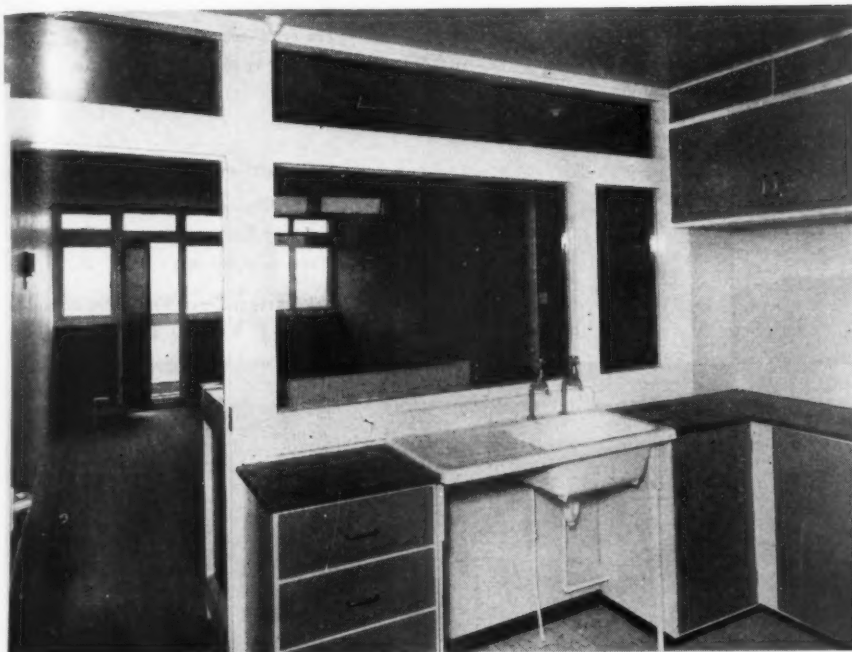




Close-up of service road approach to one of the tall blocks. Note how the crosswalls continuing down through the ground floor hamper the planned use of this area. Below left: the glazed lift shaft of a tall block.

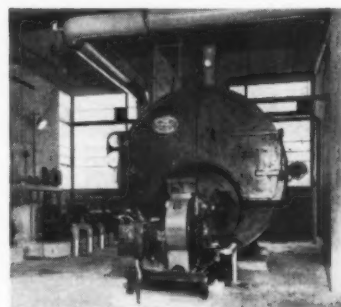


building illustrated

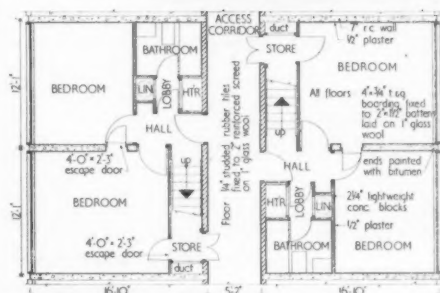


Left: View through the kitchen and living room with open door on to escape balcony beyond.

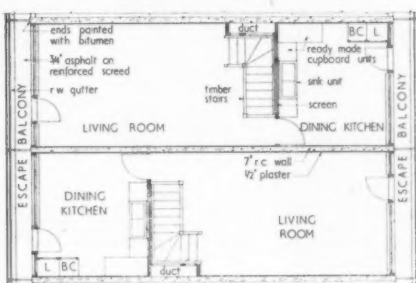
Below: the boilerhouse. The architects had intended the windows to have clear glazing, but obscured glass was fixed in error.



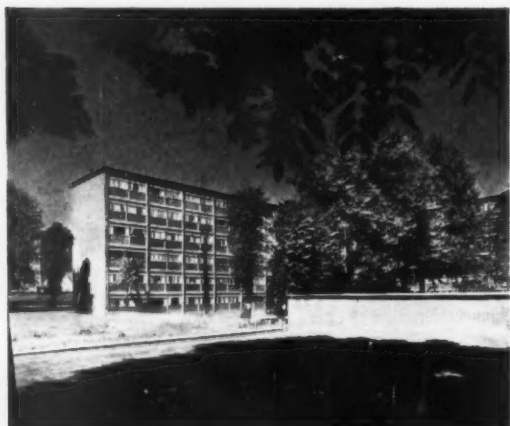
Left: internal corridor in a maisonette block. The first door on right is a front door, the second is an escape door from a bedroom, which does not reach the full height of the recess. Illumination is by a simple system of concealed lighting and the floor is covered with studded rubber tiles.



Typical lower floor plan of flat in 15-storey maisonette block [Scale: 1/4" = 1' 3"]



Typical upper floor plan



Left: two six-storey maisonette blocks at the north-west corner of the site, with back of tenants' stores in right foreground. The brick-paved area in front is largely obscured by the shadow of a tree.



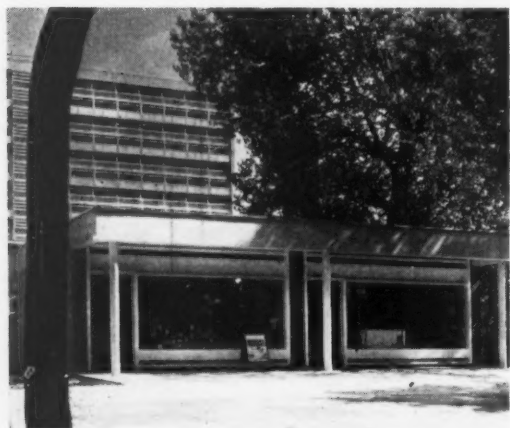
Below left: the six-storey flats from the south-west.



Below: the staircase link, from within the courtyard. The first floor link room has a communal laundry serving both blocks.



Above left: the front of one of the two-room flats for old people in single-storey blocks. Facing north, with a deep porch and high, narrow window, the bedroom must inevitably be rather gloomy by daylight.



Left: the two shops on the estate—four more are still to be built, with paved area in front, and a row of single-storey two-room houses for old people behind.

building illustrated

A free-standing staircase block is linked by glazed "bridges" to the two maisonette blocks on the north-west. At the top is a tank room. The upper bridge carries heating pipes.



analysis

Note: This analysis relates to two 15-storey blocks containing 196 dwellings, which form part of a contract for 403 dwellings, for which the total contract price was £1,150,256. The part of the contract not analysed comprises: 102 four-room maisonettes in three six-storey blocks; 105 two-room flats in two one-storey and one six-storey block. Total floor area: 131,195 sq. ft.

Cost, including external works, £492,681 5s 4d, giving an average price of 75s 1½d per sq. ft. inclusive of external works.

For the purpose of arriving at a tender price of external works and ancillary buildings for the two blocks cost analysed here, a proportion of the total tender price has been taken, as shown below:

	Total			Price per dwelling			Price for blocks 1 and 2 (196 dwellings)		
	£	s	d	£	s	d	£	s	d
<i>Works on site</i>	5,137	4	11	12	14	11	2,598	10	3
External works (drains, ring water mains, external heating, pipe ducts, roads, paths, pavings, etc., and boundary walls and fencing)	101,769	9	7	252	10	7	49,495	16	6
<i>Ancillary buildings</i>									
36 garages and 1 gardener's store	8,165	5	3						
2 transformer chambers	1,049	11	4						
2 shops	4,242	6	5						
	13,457	3	0	33	7	10	6,544	18	4
	£120,363	17	6	£298	13	4	£58,539	5	1

SUMMARY

Ground floor area: 13,928 sq. ft.
 Total floor area: 208,921 sq. ft.
 Type of contract: RIBA Lump Sum.
 Tender date: May, 1957.
 Work began: September, 1957.
 Work finished: November, 1959.
 Tender price of foundations, superstructure, installations and finishes: £599,035 9s. 7d.
 Tender price of external works, including drainage, and ancillary buildings: £58,539 5s 1d.
 Total: £657,574 14s 8d.
 (Note: The ground floors of the two blocks are occupied by a boiler house and oil storage room, laundries and tenants' stores, all of which are set in from the general wall face. The ground floor area given above is a typical floor area measured within the external walls and including escape balconies.
 For the purpose of arriving at the element prices per sq. ft. and the various ratios the Habitable Floor Area of 148,527 sq. ft. has been used.

Total cost Cost per
sq. ft. of
floor

£ s d s d

Preliminaries and insurances	70,620	17	11	9	6
Contingencies	2,940	0	0	4	½
Work below ground floor level Bored pile foundations	58,504	9	5	7	10½

STRUCTURAL ELEMENTS

Frame or load-bearing element 44,797 ½ 9 6 6 0½

Reinforced concrete cross wall construction.

The structural end walls are included within the frame but the finish to the exposed external faces is given under "External walls."

External walls 25,626 7 6 3 5½

End walls included in "Frame," above except for tile finish, included here.

External wall panels, infilling between cross walls, including the solid portion of the panels, surrounds to windows and doors and aluminium flashings. 25,319 0 3 3 5

Ratio:
 external walls
 (including solid part of wall panels) = 0.483
 habitable floor area = 1

Windows 15,485 ½ 16 4 2 1

Mild steel, galvanised, painted, fixed to glazed softwood-framed panels.

Ratio:
 windows
 (including those in wall panels) = 0.325
 habitable floor area = 1

External doors 15,926 7 3 2 1½

(a) Flush plywood, (b) ledged, framed and braced doors.

(c) Aluminium glazed doors.

Total, 844 single.

(d) Hardwood glazed doors, 56 pairs.

Ratio:
 external doors
 (including doors in wall panels but excluding escape doors on balconies) = 0.072
 habitable floor area = 1

Upper floors 39,645 12 11 5 4

4½-in. solid reinforced concrete.

Span: 11 ft. 6 in.

Area: 204,741 sq. ft.

Superload: 40 lb. per sq. ft.

analysis

	Total cost			Cost per sq. ft. of floor		
	£	s	d	£	s	d
Staircases	4,379	4	3			7
Precast concrete with granolithic treads and risers.						
Balustrades of painted metal and softwood frames, glazed with $\frac{1}{4}$ -in. Georgian wired cast glass.						
Number of staircases: 2.						
Width: 3 ft. 6 in.						
Total rise: 8 ft. 9 in. (overall total: 129 ft.).						
(Internal staircases to maisonettes are included under "Partitions.")						
Roof construction	2,809	13	2			4 $\frac{1}{2}$
$\frac{4}{8}$ -in. solid reinforced concrete.						
Area: 15,390 sq. ft.						
Glazing	5,832	11	2			9 $\frac{1}{2}$
Windows: 24 and 32 oz. glass.						
Under-window panels: $\frac{1}{4}$ -in. Georgian wired cast glass.						
Staircase windows: $\frac{1}{4}$ -in. Georgian wired plate glass.						
Total of structural elements:	£179,822	2s	4d	= 24s 2 $\frac{1}{2}$ d per sq. ft.		

PARTITIONS AND FITTINGS

Internal partitions				2	1 $\frac{1}{2}$
Lightweight concrete blocks:	9,638	8	7		
Type of block	Area of each type				
2 $\frac{1}{2}$ -in.	3,123 sq. ft.				
3-in.	2,214 sq. ft.				
5-in.	43,461 sq. ft.				
Plasterboard partitions:	6,336	18	9		
55,704 sq. ft.					
(This element includes partitions forming service ducts.)					
Screens	3,258	3	9		5 $\frac{1}{2}$
Softwood screens divide kitchens from living rooms.					
Wax-polished plywood panel infilling below work-top level and 32-oz. glazing above. Framing is painted.					
Internal staircases to maisonettes	9,689	15	9	1	3 $\frac{1}{2}$
Softwood staircases to maisonettes with metal balustrades and softwood frames, glazed $\frac{1}{4}$ -in. Georgian wired cast glass.					
Softwood and metal are painted.					
No. of staircases: 196					
Width: 2 ft. 11 in.					
Total rise: 8 ft. 9 in.					
Internal doors	13,289	18	2	1	9 $\frac{1}{2}$
Flush doors with asbestos cement facing to one side, and flush plywood doors.					
No. of single: 1,968. pairs: 214.					
Ironmongery	5,897	9	11		9 $\frac{1}{2}$
Anodised aluminium, satin finish					
Fittings	9,652	11	4	1	3 $\frac{1}{2}$
Larders, cupboards and kitchen fittings.					

Total of partitions and fittings:
£57,763 6s 3d = 7s 9 $\frac{1}{2}$ d per sq. ft.

FINISHES

Floor finishes

In dwellings	16,669	14	2	2	3
Type of finish: $\frac{3}{4}$ -in. softwood t & g in 4 in. widths on 1-in. insulation quilt and 1 $\frac{1}{2}$ in. \times 2 in. softwood fillets— $\frac{3}{4}$ in. \times 3 in. softwood skirtings. Area in sq. ft.: 134,750.					
Cost per sq. yd.: 22s. 3 $\frac{1}{2}$ d.					
Access corridors	6,453	2	2		10 $\frac{1}{2}$
Type of finish: Studded rubber floor tiles on 2-in. cement and sand screed. 1-in. insulation quilt $\frac{3}{4}$ -in. \times 3-in. hardwood skirting. Area in sq. ft.: 14,940. Cost per sq. yd.: 77s. 9d.					
Other spaces	6,977	7	8		11 $\frac{1}{2}$
Cement and sand, granolithic, flag paving, brick paving, quarry tile, asphalt to balconies.					

Wall finishes

Concrete cross walls: gypsum and retarded hemihydrate gypsum plaster.	9,144	9	11	1	2 $\frac{1}{2}$
Block partitions (access corridors):					
Block infilling, below windows: plasterboard.					
Ceiling finishes	10,453 $\frac{1}{2}$	13	8	1	5
Within dwellings: gypsum and retarded hemihydrate gypsum plaster.					
Access corridors: Suspended chip-board. Laundry: asbestos spray.					

Roof finishes

3-layer bituminous felt finished with white spar chippings on 2 in. wood-wool and cement and screed. Area: 14,175 sq. ft.	2,817	16	7		4 $\frac{1}{2}$
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Decorations

Rooms generally: water paint.	19,056	3	8	2	6 $\frac{1}{2}$
Kitchens: oil paint.					
Bathrooms: emulsion paint.					
Access corridors: oil paint.					
Public staircases: stone paint.					
Plywood: waxed or varnished.					

Total of finishes: £71,572 7s 10d = 9s 7 $\frac{1}{2}$ d per sq. ft.

SERVICES

External plumbing	998	18	9		1 $\frac{1}{2}$
No rainwater pipes as rainwater is disposed of through soil and ventilating stacks.					
Hot and cold water installation	28,505	15	2	3	10
Copper services, insulated hot water cylinders with immersion heaters, galvanised steel break feed tanks with main storage tanks on roof.					

analysis

	Total cost			Cost per sq. ft. of floor		
	£	s	d	s	d	
Sanitary fittings	17,559	12	1	2	4½	
(This element includes combined soil, etc. and rainwater pipes.)						
Type of fitting	No. per dwelling.					
Enamelled cast iron sink and single drainer	1					
Lavatory basin	1					
W.C. suite	1					
Bath with plywood panelling	1					
Heating and ventilation	42,796	11	9	5	9½	
A boiler in ground floor of one of the blocks provides central heating to the whole estate. Oil-fired boilers near water which is fed to units in each dwelling, where fan-driven air is passed over coils to provide warm air which circulates throughout the maisonette.						
Internal bathrooms are mechanically ventilated by extract fans.						
Internal temperatures: Bedrooms and halls, 50 deg. F.						
Living rooms, 65 deg. F.						
Air change per hour.	Up to 6th floor			6th floor and over		
Living rooms						
1 ext. wall	1	1½				
2 ext. walls	1½	2				
Bedrooms						
1 ext. wall	1½	2				
2 ext. walls	2	2½				
Halls	1	1½				
U of walls: 0.25. U of roof: 0.20.						
Gas installation	2,065	0	0			3½
4 gas points per dwelling.						
Electrical installation	22,100	0	0	2	11½	
9 light points and 9 power points per dwelling.						
Lifts	19,366	4	5	2	7½	
4 lifts to take 8 passengers.						
Rate of travel: 150 ft.p.m. Total travel: 120 ft. 6 in.						
No. of openings, 8.						
Total of services: £133,392 2s 2d = 17s 11½d per sq. ft.						
Other elements	10,420	3	8	4	3½	
Refuse disposal						
Salt-glazed earthenware chutes.						
Balcony balustrades						
Galvanised m.s. angles and softwood framing with ¼-in.						
Georgian wired cast glass infilling.						
Lightning conductor						
Fire-fighting equipment and dry risers						
Laundry equipment and drying cubicles						
Detached chimney shaft						
Drainage	10,413	12	2	1	4½	
Shillings per sq. ft. of floor area:						
£599,035 9s. 7d. (net cost excluding drainage and ext. works)						
=						
148,527 sq. ft. (net habitable floor area)						
						80

COST COMMENTS

There have been too few published analyses of high flats. Study of the economics of building high is still in its infancy. What we have seen suggests that you pay more as you rise in height, although the curve flattens somewhat over ten storeys.

Figures from the BRS a year ago are the most comprehensive published yet, but even these were based upon examples isolated by their difference in design, layout, size of block, size of dwellings and size of contract. In the AJ a few point blocks have been seen and quite recently the analysis of the large LCC scheme at Roehampton has appeared (AJ, November 5, 1959).

At once one is drawn to make a comparison between the fifteen-storey blocks at Sceaux Gardens and the eleven-storey maisonette blocks at Roehampton. The accommodation is similar and there is a marked similarity in treatment. The dwellings are almost identical in area. However, Roehampton cost £2,395 and Sceaux Gardens £3,057 per maisonette, 27½ per cent more.

Study of the two sets of figures is interesting.

1. The cost of work below ground is very similar.
 2. Structural work at Sceaux Gardens cost some £100 more per dwelling. They are higher buildings and this must have had some effect.
 3. Presumably both authorities studied the comparative costs of constructing every floor in concrete, against timber intermediate floors. They both reached the same conclusion in favour of all floors in concrete.
 4. Finishings at Camberwell cost £60 more per dwelling. At Roehampton £18 per dwelling was saved by having only a skin coat of plaster on the concrete soffits.
 5. The same number of electric points cost £50 more at Camberwell.
 6. Services as a whole are almost identical in cost.
 7. The real difference between the cost of the two schemes seems to lie in Preliminaries and Other Elements.
 8. Sceaux Gardens came 2½ years later than Roehampton. This must account for another 10 per cent in cost.
 9. Unfortunately the cost merits of the interlocking maisonette arrangement cannot be determined.
- Camberwell were doubtless fortunate in having the opportunity to build 400 dwellings in a single contract. How much more lucky the LCC to have had the chance to plan 1,400 dwellings on a single site. Building on the bold scale of Roehampton must have saved the LCC at least £150 for every maisonette. Nevertheless, there is little doubt that the Sceaux Gardens scheme is really economic when considering the high standard achieved. We shall look forward to an opportunity of reviewing it with a future scheme more comparable in size.

CONTRACTORS

General contractors: John Laing & Son Ltd. *Sub-contractors:* *Piling:* The Pressure Piling Co. (Parent) Ltd. *Sewer connections:* Camberwell Borough Council. *Electrical installation:* City Electrical Co. *Heating installations, etc.:* Weatherfoil Heating Systems Ltd. *Lift installation:* The Express Lift Co. Ltd. *Gas installation:* South-Eastern Gas Board. *Lightning conductors:* R. S. Cutting & Co. Ltd. *Roller shutters:* Haskins. *Block names:* Lettering Centre. *Estate lighting:* Electrical Contractors Ltd. *Mosaic and tiling:* Dennis M. Williams Ltd. *Window fixings and fittings:* Crittall Manufacturing Co. Ltd. *Painting of concrete shutters:* H. J. Magor & Co. Ltd. *Plumbing:* J. C. Toogood Ltd. *Painting:* South London Decorators. *Metal workers:* W. H. Gaze & Sons Ltd. *Joinery:* Rotherval Trading Co. Ltd. *Road surfacing:* Val de Travers. *Plastering:* W. A. Telling Ltd. *Granolithic flooring:* P B Industrial Flooring Co. *Rubber floor tiling:* Semtex Ltd. *Glazing:* Aygee Ltd. *Asphalting:* Natural Rock Asphalte. "Cellconcrete" insulation and d.p.c.: Celcon Ltd. *Bituminous felt roofing:* The General Asphalte Co. Ltd. *Landscaping:* Knowles & Weller

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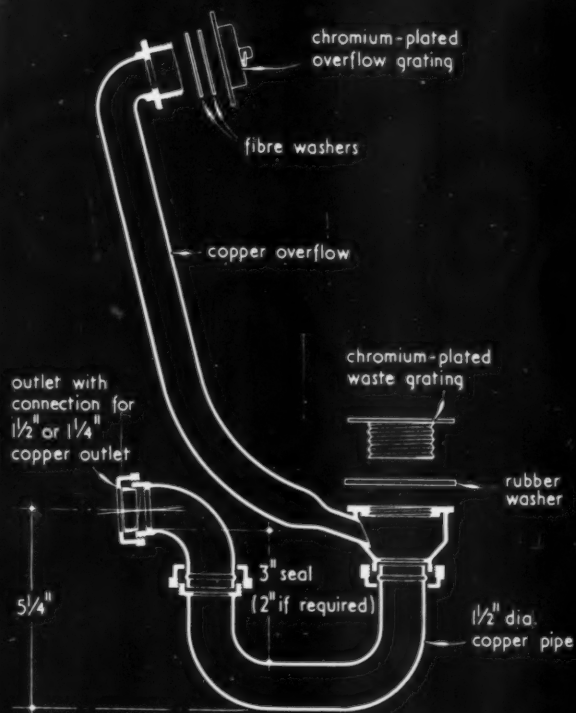
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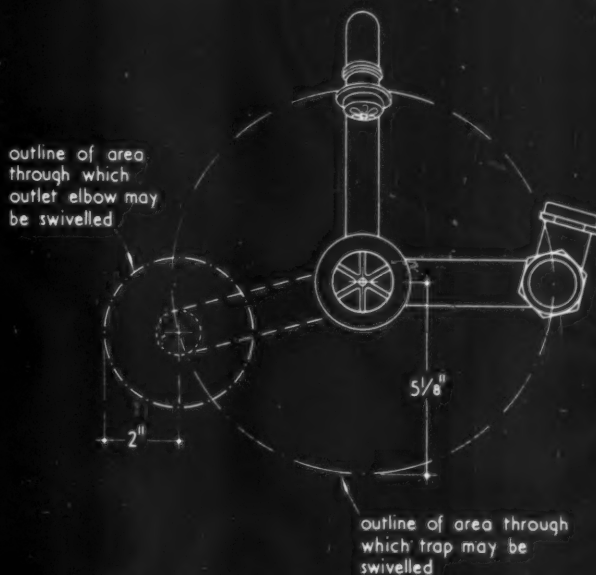
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SANITATION | EQUIPMENT

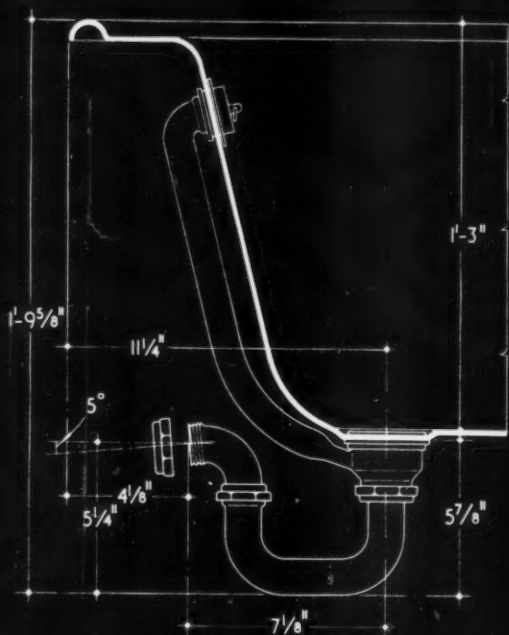
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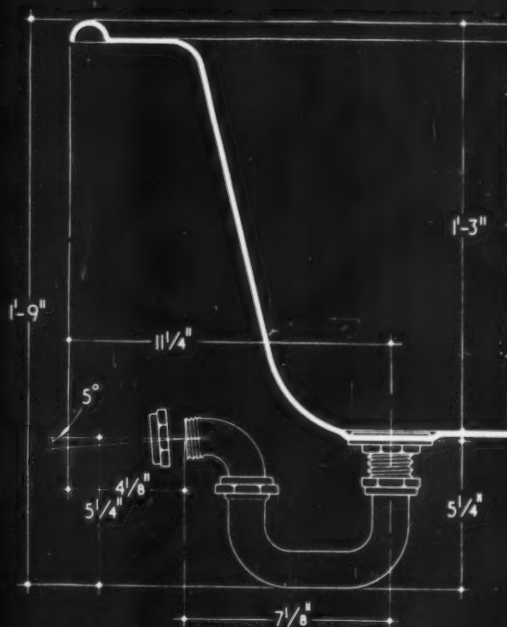
SECTION THROUGH FITTING.



PLAN OF FITTING.



APPLICATION OF FITTING TO VISCOUNT BATH.



TRAP ONLY FITTED TO VISCOUNT BATH.

SOLOW - COMBINED OVERFLOW AND WASTE FITTING FOR BATHS.

Manufacturer: Saunders and Connor Limited.

33.P3 · SOLOW · COMBINED BATH OVERFLOW AND WASTE FITTING

This Sheet deals with the Solow combined overflow and waste fitting which is designed for use with the range of baths manufactured by Saunders and Connor Limited. It includes details of a special trap which is elongated to allow a minimum overall fixing height for the bath.

Material

The fittings are made from copper tube to B.S. 659: 1955 *Light gauge copper tubes for water, gas and sanitation*.

Design and Construction

Combined fitting: This is designed to suit the manufacturer's range of baths, both those of conventional depth and the current shallower patterns: it is necessary to specify when ordering with which type it is to be used. The tubes are slightly flexible and the joint between overflow pipe and waste outlet is brazed: no cutting is necessary or making of joints. The unit is simply offered up to the bath and the overflow and waste gratings screwed in position. The drawing on the lower left of the face of the Sheet shows the Solow unit and trap fitted to a Viscount (shallow type) bath giving a low overall height of 1 ft. 9 $\frac{3}{8}$ in. plus any clearance required above the floor. The distance from the base of the trap to the outlet centre is 5 $\frac{1}{4}$ in. and the bath can be raised 2 to 3 in. without giving an excessive overall height.

Trap: While specifically designed for use with the Solow unit, the trap can be used by itself in conjunction with a deeper waste connection. Although the base is elongated, the tube is not flattened, the full circular bore being maintained throughout. The trap normally has a 3 in. deep seal, but where this depth is not required it is available with a 2-in. seal, the minimum possible with the elongated construction. As shown in the plan drawing on the face of the Sheet, the trap itself can be rotated in a complete circle, as also can the loose outlet tail, making it easy to connect to a stack at any given angle without bending the tubing. The outlet is at 5° to the horizontal.

For cleaning purposes, the two coupling nuts can be loosened and the whole bottom portion of the trap removed, provided it is not tight to the floor. The drawing on the lower right of the face of the Sheet shows the trap alone fitted to a Viscount bath.

Sizes

The combined fitting includes overflow, 1 $\frac{1}{2}$ -in. waste grating, plug and chain. The outlet is 1 $\frac{1}{2}$ -in. B.S.P. male.

The trap outlet is provided with cone connectors for 1 $\frac{1}{2}$ in. copper tubing (or 1 $\frac{1}{4}$ -in., if preferred) to B.S. 659.

Applications

Where the Water Authority permits its use, the combined fitting obviates the necessity for taking the overflow pipe through the exterior wall of the building, a practice which is unsightly and often inconvenient: all pipework can be contained within the confines of the bath area. There is no danger of freezing of the overflow and, an important consideration in blocks of flats and hotels, there is no risk of splashing or fouling.

Finish

Copper is used throughout except for the overflow and waste gratings which are brass, polished and chromium-plated, with a chromium-plated chain and plug.

Compiled from information supplied by:

Saunders and Connor Limited.

(A Federated Foundries Company)

Address: Darnley Works, Barrhead, Glasgow.

Telephone: Barrhead 1081-3.

Telegrams: Sanitas, Barrhead.

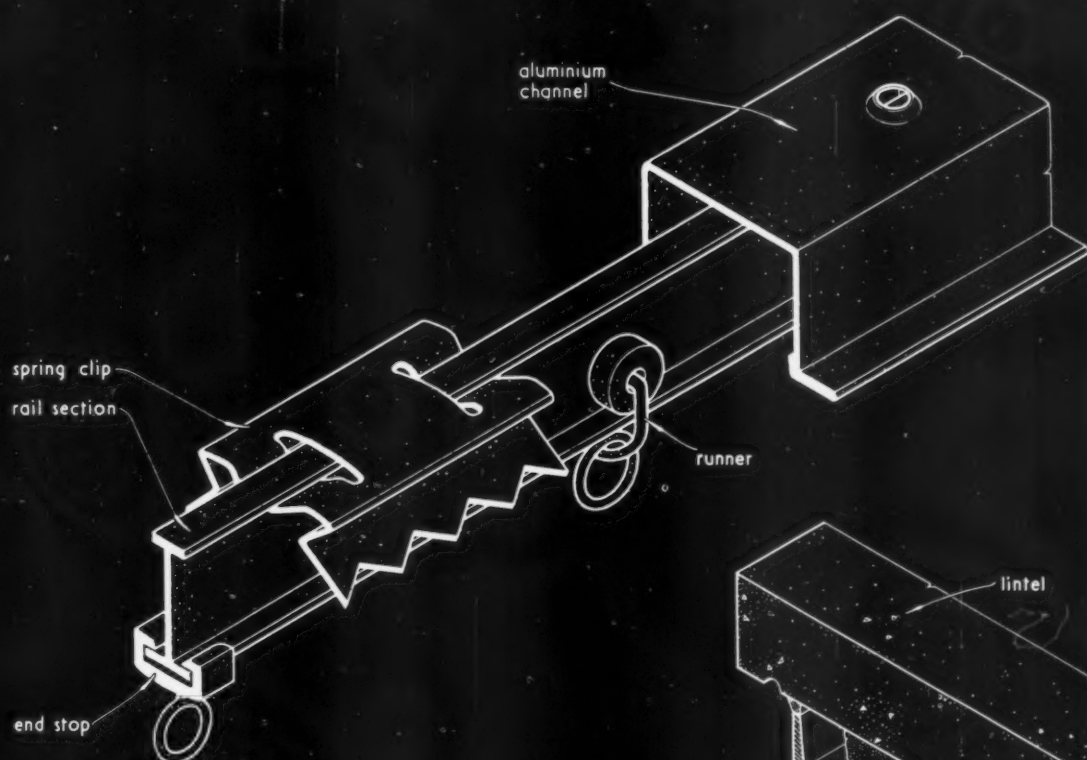
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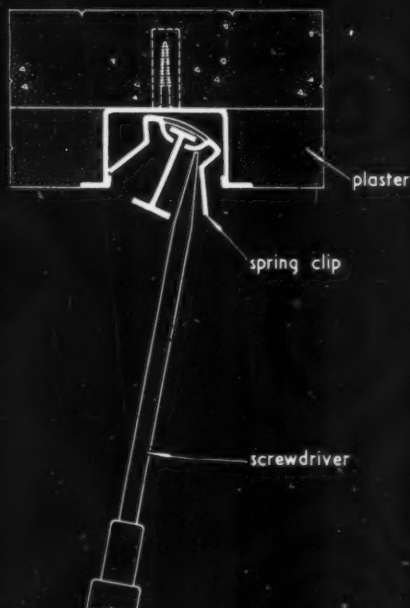
FITTINGS | CURTAIN FITTINGS

44.D1

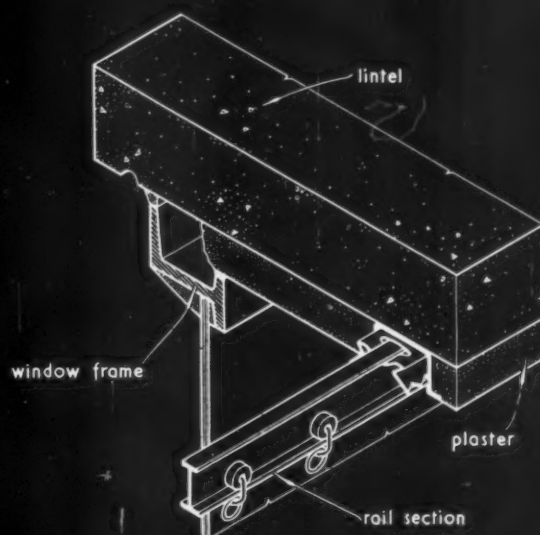
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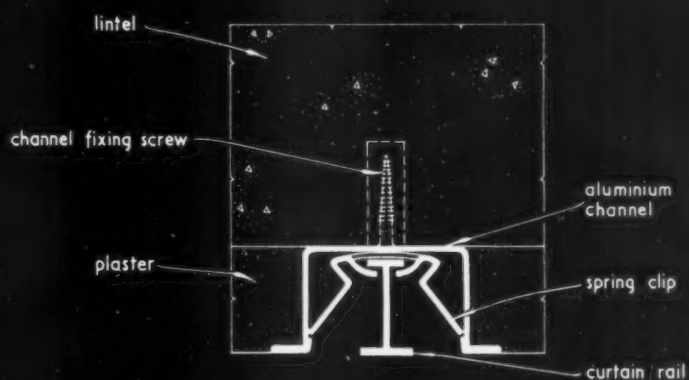
- RAIL SECTION SHOWING ALUMINIUM CHANNEL STRIP AND SPRING CLIP.



METHOD OF PLACING CURTAIN RAIL IN FINAL POSITION.



ISOMETRIC VIEW OF RAIL IN POSITION.



F.S. SECTION OF APPLICATION TO PLASTER.

44.D1 ·RUFFLETTE· RECESSED CURTAIN TRACK

This Sheet describes the ·Rufflette· Brand recessed curtain track. The isometric drawing at the top of the face of the Sheet illustrates the various components and the other isometric view shows the application of the system to a plastered concrete lintel.

Applications

Plaster: Where a plaster facing is specified to the lintel an aluminium channel strip is screwed to wood plugs let into the lintel to provide the recess for the track. The channel strip is $\frac{3}{8}$ in. by $\frac{7}{8}$ in. wide and is perforated every 3 in. to take $\frac{3}{16}$ -in. countersunk screws. Plastering is done after the channel has been screwed to the lintel and allowed to dry thoroughly before the track is fitted. The spring clips should be evenly spaced along the track, the first and last being 3 in. from the ends. One edge of each clip is then placed into one side of the channel: a screwdriver inserted in the clip on the opposite side and pressed firmly upward will cause the clip to snap into place.

For applications to timber and concrete the manufacturer should be consulted.

Runners and End Stops

The number of curtain runners should be three to every foot and end stops should be fitted to each track length.

Specification : Material and Finishes

The track and fittings are corrosion-resisting and are

available in the following materials and finishes:

Channel strip: Aluminium.

Patented spring clips: Solid brass.

Curtain track: Solid brass or aluminium alloy.

Runners: Brass, nickel-plated.

End stops: Extruded brass.

Trade Name

These products are manufactured under the trade name ·Rufflette· Brand.

Compiled from information supplied by:

Thomas French & Sons Ltd.

Head Office : Chester Road, Manchester, 15.

Telephone : Blackfriars 1887 (10 lines).

Telegrams : Rufflette Manchester.

London Office : Dundas House, 59, St. James's Street, London, S.W.1.

Telephone : Hyde Park 0093/4.

Canada : Thomas French & Sons (Canada) Ltd., 63, Wellington Street West, Toronto, 1.

New Zealand : G.P.O. Box 9, Auckland, C.1.

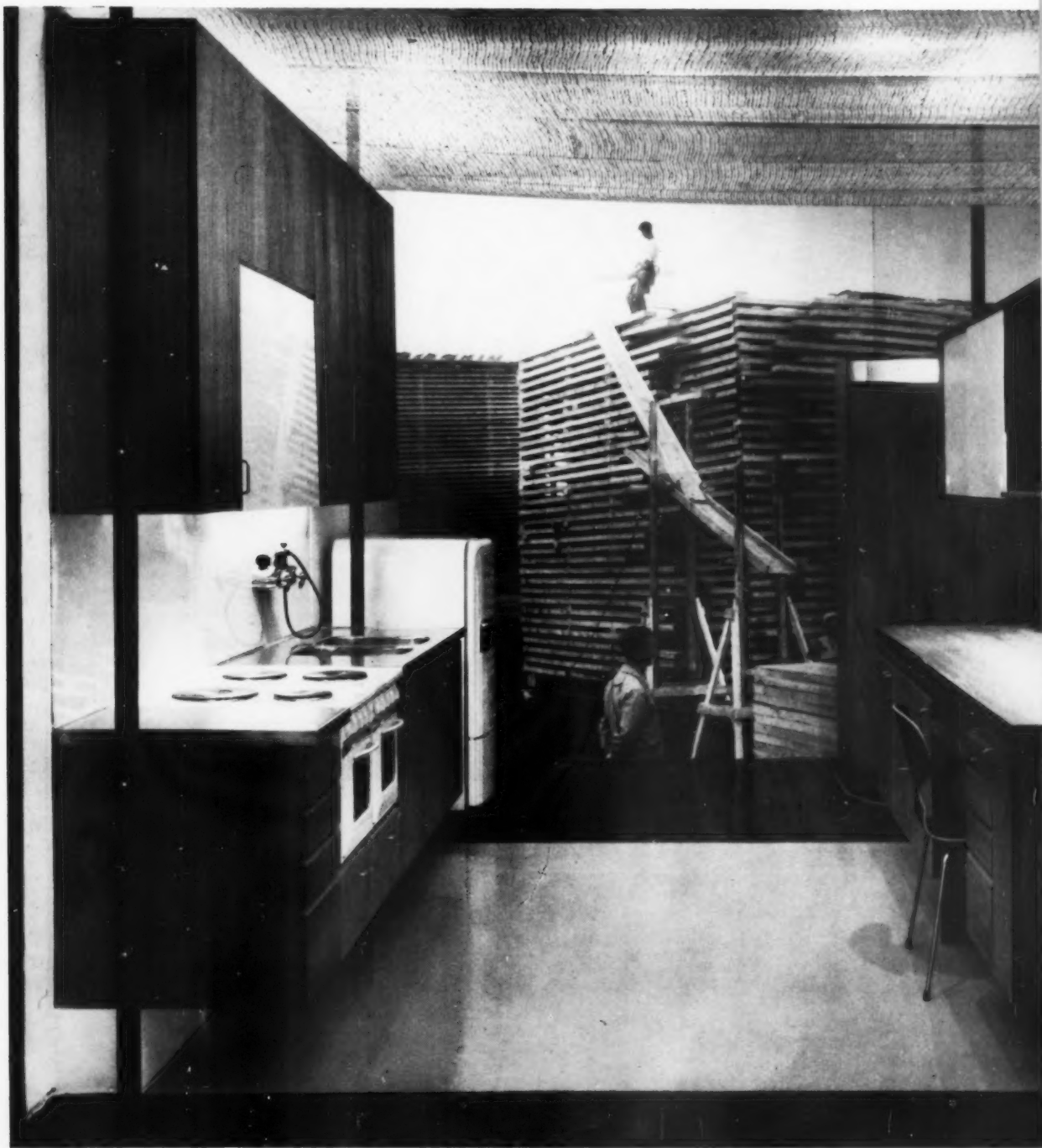
France : 78, Boulevard Malesherbes, Paris, 8e.

Australia : 65, York Street, Sydney.

working detail

KITCHEN FITTING: SHOWROOM IN HELSINKI

Heikki Siren, architect (material supplied by H. S. Sami)

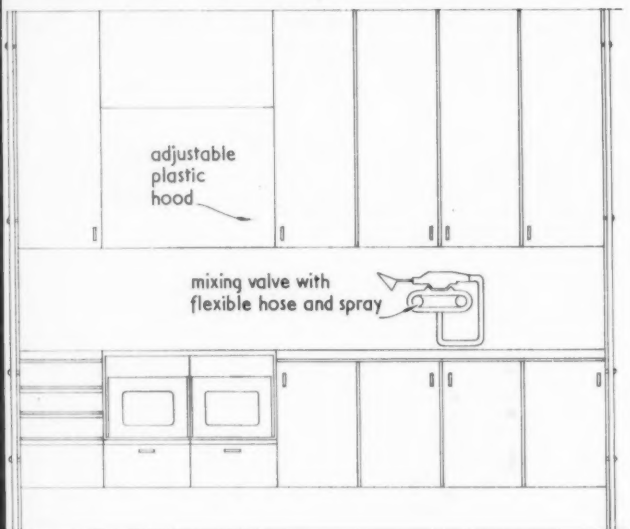


This kitchen fitting (on the left), with its use of teak for the drawer and cupboard fronts and of stainless steel for the worktop, expresses throughout the massiveness of the built-in cooker. Note the mixing valve with flexible hose and spray (an arrangement unfortunately disallowed by our water authorities).

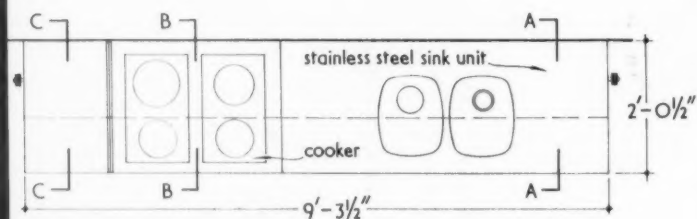
working detail

KITCHEN FITTING: SHOWROOM IN HELSINKI

Heikki Siren, architect (material supplied by H. S. Sami)

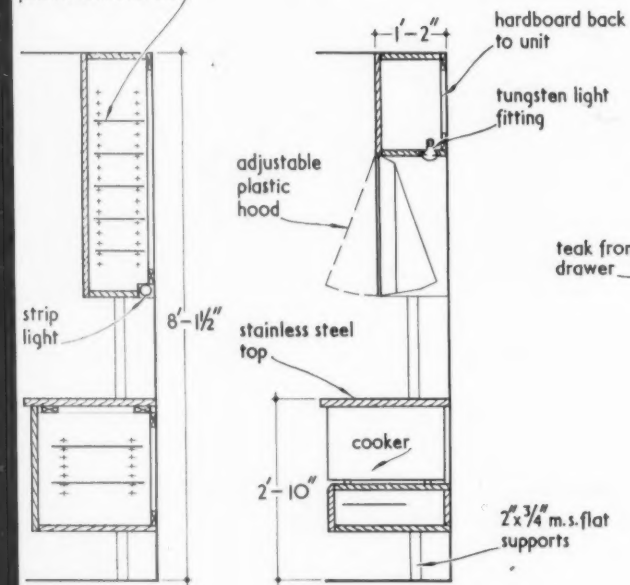


ELEVATION. scale $\frac{3}{8}'' = 1' - 0''$



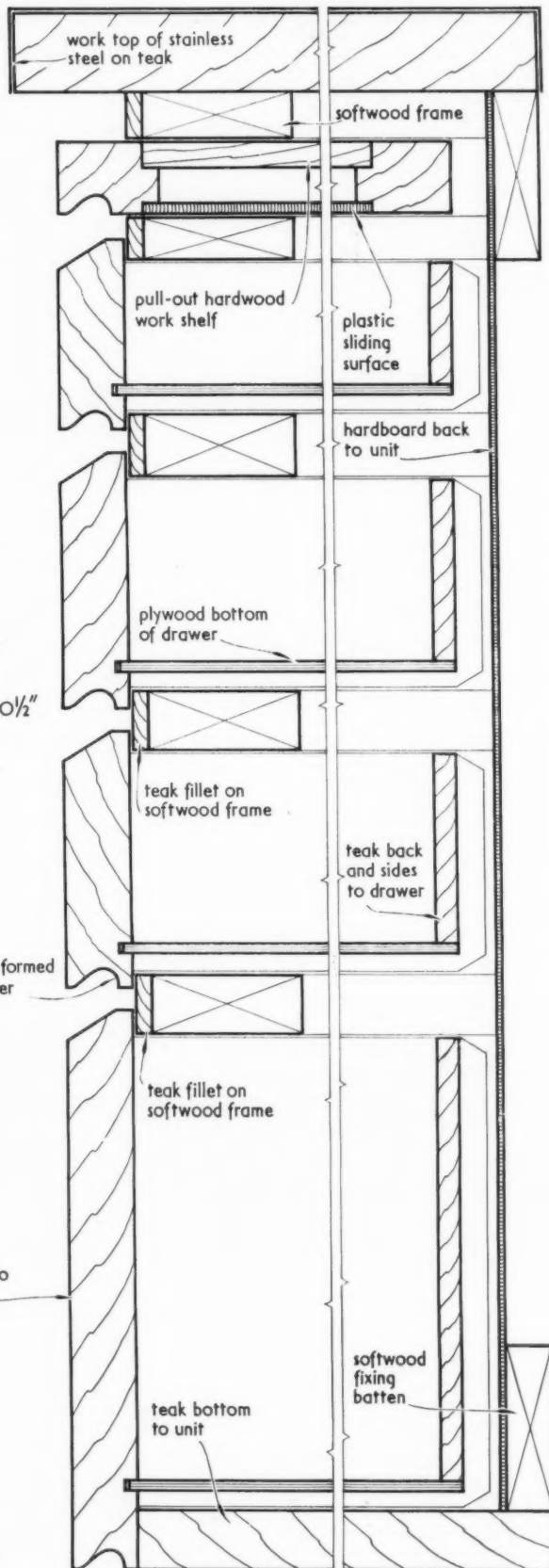
PLAN. scale $\frac{3}{8}'' = 1' - 0''$

adjustable shelves of plastic-covered wire



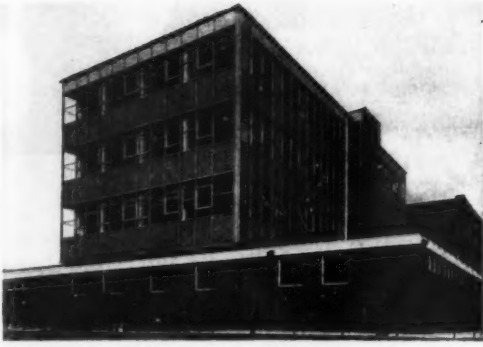
SECTION A-A.
scale $\frac{3}{8}'' = 1' - 0''$

SECTION B-B.
scale $\frac{3}{8}'' = 1' - 0''$



SECTION C-C.
scale $\frac{3}{8}''$ full size

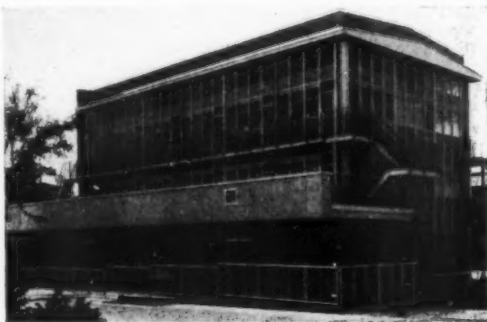
note: figured dimensions in feet and inches are approximate



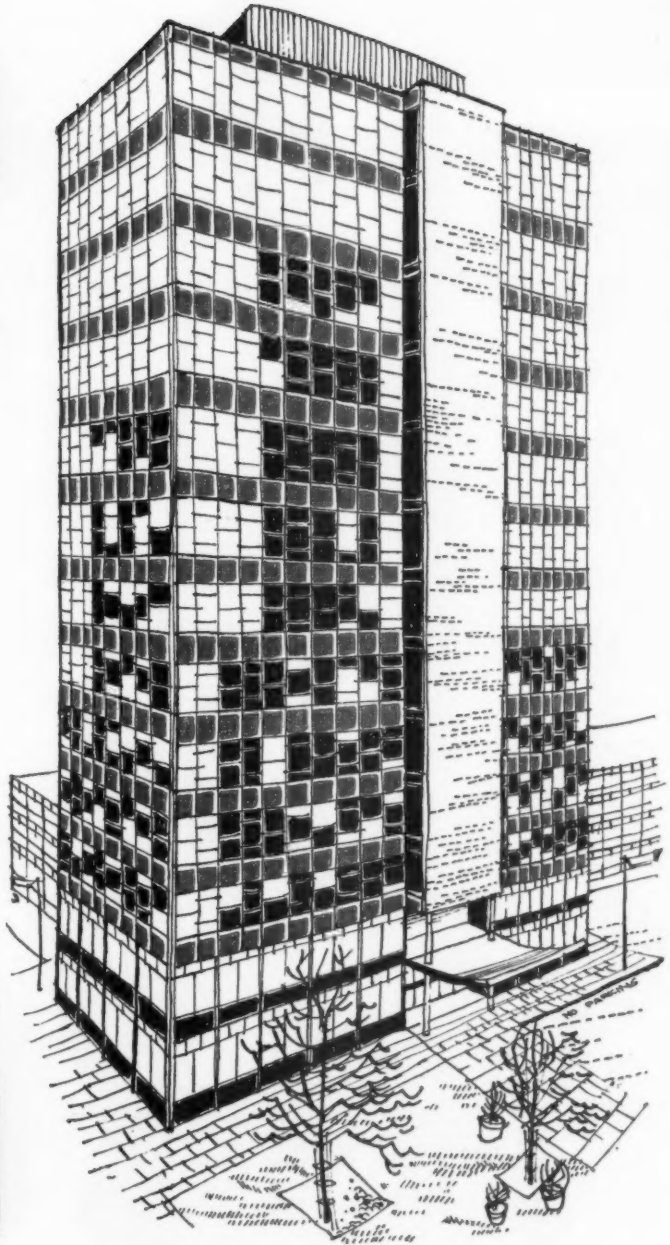
South-West Essex Technical College, Walthamstow.
Architect: County Architect, Essex County Council.
Framing Manufacturers: Williams & Williams Ltd.

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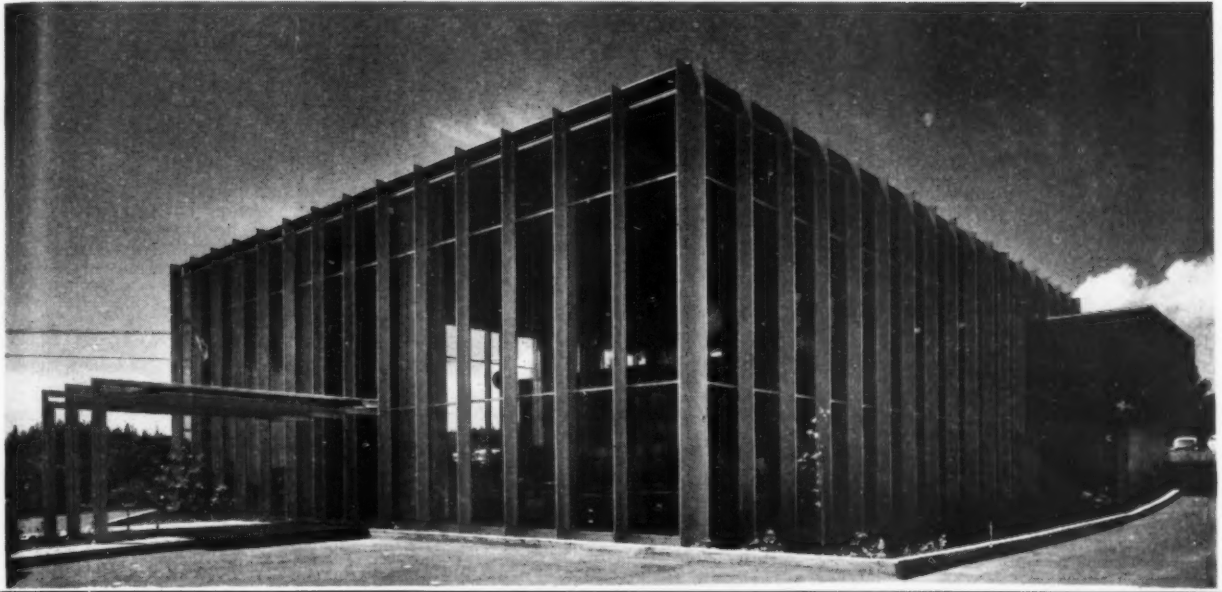
Telephone Sevenoaks 55255

London Showrooms: 251 Tottenham Court Road, W.1.

11/15

THE WASHINGTON STATE BANK

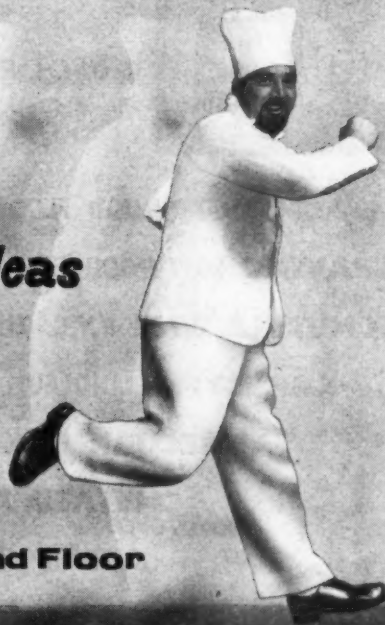
A refreshing approach to the design of a modern bank is revealed in the treatment given to the Washington State Bank. Designed by Mithun and Nesland, the building expresses the clients' wish to take small community banking from behind a formal stone facade and present it to the public as a personal and friendly activity. The major design problem lay in the control of the lighting. Direct sunlight from the east and south seemed to be too bright for comfort. Partial glazing with obscured panels on the east and south elevations was considered, but it was found that a severe light contrast would have been created.



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VERNON WORKS · LANC'S

THE WASHINGTON STATE BANK: continued



In all the existing large glass buildings studied, the use of partitions, obscure wall areas, dark materials and colours proved to emphasize the problem of violent contrasts. It was finally decided, therefore, to leave the glass box completely unobstructed, to use light coloured materials and to use heavy fibreglass curtains to diffuse the direct sunlight when necessary. These curtains are also used to "close" the bank after business hours.

Announcements

PROFESSIONAL

Peter Whiteley, A.A.Dipl.(Hons.), A.R.I.B.A., has now moved to 2, Harrowby Court, Seymour Place, London, W.1.

Ballard, Todd & Snibbe A/A.A.I.A., have opened an office in Jamaica under the direction of Eric Lawson, A.R.I.B.A. The address is PO Box 18, Hopewell, Jamaica, W.I.

Robert Matthew and Johnson-Marshall, F/A.R.I.B.A., announce that their new telephone number is Hunter 4222.

Vincent Burr & Partners, Chartered Architects, of 85, Gower Street, London, W.C.1, have taken into partnership Bryan C. Chessum, A.R.I.B.A., M.Inst.R.A.

TRADE

The Export Division of Thorn Electrical Industries Ltd. have appointed W. J. Vine, F.I.E.S., as Manager of the Lighting Advisory Department.

The Cementation Co. Ltd. have formed a Ground Engineering Division with offices at the Company's headquarters at 20, Albert Embankment, London, S.E.11. The Division comprises two main departments, Cementation and Geotechnical.

Sir Owen Wansbrough-Jones, K.B.E., C.B., is now a director of The British Oxygen Co. Ltd.

CORRECTION

We are informed that the price of Windowall (The Atlas Stone Co. Ltd., Artillery House, Artillery Row, London, S.W.1, Abbey 3081) given as 16s. per yard super in our Building Exhibition Report (AJ December 3, page 642) should be approximately 30s. per yard super. In fairness to ourselves we must point out that the original figure was given to us by a representative on the Stand.

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Architects: Montagu Evans & Son*



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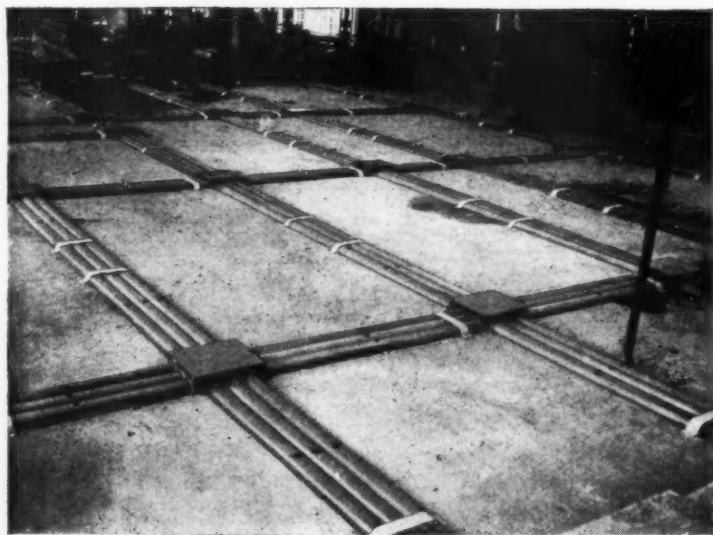
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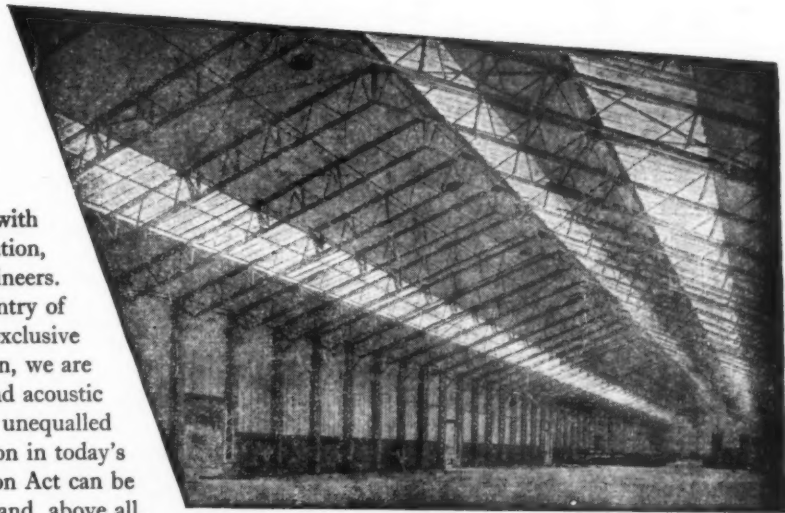
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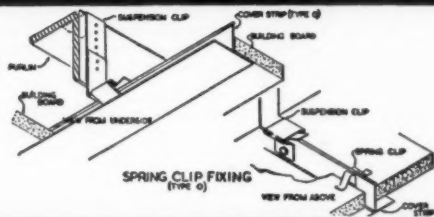
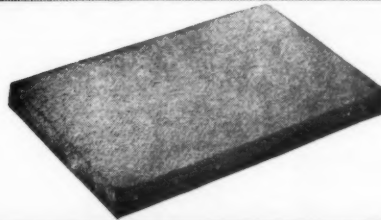
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beginning. The accompanying illustration shows a fibreboard lining fixed by Tentest Aluminium Sections to roof and walls of the new Assembly Shop at the Rover Co. Limited, Solihull. Area 7,118 sq. yds. A Tentest Spring Clip fixing method, as illustrated below, was used on this contract.



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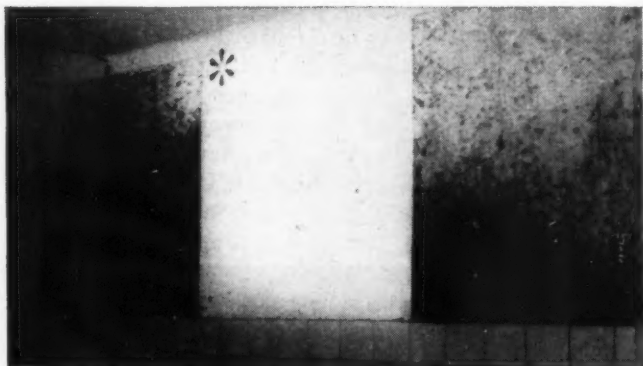
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I have pleasure in sending you herewith a photograph which was taken approximately 8 months after application of the paints.

The Dentolite which you have sold us is in the centre panel of the photograph. It is evident that this has behaved perfectly in comparison with the two competitive products on its left and its right, particularly as the little stains that show in the left hand bottom corner are accidental dirt marks.

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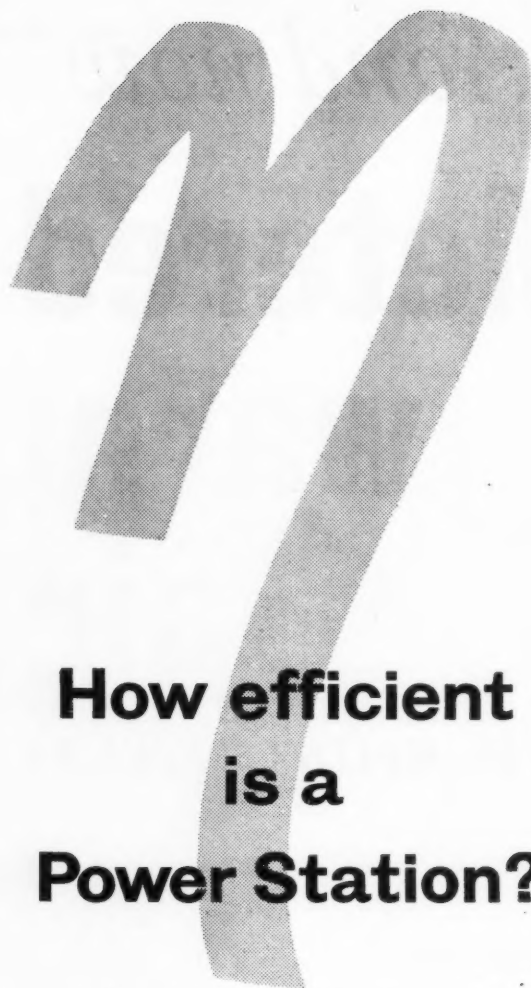
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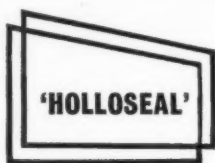
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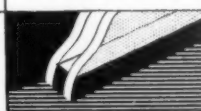
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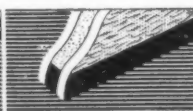


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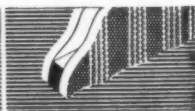
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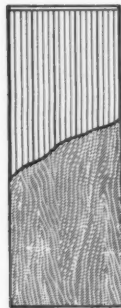
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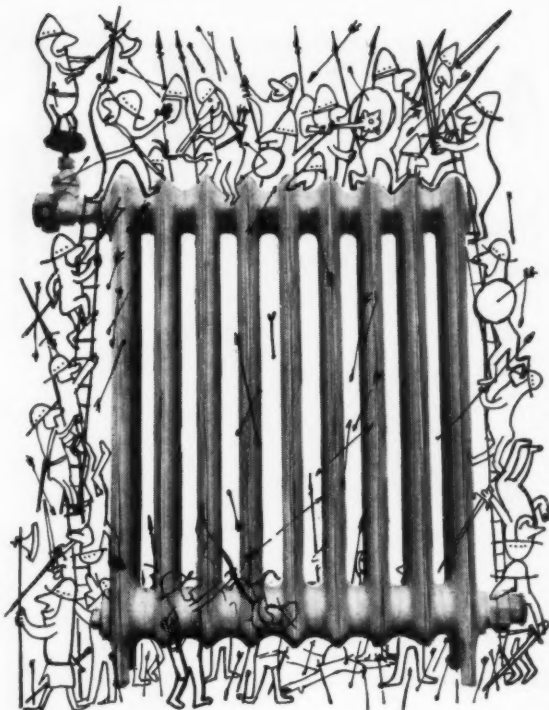


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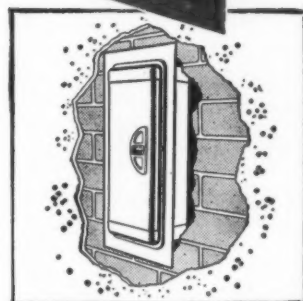
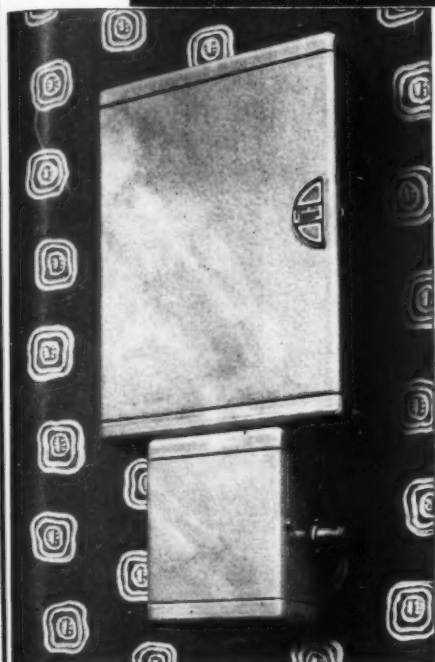


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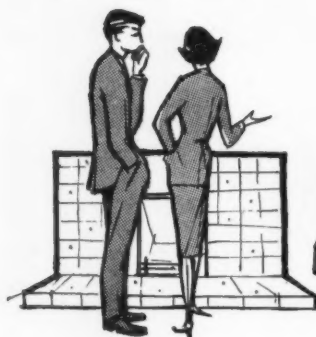
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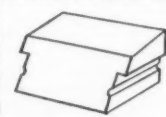
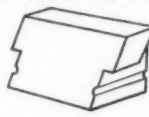
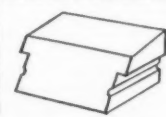
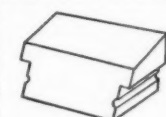
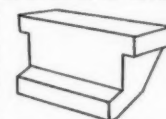
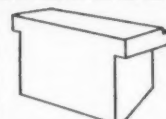
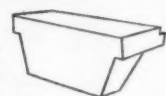
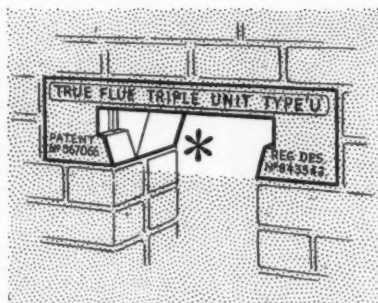
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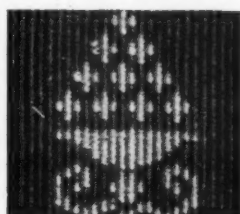
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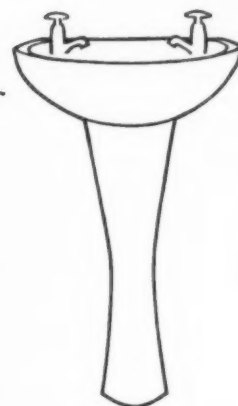
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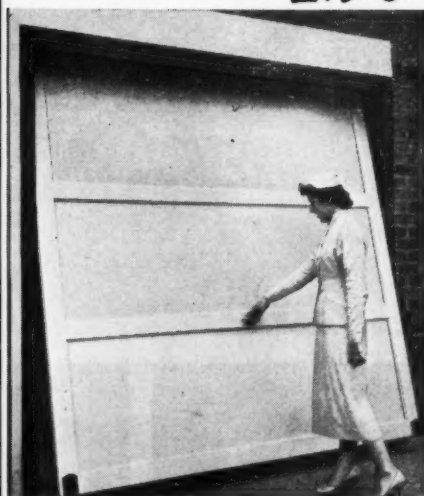
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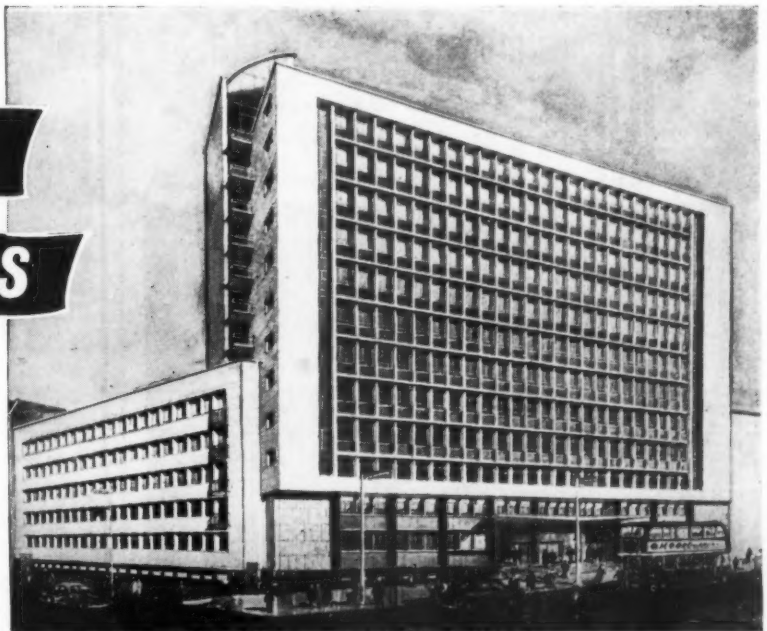
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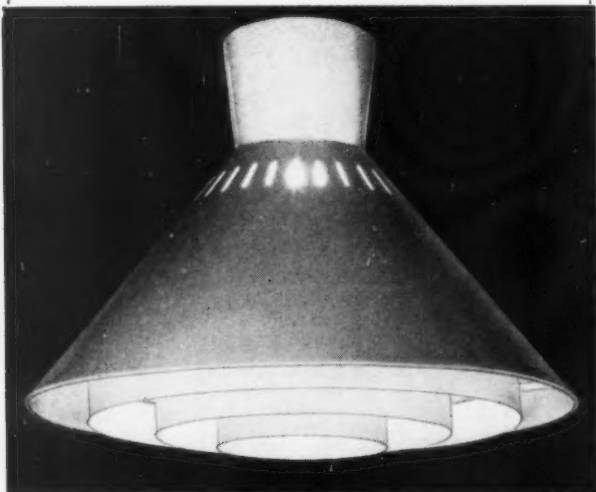
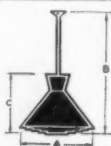
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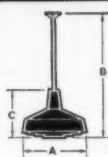
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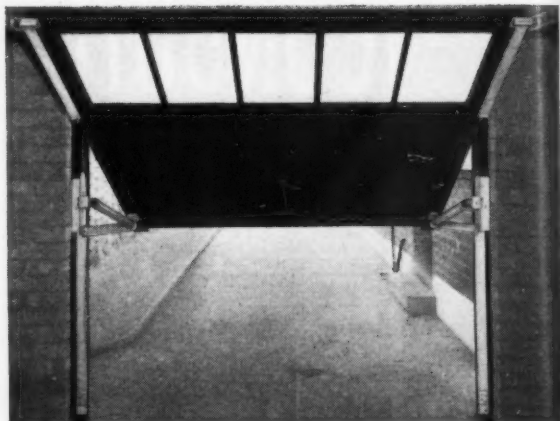
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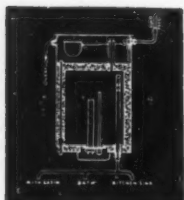
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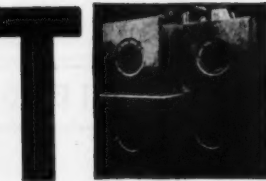
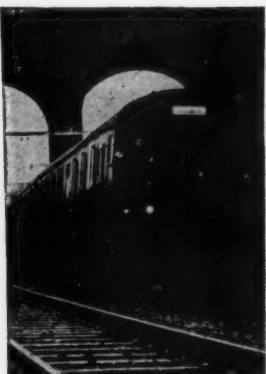
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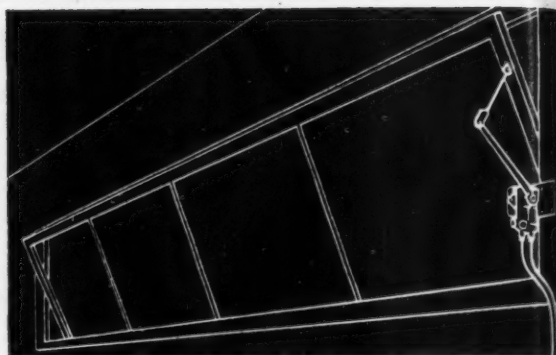
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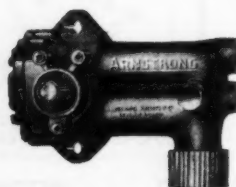
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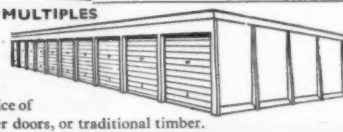
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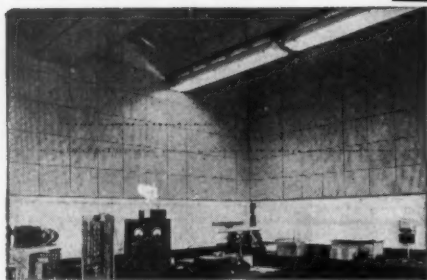
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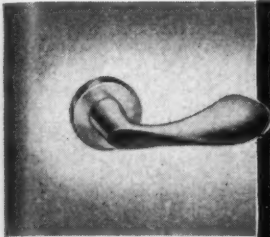
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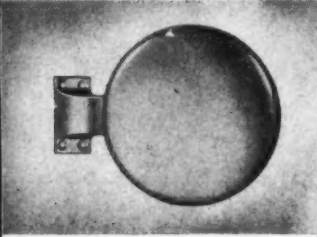
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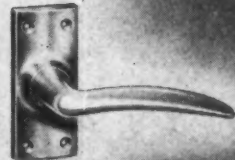
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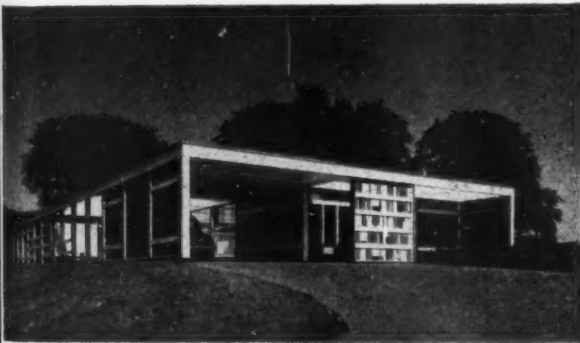
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LONDON COUNTY COUNCIL

A few vacancies exist in the Housing Division for unqualified ARCHITECTURAL ASSISTANTS with office experience. Preference to candidates proposing to qualify by evening study. Full programme offers valuable experience and opportunities for merit promotion. Starting salaries according to age and experience. Form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, EK/121/59, County Hall, S.E.1. (2843.) 7430

UNIVERSITY OF SYDNEY
LECTURESHIP IN TOWN AND COUNTRY PLANNING

Applications are invited for the above mentioned position. Preference will be given to applicants who are qualified planners with basic training in Architecture.

The salary for a Lecturer is within the range £1,500-£2,100 per annum, plus cost of living adjustment and will be subject to deductions under the State Superannuation Act. The commencing salary will be fixed according to the qualifications and experience of the successful applicant.

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

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

Applications close, in Australia and London, on 15th February, 1960. 7542

THE NORTH OF SCOTLAND COLLEGE OF AGRICULTURE and the

PIG INDUSTRY DEVELOPMENT AUTHORITY
"PIDA" SCHOLARSHIP FOR THE STUDY OF PIG HOUSING

A SCHOLARSHIP provided by the Pig Industry Development Authority of an annual value of £750 is offered at the North of Scotland College of Agriculture, Aberdeen. Enquiries are invited from Graduates qualified in Animal Husbandry with some knowledge of the design and construction of Pig Housing, or from Chartered Architects or Surveyors with some knowledge of Pig Husbandry.

The Scholarship may be extended for a Second and Third Year at the discretion of the Pig Industry Development Authority.

Enquiries should be addressed to the Secretary of the North of Scotland College of Agriculture, 413, Union Street, Aberdeen, from whom further particulars and forms of application may be obtained. Closing date for receipt of applications 31st January, 1960. 7541

COUNTY BOROUGH OF OLDHAM
BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT
APPOINTMENT OF SENIOR ARCHITECTURAL ASSISTANT

Applications are invited from qualified persons for the above appointment which involves the design and carrying out of architectural works of major importance in the town, and the successful candidate will be offered a salary in the upper limits of the Special Classes Grade (£785-£1,070), in accordance with experience.

The National Conditions of Service and Local Government Superannuation Acts will apply and the appointment will be subject to a satisfactory medical examination.

Housing accommodation is available if required. Applications, endorsed "Senior Architectural Assistant," together with the names of two referees, should reach me not later than Tuesday, the 19th January, 1960.

A. L. HOBSON, Borough Engineer & Surveyor.

75, Union Street, Oldham. 7534

COUNTY BOROUGH OF SWANSEA
BOROUGH ARCHITECT'S DEPARTMENT

Applications are invited for the following posts:—

- (a) SENIOR ASSISTANT ARCHITECT, salary grade A.P.T. IV, £1,065-£1,220.
Applicants must be Associates of the R.I.B.A. and must have had considerable experience in the design and supervision of the erection of public buildings.
(b) SENIOR ASSISTANT QUANTITY SURVEYOR, salary grade A.P.T. IV, £1,065-£1,220.

Applicants must be Associates of the R.I.C.S. (Quantities) and have had considerable experience in taking off quantities for large contracts and in the supervision of technical staff.

The commencing salary of both posts will be within the grade according to ability and experience.

Candidates must be under 45 years of age unless in Local Government Service.

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

Forms of application may be obtained from the Borough Architect, The Guildhall, Swansea, to whom they must be returned not later than Friday, 22nd January, 1960.

Canvassing disqualifies. T. B. BOWEN, Town Clerk.

Guildhall, Swansea, 24th December, 1959. 7536

COUNTY BOROUGH OF
BARROW-IN-FURNESS
BOROUGH ENGINEER AND
SURVEYOR'S DEPARTMENT
SENIOR ARCHITECT

Applications are invited from qualified Architects with suitable experience for the post of: SENIOR ARCHITECT, Grade IV, £1,065-£1,220. The commencing salary will be fixed within the grade.

Housing accommodation may be provided if required. The Department works a five-day week. Full details of the post, conditions of appointment and application forms may be obtained from the Borough Engineer and Surveyor to whom completed forms must be returned not later than Monday, 25th January, 1960.

LAWRENCE ALLEN, Town Clerk.

Town Hall, Barrow-in-Furness. 7533

ARCHITECTS FOR SCOTTISH DEPARTMENT OF THE SECRETARY OF STATE

Architects are required in Edinburgh for the Chief Architect's Division which covers work on Housing, Schools, Colleges and other institutions, and which includes development work and research. Salary range £895-£1,260. Starting pay according to age and experience. Five-day week. Four weeks annual leave. Prospects of promotion and permanency. Write for application form to T. A. Jeffries, Esq., A.R.I.B.A., A.H.T.P.I., Chief Architect, Department of Health for Scotland (Room 30), St. Andrew's House, Edinburgh, 1. 7496

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THE MANAGER,

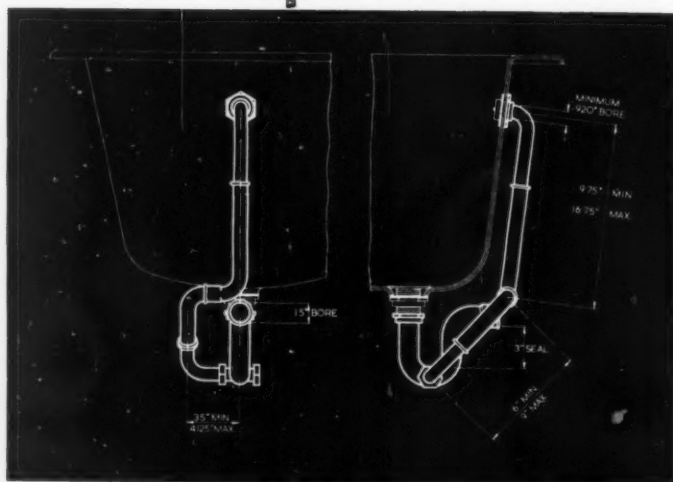
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No on-site fabrication necessary.

Easily fitted reducing labour costs to a minimum.

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Fully adjustable to suit any size and make of bath by means of telescopic patent "Trapeze" joint.

Connects to all B.S.S.1184 copper bath traps.
Outlet can be positioned as required when used with two-piece pattern traps.



Head Office and Works:

LISTER STREET, BIRMINGHAM 7

Telephone: ASTon Cross 3771-2

Telegrams: "TRAPPED, Birmingham 7"

ARCHITECTURAL ASSISTANT required by NORTH THAMES GAS BOARD in its Chief Engineer's Department, Westminster, S.W.1.

Applicants should be suitably qualified and capable of preparing working drawings and specifications and supervising the work on contracts. Experience in design and planning of industrial buildings would be an advantage.

Starting salary, depending on age and qualifications, will be within the range of £850-£1,000 per annum in A.P.T. Grades 8 to 10.

The successful candidate will be required to join a contributory pension scheme.

Applications stating age, qualifications and experience should be sent to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, within ten days of the appearance of this advertisement, quoting reference AJ/791. 7515

AIR MINISTRY Works Designs Branch requires in LONDON and Provinces, **ARCHITECTURAL ASSISTANTS** with adequate training and drawing office experience. O.N.C. (Building) an advantage. Work includes site layouts, sketch plans, working drawings and details for variety of technical and domestic buildings in permanent and semi-permanent construction. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 working days leave per year initially. Overseas tours for which special allowances granted. Salary in LONDON ranges from £680 (age 25) to £900 p.a. for men; from £675 to £865 p.a. for women; somewhat lower in PROVINCES. Commencing salary dependent on age, qualifications and experience. Applicants, who must be natural born British subjects, should write to Air Ministry, W.G.C., Lacon House, Theobalds Road, London, W.C.1, or to any Employment Exchange (quoting Order No. Kings Cross 3744 giving age, details of training, qualifications, full particulars of former posts held and copies of any testimonials). Candidates selected will normally be interviewed in London and certain expenses reimbursed. 7498

BRITISH RAILWAYS

Applications are invited for the post of **ARCHITECTURAL ASSISTANT** in the office of the Architect, Eastern Region, British Railways at King's Cross Station.

Applicants should have previous experience in an Architect's office and should be taking a recognised course of study with a view to obtaining architectural qualifications. The work of the office provides opportunities to extend experience in design and construction of a variety of interesting buildings.

Modern working conditions, five-day week, rail travel concessions. Salary in accordance with age, qualifications and experience.

Apply in writing to the Architect, Chief Civil Engineer's Department, British Railways, King's Cross Station, London, N.1. 7525

CITY ARCHITECT'S OFFICE, MANCHESTER

Application invited for appointments on the permanent staff of (a) **ASSISTANT ARCHITECT/ARCHITECTURAL ASSISTANT**. Salary special scale £785-£1,070 per annum, commencing salary will be fixed according to qualifications and experience) and (b) **ARCHITECTURAL ASSISTANT**, salary A.P.T. I/II £610-£880 per annum. Five-day week. Removal expenses allowed. Housing accommodation for a limited period may be provided for the successful candidate for the senior post. Forms of application from City Architect, P.O. Box 488, Town Hall, Returnable by 20th January, 1960. 7493

KENT COUNTY COUNCIL PLANNING DEPARTMENT

Applications are invited for the following appointments:—

- (a) **SENIOR PLANNING ASSISTANT** in combined grades A.P.T. IV-V (£1,065-£1,375);
- (b) **SENIOR ASSISTANTS** in Special Grade (£785-£1,070) or if appropriate Grade A.P.T. IV (£1,065-£1,220);
- (c) **PLANNING ASSISTANTS** in Grade A.P.T. I-II (£610-£880) or A.P.T. I (£610-£765);
- (d) **CLERK/DRAUGHTSMAN** in Miscellaneous I-III (£425-£590).

The commencing salaries will be fixed according to qualifications and experience and the posts are superannuable.

Candidates for post (a) must be corporate members of the Town Planning Institute or alternatively possess an appropriate degree or diploma and have at least five years' experience in town and country planning. The post will be that of senior assistant to the Area Planning Officer.

Candidates for senior planning posts under (b) must be corporate members of the Town Planning Institute and for other senior posts corporate membership of either the Royal Institute of British Architects or the Institute of Landscape Architects will be required.

Candidates for posts (c) must have a University degree or diploma or a recognised intermediate professional examination related to any technical aspect of the work of a planning department.

As to (b) and (c) several new posts are available for work in connection with the preparation of Town Maps, for development control duties, and for officers with qualifications in architecture or landscape.

Candidates for post (d) should have general clerical experience, preferably in a technical department and some experience in cartographical draughtsmanship.

The National Scheme of Conditions of Service applies and registered disabled persons will be considered. Five-day week.

Applications with names of two referees to County Planning Officer, County Hall, Maidstone, by 8th February, 1960. 7543

CITY OF SHEFFIELD

Applications are invited for the following posts on the staff of the Estates Surveyor, Mr. W. H. Rothwell, B.Sc., F.R.I.C.S.:—
ASSISTANT VALUERS, Grade S.C. (£785 to £1,070).

Qualification: A.R.I.C.S. or equivalent. Applicants should be experienced in valuation and negotiations for acquisition of land and property for Housing and Education purposes and/or Town Planning and Street Improvement Schemes both compulsory and by private treaty and in Disposals by way of building leases, etc.
SURVEYING ASSISTANT, Grade A.P.T. II (£765 to £880).

Qualification: R.I.C.S. (Intermediate) or equivalent. Applicants must be experienced in the surveying of land and buildings and in dealing with site and property matters generally.
PROPERTY ASSISTANT, Grade A.P.T. I (£610 to £765).

Applicants should be experienced in the maintenance of urban properties of all classes, particularly of repairs, conversions and demolitions and/or should have passed the Intermediate R.I.C.S. (Building) or its equivalent.

The posts are superannuable, subject to N.J.C. conditions of service and to medical examination. Applications, stating post applied for, name, address, age, qualifications, experience, previous and present positions with dates and salaries and the names and addresses of two referees, should reach the undersigned not later than 19th January, 1960.

Town Hall, Sheffield, 1. 7475

JOHN HEYS,
Town Clerk.

ISLE OF ELY COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

- (a) **SENIOR ASSISTANT ARCHITECT**, A.P.T. IV, £1,065-£1,220 p.a. Must be A.R.I.B.A. with some experience.

(b) **ASSISTANT ARCHITECTS**, Special Grade, £785-£1,070 p.a. A.R.I.B.A. or should have completed Parts I and II of the R.I.B.A. Final examination, or have completed a course at a School of Architecture.

(c) **ARCHITECTURAL ASSISTANT**, A.P.T. II, £765-£880 p.a. Previous experience necessary and should have passed R.I.B.A. Intermediate examination.

Extensive programme of work in Education and Social Welfare buildings in an office organised on a team basis and where the scope offered will entirely depend on the efforts and ability of the persons appointed.

All posts are subject to standard conditions and to the passing of a medical examination.

Application forms and further particulars are to be obtained from the County Architect, County Hall, March, Cambs., to whom they should be returned not later than 22nd January, 1960.

R. F. G. THURLOW,
Clerk of the County Council. 7494

CRICKLADE AND WOOTTON BASSETT RURAL DISTRICT COUNCIL ENGINEER AND SURVEYOR'S DEPARTMENT

Applications are invited for the appointment of **ENGINEERING AND SURVEYING ASSISTANT** to the Engineer and Surveyor, Mr. J. C. Grindley, A.M.I.C.E., A.R.I.C.S., M.I.Mun.E., A.M.T.P.I., in the Special Grade (£785-£1,070) at a commencing salary according to experience and qualifications.

Preference will be given to applicants who have had experience in housing, sewerage and sewage disposal works.

The appointment is superannuable, subject to one month's notice on either side, National Joint Council Service Conditions, and to the successful candidate passing a medical examination.

Applications endorsed "Engineering and Surveying Assistant," stating age, qualifications and experience, together with copies of not more than three recent testimonials, should reach the undersigned by the 13th January, 1960.

W. J. HOSIER,
Clerk of the Council.
Council Offices,
Manor House,
Wootton Bassett,
Swindon, Wilts. 7547

BOROUGH OF RAWTENSTALL APPOINTMENT OF

JUNIOR ARCHITECTURAL ASSISTANT
Applications are invited for the above appointment at a salary within Grade A.P.T. I (£610 to £765 per annum). Applicants should have completed professional training.

The appointment is subject to the Local Government Superannuation Acts 1937-1953, the passing of a medical examination and to termination by one month's notice on either side.

The provision of housing accommodation will be considered.

Applications stating age, experience, etc., together with the names and addresses of two persons to whom reference can be made should be delivered to the undersigned not later than Saturday, the 16th January, 1960.

E. GRAHAM THOMAS,
Town Clerk.
Town Hall,
Rawtenstall,
Rossendale, Lancs.
18th December, 1959. 7508

recommended for students: two books by SIR HOWARD ROBERTSON A.R.A., PP.R., S.A., S.A.D.G.

The Principles of Architectural Composition

Size 8½ × 5½ ins.
180 pages, over
160 line drawings
by the author.
8th Impression.
Price 15s. net.
(Postage 1s.)

This book fills a very real gap in the literature on the theory of architectural design and has been adopted as a standard textbook in many of the leading architectural schools. Architectural composition is an extremely difficult subject to write about; but in his text and in his numerous drawings Sir Howard (who used to lecture on design when he was the Principal of the Architectural Association School of Architecture) has succeeded in explaining his points with the utmost clarity.

Modern Architectural Design

Size 9 × 6 ins.
228 pages thoroughly
illustrated in
half-tone and line.
2nd Impression
of 2nd Edition.
Price 25s. net.
(Postage 1s. 3d.)

This new edition of the companion volume to *Principles of Architectural Composition* has been very largely re-written, entirely reset and newly illustrated. It is a penetrating and constructive analysis of the design problems now confronting architects and students. The author combines theory and practical experience in a lively and stimulating discussion of contemporary problems of planning, structure, materials, lighting and decoration and shows successful architectural design, good building, to be the outcome of logical method supported by certain acknowledged principles.

The Architectural Press 9-13 Queen Anne's Gate Westminster S.W.1.

HUNTINGDONSHIRE COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:

(a) ARCHITECTURAL ASSISTANT, Special Grade (£785-£1,070) or Grade A.P.T. III (£880-£1,065) according to qualifications.

(b) ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£765-£880).

Further details and application forms may be obtained from the County Architect, County Buildings, Huntingdon. Completed application forms should be returned to the undersigned by Monday, 25th January, 1960.

A. C. AYLWARD,
Clerk of the County Council.

County Buildings, Huntingdon. 7563

UNIVERSITY OF MELBOURNE TUTOR IN THE DEPARTMENT OF TOWN AND REGIONAL PLANNING

Applications are invited for the above-mentioned position. Preference will be given to a graduate in Town Planning or an allied field and opportunities will be provided for research leading to a higher degree. Duties will include some lecturing, compilation of research material and organising of a slide library.

Salary range from £1,050 per annum to £1,200 per annum. Initial salary will be according to qualifications and experience.

The appointment is for one year in the first instance but is renewable. Approved fares and travel allowance paid to an overseas appointee.

Applications should be addressed to the Registrar, University of Melbourne, Parkville, N.2, Victoria, Australia, and should reach him by 30th January, 1960. Duties commence as early as possible in 1960.

7505

CITY OF SHEFFIELD CITY ARCHITECT'S DEPARTMENT

Applications are invited for the undermentioned vacancies on the permanent staff of the City Architect, Mr. J. L. Womersley, F.R.I.B.A., Dist.T.P., M.T.P.I.

(a) SENIOR ASSISTANT ARCHITECT, Grade A.P.T. IV (Education and General) (£1,065-£1,220).

(b) ASSISTANT ARCHITECTS, Grade S.C. (£785-£1,070).

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

For work on an expanding and interesting programme comprising large and important civic buildings included in the re-building of large areas in the city centre: colleges, schools, libraries, art gallery, old people's and children's homes, bus garages, fire and police stations, health centres and clinics.

Commencing salaries within the above grades according to qualifications and experience.

Applications stating age, post applied for, present and past appointments, and full particulars of qualifications and experience, accompanied by the names and addresses of two referees, should be sent to the undersigned by Monday, 18th January, 1960.

JOHN HEYS,
Town Clerk.

Sheffield, 1.
Town Hall,
22nd December, 1959. 7506

BOROUGH OF RAWTENSTALL APPOINTMENT OF

A BUILDING SURVEYING ASSISTANT

Applications are invited for the appointment of an Assistant on the permanent staff of the Borough Surveyor's Department. The commencing salary will be £905 per annum (within the upper part of the Special Class of salary scale), rising to £1,070.

Candidates should have passed the Final examination of the Royal Institute of Chartered Surveyors. Previous Local Government experience is not essential.

The appointment is subject to the Local Government Superannuation Acts 1937-1953, the passing of a medical examination and to termination by one month's notice on either side.

Housing accommodation will be provided if required.

Applications stating age, experience, etc., together with the names and addresses of two persons to whom reference can be made should be delivered to the undersigned not later than Saturday, the 16th January, 1960.

E. GRAHAM THOMAS,
Town Clerk.

Town Hall,
Rawtenstall,
Rossendale, Lancs.
21st December, 1959. 7509

CITY OF CAMBRIDGE ASSISTANT ARCHITECTS (Amended Advertisement)

Special Grade (£785-£1,070)

These posts are in the Architects' Section of the City Surveyor's Department and offer responsible varied and interesting work to architects with good practical office experience, capable of carrying through projects from sketch plan to completion. A knowledge of design and construction of Multi-Storey flats and/or Schools would be an advantage.

Applicants must be Associates of the R.I.B.A. and placing on scale will depend on experience. N.J.C. conditions of service apply and the Council may provide housing.

Application forms from the City Surveyor, the Guildhall, Cambridge, to be returned by the 1st February, 1960.

A. H. I. SWIFT.

7566

ROYAL COUNTY OF BERKSHIRE ASSISTANT ARCHITECT

Special Grade (£780-£1,070)

Candidates should have had good architectural training and be experienced in planning, design and construction, and should be Associates of the R.I.B.A.

The Council have a number of staff houses and flats, some of which become available from time to time, and assistance is given with removal expense.

Application forms and further particulars can be obtained from J. T. Castle, A.R.I.B.A., A.M.T.P.I., County Architect, Wilton House, Parkside Road, Reading, to whom they should be returned not later than Tuesday, 19th January, 1960.

7553

WEST SUSSEX COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointment:

ASSISTANT ARCHITECT, at a salary in accordance with the Special Grade of the National Scales of Salaries (£785-£1,070). Commencing salary according to experience.

Further particulars should be obtained from the County Architect, County Hall, Chichester, to whom all detailed applications must be submitted not later than 20th January, 1960.

T. C. HAYWARD,
Clerk of the County Council.

County Hall,
Chichester.
21st December, 1960. 7511

STAFFORDSHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

APPOINTMENT OF QUANTITY SURVEYORS

Applications are invited for Quantity Surveyors, Grade A.P.T. IV (£1,065 rising to £1,220 per annum). Applicants must be Associates of the Royal Institute of Chartered Surveyors (Quantity), and be thoroughly experienced in the preparation and management of contracts and contract settlements, pricing and agreeing final accounts.

A vacancy also exists for Quantity Surveyors, Grade A.P.T. III (£765-£880 per annum). Candidates should have passed the Intermediate R.I.C.S. examination and have had some years' experience.

The Department has a large programme of capital works for all Committees of the County Council, and suitable candidates may be placed on the 'Essential Car Users' List.'

The Committee are prepared to consider the provision of housing to married candidates, in special circumstances.

Forms of application, which may be obtained from the County Architect, Green Hall, Lichfield Road, Stafford, must be returned not later than 22nd January, 1960.

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

21st December, 1959. 7513

CITY OF LEEDS CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:

1. ASSISTANT ARCHITECTS, Grade A.P.T. III, £880-£1,065.
2. ASSISTANT ARCHITECTS, Grade A.P.T. II, £765-£880.
3. ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. III, £880-£1,065.
4. ASSISTANT QUANTITY SURVEYORS, Grade A.P.T. I, £610-£765.
5. CLERK OF WORKS, Grade A.P.T. I, £610-£765.

Applicants must clearly indicate the post for which they wish to be considered.

Medical examination. Superannuation payable.

Application forms from the Acting City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned by 12 noon on Saturday, 23rd January, 1960.

P. B. HASWELL,
Acting City Architect.

Priestley House,
Quarry Hill,
Leeds, 9.
22nd December, 1959. 7514

ARCHITECTURAL ASSISTANT required in New Works Section of British Road Services Limited.

The Office is located in London but work on projects in various parts of the country will involve travel. Applicants must be qualified architects of wide experience able to handle projects from sketch designs to completion, including preparation of working and detailed drawings and specification and supervision of work. Salary range £1,115-£1,220. Applications giving age, experience and qualifications to Personnel Officer, British Road Services Limited, 222, Marylebone Road, London, N.W.1.

7614

HERTFORDSHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:

- (1) SENIOR ASSISTANT ARCHITECTS (scale £1,220 to £1,375 p.a.).
 - (2) ASSISTANT ARCHITECTS (scale £1,065 to £1,220 p.a.).
- Previous Local Government experience not essential. The Department has long term programmes of interesting and varied work. Candidates should be Members of the R.I.B.A. No application forms will be issued. Applications giving full particulars of training, experience and qualifications with names of three referees to the County Architect, County Hall, Hertford, by Monday, 18th January, 1960.

7607

LINDSEY (LINCOLNSHIRE) COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT

Owing to a large and increasing programme of work the department is being reorganised into teams. Experienced ASSISTANTS having a sound knowledge of construction are required to complete the middle section of each team, for which Grade A.P.T. III, £880-£1,065 is offered, commencing salary within the grade dependent upon experience. Applications from Associates R.I.B.A. will also be considered but on Special Grade, £785-£1,070.

N.J.C. Conditions of Service. Canvassing will disqualify. Candidates must disclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Council.

Applications giving age, qualifications, experience, present post and salary, and the names of two persons to whom reference can be made to be sent not later than 25th January, 1960, to the County Architect, County Offices, Lincoln.

7528

ARCHITECTS' DEPARTMENT QUANTITIES DIVISION

Opportunity for interesting and rewarding careers in various branches of quantity surveying. Applications invited, particularly from newly qualified SURVEYORS, for following types of work:

- Junior taking-off/working-up.
- Approximate estimating and assisting in cost planning.
- Pricing bills of quantities for estimates comparable with tenders.
- Preparation and settlement of final accounts for major building contracts including interim valuations.
- Measurement of minor works, schedule accounts, etc.

General technical duties and working-up.

Salaries up to £1,135. Application form and further particulars from Hubert Bennett, F.R.I.B.A., Architect, London County Council, County Hall, (228B).

6383

CITY OF WAKEFIELD APPOINTMENT OF ASSISTANT ARCHITECT

Applications are invited for the above superannuable appointment on Grade A.P.T. III, Special Grade or A.P.T. IV (dependent on qualifications and experience).

Preference will be given to candidates having municipal experience and applicants are requested to state the salary required.

Housing accommodation will be provided if necessary.

Applications stating age, training, qualifications, experience, and the names of two referees should be sent to the City Engineer, Town Hall, Wakefield, by Friday, the 22nd January, 1960.

7562

LEEDS REGIONAL HOSPITAL BOARD

Applications are invited for the following appointments:

- (a) SENIOR ASSISTANT ARCHITECT. Salary scale £1,050/£1,245 per annum.
- (b) ASSISTANT ARCHITECT. Salary scale £720/£1,055 per annum.

Commencing salary dependent on relevant practical experience, but the additional increments granted will not be more than the number of years by which the officer's age exceeds 25.

Applicants must be Associate Members of the R.I.B.A. These appointments offer excellent opportunities to Senior Architects to design and construct and to Assistant Architects to gain experience of a wide range of Hospital Buildings, including Nurses' Homes, Houses, Flats, Kitchens, Laundries and Boiler Houses. The Service is an expanding one and many new Hospital projects are to be built in the immediate future.

(c) ARCHITECTURAL ASSISTANT. Salary scale £645/£765 per annum.

Applicants must have passed the Intermediate Examination of the R.I.B.A. and have had a sound architectural training and some practical experience in a practising architect's office is essential.

All the above salary scales are at present under review.

Applications, giving age, experience and the names of two referees, to the Secretary, Park Parade, Harrogate, by 29th January, 1960. 7535

COUNTY COUNCIL OF THE WEST RIDING OF YORKSHIRE

OFFICE OF THE COUNTY ARCHITECT

The Council require SENIOR ARCHITECTS in salary grades A.P.T. IV (£1,065-£1,220) and Special Grade (£785-£1,070) for their extensive and interesting building programme which includes schools, colleges, old people's and children's homes, clinics, ambulance, fire and police stations, and other public buildings. Architects appointed will be employed at the Central Office in Wakefield solely upon capital works dealing with building projects from sketch plans to completion.

Applications are also invited for the undermentioned posts at the Central Office:—

- JUNIOR ARCHITECTURAL ASSISTANTS Grade A.P.T. II (£765-£880).
 - Grade A.P.T. I (£610-£765).
- Applications to be submitted as soon as possible on forms to be obtained from and returned to the undersigned.

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

Bishopgarth,
Westfield Road,
Wakefield. 6607

APPOINTMENT

Application

Surveyors I

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CITY OF WORCESTER APPOINTMENT OF SENIOR QUANTITY SURVEYOR

Applications are invited from qualified Quantity Surveyors for this appointment within A.P.T. Grade III (salary £880-£1,065).

Housing accommodation will be offered if required and a casual users' car allowance will also be available.

Assistance towards the cost of removal will be given.

Applications with the names of two referees are to be sent to the City Engineer & Surveyor, 22, Bridge Street, Worcester, by 15th January, 1960.

BERTRAM WEBSTER,
Town Clerk.

Guildhall, Worcester. 7560

BOROUGH OF BRENTFORD & CHISWICK

Applications are invited for the appointment of:

(a) BUILDING SURVEYOR/ESTIMATOR, salary Grade A.P.T. II, £765-£880 p.a. plus London weighting allowance.

(b) JUNIOR ASSISTANT ARCHITECT, salary Grade A.P.T. I, £610-£765 plus London weighting allowance.

Some experience in an Architect's office is required.

Applications to the Borough Engineer & Surveyor, Town Hall, Chiswick, W.4, by 18th January, 1960.

W. F. J. CHURCH,
Town Clerk.

Town Hall, Chiswick, W.4. 7561

CITY OF WINCHESTER

Applications are invited for the post of ARCHITECTURAL DRAUGHTSMAN in the office of the City Engineer. Applicants should be neat and expeditious draughtsmen with a good knowledge of building construction. The appointment will be governed by the conditions of service of the National Joint Council for Local Authorities A.P.T. and Clerical Services. The post is superannuated and salary will be within the grades Miscellaneous I-V (£425-£715) according to experience and ability.

Applications to City Engineer, Guildhall, Winchester, not later than Friday, 22nd January, 1960, setting out full details and giving names of two referees.

R. M. McCALL,
Town Clerk.

Guildhall, Winchester. 7495

LONDON COUNTY COUNCIL

BRITISH SCHOOL OF BUILDING. Required as soon as possible, LECTURER IN BUILDING: Institute of Builders or with comparable qualification; should have had good professional or industrial experience preferably an administrative side of a contractor's organisation. Teaching experience an advantage.

Salary scale: £1,370 x £35 to £1,550 plus London Allowance £38 or £51.

Application forms (foolscap s.a.e.) from Secretary at School, Ferndale Road, S.W.4. (2754).

7488

NORTHERN IRELAND HOUSING TRUST

ASSISTANT ARCHITECT

The Trust invites applications for the post of Assistant Architect on the salary scale £1,400-£1,600.

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

The person appointed will be required to participate in a contributory superannuation scheme which allows for the reciprocal transfer of benefits in local government schemes.

Assistance in obtaining housing accommodation may be given to a successful married candidate.

Applicants should apply by Wednesday, 13th January, 1960, giving full details of age, qualifications and experience, including present post and salary, to the General Manager, Northern Ireland Housing Trust, 12, Hope Street, Belfast.

Please mark envelope 33/76. 7518

NORTH WEST METROPOLITAN REGIONAL

HOSPITAL BOARD

SENIOR ASSISTANT ARCHITECT required. Applicants must be Associate Members of the R.I.B.A. and have had considerable experience in design and construction, preferably in hospitals and associated buildings. The Board are engaged on a number of new building projects including a new hospital at Welwyn.

Salary scale (under review): £1,050 x £30 (3) x £35 (3)-£1,245, plus £50 London weighting.

Apply, stating age, qualifications and experience to Secretary, North West Metropolitan Regional Hospital Board, 40, Eastbourne Terrace, W.2, by 19th January, quoting reference 798. 7520

LONDON COUNTY COUNCIL

ARCHITECTS' DEPARTMENT

NEW DEVELOPMENT FOR NEW TOWN

A new section is being set up under John Craig, Oliver Cox and Graeme Shankland to prepare outline proposals for the L.C.C. New Town.

PLANNING ASSISTANTS with architectural, engineering or economics background required for short-term, original and interesting work.

Later opportunities for careers for those interested. Up to £1,135 in accordance with qualifications and experience.

Application form, and particulars from Hubert Bennett, F.R.I.B.A., Architect to the Council, EK/124/59, County Hall, S.E.1. (2872). 7503

METROPOLITAN BOROUGH OF

CAMBERWELL

ASSISTANT ARCHITECTS

(Borough Architect's Department)

Vacancies for Assistant Architects within a salary range of £795 to £1,485. Grade and commencing salary according to qualifications and experience. The work of the Department includes design and construction of public buildings, housing estates, including multi-storey construction.

One appointment is the head of a section responsible for the design and erection of public buildings. The salary for this post is lettered Grade "B" of the Chief Officers' Scales-£1,265 by four increments of £55 to £1,485.

Application form from Town Clerk, Town Hall, S.E.5. Closing date 25th January, 1960. 7526

BLETCHLEY URBAN DISTRICT COUNCIL

APPOINTMENT OF

CHIEF ARCHITECTURAL ASSISTANT

The Council is engaged on a large scheme of development under the Town Development Act, 1952, which will provide a wide variety of Architectural work, which is expected to extend over the next five to seven years, consisting of Housing, Factories, Shops and ancillary work.

Applications, preferably from persons who have passed the Final examination of the R.I.B.A., and who have had a wide experience of similar work, are invited for the above appointment, which will be in accordance with the N.J.C. for Local Authorities' Administrative, Professional, Technical and Clerical Services Scale of Salaries, A.P.T. Grade IV (£1,065-£1,220 per annum), and Scheme of Conditions of Service, and to one month's notice on either side.

Housing accommodation will be provided, and if the successful candidate uses his own car in connection with the duties, an allowance will be made on the Casual User Scale for a car not exceeding 1,014 c.s.u.

Applications, giving details of age, qualifications, experience, present and past appointments, with the names and addresses of two persons to whom reference may be made, should reach the undersigned by noon on Monday, 11th January, 1960.

J. F. SMITHIE, M.I.Mun.E.,
Engineer & Surveyor.

Council Offices, Bletchley, Bucks. 7527

METROPOLITAN BOROUGH OF

SHOREDITCH

Applications are invited for the appointment of CHIEF ASSISTANT ARCHITECT. Salary on J.N.C. scale Grade A commencing at £1,340-£50 to present maximum £1,390. Scale under review by J.N.C. for Chief Officers.) Subject to medical examination, Council's Superannuation Scheme and Conditions of Service.

Candidates must be suitably qualified and have had wide experience in design and construction.

Applications to Borough Architect, Town Hall, Old Street, E.C.1, stating age, training and experience and giving the names of three referees by 23rd January, 1960. 7476

ARCHITECTURAL ASSISTANT required by

UGANDA GOVERNMENT P.W.D. on contract for one tour of 30-36 months in the first instance. Salary according to age and experience in scale (including Inducement Pay) £879 rising to £1,422 a year. Gratuity at rate of 13% per cent. of total substantive salary drawn. Outfit allowance £30. Free passages. Liberal leave on full salary. Candidates under 35 must have passed Intermediate R.I.B.A. and have had good architectural experience. Experience in tropical building problems an advantage. Write to the Crown Agents, 4, Millbank, London, S.W.1. State age, name in block letters, full qualifications and experience and quote M2B/50878/AG. 7504

BOROUGH OF KEIGHLEY

BOROUGH ARCHITECTS' DEPARTMENT

Applications are invited for the post of SENIOR ASSISTANT ARCHITECT. Special Grade, Salary Scale £785-£1,070, with placing according to age, qualifications and experience. The post is superannuated and subject to medical examination.

Applicants should be Associate Members of the Royal Institute of British Architects and must have had, since qualification, at least three years' practical experience.

Applications to be made upon the prescribed form to be obtained from the undersigned, to whom same must be returned, accompanied by copies only of two recent testimonials, not later than first post, Tuesday, 19th January, 1960.

E. G. FELGATE, A.R.I.B.A.,
Borough Architect.

Borough Architect's Department, College Street, Keighley. 7633

ARCHITECTS

NEW DEVELOPMENT IN MENTAL DEFICIENT HOSPITAL F.I.D.

The Oxford Regional Hospital Board have under planning a large development at the Borocourt Mental Deficiency Hospital near Reading. Architects of progressive outlook, interested in a new approach to hospital planning, are invited to apply for a temporary post on the Board's staff.

SENIOR ASSISTANT ARCHITECT, £1,050-£1,245 p.a.

Applications, with the names of two referees, should be received by the Secretary, Oxford Regional Hospital Board, 43, Banbury Road, Oxford, not later than 20th January, 1960. 7550

HAMPSHIRE COUNTY COUNCIL

SENIOR PLANNING ASSISTANT, A.P.T. IV

(£1,065-£1,220), required in Headquarters, Planning Department, Winchester, for work in connection with the preparation of Town Maps and the review of the County Development Plan. Candidates should be corporate members of the Town Planning Institute and should have had good all-round planning experience. An additional professional qualification would be an advantage.

The appointment is pensionable and subject to satisfactory medical report. In approved cases the County Council assist with removal and other expenses. Applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 15th January, 7539

NEW ZEALAND MINISTRY OF WORKS

ENGINEERING STAFF

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

Vacancy No. 1. CIVIL ENGINEERS.

Corporate Membership of the Institution of Civil Engineers, London, together with sufficient appropriate experience. Commencing salaries up to £1,525 p.a.

Vacancy No. 2. ASSISTANT CIVIL ENGINEERS.

A University Degree in Civil Engineering, or Graduate Membership of the Institution of Civil Engineers, London, with at least five years of practical experience since commencement of pupillage. Commencing salaries £870 up to £1,060 p.a.

Vacancy No. 3. MECHANICAL OR ELECTRICAL ENGINEERS.

Corporate Membership of the Institutions of Mechanical or Electrical Engineers, London, together with sufficient appropriate experience. Commencing salaries up to £1,525 p.a.

Vacancy No. 4. BUILDING SERVICES ENGINEERS.

Corporate Membership of the Institution of Heating & Ventilating Engineers, London. Commencing salaries up to £1,450 p.a.

Vacancy No. 5. ASSISTANT MECHANICAL OR ELECTRICAL ENGINEERS.

A University Degree in Mechanical Engineering or Graduate Membership of the Institutions of Mechanical or Electrical Engineers, London, together with at least five years' experience since commencement of pupillage. Commencing salaries £870 up to £1,060 p.a.

Vacancy No. 6. ASSISTANT BUILDING SERVICES ENGINEERS.

Graduate Membership of the Institution of Heating & Ventilating Engineers, London, with at least five years' experience since commencement of pupillage. Commencing salaries £870 up to £1,060 p.a.

Experience is necessary in the design and installation of services or equipment for one or more of the following: heating and ventilating, air conditioning, hot and cold water or sewerage services, laundries, kitchens, boiler-houses, lifts and other mechanical services in offices, schools, hospitals, hotels, telephone exchanges, printing works, defence establishments, etc. All appointees will be required to undertake work of this nature.

Applicants must be resident in the United Kingdom or Eire and have fulfilled National Service obligations.

Enquiries, mentioning this publication and stating the Vacancy Number and the position sought, should be addressed to the High Commissioner for New Zealand, 415, Strand, London, W.C.2. Full details of duties, experience required, general information on the conditions of employment in the New Zealand Public Service and application forms will then be supplied. 7500

CHESHIRE COUNTY ARCHITECTS'

DEPARTMENT

HEADQUARTERS AND DISTRICT OFFICE

CHESTER

Applications on forms obtainable from me are invited for the following appointments. Five-day week. Canteen facilities are available.

ARCHITECTURAL ASSISTANTS, A.P.T. II, £765 x 1 at £25 and 3 at £30-£880 p.a.

JUNIOR ARCHITECTURAL ASSISTANTS, A.P.T. I, £610 x 4 at £30 and 1 at £35-£765 p.a.

EDGAR TABERNER, A.R.I.B.A.,
County Architect.

County Hall, Chester. 7502

CITY OF COVENTRY

DEPARTMENT OF ARCHITECTURE AND

PLANNING

(a) SENIOR ARCHITECTS, A.P.T. IV (£1,065-£1,220).

(b) ARCHITECTS, Special Grade (£785-£1,070).

(c) PLANNING (AREA) OFFICERS, Development Control Section, A.P.T. V, or Special Grade, according to qualifications and experience.

(d) LANDSCAPE ARCHITECT, Special Grade.

Appointments may be made, according to experience/qualification, within the Grade. Permanent and pensionable subject to satisfactory medical history.

Housing accommodation in approved circumstances. Removal expenses loan.

Details and application forms from City Architect and Planning Officer, Council House, Coventry, returnable by 21st January.

Indicate clearly post applied for. 7533

**WILLENHALL URBAN DISTRICT COUNCIL
ARCHITECT'S DEPARTMENT**

Applications are invited for the following posts:
ARCHITECTURAL ASSISTANT, A.P.T. II, £765-£880.

JUNIOR ARCHITECTURAL ASSISTANT, A.P.T. I, £610-£765.

The appointments will be subject to the Local Government Superannuation Acts, the National Scheme of Conditions of Service and to termination by one month's notice on either side. Housing accommodation is available and two-thirds of any removal expenses incurred will be paid by the Council.

Applications, giving details of age, experience and qualifications (stating for which appointment application is made), together with the names and addresses of two referees should reach the undersigned not later than Friday, 22nd January, 1960.

JOHN R. RIDING,
Clerk of the Council.

Town Hall,
Willenhall,
Staffs. 7621

**COUNTY BOROUGH OF GREAT YARMOUTH
SCHOOLS ARCHITECT'S DEPARTMENT**

Applications are invited from Associate Members of the R.I.B.A. for a **SENIOR ASSISTANT ARCHITECT** within A.P.T. IV (£1,065-£1,220).

Candidates must have a thorough knowledge of school design, construction and contract administration with at least five years experience. Housing accommodation will be available to the successful candidate if married. Assistance with removal expenses may be made in suitable cases.

Full details of present and past appointments, age, qualifications and experience, together with the names of two referees should reach the Schools Architect, 22, Euston Road, Great Yarmouth, by January 22nd, 1960.

D. G. FARROW,
Chief Education Officer.

22, Euston Road,
Great Yarmouth. 7618

**SHEFFIELD REGIONAL HOSPITAL BOARD
ASSISTANT QUANTITY SURVEYOR**

Applications are invited for the above appointment on the Board Headquarters' staff. Applicants should hold Corporate Membership of the Royal Institution of Chartered Surveyors. Salary scale £730-£1,055 per annum (at present under review). Commencing salary dependent upon age and experience. The appointment is subject to National Health Service (Superannuation) Regulations and to one month's notice on either side. Applications and the names and addresses of three referees should be forwarded to the Secretary to the Board, Fulwood House, Old Fulwood Road, Sheffield 10, not later than 20th January, 1960. 7615

**SOMERSET COUNTY COUNCIL
ARCHITECT'S DEPARTMENT**

Applications are invited for the following appointments on the established staff, viz:—

(a) **SENIOR ASSISTANT ARCHITECTS—APT Grade IV (£1,065-£1,220).**

Applicants for posts in this grade must be Associate Members of The Royal Institute of British Architects with a good standard of design ability and a sound knowledge of modern methods of construction and be capable of handling projects from sketch plans to completion.

(b) **ASSISTANT ARCHITECTS—Special Grade (£785-£1,070).**

Applicants must have passed Parts I and II of the R.I.B.A. final or special examination, or the equivalent at one of the recognised schools of architecture. Commencing salary will be within the grade, dependent upon the candidate's qualifications and experience.

(c) **ARCHITECTURAL ASSISTANTS—APT Grade I (£610-£765).**

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

(d) **JUNIOR QUANTITY SURVEYOR—APT I, (£610-£765).**

Applicants must have passed the Intermediate Examination of The Royal Institution of Chartered Surveyors and to have had several years experience in an approved office.

All appointments are superannuable and subject to the usual conditions of Local Government Service. Applications, accompanied by the names of two persons to whom reference can be made, should reach the undersigned not later than Friday 15th January, 1960.

R. O. HARRIS, F.R.I.B.A.,
County Architect.

The Crescent,
Taunton.
29th December, 1959. 7569

**CITY AND COUNTY OF NEWCASTLE
UPON TYNE
APPOINTMENT OF CITY PLANNING
OFFICER**

The Council have decided to set up a separate City Planning Department, and now invite applications for the appointment of City Planning Officer. The person appointed will in the first instance be expected to advise and make recommendations on the setting up of the new Department, and will be required to devote the whole of his time to the duties of his office, and not to undertake or engage in any other employment.

The salary will be within the range £2,930 to £3,265 per annum.

The appointment will be subject to the Conditions of Service recommended by the Joint Negotiating Committee for Designated Chief Officers of Local Authorities, will be superannuable, and subject to three months' notice of termination at any time on either side. Essential car user allowance will be paid.

Full information as to the duties, terms and conditions of appointment may be obtained from the undersigned, and applications must be received in this office not later than 29th February, 1960.

JOHN ATKINSON,
Town Clerk.

Town Hall,
Newcastle upon Tyne, 1.
28th December, 1959. 7583

COUNTY BOROUGH OF ST. HELENS

Applications are invited for the following appointments in the Architectural Section of the Borough Engineer's Department:—

(a) **ARCHITECTURAL ASSISTANT**
A.P.T. Grades II-III (£765-£1,065).

(b) **ARCHITECTURAL ASSISTANT**
A.P.T. Grades I-II (£610-£880).

The commencing salaries will be fixed within the grades according to qualifications and experience.

The successful applicants will be required to work upon an interesting programme of work consisting of multi-storey housing projects, central re-development schemes, municipal offices, hostels, clinics, occupation centre, library, and other projects.

The appointments will be terminable by one month's notice and will be subject to the Local Government Superannuation Acts, Medical Examination and N.J.C. Service Conditions.

Applications giving the names of two referees must be forwarded to the undersigned not later than Monday, 18th January, 1960.

Applicants must reveal relationship to any member or senior official of the Council. Canvassing will disqualify.

M. WARD, M.I.Mun.E., M.T.P.I.,
Borough Engineer.

Town Hall,
St. Helens. 7608

**BOROUGH OF SWINDON
BOROUGH ARCHITECT'S DEPARTMENT**

Applications are invited for the undermentioned posts.

Applicants should have the qualification shown, or an equivalent qualification.

The department is engaged in a large and varied development programme, including housing schemes, neighbourhood shopping centres, civic works and industrial buildings.

Housing accommodation may be offered.

(a) **ASSISTANT ARCHITECT, A.P.T. Special Scale (£785-£1,070). Final R.I.B.A.**

(b) **JUNIOR ASSISTANT ARCHITECT, A.P.T. II (£765-£880). Intermediate R.I.B.A.**

(c) **ASSISTANT QUANTITY SURVEYOR, A.P.T. Special Scale (£785-£1,070). Final R.I.C.S.**

(d) **JUNIOR ASSISTANT QUANTITY SURVEYOR, A.P.T. II (£765-£880). Intermediate R.I.C.S.**

Applications, on forms to be obtained from the Town Clerk, Civic Offices, Swindon, should be returned by 20th January, 1960. 7568

**BEESTON AND STAPLEFORD URBAN
DISTRICT COUNCIL**

ARCHITECTURAL ASSISTANT

Applications are invited for the above appointment, in Grade II (£765-£880) or Special Grade (£785-£1,070), the grade and commencing salary to be according to applicant's qualifications and experience.

Applications, accompanied by the names and addresses of two referees, should be forwarded to the Housing Architect, Town Hall, Beeston, Nottingham, not later than 14th January, 1960.

H. D. JEFFRIES,
Clerk of the Council.

7567

ASSISTANT ARCHITECT required by Poplar Borough Council. Salary £1,200 per annum (inclusive of London weighting). Applicants should have had experience in design and construction of multi-storey flats and houses and public buildings. Application forms from Borough Engineer and Surveyor, Poplar Town Hall, Bove Road, E.3. Closing date: 25th January, 1960. 7564

**CITY OF LONDON
PLANNING OFFICE**

PLANNING ASSISTANT required, salary £632 by eight increments to £1,025. Primarily for design, detailing and modelling redevelopment proposals in Barbican and other areas of the City. Should be an architect with a good educational background and progressive interest in large scale three-dimensional planning; preferably an Associate Member of the Town Planning Institute or taking a course leading to the qualification. Apply to City Planning Officer, Guildhall, E.C.2, within 14 days. 7564

**BOROUGH OF PORTADOWN
ARCHITECTURAL ASSISTANCE**

Applications are invited for the following posts in the Department of the Borough Architect and Planning Officer:

(a) **SENIOR ARCHITECTURAL ASSISTANT** in salary Grade III (a), £880-£990 per annum;

(b) **JUNIOR ARCHITECTURAL ASSISTANT** in salary Grade I (b), £670-£765 per annum.

Preference will be given to those with adequate practical experience who have also passed the whole or part of the R.I.B.A. or exempting Final and Intermediate examinations respectively. Those appointed will be required to participate in a contributory superannuation scheme which allows for the reciprocal transfer of benefits in other local government schemes.

This is an expanding town in County Armagh, Northern Ireland, and duties will first be for extensive housing and re-development projects, later for other new public buildings; previous enquiries can be made if desired to the Planning Officer (D. Smith, A.R.I.B.A., A.M.T.P.I., Tavnagh House, Thomas Street).

Preference will be given to ex-service candidates possessing the required qualifications, provided that the Council is satisfied that candidates can, or within a reasonable time will be able to, fill the positions efficiently.

Applications by 23rd January 1960, giving full details of age, qualifications and experience to date with copy of a recent testimonial and names and addresses of two referees and indicating which post applied for, to the undersigned in envelope endorsed "Senior/Junior Architectural Assistant."

The Council will assist in finding housing accommodation for the successful applicants.

GEORGE MCGOWAN,
Town Clerk.

Town Hall,
Portadown.
28th December, 1959. 7564

**THE URBAN DISTRICT COUNCIL OF
CWMBRAN**

Applications are invited for the following positions in the Architect's Department of the authority:

ARCHITECTURAL ASSISTANT (A.P.T. Grade III, £680-£1,055). Candidates must possess at least the Intermediate Certificate of a recognised Institution.

COSTING ASSISTANT (Clerical Division, Grade I, £595-£670). Candidates must have experience in costing or estimating for building work and should hold examination qualification of a recognised body in a subject or subject relating to the post.

Applications for housing accommodation will be favourably considered.

Both appointments are subject to the National Joint Council's Scheme of Conditions of Service and the Local Government Superannuation Acts. Commencing salary will, in each case, be dependent upon experience and qualifications of the applicant.

The successful applicants will be required to submit to a medical examination and the appointments are subject to one month's notice on either side.

Applications, stating age, education, qualifications and experience, together with the names and addresses of two persons to whom reference may be made, should reach the undersigned not later than Wednesday, 13th January, 1960.

KENNETH G. S. GUNN,
Clerk of the Council

Council Offices,
Cwmbran, Mon. 7565

The new aids to
Roof Construction
FULLY GUARANTEED

Patent No. 744773



**ARCHITECTS' JOURNAL
INFORMATION SHEET AND
FULLY ILLUSTRATED
BROCHURE AND PRICE LIST
FROM
PARAMOUNT ASPHALTE**

LIMITED

**149 KENNINGTON PARK ROAD
LONDON, S.E.11
Tel.: RELiance 2373-2191**

UNIVERSITY OF ST. ANDREWS

Applications are invited for the post of **DRAUGHTSMAN** in the office of the Resident Architect to the University, to assist senior staff in general drawing office, duties, surveys, records, etc. Salary £600. Candidates should have reached intermediate standard and possess office experience. Applications, stating age, education, training, qualifications and experience, with the names of three referees, should be lodged with the Joint Clerk to the University Court, College Gate, St. Andrews, not later than 31st January, 1960. 7549

GOVERNMENT OF NORTHERN IRELAND
ASSISTANT QUANTITY SURVEYOR

Applications invited from Corporate Members of the Royal Institution of Chartered Surveyors (Quantity) for unestablished post in Chief Quantity Surveyor's Branch, Ministry of Finance. Experience in "taking off" for large building works essential. Salary scale £805-£1,250, entry point according to age and experience. Prospects of permanent and pensionable appointment. Preference for ex-Servicemen. Application forms, obtainable from Director of Establishments, Room 271, Stormont, Belfast, to be completed and returned by the 1st February, 1960. 7632

BOROUGH OF REIGATE

ARCHITECTURAL ASSISTANT required on Grade A.P.T. I (450 p.a.). Commencing salary according to qualifications and experience. Housing accommodation provided, if necessary, for married man. Facilities afforded for leave for study at recognised training establishment with view to obtaining appropriate technical qualification. Application forms obtainable from Borough Surveyor, Town Hall, Reigate, to be returned by 30th January, 1960. 7631

HEBER DAVIES,
Town Clerk.

Town Hall,
Reigate,
January, 1960. 7631

BINGLEY URBAN DISTRICT COUNCIL
ARCHITECTURAL ASSISTANT

Applications are invited for the permanent position of:—
ARCHITECTURAL ASSISTANT, A.P.T. II,
£765-£880 per annum.

Preference will be given to candidates who have reached the intermediate standard of the Royal Institute of British Architects and who have had training and experience in housing design and development, and general architectural work.

The appointment will be terminable by one month's notice on either side, and will be subject to the provisions of the Local Government Superannuation Act, 1937.

Applications stating age, qualifications, training and experience, and details of past and present appointments, accompanied by copies of two recent testimonials, or the names and addresses of two referees, should be forwarded, endorsed "Architectural Assistant," to the undersigned on or before Wednesday, 20th January, 1960.

Housing accommodation may be made available.

F. M. DUNWELL,
Clerk of the Council.

HOLBORN COUNTY COUNCIL

DRAUGHTSMAN required in Borough Architect's Department. Inclusive salary £435 at age 16 if suitably qualified, £275 if not qualified. Facilities for training. Applications with names of two referees to Town Clerk, Town Hall, High Holborn, W.C.1. 7523

Architectural Appointments Vacant

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

ERIC FIRMIN & PARTNERS require Senior **ASSISTANTS** for work on industrial and commercial projects. Five-day week, Luncheon Vouchers. Salary by arrangement. Please apply 5 Holborn Circus, E.C.1. CITY 8811. 6884

RONALD WARD & PARTNERS have immediate vacancies for **ASSISTANT ARCHITECTS** with initiative and some experience, for interesting, commercial, industrial and civic projects. Salaries commensurate with ability. Apply, 29, Chesham Place, S.W.1. BELGRAVIA 3261. 5638

ASSISTANTS required for busy Architect's City office; Laboratory and Industrial projects. Intermediate standard or above. Apply to: Secretary, Fairtlough and Morris, Temple Chambers, Temple Avenue, E.C.4. FLE. 6295. 5932

MAX LOCK & PARTNERS require **ARCHITECT**. Final standard, with practical experience, for their Bedford office. Five-day week. Apply in writing to G. W. King, 5a, Harpur Street, Bedford. 7435

BRIAN MEEKING, A.R.I.B.A., urgently requires an **ASSISTANT** of Intermediate standard. The office, which is in Blackheath, is congenial and an occasional 5-day week is enjoyed. Telephone TID 1439 for an appointment. 7432

ARCHITECTURAL ASSISTANT required for drawing office in Romford Area of at least intermediate standard with experience in the design of multi-storey flat and housing development. Good prospects. Pension Scheme. Varied and interesting work in modern office. Reply, stating salary and experience, to Box 7470. 7470

OFFICE OF PATRICK GWYNNE requires a **JUNIOR ASSISTANT** with office experience for work on interesting modern houses and interiors. Homewood, Esher, Surrey. Esher 3310. 7426

ASSISTANT ARCHITECTS are invited to apply for posts in the Architect's Department at Ericsson Telephones Limited, Beeston, Nottingham. Starting salary will be according to ability, qualifications and previous experience.

Only applicants with an enthusiastic approach to new ideas and progressive design, and willing to accept responsibility will be considered.

The Department at present works a five-day week. Good canteen facilities are available. Participation in superannuation fund after qualifying period.

Please write, stating age and giving full details of training and experience, to the Personnel Manager. 7442

ARCHITECT required by established Property Development Company. Must be experienced shops, offices, etc. Able to attend to working drawings Town Planning Bye-Law consents, etc. Write stating details age, experience and salary required. Davies, 38, Upper Grosvenor Street, W.1. 7421

ARCHITECTURAL ASSISTANT, about Intermediate standard, required for general practice in North Devon office. Pension scheme. Box 7483.

ARCHITECTURAL ASSISTANT at Final standard required by Buckinghamshire office. Interesting and varied work with scope for initiative and responsibility. State age, experience and salary required to Box 5871.

ARCHITECTURAL ASSISTANTS, Senior and Junior, required by firm in High Wycombe for commercial and industrial schemes. Scope for responsibility and experience. Five-day week. Write Box 6536.

TREHEARNE & NORMAN, PRESTON & PARTNERS, have vacancies for **ARCHITECTS** and **ASSISTANTS** with imagination and designing ability to assist with important new developments in the London area. Apply in confidence to 83, Kingsway, London, W.C.2. (HOL. 4071.) 6429

THREE qualified **ARCHITECTURAL ASSISTANTS** with office experience required for (a) Industrial Work, (b) School Contracts, (c) large housing scheme abroad. Assistants will be expected to take the responsibility of running and supervising these contracts. Salary according to age (limit 35) and experience. Apply to J. M. Austin-Smith & Partners, 29 Sackville Street, London, W.1. 6566

SENIOR ASSISTANTS urgently required for busy City office engaged in industrial and commercial work. 5-day week. Luncheon Vouchers. Salary up to £1,200 according to experience. Box 6554.

ASSISTANTS of Intermediate or equivalent standard, required for office in South Kensington. Interesting and varied work, offering scope for initiative, responsibility and opportunities for design. Commencing salary up to £800 per annum, according to qualifications. Five-day week. Apply R. Mountford Pigott & Partners, KENSINGTON 1242. 6776

ARCHITECTURAL ASSISTANTS required by Harker & Hall, L.F.R.I.B.A., for senior and intermediate positions in their offices in London and Warwickshire. Good salary, with scope for initiative and responsibility. Write to 13 Welbeck Street, W.1. or telephone WEL 0061 or Knowle (Birmingham) 3502. 6724

ASSISTANTS required immediately. Intermediate and Final standard. Interesting positions giving plenty of scope for responsibility and contract supervision in West End Office. Tel. MAYfair 3111 or Box 7129.

QUALIFIED ASSISTANT ARCHITECTS required, minimum three years' office experience, preferably in London. Minimum salary £1,000 according to ability and experience. Theo. H. Birks, 38, Portland Place, W.1. LAN 7236. 7126

INTERMEDIATE standard **ASSISTANTS** required, minimum two years' office experience. Minimum salary £750 according to ability. Theo. H. Birks, 38, Portland Place, W.1. LAN. 7236. 7127

ARCHITECTURAL ASSISTANTS required in West End. Should be capable of preparing 1/4" scale drawings and details from sketch plans. Box 6980.

SENIOR ARCHITECTURAL ASSISTANTS, **SENIOR** and **JUNIORS** up to about Intermediate standard, required for varied industrial and commercial work in West End Office. Scope for initiative and advancement. Salary from £900 to £1,000 according to age and experience. Five-day week. Write, giving full details, to Box 7220.

J. M. AUSTIN-SMITH & PARTNERS require **ARCHITECTURAL ASSISTANTS** with office experience for (a) school contracts, (b) large housing scheme abroad, (c) shops and shon conversions, (d) industrial work. Assistants will be expected to take the responsibility of running and supervising these contracts. Salary according to age (limit 35) and experience. Apply to 29, Sackville Street, London, W.1. 7251

CHARLES PIKE & PARTNERS require **ASSISTANTS** for interesting schemes Training Colleges, Technical Colleges, Schools, Hostels. Salary according to experience. £700 to £1,050. Write 14, Lincoln's Inn Fields, W.C.2. or phone Holborn 3532 for appointment. 7258

TWO ASSISTANTS required: one at Intermediate standard and one qualified with some years office experience, for small busy office. Salary according to experience. Ring L.A.Ngham 1732 or write to F. G. Frizzell, A.R.I.B.A., 80, Portland Place, W.1. 7278

ARCHITECTURAL ASSISTANTS, Intermediate standard, required in London Office with varied practice. Interesting projects. Five-day week. Write giving particulars of age, experience, etc., to Box 903, c/o 7, Coptic Street, London, W.C.1. 7037

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

HERE'S AN OPPORTUNITY. New schools to be designed from the start, in a rapidly growing, forward looking OXFORD office. A man or woman of integrity, responsibility, and drive, is needed to run this work. And it will lead to quick **ADVANCEMENT** for the right person. But houses are difficult to find here: so if you're single you're lucky. Apply quickly, giving experience and qualifications and the salary you want to Box 7383.

ARCHITECTURAL ASSISTANTS from by firm engaged on school and church contracts in their Manchester and Nottingham Offices. Applicants should reply stating qualifications experience, age, salary, etc., to Reynolds & Scott, F.A.R.I.B.A., 9, Albert Square, Manchester, 2. 7291

SENIOR ASSISTANT ARCHITECT required for progressive practice with Headquarters on the South Coast. Pension scheme available. Write with details, training and salary required, Thomas, Jolly & Grant, 26, Kent Road, Southsea. 7370

ARCHITECTURAL ASSISTANTS required up to Intermediate standard. Medium sized, varied and progressive practice. Good salaries and prospects. Colcutt & Hamp, Architects, 86, Prince Albert Road, N.W.8. PRI 5157. 7451

ARCHITECTS and **ASSISTANTS** required. Minimum Intermediate standard. Very large programme commercial, industrial and residential work. London office. Good salaries and bonus to right men. Five-day week. Box 7403.

ARCHITECTURAL ASSISTANT required having experience in Industrial Buildings. Intermediate standard. Varied and interesting work. Apply stating age, experience and salary required to "The Group Architect," Associated Electrical Industries (Rugby) Limited, Rugby, Warwickshire. 7461

ARCHITECT required by established Property Development Company. Must be experienced shops, offices, etc. Able to attend to working drawings, Town Planning By-Law consents, etc. Write stating details age, experience and salary required. Davies, 38, Upper Grosvenor Street, W.1. 7421

ARCHITECTURAL ASSISTANTS, preferably 2nd of Intermediate standard, are invited to work for posts in the Architect's Department at Ericsson Telephones Limited, Beeston, Nottingham, to work with group architects on a programme of modern industrial building. Starting salary will be in accordance with qualifications and previous experience but it will be helpful to know salary expected by applicants. The department at present works a five-day week. Good canteen facilities are available. Participation in superannuation fund after qualifying period. Please write stating age and giving full details of training and experience to the Personnel Manager. 7443

LANCHESTER & LODGE urgently require **ARCHITECTURAL ASSISTANTS** of all grades. Work includes Hospitals, Laboratories, Universities, Police H.Q., etc. Generous salaries for right men. 5-day week and luncheon vouchers. Write full particulars including salary required, 10, Woburn Square, W.C.1. 7408

WE require our first permanent **ASSISTANT** in 18 month old practice. We can at present afford to pay no more than £450 for a versatile person able to do rather more than just draw. Our work ranges from new bathrooms to new hospitals and includes offices, housing, etc. Please apply in writing to Calderhead & Scoble, A.A.R.I.B.A., 7, Friars Site Road, Richmond, Surrey. 7411

ARCHITECT required for schools and Ecclesiastical buildings, must be able to take control from sketch plan stage. Commencing salary approximately £1,200 per annum. Contributory pension scheme. Applications with full particulars of experience, etc., to Bruxby & Evans, Chartered Architects, 41/42, Bluecoat Chambers, Liverpool, 1. 7420

SENIOR ARCHITECTURAL ASSISTANTS required in salary range £700-£1,000 to take control of varied and interesting jobs of all sizes. Experience in colour and design of interiors and fittings and good presentation draughtsmanship an advantage. Five-day week, excellent working conditions and holidays. Please write giving full details of experience and qualifications to Deacon & Laing, 65, Goldington Road, Bedford. 7422

SMALL, varied and developing practice requires **ASSISTANT ARCHITECT** able to take charge of jobs; age around 30; please apply in writing to Bird and Tyler, 13, Welbeck Street, London, W.1. 7419

SENIOR ASSISTANT required of Intermediate/Final standard. Sound training, experience private practice. Accommodation difficult, single man therefore preferred. Busy private practice, Jersey, Channel Islands. Apply, stating salary required, wacha free, etc., to box 7446.

POST Intermediate ASSISTANTS required in Architect's Office. Must be able to produce working drawings. Five-day week. Salary according to experience. Write or phone Ardin & Brookes, 129, Mount Street, W.1. 7479

SIR ALFRED MCALPINE & SON LTD. require additional ARCHITECTURAL ASSISTANTS in their Design Department at Hooton.

Applicants should be of Intermediate R.I.B.A. standard and be capable of rapidly producing accurate working drawings and details, and also be able to prepare presentation drawings for projects.

Contributory Pension Scheme in operation. Apply in writing to Head Office, Hooton, Wirral, Cheshire. 7478

DAVID STERN AND PARTNERS require two able ASSISTANTS of minimum of three years' office experience and at least Intermediate standard. Lively office engaged on flats, offices, and factory developments. Keen design-sense and good draughtsmanship essential. Five-day week. Salary according to ability: £900-£1,000 p.a. Apply in writing to: 24, Gloucester Place, London, W.1. 7477

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ARCHITECTS and ARCHITECTURAL ASSISTANTS of Intermediate or Final R.I.B.A. standard with experience in one of the following: Office and Industrial Schemes; Multi-storey Flats and Maisonettes; Schools; Private and Municipal Housing.

These positions offer opportunities for advancement and a wide variety of work in a busy office. Pension Scheme after two years' service. Five-day week.

Applications to Personnel Manager (Ref. A.A.L.), John Laing and Son Limited, Building and Civil Engineering Contractors, London, N.W.7. 7484

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A MULTIPLE GROCERY COMPANY WITH AN EXTENSIVE DEVELOPMENT PROGRAMME THROUGHOUT THE COUNTRY REQUIRE THE SERVICES OF A QUALIFIED ARCHITECT WITH KNOWLEDGE AND EXPERIENCE OF SELF SERVICE AND SUPERMARKET PLANNING. THE SUCCESSFUL APPLICANT WILL BE OFFERED A PERMANENT PENSIONABLE APPOINTMENT. APPLICATIONS IN STRICTEST CONFIDENCE, GIVING DETAILS OF EXPERIENCE, QUALIFICATIONS, AGE, PRESENT APPOINTMENT AND SALARY, TO BE ADDRESSED TO BOX 7489.

W. J. LEWIS AND SONS require an ARCHITECTURAL ASSISTANT of Intermediate R.I.B.A. or above standard, for interesting and varied work in busy office, and with opportunities for future. Salary will be according to age and experience. Five-day week. Apply by letter to 68, Cranbrook Road, Ilford, Essex, or telephone Ilford 3589. 7490

ARCHITECTURAL ASSISTANTS required in London and Reading area. Five-day week. Full particulars and salary required to Box 7492.

ELIE MAYORCAS requires SENIOR ASSISTANTS with minimum of three years' office experience in this country. Write, giving particulars of architectural education and experience, and salary required, to: 13, David Mews, Baker Street, W.1. 7497

BRITISH HOME STORES LIMITED require

ARCHITECTURAL ASSISTANTS (Associate & Intermediate Standard R.I.B.A.)

for a large building programme. The work is specialised and interesting. Prospects for advancement for men of ability and aptitude. Salary by arrangement. Five-day week. Staff Pension and Assurance Scheme. Successful applicants will be required to work in London. Applications in writing, giving full details of experience and salary required, to Personnel Manager, British Home Stores Ltd., 129-137, Marylebone Road, London, N.W.1. 7499

ARCHITECT'S ASSISTANTS of Intermediate and Final standard required immediately for a varied and interesting programme including: Schools, Churches, Municipal Buildings, Housing, etc. Bonus and pension schemes in operation, voluntary overtime at good rate of pay. One Saturday in three off. Applications, giving full particulars and salary required, to J. C. Prestwich & Sons, Bradshawgate Chambers, Leitch, Lancs. 7510

S.E. LONDON Architect wants ASSISTANT to work on Schools, Office buildings, Houses etc. Good opportunity for advancement in practice which sets a high standard. Steer, F.O.O. 3166. 7501

POWELL AND MOYA require ASSISTANTS. Please write to 36 Great Smith Street, or telephone ABBey 3156. 7425

ARCHITECT'S ASSISTANT required in Birmingham Office for preparation of working drawings, specifications, etc., for domestic work to be carried out in the Henonshire area. Ability to drive a car and experience in other types of work an asset. Salary according to experience. Pension scheme. Box 7440.

STIRLING AND MARGARET CRAIG require ASSISTANTS of Final and Intermediate standard for varied work. 30, London Road, Stevenage, Herts. Stevenage 1082. 7512

QUALIFIED Architect required as RESIDENT ARCHITECT on Hospital project in West Africa. Site experience an advantage. Salary dependent on experience but about £1,800 plus car allowance. Contract of two tours of 18 months in first instance. Generous home leave and free passages for self and family. Housing provided at low cost. Kit allowance. Apply, giving details of experience, to Box 7485.

ASSISTANT required for Resident Architect for University College of Ghana. Salary up to £1,600 according to experience. Free passages for self and family. Kit allowance. Accommodation provided. Apply in writing to Harrison Barnes & Hubbard, 2, Lord North Street, London, S.W.1. 7486

MORRISON & PARTNERS, London, require an enthusiastic ASSISTANT of Intermediate standard to act as Assistant to partner. Day off for part-time schooling if required. Write in confidence to 70, Wimpole Street, London, W.1. 7482

ARCHITECTURAL ASSISTANT (Final standard) required in busy architect's office in Reading. Salary according to experience. Howell, Freeman & Batten, Chartered Architects, Reading. 7481

ARCHITECTURAL ASSISTANTS of Final and Intermediate standard required for work on industrial buildings. Excellent opportunities in an expanding London office. Apply, stating age, experience and salary range, to the Chief Architect, Nuclear Civil Constructors, 52/55, Carnaby Street, London, W.1. 7480

ARCHITECTURAL ASSISTANTS of all grades required in busy London Office. Applicants must be prepared to work on their own initiative and be capable of producing working drawings and details for new contracts of contemporary design. Pleasant working conditions, with a five-day week, 9.30 a.m.-5.30 p.m., and Luncheon Voucher scheme. Write stating experience, age and salary required to—W. Rossell Orme & Partners, 55, Manchester Street, W.1, or Telephone HUNTER 1498. 7571

SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS required for an expanding organisation to develop the Company's commitments in the Liverpool area. Assistants will be based in Liverpool to carry out varied work on shop development, attractive salaries are offered and incentive schemes are in operation. Applications in writing, stating age, experience, qualifications and salary should be forwarded to The Building Manager, Lowton Construction Co. Ltd., Lowton St. Mary's, Nr. Warrington. 7611

DOUGLAS J. OLIVER & PARTNERS, Members of the Grenfell Baines Group of 10 St. Matthew's Street, Rugby, urgently require ASSISTANTS of R.I.B.A. Intermediate and Final Standard. The positions are intended to be permanent and the work includes high building development, schools, public school work, good quality housing and a variety of interesting miscellaneous projects. Pleasant office conditions. Staff Superannuation Scheme. Salaries £800-£1,200 per annum according to ability. Applications should be made giving full details of experience to 10 St. Matthew's Street, Rugby. 7610

BOISSEVAIN & OSMOND will be pleased to hear from young architects of various grades, aged between 20 and 35, who possess drive and initiative and are capable of negotiating with clients and who are not afraid of hard work. Good educational background and previous experience of procedure desirable but a determination and an ability to succeed are more important. In return we offer good salaries reviewed regularly, interesting work and promotion on merit. Our principal office will be situated, to avoid London's congestion, in a new building in Epsom with excellent working conditions. Please apply in writing to the London office, 2 Field Court, Grays Inn, London, W.C.1. 7603

ARCHITECTURAL ASSISTANT, Inter Standard or thereabouts, required for Warrington Office, used to preparation of Working drawings, and with some Site experience. Interesting contemporary schemes in progress include Offices, Shops, Housing, Commercial and Industrial buildings. Write, stating experience and salary required, to: J. H. Cheetham, A.R.I.B.A., 3, Palmira Square South, Warrington, or telephone Warrington 32493/4 for appointment. 7597

ARCHITECTURAL ASSISTANTS, Intermediate or above, required for interesting U.K. and Tropical work by London firm moving to new offices pleasant surroundings Wimbledon. No town travelling: 5-day week. Write or telephone J. E. K. Harrison, 19, Broadstone Place, Baker Street, W.1. WELbeck 0694. 7593

SENIOR ARCHITECTURAL ASSISTANT (Inter R.I.B.A. Standard) required to take charge of Company's new Liverpool office. This is an initial appointment with very great scope for an ambitious and competent young architect. A good starting salary will be paid to the right applicant who will also qualify for entry to the Company pension fund. Apply in writing to: LOWTON CONSTRUCTION CO. LTD., Lowton St. Mary's, Nr. Warrington. 7594

ASSISTANT urgently required, intermediate to final standard, interesting and varied work with opportunities for site supervision. Salary from £600 plus L.V. G. Gordon Stanam, Adamson, Gray & Partners, 9/10, Fenchurch Street, London, E.C.3. MANston House 1010 and 5274. 7584

QUALIFIED ARCHITECT fully experienced in new shop development, required to be responsible with the very minimum of control, for the design and supervision of projects in Home Counties and the Midlands. Good prospects are assured for a man able to work on his own initiative. Office in Central London. Box 7599.

ARCHITECTURAL ASSISTANTS required. A salary £450-£900 according to experience. W. Leslie Jones & Partners, 8, Acresfield, Bolton, Lancs. Tel.: Bolton 19221. 7555

ARCHITECTURAL ASSISTANTS required. A salary £450-£1,000 according to experience. W. Leslie Jones & Partners, 241a, High Street, Poole, Dorset. Tel.: Poole 2238. 7556

ARCHITECTS with busy practice in Brighton require ASSISTANTS with practical experience for varied work. Salary up to £750 per annum. Five-day week, pension scheme, etc. Box 5848.

TRIPE & WAKEHAM, Chartered Architects, require ASSISTANTS with three to five years' office experience. Telephone WELbeck 774 or write 16, Fitzhardinge Street, London, W.1. for an appointment. 7551

ARCHITECTURAL ASSISTANTS—Exceptional opportunity and rapid promotion exist in large modern firm of Contractors recently developing on a national scale an all-in building service. Work comprises mainly commercial and industrial projects and this is an ideal chance for ambitious young men. Applications, stating age, experience and salary required, should be forwarded to Box 7516.

ARCHITECTURAL ASSISTANT required. Intermediate standard, with office experience, for small busy practice in West End. No Saturdays. Phone MUSEum 9693. 7519

ARCHITECTURAL ASSISTANTS required. Final and Intermediate standard. Churches, schools and general practice. Opportunity for experience and responsibility. State age, qualifications, experience and salary required. Apply Sandy & Norris, 134, Newport Road, Stafford. 7521

SENIOR ASSISTANT required. Excellent salary and opportunity offered to suitable applicant. Five-day week. Superannuation scheme in operation. Write, giving full particulars of experience, to Sandon and Harding, A/R.I.B.A., 14, Lower Brook Street, Ipswich. 7522

ARCHITECTURAL ASSISTANTS for a wide variety of interesting projects in small Architect's Department of leading Building and Civil Engineering Contractors in the Manchester area. Pleasant facilities. Salary £850 to £1,050. Apply Box 7524.

ASSISTANT ARCHITECT required by Sir Alexander Gibb & Partners, Queen Anne's Lodge, Westminster. Post offers wide experience of work being carried out at home and abroad. A.R.I.B.A. required. Remuneration to be decided according to experience. Please detail experience qualifications, technical education and age. 7529

ARCHITECTURAL ASSISTANT required by a Westminster professional firm. Work offers wide experience. Starting salary necessarily to be decided on qualifications and experience. Good technical education necessary and up to Intermediate standard advantageous. Age range say 20-25. Please indicate educational background as well as age and experience to Box 7530.

ARCHITECTURAL ASSISTANT, Intermediate stage, required immediately. Salary according to experience. Excellent office conditions and permanent position offered to right man. Apply Chas. W. Fox, F.R.I.B.A., National Provincial Bank Chambers, Welwyn Garden City. 7531

DIAMOND, HODGKINSON & PARTNERS require experienced Intermediate and qualified ASSISTANTS able to take responsibility for housing, flats and interiors. Salary £600-£900 p.a. 92 George Street, W.1. 7537

ARCHITECTURAL ASSISTANTS—Final and Intermediate—required with office experience. Opportunities for designing and taking responsibility in running and supervising contracts. Five-day week and bonus scheme. Apply in writing, giving age, experience and salary required, to: Shingley & Foster, Kingscourt, Bridge Street, Walsall. 7540

FEMALE ASSISTANT with experience required in Loughboro Office to work mainly on own initiative. Salary by arrangement. Reply with particulars, Box 7559.

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QUALIFIED ARCHITECTURAL ASSISTANT required by busy South Coast Architects whose practice is concerned mainly with multi-storey flats. Write, stating salary required and experience, to Kenneth Parker & Associates, 4, Liverpool Terrace, Worthing, Sussex. 7545

ARCHITECTS require two capable **SENIOR ASSISTANTS**. Commencing salaries £900-£1,000. Permanency and good prospects offered. Stephenson, Gillis and Partners, 2, Saville Chambers, North Street, Newcastle upon Tyne. 7546

WE require qualified and unqualified, experienced **SENIOR** and **JUNIOR ASSISTANTS**. Salaries by arrangement. After a qualifying period a Bonus scheme is in operation together with a non-contributory pension and life assurance scheme for Assistants. Telephone Chancery 3526 for an appointment. Appointments arranged for lunch hour if required. Woodroffe, Buchanan & Coulter, F/R.I.B.A., 5, Bedford Row, W.C.1. 7557

SMALL informal office requires responsible and enterprising **ASSISTANT**, about Intermediate standard. Current projects include Theatre, Hotel, Hospital and Flats. Please apply to Verity & Beverley, 35, Doughty Street, W.C.1, for appointment. TER. 5301. 7558

SMALL office about to expand offers opportunity for advancement to **ASSISTANT** of Intermediate standard. Must be good designer and able to take direct responsibility. Salary from £800. Telephone CENTRAL 5766 or write Box 7564.

THE Zoological Society of London requires an additional **ARCHITECTURAL ASSISTANT** for its extensive rebuilding programme. A recently qualified man would be suitable. Salary in scale £800 x £40 to £920. Apply to the Establishments Officer, Zoological Society of London, Regents Park, N.W.1. 7565

CAPABLE ASSISTANT, good draughtsman, required for small, busy office, interesting and varied work. Five-day week. Apply to Ervin Katona, A.R.I.B.A., 23, Old Burlington Street, W.1. REG. 1945. 7570

ARCHITECTURAL ASSISTANT required immediately. Salary according to age and experience. Apply by letter to David Landaw & Partners, Chartered Architects, 7, Hill Street, W.1. 7572

ARCHITECTURAL ASSISTANTS (Senior and Junior) required in busy office handling a wide variety of interesting work including commercial, domestic, school and brewery projects. Please apply, stating experience and salary required, to Porters & Richardson, Lloyds Bank Chambers, Peterborough. 7574

ARCHITECTURAL ASSISTANT of Post Intermediate standard required for work on television studios, flats, etc. Five-day week. Salary up to £900 according to qualifications and experience. Treadgold and Eisey, F/R.I.B.A., 1, Vine Street, Uxbridge, Middlesex. Uxbridge 2285/8480. 7575

SENIOR and Intermediate standard **ASSISTANT** required for position which offers prospects of early advancement. Interesting work mainly on Department Stores and Ecclesiastical Buildings. Apply stating experience and salary required. George Baines & Syborn, A.R.I.B.A., 121, Victoria Street, Westminster, S.W.1. 7577

BURLES & NEWTON require **ARCHITECTURAL ASSISTANTS** in their London and Southend offices. Age 20-25. Intermediate/Final standard. Apply 26, Great James Street, W.C.1, or 36/38, County Chambers, Weston Road, Southend. 7576

SENIOR ASSISTANT, A.R.I.B.A. or Final standard, required for London Architects' office. Interesting and varied practice. Salary £900 to £1,000 according to experience. Five-day week. Telephone WHI. 2552 or write Box 7578 for appointment.

GRENFELL BAINES & HARGREAVES require school trained **ASSISTANT**, preferably with two years' experience, for small expanding office in Manchester with interesting variety of work. University buildings, Schools, Banks, etc. Considerable amount of freedom and responsibility given to person with good design ability and personal initiative. Pleasant country to live within easy commuting distance. Salary £900-£1,000 p.a. Apply: 423, Oxford Road, Manchester 13. 7554

ASSISTANT (Intermediate) required immediately, capable of working drawings, details and surveys. Wide range of interesting work. Percival G. Tuttle, Architect and Chartered Surveyor, 19, Carlton Crescent, Southampton. 7586

ONE or two **SENIOR ASSISTANTS** required. Interested in hospital construction and similar work. Apply to Box 7596.

ARCHITECTS' ASSISTANT required in Birmingham site office on multi-million pound project. About Intermediate grade. First class opportunity for practical experience. Twelve months only. Permanent employment London office after if required. Box 7585.

ASSISTANT ARCHITECT, at least five years' qualified experience, required for busy practice in Brighton. Salary up to £1,000 per annum, three weeks' paid holiday, pension scheme, etc. Box 7612.

INTERMEDIATE standard **ARCHITECTURAL ASSISTANT** required immediately for work on exhibition and ancillary buildings. Write, giving details of age, training, and experience, if any, to Staff Architect, Olympia Limited, Kensington, W.14. 7626

GILLESPIE, KIDD & COIA, Glasgow, require **ARCHITECTURAL ASSISTANTS** keen to participate in a variety of interesting projects. Salary will be in accordance with ability and experience. Reply to 20, Park Circus, Glasgow, C.3. 7616

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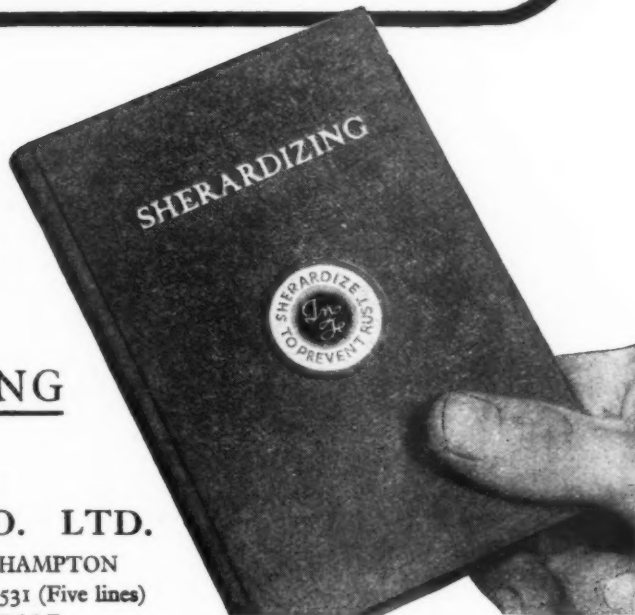
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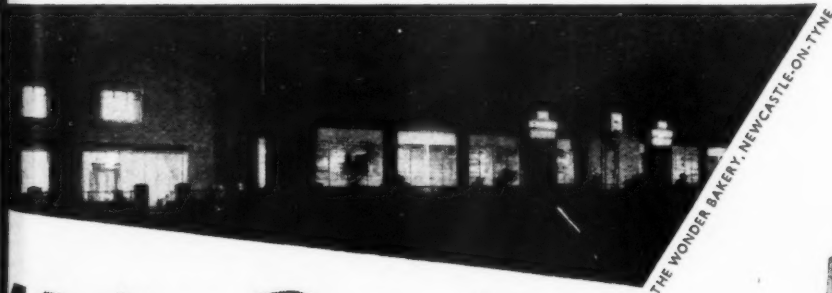
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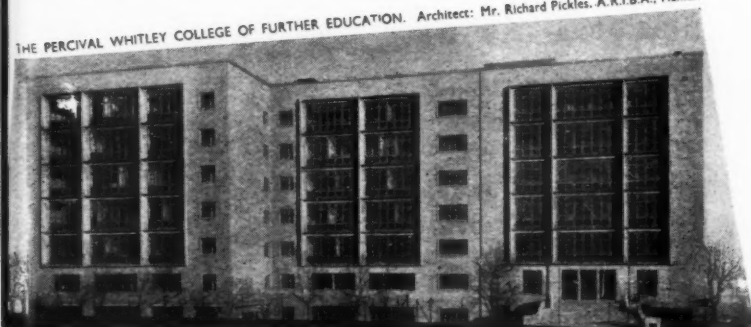


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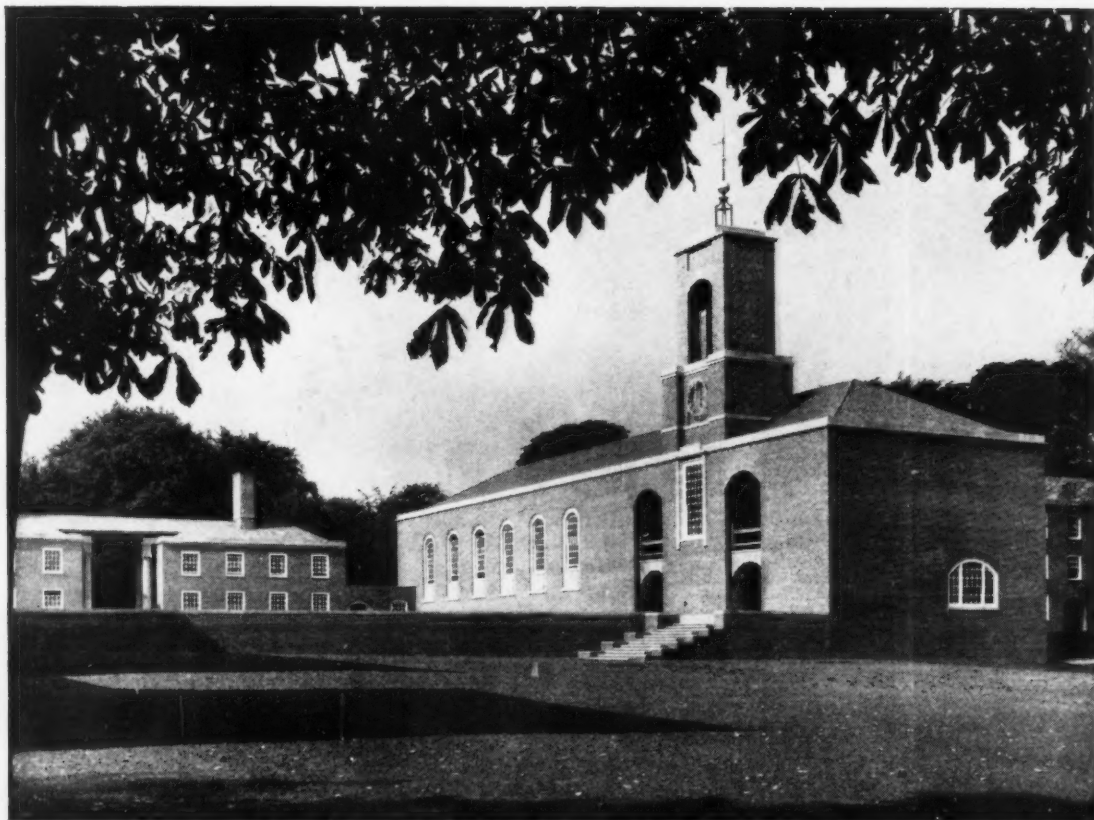
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