ARCHITEC THE JOURNAL



*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 Ii one week, Il to Z the next. In all cases where the town is not mentioned the word LONDON is implicit in the address.

standard

contents

AAI

BIA BID

HBDID

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

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Details of Planning, Construction,

Finishes and Costs

Buildings in the News

Building Costs Analysed

Architectural Appointments

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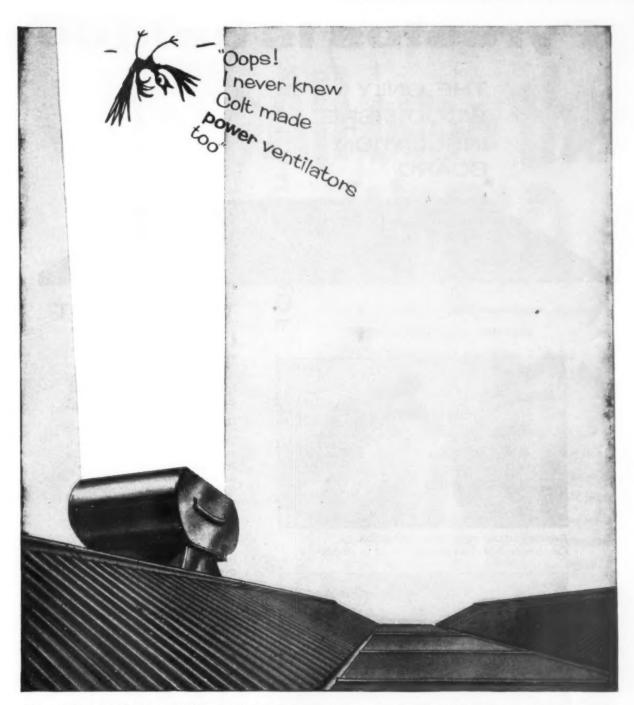
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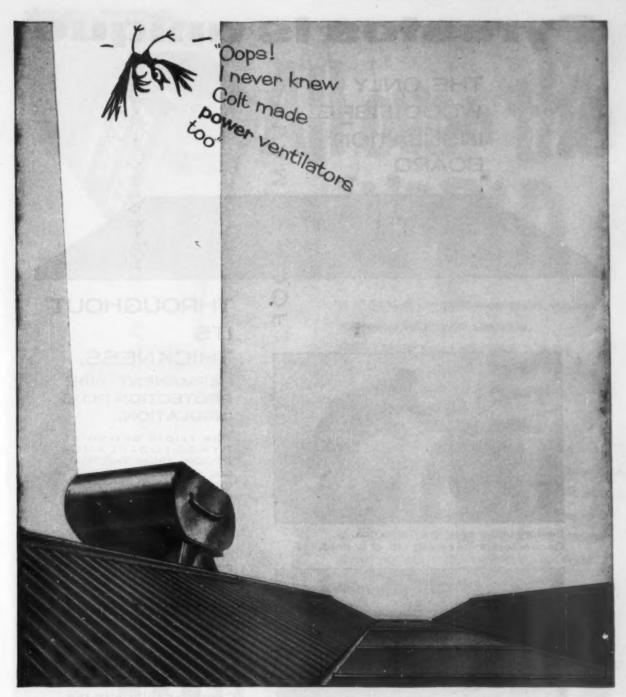
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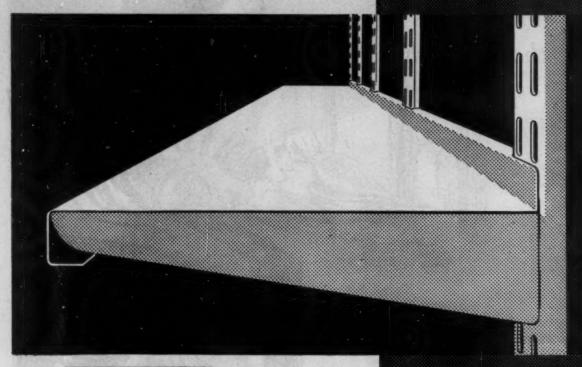
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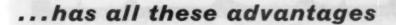
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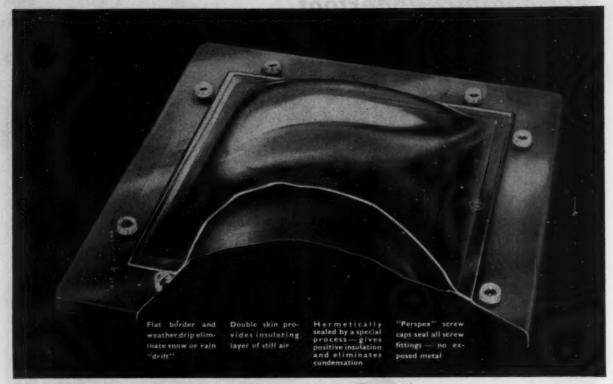
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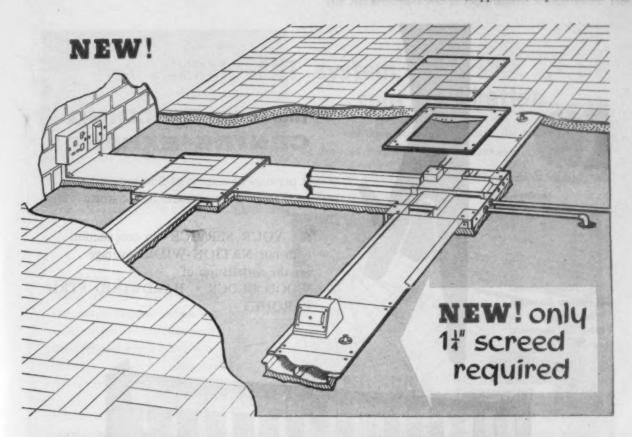
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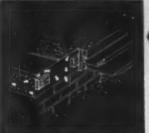
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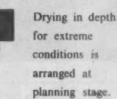
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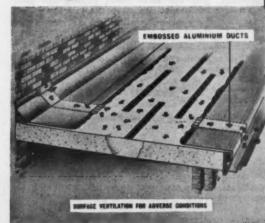












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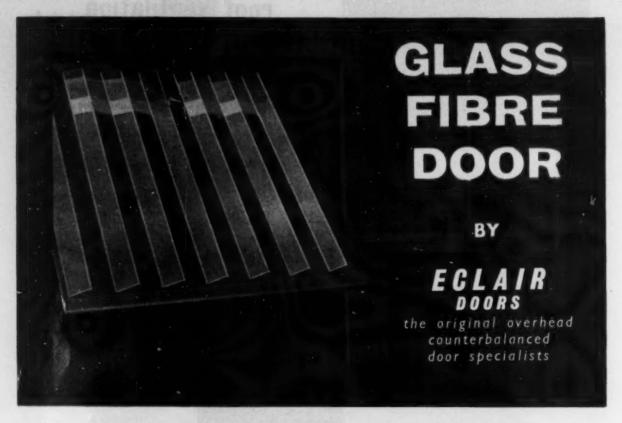


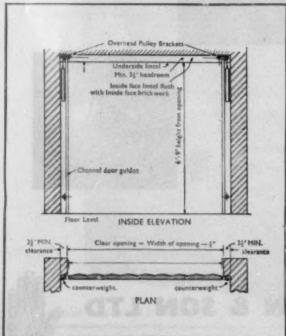
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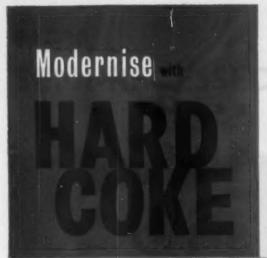
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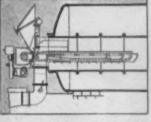
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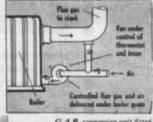
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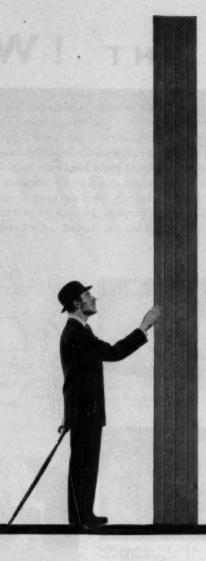


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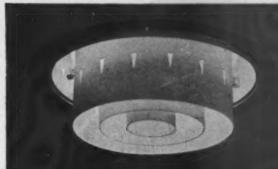
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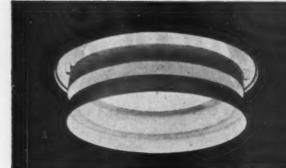
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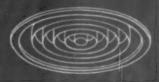
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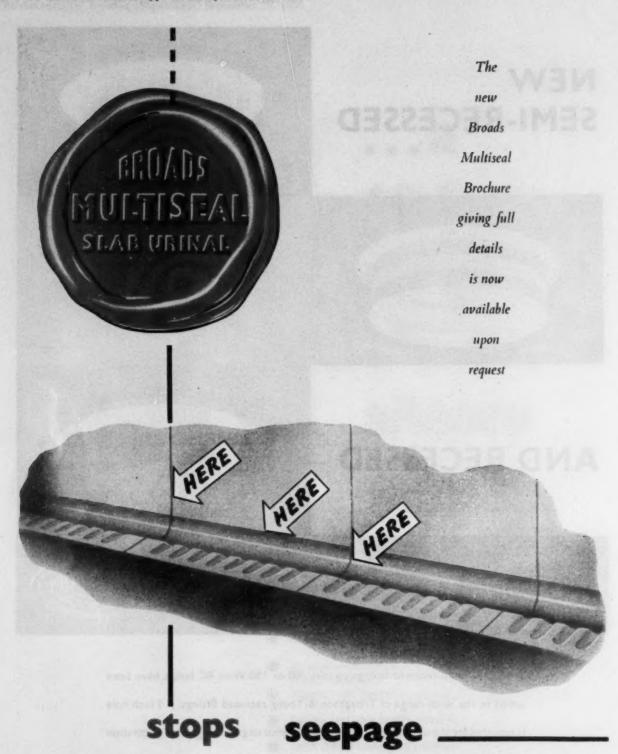


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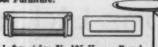


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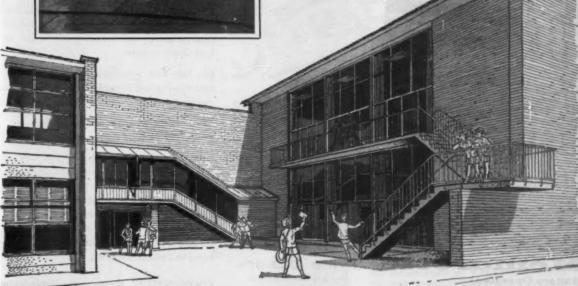
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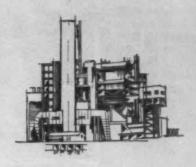
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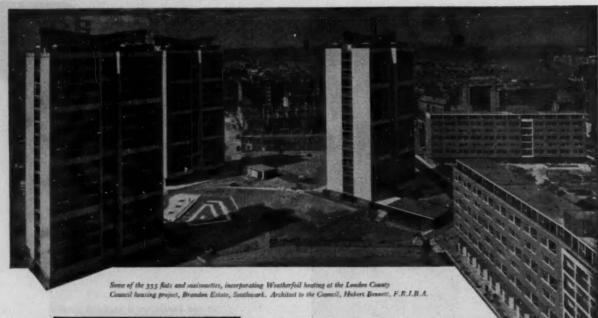
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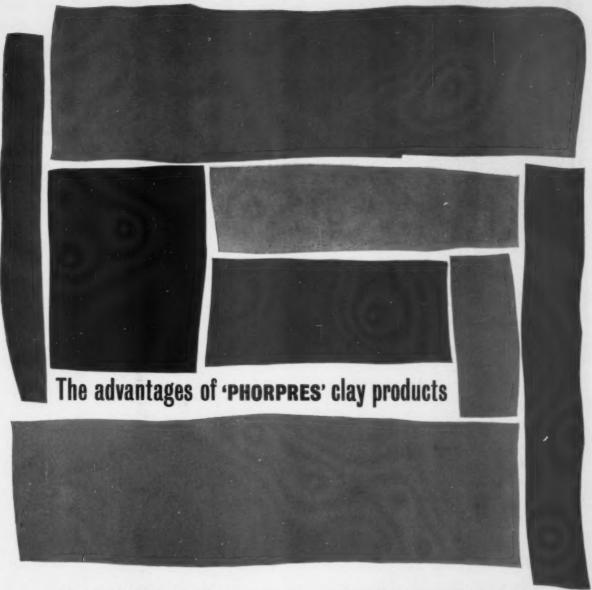
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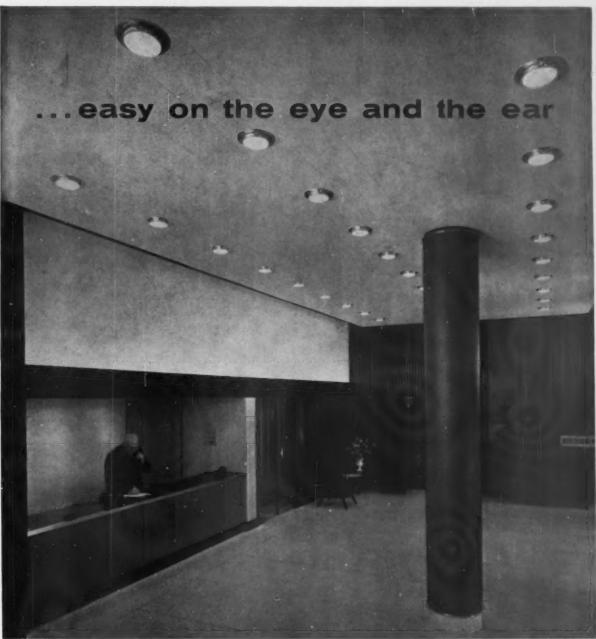
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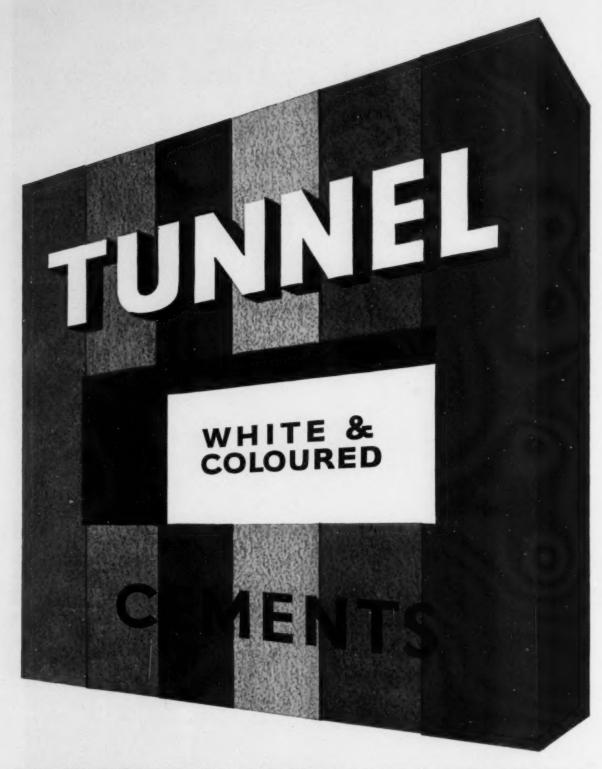
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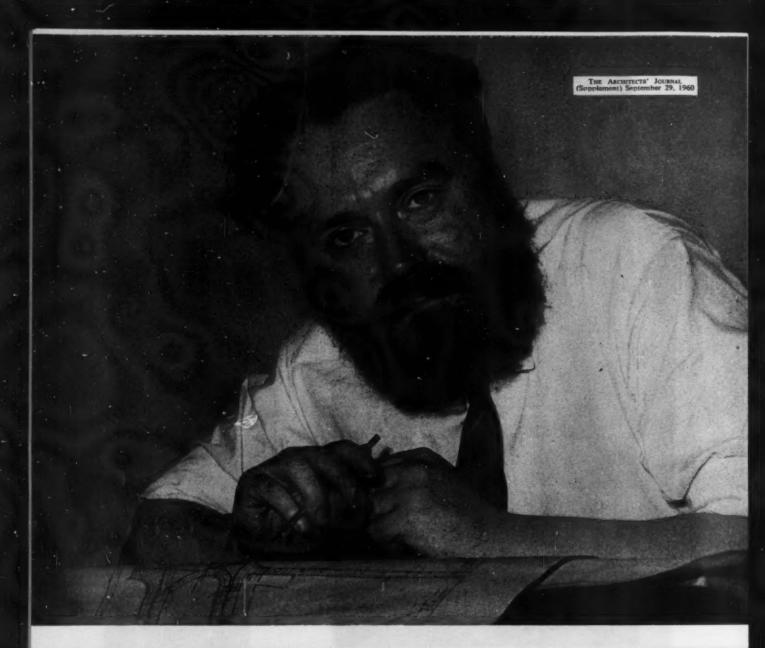
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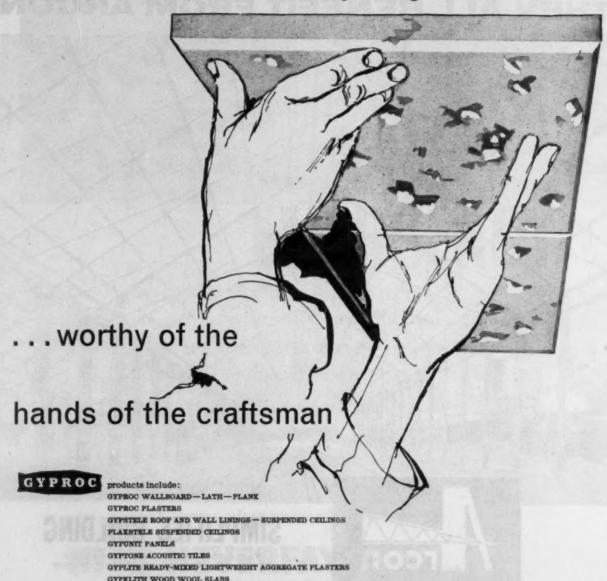


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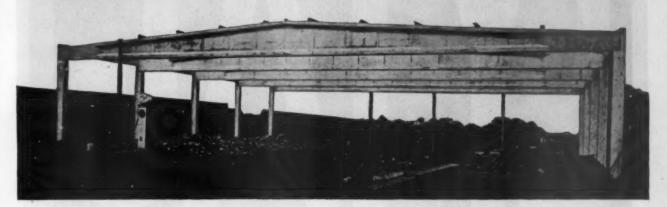
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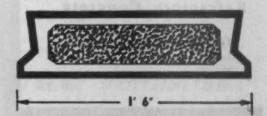
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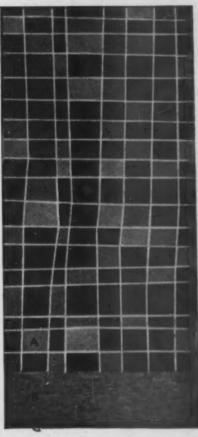
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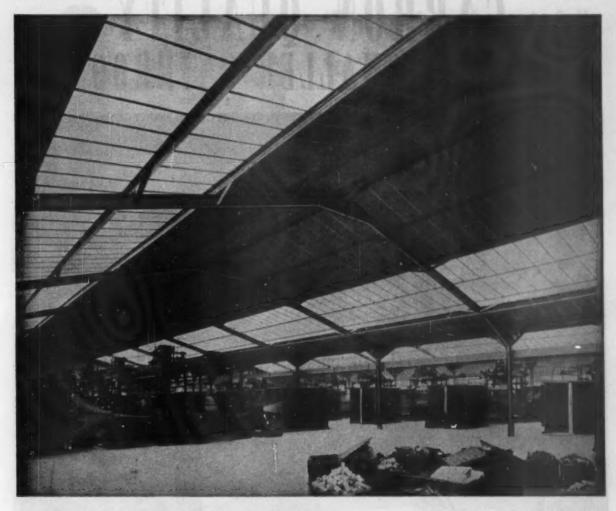
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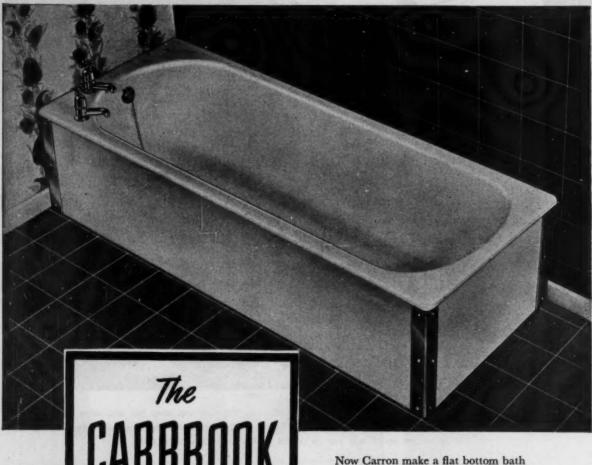
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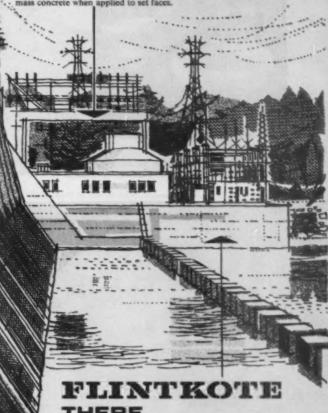


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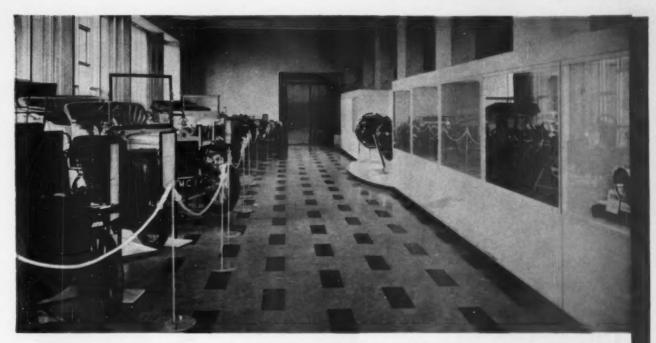
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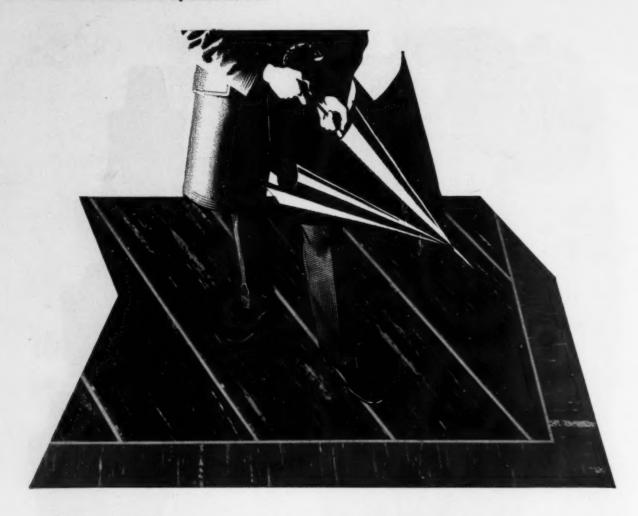
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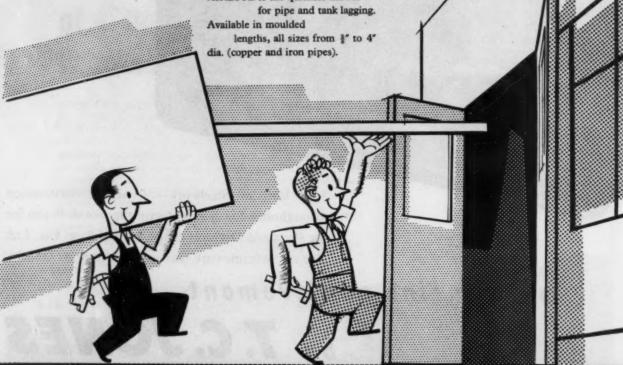
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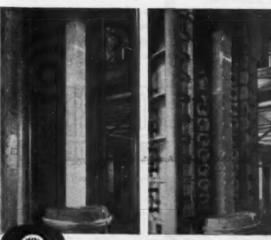


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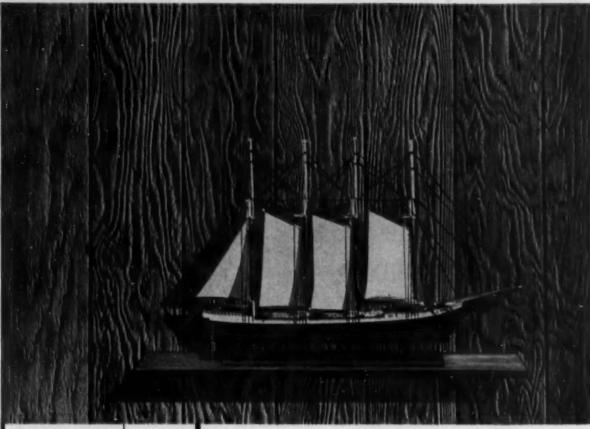


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ILLUSTRATED LEFT Mansfield Cumberland Secondary Modern School, Mansfield. ARCHITECTS: Vallance, Westwick & Associates, Mansfield. FLOORING CONTRACTORS: Semtex Ltd.

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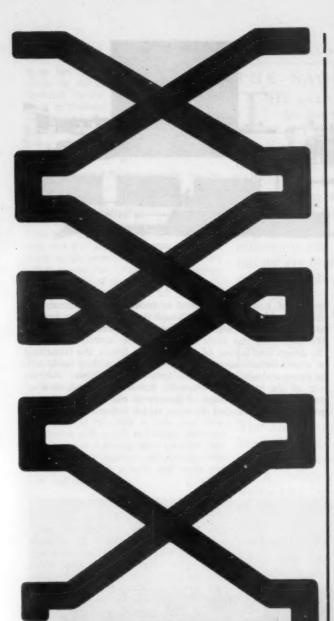


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The Architects' Journal

No. 3415. Vol. 132. September 29, 1960

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NOT QUITE ARCHITECTURE

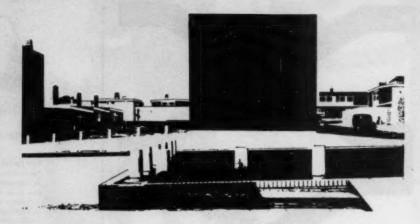
A wing, a prayer . . . a cathedral!

I really only like organisation-man pictures. I never go to sea or air or murder pictures. I can suck enough drama out of a kid screaming while I am on the telephone, or feel too murderous myself when I have cooked a meal for two screaming people who would rather play than come in and eat it, and when they have raised the neighbourhood to reach for their telephone books to look up the local officer of R.S.P.C.A. or whatever, they won't wash—I get too near the edge myself to take pleasure out of seeing some poor devil go over it.

My blood pressure can get enough of a rise out of an off-hand ex-Bauhaus lecturer, or a picture of Saarinen's latest, or our cheap English copies of it, or the mere mention of Yamasaki, without the need to get worked up about unreal things outside my discipline. Why pay to see an air disaster if you have my rich imagination? I sit staring like an Egyptian mummy, prepared for a fright for thousands of miles.

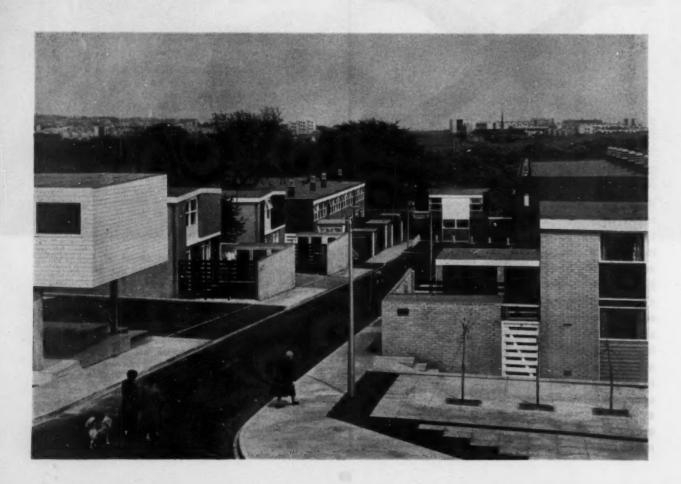
Incidentally, why did none of the 300 try an aeroplane shape for that cathedral? flying is the only time I fervently say my prayers.

An Urban Environment



This housing in the south-west area of Peterlee New Town (we publish a progress report from there on page 465) is the work of a team of two architects, Peter Baniel and Frank Dixon, in collaboration with Victor Pasmore, the abstract painter and constructivist. The project is a first experiment at Peterlee, aimed at producing much more defined and compact neighbourhoods, treating the whole visual enrivonment as one unified entity, and making use as far as possible of prefabricated timber elements. It is a conscious, positive effort to depart from the corridor street and the endless

spread of housing so typical of most of the original new towns, and it succeeds even though the designers were limited to a maximum of three storeys because of mining subsidence. We hope that this same attitude will be equally evident in the design and layout of the two new towns, the launching of which we announce on page 455, so that they really will be towns and not just formless sprawls of suburbia. Above, one of the internal courtyards; below, a general view of one of the four groups of houses in the area. A second group is visible beyond the trees, which define each grouping.



For relaxation I sit at the pictures and smirk at organisation men at work, just to see how those who are IN over there are meant to dig (as the newest Fellow of Churchill College was heard to say overmuch in Helsinki recently) things. This in order to be prepared for how club-men will try to dig things in five years' time over here.

Besides organisation-men subjects on the films, I like the men. So I expected "From the Terrace" to have kicks for me. It was rather funny to have Newman again doing those speeches like in "The Philadelphian"—we both felt it. But what was new, man, new, was that organisation man has a new angle on his material world; and what we called in the 50s "Throw-away" objects. First you take all the OK, whisky-obvious, symbols, and if that doesn't hit you in the eye when the OK car pulls up in front, then the star gets out and faces the camera and more or less says so.

I agree people are so dim that you have to spell everything out—but never mind. "Throw-away," that's out; you tear out the ads—but you join them together again now.

You take an ad, with a kick, and then a gimmick with a soft and misty, rustle up a beech-leaves barbecue that's f-r-e-s-h, and don't salem but inhalem; and give the drift of cigarette smoke a twist and wade out cool and clear.

Yes, man, yes, the organisation man's colour has gone all misty; probably the whole subject is in its autumn. And Newman is married! (to the star Joanne Woodward). And like all other organisation couples he cooks too, has his own specialities de maison and all that jazz. And they move around and only have Sundays left for catching up on entertaining.

And, although it has been buffet brunches in the more relaxed atmosphere of California and dinners in New York, have you seen that even food is OUT in that Look on Alexander Girard—light is IN, man. In the 50s Girard and Eames might have discussed the relative values of keeping Mexican or Greek beer for visitors, now we must have Greek Easter candles, versus British plumbers or Colonial bayberry, there's still magic in Sundal and candles, but it depends on the form you give them.

In fact, seeing the Establishment went for large "single roofed" spaces 10 years after Coventry, even though it was a different religion, let me advise the next 300 to try the aeroplane form—flying is the only time one has left for the prayer and meditation bit, and dead functional, space-time-and-motion and all that jazz.

And organisation men really dig that sort of jazz, over there, so you can see what will be coming over here. . . .

MARGARET GILL

The Editors

THE SACRED LAW

THE sacred law of supply and demand cannot be said to be working very well just now, and we could almost pity the Minister of Housing and Local Government, forced to break his holiday off short and return to his office to deal with the protests of a growing tenants' movement, outraged by demands for "the market rent" from their landlords. As architects we have no special concern with rents or the workings of the Rent Act (though as hard-pressed tenants, mortgagees or would-be buyers of small building plots at inflated prices we must share the feelings of our neighbours), but we are much concerned that the supply of buildings should catch up with the demand.

Soaring rents, we would point out, are not "the working of the law of supply and demand," they are only the mechanism by which the law is supposed to work, producing an increased supply of the commodity in demand until equilibrium is obtained.

The question that Mr. Brooke and others concerned with housing our large and growing population have to face is, left to itself, will the law work in the case of housing?

The answer seems exceedingly doubtful: housing has always been the least profitable form of building, and it was because tolerable houses for the majority of the population could not be a sufficiently paying proposition for the investor that municipal, subsidised housing was originally introduced. The majority are now much better off than in the past, with very much higher living standards, but the cost of building the smallest and nastiest type of house has also multiplied.

Meanwhile the housing subsidy has been removed from all but slum clearance schemes, and the rate of house construction is steadily falling. In 1954, 347,605 new houses were completed (256,969 of them by local authorities), but last year only 276,674 houses were completed (125,966 of them by local authorities) at the same time as the number of households has steadily increased and Mr. Brooke has introduced the Rent Act. Demand is working fine, but Supply is not responding.

The most useful job Mr. Brooke can now do, it seems to us, is to take action to stimulate the supply of housing in every way. If not renewed subsidies, could not local authorities borrow cheap money for housing purposes? And do no means of persuasion exist to direct the speculative builder's resources more into housing than into offices, shops and multi-storey garages?

STANDARD BRIDGES

On page 457 we report a meeting at which the Precast Concrete Development Group of C.C.A. put forward their proposals for the standardisation of concrete bridge beams. A very large number of concrete road bridges

are going to be needed in the near future and the object of this very sensible move was to lower the price of bridge building by standardising the one part which is at once the most costly in itself and the most easily standardised. In theory this should be an uncontentious matter since MOT both lays down the functional standards to which bridges must conform and pays, in some cases all, in others, 90 per cent, of the cost. Unfortunately, MOT seems hesitant to give this move the unequivocal backing which it needs. They have "approved" the design, but this is not enough. The object of standardising was to enable bridge beams to be made by mass production methods, that is, using steel moulds. They could, of course, be made a few at a time using wood moulds, but then no worth-while economy could result. From the point of view of the manufacturers, what matters is whether enough of the standard items are going to be wanted to justify their investing the large sums required to make the steel moulds. It is certain that if highway engineers are left wholly to their own devices most of them will continue to call for non-standard products even though their ultimate clients, MOT, have "approved" the standard beams. In all the circumstances it seems essential that MOT should base their target prices for slab type bridges on the use of standard beams and should only countenance the use of anything else when it can be shown to be cheaper or otherwise expedient.



TEDIUM ON THE PODIUM?

Why didn't we think of it first? Columbia's School of Architecture has had the exciting notion of bringing together three great founders of modern architecture. Next spring they will invite a group of international architects,

educators and writers to spend two weeks meeting and listening to Gropius, Corbusier, and Mies van der Rohe. Seminars will bring together the leading international scholars of each man's work, and exhibitions of their buildings will be held in Wright's Guggenheim Museum.

It all sounds splendid, and obviously will be-for those who are there. But does not the heart sink somewhat at the Dean's announcement that the occasion " is aimed at giving these great men a podium from which to address the world they have played such a large part in shaping." Must we be assaulted by major statements? It always seems such a mistake to expect creative men to speak well. Wouldn't it be more useful and more fun to give such men a podium, serve a banquet on it and then issue them with a friendly invitation to shut up, stay where they are and build something?

WORTH SLATING?

I never expected to hear of an electricity sub-station roofed with Ballachulish slates and finished with lime harling. But that is the recent acquisition (see picture) of the Royal Burgh of Falkland, in Fife. This is not one of those special camouflage jobs such as you find among the 1930 buildings of water boards. It was a cottage before it was a sub-station, and if you think it disgraceful to turn an eighteenthcentury cottage into a one-storey, public utility service, you are being too hasty. The burgh needed a sub-station and the cottage was to be pulled down anyway. So maybe the National Trust of Scotland is right to be elated about the marriage of old and new though the triumphant comment of a big shot at the opening-" If this is progress we are all for it"-was rather a curious commendation. Still I'm a little disturbed by the local electricity board's decision to light the cottage's interior so that passers-by can see what goes on inside. This kind of thing is even more depressing than bookshelves that are really cocktail cabinets, or country houses that turn out to be museums.

However, this is dodging the issue. Is this, or isn't it, a good thing? If the idea catches on, before long you purists will have to know exactly what you think about it.

DON'T MENTIONETTE

I've been bothered all the summer by those advertisements in The Times for cruiselets. Are they tiny cruises, or are they just for tiny people? Then comes an invitation to luncheon in a luncheonette. And then, to cap it all, I hear that a private developer in Norwich is putting up some mansionettes. Clearly there is a move afoot to make sure we are all more equal than others.

MORE MATTER WITH LESS ART

Recent complaints about the tatty finish of British abstract art need qualification. At the curious exhibition called Situation at the RBA Galleries, quite half the works were sufficiently crisp, precise and professional to satisfy even Mies-lovers.

Besides high finish, there were other signs of increasing professionalism among our young ex-action painters, and there was deliberate play in some of them on the optical effects of juxtaposed primary colours, and things like that. But why, in an exhibition dedicated to really big pictures (and to the proposition that modern big pictures don't need big spaces), were they all spread out over big spaces again? Are we ever actually going to see this bigpicture/small-space idea put to the test of public proof?

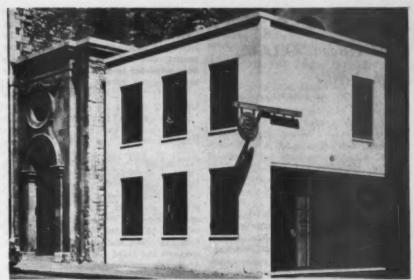
In the meantime, the ICA has an exhibition-title, Matter Paintingdevoted to the men like Dubuffet who first gave people the idea that sloppy finish is all right. Of course, when you look at the pictures their cultivated rude-ness is as far from being sloppy finish as Corb's bêton brut is from untidy shuttering. The whole exercise suddenly looks so elegant, tame and academic that it is difficult to see what all the fuss was about when this kind of painting broke on us at the beginning of the 'fifties. Perhaps it was the way the boys at the ICA presented it to us-and that will never be the same again either, now that Lawrence Alloway has left. Not everyone liked the way Alloway did things there, but he certainly gave the place a lively programme and some memorable evenings of discussion, argument, lecture and leg-pull. It will be interesting to see who replaces him.

FIRST-CLASS THIRD SCOOP

If anybody wants to find out what the action-painting, giant-canvas approach meant to the men who started it in New York, please note that the ever-admirable Third Programme has a series of interviews between David Sylvester and various New York painters—Kline, de Kooning, Motherwell, and so forth—beginning on October 6. The Third rightly regard these as something of a scoop, and if the trailer—an interview with the sculptor David Smith—is anything to go by, they should make lively, and informative, listening.

BASA AT BALLIOL

It is common for those who return to the mass company of students to find them much less impressive than they, the ancients, thought themselves to be when they were students. ASTRAGAL, attending the BASA Conference at Balliol, did not get this impression. To him the assembly seemed much more mature than the like assemblies of 20 or 30 years ago. It is true that many of the ideas voiced had a much longer history than their speakers seemed to realize; but they gained a new sound and a new importance from being much nearer realization.



The first European branch of the Bank of Chicago, which now stands shoulder to shoulder with Wren's badly bombed city church, St. Stephen in Walbrook, E.C.4, wears rather the cheeky self-conscious air of an autograph-hunter at the elbow of a Grand Old Man. Designed by Rugarth Architectural Services Ltd. (D. Armstrong Smith and David M. Critchelow) it is a striking example of two-faced architecture: one facade mock Georgian to be "in keeping" with the church (and therefore an example of the town planner's two-dimensional design sense), the other demonstrating the virtuosity of the new architecture.

A brief report on the Conference is given on page 456 and the papers themselves will follow. ASTRAGAL will, therefore, limit himself to wishing them luck and to adjuring his cronies in the profession to listen carefully to what

they have to say. Contemporary experience shows that on the whole students are better judges of the future than those who are wholly immersed in the work-a-day present.

ASTRAGAL

Falkland's electricity sub-station (see Worth Slating?)



LETTERS

Frank Risdon, F.R.I.B.A.

Hugh Neville

The Chalk Lime and Allied Industries Research Association.

Evelyn Freeth
A.A.Dip.R.W.A., A.R.I.B.A

Leslie Bilsby,

Director, Span Developments Ltd.

Central Area Development

SIR: The President's circular letter to local authorities regarding Central Area Redevelopment is both timely and excellent advice to authorities faced with the problem of redeveloping the centres of their cities and towns. There are, however, one or two important factors in these recommendations which appear to have been either overlooked or misunderstood.

Firstly, it is the prime duty for the local authority to ensure that the land in the centre of the city is used to maximum financial advantage compatible with building projects of a scale and quality to satisfy civic pride. It is a fallacy among architects that these two aims conflict, but they should not, and need not, as the position is adequately protected by the Planning Act with the control which it exercises over design. The converse is, in fact, the case—the best designed scheme should produce the highest bid.

Whilst I completely agree with the recommendation that authorities should prepare a comprehensive development plan, it is essential that this work should be undertaken by an architect in collaboration with a property consultant, as it is unlikely that an architect alone could assess the potentialities of these valuable sites. I would, therefore, suggest that an appointment is made at an early stage for the services of an architect and property consultant to be retained.

Lastly, I cannot see how an R.I.B.A. competition, as suggested, could operate in these special circumstances. Recommendation "A" for small developments is sound, providing the design is prepared in collaboration with a property consultant, but the suggestion for "B" (2) of promoting an architectural competition is unrealistic as it is virtually impossible to draw up a schedule of conditions and accommodation, since each development company will vary its formula for the various elements to ensure a successful development. To illustrate this point, it would be quite abortive to include a departmental store in the scheme if, in fact, a company could not be persuaded to tenant such a store in the particular town under consideration. It must be remembered that the promoters of this proposed competition would be the local authority and they have no more than a site to dispose of. An R.I.B.A. competition can surely only be successful if based on concrete programmes of accommodation, and whilst I am an enthusiast for the R.I.B.A. competition system, I cannot see how it can yet be applied to this particular form of building project, unless the development company were persuaded to hold a competition after having secured the site.

FRANK RISDON

London.

Frost Tests

I wish to draw attention to a misleading aspect of an advertisement in your issue of July 21. This showed two cylinders of mortar, one a cement-sand mortar with a proprietary plasticiser added, the other a cement-lime-sand mortar which had been subjected to repeated freezing and thawing with the result that the cement-lime-sand specimen had failed and the other had not. Air-entrainment, on which the plasticising effect of mortar plasticisers normally depends, also confers good frost resistance. However, the implication, indeed the statement, in this advertisement that a 1:1:6 cement-lime-sand mortar, which is recommended in B.S. codes of practice and by all authoritative bodies for most ordinary brickwork, is likely to disintegrate from frost action after a few seasons, is contrary to established experience and is not a valid inference from the experiment.

No competent authority accepts laboratory frost tests as a reliable guide to the frost resistance of brickwork materials. except possibly during the first few days after laying. Frost failure at early stages may be induced in a 1:1:6 mortar by using artificial test conditions or by using a high water-cement ratio such as would not exist in mortar in contact with bricks.

Frost is rarely important in the durability of brickwork except in special positions, such as parapet copings and retaining walls, where the degree of saturation may become sufficient for freezing to cause damage. The slow erosion of mortar is generally attributable to the effects of salts derived from the bricks. In this Association's exposure tests, which invariably show up within two years any material having inadequate frost resistance, no deterioration of 1:1:6 mortars has been observed, even with high water contents and severe exposure.

While air-entraining agents, properly used, have a useful role, the proved merits of other materials should not be misrepresented by ill-designed experiments.

HUGH NEVILLE

Welwyn.

High Hotwells

SIR: I was present as Principal of the R.W.A. school at the joint meeting of the Housing, Public Works and Planning Committees of the Bristol Corporation to discuss the development at Hotwells Road, reported in your last issue.

Whatever the outcome of these discussions, this fourth year project has already been of value far beyond that of usual student programmes.

Firstly, the exploration of a real problem

with real prospects of exerting good influence on the future of the city made the educational programme come to life.

Secondly, in these days when architects and planners often seem too hard pressed to spend much time on long-term work, it tapped a latent source of professional imagination, too often underrated.

Finally, it has contributed to public relations between the profession and the public in Bristol and between the school and the city authorities. In particular it has provided an opportunity to give lay committees an insight into what architects are getting at when they talk of Urban Renewal.

The Bristol Civic Society and indeed the committees of the Corporation concerned are to be congratulated on taking seriously the aspirations and ideas of its younger citizens.

Perhaps what has happened here in Bristol may give a lead to schools of architecture in other places to formulate constructive suggestions for their towns.

EVELYN FREETH

Bristol

"A Good Client Tells"

SIR: We are always glad to have news of our activities noised abroad and ASTRAGAL as usual has his ear pretty close to the keyhole. We would however like to explain that we are not "farming" out our work but making a deliberate policy of asking various architects to make their own contribution to achieving new ideas and designs, with Eric Lyons acting as our general consultant and adviser.

Both Mr. Lyons and ourselves believe that the scope for original work is wide and all will agree that the need exists. Mr. Lyons will of course be directly responsible for the main bulk of our work and is producing some heady ideas which we hope to be building in the next few months, in several

Richmond

LESLIE BILSBY

DIART

The Younger Generation Looks at Picasso. Discussion at the ICA, 17/18, Dover Street, W.1, at 8.15 p.m. SEPTEMBER 29

The Exploding American City. Talk by Wyndham Thomas at the TCPA, 28, King Street, W.C.2, at 6.30 p.m. OCTOBER 3

Business Efficiency Exhibition. At Olympia.

OCTOBER 3-12

Priority for Parking. Institute of Municipal Engineers Convention at Central Hall, Westminster.

OCTOBER 6

Architectural Project Management. Course at the York Institute of Advanced Architectural Studies, Micklegate, York.

OCTOBER 7-11



MONICO SITE

Well-informed Quarters

Dr. Gropius has not yet decided to act as consultant to Mr. Jack Cotton, on the development of the Monico site, and is unwilling to do so until he has seen Sir William Holford's general plan for Piccadilly. If he does accept, it is understood that Dr. Gropius has asked for Richard Llewelyn Davies to be appointed as his London collaborator, and that both Mr. Cotton and Mr. Llewelyn Davies have agreed.

TWO NEW TOWNS?

First for Five Years

News of two projected new towns came from the MOHLG this week.

The Minister has approved Northumberland County Council's plan for a new town at North Killingworth, five miles north of Newcastle. And he has revived a plan for a new town at Skelmersdale, South-West Lancashire, first proposed ten years ago by Lancashire County Council but turned down by the Government of the day. This is good news, especially after the Hook

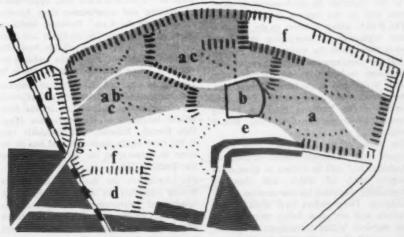
Skelmersdale U.D.C., however, greeted the news with caution last week, saying the first they had heard of the scheme was in the Press, and passed a resolution that "until the nature of the Minister's proposals on the questions of location of industry, finance, etc., is made known and we have had sufficient time carefully to consider the proposals, we are not in a position to express an opinion."

North Killingworth would be developed as

part of the recently approved regional plan for North Tyneside, and a self-contained town including factories and a shopping centre as well as schools and housing for 17,000 people is envisaged. It would be developed by the County Council and not through the setting up of a New Town Corporation.

However, as the accompanying sketch map shows, as at present conceived North Killingworth is what may be called an old style new town," based on low density housing and the neighbourhood unit defined only by narrow strips of woodland, rather than on the new concepts of urban compactness which earned Cumbernauld the title of a "Mark II New Town" at the recent Town and Country Planning Conference, and which are also creating a new urbanity at Peterlee (see page 465 in this

Northumberland County Council are still awaiting the Minister's confirmation of a Compulsory Purchase Order which will give them ownership of the 670 acres of land required for the new town.



Darker tone: existing residential area Lighter tone: new residential area

woodland

pedestrian way

primary school

shops

. church

public buildings playing fields

LOCAL AUTHORITIES' CONFERENCE

Holford for the Defence

An appeal to local authorities to be more concerned with the architecture of their building schemes was made by Sir William Holford in a frank, hard-hitting and pithy speech to the Annual Conference of the Association of Municipal Corporations at Eastbourne last Wednesday. [September 21.] Sir William seized the opportunity to follow up the RIBA's recent circular to 30,000 local authorities on "Competition by Tender" (AJ, 22.9.60), and brought the issues involved vividly to life,

Recalling Lord Thurlow's aphorism of 150 years ago-"Did you ever expect a Corporation to have a conscience, when it has no soul to be damned and no body to be kicked?" Holford remarked that one of the great hopes of progress was the growth of soul in the body social or politic. "In occasional dark moments of despair." he admitted, "I wonder whether Architecture itself will survive the battle for its life which is being waged in this generation. I do not refer to building, nor to 'building development' as it is called these days, but to architecture that lifts the heart and delights the eye, that appreciates the better qualities of its own age, including advances in scientific thought, and is therefore likely to be remembered and preserved. This kind of architecture is too seldom achieved-too seldom wanted. And our towns are going to be the poorer because of the lack of it." In the last 10 years, he pointed out, a good deal of initiative had shifted from local authorities to private enterprise not the big landlord or owner-occupier but the developer and promoter, who were making bids to develop the central areas of our cities which local authorities have not the resources to rebuild themselves.

"Speculation and architecture have often gone in hand in hand," Sir William pointed out, citing Grosvenor and Cavendish Squares and the city of Bath as examples, but "speculative development without benefit of architecture is likely to result in a cheapening of the whole quality of urban life." It was this danger which had led the RIBA Council to send out its circular on "Competition by Tender" and to invite local authorities to discuss the problem with them.

"This statement has been described as a protest: it is really an invitation," he said. "At the back of it are two propostions we regard as fundamental. The first is that in matters of circulation, land-use and public enjoyment in the central area of a town, the local authority is the proper client. The second is that architecture can only be produced by those who have been trained in design and who give their whole time to it."

And Holford went on to an admirable defence of the often much abused architectural profession (it had come in for some kicks at the Conference): "It is perfectly true that all architects are not great

architects," he said, "just as all chairmen of committees are not masters of their craft. The useful point is that there are good architects and there are excellent chairmen. The architectural profession contains artists who are not first-class men of business, and businessmen who do not always succeed in being artists. But because they are a profession and not a uniform consignment of branded goods, they maintain a high standard of education, they recognise that more and more skills and specialisms have to be co-ordinated in the building process, and they understand-individually and collectively-that art and science and economics all have a place in the creation and the rebuilding of housing estates and shopping centres, universities and cities."

Democratic organisation, he claimed, "is perfectly capable of finding effective methods of using architects and artists, as the private patron did in the past, of recognising and benefiting from the results of scientific thought, and of taking a balanced view of investment in the public interest."

Sir William then quoted the proposals of the RIBA circular, for separating the process of commercial completion from that of securing the best design and plan, commenting. "It would be a disaster if everything was of a high standard except the final appearance of the completed project. And for this the designer must be responsible, on the drawing board and on the site."

He went on to give some examples of development schemes which had gone awry from various causes: in one well-known case, although a design had been approved and a contract let, "it was achieved at the cost of no less than 35 unsuccessful schemes with 35 expert valuations and 35 different ways of developing the site."

BASA Conference

Large and Lively

The third conference of the British Architectural Students Association, held at Balliol College, Oxford, last week, was the best attended and the liveliest so far. It was attended by 81 delegates from 19 schools, and in the course of the discussions they abolished practically all existing ideas and curricula and began on the much more difficult task of deciding what they do want in the way of education and training.

What was strange was that the conclusions at which many speakers arrived and which architectural students support and want to see implemented were, more often than not, similar to recommendations which have been made by various RIBA committees in the last 15 years. Clearly, much of the guidance of the Board of Architectural Education does not reach the series of separate examinations, following a syllabus of subjects and producing drawings to win RIBA prizes.

The students cannot discern a pattern because of the lack of a philosophy and

an aim to give coherence to the course. From this point of view Professor Sir Leslie Martin's "Overall View of the Architect's Training" was the outstanding contribution to the conference, as providing them with a philosophy.

This paper was read for Sir Leslie, who was unable to attend in person, by Kenneth Campbell, and will be published along with the other major conference discussions in the forthcoming BASA supplements to the AJ, in the first issue of each month.

The conference began with a summing up of last year's meeting at Bristol by Andrew Maczewski, of Edinburgh, followed by J. H. Burrows, B.Sc., of London University Department of Extra Mural Studies on "General Theory and Practice of Education," by James Gowan, on the technical aspects of architectural education, and by an exceedingly clear and interesting History of Architectural Education prepared with much loving care by Rodney Mace (Regent Street Polytechnic) and Michael Cassidy (Bartlett), who incidentally becomes the new editor of the BASA Supplement.

The conference then broke up into six discussion groups on various aspects of the problem, the results of which were finally reported back to the conference as a whole. What architectural students want of their education is by no means yet clear: for instance, the conference could not decide whether to press for architectural schools to be inside universities or not. But there was agreement on a number of important changes.

IUA

Congress in London

When the International Union of Architects meets in London next July 3 to 7 it will probably be the largest gathering of architects from all over the world that has ever been held, since each IUA Congress so far has exceeded its predecessors in numbers and in the interest it has aroused. The RIBA, acting as hosts to the Congress and organisers of everything that takes place there, from the wiring of the Festival Hall for simultaneous transmission in four languages to hospitality for foreign architects' wives, and as Professor Robert Matthew made clear at a cheerful Press conference at 66 Portland Place, is relying upon "lively participation from British architects."

The theme of the Congress, "New Techniques and Materials—Their Impact on Architecture," will be treated in three main papers, each of which will then be thoroughly discussed by one section of the delegates. These papers have already been written and are now being circulated to the member bodies throughout the world for consideration, so that well-founded comments are brought back to the Congress by their representatives.

Professor Henry Russell Hitchcock has provided an historical survey of architectural change caused by the emergence of new techniques and materials; Professor Pier Luigi Nervi's paper is on the influence of reinforced concrete and technical and scientific progress on the architecture of today and tomorrow; and Professor Jerzy Hryniewiecki, president of the Association of Polish Architects, will speak on the impact of industrialised building methods. General Rapporteur of the Congress will be J. M. Richards.

As on previous occasions, an international exhibition of new buildings, relevant to the theme of the Congress, will be part of the show, but this year Theo Crosby will be responsible for concentrating the available material to create a small, coherent, travelling exhibition. The sort of wide-ranging display which accompanied the Moscow IUA Congress is impossible in London, simply because no large enough hall is available, Mr. Crosby explained.

"We are therefore coercing the various nations by inviting them to submit illustrations of particular things in their countries for collating here." The resulting exhibition is to consist of a hundred Perspex panels on steel frames, mounted in a temporary structure" on the site of the Dome of Discovery and also designed by Theo Crosby. "This is the only time in history that we can build and live in comfort in any part of the globe," remarked Mr. Crosby: he hoped to bring out this encouraging fact in "a small, sophisticated exhibition." which would show no build-ing that is more than two years old. and will be open to the public. In will be accompanied by an exhibition of architectural books, organised by the National Book League, and by an exhibition of students' designs from architectural schools all over the world, for a movable prefabricated theatre-a building type of particular interest in parts of the world with great literacy campaigns in progress, such as South America and Africa.

The IUA is replacing the annual conference of the RIBA in 1961, and British architects are expected to treat the Congress as "a once-in-a-life time opportunity of meeting and entertaining their foreign colleagues in the mass." Professor Matthew made clear that, so far as funds are concerned there is to be no subsidy from the British Government, though the building industry is giving generous help. There is in London no great conference hall to compare with many small countries', and no hall wired for simultaneous transmission in the four official languages of the conference (English, French, Russian, and Spanish): this is the most costly single job that has to be done in preparation for the conference at the Festival Hall.

The organisers are therefore looking to British architects for a lot of help of all kinds: as interpreters, as stewards, as hosts, as guides on wide-ranging coach trips, and of course as participants, it will be our activities that will prevent our shoe strings from showing.

Applications for credentials, offers of help and enquiries of all kinds should go to the Organising Secretary, VIth Congress of the IUA at the RIBA.

ARCHITECTS IN INDUSTRY

Overseas Membership

The Architects in Industry Group, set up to improve standards of architecture and efficiency of architects in industry and commerce, and approved in principle by the RIBA is extending its membership to architects overseas, and those interested should apply for details to Stuart Bentley, F.R.I.B.A., Chief Architect to the Dunlop Rubber Company Ltd., Fort Dunlop, Erdington, Birmingham 24. Overseas subscription, 10s. 6d. per annum.

In the past year sub-committees of the group have been working, among other subjects, on the architect's place in the building industry, the all-in service by contractors, shops and stores, industrial laboratories, industrial welfare buildings and contracts abroad.

COMPETITIONS

Roxburgh County Council Offices

A competition for the design of new County Council offices for Roxburgh, at Newtown St. Boswells is announced, which is open to architects practising and resident in Scotland whose names were on the Register this March 31.

The design should be for new offices at an estimated cost not exceeding £225,000 and the promoters have appointed W. H. Kininmonth, R.S.A., F.R.L.B.A., F.R.L.A.S., assessor.

Premia of 500 guineas, 300 guineas and 200 guineas will be paid to competitors placed first, second and third.

Closing date for entries is March 31, 1961, and last date for questions is October 31, 1960. Inquiries should be addressed to James Kyle, County Clerk, County Offices, Newtown St. Boswells, Co. Roxburgh.

Existing Farm Buildings

Architects who have designed and built or reconstructed a Parlour Milking System in England or Wales since 1945 are invited to submit their design in a Farm Buildings Competition organised by the Country Landowners' Association.

A panel of judges will include P. Dunham, F.R.I.B.A., who specialises in farm buildings, Nigel Elgar, F.L.A.S., Ted Owens, a dairy farmer.

Entries may be submitted by the designer, owner or occupier of the building, and the closing date is December 30, 1960.

The CLA offers a first prize of £150, second prize of £75, third prize of £50, five prizes of £5 and a £25 prize for the best entry by a CLA member. Particulars and entry forms from the CLA, 24, St. James's Street, London, S.W.1.

ICE

Standard Beam Sections for Prestressed Concrete Bridges

Standard bridge beams of various shapes have been available in this country for some years but dependence on any one of these can, in certain circumstances, reduce the competition in tendering. The Prestressed Concrete Development Group has been considering the advantages which arise if there was some standardisation of beam sections in the range of spans up to 55 ft., and on September 12 launched their proposals at a meeting at the Institution of Civil Engineers.

Most bridges in this country are of comparatively short span or can more economically be divided into a series of short spans. Consequently, the designs now announced are for spans from 25 ft. to 55 ft. though consideration is being given to the desirability of producing similar designs for greater spans. The designs have been produced with the co-operation and approval of the Ministry of Transport and are based on experience and a series of tests carried out by the Cement and Concrete Association.

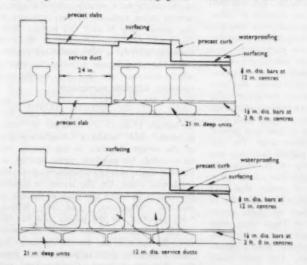
The slab type bridge is envisaged in which inverted prestressed T-beams are laid side by side and surrounded by in situ concrete to form a composite slab. Two types of basic moulds are recommended from which seven different sections can be obtained by very minor adjustment. The width of the beams is 19½ in. so providing three beams for each 5 ft. of width assuming a ½ in. joint between members. Web thickness is 4 in. and variation in depth is provided by variation in web depth in the span range 25 ft.-35 ft. and by variation in top flange depth for the range 35 ft.-55 ft.

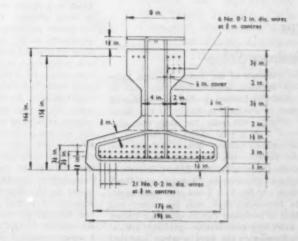
All the beams are designed to withstand the load of the in situ concrete and con-

struction traffic and to act monolithically with the *in situ* concrete to carry the live load. A minimum of 3 in. of concrete is placed over the beams.

In some cases it will be possible to prop the beams while the *in situ* concrete is placed, which can produce a substantial economy. On long spans it will be necessary, when propping, to support at quarter points as well as mid-span. Alternatively, a portion of concrete at mid-span can be concreted and allowed to harden before casting the remainder, thus enabling some of the effect of the *in situ* concrete to be sustained by a monolithic slab.

Details are given of the design assumptions which have been agreed by the Ministry of Transport, the section properties and a general summary of suggested prestressing for the range of spans considered. In general, 0.2-in. diameter wire is considered but 0.276-in. or strand could be used and may relieve congestion in the mould. Ex-





Details of standard beams. Right transverse section. Left above and below typical sections through edge of bridge slat showing standard beams in use.

amples are given of design of bridges in the span range.

In theory the purpose is excellent and can only lead to a reduction in labour in design offices of the Ministry, their agents and the manufacturers, causing an acceleration of the present system. Many and diverse designs have passed through the manufacturer's office for precisely similar loads and spans and what may appear from the design aspect to be an economy by change of section on a particular bridge is rarely reflected in the ensuing tender. There is still scope for ingenuity by the

designer within the sections provided and the edge and pier treatment will allow adequate architectural avoidance of complete similarity.

The manufacturer's attitude is evidenced by the fact that 45 precast firms with works able to serve any part of Britain have undertaken to supply the beams to order. Others are obviously prepared to produce the beams when they are responsible for the entire construction of the bridge.

What then are the factors which can combine to defeat the scheme? The obvious one is that freedom of choice of section will still remain for the bridge designer. The Bridge Section of the Ministry of Transport has given every technical help to the success of the scheme, but is only "drawing the attention" of its agents to the scheme and its own approval of the scheme. Surely if the thing is considered economic it is worthy of Ministry of Transport recommendation, at least in the cases where some form of reinforced concrete deck is intended.

The second factor is the bridge programme. Only a percentage of the bridges required can be solved in this way and as long as the total number is guided by politics rather than desperate need, it is unlikely that 45 manufacturers will equip themselves with several hundred feet of permanent moulds.

We need the motorways and motorways need bridges. Wake up everyone concerned in this and make the most of one chance of improving the position.

TPI

Summer School

The members of the Town Planning Institute's Summer School-held this year at St. Andrews University-heard a number of papers of outstanding quality. The range of subjects was wide but each was concerned with a vital aspect of planning in mid-twentieth-century Britain. Of the five main papers, only two were related to a specific planning project: Robert Grieve's to Regional Planning in Clydeside and Hugh Wilson's to the New Town of Cumbernauld. The remainder dealt with the nature and effects of particular factors which are known to exert very considerable—probably critical influences on the ways in which land and buildings are, or will be, used. The factors selected were the value that attaches to the land itself, the social patterns of leisure-time behaviour and the methods now used by central government for the control of industrial location.

Because influences of this sort lie outside the direct control of the planner and at the same time have powerful effects on the results of his work, knowledge of their nature and the ways in which they operate are of particular importance to him. For this reason it is encouraging to see the Institute according such an important place in its Summer School to discussions along these lines.

Readers of the Journal will already have seen a reference to Bryan Anstey's paper. His discussion of The Problem Posed by Land Values raised a number of interesting points so far as planning is concerned. There is no doubt that when development plans are being drawn up the existing and future pattern of land values ought to be considered more carefully than it is, since the "reality" of value-expressed either in social or financial terms-gives it a fundamental importance. To the planner the problem is how best to take proper account of this value component in making the plan. Mr. Anstey's suggestion, that the general pattern of value distribution can be established through the use of value contour maps, may provide a suitable starting point. Its disadvantage is that neither valuers nor planners have any experience in this kind of work and the methods of interpretation and application are unknown. A great deal of complex experiment may need to be

Dr. Mark Abrams was concerned with a very different "influence," but one that will be of increasing significance as affluence grows—the way we use our leisure time. In an affluent society effective demand for more land will be heavy and sustained. Dr. Abrams considered that "the demand for better housing will continue to precede almost all other priorities in the ordinary man's scale of preferences."

With the last of these factors-control over the location of industry-planners are on much more familiar ground. The fact that effective control over the location of industry has always been reserved to the Board of Trade is a matter of long-standing concern to many planners, more particularly since the powers providing the control are related specifically to the reduction of unemployment. In practice, this often means that location policy tends to favour short-term solutions calculated to relieve existing unemployment needs rather than the long-term solutions related to the use of land in a general sense. Inevitably, conflicts arise. The discussion at St. Andrews added little that was new to this controversy. A. N. Halls provided a very clear exposition of the principles and techniques of control that have been evolved to regulate the location of development, emphasised the links maintained by the Board of Trade with other branches of central and local government. and defended his department stoutly against the planners' criticisms. The main issue, however, remained unresolved.

The two planning projects—both from Scotland—were of particular interest since they involved important questions of prin-

ciple. Robert Grieve's paper, Regional Planning Problems of Clydeside showed very clearly how the scale and nature of the problems force the planner, and at length the administrator, towards a regional solution. The first review of these problems as a whole and a regional plan to deal with them were put forward by Abercrombie in 1946. Since then a long process of adaptation, amendment, abandonment and eventual rehabilitation of the regional plan has taken place. Mr. Grieve submitted that this " process" was an inevitable, indeed a necessary, part of regional planning and that in many ways the process was of greater importance than the physical plan itself. Many of the difficulties in Clydeside-as elsewheresprang from the fact that existing administrative arrangements made it very difficult to think and act on a regional scale. In Clydeside the urgency of the problemsparticularly the housing problem-and the peculiar physical difficulties of the area enabled this administrative blockage to be overcome. Regional planning has again become an effective force. Other British conurbations are less fortunate and still attempt to solve their problems piecemeal. The experience of Clydeside suggests that if the regional approach has proved to be the most practical one in dealing with urgent problems, means should be sought to undo the administrative tangles that prevent these same methods from being applied else-

The New Town of Cumbernauld-itself an important element in the Clydeside regional plan-provided the second Scottish example and there again, a number of new principles were being applied. Designated as a New Town in February 1956, Cumbernauld is the first of the series to make a definite break from the garden city tradition. Its overall density is high—the average net population density will be about 85 persons per acre. The "neighbourhood" unit principle has been abandoned altogether and the town is to be designed as a compact urban centre. Shopping will be concentrated in the central area, neighbourhood shopping centres being replaced by the provision of one corner shop to each 300 houses. More significant still. Cumbernauld is designed from the start for a fully motorised population. The road layout is based on studies which envisage one car per family and complete vehicular segregation.

Hugh Wilson, Chief Architect to the Development Corporation, made it clear that he intends to carry his concepts of "compactness" and "urbanity" into every part of the design. Rigidity in use zoning will be avoided; for example, some smaller industrial units may be incorporated in the residential areas. On the layout in general the idea is to make the plan as flexible as possible. "Facilities," said Mr. Wilson, are provided for the people and not the people arranged to make use of the facilities." So far it is not possible to judge the success of these ideas in practice, but from Mr. Wilson's account, Cumbernauld will certainly justify its reputation as the first Mark II New Town.

PAUL BRENIKOV

NASH,

brash,

d 80H0

by Gordon Cullen

Here are some points which might be considered in any rearrangement of the Piccadilly Circus zone.

THE NEED FOR SPACE

1. More space is needed for pedestrians than exists at present and this space should be usable in two senses. First it should be easily accessible; we don't want to perpetuate the Eros island or create a new Parliament Square where the space is isolated inside the traffic system. Second it should be human space where the social and urban activities are made probable: sitting and observing, shopping, meeting, eating and drinking, listening to music and so on in a free, inquisitive manner.

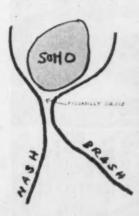
2. This space should be exploited to produce visual urban drama so that the emotions are unlocked in harmony with the unlocking of the human function. How can this be achieved?

SECRETS OF THE PLACE

A city is more than a given pattern of streets into which buildings are fitted, it is more than a traffic problem. It is a living balance of forces, forces of history, character, use and abuse, of commerce, wealth and poverty, of internal invasion and defence. Redevelopment should, at the least, take note of these secret tides to see whether their power is comparable with the scale of the redevelopment. If so then

Piccadilly means a lot of things to a lot of people. On New Year's Eve it used to be "the heart of the Empire"; on November 5 it is the centre of riotous fun. This year it became the scene of a famous victory of public opinion over commercial enterprise; always it has been a knot where Nash's London tied in with commercial London and with the more intimate gaieties of Soho. What it has never been and must not become is a solution for London's traffic problem. Here Gordon Cullen describes it, in words and pictures, as "a living balance of forces: forces of history, character, use and abuse, of commerce, wealth and poverty, of internal invasion and defence," and urges that in its redevelopment these forces "should be respected and absorbed so that the emerging city may be vitalised."

they should be respected and absorbed into future rearrangements so that the emerging city may be vitalised.



In the case of Piccadilly Circus there are three easily defined influences. Firstly the Golden Thread created by Nash in the Regency. This extends from Regent's Park to the towers of Westminster and varies in quality from the noble. urbane and picturesque of Chester Terrace, Park Crescent, Portland Place, Waterloo Place, Carlton House Terrace and St. James's Park to the some-

what laboured power of Blomfield's Quadrant. It is never less than respectable. Secondly the brash, commercial line of Tottenham Court Road, Charing Cross Road, Leicester Square and Coventry Street, Trafalgar Square and Strand. Here advertising forcefulness, the habits of the bazaar and a louche quality are in evidence. Thirdly Soho. It lies between the two but has little to do with either and needs no description from my pen. It is clear that here in Piccadilly Circus there are three distinct and separate forces coming together, forces that are in being and that will stay in being because the people they cater for are established types of people (or established attitudes of people).



Nash, Brash, and Soho

UNITY AND DIFFERENTIATION

It is a characteristic, and a joy, of cities that they have this differentiation of function and character since they serve a multitude of people who want to do different things, and as we have seen, Piccadilly Circus could have this vital quality about it.

On the other hand we must create a focal point, a recognisable centre, because, especially here, there must be a sense of occasion. Piccadilly Circus transcends its local components, it is one of the major points of the capital. In other words there must be a compelling unity and also there must be the vitalising quality of diversification, of differentiation. How can we reconcile the two?

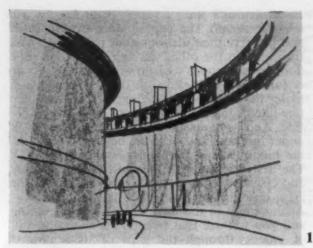
THE OPENING OF THE FLOWER

There is an experience which may be familiar to you. Step out of the bright sunshine into a dark archway or entrance and at first, owing to the sudden contrast of light, one is only aware of the black enveloping arch but as the eyes become accustomed to the shade the vault is seen to consist of a series of arches supported on columns. Then the eye penetrates farther and sees stairways and remoter vaults and perhaps a faint fresco. As the eye adjusts itself to the dim light so the simple enclosing vault opens like a flower.

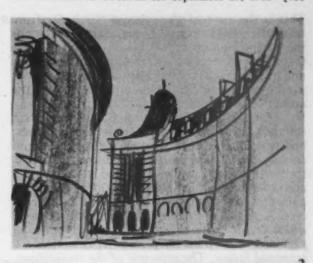
TOWARDS A SOLUTION

Something the same is intended here although the impediment to vision is not one of illumination but the distraction of traffic and the press of people together with the actual revelation of the zone as we move through it.

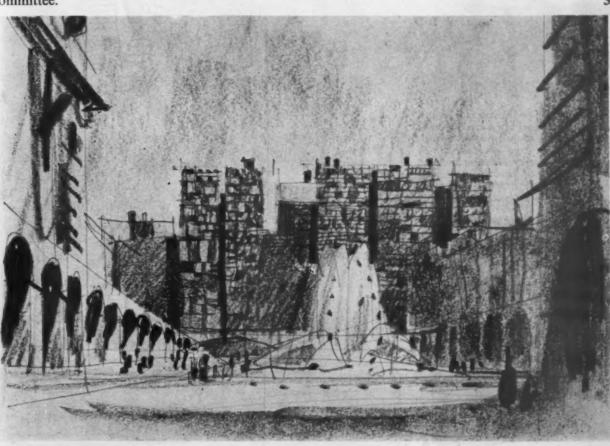
First, then, to establish the simple arch, the focal place. I think it is inevitable that the main space should belong to the Nash Line, that whatever its architectural style it should be a punctuation mark in the great sequence and this means that it should be homogeneous with the civic tradition established by Nash, a place in the grand manner busy with traffic and flanked by buildings of appropriate scale and having a night brilliance of white floodlighting. There are conflicting opinions concerning the place of illuminated advertising signs in the Circus. Some regard them as vulgar and consequently inappropriate in this place and there are others who welcome the vitality and invention of the signs in an increasingly sterile environment.



Such signs would be excluded in this scheme, not on principle but because they are pawns in the overall game and I want to use them later. The Circus should be an easily apprehended enclosure its unity being established by the continuation of the arcade principle which is at present a feature of the formal architecture of Regent Street and the Quadrant. This place would absorb the thrust of Piccadilly and also the dynamic revelation of the Quadrant which, as you move through it to the Circus, creates a momentum of expectation. What scene will be revealed at the end? Today this only reminds one of a direct question being answered by a committee.



The powerful curve of the Quadrant (1) reaches its terminal point (2) and reveals the new Piccadilly Circus (3).



3

This is the core of the scheme but is far from being the whole scheme. The conclave commands the attention but as we take it in and move through it we become aware of extra dimensions and depths of activity. The north wall of the square is, as noted, an arcade continuing the arches of Regent Street, and through which can be seen the apotheosis of Soho, a pedestrian square surrounded by restaurants and galleries, hotels and theatres, shaded with planes and containing as focal point the statue of Eros now resited in an ambience more suited to his delicacy and character, which was far too small to be happy amongst the swirling traffic. (And concerning traffic the main rearrangement proposed will be clear from a glance at the two plans on page 464 which show the present situation and the proposed layout. The principle of the roundabout, the dream of evenly flowing traffic, has been abandoned in favour of two sets of traffic lights which operate more efficiently in our imperfect world. It is becoming increasingly clear that

London's traffic must be made to fit London and not vice versa.) The two squares are separated and preserve their identities but people can pass from one to the other through the arcade. The floor is continuous and flowing and the arcade is furnished with shops so that it becomes a living tissue. How refreshing to look into the tree-lined square from bus-top, from the OUT-side. And what splendid ease and security to sit under the trees and observe, beyond the arches, the big, important and busy world BEYOND. The first is integral with Soho, its streets, lanes and essence feed into it, the other is part of the great civic line of Nash.

Again, stand in the main square in the evening and you will see that beyond the enclosing wall of offices, through the gaps of its separated towers, the movement of light and colour is perceptible and under the arches the illumination is intenser. You look into the quintessence of brashness, into Coventry Street/Leicester Square, now developed as the hub of the night sign





From the main pedestrian area, which catches the benign afternoon sunshine, one looks north to the arcade (4) which is furnished with shops and staircases (5) leading to the upper circulating level and which reveals the internal square (6) and (7) in which the quieter sounds are heard, voices, falling water and the rustle of leaves.

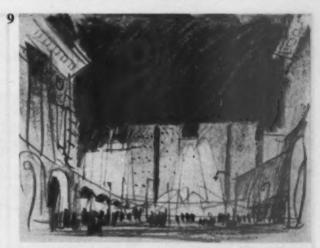


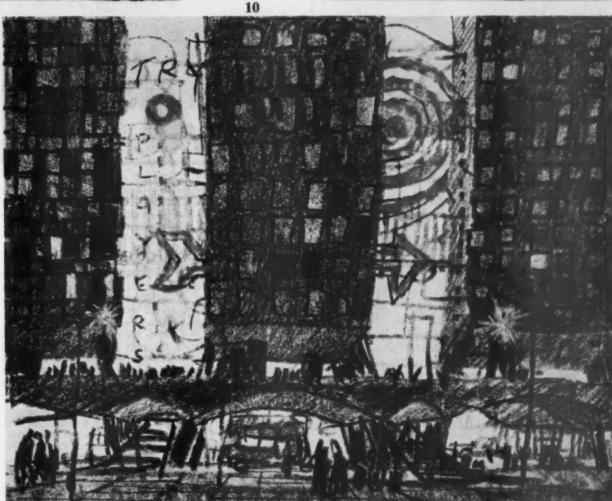




8 From this enclosure 9 the outside world can be viewed, this view (8) shows its command of the Nash line down to the Victoria Tower of the Houses of Parliament.

At night the square is white-flood-lit (9) and beyond the containing towers of offices the fierce light and colour of Coventry Street and Leicester Square lure us onward and out (10).



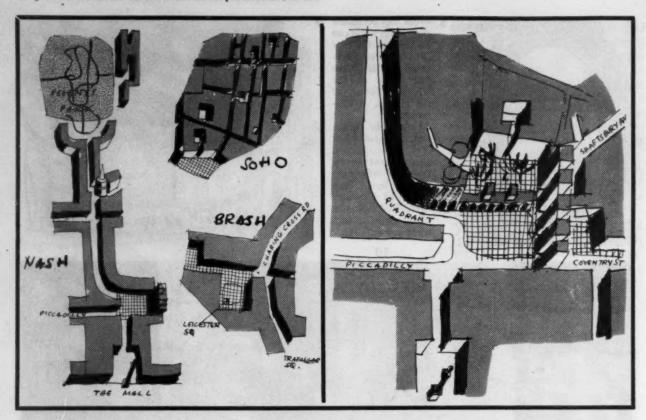


Instead of throwing all the available space into one immediately visible space we have divided it in order to create a different kind of space, mental space, the sense of beyond. The beyond of exploration and the beyond of other things to do. Piccadilly Circus is not tranquil, it is not static, it is not withdrawn or exclusive. It is

movement, sudden contrast, it is choice and variety and it is popular.

quarter. The flower has opened.

And when people say it ought to be planned they would be hard put to it to say what they mean. "Oh, you know, it's such a mess now." Planning appears as some sort of abstract strait-jacket which is morally good and improving like Sunday clothes. Nonsense. Planning is a skilful game in which we are allowed to manipulate the tolerances of the possible in order to liberate the tiny, essential core of warmth inside the human heart.



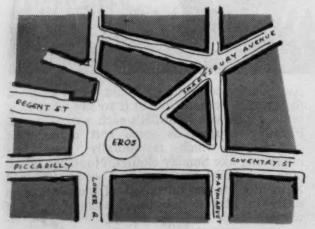
Footnote on levels.

There are two main levels in the scheme, pavement level and first floor level which would be mainly concentrated as a public space under the new office buildings. This level would be served directly from the Underground platforms by escalator so that for many people it would almost appear to be ground level. From this space arms would lead out along the top of the arcades giving access by descent to the main public spaces. One would like to see this upper system linking up with the first floors of the large shops. At strategic points other escalators would carry people up. The exploitation of these levels is hardly touched on in this study.

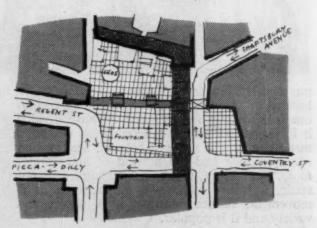
The structure of the scheme is shown above in diagrammatic form. On the left are the three elements and on the right the bringing together of the pieces to create that tension which arises out of the act of juxtaposition.

Below are rough plans of the Piccadilly area as existing and as proposed by Gordon Cullen. He relies on traffic lights to east traffic problems on the assumption that no one wants the centre of London destroyed just to accommodate traffic. Major schemes for traffic relief must take place away from the historic centres of London. He envisages only taxis and service vehicles entering the edge of the Soho pedestrian square. An upper pedestrial level runs over the arcade (this in turn supports two blocks of luxury offices or restaurants which help to define the two separate areas) and continues over Shaftesbury Avenue and south to the Criterion block.

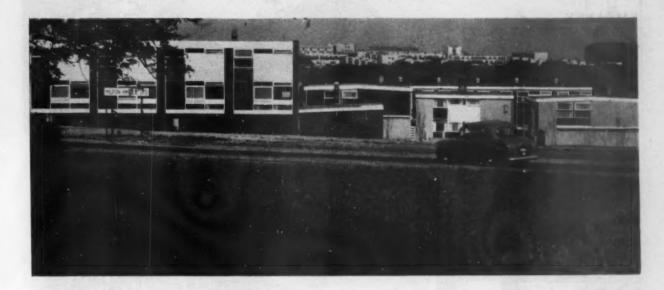
EXISTING



PROPOSED



PROGRESS REPORT FROM PETERLEE



You may remember that Peterlee New Town started in a unique way, the demand for its creation coming from representatives of local miners. The idea was that some 25 primitive and scattered villages, all in the Easington RDC of Durham County, should be replaced by a single miners' town. Not only could housing and the necessary communal facilities be provided, but industry could be attracted into the area to offer employment for disabled miners and surplus female labour. The New Town was established in 1948, but what followed is a classic example of the failure of so many post-war planning projects. The biggest difficulty was the inability of the Development Corporation to agree with the NCB a workable method for building to proceed at a reasonable rate, whilst there was subsidence resulting from coal extraction under the site. Matters came to a head when Lubetkin's project for a compact centre including flats, to provide an urban and social focus for the area, was made impossible by a Cabinet ruling that mining must take priority. Only a small area would be released each year for building, to a maximum of three storeys. His vision of a high-density town rejected. Lubetkin resigned in despair.

In the intervening years, piecemeal development of undistinguished and pedestrian housing has proceeded very slowly, being almost entirely a uniformity of red brick semis fingering across the landscape. But two factors have now completely changed both the rate of building and the type of development, we are informed by the recently appointed architect to the New Town, Roy Gazzard. First, a much more constructive policy has been worked out with the NCB. This has led to the rate of building being speeded up to about £14 million a year, with the firm objective of completion in the next 5 to 7 years. The target is a 30,000 population, with a centre serving a catchment area of about 75,000. The NCB have agreed to leave the site for the latter unmined, so that it can now proceed. Second, within the limits of three-storey development, a positive attempt has been made with the most recent housing to depart from the previous sprawl, and to create clearly defined units of an urban character. (The south-west area shown here, and discussed on page 450, will shortly be published in the AJ cost analysis series.)

Much of the interest of this future work will not only be to see how the idea of strong urbanity can be further developed, but equally how this revival of the pioneering spirit will influence the growth of this community. Meanwhile, we hope for a successful outcome to the current enquiry on the Easington Development Plan, which incorporates the master-plan for completing the town.



NEW

BRITISH

EMBASSY

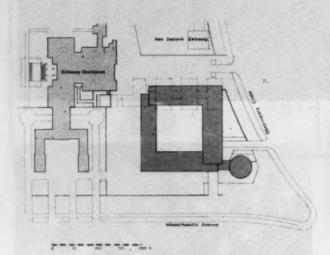
OFFICES

IN

WASHINGTON



General view of the new offices, with a corner of the Lutyens building on the left.



Block plan showing the relationship to the existing embassy.



The projecting circular feature is the conference hall.

One might have thought that since the good old-fashioned diplomacy had now been replaced by Heads of State flying about in all directions, that embassies had become something of a back number. But at Washington, at least, more office space was required, and MOW are to be congratulated that this building, which has just been opened, is not a slavish imitation of the original Lutyens baronial hall which it adjoins. Using a conventional courtyard plan, and spine corridors through the individual blocks, a high standard has been set for the interiors, with their carefully chosen furniture and fittings. The general design and detailing of the building are workmanlike, to a standard which would be acceptable for a normal MOW job in this country. But is this good enough? The offices have, of course, been put up on the very door-step of the US State Department, with its far-sighted if controversial policy of commissioning some of the better-known American architects in the attempt to have much more imaginative diplomatic buildings. In the face of this, our present British policy, to judge from this example, is still not good enough.



The library on the ground floor, seen from the entrance.

THE INDUSTRY

Brian Grant describes this week a the mostat, information on pitch fibre pipes, a heated towel rail, louvre panels, a daylight indicator, and a concrete roof tile

Thermostats for Small Bore Heating

A modified version of the Leonard thermostatic mixing valve is now available for the control of water temperature in small bore heating systems, irrespective of the fluctuating temperature of the boiler output. The hot supply is mixed with the cool water of the return circuit and the temperature of the heating water varied to suit weather conditions. Price is £15. (Walker, Crosweller & Co., Ltd., Whaddon Works, Cheltenham, Glos.)

Pitch Fibre Pipes

The current issue of the P.F.P.A. bulletin claims that pitch fibre drain and sewer pipes can be used at gradients as low as 1 in 85 and 1 in 145 for 4 and 6 in. diameters. These gradients are based on a flow velocity of 2½ ft./sec. at one quarter depth, which is the self-cleansing condition of CP 301, clause 304 (c), and the figures are reinforced by Hydraulics Research Paper No. 2, 1958 and by a further special H.R.S. report which is shortly to be available from the P.F.P.A. The gradients are made possible by the interior smoothness of the pipes and the fact that the joints are at 8 ft. centres and have hardly any internal gaps.

These revised gradients suggest that it should be possible to save about half the excavation usually necessary with conventional pipes, and as they also need no concrete bedding the savings should be even greater. (The Pitch Fibre Pipe Association, 27, Chancery Lane, London, W.C.2.)



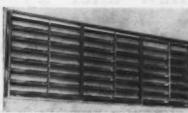
Barton Prettyface heated towel rail.

Heated Towel Rails

The illustration above shows an electrically heated 75-watt towel rail which sells at the comparatively low price of £4 12s. 6d. including purchase tax. The projection from the wall is only 3 in. and the panel is free to swing from its supporting brackets. Honesty compels me to add that the rail has been given the disastrous name of Prettyface, but it is perhaps unfair to hold that against it. (Barton Electric Ltd., 99, Plymouth Grove, Manchester 13.)

Adjustable Louvred Ventilators

Greenwood-Airvac movable louvre ventilators are made in a range of five sizes from 15 by 18 in. to 24 in. square, and can be assembled into multiple panels whose size is limited only by ease of handling, but of course larger panels can be built up on site. Side weathering between panels is provided by twin strips of p.v.c. set in grooves, and the bottom of each unit has a turned down edge along the bottom to weather the horizontal joint. Standard construction is aluminium with a louvre box depth of $2\frac{1}{2}$ in. Bird guards can be fitted if required. (Greenwood's and Airvac Ventilating Co., Ltd., Beacon House, Kingsway, London, W.C.2.)



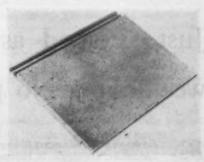
Greenwood-Airoac manable louvre ventilator,

Daylighting Indicators

Southern Drawing Office is marketing Perspex daylighting indicators for residential areas, based on the 1959 Housing Manual Appendix B. They are intended to be used as a preliminary guide to satisfactory daylighting at the general planning stage when layouts are being considered. Each indicator ignores daylight reaching a window at an angle of less than 45 deg., and within the remaining 90 deg. the four versions provide for daylight reaching the window through a range of wide to narrow angles. The wide angles are used mainly for testing the daylight reaching a window over the top of a building, the narrower ones for windows partly obstructed by neighbouring buildings. Two sets of scales are produced, one at a scale of 1/500th, and one at 16 ft. to the inch. Prices are 70s. and 66s. 6d. (Southern Drawing Services Ltd., Halebrose Chambers, 727. Christchurch Road, Boscombe. Hants.)

New Roof Tile

The Marley Modern roof tile is a new addition to the company's range of concrete tiles and has been introduced to meet the demand for a large tile (width 13 in., length 16½ in.) giving a roof without corrugations or fluting and capable of being laid at a lower pitch than normal. They have the advantage that they can be laid to a variable gauge, making it possible to increase the head lap if necessary. They conform to the porosity and hardness figures of BS 550. (The Marley Tile Co. Ltd., Sevenoaks, Kent.)



Marley Modern roof tile.



"You can't beat glass, you know. Look at that dome. Just as good as new after 25 years. No surface weathering. No pitting. No distortion either."





technical section

SIS No.	(53)	
UDG No.	696-4	

25 WATER SUPPLY & SANITATION

would it be cheaper to do without storage cisterns?

On April 21 we published an article by an engineer suggesting that we should bring our water regulations into line with those in other countries and, in particular, that we should dispense with the storage cistern. One argument advanced for this was that it would cut plumbing costs. The author of this article, Peter Burberry, an architect, questions the truth of this. To prove his point, he prices a typical English domestic installation using, in turn, no storage cistern, a cistern for cold water only, and one for both hot and cold; and he establishes that for this particular layout the no cistern solution is the most expensive of the three. Different circumstances, he agrees, could alter the balance of cost, but not sufficiently to enable one to say that the broad effect of doing away with the storage cistern would be to cheapen plumbing.

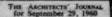
The possibility of making an economy in plumbing costs without sacrificing standards is of obvious importance and if the case for the abandonment of water storage put forward in an article in THE ARCHITECTS' JOURNAL for April 21 were established, the architectural profession and building trade should immediately insist that wasteful regulations be revised. It may be questioned, however, whether the author of the article has dealt fully with the pros and cons of water storage; and it seemed worth while to pursue the matter further, not necessarily with the intention of disagreeing with the author of the article, but aiming to bring to light evidence which may help an architect or builder to arrive at an informed conclusion.

It will be useful to review the ends achieved by water storage cisterns in England and to compare the methods used in other countries. American practice is taken as the standard of comparison. (See table below.) The article advocating no storage dealt with two of these points, contending that risks of mains contamination due to backflow are not greater when all the fittings are directly connected to the main and that such a system would be cheaper.

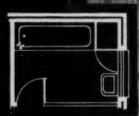
1. Contamination

It was suggested that there is no evidence that contamination of the mains due to backflow is more likely in countries not requiring a break tank. There are certainly no comparative statistics but should it not be taken as evidence that English water engineers generally seem satisfied that the break tank system is the safest possible arrangement, while their American

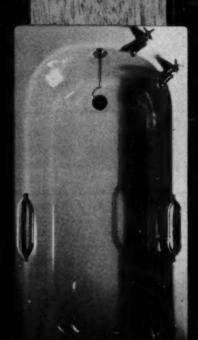
Purpose of water storage cistern in England	Method of achieving result in America		
Air gap between ball valve and water level prevents back-flow and consequent risk of contamination of mains supply.	Mechanical backflow preventers in certain cases.		
Reserve against main failure or repair.	No special provision.		
Reserve for firefighting.	Special storage cisterns provided when required.		
Reserve to cover peak demands.	Mains sized to cope. In some cases special storage to cover peak demands is provided in mains system.		
Reduces pressure in pipes and thereby reduces: (a) noise; (b) wastage; (c) strength of fittings.	Pipe installation may be over-sized to reduce velo- cities. Air chambers may be provided to reduce water hammer. No special provision. Water supply is usually metered. Stronger H.W. cylinders and boilers required.		
Allows for expansion in the H.W. system.	Special relief valves required.		



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and colours,
Architects
need look
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technical section

counterparts are constantly concerned with the problem of backflow prevention? (The American National Plumbing Code Handbook refers to outbreaks of gastro-enteritis, typhoid, undulant fever and other water-borne infections.)

2. Cost

At first thought it appears that the elimination of the water cistern and reduced pipe sizes made possible by increased pressures must result in a saving in cost. There are, however, items which must be set against this saving. The service pipe from the main will have to be capable of supplying the simultaneous demand from several fittings and even allowing for the mains pressure, will probably have to be larger. In addition the hot water storage vessel and boiler will have to be considerably stronger to resist the higher pressures and relief valves must be provided.

Cost Comparison

Table 1. Storage for cold and bot

It is not now obvious which system will be cheapest and I have therefore tried to make a cost comparison. The diagrams show an arrangement of fittings which might be encountered in English practice and three possible plumbing systems based on English and American regulations and designed to give the standard of performance recommended in B.S. Codes of Practice 310 Water Supply, 342 Centralised Domestic hot water supply and 403.101 Small boiler systems using solid fuel; and, for American practice; American National Plumbing Code ASA A40.8—1955 (non-storage). It will be noted that the British standard of

performance is very high and is often not achieved in existing installation in this country. It nevertheless provides a valid standard of comparison.

Three cases were studied. In the first, storage is used for both hot and cold water (table and diagram 1); in the second, storage is supplied for hot only (table and diagram 2); and in the third, water is not stored at all (table and diagram 3).

The following criteria and standards have been adopted in the designs:

Mains Pressure: Minimum 70 ft. 0 in. head (basis for pipe sizing); Maximum 200 ft. 0 in. head (basis for cylinder and boiler strength in non-storage system). Simultaneous Demand: Table 13. CP 342 (Centralised Domestic Hot Water Supply).

Demand Rate in gallons per minute:

	Hot	Cold
Lavatory Basin	11	2
Sink	3	4
Bath	5	4
W.C.s	-	1

Copper tubes to BS 659 and 1386.

Prices are generally from Spons 1959-60 Price Book, taken directly from "Measured Work" tables, and are intended for comparison only. The following items are common to all cases and have been omitted from the comparison:

Roiler

Boiler flow and return.

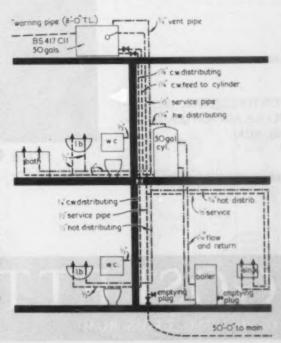
--- cw & service pipe ---- h.w. pipe ---- solating valve

Connections to cylinder.

Sanitary fittings, taps and connections.

Trench for service pipe and service pipe entry.

Dia.	hem	Fr. run or No.	Ra	1e	Co	si	
			8	ď	£	8	d
l in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths Underground	15 48 61	2 2 1 3	8 0 6	2 4 4 1	0 16 11	0064
	T's I.V.'s Ball vaive	1	3	10 0 2		11 15 14	8 0 2
Į in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths Elbows T's I.V.'s	6 27 5 1	3 2 5 6 20	3 7 1 9 4	3 1	19 9 5 6 0	695.94
å in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths Elbows T's I.V.'s	11 9+8 2 3	4 3 6 8	1 4 7 10	2 2	16 13 6	11 8 2 6
1½ in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths Elbows T's I.V.'s	12 15 4 4 2	4 3 9 14 36	9 11 3 1	2 1 2 3	17 18 17 16 12	0 9 0 4 0
ins	Cistern B.S. 417 C 11 (50 gall. act. 70 gall. nom.) No. 2 1½ in. and No. 1 1 in. connection	1	150	0	7	10	2
	H.W. cylinder BS 699 28 gall. No. 6	1	162	0	8	2	0
			TO	TAL	€60	4	11



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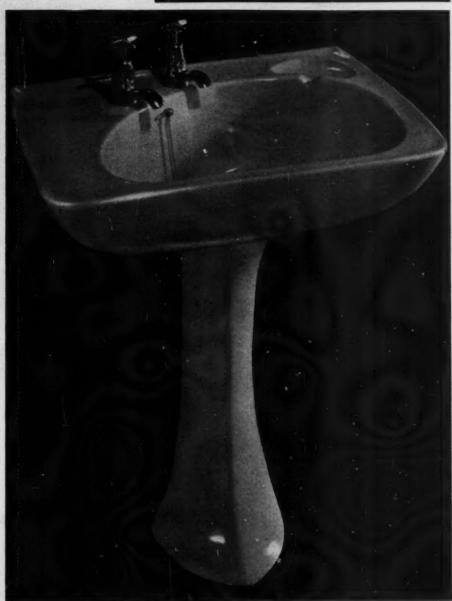
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Holes through walls (storage for H. & C. 6, others, 4). A meter would normally be used in American practice. This has been ignored but it would, of course, add to the price and to pressure loss.

Conclusions

Consideration of the comparative cost tables demonstrates that in this case eliminating storage does not result in a cheaper plumbing installation.

While the figures given only apply to the installations

shown, some conclusions can be drawn about price trends in different types of installation. It is clear that in buildings closer to the main, scattered sanitary fittings and higher mains pressures will reduce the relative cost of the direct-from-mains system, while closely grouped sanitary fittings and long runs of service pipe to the main will favour storage cisterns.

It is possible, however, that the decisive factor in deciding the plumbing system cheapest in overall cost would depend in many cases on whether or not extra building costs would be incurred in accommodating or insulating the cold water cistern.

Table 2. Storage for hot water only

Dia.	Ziom	Ft. run or No.	Rate		Cost		
			8	d	£	5	d
in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths	20 34	2 2	8 0	2 3	13	40
Elbows T's	8	3	11	1	11	4	
		Steen	5	10		-	
	I.V's	-	15	0		mai	
	Ball valve	1	14	2		14	2
ŧ in.	Tube: Under 4 ft. 0 in.	16	3	3	2	12	0
	Over 4 ft. 0 in.	21	3 2 5 6	7	2	14	3
	Elbows	3 2	- 5	1	1 1	10	-
	T ₈	3	- 6	9		0	3
	I.V's	2	20	4	2	0	-
1 in.	Tube: Under 4 ft. 0 in.	7	4	1 4	1	8	4
	Over 4 ft. 0 in.	10	3	-	1	13	- 4
	Underground	61	3 3 6	3	9	18	97 4 77 77 88
	Elbows T's	1	6	7		6	1
	LV's	2	28	10	1	17	1
	1.V 5	1	20	U			-
₹ in.	Tube: Under 4 ft. 0 in.	7	4	9	1	13	3
	Over 4 ft. 0 in.		3	11	-	-	
	Elbows T's	3	9	3	1	7	5
	I.V's	3 2	14	1 0	1	16	-
	1. 4 3	1	30	U	- 1	10	-
	Cistern B.S. 417 C 6 (25 gall.						
	act. 40 nom.)	1			6	0	-
	No. 1 11 in. + No. 1 1 in.						
	connectors		-			19	1
	H.W. cylinder B.S. 699 28 gall.						
	No. 6	1	descen		8	2	
			TO	DTAL	£55	3	1

Table 3. No Storage

Dia.	Item	Ft. run or No.	Rate	Cost
in.	Tube: Under 4 ft. 0 in. lengths Over 4 ft. 0 in. lengths	18	s d 2 8 2 0 3 11	£ s d 2 8 0 4 8 0 1 7 5
	Elbows T's I.V's.	7	3 11	1 7 5
ĝ im.	Tube: Under 4 ft. 0 in. Over 4 ft. 0 in. Elbows T's. L.V's.	14 9 5 5 5	3 3 2 7 5 1 6 9 20 4	2 5 6 1 3 3 1 5 5 1 13 9 2 0 8
1 in.	Tube: Under 4 ft. 0 in. Over 4 ft. 0 in. Elbows T's. LV's.	9 16 4 1	4 1 3 4 6 7 8 10 28 0	1 16 9 2 13 4 1 6 4 8 10 1 8 0
1½ in.	Tube: Under 4 ft. 0 in. Over 4 ft. 0 in. Underground Elbows Ta. I.V's.	3 6 61 3 1	4 9 3 11 4 4 14 1 36 0	14 3 1 3 6 13 4 4 2 2 3 1 16 0
	H.W. cylinder to withstand 200 ft. head	1	_	14 0 0*
1 in.	Boiler pressure relief valve Cylinder temp, and pressure relief valve	1	_	6 0 0

Not normally available in this country. Prices for "apecials" would be an unfair comparison. Figures shown are conservative guesses.

TOTAL £67 10 1

Warning pipe (8-0°TL)

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25gal act

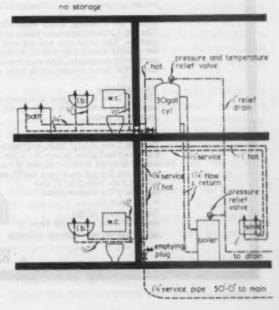
10° cold feed
to cylinder

30gal

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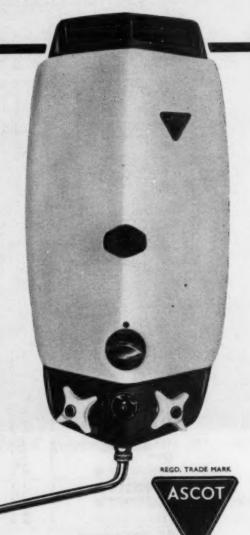
Versat!lity
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0.625 g.p.m. raised 80°F, and
pro rata. Pilot consumption pro rata, Pino.

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technical section

19 CONSTRUCTION: DETAILS

common building failures, 3

The primary source of information on painting is C.P. 231 (1952) to which may be added, for painting on metal, BRS Digest 64 Painting Metals in Buildings (March 1954). Despite these excellent references, painting is still a source of trouble for the architect and in the two notes which follow D. I. Watson of R. H. Harry Stanger and Partners, the materials testing engineers, gives his firm's experience in this matter, taking first steel and then wood.

STB No.	٧	
UDC No.		

The Painting of Steel

So much has now been written on this subject that the selection of an appropriate specification for any particular job must present considerable difficulty. It is with this thought in finind that I have attempted, in this short article, to draw attention to some of the pitfalls and some of the main points to be borne in mind.

When steel is subjected to the combined effect of moisture and oxygen, corrosion takes place. The main object of painting is to arrest this.

It can be effected in two ways and it is very important to recognise the limitations of each.

In the first place continued corrosion can be prevented by ensuring that moisture and oxygen cannot reach the surface of the metal. One method is to use a "hot enamel."

There are many types of "hot enamel," some based on bitumen and others on coal tar pitch, which can be applied to steel when hot and which cool to entirely permanent protective films.

Bituminous paints, which produce only thin films, give only temporary protection until such time as a film of substantial thickness has been built up by repeated painting.

The second, and more usual, method is to use a painting system consisting of several coats, each designed to serve a particular function in the protection of the metal.

The primer is formulated in such a manner that the pigments which it contains can prevent or "inhibit" the corrosion of steel.

Undercoats build up film thickness to protect the primer from damage and to reduce the ease with which moisture and oxygen can obtain access to the metal.

Finishing coats are generally of lower pigmentation than the primer and undercoats. They give a glossy finish which serves to prevent the accumulation of dirt and are generally more water-resistant than the

rest of the film.

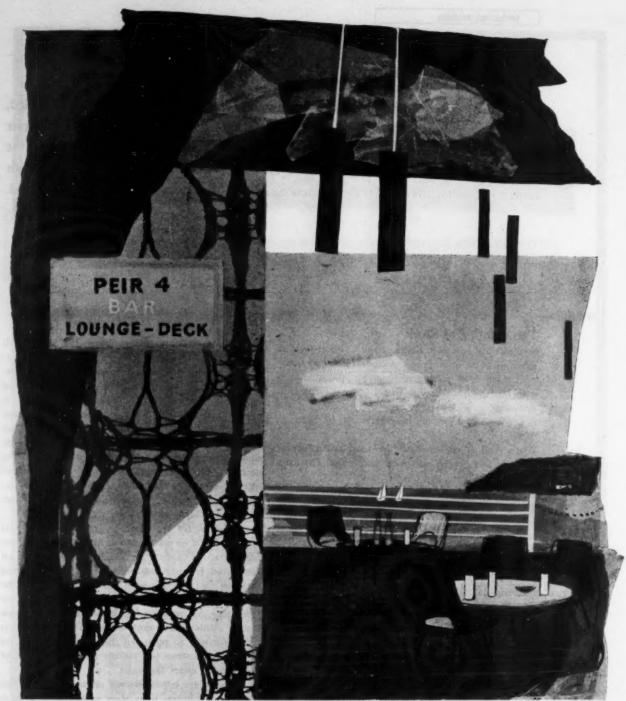
When using systems of this description the overall film thickness should be '005 in. to '006 in. if satisfactory external protection is to be achieved. A three-coat system comprising a zinc chromate primer, alkyd undercoat and finish might be as low as '0025 in. in overall thickness. This I regard as totally inadequate. Specifications for protection by means of a thick film of hot bituminous enamel present no difficulty as the enamels themselves are proprietary products and the necessary procedure is laid down by the manufacturer. It should be recognised, however, that the successful application of these enamels requires a high degree of specialised skill.

Specifications for protection by means of multi-ccat systems should be much more detailed than is common practice at the moment. In addition to the number of coats, and property requirements for the paint used for each coat, the minimum film thickness should be closely laid down and insisted upon. Instruments for measuring the total film thickness on steel are now readily available and quite simple in operation. It is only necessary to point out that the figure recorded by such instruments will include that of any layer of rust present under the paint.

In recent years it has become common practice for paint manufacturers to produce undercoat and finish in exactly the same shade. This is of some advantage to the manufacturer as the finish will not need to be high in obliterating power, but architects can and should prevent it by insisting that each coat is markedly different in shade. Not only does this make differentiation easier for the inspector, but it enables the painter himself to see any missed areas or "holidays." It also ensures that the paint is not brushed out too thinly, because sufficient paint must be applied to obscure the colour of the coat below.

Preparation of the Steel

This is the most important part of any painting pro-



Drawing by Edward Highes



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technical section

cess and any money saved by cheeseparing at this stage will result in disproportionately high costs in the future.

No paint system, however well designed, however costly, and however carefully applied can be satisfactory unless it has been applied direct to the metal. I have frequently seen structural steel which has been weathered in a stockyard and then vigorously wire brushed on site presenting a smooth and polished appearance in spite of the presence of large areas of dense scale. Unless this scale is removed by actual chipping it will later become detached from the steel and fall away taking the paint films with it.

In my view external steelwork should be prepared by shot blasting followed by spraying with metallic zinc or aluminium. Anything short of this will be less satisfactory and, in the end, more costly in maintenance. If the above process is employed an inhibiting primer is unnecessary.

In the absence of a layer of sprayed zinc or aluminium it becomes necessary to choose a primer which is appropriate for the job. Over hot-galvanised steel a calcium plumbate primer should always be used.

On structural steel where there will be bolts, rivets, etc., red lead should be employed. On smooth sheet steel zinc chromate will give quite satisfactory results. In intermediate circumstances calcium plumbate may well be the best choice.

I have excluded primers based on metallic pigments such as lead and zinc because their use is rather more specialised.

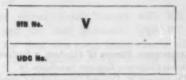
Phosphate treatments, descaling liquids and the like can also serve a useful purpose in the hands of specially trained operators but should not be specified in other circumstances.

The next thing to bear in mind is that priming coats have poor weather resistance. Structural steel which has been given one coat of red lead primer at the steelworks and then erected, is likely to be in bad condition to receive subsequent coats if it has been subjected to several months of external weathering during the course of construction.

If the site is near to the sea this weathering may produce rusting in pustular form in spite of the presence of the red lead.

In the case of inland sites the surface of the primer will have become powdery and the adhesion of the undercoat will be unsatisfactory unless this dusty layer is eliminated by washing down with rags and white spirit. If, therefore, a decision is made to apply the primer at the steelworks, the first undercoat should also be applied before erection, and particular care should be taken in the choice of this undercoat as it must be formulated to withstand external exposure.

Once corrosion under the paint film has commenced it is likely to continue even after further coats have been applied. The aim should therefore be to complete the full painting system as soon as possible even though this may mean the extensive touching up of areas damaged during erection when the final stage is reached.



The Painting of Woodwork

It is the nature of timber to change its dimensions as changes take place in its moisture content. If dimensional changes do take place in painted woodwork, the paint film is subjected to stresses which will almost certainly lead to premature failure.

Painting, to be effective, must actually prevent the changes in moisture content which cause the dimensional changes. This does not present any real difficulty when the timber is of good quality, free from knots, resinous areas and natural oils but local defects of this character usually give rise to local failure of the paint film which then allows moisture to get in. A thin film of "knotting" cannot be expected to overcome these difficulties. Knots of substantial size, and even small ones if they exude resins, should be cut right out and replaced with sound timber.

Units which have been "Shop-primed" and are then subjected to exposure on the site either before or after building in, are likely to have opened up at the joints because the Shop-primer is unable to prevent moisture changes. Before the first undercoat is applied it will be necessary to rub down, stop and re-prime if a satisfactory basis for painting is to be obtained. It follows that continuous maintenance is essential in the case of painted woodwork, for moisture which has been allowed to enter during a long period of neglect will be difficult if not impossible to eliminate.

Assuming sound timber, effective initial painting and regular maintenance, the time will come when the film thickness has become too great to take further coats. The paint must then be burnt off and a new process started by good priming and stopping. Here again moisture entry must be prevented during the critical period when the wood is exposed.

If there are areas in which the wood has been exposed to the weather through maintenance neglect, it will be necessary to remove the damaged surface by means of scrapers until a clean unweathered wood surface ARCHITECTS: Norman & Dawbarn, 7 Portland Place, W. s. Staines Colourama Linoleum installation by The Limmer & Trinidad Lake Asphalt Company Ltd.

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technical section

has been reached. It is also good practice to treat all such areas with boiled linseed oil before priming. This is because timber which has been long exposed to natural weathering is likely to be so "hungry" for oil that it will absorb it from the primer and so reduce the effective adhesion of the whole layer.

If there are areas which have no paint film left there will also be areas in which the film, though satisfactory in appearance, is badly lacking in adhesion. If these are just rubbed down and repainted it will not be many months before the whole lot will flake off. A very useful test for adhesion can be made by scoring the paint horizontally at two points about 8 in. apart and then attaching a 12 in. length of Sellotape 1 in. wide in a vertical position so that the upper of 'he horizontal score marks is about 3 in. from the top end. Having carefully pressed the tape into close contact with the paint film the upper inch or so is pulled away to get sufficient to hold. Then the whole length of tape is pulled away with a rapid snatch action.

If the adhesion is satisfactory the paint film will not be disturbed. If portions of the paint film come away with the tape adhesion is unsatisfactory and the film must be burnt off.

In all cases the primer should comply with B.S. 2521/24:1954 and the first undercoat with B.S. 2525/32:1954. The final two coats could consist of any proprietary alkyd undercoat and finish. The total thickness of the paint films should be at least .004 in. Certain colours are difficult to produce in a light-fast form for external use. Royal Blue, for instance, is less likely to give satisfactory colour retention than Green. In the case of pastel shades many, such as green, buff, etc.; can "Chalk" to some extent without becoming unsightly. Turquoise Blue, however, rapidly shows even a slight degree of chalking. Dark colours will generally give better exterior colour retention than the pale shades. The B.S. 2660 colour range forms a useful guide in this respect, colours suitable for external use being indicated as such.

As long as reasonable care is taken with preparation and priming, interior painting is unlikely to cause any trouble. The fact that the inside paint on a casement window is subject to exterior conditions when the window is open is sometimes overlooked. In such instances paint marked "for interior use only" should be avoided.

INFORMATION CENTRE

(93)A 534

10.193 design: building types FACTORY NOISE

Noise in Factories (Factory Building Study No. 6). A. G. Aldersey-Williams, The Building Research Station, D.S.I.R. 1960. Her Majesty's Stationery Office.

The first eight pages of this study are devoted to the "properties of sound." While the subject remains the Cinderella of physics, one supposes that the repetition of the basic principles in publications dealing with practical issues must be tolerated. Apart from the information which can be found in any good textbook on the subject, this section contains some useful data on the sources of noise in factories including frequency spectra for typical machines such as pneumatic tools, wood cutting circular saws, metal working machine tools and typical operations such as riveting, chipping and hammering. Although these data are valuable in problem investigation, little guidance is given as to the possibility of assessing total noise levels. In practice, of course, there are many noise sources which do not fall within the categories listed, and measurements of the actual noise is very often the only sure guide. Little is said on the directional properties of noise sources and not enough on the importance of openings (windows, doors, vents, etc.) in a factory building.

The next section deals with methods of reducing noise. Most of this is of direct interest more to the manufacturers of machinery or engineers responsible for factory layout or process design. Nevertheless, the architect can learn some useful lessons from it and on the rare occasions when he is allowed to have some part in the detailed design of what goes on inside his building, these lessons should stand him in good stead. Even if the recommendations to building designers which are summarised and quoted below are the only passages which get across to him, this publication will do good.

"In the layout of the site, the noisiest parts of the factory and outside service equipment should be sited as far away as possible from buildings where noise may be annoying. On a large site considerable reduction can be obtained by distance alone.

"Enclosures are the most effective way of controlling noise provided the enclosing construction is uniformly heavy and has no permanent openings.

"Partial enclosures allow continuous access, but the maximum noise reduction obtainable is much lower.

"Sound-absorbing lining to the roof gives a worthwhile reduction if the noise sources are not too closely spaced or if the noise is impulsive. Sound-absorbing treatment can be advantageously combined with thermal insulation."

As to its value to factory management in general, one is not cheered by the statement in the foreword, to the effect that "while this report is accepted by the Committee (Factory Building Research Committee of 1956) as a whole, the views expressed are not necessarily those of individual members of the Committee, or of organisations which they may represent." This sounds as though someone is being christened "Jack."

(56) 697 3

23.233 heating and ventilation

DOMESTIC CENTRAL HEATING

Central Heating in Your Home. Published by Batiste Publication for IHVE. Available from IHVE. 5s.

This substantial booklet is intended primarily for householders, but is also useful for architects. It gives cost data for six typical houses ranging from two bedroom semi-detached to five bedroom detached houses, and also the B.t.u./hr. required for each room and the total for each house for both full heating and background heating. Further tables give running costs, capital costs and total annual costs (based on a 10-year write-off) of installations ranging from 20,000 to 135,000 B.t.u./hr. using gravity, small-bore, warm air (with and without boiler) embedded and withdrawable floor warming, and for five different fuels (i.e. according to system chosen). Booklet is clearly to be used by analogy and not by exact calculation. It has good, brief chapters on boilers and their installation and on the different systems. An excellent quick reference.

COLOUR SERVICE COLOUR SERVICE

technical service in action No. 4

Painting of zinc and galvanized surfaces

The painting of zinc and galvanized surfaces has for years been a problem of varying difficulty and many solutions have been offered.

The zinc surface was often treated before painting with an etching solution such as a dilute acid, in order to obtain a degree of mechanical adhesion. Numerous concoctions of etching and mordanting solutions were devised, but none offered a real solution, since even after the most careful preparation paint film flaking took place due to lack of adhesion between the zinc or galvanized surface and the paint film.

The discovery, manufacture and use of a new pigment, calcium plumbate, has entirely altered this situation. A primer/undercoat paint containing a substantial quantity of calcium plumbate as a pigment, if used on new or old zinc or galvanized surfaces, gives a film with outstanding adhesion under all circumstances. It can be easily over-painted, giving a good painting system of excellent durability. In this way a sound economic solution of an age old problem is available if GOODLASS STOP-RUST PRIMER/UNDERCOATING PAINT is used. Additional advice concerning this product and all other Goodlass, Wall paints can be obtained from our Technical Service Department. Goodlass, Wall & Co. Limited, The Corn Exchange, Liverpool 2, or 179/185 Gt. Portland Street, London, W.1.

SERVICE

SLIPPER BATHS

architect

at Primrose Hill, Coventry ARTHUR LING, City Architect

staff: principal architect GEORGE SEALEY project architect D. HUTCHINGS

succeeded by C. BORNAT

and Planning Officer

quantity surveyor C. H. OSBORNE AND PARTNERS

consultant GRANVILLE BERRY, City Engineer and Surveyor

DIB No.	(95)	
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These baths, which are a crisp and welcome relief from the solid terrace-housing of the district, have been designed to be as maintenance-free as possible.

General view from the west. Boiler house and caretaker's maisonette are separated by a void from the tank room. The separate fuel oil store is visible to the left of the tower.



building illustrated



Baths block: entrance from the south, The change of transom line between this block and the boiler house is unfortunate.



Service area: a business-like space, marred only by the lack of storage for bins and rubbish. External doors are aluminium-faced, opaque panels are plastic-bonded glass.

APPRAISAL. First the tank tower appears above the roofs, then from Coronation Road the whole building can be seen at a glance. The two bath units make a barrier along the top of the site, with the more varied and interesting parts projecting towards the road. The complex is strongly disciplined by a frame and panel system. Only the rendered panels have been coloured, but the visible oil tanks and boiler house give interest to the roadside views, while the ramp, steps and paving take good advantage of the fact that one's eye-level is just above the base of the building.

The untreated concrete frame to the tank tower is blotchy, while the precast frame is of poor quality and accuracy and the only tolerance pick-upbetween frame and windows is the mastic fill.

In a prefabricated system the frame is the locator of most of the elements, and a failure to take up tolerances in the other elements, or to make the frame within known tolerances, defeats the whole object of dimensional co-ordination. Fortunately in this building the number of problems produced by the inaccurate frame were limited and could be solved.

Control of the internal environment has been ingeniously contrived, and the plan offers the necessary privacy. There are no opening lights or internally exposed rooflights: fresh, warm air is blown in at the bath corridor ends, moist air from the baths is drawn through louvres into the central duct and extracted through the roof. In view of the high internal temperature and humidity and the open planning, it seems odd that the main entrance has no lobby. All services are concentrated in the walkway duct, which has pipes on the walls, the fan in the roof and an open channel at the bottom taking the bath wastes. As enamelled baths would last only a short while and chinaware baths are very costly and heavy, a special stainless steel bath was designed with a 3-in. untrapped waste and 11-in. taps.

A signalling system, showing the number of baths occupied

and whether the bather has exceeded the allotted time, is displayed in each waiting-room. An emergency light is also provided. After use the baths are cleaned by an attendant, two working on the women's side and four on the men's.

The plan offers a number of interesting views, while the top lighting gives sparkle to waiting-rooms and bath bays. In the corridors, slightly sloping ceilings are painted semi-gloss black: this helps to conceal a messy junction with the external wall. The spectacular reflection from the ceiling reduces the contrast between ceiling and visible sky to an acceptable level.

The translucent double glazing, seen from inside, is slightly uneven in density and light creeps round the edges—a notquite-perfect material.

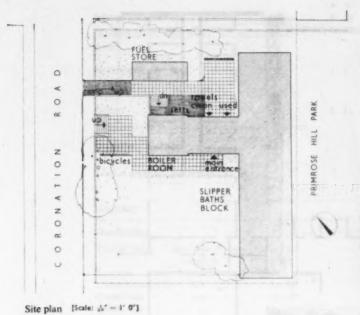
The use of decorated tiling and plastic is vigorous but harsh and some relief in the hygienic atmosphere would be welcome. However, the attempt to produce a low-maintenance building seems to have succeeded; and, while some finishes are not as good as they might be it should be remembered that the lowest competitive tender had to be taken, which in this case resulted in slowness and a time-compromised struggle to achieve a reasonable standard. In addition, we understand that the defects noted will be attended to at the end of the maintenance period.

CLIENT'S REQUIREMENTS

The Markets and Baths Committee of the Coventry City Corporation wished to replace premises which had been in use since 1913. The building, which had been a private house and a school, was badly damaged during the war but continued to function until it was demolished in 1958.

PLANNING AIMS

To provide 25 slipper baths (10 for women), 10 shower baths (all for men) and wash and brush-up facilities for men in the most up-to-date and maintenance-free premises possible.





The separate fuel oil store has plate-glass walls.

SUMMARY

Ground floor area: 4,787 sq. ft.
Total floor area: 6,017 sq. ft.

Type of contract: R.I.B.A. with quantities modified for local authorities.

Tender date: 28 April 1958. Work begun: August 1958. Work finished: April 1960.

Tender price of foundations, superstructure, installations and finishes: £48,529 7s. 8d.

Tender price of external works and ancillary buildings: £1,629 9s. 10d.

Total: £50,138 17s. 6d.

Preliminaries and Insurances

Work below ground floor level

Contingencies

Excavation; concrete foundation slab and walls to boiler house and fuel store. Includes demolition of existing house.

STRUCTURE

Frame or load-bearing element 9 11 Concrete frame.

External walls 4 6)

composite cavity walls to tower block, solid wall 0.306

Ratio: $\frac{\text{solid wall}}{\text{floor area}} = \frac{0.306}{1}$

Windows

Windows and window walls, including aluminium cladding.

End walls only to baths block, in brickwork with

Ratio: $\frac{\text{windows}}{\text{floor area}} = \frac{0.583}{1}$

External doors

Aluminium-faced doors in aluminium frames, and roller shutters.

2 21

61

2 9

2 1

6 11

Ratio: $\frac{\text{doors}}{\text{floor area}} = \frac{0.055}{1}$

Upper floors

Concrete slabs cast in situ.

External staircase in concrete.

Hardwood and steel staircase in caretaker's maisonette.

Roof construction

81

3 71

8 8

9 7

Concrete flat roof, insulated with expanded polystyrene.

Rooflights

Aluminium alloy extended sections with ½-in. wired glass to lower frame and ½-in. Georgian wired rough cast to upper frame.

Glazing

Includes glazing to window walls.

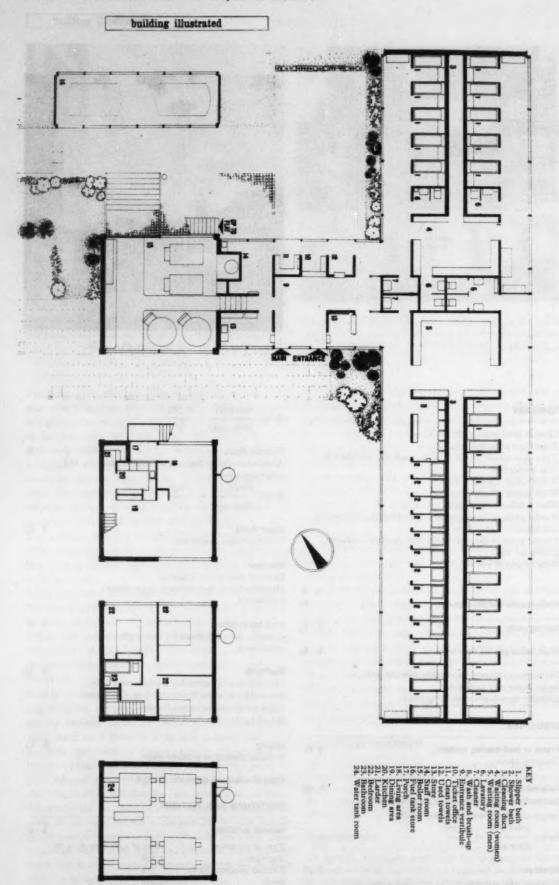
Total of structural elements: 32s 51d

No. of lights: 24. Area: 882 sq. ft.

PARTITIONS AND FITTINGS

Internal partitions 6 5 Type of partition Area of each type in sq. ft. Terrazzo 1,276 Aerated concrete block 711

Brick 4,230
Precast terrazzo wall linings 231



Internal doors

56 plastic-faced flush doors; 10 standard flush doors.

Ironmongery

Anodised aluminium finish.

Fittings

Terrazzo fittings, including seats, tables, counters. Seats and seat covers. Fittings in caretaker's maisonette, shelving and cabinets.

Total of partitions and fittings: 16s 6d

FINISHES

Floor finishes			3 1
Type of finish	Area of each type in sq. ft.	Cost per	
Terrazzo	2,961	326.	
Thermoplastic t	tiles 828	18s. 6d.	
Granolithic	918	10s. 7d.	
Quarry tile	18	36s.	

7 9

7

Wall finishes

Wall tiles, eggshell glaze cement finish and plaster. (Terrazzo linings included under partitions.)

Ceiling finishes

Glazed, plastered.

Roof finishes

Asphalt: 4,293 sq. ft.

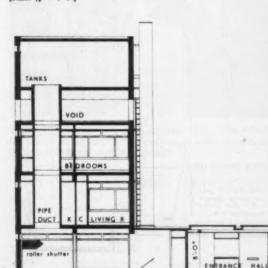
Decorations

Emulsion paint on plaster and oil paint on woodwork in caretaker's maisonette only.

Total of finishes: 21s 6d

BOILER ROOM

Section through tower block and entrance hall [Scale: 1/8" = 1' 0"]





Inside the main hall. " The use of decorated tiling is vigorous but harsh."



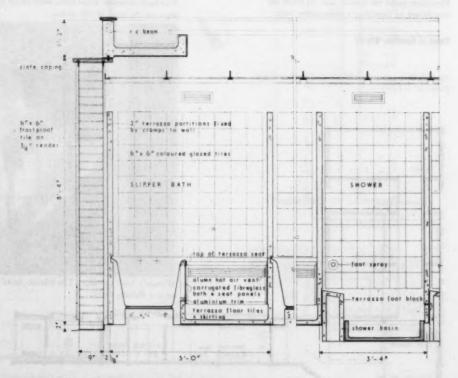
The bath corridor walls have been faced with 2-in. tiles which improve the scale of this space.



Women's bath corridor. The plastic-faced panels are decorated with a Roman motif.

building illustrated slare coping for extract unit .. Mg asphalt on felt underlay on screed double glazed roof light 3"r c reof slab 3/ " polystyrene foom finish to underside concrete stove enometted asbestos board suspended ceiling r c column plyglass suspended ceiling on oluminium angles else top of terrozzo partition 34 cement screed glazed finish CORRIDOR SLIPPER BATH SERVICE DUCT stainless steel bath Sig" h & c pipes 124-1-14 service hole rubber film on underside bath 3° intl dia copper waste 3/4" recruzzo tiles on screed concrete base grano finished hounching 2'-9"

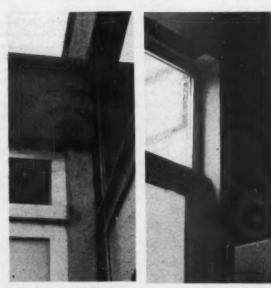
Typical cross section, showing relationship between bath compartments and duct for services [Scale: §" = 1' 0"]



Typical longitudinal section through bath and shower compartments



For economy and hard wear special stainless steel baths were made. On the wall is the emergency signal.



Block junction: external, left; internal, right. This problem has taxed the ingenuity of the designers of many prefabricated systems; it is rarely completely solved.

SERVICES

External plumbing	-
-------------------	---

Aluminium rainwater pipes: cast iron soil pipes.

Hot and cold water installation 23 3

Two 1,000-gallon vertical copper storage calorifiers. Four 1,250-gallon cold water storage tanks in

Separate main for drinking points.

Sanitary fittings

(including caretaker's	maisonette)
Type of fitting	No. of each type
Stainless steel baths	25
Shower trays	10
Slop hoppers	2
Lavatory basins	12
Urinals	1
W.c.s	7
Sinks	9

Heating and ventilation

20 31

Two boilers using fuel oil of 1500 secs. at 100 deg. F. from external storage.

Forced warm-air heaters in circulation spaces. Flat panel steel radiators in caretaker's maisonette.

	Internal	Air changes
	temperatures	per hour
Baths block	70°	4
Entrance hall and waiting-rooms	65°	2
Maisonette living-rooms	65°	x
Bedrooms	60°	z è

Ventilation by fans in service duct of baths block.

"U" value of roof: 0.27.
"U" value of walls: 0.4.

" U" value of plastic-bonded glass; 0.8.

Electrical installation

16 6

Automatic timing system with coloured signal lamps.

Fluorescent lighting.

Fans, immersion heaters, pump motors, oil-burning equipment all connected to control panel in boiler house.

Total of services: 67s 8}d

Other elements

Cat ladder to outside of tower, lettering, etc.

Drainage

3 9}

Total cost per sq. ft. of floor area:

£48,529 7s. 8d. net cost (excluding external works)

6,017 sq. ft. (floor area measured inside external walls)

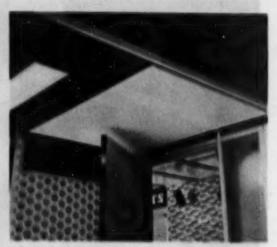
- 161 3}

building illustrated

COST COMMENTS

This analysis is based on tender, since the final account is not yet complete; but the ultimate cost is not expected to caceed the tender figure. The relatively high overall cost per square fact results from:

- 1. Site charance: an existing house had to be demolished.
- Work below ground floor level: a considerable amount of excavation was necessary.
- 3. Structure and finishes generally: a building with low maintenance costs was required.
- 4. Witadows and window endling: if glazing is inchaded, the figure of something over 1%, for this element seems unusually high.
- 5. Internal partitions and doors: with the type of internal planning required, this element is inevitably large.
- 6. Wall and ceiling fluishes: these two elements together amount to 14s. \$\forall delta \text{. \$\forall delta
- After and cold maser entellisteen: this item had to include large storage tanks and a booster pump, because the water supply is limited.
- 6. Services generally: their total cost at 67s. 63d. reflects the purpose of the project.



Cething adjacent to block junction: a device which could have been avoided.

CONTRACTORS

Builder M. Clarke & Sons Ltd. Nub-contractors-Heating, hot and cold mater, extract ventilation, shower fittings: Sukset Bros. Ltd. Glassing, Physiass ceilings: Glass (Coventry) Ltd. Aluminium door frames, laylights: Hill's (West Bromwich) Ltd. Rooflights: S. Warner & Sons Ltd. Wall tilling, thermoplastic tiles: Covenery Tile Co. Ltd. Metal windows, ironmongory: James Gibbons Ltd. Sanitary ware: Arthur J. Thomas Ltd. Reinforced concrete framework: Beechams Buildings Ltd. Terrasso: Marbello & Durus Ltd. Novolec wall finish; John Ellin & Son Ltd. Electrical installation; Lee Beesley Ltd. Stainless steel backs: Associated Metal Works (Glasgow) Ltd. Lightney conductor: W. J. Pures Ltd. Automatic warning system: Birmingham Home & Office Telephone Co. Ltd. Tip-up wall seats, aluminium grilles: Parker, Winder & Achurch Ltd. Galt place luminate shorting: Allan Bluca Ltd. Holling charter: Roller Shutters Ltd. Galvanised steel ladder, safety rail, hundrail pasts, plans frame: W. V. Booker. Texamoll self-adhesive plastic frame. terip: Staldraught Ltd. Asbestolics ceiling panels: Cape Building Products Ltd. Plastic-faced doors: A. B. & W. Chewer Ltd. Aluminium-faced physicod panels: Please-Physicod Ltd. Plants lettering: Drakard & Humble Ltd. Pull handles: Wilkes Berger Ltd. Chah pale fencing: Durafencing Ltd.

SERVICES AND EQUIPMENT | POWER SUPPLY | ELECTRIC

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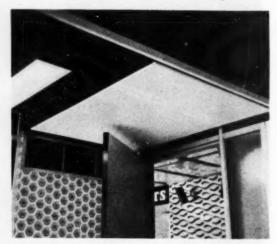


building illustrated

COST COMMENTS

This analysis is based on tender, since the final account is not yet complete; but the ultimate cost is not expected to exceed the tender figure. The relatively high overall cost per square foot results from:

- 1. Site clearance: an existing house had to be demolished.
- 2. Work below ground floor level: a considerable amount of excavation was necessary.
- 3. Structure and finishes generally: a building with low maintenance costs was required.
- Windows and window walling: if glazing is included, the figure of something over 15s. for this element seems unusually high.
- 5. Internal partitions and doors: with the type of internal planning required, this element is inevitably large.
- 6. Wall and ceiling finishes: these two elements together amount to 14s. 5½d., a sum which expresses the high quality of impervious finishes generally needed. Some of this cost can, however, be offset against the decorations, in comparing it with a more normal provision.
- 7. Hot and cold water installation: this item had to include large storage tanks and a booster pump, because the water supply is limited.
- 8. Services generally: their total cost at 67s. 8\frac{3}{4}d. reflects the purpose of the project.



Ceiling adjacent to block junction: a device which could have been avoided.

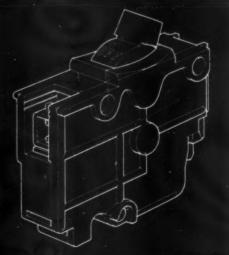
CONTRACTORS

Builder: M. Clarke & Sons Ltd. Sub-contractors-Heating, hot and cold water, extract ventilation, shower fittings: Sulzer Bros. Ltd. Glazing, Plyglass ceilings: Glass (Coventry) Ltd. Aluminium door frames, laylights: Hill's (West Bromwich) Ltd. Rooflights: S. Warner & Sons Ltd. Wall tiling, thermoplastic tiles: Coventry Tile Co. Ltd. Metal windows, ironmongery: James Gibbons Ltd. Sanitary ware: Arthur J. Thomas Ltd. Reinforced concrete framework: Beechams Buildings Ltd. Terrazzo: Marbello & Durus Ltd. Novalux wall finish: John Ellis & Son Ltd. Electrical installation: Lee Beesley Ltd. Stainless steel baths: Associated Metal Works (Glasgow) Ltd. Lightning conductor: W. J. Furse Ltd. Automatic warning system: Birmingham Home & Office Telephone Co. Ltd. Tip-up wall seats, aluminium grilles: Parker, Winder & Achurch Ltd. Galt glass laminate sheeting: Allan Blunn Ltd. Rolling shutter: Roller Shutters Ltd. Galvanised steel ladder, safety rail, handrail posts, plant frame: W. V. Booket. Tesamoll self-adhesive plastic foam strip: Sealdraught Ltd. Asbestolux ceiling panels: Cape Building Products Ltd. Plastic-faced doors: A. R. & W. Cleaver Ltd. Aluminium-faced plywood panels: Flexo-Plywood Ltd. Plastic lettering: Drakard & Humble Ltd. Pull handles: Wilkes Berger Ltd. Oak pale fencing: Durafencing Ltd.

SERVICES AND EQUIPMENT POWER SUPPLY | ELECTRIC

The Architects' Journal Library of Information Sheets 785. Editor: Cotterell Butler, A.R.I.B.A.





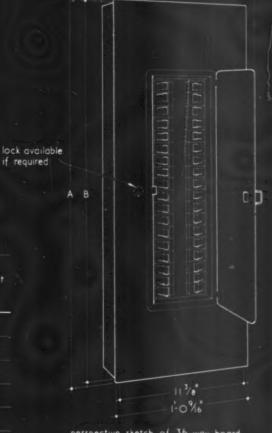
STAB-LOK CIRCUIT BREAKER (5 to 60 amp)

number	of ways	- A	B flush and	busbar	arrangement of conduit	weight
phase	3 phase	flush boards (ft. and in.)	surface-mounted boards (ft and in)	(amp)	knockouts (see diagrams below)	(Ib)
8		. 113/16.	10	100	Z	12
12	4	1-33/16	1-2	100	X	16
18		1-63/16	1-5	100		21
24.	8	2-13/16	2-01/2	150		28
36	12	2-83/16	2-61/8	200	Y	42

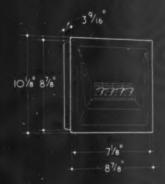
STANDARD DISTRIBUTION BOARDS : 4 TO 36 WAYS.

number of ways (I phase)	busbar rating (amp.)	arrangement of conduit knockouts (see diagrams below)	weight (Ib.)
4	50	W	6

STANDARD DISTRIBUTION BOARDS: 4 WAYS, SINGLE PHASE, ONLY.



perspective sketch of 36-way board



000				00		0000
w				X		
		00			000	000
Y .	EMENIT	05.0	CND	Z	CVOUT	

	no of knockouts for conduit dia						
arrangement	3/4"	3/4"or 1"	1"or11/4"	1/2" or 2"			
- W	2	2	1	102			
. X		12					
	12						
Z		8		2			

37.C5. ·STAB-LOK· DISTRIBUTION BOARDS

This Sheet describes Stab-lok distribution boards incorporating circuit breakers for lighting, heating, and power circuits. The drawings on the face show the circuit breaker and details of the distribution boards.

The use of circuit breakers in a distribution system to replace fuses on sub-circuits has the following advantages:

1. When the circuit breaker trips, the supply can be restored by reswitching the breaker. There is no fuse to be located and replaced.

2. The faulty circuit is immediately indicated as the

appropriate dolly moves to the "off" position.

3. If the cause of the tripping is not cleared, the circuit breaker will trip again: it will not remain closed on a fault.

4. The circuit breaker gives protection against both overloading and short circuits, which is not possible

5. Circuit breakers are sealed during manufacture so that they cannot be tampered with.

Stab-lok circuit breakers can be used for switching purposes, dispensing with the need for a separate switch. Breakers from 5 to 60 amp. are interchangeable and circuit changes can be made easily as there is only one terminal screw to loosen. There are no fixing screws, the Stab-lok being self-fixing.

Design and Construction

The distribution equipment is housed in a casing of sheet steel construction for surface or flush mounting. The flush-mounted types are illustrated on the face of the Sheet. With the exception of the 4-way singlephase and neutral board, the boards are provided with flush-fitting doors: locks can be fitted if required. A circuit label is attached to the inside of the door. Access to the wiring chamber is gained by unscrewing the complete front panel. Ample wiring space is provided and only one connection has to be made to the circuit breaker and one to neutral. Conduit knockouts are provided in the top and bottom of the case, arranged as shown in the diagrams on the lower face of the Sheet.

The sizes of distribution boards are as given on the face of the Sheet. It will be noted that all Stab-lok boards, with the exception of the 4-way single-phase type, are the same width, which simplifies installation and where the boards are flush-mounted, a recess of one brick depth only is required.

Electrical Data

Ampere ratings: The standard ampere ratings for Stab-lok breakers are 5, 15, 20, 25, 30, 40, 50, 60. They are all interchangeable (see General).

Incoming supply: Stab-lok circuit breakers are suitable for all normal single-phase and neutral circuits. Distribution boards can be provided for 1- or 3-phase incoming supply.

Range: 4- to 36-way boards are available as shown in the tables on the face of the Sheet.

Busbar rating: The normal load of all circuits should not exceed the figures given in the tables on the face of the Sheet.

Note: Larger circuit breakers, up to 800 amp., are available for use as main switches and for building into switchboards.

Compiled from information supplied by:

E. C. C. (Moulded Breakers) Limited.

Address: Fordhouse Road Works, Wolverhampton, Staffordshire.

Telephone: Wolverhampton 32521.

London Office: Bushbury House, 57, Buckingham Gate, London, S.W.1. Telephone: Victoria 3482/3.

Belfast Office: 12, Knockbreda Road, Belfast, Northern Ireland. Telephone: Belfast 42016.

Birmingham Office: 3, Vicarage Road, Edgbaston, Birmingham, 15.

Telephone: Edgbaston 4431/2. Telephone:
Bristol Office: 40, Hill
Somerset. Westbury-on-Trym,

View,

Telephone: Bristol 62–6480. Cardiff Office: 130–132, Queen Street, Cardiff. Telephone: Cardiff 21843.

Clacton Office: 33, Vista Road, Clacton-on-Sea, Essex.

Telephone: Clacton 362. Glasgow Office: Bushbury House, 5, Woodlands Terrace,

Glasgow, C.3.
Telephone: Douglas 1962/3.
Leeds Office: 4, Laurel Mount, St. Mary's Road, Leeds, 7.
Telephone: Leeds 43481/2.

Manchester Office: Prince's Chambers, 16, John Dalton Street, Manchester.

Telephone: Blackfriars 3122.
Newcastle Office: Lloyds Bank Chambers, Westgate Road,

Newcastle-upon-Tyne.

Telephone: Newcastle-upon-Tyne.

Sheffield Office: 90, Knowle Lane, Sheffield, 11.

Telephone: Sheffield 70996.

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brickwork to flue

reinforced concrete lintel

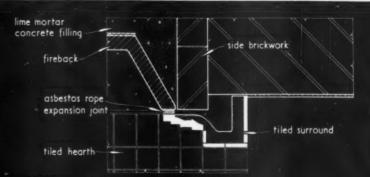
asbestos

rope expansion

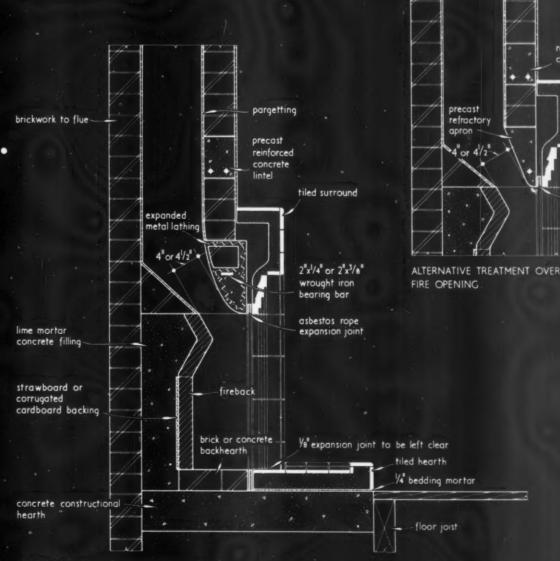
joint

SPACE HEATING UNITS SOLID FUEL

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PLAN THROUGH SIDE OF FIREPLACE



VERTICAL SECTION THROUGH FIREPLACE

FIXING OF TILE FIREPLACES

Compiled from information supplied by British Ceramic Tile Council; The National

Fireplace Makers' Association; Coal Utilisation Council

29.B3. FIXING OF TILE FIREPLACES

This Sheet describes the fixing of tile fireplaces. The drawings on the face show alternative arrangements.

When fixing a tile fireplace, the aim should be to prevent any direct or conducted heat from coming into contact with either the cement backing of the fireplace or the tiles. It is also essential to provide expansion joints all round the fire opening. Each case will present its own problems, but, provided the fitter is a skilled tradesman and applies the above principles, it should be possible to overcome them.

Fixing

The drawings on the face of the Sheet show the recommended method of fixing and illustrate alternative arrangements over the fire opening. If desired, however, a proprietary throat or hood can be inserted in the latter position.

The fireplace should be temporarily placed in the exact position it is to occupy and the fireback located, allowing for the expansion gap indicated in the drawing, and propped to prevent movement. The fireplace is then removed and the brickwork and filling completed. The filling should be lime-mortar concrete consisting of 16 parts of 1 in. broken brick or fireclay to 2 parts lime and 1 part sand. A sheet of thin strawboard or corrugated cardboard is recommended between the fireback and the filling. The protecting brickwork at the sides must be flush with the front edge of the fireback or loose side cheek. The width of the fireback opening should always be at least 1 in. less than the width of the fireplace opening so that the latter is protected.

The fireplace is finally replaced and fixed, the joints all round the fire opening being packed with asbestos rope and the hearth evenly bedded on 1 to 1 in. of 8:1:1 sand/lime/Portland cement mix.

The installation must be allowed to dry out and only small fires should be burnt for a few days after completion of the fixing.

Boiler flue units: Where sectional firebacks, built up of fire cheeks or similar, are used with boiler flue units, it is essential that the fireplace be protected by providing the clearances previously described.

Continuous burning fires: Where continuous burning fires are fitted to any fireplace, the appliance must on no account be sealed to the tiles round the fire opening, but only to the fireback or side cheeks. Where cut-outs are made in a hearth to accommodate underfloor ventilated types of fire, an expansion gap should always be left between the hearth and the firebox.

Relevant Publications

B.S. 1251: Open fireplace components.
B.S. Code of Practice C.P. 403: Open fires, heating stoves and cookers burning solid fuel.

Compiled from information supplied by:

British Ceramic Tile Council

Address: Federation House, Stoke-on-Trent, Staffs. Telephone: Stoke-on-Trent 48390.

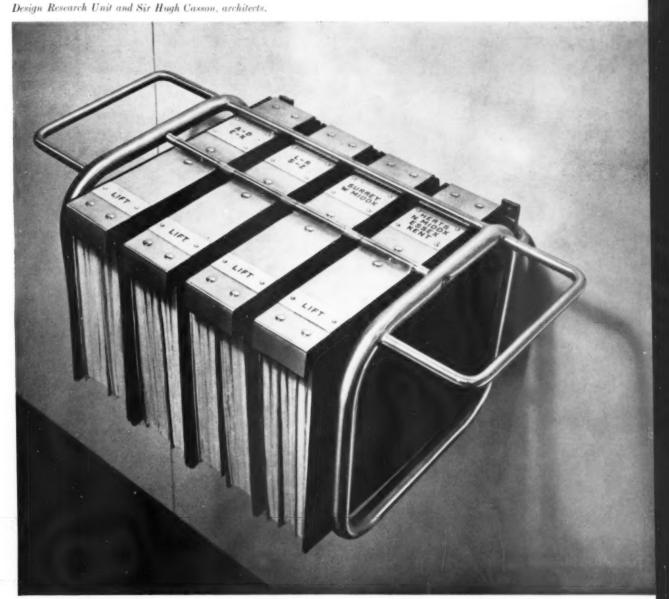
The National Fireplace Makers' Association
Address: 381, Salisbury House, London Wall,
London, E.C.2.
Telephone: National 0471.

Coal Utilisation Council
Address: 3, Upper Belgrave Street, London, S.W.1.
Telephone: Sloane 9116.

FURNITURE AND FITTINGS : 100

working detail

DIRECTORY HOLDER: POST OFFICE IN LONDON, W.I.



By reducing the movement of the books to a minimum and by transferring the main burden of the load from the directory itself to a permanent metal holder, this gadget oversomes a long-standing nuisance.

29.B3. FIXING OF TILE FIREPLACES

This Sheet describes the fixing of tile fireplaces. The drawings on the face show alternative arrangements.

Principle

When fixing a tile fireplace, the aim should be to prevent any direct or conducted heat from coming into contact with either the cement backing of the fireplace or the tiles. It is also essential to provide expansion joints all round the fire opening. Each case will present its own problems, but, provided the fitter is a skilled tradesman and applies the above principles, it should be possible to overcome them.

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ing so that the latter is protected.

The fireplace is finally replaced and fixed, the joints all round the fire opening being packed with asbestos rope and the hearth evenly bedded on \(\frac{1}{4}\) in, of \(8:1:1\) sand/lime/Portland cement mix.

The installation must be allowed to dry out and only small fires should be burnt for a few days after completion of the fixing.

Boiler flue units: Where sectional firebacks, built up of fire cheeks or similar, are used with boiler flue units, it is essential that the fireplace be protected by providing the clearances previously described.

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B.S. Code of Practice C.P. 403: Open fires, heating stoves and cookers burning solid fuel.

Compiled from information supplied by:

British Ceramic Tile Council

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Address: 381, Salisbury House, London Wall,
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Telephone: Sloane 9116.

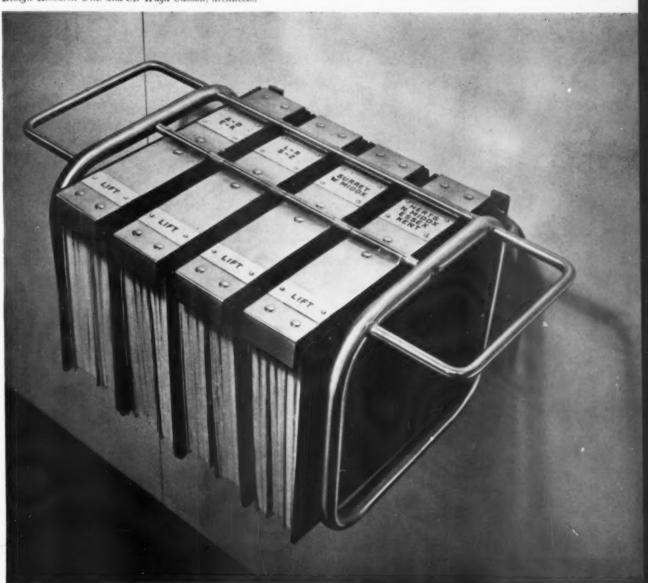
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FURNITURE AND FITTINGS : 100

working detail

DIRECTORY HOLDER: POST OFFICE IN LONDON, W.1

Design Research Unit and Sir Hugh Casson, architects.

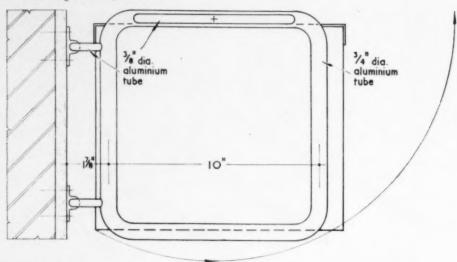


By reducing the movement of the books to a minimum and by transferring the main burden of the load from the directory itself to a permanent metal holder, this gadgat oversomes a long-standing nuisance.

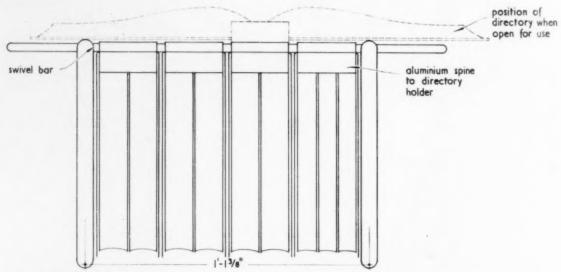
working detail

DIRECTORY HOLDER: POST OFFICE IN LONDON, W.1

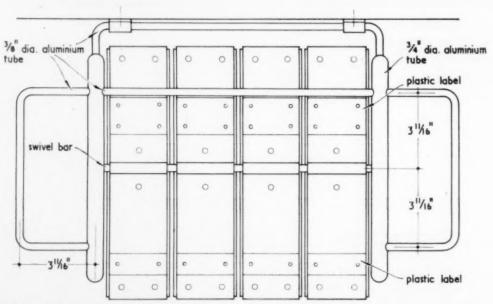
Design Research Unit and Sir Hugh Casson, architects.



END ELEVATION. scale 1/4 full size



FRONT ELEVATION. scale 1/4 full size



PLAN. scale 1/4 full size

MARLEYflor

meeting a modern challenge in LARBERT HIGH SCHOOL STIRLINGSHIRE

recently rebuilt to provide facilities for more than 1,000 students



In one of the Domestic Science Rooms: Blue Marleyflor and Grey Marleyflor in large squares.

Architect: A. J. Smith, A.R.I.B.A., F.R.I.A.S. Main Contractor: Duncan Stewart (Bonnybridge) Limited

Over 3,000 yards of Marleyflor, the finest *vinyl* flooring, have been installed in the entrance hall and corridors, in class rooms and domestic science rooms, in commercial rooms and in the library of Larbert High School. Colours and designs were

selected for enduring interest, with shapes of blending or contrasting colours used for practical purposes and decorative effect. Marley Vinyl Seaming Strip welds Marleyflor into a smooth, dust-free surface, with all the advantages of a jointless floor.

For a copy of the new publication 'Thermoplastic Tiles on Floor Heating Systems' by F. L. Brady, M.Sc., A.R.I.C., write to Central Sales Office, Section F.B.



SEVENOAKS · KENT · Sevenoaks 55255 London Showrooms · 251 Tottenham Court Road · W1

above all...

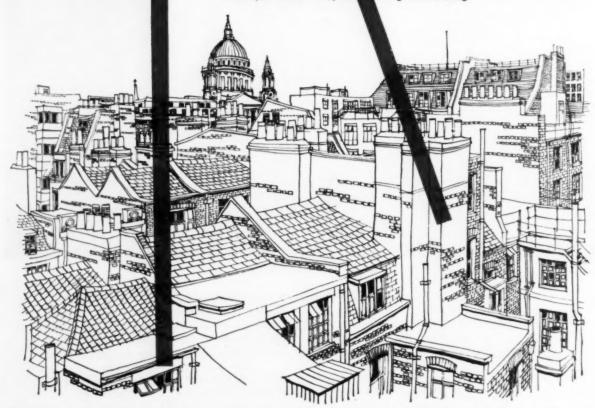
PERMANITE

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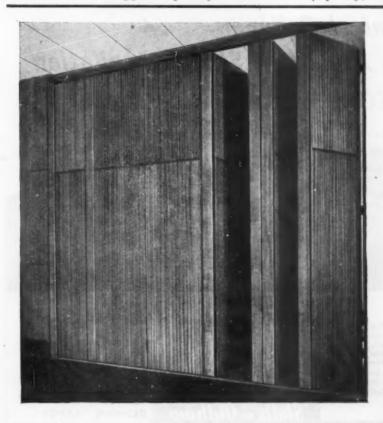


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BRISTOL'S NEW MULTI-STOREY CAR PARK



Nearing completion, and designed for 500 cars, the 24-ft.-wide spiral roadway has 16-ft. parking bays on either side. The cost per car space will be about £350, and the total, including such ancillaries as showrooms and two filling stations, will be about £200,000. The architect is R. Jelinek-Karl, the structural engineers C. G. Mander & Partners with E. N. Underwood, and the contractors are William Cowlin & Son. Parking fees will probably be 6d. an hour and 4s. per day, and a similar project is under construction in Bath.



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Sound-deadened folding and sliding partitions fitted in new 'Skyways Hotel' London Airport

Tailor-made for each specific installation—Esavian aliding and folding doors and partitions are ideal for Hospitals, Hotels, Offices, Council Chambers, Board Rooms etc. Superbly finished...easy to fold back and close—Esavian quality-built partitions offer all that is best in functional elegance.

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Architect: Fitzroy Robinson & Partners.
Esavian sliding and folding partitions finished in pollehed mahogany.

Announcements

PROFESSIONAL

K. C. Evans, DIP.ARCH., A.R.I.B.A., has resigned his appointment as County Architect to the Isle of Ely County Council on being appointed Deputy County Architect to the Hertfordshire County Council with effect from July 1. His successor is V. G. Lilley, A.R.I.B.A.

Brian Drury, A.R.I.B.A., has moved his practice to Selsdon House, 34 Selsdon Road, South Croydon, Surrey.

Leslie H. Kemp, F.R.J.B.A., M.R.A.J.C., is now working in association with Yates, Cook & Darbyshire, Architects & Surveyors, 43 Great Marlborough Street, Regent Street, London, W.1.

Nigel Biggar & Partners, A./A.R.I.B.A., have moved to 18 Parade Road, St. Helier, Jersey, Channel Islands, Tel. Central 31391/2/3 and will be pleased to receive trade literature.

The Victoria League—Commonwealth Students Committee—will welcome to The League Headquarters, 38 Chesham Place, Belgrave Square, S.W.1, students from Commonwealth countries who are studying in this country.

On the death of Ernest M. Joseph, C.B.E., F.R.I.B.A., and the retirement of N. S. Joseph, B.A., the practice will be carried on by the remaining partner, F. Milton Cashmore, F.R.I.B.A., who has taken into partnership Peter H. Crook, H. N. W. Grosvenor and Niall D. Nelson, A/A.R.I.B.A., who have been associates of the firm for some time. The practice will be continued under the style of Messrs. Joseph, F. Milton Cashmore and Partners at their present address, 3 (North), Kings Bench Walk, Temple, London, E.C.4 (City 5631-3).

TRADE

Main subjects of discussion at this year's Conference of the Federation of Registered House-Builders, which opens at the Connaught Rooms, London, on November 3, will be the building of flats for sale, houses for letting, and the design and standards of housing components and aids to sales.

G. H. E. Hughes, O.B.E., F.R.I.C.S., F.I.Arb., for 16 years Director of the London Master Builders' Association has retired.

A. R. Zambra has been appointed General Manager of Rudders & Paynes Ltd., Roofing, Structural Insulation and Acoustics Dept.

Press & Public Relations Ltd. have moved to Ferguson House, 15/17, Marylebone Road, London, N.W.1. (Telephone: Welbeck 7431.) Charles Gordon Pickett has been appointed Chief Civil Engineer of the new Civil Engineering Contracts Section of Thyssen Shaft Sinking Co. Ltd.

Heatrae Ltd. are opening a Central London office at Norwich House, Southampton Place, London, W.C.1 (Telephone: CHAncery 4114), on October 3, to replace their office at Kenton.

A. R. Curry has been appointed Sales Manager of F. Dejong & Co. Ltd., of 43, Upper Belgrave Street, S.W.1.

Carter Tiles Ltd. have appointed A. G. Stringer as Managing Director of Carter Tiles Ltd., Poole, Dorset, G. F. H. Walker, O.B.E., T.D., has been appointed to the Board.



24.L3. REFERENCE BACK

Readers are asked to note that the range of sizes has been further extended: the manufacturer should be consulted for details.

Salford Royal Technical College another Stott installation

Salford Royal Technical College, a fine example of modern architecture, will eventually accommodate 2,500 students. The catering equipment used throughout is by Stotts of Oldham.

The architect was C. H. Simmons, Esq., A.R.I.B.A., architect to Lancashire County Council, and we are indebted to Sherratt & Smith Ltd., constructional engineers, for this photograph.



Other recent orders for complete schemes include:

College of Technology, Kumasi, Ghana.

St. Paul's College, Cheltenham. Cheshire Training College, Crewe.

Loughborough College, Loughborough, Leics. Teachers Training College,
Nottingham.
St. John Vianney School,
Blackpool.
Cranville College of Further
Education, Sheffield.
City Training College, Sheffield.
Doncaster Technical College.

Please send full information of your Kitchen Planning Service

NAME

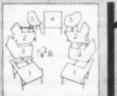
ADDRESS

"Stotts of Oldham

VERNON WORKS



fibre models from the series by Charles Eames for Herman Liller of America. The Cheyne (1) and Oakley (2) chairs and armchairs are similar except that the former's frame is black stove-enamelled steel, the latter's mahogany. The Chevron pair (3) have makore frames, tubular steel legs and reversible cushions. The capacious Gatwick chair (4) and bench (not shown) employ square-section, satin-finished chrome-plated steel, leather or leathercloth cushions over rubber webbing. All cushion interiors are resilient foam; exteriors any of many exclusive Hille fabrics. There are two basic glass fibre (5) shell shapes and three underframes; the permutations, with fabrics and wire shells, are almost infinite. (6) is decorative and not for sale. Visit our showrooms, 39/40 Albemarle Street, London, W.1, Hyde Park 9576, or 24 Albert Street, Birmingham 4, Midland 7378, or write for brochure and stockist directions.





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From 30in. up to 13ft. Width

In 6in. stages.

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Special colours to

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ARNARDS





The Thinker from "The Gate of Hell", Rodin, Bronze, 1879-1900

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- * Separate metering to each flat

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The DUCTAIR 22 unit consists of a small insulated cabinet containing a water-to-air heat exchanger and an electrically driven fan. In multi-storey flats the heat exchanger may be connected either to individual CIRCULYN C.70 gas heaters or to piping from a central boiler system. The gas heater can be fitted with a balanced flue or connected to a Se-duct. Space and water heating services can be metered for each flat even when the DUCTAIR heat exchangers are connected to a central boiler system.

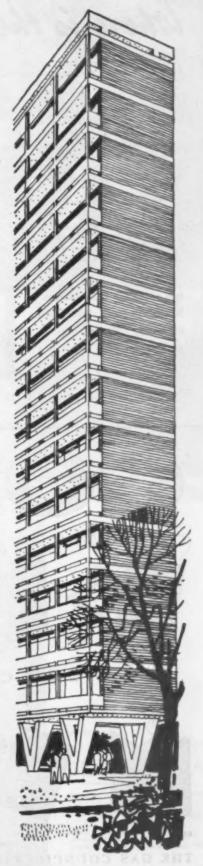
Costs naturally vary widely with the installation. However, assuming a 600 sq. ft. flat with 8 ft. ceilings the capital cost would probably be between £165 and £180, and the operating cost with gas at 13d. to 21d. per therm would be between 10/- and 16/- a week.

It has already been said that these low costs include hot water. Perhaps a point of even greater value in high flats is the ease with which the warm air can be used to provide a drying cupboard to cope with all the wash.

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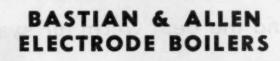
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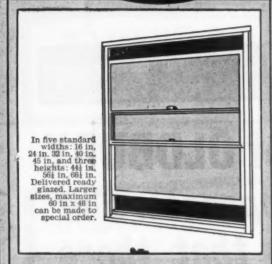
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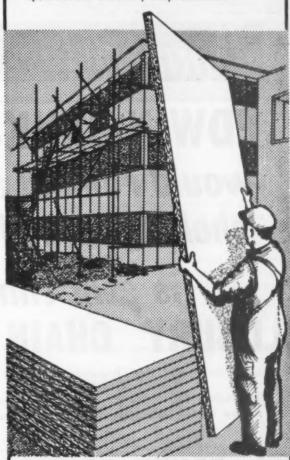
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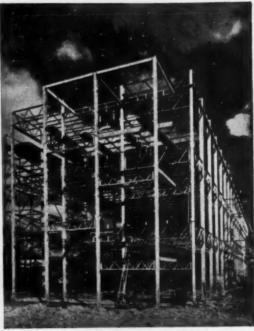
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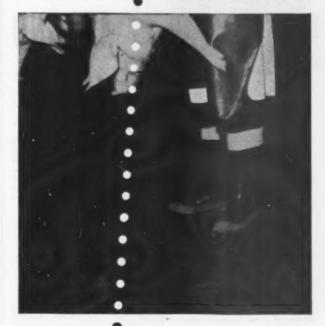


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THE ARCHITECTS' JOURNAL for September 29, 1960

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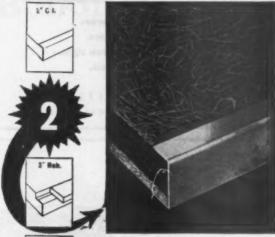
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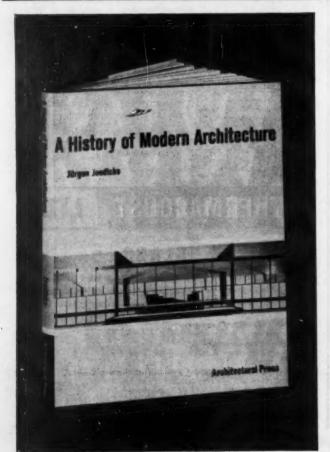
In fact, a terrace makes a property; and in the word 'Terrace' is included every kind of garden construction—drives, walls, copings, surrounds and paths. Marlite is a very 'natural' man-made paving imparting distinction, even to a site which might otherwise be insignificant. It is easy to lay, uniform in size and colour, non-slip and economical. The five mellow colours in a wide range of sizes—12 in all—give the architect almost unlimited scope.

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A History of Modern Architecture

by Jurgen Joedicke, translated by James Palmes

HITHERTO there has been no general history of the modern movement in architecture available in English. Professor Joedicke's book thus satisfies an important need, but it goes further than this-it is more comprehensive, yet more compact and better illustrated than any of the general histories of modern architecture available in other languages. His approach is straightforward and imposes no personal system on the material, accepting the classic distinction between the age of the Pioneers, and the age of the Masters, so that the contributions of famous architects can be found where one would expect to find them. In addition to the dominating personalities of the movement, Professor Joedicke, who teaches at the celebrated Technische Hochschule in Stuttgart, also gives a full account of the part played by new structural materials and new spatial concepts in the creation of the new architecture, and also surveys the contributions made by the leading architectural countries of Europe and the Americas. He thus covers the field from Joseph Paxton to Felix Candela in time, from Helsinki to Rio de Janeiro and Los Angeles in space Size 101 by 71 ins. 244 pages with 400 halftones and 50 line illustrations, a bibliography and index. 45s. net, postage 2s. Od.

The Architectural Press, 9-13 Queen Anne's Gate, Westminster, SWI.





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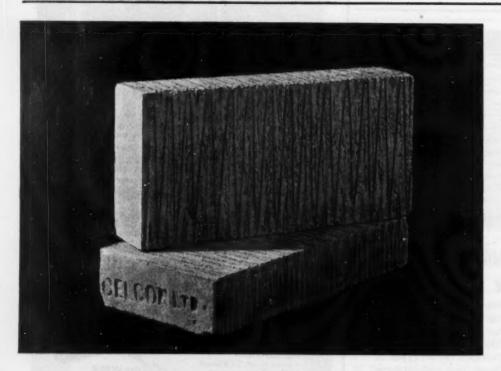


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in their Building & Engineering Division at Blackfriars, London, S.E.1. The selected applicant will be responsible to the Manager of the Architects Department for new stores and other projects. Applicants should be between 30 and 35 years of age. Salary will be in accordance with age and experience, but within the range £1,200-£1,450 per annum. The post is permanent and pensionable.

Applications giving full details, should be addressed to:

The Personnel Manager (ARC), J. Sainsbury Limited, Stamford House, Stamford Street, Blackfriars, S.E.1.

Subtopia

for ever? Or intelligent town planning? Most readers of the Architects' Journal would probably agree that it should be the latter. But agreement is not enough; we must also have the facts. In the current issue of the Spectator is a comprehensive and detailed survey of one of the pioneer examples of town planning in this country. Monica Furlong has examined Harlow New Town; why, when and how it began; who was responsible for it; what were the problems that the planners met with; how they dealt with them; what Harlow is like today; what the future holds for it; and what lessons the Harlow story holds for the future of the face of Britain. Monica Furlong visited Harlow, read about Harlow, met Harlow, stayed in Harlow, interviewed Harlow, learnt Harlow off by heart. The result-illustrated with photographs and maps—is an exciting and luminous survey that nobody concerned with good town planning. good architecture, good life itself, can afford to miss. It is available only in this week's

SPECTATOR

From all newsagents or by post (114d.) from 99 Gower Street, London, W.C.1.



For nearly 20 years the costliest equipment in the world—the battleship and the aircraft have been protected by spraying a tough impermeable skin of plastic between moisture en outer air and its extreme dryness which is the ideal environment for sensitive equipment.

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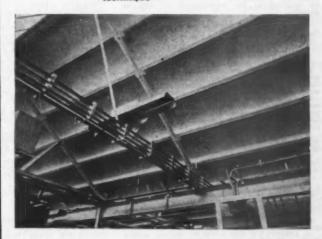
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CLASSIFIED ADVERTISEMENTS

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

paper.

Replies to Boz Numbers should be addressed care of "The Architects Journal," at the address

care of "The Architects' journal," at the address given above.

AIR-MAIL SERVICE available on request. In response to requests from a number of Overseas subscribers for air-mail delivery of Public and Official Appointment details and Other Appointments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the AJ., shall be despatched by air-mail on Wednesday of each week (one day prior to AJ. publication date). The cost of this special service to Overseas subscribers will be 5s. for four weeks (1s. 5d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

Public and Official Announcements

. per inch; each additional line 3s.

GLASGOW CORPORATION
ASSISTANT ARCHITECTS
TOWN PLANNERS
TOWN PLANNERS
THE Architectural and Planning Department of the Corporation of the City of Glasgow has vacancies for a number of qualified Assistants in the above professions.

The Department has in hand a large, varied and interesting programme of works including comprehensive redevelopment, multi-storey flats, schools and civic buildings. The work will provide scope for personal initiative in the preparation of designs and details of schemes upon which construction work will follow.

The salary scale for these Assistantships is up to £1,386 with placing according to experience. Form of application may be obtained from the Principal Administrative Officer, 20 Trongate, Glasgow, C.1.

X. G. JURY, City Architect and Planning Officer

City Architect and Planning Officer.

3148

HUNTINGDONSHIRE

COUNTY ARCHITECT'S DEPARTMENT
Applications are invited for the following appointments:—

(a) ARCHITECTURAL ASSISTANTS
Special Grade (£785-£1,070).

(b) ARCHITECTURAL ASSISTANT
Grade APT II (£765-£380).

The persons appointed will become members of small architectural teams engaged in projects of varying size. It is desired that the persons appointed shall be keenly interested in architecture with an up-to-date approach to both planning and design.

Application forms and further particulars may be obtained from The County Architect, County Buildings, Huntingdon; completed forms should be retarned to the undersigned as soon as possible.

A. C. AYLWARD,

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

Clerk of the County Council.

County Buildings,
Huntingdon.

BOROUGH OF RAWTENSTALL
APPOINTMENT OF ARCHITECTURAL
APPOINTMENT OF ARCHITECTURAL
ASSISTANT
Applications are invited for the above appointment at a salary to be within the Special Scale (2765—21,270). The starting salary will be fixed according to experience.
The appointment will be subject to the provisions of the Local Government Superannuation Acts and the National Scheme of Conditions of Service. Housing accommodation will be provided if required.
Applications, including the names of two referees, should reach the undersigned not later than the 30th September, 1960.
Canvassing will disqualify. Any relationship to members or senior officers of the Council must be disclosed.

COLIN CAMPBELL, Town Clerk.

Rawtenstall,
Rossendále, Lancs.

SOROUGH OF WATFORD
Applications are invited for the following appointments:—
(a) ASSISTANT ARCHITECT. Salary within Grade APT IV (£1,055—£1,220 per annum.)
(b) ARCHITECTURAL ASSISTANTS. Salarles within Grades A.P.T. II/III (£765—£1,965 per annum.)

within Grades A.P.T. II/III (£765—£1,000 perannum).

(c) ARCHITECTURAL ASSISTANT. Salary within Grades A.P.T. I/II (£610—£280 per annum.)

The Assistant appointed to post (a) will be a Section Leader and will carry a considerable amount of responsibility.

Commencing salaries will be commensurate with experience and ability and housing accommodation will be provided if required.

Applications to be sent to the undersigned not later than 5th October, 1960.

Berough Engineer, Surveyor and Architect.

Town Hall.

Watford,

Herts. 3361

KENT COUNTY COUNCIL require a CHIEF LANDS SURVEYOR, having an R.I.C.S. or equivalent qualification, to take charge of the Survey Section under the County Architect. The volume of work being considerable, the post requires a man of initiative and drive.

Duties include all land surveying, levelling, reporting on sites and properties, attendance at public enquiries, and obtaining Town Planning and similar approvals. Salary within the Combined J.N.C. Grades C-D (£1,385 to £1,785).

Application forms and further details obtainable from the County Architect, Springfield, Maidsione, Closing date 7th October, 1960.

GUNTY BOROUGH OF WOLVERHAMPTON CHIEF ASSISTANT PLANNING OFFICER Applications are invited for the above appointment, at a salary in accordance with J.N.C. Scale "A" (as modified by the Council) i.e., £1,300—£1,420 per annum.

Applicants should be Associate Members of the Town Planning Institute, preferably with an additional qualification and must have the requisite experience.

site experience.
Further particulars may be obtained from Borough Engineer and Planning Officer, Town Hall, Wolverhampton, to whom applications should be submitted by 6th October, 1960.

should be submitted by 6th October, 1960.

BOROUGH OF ILFORD
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL
DRAUGHTSMAN
GRADE MISC. IV (Male or Female)
Applications are invited for this appointment.
Salary 2590—2650, plus London Weighting. Commencing salary according to qualifications and experience. Maximum paid to suitable applicant. Five-day week. Candidates should be competent draughtismen and be capable of preparing working drawings under supervision. Appointment permanent, superannuable and subject to medical examination.
Form of application obtainable from Borough Engineer. Town Hall, Ilford, should be returned by Monday, 10th October.

BRITISH RAILWAYS
ASSISTANT ARCHITECTS
Assistant Architects required for the Architect's Office of Eritish Railways, 32. Elmbank Crescent, Glasgow. Good designing ability and A.R.I.B.A. qualifications essential. Commencing salary between £1,100 and £1,200 per annum.
Candidates should apply in writing to the Chief Civil Engineer. British Railways, 8t. Encoch Station, Glasgow, C.1.

3230
ADMINISTRATIVE COUNTY OF LEICESTER.

ADMINISTRATIVE COUNTY OF LEICESTER (a) SENIOR ASSISTANT ARCHITECT

(£1.075-£1.220). (b) ARCHITECTURAL ASSISTANT (£765-£880).

Candidates for (a) must be A.R.I.B.A., have had office experience and be capable of taking charge of small contracts, and for (b) must have passed Part I of the R.I.B.A. Examination and be capable of executing working drawings.

Lodging allowance and removal expenses may be paid to a married man. Apply to County Architect. 123 London Road. Leicester. 3340

Architect. 123 London Road. Leicester.

URBAN DISTRICT COUNCIL OF CORBY
JUNIOR ARCHITECTURAL ASSISTANT
(Grade A.P.T. I or II).

Applications are invited for the above appointment in the Architectural Section of the Engineer and Surveyor's Department.

Applicants must have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognised schools of architecture and the salary applicable to candidates of not less than one year's subsequent experience in an architectural office will be in accordance with A.P.T. Grade II (£765-289 per annum), otherwise in accordance with Grade A.P.T. I (£610-2765 per annum).

annum).

The provisions of the Local Government Superannuation Acts, 1937/53, will apply to this appoint-

ment. Housing accommodation will be made available to the successful candidate if married.

Forms of application may be obtained from the understended to whom they should be returned not later than the first post on Monday, 10th October, 1960. Testimonials will be required only from applicants selected for interview.

G. B. BLACKALL.

Connell Offices

Council Offices, Corby, Northants, 14th September, 1960.

WOKING U.D.C.

ARCHITECTURAL ASSISTANT

A.P.T. Grade III/Special (£880-£1.070)

Applicants for this appointment in the Architectural Section of the Engineer and Surveyor's Department should be suitably qualified and will be given a salary according to qualifications and experience. The district has rapidly grown to 64.000 and has been granted delegated powers for Health and Education. There is a considerable programme of varied capital works to be undertaken immediately. Assistants are encouraged to control their own contracts from sketch designs to completion.

Facilities for part-time release will be arranged, if the successful applicant has to complete a recognised course of study.

Housing accommodation if required.

Five-day week. Casual user's car allowance.
Forms of application from Engineer and Sarveyor, Council Offices, Woking. Closing date.

Monday, 17th October, 1960.

BOROUGH OF ILFORD
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF ASSISTANT ARCHITECT,
Grade A.P.T. IV
Candidates should preferably have passed the
Final Examination of the R.I.B.A. or equivalent,
but holders of the Intermediate Examination
will be considered.
The commencing salary will be fixed within the

will be considered.

The commencing salary will be fixed within the scale £1,665-£1,220 per annum) according to qualifications and experience. London Weighting payable in addition. A five-day working week is in operation.

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

ings for new Baths and Public Library at Fullwell Cross.

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

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

Application forms obtainable from the Borough Engineer, Town Hall, Ilford, should be returned not later than 17th October.

BOROUGH OF HIGH WYCOMBE
ARCHITECTURAL ASSISTANT
Applications are invited for the appointment
of an Architectural Assistant in the Borough
Engineer and Surveyor's Department within the
salary scale A.P.T. II (£765-£880 per annum).
Applicants should have good general experience
in Local Authority Housing work.
The successful applicant will be required to
pass a medical examination.
Suitable housing accommodation will be provided
if required.
Applications, together with the surveyor

Suitable housing accommodate.

Applications, together with the names of two referees, must be sent to J. A. Parkinson, M.A., A.M.I.C.E., Borough Engineer and Surveyor, Municipal Offices, High Wycombe, not later than Tuesday, 18th October, 1960.

J. A. PARKINSON, M.A., A.M.I.C.E., Borough Engineer and Surveyor.

3411

An ARCHITECTURAL DESIGNER (Male or Female) is required for work in connection with the design of new showrooms and the remodelling of existing showrooms and shopfiting, furniture. etc. Candidates should be capable of carrying out sketch designs, working and detail drawings with the minimum of supervision.

Preference will be given to candidates who have completed part or whole of the qualifications for A.B.I.B.A.

The appointment will be

A.R.I.B.A.

The appointment will be permanent and pensionable and the starting salary for a male will be £915 per annum or above according to qualifications and experience.

Applications, stating age and giving full details of experience should be sent to the Staff Controller, North Thames Gas Board, 30. Kensington Church Street, W.S., quoting reference AJ/873.

3488

KESTEVEN COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECT'S DEPARTMENT
ASSISTANT ARCHITECT'S—Special Grade
(2785—21,070)
Full particulars of the above appointments may
be obtained from the County Architect, County
Offices, Steaford, Lines.
Applications from suitably qualified persons,
with the names and addresses of two referees,
should reach the undersigned not later than the
17th October, 1956.

J. E. BLOW,

Clerk of the County Council. County Offices, Sleaford, Lines.

Sleaford, Lines.

Sleaford, Lines.

COUNTY BOROUGH OF BIRKENHEAD
BOROUGH ARCHITECT'S DEPARTMENT
PRINCIPAL ASSISTANT ARCHITECTS.
21.065-£1,220 according to experience. Applications are invived from experience Registered Architects capable of taking charge with the minimum of supervision of a wide variety of Housing. General and Educational Projects. Assistance will be given with housing accommodation or up to 100 per cent mortgage facilities. The appointments are superanusable and subject to one month's notice on either side. Application form from the Borough Architect, 3. Conway Street, Birkenhead. Closing date for applications—8th October, 1960. Relationship to Members of Senior Officers of the Council must be disclosed.

Applications are invited for the following appointments, based in London:—

(a) ASSISTANT ARCHITECTS. Candidates must be Members of the R.I.B.A. Commencing salary during 12 months' probation to be £1,250 per annum followed, if satisfactory, by appointment on an established pensionable basis on a scale of £1,325—£1,780 subject to medical examination. These posts cover advisory and executive duties concerning the erection and maintenance of hard the second of the second fine duties in connection with domestic buildings. Candidates for this post should be at Intermediate R.I.B.A. standard. Salary according to experience within the scale of £300—£1,075. Apply in writing to the Establishment Officer, Church Commissioners, 1, Millbank, Westminster, S.W.I. not later than 10th October, 1560.

STEVENAGE DEVELOPMENT CORPORATION ARCHITECTS required in the office of the Chief Architect and Planner, Loomard G. Vincent, C.E.E., A.R.I.B.A., Dip.T.P., A.M.T.P.I., to work on a large building programme.

Here is an excellent opportunity for architects with imagination to make a contribution to, as well as gain useful experience on a number of interesting and exciting projects which include central area development on the pedestrian principle, public buildings, commercial and industrial schemee. The office is run on the group method, there is no pyramid, and groups have a complete cross section of all types of work.

Staff required:—

(a) ASSISTANT ARCHITECTS

Salary Scale A.P.T. IVIV (£1.065—£1,375) per annum. A.R.I.B.A. required.

Candidates who are taking final examinations this year may be appointed in A.P.T. II and transferred to a higher vacancy on qualifying. Five-day week.

Commencing salary within the above grades will be fixed according to qualifications and experience.

Assistance with housing in appropriate cases.

rience.
Assistance with housing in appropriate cases.
Local Government Superannuation. Medical

Assistance with housing in appropriate cases.
Local Government Superannuation. Medical
examination.
Applications giving full details and names of
two referees should be sent to the Chief Administrative Officer, Stevenage Development Corporation, Aston House, near Stevenage, Herts, by first
post on Friday, 14th October, 1960.

CITY OF HALIFAX
NOVA SCOTIA. CANADA
TOWN PLANNERS
Urgently required to take part in work on
Master Plan for the City of 100,000, an extensive
redevelopment programme of commercial and
housing areas and various other planning tasks.
Further details and conditions of service on
request.
Candidates should be assessed to the content of the content of

request.

Care and the should be associates, or eligible for associateship, of Town Planning Institute, Town Planning Institute of Canada or A.I.P. Additional qualification in Architecture, Sociology, Economics or Londscape Architecture would be

tional qualification in Architecture, Sociology, Economics or Landscape Architecture would be an advantage.

Salary commensurate with qualifications, ability and experience. Help in defraying travelling expenses will be considered.

Apply by Air Mail with a photograph, stating age, marital status, education, training, details of experience, salary expected, when available and giving three references to: K. M. Munich, D.A., S.P.Dip., A.R.I.B.A., A.M.T.P.L., Director of Planning, City Hall, Halifax, Nova Scotia, Canada.

Planning. City Hall, Halifax, Nova Scotia.
Canada.

CITY OF LEEDS

CITY ARCHITECT'S DEPARTMENT

AMENDED ADVERTISEMENT

Applications are invited from persons holding appropriate professional qualifications for the following permanent posts:
(a) ASSISTANT CITY ARCHITECT (Housing).
(b) ASSISTANT CITY ARCHITECT (Education and General).

Salary scale £1,790—£2,085 per annum. Grade F. The Assistant City Architect (Housing) will be concerned with large house building programmes and should have had a wide experience of all forms of housing layout, comprehensive developments and multi-storey flats.

The Assistant City Architect (Education and General) will be concerned with major educational building projects and large public buildings, e.g., multi-salorey college, municipal office block, abattoir, swimming baths, etc.

Both posts carry great responsibilities and offer worthwhile opportunities to those who are keenly interested in design and the planning and organisation of extensive municipal building schemes.

Applications are also invited for the following permanent posts in (a) Housing and (b) Education and General sections of the department.

1 PRINCIPAL ARCHITECTS, Grade C-£1,385—£1,620.

2 ASSISTANT PBINCIPAL ARCHITECTS.

2 ASSISTANT PRINCIPAL ARCHITECTS, Grade B-£1,320-£1,486. 3 SENIOR ASSISTANT ARCHITECTS, Grade A.P.T. V-£1,220-£1,376. 4 SENIOR ASSISTANT ARCHITECTS, Grade A.P.T. IV-£1,056-£1,220. 5 ASSISTANT ARCHITECTS, Grade A.P.T. III—

6 ARCHITECTURAL ASSISTANTS, Grade A.P.T.

6 ARCHITECTURAL ASSISTANTS, Grade A.P.T.

II—2765 2880.

The salaries quoted are subject to revision. Applicants for the senior posts must hold appropriate professional qualifications and should have had a wide experience in either, housing, education or other types of large public building work and will be required to design and work on these projects to completion. Applicants will be considered on their capability for design, experience, contemporary outlook and suitability.

The appointments are superannuable—medical examination.

Assistance will be given in providing Housing Accommodation in approved cases, if required. Further details and application forms obtainable from the undersigned, are to be returned by 12 noon on Friday, 21st October, 1960.

Caevassing disqualifies.

J. R. SHERIDAN-SHEDDEN.

City Architect.

Priestley House, Quarry Hill, Leeds, 9. 21st September, 1960.

3458

PETERLEE NEW TOWN

Peterlee is situated on the North East coast

10 miles from the Cathedral and University City
of Durham. Facilities exist nearby for golf, saliing, gliding and other outdoor recreation. Twothirds of the town remains to be built including
the town centre. Group Leaders and Senior
Architects are required to work on housing, town
centre, and general projects under the direction of
the Chief Architect to the Development Corporation, R. J. A. Gazzard, A.R.I.B.A., A.A.Dipl.,
M.T.P.I., S.P.Dipl., F.R.S.A.

The following vacancies exist for qualified
Architects and experienced staff who want to
build.

2 ASSISTANT ARCHITECTS.

ASSISTANT ARCHITECTS—A.P.T. Grade VII (£1,257—£1,485). ASSISTANT ARCHITECT—A.P.T. Grade VI (£1,165—£1,590).

VII (£1,257-£1,485).

1 ASSISTANT ARCHITECT—A.P.T. Grade VI (£1,163-£1,390).

2 ARCHITECTURAL ASSISTANTS—A.P.T. Grade IV (£1,065-£1,200).

1 ARCHITECTURAL ASSISTANT—A.P.T. Grade IV (£1,065-£1,200).

1 ARCHITECTURAL ASSISTANT—A.P.T. Grade II (£765-£380).

SECRETARY to Chief Architect to work with existing typist and clerical stagf—Shorthand Typists, Senior Scale A or B (£555-£710). Houses in the new South West area of the town will be available to successful applicants. These appointments should appeal to Architects able to contribute to new forms of positive environmental planning and wishing to live and work in a developing region close to some of the finest "son-subtopian" landscapes remaining in the country.

Commencing salaries will be assessed in accordance with age, experience and proved ability. The appointments are superannuable and a medical examination is required. Applications should be addressed to the General Manager, Peterlee Development Corporation, Shotton Hall, Peterlee, Co. Durham, within 10 days of this announcement.

A. V. WILLIAMS, General Manager, Manage

A. V. WILLIAMS, General Manage Shotton Hall, Peterlee.

CITY OF LEEDS

CITY ARCHITECT'S DEPARTMENT
QUANTITY SURVEYING STAFF
AMENDED ADVERTISEMENT
A number of vacancies occur in the Quantity
Surveying Section which deals with the preparation of bills of quantities and other work in
connection with the large building programmes
of the department. These programmes include
schools, housing with multi-storey flats, hostels
and other interesting projects and the posts offer
opportunities to work as part of a team in a
progressive office.

Post
No.

Post
No.

1 SENIOR ASSISTANT
QUANTITY SURVEYOR
Grade B Salary Scale £1,320—£1,485
Applicants should have wide experience in the
preparation of bills of quantities for major
works including schools.
2 SENIOR ASSISTANT
QUANTITY SURVEYOR
Grade A Salary Scale £1,310—£1,420
Applicants should have considerable experience
in taking off and preference will be given to
those with experience in cost analysis and
cost planning.
3 SENIOR ASSISTANT
QUANTITY SURVEYORS
Grade APT V Salary Scale £1,220—£1,375
Applicants should have considerable experience
in taking off, in the measurement of work
in progress and the settlement of final
accounts for major schemes.
4 SENIOR ASSISTANT
QUANTITY SURVEYORS
Grade APT.IV Salary Scale £1,065—£1,220
SENIOR ASSISTANT
QUANTITY SURVEYORS
Grade APT.III Salary Scale £380—£1,066
Applicants for posts Nos. 4 & 5 should be
experienced in the measurement of variations
and the settlement of final accounts for large
schemes and should have some experience of
taking off.
6 SENIOR WORKER-UP

and the settlement or nan accounts for large schemes and should have some experience of taking off.

6 SENIOR WORKER-UP

Grade APT.III Salary Scale 2830—£1,065

The salaries quoted are subject to revision. It is essential that applicants for this post should have the ability to write a good bill for major schemes and should have wide experience of this type of work in a professional office.

Applicants for posts Nos. 1, 2 & 3 should hold appropriate professional qualifications and applicants for posts Nos. 4 & 5 should have reached the appropriate standard of qualification and preference will be given to those qualifying for the Quantities sub-division of the R.I.C.S.

The appointments are superannuable—medical examination.

can's for the appropriate standard the appropriate standard to those quantities used division of the R.I.C.S.

The appointments are superannuable—medical examination.

ASSISTANCE WILL BE GIVEN IN PROVIDING HOUSING ACCOMMODATION IN APPROVED CASES, IF REQUIRED.

Further details and application forms may be obtained from the undersigned and applications are to be returned by 12 noon on Friday, 21st October, 1960.

Canvassing disgualifies.

J. R. SHERIDAN-SHEDDEN, City Architect.

Priestley House, Quarry Hill, LEEDS, 9. 21st September, 1960.

BOROUGH OF SOUTHGATE
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT
ASSISTANT ARCHITECTS
APPLICATIONS are invited for the following appointments in the Department of the Borough Engineer and Surveyor:

(a) A.P.T. Special Grade (£785-£1,070) plus London Weighting.
(b) A.P.T. Grade II (£765-£300) plus London Weighting.
The posts are permanent and superannuated and the starting salary will be fixed in accordance with qualifications and experience. In the case of appointment (a) applicates should be Associates of the Royal Institute of British Architects.
Forms of application may be obtained from the Borough Engineer and Surveyor and should be returned to the undersigned not later than 12 aoon on Monday, 17th October, 1960.
Canvassing, directly or indirectly, will be a disqualification.

GORDON H. TAYLOR.

Town Clerk.

GORDON H. TAYLOR,

Town Hall.

Palmers Green.
London, N.13.
September, 1960.

DEVON COUNTY COUNCIL require 2 SENIOR ARCHITECTS on A.P.T. V (£1,220-£1,375). 5 SENIOR ARCHITECTS on A.P.T. IV (£1,065-£1,220) and 4 SENIOR ARCHITECTS on J.C. Special Scale (£786-£1,270).

In approved cases, loans for house purchase and removal expenses are available—also lodging allowance for married officers while seeking accommodation.

removal expenses are available—also lodging allowance for married officers while seeking accommodation.

Particulars and Application Form, returnable by 21st October, 1960, from County Architect, 97 Heavitree Boad, Exeter. 3461.

LANARK COUNTY COUNCIL

COUNTY ARCHITECT'S DEPARTMENT The Council have decided that all Architectural Work of an Educational and Public Building nature will in future be undertaken by the County Architect. Consequently a considerable reorganisation and expension of the County Architect with the County Architect of the County Ar

quirements.

Applications to County Clerk, P.O. Box No. 1, Glasgow.

3457

Glasgow.

CORPORATION OF LONDON
Applications are invited for the following temporary appointment in the City Engineer's
ASSISTANT SITE ARCHITECT: Salary £1,325

per annum.

This appointment is in connection with the construction under contract of a large Municipal Fullding and will be for the duration of the works estimated at 2½ years.

Candidates should be Corporate Members of the R.I.B.A. and have had a good general experience in preparation of working detail and alte supervision.

in preparation of working decails supervision.

This appointment is subject to the Standing Orders of the Corporation and the passing of a medical examination.

Applications, stating age, appointments held and experience, together with the names of two referees to be forwarded to the City Engineer. Guildhall, London, E.C.2, by the 10th October, 3439

SALOP COUNTY ARCHITECT'S DEPARTMENT SENIOR ARCHITECT'S DEPARTMENT SENIOR ARCHITECT'S DEPARTMENT SENIOR ARCHITECT required to act as Deputy Group Leader for new work of an interesting character. Salary Grade A.P.T. V (21,230—21,375 p.a.). Applicants must be Associate R.I.B.A. N.J.C. Conditions. Five-day week. A disturbance allowance or weekly separation allowance will be paid to a married man taking up this appointment. Conditions of service and application forms obtainable from Halph Crowe, A.A.Dipi, A.R.I.B.A. A.M.T.P.I., County Architect, Column House, London Road, Shrewsbury, Closing date 15th October, 1969.

CITY OF WORCESTER

Closing date 15th October, 1966.

CITY OF WORCESTER

APPOINTMENT OF CHIEF ASSISTANT

ARCHITECT

Applications are invited for this post within A.P.T. Grade V (Salary £1,310-£1,489). Candidates must hold the AR.I.B.A. qualification and have had considerable experience in housing and other general municipal works.

A honse will be made available to the successful candidate, and an essential users' car allowance is applicable to the post.

The appointment is superannuable and conditional upon the passing of a medical examination. Applications, together with the names of two referees, stating age, qualifications and experience, are to be sent to the City Engineer and Surveyor, 25 Bridge Street, Worcester, to reach him not later than Friday the 14th October.

BERTRAM WEBSTER,

Guildhall.

Guildhall, Worcester.

CITY OF NOTTINGHAM EDUCATION

COMMITTEE

COLLEGE OF ART AND CRAFTS

Principal: Robert Lyos, D.A.GLAS.), F.R.S.A.
Head of School of Architecture: D. W. Norust,
B.ARCH (HONS.), L.POOL, A.R.I.B.A.
Applications are invited for the posts of two
Studio Masters in the School of Architecture of
this College, Duties to commence as soon as
possible. Candidates should be Architects holding
the degree of diploma of a recognised School,
and should have had a minimum of three
years' practical architectural experience after
registration.
Salary to be in accordance with the Burnham
Technical Scale for Grade B assistants, i.e.

E700 × 427 10s.—£1,100 for men, and £630 × £22—
E920 (with equal pay increments) for women, plus
allowances for training, graduation, and professional experience.

Application forms and further particulars from
the Principal, College of Art and Crafts, Waverley
Street, Nottingham, to whom the forms should be
returned within 10 days of the publication of this
advertisement.

All previous applications will be considered in
respect of this advertisement.

W. G. JACKSON,
Director of Education
Education Office,
Exchange

Education Office.
Exchange Buildings.
Smithy Row.
Nottingham.

COUNTY BOROUGH OF BARNSLEY
BOROUGH ENGINEER AND SURVEYOR AND
PLANNING OFFICER'S DEPARTMENT
Applications are invited for the following
appointments:—
(a) BUILDING INSPECTOR, APT III (£966—
£1,140)

(b) ARCHITECTURAL, ASSISTANT (SPECIAL CLASSES), APT I (£645—£615), or Special Grade (£840—£21,46).
(c) ASSISTANT ARCHITECT, APT II (£815—

(c) ASSISTANT ARCHITECT, APT II (£815—£860).

(d) ENGINEERING ASSISTANTS (SPECIAL CLASSES), APT I (£845—£815), or Special Grade (£840—£1,145).

Commencing salaries may be fixed above the minimum of the grades according to experience and qualifications.

For appointment (a) applicants must be suitably qualified and have had considerable experience with a local authority in a similar capacity and should be fully conversant with building byelaws and other relevant statutory powers. For (b) and (c) candidates should have had previous experience in the design of housing and public buildings, although municipal experience is not essential. For post (d) candidates should have had previous municipal engineering experience. Candidates for appointments (b) and (d) requiring Special Grade should be suitably qualified.

The posts are superannuable and subject to

Candidates for appointments (b) and (d) requiring Special Grade should be suitably qualified.

The posts are superannuable and subject to passing of medical examination, N.J.C. conditions of service and one month's notice on either side. Housing accommodation can be provided if necessary and 50 per cent of removal transport extenses will be paid in approved cases.

Applications, stating age, present and previous appointments, consilincations, experience, etc., together with the names of two persons for reference, should reach the Borough Engineer, Town Hall, Barnsley, by Friday, the 21st October, 1960.

own Daniel Street, A. E. GILPILLAN. Town Clerk

Town Hall. Barns'ey. September, 1960.

BOROUGH OF SCUNTHORPE

(An expanding North Lincolnshire town of 62,000 population, aren 7,896 acres. R.V. 21,562,541).

ENGINEERING AND ARCHITECTURAL APPOINTMENTS

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

Engineering
(1) SENIOR ASSISTANT ENGINEER—A.P.T. IV (£1,665—41,220) per annum.

(2) ASSISTANT ENGINEER—A.P.T. II (£765—6890) per annum.

(2) ASSISTANT ENGINEER—A.P.T. II (£765—£880) per annum.
Architectural
(3) TWO SENIOR ASSISTANT ARCHITECTS
—A.P.T. IV (£1,065—£1,220) per annum.
(4) TWO ASSISTANT ARCHITECTS—A.P.T. III (£806—£1,065) per annum.
Applicants for posts (1) and (3) should possess appropriate professional qualifications and for all posts commencing salaries may be fixed within the appropriate salary range.
Housing accommodation available if required, approved removal expenses reimbursed in fall, five-day working week. Further information may be obtained on application to the Borough Engineer and Surveyor, Lancham Street. Scunthorpe.
Applications giving age, details of present and past appointments, training, qualifications and experience, together with the names of two persons to whom reference may be made should be sent to the Town Clerk, 34, High Street, Scunthorpe, not later than Thursday, 13th October, 1966.

T. M. LISTER.

Municipal Offices, 34, High Street, Scunthorpe, 20th September, 1960.

METROPOLITAN POLICE
RECEIVER'S OFFICE
requires staff
for interesting and varied work in connection
with an extensive Police Building Programme.
BASIC GRADE ARCHITECTS
Salary: £339 per annum at age 25 rising by
annual increments to £1,300 per annum. (Maximum
salary on entry: £1,125 being age 34 point on
scale.)
One 185.

salary on eatry: 2,125 being age 34 point on scale.)

Qualifications required: Applicants must be registered Architects.

LEADING DRAUGHTSMEN/WOMEN (New Works and Sanitary Engineering)

Salary: £986 per annum at age 21 rising by annual increments to £1,145 per annum.

Qualifications required: Inter-R.I.B.A., Higher National Certificate or equivalent training.

BASIC GRADE DRAUGHTSMEN/WOMEN (New Works)

Salary: £660 per annum at age 21 rising by annual increments to £980 per annum. (Maximum salary on entry: £985 being age 28 point on scale.)

Qualifications required: Ordinary National Certificate or to be of Inter-R.I.B.A. standard.

TECHNICAL ASSISTANT II (New Works)

Salary: £975 per annum rising by annual increments to £1,115 per annum.

Qualifications required: Ordinary National Certificate as a minimum qualification or to be of Inter-R.I.B.A./R.I.C.S. (Building) standard.

TECHNICAL ASSISTANTS III (New Works and Maintenance)

Salary: £800 per annum at age 26 rising by

TECHNICAL ASSISTANTS III (New Works and Maintenance)
Salary: £320 per annum at age 26 rising by annual increments to £975 per annum. (Maximum salary on entry: £375 per annum being age 28 point on scale.)
Qualifications required: Ordinary National Certificate as a minimum qualification or to be of Inter-B.I.B.A./R.I.C.S. (Building) standard.
ASSISTANT SUPERINTENDENT OF WORKS
III (Maintenance)
Salary: £320 per annum at age 25 rising by annual increments to £375 per annum being age 28 point on scale.)
Qualifications required: Ordinary National Certificate or City and Guilds.
Application forms can be obtained from Chief Clerk, Architect and Surveyor's Department, New Scotland Yard, S.W.1.

(a) ASSISTANT ARCHITECT/SURVEYOR—Special Grade.

cial Grade.

) ARCHITECTURAL ASSISTANT—Grade
T. II.

Special Grade.

(b) ARCHITECTURAL ASSISTAN.
A.P.T. II.
The Council invite applications for the above appointments. Applicants for post (a) must be Associate Members of the B.I.S.A. or B.I.C.S. and Applicants for post (b) must have passed the Intermediate Examination of either of these

Applicants for both posts must have a thorough knowledge of building construction, experience in the design and layout of housing estates and in the provision, extension and maintenance of public buildings and must be capable of supervising building contracts.

Applications giving details of experience and qualifications together with the names and addresses of two persons to whom reference can be made must be delivered to the undersigned by noon on the 10th October, 1969.

J. A. EVANS.

Clerk of the Council.

Council Offices,
Oaklands,
Haywards Heath.
20th September, 1956.

CORBY DEVELOPMENT CORPORATION
ASSISTANT ARCHITECTS
There are vacancies on the staff of the Caief
Architect, for Assistant Architects, The appointments will be made within A.P.T. Grade III
(2880-£1,066) or IV (£1,056-£1,220). The Grade
and the commencing salary within the Grade wild
depend upon qualifications and experience.
Candidates must be qualified A.R.I.B.A. or must
have passed the final examination of the
R.I.B.A. or an equivalent examination recognised
by the Architects Registration Council.
Appointments are subject to Superannuation
under the Local Government Superannuation
Scheme.

under the Local Government Superannuation scheme.
Housing is available. Removal expenses unid. Applications stating age, education, training, qualifications, experience, appointments held and salaries, together with the names of two referees to R. F. Brooks Grundy, General Manager, Oorby Development Corporation, Spencer House, Orby, Northants.

BOROUGH OF TWICKENHAM
Applications are invited for the following posts:—
(a) SENIOR ASSISTANT ENGINEER (A.P.T. II—
(b) ASSISTANT ARCHITECT (A.P.T. II—
(2765—4330). JUNIOR ASSISTANT ENGINEER (A.P.T.

(d) PLANNING ASSISTANT (A.P.T. III-

(d) PLANNING ASSISTANT (a.r.)

2880—£1,065.

Posts (a) must have passed the Final; (b) and (c) the Intermediate Examinations of the appropriate technical institute, and (d) commencing salary in accordance with qualifications and experience. All plus London Weighting Allowance.

Application forms obtainable from Borough Engineer, Municipal Offices, Twickenham, to be returned by 17th October, 1960.

W. H. JONES,

Town Clerk.

3452

LONDON COUNTY COUNCIL

ARCHITECT'S DEPARTMENT

NEW AND EXPANDING TOWNS SECTION—
PRINCIPAL ASSISTANT (PROPESSIONAL)
Qualified ARCHITECT PLANNER (or Architect with Planning experience) for work on Expanding Towns, mainly in Hampshire (salary up to £1,950). Imagination, initiative and new ideas on problems of central area renewal and expansion, master planning and layouts are called for. The New and Expanding Towns' Section is a compact group with a wide range of skills, and is at present engaged on schemes for Andover, Basingstoke, and Tadley.

Forms and particulars (returnable by 26th October) from Hubert Bennett, F.B.I.E.A., Architect to the Council, (EK/AJ/2458/10), County Hall, S.E.L.

to the

METROPOLITAN BOROUGH OF WOOLWICH
CHIEF ASSISTANT ARCHITECT
Applications are invited for the above permanent
appointment in Grade C of the lettered scales
commencing at £1.445 per annum and rising to
£1.630 per annum. A car allowance is payable.
Candidates must have passed the final examination of the R.I.B.A. and have had extensive
architectural experience (especially housing), the
organisation of the work and the supervision of
staff.

staff.

The person appointed will be responsible to the Chief Architect for the control of a staff of 20.

Full particulars and application forms may be obtained from the Borough Engineer. Town Hall, Woolwich, S.E.18, and applications are to be received by the Town Clerk not later than 12th October, 1960.

3416

October, 1960.

GOVERNMENT OF NYASALAND
ARCHITECT, PUGLIC WORKS DEPARTMENT
Will be required to design a wide variety of
public buildings including housing of all types
and to administer building operations, whether
by contract or direct labour, with the minimum
of supervision.
Contract appointment. Salary range 41,545—
£1,960 per annum.
Gratuity 15 per cent of salary.
Free passages, furnished quarters at moderate
rent.

Candidates aged 28-40 years, must be A.R.I.B.A with at least five years' post qualification

experience write Director of Recruitment, Colonial Office, Write Director of Recruitment, Colonial Office, London, S.W.1, giving full names, age, qualifications and experience quoting BCD 112/4/02/E2, 33447.

ALDRIDGE URBAN DISTRICT COUNCIL
ASSISTANT ABCHITECT
Applications are invited for this appointment on Grade A.P.T. II. III or Special; starting point dependent on qualifications and experience; Special Grade for Final R.I.B.A. only; A.P.T. III for part Final qualifications and experience; Special Grade for Final R.I.B.A. only; A.P.T. III for part Final qualifications.
Applicants must be capable of preparing and supervising schemes in the Council's Housing Programme.
Housing accommodation will be provided and the candidate's removal expenses paid.
The Urban District has a current capital works programme of approximately \$2,000,000. Housing programme of opproximately \$2,000,000. Housing programme of opproximately \$2,000. Housing programme of approximately approximately \$3,000 persons per annum; estimated present population \$4,000. School facilities are excellent.
Applications to be received not later than 10th October, 1960.

H. G. G. NICHOLS.

H. G. G. NICHOLS, Clerk of the Council.

Council House. Aldridge, Staffs.

CITY AND COUNTY OF THE CITY OF LINCOLN

CITY ARCHITECT'S DEPARTMENT Applications are invited for the following permanent appointments on the staff of the City Architect.

(a) ASSISTANT ARCHITECT. A.P.T. IV. 61666-61 220

066—41,220.
b) ARCHITECTURAL ASSISTANT. A.P.T. I. 1890—21,065.
c) ARCHITECTURAL ASSISTANT. A.P.T. I.

(c) ARCHITECTURAL ASSISTANT. A.P.T. I. 2610-2756.
(d) JUNIOR ARCHITECTURAL ASSISTANT. General Division. £210-rising to £595.

The Department is engaged upon an extensive and varied programme of architectural works and applicants for Post (a) must be capable of taking charge of a group responsible for the design and supervision of major projects.

The posts are superannuable and a medical examination will be necessary.

Housing accommodation may be available for Posts (a) and (b).

Applications, giving full particulars of qualifications and experience, together with names of two persons to whom reference may be made, must be received by Mr. R. R. Alexander. F.R.I.B.A., M.T.P.I., City Architect, Stamp End. Lincoln, not later than 10th October, 1969.

J. HARPER SMITH.

Town Clerk's Office,

Town Clerk's Office, Lincoln, September, 1960.

September, 1960.

CAERNARVONSHIRE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT
Applications invited for post of ARCHITECTURAL DRAUGHTSMAN in the County Architect's Department (Salary A.P.T. I - 6610 - 2765).
Further particulars and application forms from
Clerk of County Council, County Offices, Caernarvon: Closing date. 6th October.

19th September, 1960.

3409

BOROUGH OF HESTON AND ISLEWORTH Applications are invited for the undermentioned appointments in the Borough Engineer and Sur-veyor's Department:—

Applications are invited as Regineer and Surveyor's Department:—

(a) SENIOR PLANNING ASSISTANT. Salary in accordance with A.P.T. Grade II (4765-480 plus London. Weighting.")

(b) PLANNING ASSISTANT. Salary in accordance with A.P.T. Grade I 4010-4766 olus London. Weighting.")

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

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

Applications are to be submitted by 10th October, 1960, on forms to be obtained from and returned to the Borough Engineer and Surveyor, 88 Lampton Road, Hounslow.

MATHIESON.

Town Clerk.

Town Hall, Hounslow, Middlesex

Town Hall,
Hounslow,
Middlesex.

ROYAL COUNTY OF BERKSHIRE
COUNTY ABCHITECT'S DEPARTMENT
SENIOR ASSISTANT ARCHITECT, J.N.C.
Scale B. EL.265—51.485. Candidates need not
necessarily have had Local Government experience, but must give evidence of initiative,
energy and imagination and capable of controlling a section of not more than eight, working
normally on varied projects.
Further information and application forms,
which are to be returned not later than October
7th, may be obtained from J. T. Castie,
A.R.I.B.A. A.M.T.P.I., Willon House, Parkside
Road, Reading.
SOUTH-EAST ESSEX TECHNICAL COLLEGE
AND SCHOOL OF ART,
Longbridge Road, Dagenham.
Required January, 1961 or earlier)—ASSISTANT LECTURER Grade B) for Architecture
and Building Construction. Applicants should be
qualified (F. or A.R.I.B.A.) with wide profesisonal experience.
Salary within range £700—£1,150 per annum
depending on previous experience. Additions for
approved training and graduate or equivalent
qualifications. London Allowance (£38 or £51).
Further details and application forms from the
Clerk to the Governors at the College. 3381.
SUEVEYING ASSISTANT—DRAUGHTSMAN
Applicants should be good and quick Architectural and Surveying Draughtsmen, capable of
Surveying Land and Industrial Buildings. Good
knowledge of construction essential. Salary £786— 2440.

Applications stating present position and previous experience. bould be good and quick Architectant.

Roowieuge of Catalog present position and pre-2640. Applications stating present position and pre-vious experience should be forwarded to the Divisional Manager, British Road Services, Andrews Arcade, Queen Street, Cardiff, to be received not later than Friday, 30th September, 1960.

received not later than Friday, 30th September, 3960.

CORBY DEVELOPMENT CORPORATION
ARCHITECTURAL ASSISTANTS
There are vacancies on the staff of the Chief Architect, for Architectural Assistants. Appointments will be made within A.P.T. Grades I (£610-£765) or II (£765-£880). The Grade and the commencing point within the Grade will depend upon qualifications and experience. Candidates will be expected to have passed the Intermediate examination of the R.I.B.A. or an equivalent examination recognised by the Architects Registration Council.

Appointments are subject to Superannuation under the Local Government Superannuation Scheme.
Housing is available. Removal expenses paid. Applications stating age, education, training, qualifications, experience, appointments held and salaries, together with the names of two referees to R. F. Brooks Grundy, the General Manager, Corby Development Corporation, Spencer House, Corby, Northants.

NATIONAL COAL BOARD—
NORTH-RASTERN DIVISION
ARCHITECTURAL ASSISTANT required in Architect's Branch, Denaby Main, Nr. Doncaster, R.I.R.A. Intermediate and three years's subsequent practical experience, or Final and one year's experience desirable; unqualified applicants with considerable practical experience also considered. Salary 2715 × 225 to 2850 (exceptionally £1,000). Full details and application forms from Mr. H. Smith, F.R.I.B.A., P.O. Box No. 4, Denaby Main, Nr. Doncaster; forms to be returned by 7th October.

Main, Nr. Doncaster; forms to be returned by 3369
METROPOLITAN BOROUGH OF HAMPSTEAD Require in the Housing Architect's Department:
1) TWO ABCHITECTURAL ASSISTANTS (emporary) on A.P.T. Grades I/II (£610-£680) per annum plus London weighting) for Internediate B.I.B.A. or Special Scale (£786-£0,070) plus London weighting) for Final R.I.F.A.
(2) JUNIOB ARCHITECTURAL ASSISTANT (temporary) General Division (£210-£730) per annum plus London weighting).
Commencing salaries according to qualifications and experience.
Successful candidates will work on area redevelopment and the design and construction of new fiats and houses.
Applications, giving training, experience, previous appointments and the names of two referees to the Town Clerk (Ad), Town Hall, Haverstock Hill. Nw.J. by 12th October, 1969. No housing provided.

CARDIGANSHIRE COUNTY COUNCIL
APPOINTMENT OF COUNTY PLANNING
OFFICER
Applications for the post of County Planning
Officer are invited from persons with considerable
experience of pianning administration. Applicants
must be Members or Associate Members of the
Town canang Institute.
The successful applicant must be able to drive
a car and an Essential Car Users' Travelling
Allowance will be payable.
The salary is in accordance with J.N.C. Scale
E (£1.555 a year, rising by three increments of
£50 and one increment of £50 to £1.855 a year).
The commencing salary will be faxed with due
regard to the qualifications and experience of the
successful applicant.
The post is superannuable and the appointment
is subject to a satisfactory medical report.
Application Forms are obtainable from me. The
last date for the receipt of applications is the
19th October, 1960.

Clerk of the County Council.

J. R. R. CARSON, Clerk of the County Council.

County Office,
Marine Terrace,
Aberystwyth.

NATIONAL COAL BOARD—
NORTH-EASTERN DIVISION

QUANTITY SURVEYOR required in Civil Engineering Branch, No. 1 (Worksop) Area, Todwick Grange, Nr. Sheffield. Work includes preparation of bills of quantities for varied industrial projects, re-measurement of work on site and agreement of final accounts with contractors. Applicants must be A.E.I.C.S. and have had at least one year's subsequent practical experience.

experience.
Salary £815 × £30 to £1,125. Apply to Area
Staff Manager at above address by 7th October.
3387

BOROUGH OF LUTON ons are invited for the following Applications Applications are included appointments:—

(a) SENIOR ASSISTANT ARCHITECTS APT IV V. (21,065-61,375).

(b) SENIOR ASSISTANT ARCHITECTS APT IV V. (21,065-61,376).

IVV (£1,065—£1,375).

(b) SENIOR ASSISTANT ARCHITECTS APT IV (£1,065—£1,220).

(c) ARCHITECTIEAL ASSISTANTS APT I/ Special £610—£1,070). ASSISTANTS APT I/ Special £610—£1,070, and (b) must be Chartered Architects and the commencing salaries will be dependent on qualifications and experience. Under (c) the Council will consider applications from candidates who have completed professional training but have not passed their final examinations. The grades within the range at which appointments will be made will depend on qualifications and experience. Consideration will be given to the provision of housing accommodation and payment of reasonable removal expenses for all appointments. Luton is a rapidly developing borough with a large and varied programme of capital works in hand or projected which offers exceptional opportunities of gaining experience.

Further particulars and forms of application may be obtained from The Borough Architect. Town Hall, Luton, by whom applications should be received not later than 7th October, 1960. 3426

CORPORATION OF DUNDEE CITY ABCHITECT'S DEPARTMENT Applications are invited from persons under 45 years of age for a number of appointments as ARCHITECTS in the City Architect's Department.

The salaries will be within the scales for

ment.
The salaries will be within the scales for Professional Assistants—£1.085 to £1,190 per

annum.

Applicants must be Associate Members of the Royal Institute of British Architects and placings in the grade will be according to experience.

Successful applicants will be required to pass a medical examination for entry in the Superannua-

medical examination for entry in the Superanna-tion Scheme.

Applications, giving full information of train-ing, experience and qualifications, together with the names of two professional referees and details of applicant's housing needs, if any, should be lodged with the Subscriber not later than 14th October, 1969.

ROBERT LYLE.

City Chambers.
Dundee.
21st September, 1960.
21st September, 1960.
3466
COUNTY PLANNING DEPARTMENT
Applications are invited from suitably qualified
persons for the following appointments:
(a) ASSISTANT COUNTY PLANNING OFFICER
(Control of Development) J.N.C. Scale B.
(41,285-£1,485).

(Control of Development) J.N.C. Scale B. (£1.285-£1.485). (b) CHIEF COUNTY PLANNING ASSISTANT (Research) APT IV (£1.665-£1,220). (SENIOR COUNTY PLANNING ASSISTANT (Development Plan-Town Maps) APT IV

(£1,065-£1,220).
(d) ARCHITECT. Special Scale (£785-£1,070).
(e) COUNTY PLANNING ASSISTANT (Development Plan-Town Maps) APT I (£516-£755).
The above appointments are to the Headquarters Staff of the County Planning Department at Ruthin.

Ruthin.

Application forms and further particulars can be obtained from the undersigned.

Completed Applications, giving the names of two referees, must be returned not later than Saturday, 15th October, 1960.

W. F. RUEFON

Clerk of the County County County Offices, Ruthin.

METROPOLITAN WATER BOARD

Applications are invited for the following appointments in the Surveyor's department:—
(a) ASSISTANT ARCHITECTS.
Salary scale £1,180-£1,300 per annum.
(b) TECHNICAL ASSISTANT.
Salary scale £1,180-£1,300 per annum.
(c) TECHNICAL ASSISTANT.
Commencing salaries within the above scales according to age and experience.
Applicants for posts (a) must be corporate members of the Royal Institute of British Architects and should have had experience in the design, preparation of plans and working drawings and specifications for the erection of houses and offices. The provision of housing accommodation would be considered.
Applicants for post (b) must have passed the intermediate examination of the Royal Institute of British Architects.
These are permanent pensionable posts offering interesting work with good conditions of service.
Forms of application from the andersigned (quoting ref. A.), and position applied for) to be returned by 24th October, 1955.

Clerk of the Board.

S. D. ASKEW.

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

BOROUGH OF CHELTENHAM APPOINTMENT OF TWO ARCHITECTURAL ASSISTANTS

Applications are invited for the appointment of two ARCHITECTURAL ASSISTANTS on the Capital Works Establishment of the Forough Engineers Department, in Special Grade (£785— £1,070 p.a.)

Capital Works executions to the Engineers Department, in Special Grade (£785-£1.670 p.s.).

Applicants must be Associate Members of the R.I.B.A. or equivalent, and experienced in the design of Public Buildings. Housing and Ancillary Buildings in connection with Estate Development. The appointments are subject to the National Joint Council's Conditions of Service; to one month's notice in writing on either side; to the successful applicants passing a medical examination and contributing to the Superanuation Fund. The Council will provide housing accommodation, if required, for the successful applicants. Applications, stating age training, qualifications and experience; present and previous appointments; and giving the names of two referees, are to reach Mr. W. E. C. Bird, A.M.I.C.E., M.I.Mun.E., Brough Engineer, P.O. Box No. 12, Municipal Offices, Cheltenham, not later than Saturday, 15th October, 1960.

F. D. LITTLEWOOD, Town Clerk.

Municipal Offices, Cheltenham

County Borough of Halifax
Borough Engineers invited for the appointment
of Senior Town Planning age, education and Town
Planning age, education and training, qualifications, present and past appointment
of Senior Town Planning Assistant,
Grade A.P.T. IV, 21,065-21,220 and Town
Planning Assistant, Special Grade, 2785C1,070. Applications stating age, education and
training, qualifications, present and past appointments (with dates and salaries) and experience
along with the names and addresses of two
persons to whom reference may be made, should
be delivered to the undersigned not later than
21st October, 1950,
Commencing salaries for the above appointments will be within the range of the advertised
grades according to qualifications and experience.
Provision of housing accommodation will be considered for the successful applicants.

RICHARD de Z. HALL,
Town Hall,

Town Hall, Halifax.

Halifax.

CORPORATION OF LONDON
CITY PLANNING OPPICE
has vacancy for a PLANNING ASSISTANT—
salary scale \$915 to £1,220—in Civic Design
Section, point of entry to scale dependent on
experience and qualifications.
This Section is engaged primarily in design
of large (e.g., Earbican, Tower Hill) and small
scale redevelopments in the City of London, and
guiding applicants under the Town and Country
Planning Acts. General drawing office work,
modelling and advertisement control work is also
undertaken.

Applicants should be qualified architects with a
sound approach to design problems, and good
draughtsmen. Planning experience or training
an advantage.

Local Act Superannuation. Medical examination.

tion.

Applications, with details of age, training, experience, present salary, and copies of two recent references to City Planning Officer, Guildhall, E.C.2, within 14 days.

3483

BOROUGH OF ILKESTON
Applications are invited for the appointment of ACHITECTURAL ASSISTANT within the Grade APT IV (£1,065-£1,250).
Commencing salary to be according to qualifications and experience.
Housing accommodation available. Canvassing diaqualifies.
Application forms and conditions of appointment obtainable from A. O. Marshall, Borough Surveyor and Water Engineer, Town Hall, Ikcestos, to whom they are to be returned by Friday, 14th October, 1966.

J_YATES,

J. YATES, Town Clerk

NOTTINGHAMSHIRE COUNTY COUNCIL COUNTY ARCHITECTS DEPARTMENT APPOINTMENT OF GROUP ARCHITECT (MINOR WORKS)

Applications are invited for the post of Group Architect (Minor Works) on the salary scale J.N.C. "C," the range of which is £1,336 rising by three increments of £66 and one of £65 to a maximum of £1,630 per annum. The post involves responsibility for the control of the Minor Works Group in the Office, which handles an annual programme in the order of £380,000, covering projects for all Committees. Individual jobs within the programme range up to a value of £20,000.

The post calls for a high degree of organising ability and initiative, and the person appointed will be expected to maintain a close liaison with senior officials of Client Departments.

Applicants must be qualified Architects who have preferably had good experience in the handling of a large volume of work of this character. Forms of application may be obtained from the County Architect, County Hall, West Bridgford, Nottingham, to whom they should be returned as soon as possible.

A. B. DAVIS,

Clerk of the County Council.

3479

ARCHITECTURAL APPOINTMENTS VACANT AUSTRALIA
ARCHITECTS for our three offices.
Sydney 2 Architects.
Goulburn (N.S.W.) 1 Architect.
Orange (N.S.W.) 1 Architect.
This is an established and expanding firm of young men. Yours is the opportunity to share in this firm and this country's growth.
SALARY: 640 per week (Aust.) to start.
FARES: We will arrange this with no resultant cost or obligation to you (including familles) through the assisted Passage Migration Scheme.
Contact Chief Migration Officer, Mr. K. J.
Smith, Australia House, London, for details.
ACCOMMODATION: We will have accommodation available to sult your needs on arrival.

dation available to sun your arrival.

QUALIFICATION: A.R.I.B.A. or equivalent (min.). Age max. 36.

APPLICATION: Give full details of training and experience. Forward to:

Brown. Brewer & Gregory. Architects, 26. Alfred Street. Milson's Point.

SYDNEY, AUSTRALIA. 3471.

CITY AUSTRALIA.

CITY OF LEICESTER
CITY ARCHITECT'S DEPARTMENT
Applications are invited for the following appointments within the salary of Grade A.P.T.

IV (EL.065-EL.200):

(a) GROUP LEADER-EDUCATION.
(b) GROUP LEADER-EDUCATION will interest architects concerned in modular co-ordination and prefabricated systems of building.
Current projects of the General Section include as Area Fire Station, new Municipal Swimming Baths and Homes for Aged Persons.
Previous local government experience not essential. Housing accommodation at an economic rent will be provided if necessary.
National Conditions of Service apply.
Applications stating post applied for together with the names of two referees should reach the undersigned not later than Wednesday, 12th October, 1960.

J. H. LLOYD OWEN.

J. H. LLOYD OWEN.

10. Loseby Lane. Leicester.

BOROUGH OF EILSTON
HOUSING DIRECTOR'S DEPARTMENT
Applications are invited for the positions of:

(d) DEPUTY HOUSING DIRECTOR (21,192-

(a) DEPUTY HOUSING DIRECTOR (£1,192—£1,391.)

(b) CHIEF ARCHITECTURAL ASSISTANT—Grade IV (£1,065—£1,220.)

Applicants must be qualified members of the R.I.B.A. and should have had experience in Municipal Housing.

The appointments will be subject to the National Scheme of Conditions of Service, medical examination and the Local Government Superannuation Acts 1937 and 1963.

Housing accommodation will be made available if desired.

Applications in writing, stating post applied for, giving are, qualifications and previous experience, together with the names and addresses of two referees, should be sent to the Housing Director, Municipal Buildings, Hall Street, 1960.

A. M. WILLIAMS. Town Clerk.

23rd September, 1960.

ARCHITECTURAL ASSISTANTS, for prepara-tion of working drawings and specifications and supervision of contracts for buildings in parks

tion of working and the supervision of contracts for buildings and oven snaces.

ASSISTANT LANDSCAPE ARCHITECTS, for preparation of schemes, working drawings and specifications, and supervising contracts. Interesting work on new parks, open spaces and housing estates.

Up to £950 according to qualifications and experience. Apply Chief Officer, L.C.C. Parks Dept. (A1 /2511). County Hall, S.E.1. (WATerloo 5000, Ext 8076.)

BOROUGH OF BEBINGTON
SENIOR ASSISTANT ARCHITECT
GRADE V. A.P.T.
Applications are invited for the above post, commencing salary of which will be fixed according to qualifications and experience.
A five-day week is in operation.
Applicants must hold appropriate architectural qualification and should also be capable of undertaking development schemes of housing and public buildings. The person appointed will be expected to take a large measure of responsibility for schemes of considerable importance.
Application forms are available from the Borough Engineer and Surveyor, Town Hall, Bebington, Cheshire, and when completed should be returned to the Town Clerk so as to be received by him, at the same address, not later than first post on 17th October, 1960.
The candidate appointed if married and considered by the Council to be in need of housing at the time of appointment, will be found accommodation within a reasonable period of time.
Canvassing will be a disqualification. 3469

time.
Canvassing will be a disqualification.
VACANCIES FOR

Canvassing will be a disqualification. 3469
VACANCIES FOR
ASSISTANT ARCHITECT
in the Office of Public Works. Dublin (at least
six). Maximum Salary: (Man) £1,235; commencing
salary up to £1,116. Maximum Age Limit:
40 years. Application forms, etc., from Secretary,
Civil Service Commission, 45, Upper O'Conneil
Street, Dublin. Latest date for receiving completed application forms extended to 21st October,
1366.

Tenders Invited

Jenders Invited

Jos. per inch; each additional line 3s.

BOROUGH OF ACTON
EDUCATION COMMITTEE
EROMYARD AVENUE PLAYING FIELDS
TENDERS ARE INVITED for extending a red
shale playing area and laying out tennis courts.
Forms of Tender may be obtained from the
Borough Engineer, Town Hall, Acton, W.J., and
must be returned to the Borough Education
Officer in sealed envelopes endorsed "Playing
Area and Tennis Courts," by Friday, 7th October,
1960.

The Council does not bind itself to accept the lowest or any tender and canvassing will disqualify.

3435

Business Opportunities—Export

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

Manufacturers of specialities for the building trade who are not exporting are invited to contact the advertisers.

We are purchasers as principals for our own account and have first-class connections overseas. We are only interested in materials of the highest quality which can be relied upon to give good service and uphold the reputation of ourselves and Britain.

We relieve the producer of all worries and paper work.

work.
Write Managing Director, Box ZZ 557, Deacon's
Advertising, 36 Leadenhall Street, E.C.3. 3460

Architectural Appointments Vacant
3s. per line: minimum 12s. Box Number.
including forwarding replies, 2s. estra.

including forwarding replies, 2s. estra.

RONALD WARD AND PARTNERS invite
Applications from ARCHITECTS, Sonior
and Junior. Long-term prospects. Scope for
initiative and responsibility in interesting commercial. industrial and civic projects in British
Lales, West Africa and Australia. Salaries commensurate with ability. Non-contributory Pension
and Life Insurance schemes. Five-day week.
Pleesant offices. Apply 25, Chesham Place, Belgrave Square, London, S.W.I. Tel.: BELgravia
3361.

WATKINS, GRAY & PARTNERS. 57. Catherine Place. S.W.1. require SENIOR and JUNIOR ASSISTANTS for work on large hospital projects. Excellent opportunities for those seaking first hand experience in this most interesting and rapidly developing field. Luncheon Vouchers and pension acheme is operation. Write giving full particulars.

PASIL SPENCE & PARTNERS require quali-fied and experienced ARCHITECTS to fill positions of responsibility on a major building programme. Write to 48. Queen Anne Street. W.1, stating experience and salary required.

LEWIS SOLOMON. KAYE & PARTNERS. rapidly expanding practice require ARCHITECTS and ASSISTANTS with initiative and competence to work on major design projects in the London area. These projects include Comprehensive Development Schemes. Hotels, Schools, Offices, and Luxury Flats. Good salaries according to ability and experience, luncheon vouchers. five-day week, and excellent working conditions. Write 5, Holborn Circus, Thavies Inn House. E.C.I. or telephone CITy 8311, quoting SLB in both instances.

hoth instances.

A RCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied practice. Good salary and prospects for suitable applicants. Five-day week. Write giving particulars of age. qualifications. experience, etc., to Box 919, c/o 7. Contic Street. W.C.1. 8815.

A RCHITECTURAL ASSISTANT, about Inter-mediate standard, required for general practice in North Devon Office. Pension scheme.

£1.000 '£2,000 p.a. will be paid to experienced competent ARCHITEUTS by a private practice in the City of London. The work will be primarily on the drawing board on new and interesting projects of magnitude. A high standard of design and detailing ability is required. Please apply in writing to 500 3060.

A SSISTANTS required urgently in busy West End practice, offering excellent oppor-tunities for gaining all-round experience. Write, stating experience, to Box 2657, or telephone MAYfair 3112.

MAYIAIR 3112.

EICESTER.—SENIOR ARCHITECTS and Lice. Appropriate salary paid. Five-day week. Apply by telephone or in writing for an interview to Herbert, Son & Sawday, 12, Friar Lane. Leicester. Tel. 56476.

Leicester. Tel. 56476.

WEST END OFFICE requires ASSISTANT ARCHITECTS of Final and Intermediate standards for interesting Industrial projects in Home Counties. Good salaries offered to men with initiative and ability. Bonas Scheme, fiveday week, holiday arrangements honoured. Box 2010.

A RCHITECTURAL ASSISTANT required,
able to work on own initiative, varied practice, small office, opportunity for advancement. Write or phone: Nicholson & Rushton, 2, New Square, Lincoln's Inn, W.C.2. Holborn

CROYDON. Varied and interesting experience Cholbon. Varied and interesting experience to SENIOR and JUNIOR ASSISTANTS. Holiday arrangements respected. Five-day week. Please write or telephone: L. A. Macintosh & Haines. A./A.R.I.B.A., 33/35, High Street, Croydon. CRO

2850—£1,400. ARCHITECTANTS with imagination and designing ability required to assist with large and important new developments in the central London Arca. Telephone or write—Trehearne & Norman. Preston & Partners. 83, Kingsway, W.C.2. HOLborn 4071.

DONALD ROWSWELL urgently requires for Croydon office. Salary by agreement. Holiday arrangements honoured. Apply with full details to 54. Friends Road, Croydon, or telephone CROydon 4080.

Gon Road, Wattord.

ENIOR ASSISTANT required by Hasker a
Hall, L./F.R.I.B.A., in their office in Warwickshire. Good salary, with scope for initiative
and responsibility. Write Longdon House, High
Street, Knowle, or telephone Knowle (Birmingham) 3502.

MYBEMEDIATE to Final ASSISTANTS required immediately. Salary according to ability and experience. Theo. H. Birks. 58. Portland Place, London. W.L. LAN. 7336. 9739 Portland Place, London. W.1. LAN. 7236. 7137

IR GILES SCOTT, SON & PARTNER

require ARCHITECTURAL ASSISTANT.
qualified or unqualified, with practical experience.
Interesting and varied practice. Salary up to
£1,000 plus luncheon vouchers. Write 9. Gray's
Inn Square, W.C.1, or telephone CHAncery
£337/8.

A RCHITECTURAL ASSISTANT, qualified or nuqualified, with practical experience, required for busy, interesting and varied practics. Salary up to £1.000. Box 2347.

A RCHITECTURAL ASSISTANTS required for interesting work on new Colleges. One Senior and one Junior. Good salaries according to ability. H. V. Ashley & Winton Newman. (HOLborn 2804.)

VACANCIES in leading Bristol Office for all grades of qualified ARCHITECTS and ARCHITECTURAL ASSISTANTS. Modern approach to design essential and considerable freedom of expression allowed. Salaries from £500 to £1,500 according to ability and experience. Outstandingly good working conditions; five-day week. Annual bonus; contributory pension scheme. Existing holiday commitments honoured. Apply giving particulars of age and experience to W. H. Watkins. Gray and Partners, 3. Colston Avenue. Bristol 1,

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

A BCHITECTURAL ASSISTANTS of all categories required for busy City office engaged
in industrial and commercial work. Good working
conditions, 5-day week, luncheon vouchers, Salary
by arrangement. Please contact Eric Firmin &
Partners. Thavies Inn House, Holborn Circus,
E.C.I. Tel.: City 8811. 2692

A PROGRESSIVE and expanding building and civil engineering organisation requires the services of an ARCHITECTURAL ASSISTANT in their Housing Division. Applicants should be experienced in the design and execution of working drawings in connection with Housing and Flat Development Schemes. Permanent and progressive position. Pension and Luncheon Voucher Schemes. Salary according to ability and experience. Write or phone Percy Bilton Ltd., bilton House, 54-58 Uxbridge Road, Baling, W.5. Tel. EALing 7777.

Bilton House, 84-58 Uxbridge Road, Raling, W.5. Tel. EALing 7777.

A BCHITECTURAL ASSISTANT required, with at least two years' office experience. Apply in writing to Thomas Mitchell & Partners, 18. Bedford Square, London, W.C.1.

TEMPORAL RESPONSE TO THOMAS WESTWOOD & TEMPORAL PLEASE ASSISTANT ARCHITECTE. Please apply to 21. Suffolk Street, 8.W.1. TRAfalgar 4411.

CITY OFFICE requires ASSISTANTS for industrial and commercial work. 5-dayweek, luncheon vouchers. Salary £1,256 p.s. 2691.

CH. ELSOM & PARTNERS require Senior prospects and the opportunity of experience in all facets of Architectural work in a large effice. 19 Lower Grovenor Place, London, S.W.1.

Tel. VIC 4304.

Tel. VIC 4304.

SIR GILES SCOTT, SON & PARTNER require
a SENIOR ASSISTANT with good general
experience in practical supervision of work and
also in administration. Varied work including
schools, hostels, churches, office buildings, municipal buildings, etc. Five-day week, luncheon
vouchers, and salary in accordance with experience. Please apply in writing to 9, Gray's Inn
Square, London, W.C.1.

ence. Please apply in writing to 9, Gray's Inn. Square, London. W.C.1.

Pency GOLDFINGER requires ASSISTANTS with sound knowledge of construction. Expanding programme of work includee office buildings, schools, shops, factories, local authority and private housing. Local Authority rates. Telephone: HYDe Park 5657.

TERAL ASSISTANTS with three to five years' office experience to work on interesting projects in their London Office. Salary by arrangement. Telephone WELDeck 7744, or write 16, Fitzhardinge Streek, W.1, for an appointment. 3620.

NORMAN & DAWBARN require ASSISTANTS with three or more years' office experience for work on a large and interesting project in London. Conditions of employment are good, and these positions will carry salaries of £1,000 or more according to experience and ability. Please write or telephone to: 7, Portland Place, London, W.1, or LAN 8011.

RESEARCH and development work in relation

Wite or telephone to: 7, Portland Place, London. Wit, or LAN 2011.

RESEARCH and development work in relation to the design of buildings and building to the design of buildings and building elements for factory production. Architectural staff of differing grades required for this and a variety of other interesting projects. Will those interested please apply to: A. M. Gear & Associates, 12 Manchester Square, London. W.I. Telephone: Hunter 0331.

Cloop Salaries, congenial office conditions and interesting work offered to ASSISTANTS both final and intermediate standard in the office of Mr. J. Brian Cooper, F.E.J. B.A., 26 St. George Street, Hanover Square, London, W.I. Telephone Govenor 644. If you are interested please write, telephone or call to see me.

COOD Salaries, congenial office conditions and North Cooper, St. Cooper, F.E.J. A., 38 Highfield Road, Edgbaston, Birmingham, 15. Telephone No. Edgbaston, Birmingham, 15. Telephone No. Edgbaston, Birmingham, 15. Telephone or call to see me.

ENYS LASDUN & PARTNERS required fill positions of responsibility. Varied, interesting work. Write, stating experienced ARCHITECTS to fill positions of responsibility. Varied, interesting work. Write, stating experience and salary required, to 3, Albany Terrace, N.W.I.

MORRISON & PARTNERS, Derby, required top grade ASSISTANT ARCHITECTS to take charge of large contracts in an extensive and increasing programme including Schools. WD. and Industrial projects. Applicants must have first class design ability and experience of site administration. Salary according to qualifications and experience. Superannuation scheme, five-day week. Apply in writing to St. Alkmands House, 183. Belper Road, Derby, or telephone Derby 49287 for an appointment.

A VACANT drawingboard is required to be filled by Intermediate/Final ASSISTANT. Apply Shepherd, Fowler & Marshall, L/I.A.B.I.B.A., 15, St. James' Row, Sheffield 1. 28854.

A SSISTANT ARCHITECT required for large gramme. Please write stating experi>los and salary required, or phone for an appointment. Reynolds & Scott. F./A.R.I.B.A., 3, Albert Square, Manchester. 2. DEAnsgate 6558.

Manchester, 2. DEAnsgate 6058.

ARCHITECT:
BIRMINGHAM ARCHITECTS would be delighted to MEET ARCHITECTURAL ASSISTANTS who would like to join in most interesting development work Please telephone EDGbaston 4321 and arrange to discuss future and prospects or call and seems any Monday or Wednesday evening between 6 p.m. and 7.39 p.m. as \$356, HAGLEY ROAD BEGBASTON, BIRMINGHAM, 15. 3126

G. PORRI & PARTNERS have immediate vacancies for ABCHITEUTURAL ASSISTANTS of Intermediate/Final standard with at least three years' office experience. This is an expanding office engaged on isrie scale projects. Apply in writing to 15, 65, James street, Bedford Row, W.C.I. stating experience and salary required.

OUTH, LEDEBOER AND PINCKHEARD require ASSISTANTS in the salary range E750—£1,250. Apply 17-20, Mason's Yard, Duke Street, St. Jamess, S.W.I. Tel.: TRAfsigar 1866.

A LONDON Office in pleasant surroundings, not a country Practice. Architect requires SENIOR and INTERMEDIATE ASSISTANTS for work on large projects of very varied nature. Apply in writing, stating age, experience and salary required, to Roff Marsh, F.R.I.B.A., M.T.P.I., 126/7, London Boad, Chelmsford. 3892

SIE ALFRED MCALPINE

& SON LIMITED

VACANCIES for Intermediate and qualified ARCHITECTURAL ASSISTANTS and experienced ARCHITECTURAL DRAUGHTS-MEN. Varied commercial and industrial works.

MEN,
Varied commercial and industrial works.
Salary according to experience. Hours 9 a.m.
to 5.30 p.m. and 9 a.m. to 12 noon alternate
Saturdays. Staff Canteen.
Apply by post to:

F. H. Marwan, A.R.I.B.A.
Sir Alfred McAlpine & Son Ltd.,
Hooton, Little Sutton, Wirral.
Cheshire.

Hooton, Little Sutton, Wirral,
Cheshire.

WELL KNOWN Firm of Architects, with
offices both in London and on the South
Coast, require ASSISTANT ARCHITECTS of all
grades. High salaries paid for a five-day week,
with luncheon vouchers, and other benefits.
Reply, stating age, experience and qualifications,
to Box 3106.

TWO ASSISTANTS required, experienced, minimum Intermediate standard, for busy, interesting and varied practice. Good salaries according to experience. Apply: C. F. Timothy, One Gower Street, W.C.1. Telephone: LANgham

A SSISTANT ARCHITECTS required for staff-ing a new office opening in Southampton for work on interesting projects including Uni-versity, War Department and Ecclesiastical pro-grammes. Juniors also required. Apply stating age, qualifications, experience and salary required to Robert Potter. F.R.I.B.A. 4 Richard Hare, B.Arch., A.R.I.B.A., De Vaux House, Sallsbury.

CODSMARK & MILLER-WILLIAMS have vacancies for ASSISTANTS of all grades in their Darlington and Richmond Offices. Commencing Salaries ranging from £600 to £1,200 per annum. Interesting individual work. Five day week. Apply in writing to 37a Tabwoll Row. Darlington. 3244

FULLY experienced ABCHITECT with knowledge of good class work required in a small busy office with interesting and varied practice. Car allowance, if required. Five-day week, office with finest amenities. Apply, stating full paticulars, age, and salary required, to Asian & Freeman, 8, Oxendon Street, Haymarket, S.W.1.

THE TILLING ASSOCIATION LIMITED have vacancies for both qualified and unqualified ARCHITECTS with design and constructional ability and administrative experience. The work includes large and small scale commercial and industrial development. Luncheon facilities. Starting salaries within the range of 2000-21,300 p.a. according to qualifications and experience. Apply, preferably in writing, or by telephone, to Alan A Briggs, F.R.I.B.A., 10, Fleet Street, London, E.C.4. Telephone City 4400.

SMALL OFFICE WITH VARIED PRACTICE
REQUIRES ASSISTANT, QUALIFIED OR
UNQUALIFIED. SALARY UP TO 2.100.
WRITE OR TELEPHONE: TAPPER & LEWIS.
4. Yeoman's Row, S.W.J. KNI 4610. 3353

4. Yeoman's Row, S.W.3. KNI 4610. 3353

YOUNG Partners with expanding varied practice require qualified ASSISTANT ARCHITECT, aged 30-35. Must be experienced in private practice, competent and confident, able to control staff and contracts. Salary £1,000 to £1,200 for the right man. Reply, stating age, qualifications. experience and present salary, to Silverton & Welton. A/A.R.I.B.A., Dip. Arch., 16. Weston Road, Southend-on-Sea, Essex. Mark envelope "Staff-Private and Confidential." 3356

HOWARD V. LOBB & PARTNERS require ASSISTANT ARCHITECTS, Salaries would be between £750 and £1,250 per year. Please write to 20, Gower Street, London. W.C.1. 3269

EXPERIENCED ARCHITECTS required for DESIGN work on varying projects of considerable size and interest, covering Domestic, Industrial and Commercial buildings.

Permanent and progressive appointments, with commencing salaries up to £1,560 per annum for five-day week, in West London.

Please write in confidence to Box 3295.

A SSISTANT ARCHITMOTS required to work on Schools, Industrial and Domestic Build-ings. Salaries 2500 to 21,000 per annum. Peter Palconer & Partners, F/A.R.I.B.A., Imperial House. Stroud, Glos.

W. HAMMOND offers £200/£1,000 to an disconstitution of a provincial practice with a variety of work. Telephone or write, giving particulars to Lioyds Hank Chambers, Main Road, Gidea Park, Romford, Essex. Telephone ROMford 48662.

Park, Romford, Resex. Telephone ROMford 40662.

3313

A SSISTANT ARCHITECT required for new Chelmsford branch Office of established London Architects. Scope for initiative and responsibility on varied and interesting work. Salary up to £1,000. Apply, stating age, experience and qualifications, to:

17. High Street, Chelmsford, Essex.

3312

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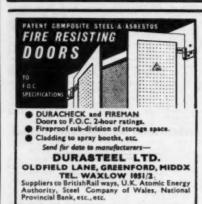
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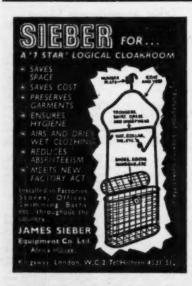
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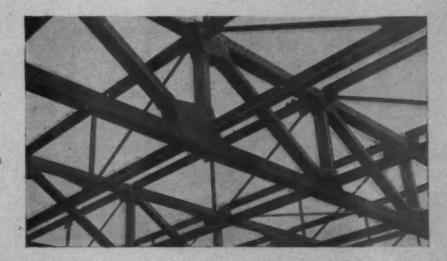
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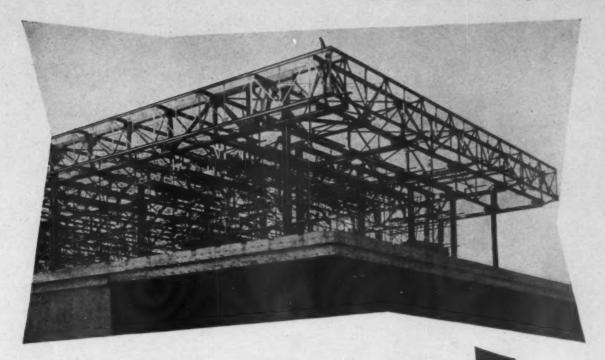
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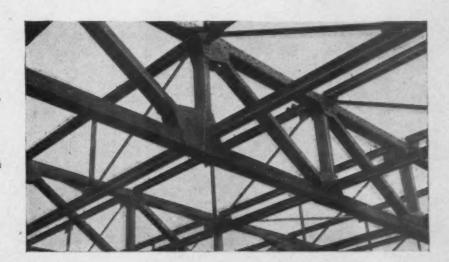
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