The Architects' JOURNAL for March 16, 1961



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

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# THE ARCHITECT JOURNAL

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

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 Regent 8411

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 Lambeth Bridge House, W.1.
 Mayfair 9494

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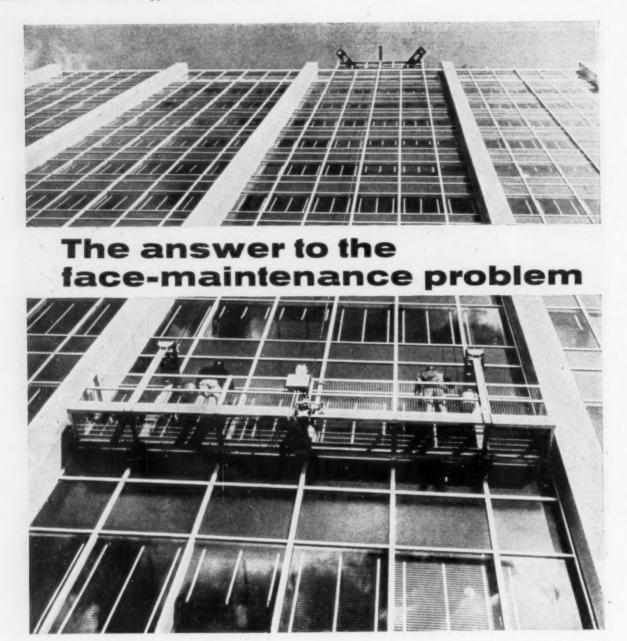


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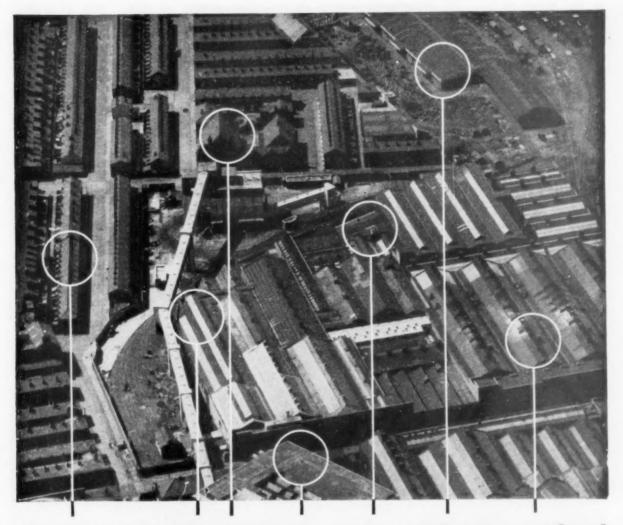
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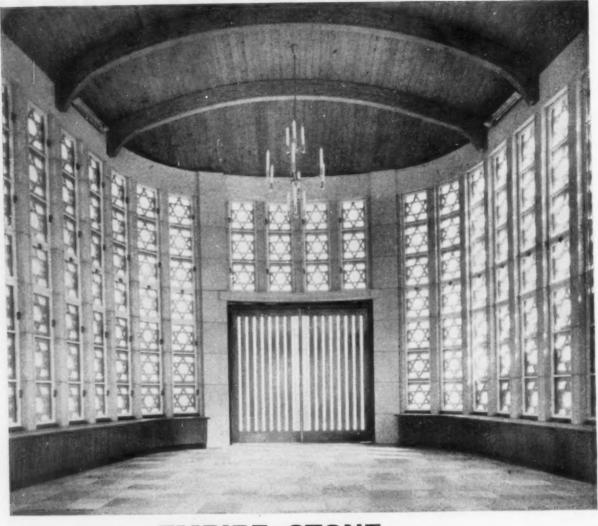
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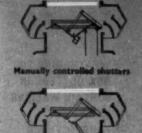
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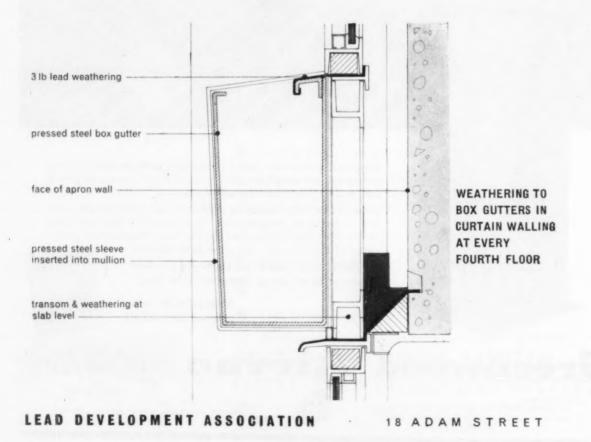


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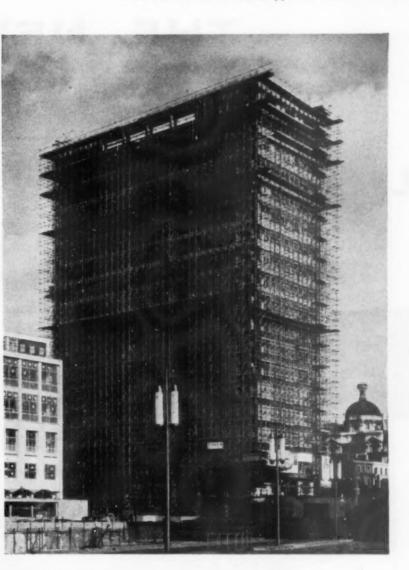
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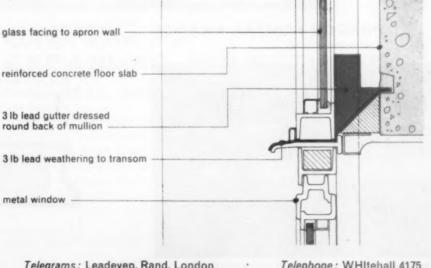
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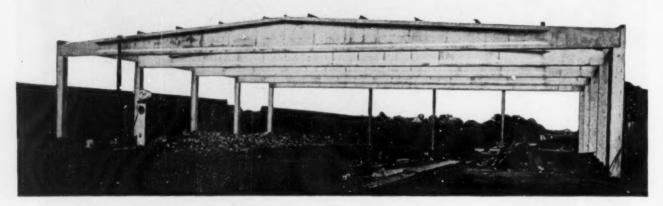




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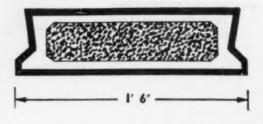
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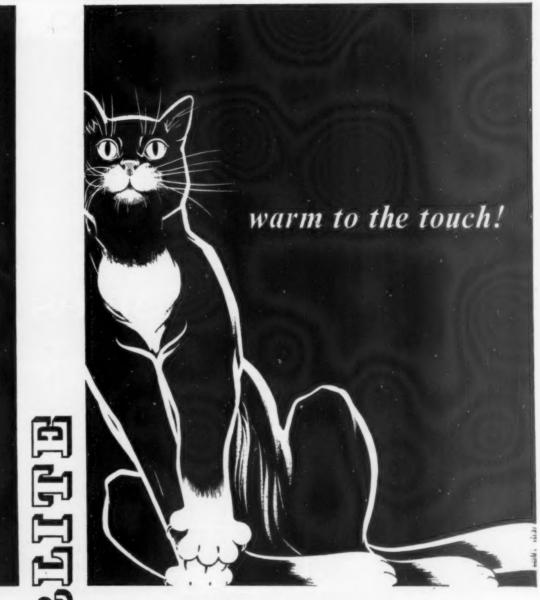
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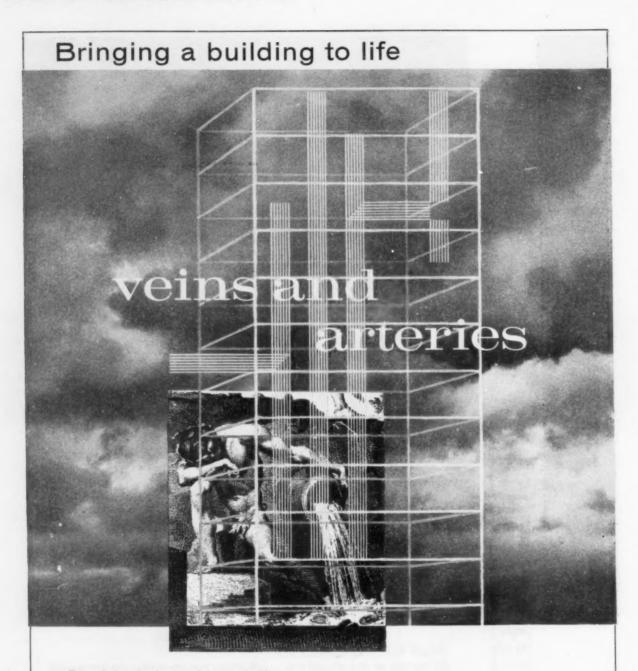
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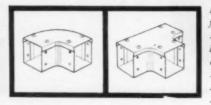
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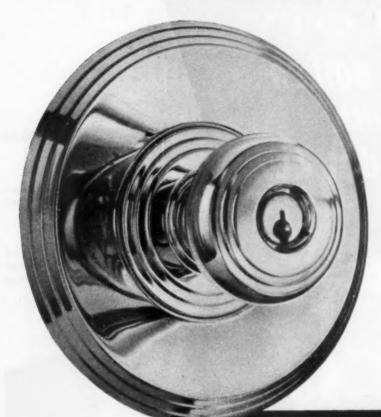
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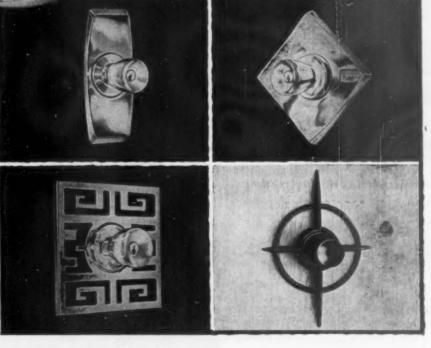
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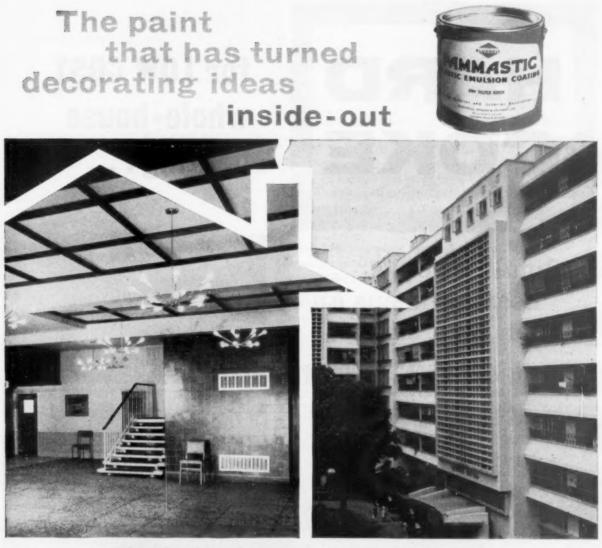
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(Right) Basket grate in fireplace of roughhewn local stone burns coke.

(Left) Pump and calorifier are compactly installed in the airing cupboard next to the boiler.



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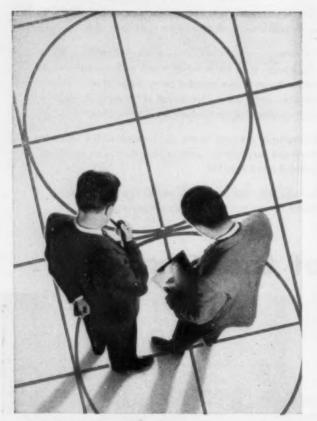
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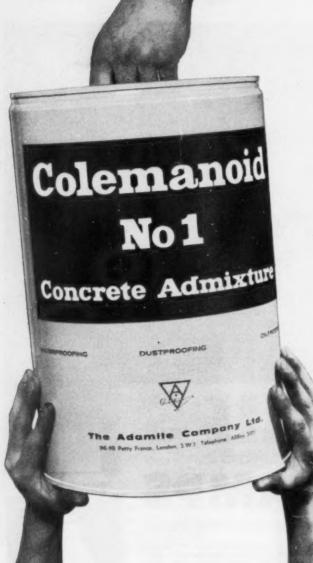
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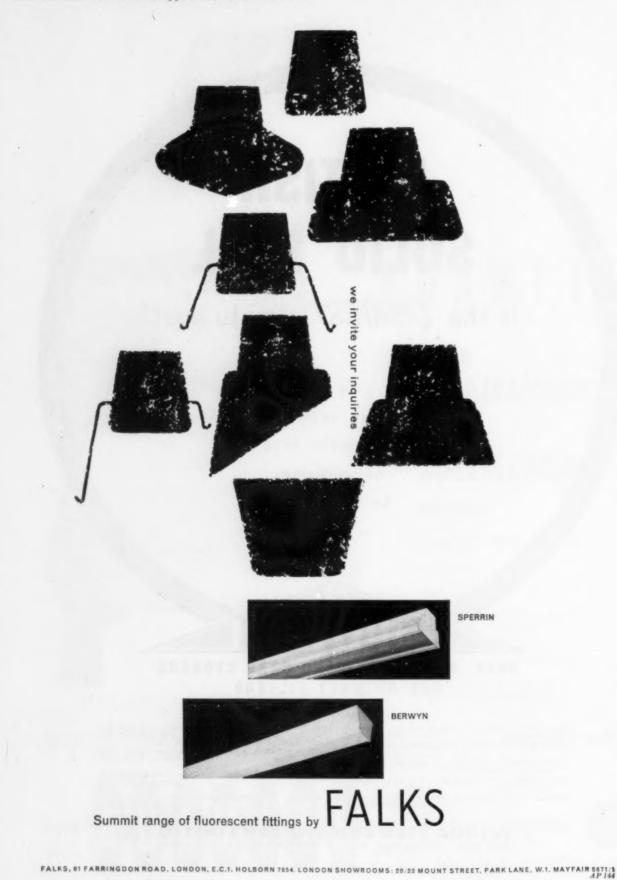
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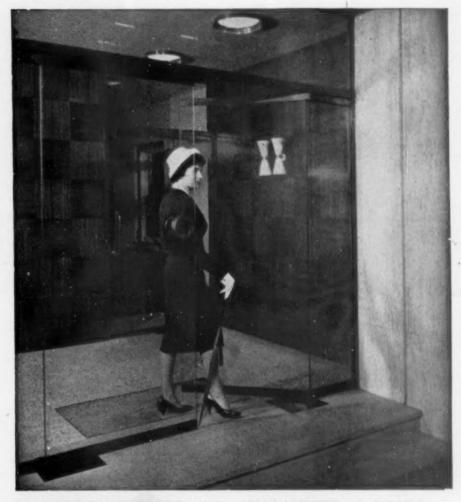


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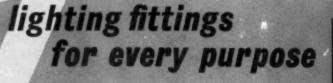
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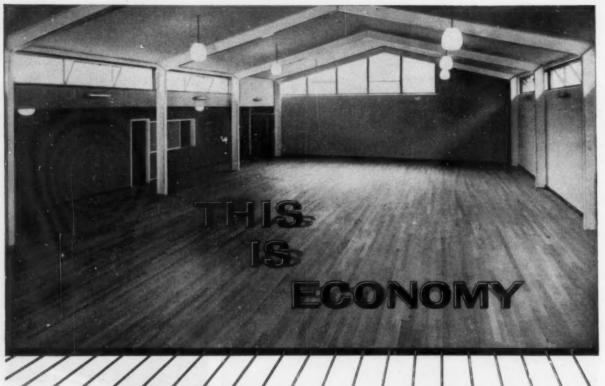
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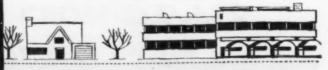
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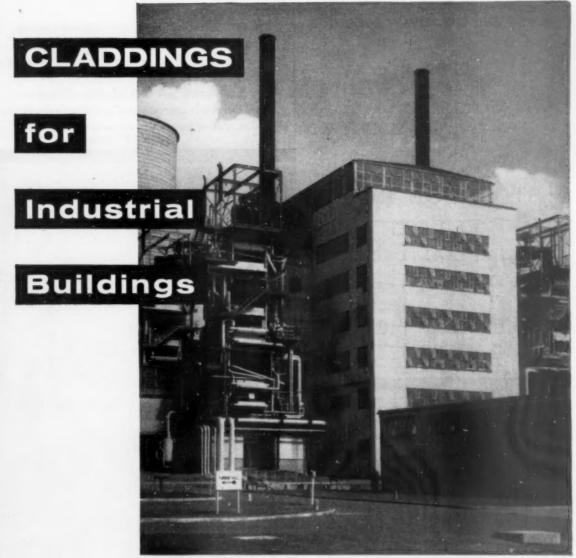
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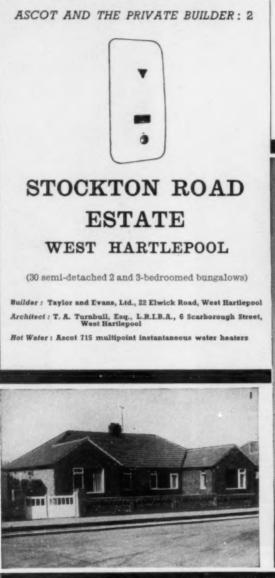
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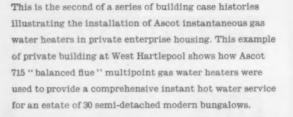
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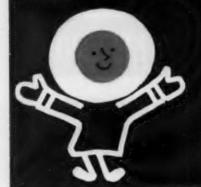
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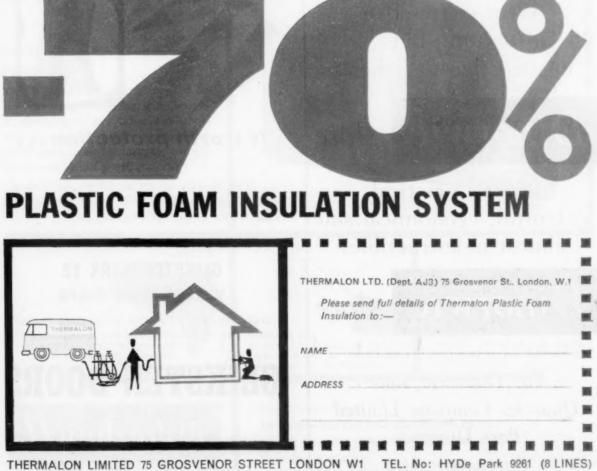


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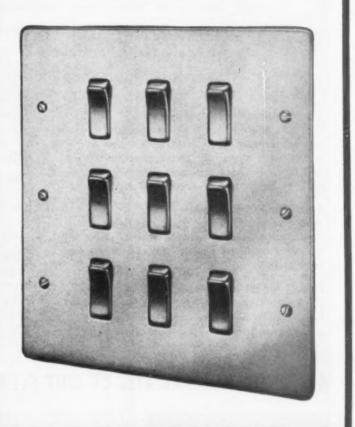
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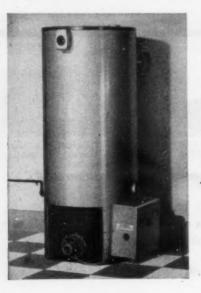
The Redfyre Centramatic 35 does not rely on a constant chimney draught to provide air for correct combustion. The fan on the unit does this and a 5" diameter chimney flue (top or back outlet) with some updraught is all that is needed.

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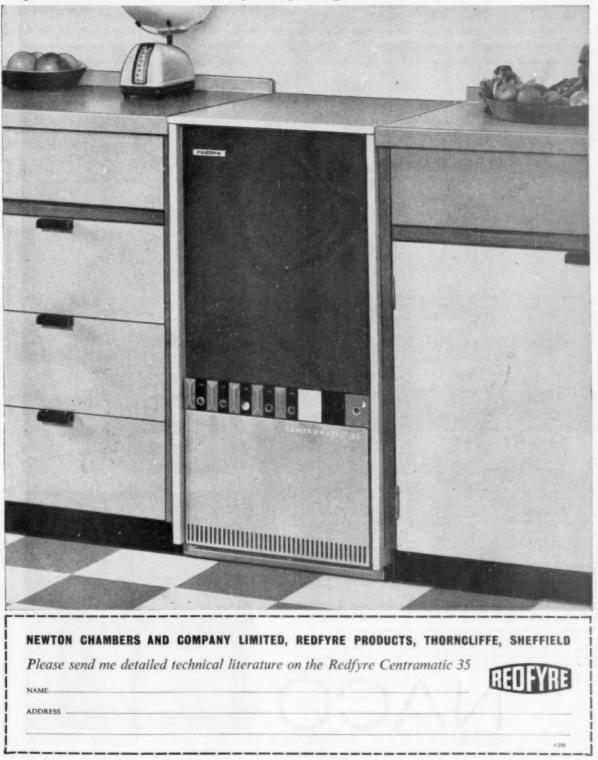
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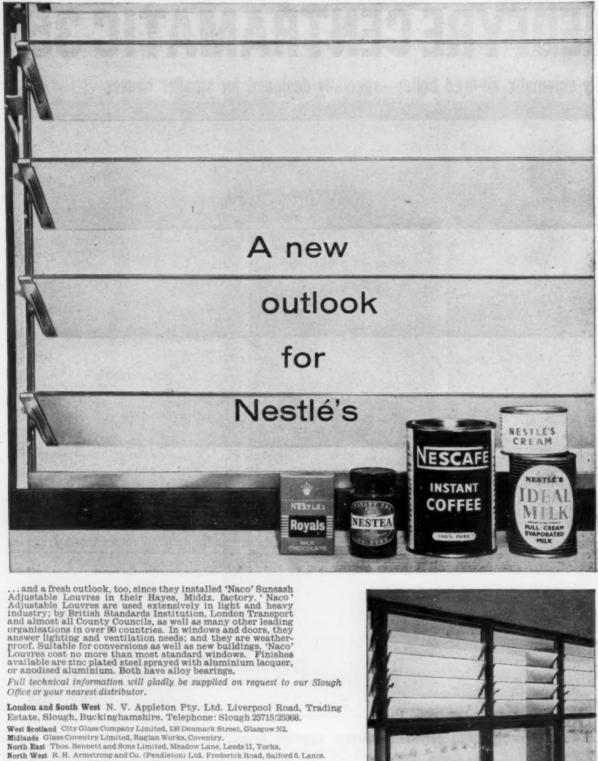


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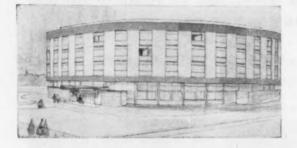


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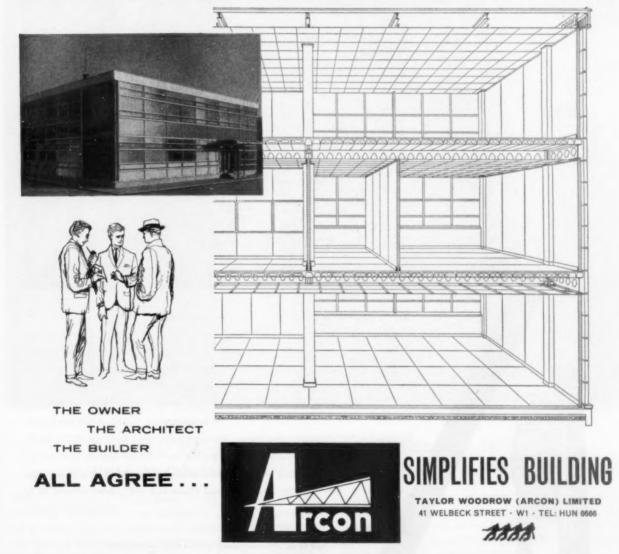
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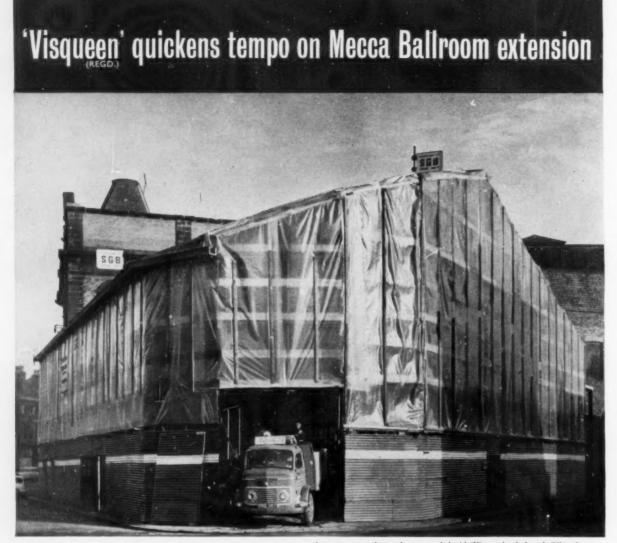
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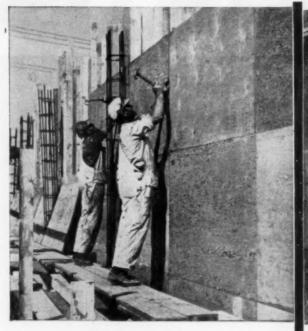
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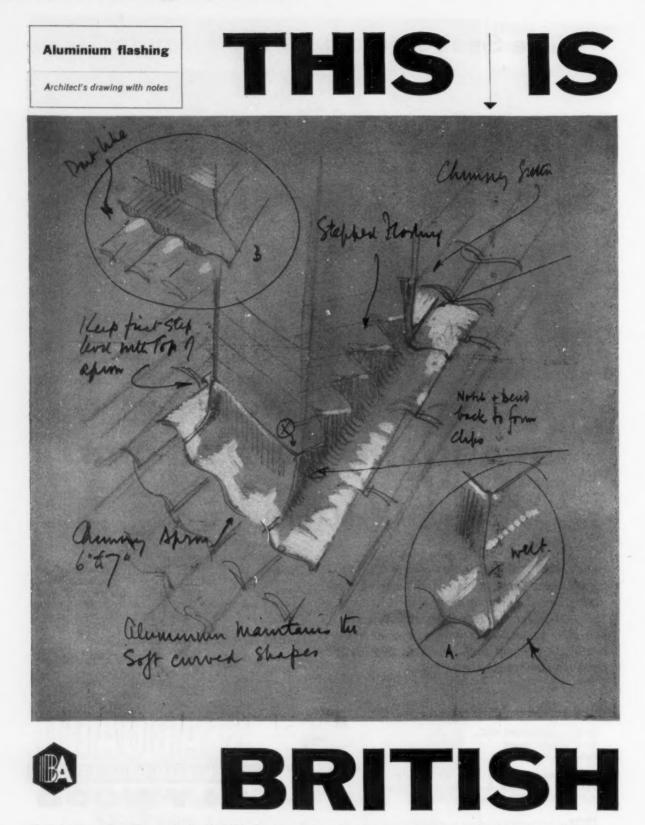


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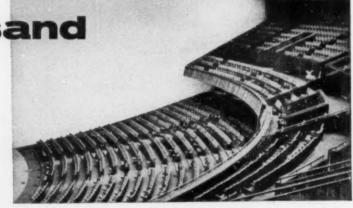


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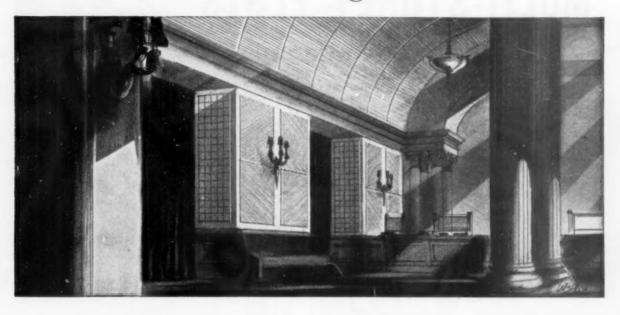
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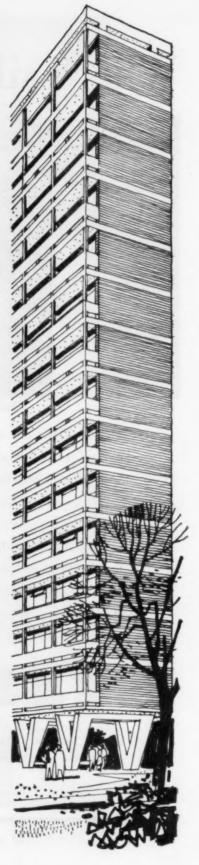
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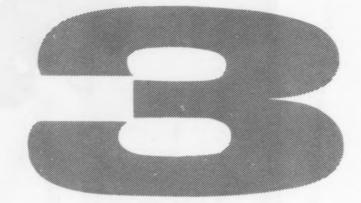
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Steam pressure	120 lbs. per sq. inch
Steam temperature	340°F.
Continuous max. rating	72,000 lb, per hour
Annual fuel consumption	20,000 tons of coal

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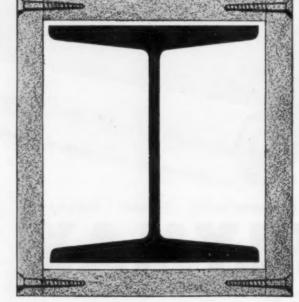
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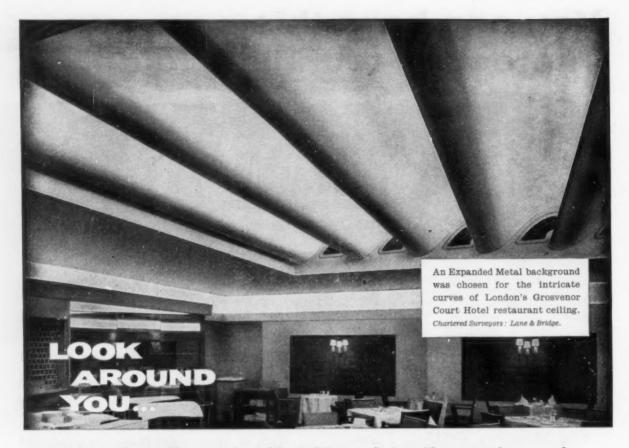
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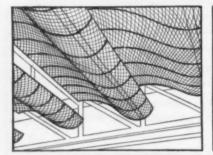
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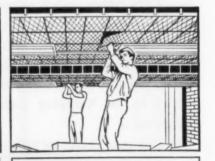
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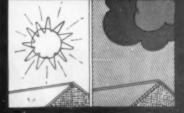
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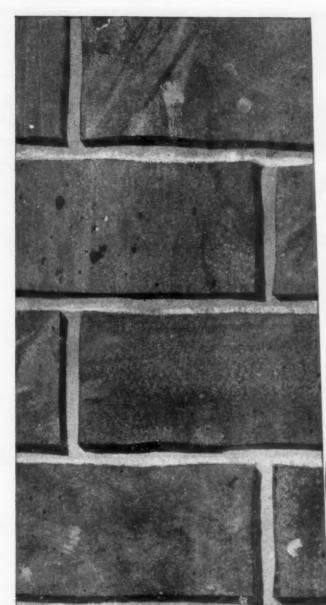
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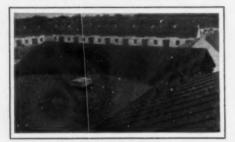
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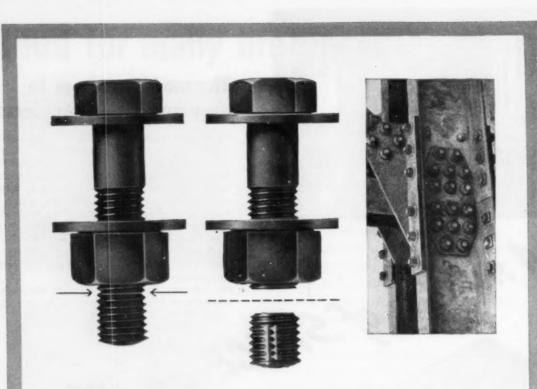
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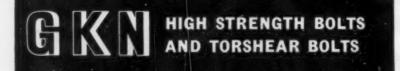
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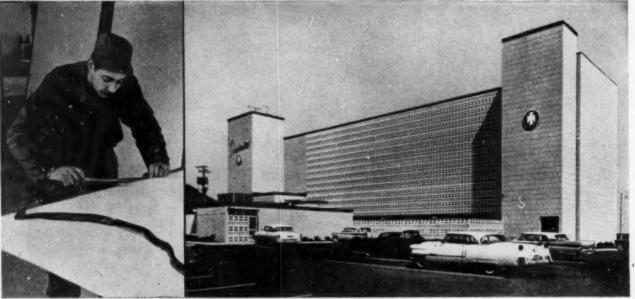


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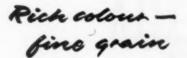
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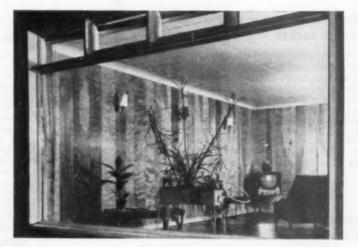
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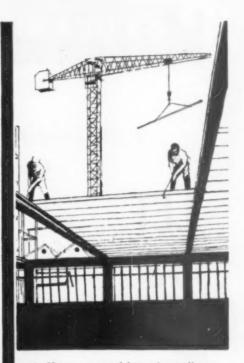
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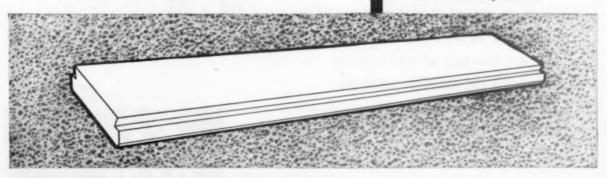
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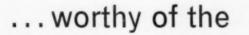
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THE ARCHITECTS' JOURNAL (Supplement) March 16, 1961

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### NOT QUITE ARCHITECTURE

# Don't Get Organised

I can only argue when I'm angry or honked. or in other words blinded by something. For the rest of the time it seems a bit pointless, because you only talk to yourself, and listen to yourself, and there's quieter ways of doing that. But when I try to argue, sooner or later I end up passing through a certain point, and always in it there is a null of incomprehension which has a different flavour from the various incomprehensions on either side of it. All of a sudden I seem to be putting not only a different point of view but speaking a different language into the bargain. Suddenly it is as if the square root of minus one has appeared, or a Number eleven bus has been sighted going up Constitution Hill.

\*

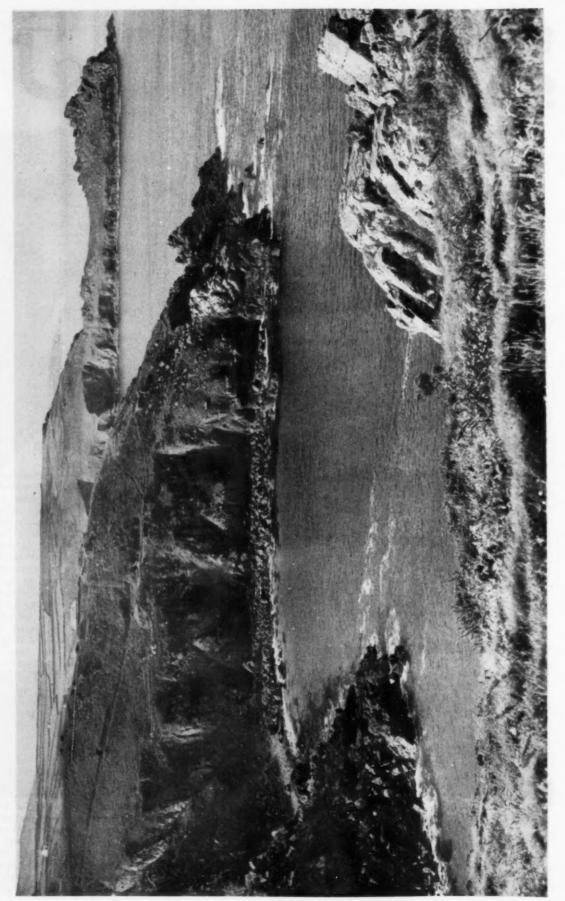
The recurring point is this: that to me there is an inherent evil or danger in organisation-any organisation. for whatever purpose, however civilised or humane the participants. Three people in a committee are quite different from the sum of their separate opinions-the organisation has taken hold of them, become a thing greater than they are. Divergent views must be suppressed for the good of the whole and the process is quite independent of the ends in view, moral or immoral. The communist party of East Germany and the Conservative three-line whip have, here, exactly the same party line: the Roman Catholic church, one of C. P. Snow's assemblies of agnostic civil servants, and a



# A Tin-opener in Zennor Cove?

Zennor Cove—a curve of the north Cornwall coast which is not yet disfigured with caravan sites or over-run with cars—is the scene of a projected new tin mine, and consequently of a widely-supported protest campaign (see ASTRAGAL). The site of the crime: in the foreground.

Zennor Head, National Trust property: Carnellow Point, in the centre, is the site of the proposed mine—the old mine "count-house" is visible on the crest where new buildings would probably be sited. Beyond, Gurnard's Head juts out and encloses the cove.



witch doctor in the jungle are all professing exactly the same faith—the faith that the parts must be suppressed to conform with the will of the whole.

It seems such a vast assumption to be loaded on to humanity without superabundant proof. And at this point in the argument the null spreads its cone of silence. "But of course, my dear chap, it's self-evident: anything else would be anarchy." And when I say "yes, all right, well how about trying that" I am suddenly speaking in hieroglyphic without any Rosetta Stone.

Yet can we not achieve a constructive anarchy, a vast decentralisation and individualisation that will allow each person to be themselves and be respected for their differences? It is after all exactly the spirit of the genius loci, that Epping is different from Edinburgh. Organisation there must be-but surely not so much, and surely, created with an acute sense of the malfunctions that will automatically flow from it. by its own nature, instead of being regarded almost universally as a good thing in itself. If man is born free, then he puts on his chains pretty damn quickly: organisation is the most efficient self-shackling machine he has ever invented.

There must be another way out. There must be another pattern based on the genuine recognition of differences, a harmonisation based not on a statistical compromise but on the mutual respect which comes from recognising and defining the areas where no compromise is possible, where to modify either point of view will destroy both. I can see that nothing can happen nationally or internationally for centuries, assuming we still have centuries to play with: but locally, in the framework of a Borough Council, surely that much tolerance, agreement-to-differ, recognition of significant differences, is possible? If there's one place more subhuman than a UNO debate it is the Council Chamber of a county borough when something sensible has been proposed by a person who is paid up to the wrong political party.

And if there's one place that is often less humane than the council chamber it is the venue of a tournament between members of the simplest organisation of all, which we call marriage. I suspect that here, at least, is some sort of proof of my pudding. Because this is one place where the differences *have* to be harmonised, not compromised: where they *must* be resolved as a balance of tensions, not a false average. Easy to say and hard to do. If I could achieve it for one whole day, or in one situation, or with one relationship. . . . Never mind, eh?

The Editors

# THE COUNTY-REFORMATION

**T**F THE opinions of the county councils concerned in the Royal Commission on Local Government in Greater London carry any weight there will be no grand scale reorganisation of local government in the Greater London conurbation, although all the counties involved-except Hertfordshire, which denies being anything to do with Greater London, but is prepared to let East Barnet change sides of the county boundary-have recognised the need for some unifying authority to deal with the joint planning problems of the great built-up area which now spreads from the mouth of the Thames to Slough. Every county council report puts forward a similar alternative scheme of a joint planning authority, and most of them urge that this authority should cover a wider area than that proposed by the Royal Commission, and go back to the Greater London area defined by the long-pigeon-holed Abercrombie Plan.

It seems a great pity that every county council concerned has chosen otherwise to defend the *status quo*, whereas the RIBA, while subjecting the detailed proposals of the Royal Commission to some acute criticisms (see p. 384), recognises that the proposal to establish a Greater London Council " opens the way to long overdue reforms, particularly the planning of Greater London by a single authority."

How much more effective the London County Council's criticisms of the unsatisfactory aspects of the Royal Commission's proposals would have been, had the LCC regarded the central proposition not as endangering the things that have been done so outstandingly well in London—which is ahead of any other county authority in the country on housing, education, many welfare services, and in its patronage of the arts, through open air sculpture exhibitions, for example, and its concerts and opera for school children—but as the opportunity to spread services of this quality to a much wider area. To object to fundamental reform on the grounds that it would cost London  $\pounds 6$  million on the rates is pettifogging, if the reform be necessary to the future betterment of the whole region.

If the county councils, however, have dwelt on the difficulties and disruption of any change, it is equally true that the Royal Commission has skated over all the difficulties of the transition and failed to appreciate the town planning requirements of its own plan. This is very clearly brought out in the RIBA's Memorandum as well as in the detailed criticisms of the county councils. The Government now has before it the material from which a logical plan of reform for the government of the London conurbation can be worked out, which would improve local government and result in better service to the ordinary citizen, as well as becoming the model for solving the similar problems of the other conurbations spreading up the trading rivers of this island.



### TIN POTTINESS

If you were not already indignant about the proposed tin mine in Zennor -that impressive bit of your ancient Cornish heritage-you will have been provoked into some sort of reaction by the "Tonight" programme's visit to the place with Alan Whicker. Top people who watched this item will have wondered why their newspaper has been so slack about it. Not only did The Times decline to publish a letter with eminent signatures " owing to lack of space" (a letter that turned up in the Daily Telegraph); it also sent a reporter to the spot who interviewed two sponsors of the mine project but failed to talk to any of the 79 people petitioning against it.

It was interesting to hear a local artist telling Alan Whicker that a tin mine and all its paraphernalia could be well designed. But can you imagine a tin prospector bothering about prettifying the necessary encampment and the overhead cables? Anyway, the thing to fear is not merely the sight of the mine being worked, but the possible after-effects. It takes only a slight fall in the world price of tin (and there's plenty in the Commonwealth) for the whole industry to decline. And visitors to Cornwall will know that the blighted, squalid mining villages have none of the romance of their West HINTS FROM HINTON American counterparts.

Zennor is one of those rare and utterly uncontrived villages set amongst some of the loveliest and least spoiled country in Britain. It must be preserved, just as much of the adjoining coast line is now preserved as a National Park.

# FOR LANDSEER FANCIERS

Sir Edwin Landseer's High Victorian pictures, now on view at the Royal Academy's Diploma Gallery, are even worse than you might imagine. Trial by Jury and Dignity and Impudence are desperately bad, and The Monarch of the Glen is only tolerable from a distance. But Chevy Chase, painted some time before Victoria came to the throne, is a very good picture; and there are some small sketches never exhibited before which show wit, observation, sensitivity and just plain talent that make them worth going a long way to see. The show may be overpraised by critics, thus making the public suspicious, but eventually it will become a success by word of mouth. Don't wait for your friends to tell you; see it soon and tell them.

### GUIDE FOR ARCHITECTS

Next week the JOURNAL begins the series mentioned here a few months ago-a handbook for the architect and his assistant, giving a step by step guide to running a job. Ronald Green, the author, is a private practitioner in a London firm and has slanted the book towards the private office. He tells me he has "tried to rationalise the administrative work involved and to cut out the time wasted by people not knowing or forgetting what is the next step to be taken and how to go about it." He says that he "sees contract administration as merely one part of the architects' work, but nonetheless an extremely important part which deserves to be done well." The handbook has been compiled "as a framework for an office system-not the system itself. In this form it will be adaptable to any office, large or small, each office supplementing the framework with notes and check lists according to its own particular requirements."

Don't let your subscriptions run out in the middle of the series.

It was very encouraging to hear Sir Christopher Hinton, chairman of the Central Electricity Generating Board, saying it was the job of researchers to evolve underground cables which could be laid at "tolerable " cost. The Board -he told a conference on "Rubber and Plastics in Cables "-is really worried about the creation of wirescapes and is " considering the possibility of putting the last half mile or so of the lines underground to avoid birdcaging." It has also been studying the possibility of using underwater transmission links from the projected nuclear power stations at Anglesey and Dungeness to avoid running more overhead wires over North Wales and Sussex.

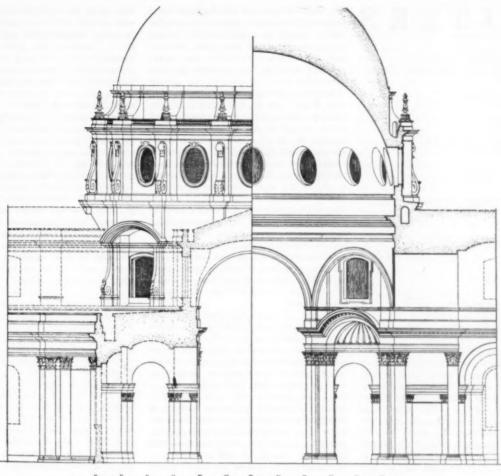
Although the cost has turned out to be " prohibitive " at present, research may always bring costs down, or perhaps our ideas of what is a prohibitive price may change. Cost has never prohibited governments from buying what they really wanted, I'm still waiting for a flag day to raise the money for H-bombs.

### RAVENS AND PENGUINS

Old Hansard nodded the other day and reported a reference in the Commons to the Kentish country house of " Merryweather." This charmingsounding seat turned out to be Mereworth, or so it seemed from a subsequent reference to Palladianism. Apart from this, Hansard reported accurately on a debate on Ancient Monuments that was above the usual level of this sort of thing. Mr. Rees-Davies said, very sensibly, that if the preserving of monuments was good for the tourist trade then we ought to do more (with guide-books, maps, post-cards, signposts and so on) to let the tourist know about them. I hope someone influential was listening, especially to the reply of the MOW's Parliamentary Secretary. who said that the Tower of London guide sells about 100,000 copies a year -about the same as Lady Chatterley.

### ARCH CRITICISM

Have you ever noticed how awkwardly the arches are arranged under the crossing of St. Paul's? If so, you have doubtless looked quickly the other way because, dammit, the architect was a genius. But it's now all right to talk about it because Sir John Summerson



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The Burlington Magazine's reconstruction of Sir Christopher Wren's last-but-one design for St. Paul's Cathedral, with windows in the angles of the crossing, as elucidated by Sir John Summerson (see ASTRAGAL'S note "Arch Criticism").

has cleared up the mystery in the March issue of the *Burlington Magazine*. He "associates" various Wren drawings which have not been compared before to suggest the existence of an intermediate stage between the so-called Warrant design for St. Paul's, on which Wren got permission to proceed, and the design that was built.

In this Penultimate Design, as Sir John calls it, Wren proposed very big windows in the heads of the arches that stand at an angle between nave, transepts and choir. With light pouring in. it wouldn't have mattered that these arches were largely blocked with subsidiary structure: but when it was decided to build the higher and more impressive dome that the Cathedral now has, Wren had to block off the light sources to provide the buttressing needed for the dome. So what was intended for a window-if you are still with me-became a dark hole in a partly blocked arch.

### TWICE KNIGHTLY

Another architectural knight with more than second thoughts on cathedral design broke a record last week by being the first speaker to be asked to appear twice at the Royal Automobile Club in Pall Mall. He is, of course, Sir Basil Spence, the man whose current design programme causes envy throughout the profession—an envy that can never go sour on you if you are confronted by his charming, almost naive, but tremendous fervour.

Six years ago he spoke about his design for Coventry; this time he gave an interim report, and was asked to return in 1962 to speak again after the Cathedral had been consecrated. What impressed me most about the evening was the standard of questions asked much higher than six years ago. Even the Pall Mall belt is getting more discerning about architecture.

### TWICE WRONG

ASTRAGAL is normally too aware of the motes in the eye of his architectural practice to point out the mis-prints and slips of weekly publishing to his Editors. However, two recent errors were sufficiently unusual to persuade him to break the rule. No doubt readers saw the illustration in the AJ of March 2 of the new printing house at Cambridge—and were consequently dumbfounded to see that no architects were named. ASTRAGAL can now reveal that the architects were Beard, Bennett, Wilkins & Partners.

You may also have noticed that the new range of Atlas Atlantic 2 fluorescent light-fittings which have hitherto been heralded over a choppy blue sea were last week over a wine-red sea. This was not, we are assured, merely a device to attract attention, though it was rather attractive, but just another publisher's error. 382] THE ARCHITECTS' JOURNAL for March 16, 1961

# LETTERS

Cecil F. Wright, A.R.I.B.A., F.R.S.A. Dipl. Arch. (L'pool.)

R. N. B. Jones

K. Michaels

Peter F. Smith

L. A. W. Jones

J. Bryan Wade, B. Arch. (L'pool.), Dip. T.P., A.M.T.P.I.

Michael and Sheila Gooch, A./A.R.I.B.A.

R. J. Welch

# A. W. Harrison

# University Questions

SIR: Your editorial (AJ, February 23) raises a number of points, whose answers will probably be settled, either logically or expediently, within a decade, but the fundamental matter of the Four Term Year deserves far greater discussion than could be given to it in your column.

Architectural education would be affected in much the same way as many other courses and for that reason no specific differences are mentioned in my remarks. It would be interesting to hear the opinions of staff and students who experienced the make-shift wartime arrangements to which you referred-I believe the AA School operated such a system. I know it was common in medical schools, science courses which led to a "wartime" B.Sc. in two years instead of three, and in teachers' training colleges, but although the content of these courses was said to be the equivalent of the original, subsequent experience has revealed shortcomings to greater or lesser degree.

Support for the Long Vacation must be sought not only on behalf of the students, to whom the use to which it and other vacations are put is a matter of conscience, but also on behalf of staffs, most of whom find it essential to perform extensive annual revisions of their subjects in order to keep abreast of developments. The student-staff body has no higher incidence of idlers than any other section of the population and their contribution to the sum of knowledge, accumulated beyond the requirements of their specified duties and studies, is considerable.

The idea of "keeping university teachers as fully occupied (on correspondingly higher salaries) as the rest of the working population" just isn't realistic. Most lecturers stay in their posts because they like the work and are well aware that if they went into industry or commerce as nine-tofivers they would make a lot more money. One does not question the degree of occupation of the spanner-man on an assembly line: is it not then small-minded to demand a spot assessment of the output of those whose tools are their brains and whose efficiency can only be assessed by their successors?

A lecturer is not paid merely to lecture but also to think, and do, and be not only interested but interesting in his sphere. Some of us are better at one thing than another. Hardly any of us are in a position where we can forget our work as we blow the chalk off our fingers at the end of the afternoon or where the end of the summer term means we can deep freeze our subject for two or three months.

The world of technical education cannot be run on the lines of local practitioners giving two or three hours a week of their time and the present vacation system does much to enable lecturers to pursue research or a necessarily limited amount of professional practice so that they may keep in touch with the world for which their students are being trained.

Education at university level cannot be achieved unless the student has been taught how to make his own contribution towards his material and there is room for development in the technique of vacation studies which presently tend towards leniency in demands upon time and ability.

Such development would incur some extra staff work but nothing like the increase of one-third in the duties required by the Four Term Year which, whilst creating statistically less wasteful staff-occupation, would at the same time render staff less efficient.

In considering this matter one must remember that courses at university level now include not only the chartered universities with about 30 term-weeks each year but also the wide range of colleges giving similar facilities whose staffs must be in attendance for 40 weeks or more, depending upon the practice of their local authorities or governing bodies. Furthermore, it is not unusual for lecturers at these latter colleges to spend 20-25 hours per week in front of a class, not including time required for marking and preparation. When is their research and revision to be done?

CECIL F. WRIGHT Lecturer, The School of Architecture, Liverpool College of Building

Liverpool

SIR: I was discouraged to read your report of Mr. Richard Sheppard's thesis on "the Oxbridge tradition of regarding undergraduates as juvenile delinquents." I experienced the tradition in question for an appropriate three years, and was conscious only of an unusual freedom.

I wonder where the "mature self-reliant communities of France, Scandinavia, and the USA" are to be found, and in what their maturity consists? I have a nagging suspicion that the community of the dead is the most mature of all.

The community to which I belonged was not a particularly mature one; its members were, after all, quite young. It was, however, a real community, capable alike of accepting responsibilities and of purveying for its members that sense of belonging which most of us happen to have a taste for, whether we admit it or not.

I am convinced that its reality derived at least in part from its sense of ritual, from those "ceremonial dinners" to which Mr. Sheppard objects; and surely an architect should be able to understand this. How can he suppose human beings to be sensitive to architectural space and not also allow the place of ritual and formality in the delineation of a social, human, temporal space?

There are, of course, dangers inherent in attempts to export "Oxbridge" paraphernalia, but they are the dangers of imitation, of failing to capture the essence of the thing. If architects do not value such social subtleties, and if they express their contempt in their buildings, they will be creating a physical environment at the expense of a spiritual one.

> R.N.B.JONES (architectural student)

Worcester Park

SIR: If I seem slightly irritable about your editorial on the university building programme (AJ, February 23), it is not because you have followed some rather prejudiced remarks about the Oxbridge tradition a few lines later by a plea for facts as a basis for planning rather than prejudice. By querying such things as the advisability of continuing to provide halls of residence, or by pleading for a closer physical grouping of town and gown, you are raising issues that can hardly be described as fundamental to the present malaise which the university building programme is suffering.

The basic problem would seem to be that each university is allowed to carry on independently, with only minor chiding from UGC, parcelling out work in small packets. thus following an arbitrary pattern which bears little relationship to the nation's need. In this manner we seem to have little chance to get anywhere near the programme suggested by Lord Hailsham, of increasing the present student population of 100,000 to 175,000 in the next 10 years (which seems enormous, but which is very modest if we are to make any comparable progress to catch up on the US and most countries in Western Europe).

The only solution would seem to be to give UGC much more power, transforming it so that it can function in a parallel way to MOE. This, of course, could not be done if it were to remain as an offshoot of the Treasury.

If I might add, I see little virtue in sniping at the idea of halls of residence. There is surely no better way of ensuring that students are properly fed and housed, and have suitable facilities for private study. This is quite apart from the fact, which you have not recognised, that higher education is as much, if not more, the interaction between students as the attendance at formal lectures. This process can be considerably helped by the corporate life of halls of residence. And I cannot accept your doubting the ability, within the present programme, of UGC being able to afford to build them.

Accepting Lord Hailsham's rate of growth, which is the equivalent of 7,500 students a year, this on the present outlay of £30 million annually represents £4,000 a place. If £1,250 of this is spent for residential purposes, this still leaves £2,850 for the rest of the building requirement, which is just about ten times what MOE are currently allowing for secondary schools. I am well aware that this calculation ignores the fact that part of the programme must be used to make up the backlog of inadequacy, but the conclusion is inescapable that UGC is handing out enough money to do the job. It is merely being misdirected into expensive one-off monuments to learning. A visit to any major university provides ample proof. (The Gardner-Medwin building at Edinburgh, AJ 9.3.1961, as a lab block costing less than £4 a square foot. is a splendid exception.)

The first step that must be taken is a fundamental administrative change, whereby the university building programme can be given overall discipline and direction to overcome the present lamentable shortage of student places. The corollary is that all higher education including subsistence allowances should be paid for by the State, but that, of course, is another matter.

London, S.W.

# K. MICHAELS

### Misplaced

SIR: The writer of the short article beneath the frontispiece on Cambridge (AJ. February 23) has inadvertently disclosed a major catastrophe, nothing less than the fact that Basil Spence has placed his new college building in the wrong university. However, I am sure that the authorities of Queens' College are satisfied with the arrangement, and would prefer that the error remain concealed.

Liverpool

# PETER F. SMITH

Investigation has disclosed that only the apostrophe was misplaced, not the College— The Editors.

### Southend Protests

SIR: I have had several indignant architects on my tail after they had read John Carter's "Letter from Melbourne" in your issue of February 23, in which he refers to "a beach and Luna Park of Southend-like depravity." I must say I sympathise with them in their objection to this ill-considered remark since I have been associated with this resort for over 30 years and have never seen anything which might merit the term. I imagine the 5-6 million visitors who patronise this resort every year would also take exception if they knew they were being described as " depraved." In fact, a major resort of the calibre of Southend-on-Sea has to make sure that it is properly conducted at all times otherwise its popularity would quickly evaporate.

Quite apart from the general good behaviour of its visitors, most of whom come from Greater London and the Home Counties, Southend's own environment, its natural and man-made amenities, compare favourably with those of any other resort in Britain, as I am sure you will agree after examining the enclosed holiday guide which presents a fair picture.

I hope the reference will not have created an unfavourable reputation amongst your readers who are I am sure men of discernment. I can only assume that John Carter does not know Southend well and that he has gained his impression of it from illinformed hearsay.

> L. A. W. JONES Publicity Officer

#### Southend-on-Sea

We are sure our Australian correspondent's comment was not intended seriously, and was based on memories of the famous documentary film, "Oh Dreamland."—The Editors.

# Radburn Planning

SIR: I have read with interest Paul Ritter's article on Radburn Planning but find the force of his arguments lessened by the apparent inaccuracies of the densities quoted in the articles for January 26 and February 2.

In the first article, except for the Carbrain scheme, those densities which are quoted as being over 20 dwellings per acre seem open to doubt unless there is a considerable proportion of flats within the areas, e.g., if only houses are used the Wrexham group appears to be 16 dwellings per acre.

A more serious error is apparent in the article for February 2 when the Elsinore Estate is quoted as being 30 dwellings to the acre. Perhaps this could be explained as being a mistake for persons per acre instead of dwellings, but in that case the sense of spaciousness would hardly be especially remarkable. If these court-yard type houses were packed together with no circulation space or open area other than court-yards, the density even then would only be just over 14 dwellings per acre.

I am particularly interested in research into housing layouts and I would, therefore, be very grateful if you could clarify these apparent mistakes.

J. BRYAN WADE

Glasgow Paul Ritter replies: With regard to the first point, flats are included, the exact proportion of houses and flats in each case being given in the tables. On the second point Mr. Wade is correct: it should have been 30 persons to the acre at Elsinore, not dwellings; and I am grateful to him for detecting this serious mistake.

## **Two Tiers**

SIR: In case you should assume that the adoption by the Allied Societies Conference of the Bristol and Somerset proposals implies general support by provincial architects for the two-tier idea, let us hasten to assure you that here are two, at least, who are a 100 per cent in agreement with your opposition to this retrograde proposal.

The idea appeals to our baser instincts, and seems to be appealing with regrettable success. Mr. Caldwell, in your correspondence columns recently, talks of qualified architects "wasting their training on office chores, even if they could "—what are the " chores " in a sensibly run modern office?—and of "sketch pads . . filled with great conceptions but no one to translate into bricks and mortar "—does anyone really still do architecture that way?

We must not allow the whole future of our profession to be warped by this desire to legitimise the present unsatisfactory position. In the interests of higher quality in architecture, better service to our clients, happier offices, and a united profession this proposal must be rejected.

MICHAEL AND SHEILA GOOCH Norwich.

# Granolithic Toppings

STR: Recent articles in THE ARCHITECTS' JOURNAL (11.8.60 and 1.9.60) on failures of granolithic toppings and sand and cement screeds are very timely.

Is any research being carried out on methods to improve the adhesion between the new topping and an old base? In my experience the highest number of failures, in post-war years, have occurred where cracking, curling or lifting of the topping has taken place. This weakness is well known yet the specification remains unaltered.

Various suggestions are put forward from time to time for specification which overcomes the possibility of failure and ensures a sound screed. In my opinion most of these suggestions are based on an unrealistic approach. They rely for success on a standard of preparation and a degree of care on the part of operatives which, under normal site conditions, it is unreasonable to expect.

I would like to suggest a method which, from my experience, has proven quite successful. This is to insert metal rods about six to eight inches in length in to the base concrete. These are then bent over leaving a small section above the concrete surface on to which the new topping can key. These would be placed at regular intervals over the floor surface, say about 18 in. centres. I seem to remember this method being used before the war and would be interested to know whether any of your readers have any recollection of it.

R. J. WELCH

Tonbridge, Kent.

# Students at Aylesbury

SIR: On page 173 of the February 2 issue of THE ARCHITECTS' JOURNAL, there is a reproduction of a drawing for Aylesbury ascribed to D. P. Wild and J. C. W. Hodges. I have been asked to point out that the third member of the group of students who worked on this scheme was F. E. To, the student who in fact did the drawing.

A. W. HARRISON Principal's Administrative Assistant. Architectural Association.

# NEWS

# ROYAL COMMISSION

# RIBA's Comments on Greater London Report

The RIBA, in a statement issued this week, recognises that the Royal Commission's proposals for a Greater London Council responsible for strategic planning functions, and a number of local councils, which would implement detailed plans within the framework laid down by the Greater London Council, "opens the way to long overdue reforms, particularly the planning of Greater London by a single authority."

It subjects the report, however, to a detailed examination, and proposes a number of important changes in the scheme outlined, the first of which is that "further consideration be given to the amalgamation of the smaller boroughs or the use of joint staff for building and development purposes where their programmes might otherwise be too small to sustain first-class services." Otherwise there is a danger of difficulty in recruiting staff of the necessary calibre. Other recommendations are grouped in 10 sections as follows:---

1. Architects' Departments: "It is vital," says the RIBA, "not to miss the present opportunity to rebuild large parts of London so as to solve the problems of housing shortage, open space deficiency and traffic congestion. The new machinery for guiding and implementing this rebuilding is, therefore, exceptionally important. It must be organised so as to attract architects and planners of the highest calibre." Otherwise the opportunities for reconstruction will be lost.

The Royal Commission's claim that "some of the best housing has been done by quite small authorities" is misleading: the reality is that the quality of work by different authorities reflects the status of the architect in relation to the employing authority. The LCC has made "outstanding advances in the layout and design of housing and in comprehensive development. . . . The best work by the smaller public offices is to be seen in Camberwell, Holborn and West Ham where there is an Architects' Department. . . . What is common to all the authorities that have achieved a high standard of design is that they have entrusted the work to first-class architects, either . to an independent Architects' Department or to private firms."

The RIBA's fear is that since the majority of London boroughs have no Architects' Department, this state of things will be carried over into the new local authority organisation and frustrate the possible improvement of architecture in London, unless the post of Borough Architect is made a statutory appointment.

2. The Development Plan and Control: While welcoming the recommendation that

the Greater London Council should prepare and revise the development plan for the whole area, the RIBA criticises the suggestion that the boroughs should be responsible for development control, except in certain classes of application in the central area and designated " special areas." The Council for Greater London must be responsible for handling all applications in those Comprehensive Development Areas, says the RIBA, and in the Green Belt, but also the Minister should define classes of application which must be referred to the Greater London Council wherever they arise in the area. so that the more important applications (estimated by the RIBA at about 20 per cent of the total) would be dealt with by the Council.

3. Housing, Overspill and Comprehensive Development: The Royal Commission proposes that the boroughs have primary responsibility for housing, and the Council only be responsible for development schemes covering more than one borough, and for overspill beyond the Green Belt. The RIBA comments: ---

"The report assumes that there must be a massive overspill of population from Greater London to areas beyond the Green Belt... While we agree that there will be overspill the need for a 'massive overspill' as compared with the alternative of rebuilding to higher densities inside London, has not been proved.... In our view, the Greater London Council should reassess the volume of overspill on the assumption that permitted densities are raised to acceptable levels and reasonable standards of open space achieved."

In addition to this, the statement points out, "The Council . . . must accept the major responsibility for rehousing the people who will be displaced by the road building, school, open space and other redevelopment programmes. . . . The postwar programmes of slum clearance, comprehensive redevelopment and road improvements in London could never have been carried out if the LCC had not been carrying through a major housing programme and had at its disposal a large pool of older houses all over the County and beyond." As the LCC Development Plan shows, between 1960 and 1972 some 98,000 people will be displaced in London and must be rehoused, if plans for roads, schools and open spaces are to be realised.

"If the Council for Greater London does not carry on the major housing programme previously managed by the LCC, but is required, as the Commission proposes, to hand over much of the LCC's existing stock of houses to the boroughs, the whole future redevelopment of London . . . will be imperilled."

The Commission also appears to have ignored projected comprehensive development plans in Greater London, which it would be beyond the resources of the boroughs to carry through. Such schemes must be the responsibility of the Greater London Council, which should set up an Urban Renewal Section with specialised knowledge which could also be of service to the boroughs carrying through their own urban renewal schemes.

"It is in the interests of good architecture," says the statement, "that whichever authority is responsible for a comprehensive development area should also be responsible (by arrangement) for the design of most if not all of the public buildings within it, such as schools and clinics."

4. Highways: "The RIBA welcomes the recommendations that the planning of main roads should be the responsibility of the Council for Greater London. . . . We do not welcome, however, the proposal that the Minister of Transport has power to define trunk roads within the built-up area. . . . If the appalling mistakes of the past are to be avoided new roads must not only form part of a comprehensive plan for communications and the use of land, but must be the occasion for the redevelopment of the areas through which they pass." In the same way, if the boroughs are to be responsible for all roads other than main roads, "it is equally important to ensure that the 'improvement' (i.e. replanning) of these roads is part of a planned operation of urban renewal."

5. Education: The RIBA agrees that the Council should be the Education Authority, but considers it "unwise and unworkable" that building of new schools should be supervised by the boroughs, as the Commission suggested. "Supervision of the construction of a building must be carried out by the architects who design it."

6. Open Spaces: The statement entirely disapproves the Commission's proposal that the boroughs "will be fully capable of providing and running parks and open spaces." " The heavy costs of acquisition and layout " of any major open space, " together with the obligations to rehouse people and resettle industry will be beyond the resources of many boroughs," it says, and it points out that since the war some boroughs have persistently tried to build on land zoned for open space. "If this had been allowed there would be hardly any new open space in East London . . .: Abercrombie's green wedge from Victoria Park to the Docks is only being realised because a big authority is responsible for it." The RIBA consider it essential that the creation of major open spaces be the responsibility of the Council for Greater London, even though the boroughs were responsible for maintenance afterwards.

7. Building Control: The RIBA welcome the recommendation that the same code of building control should operate throughout the country, but ask that if this is to be exercised by the boroughs, there should be machinery for appealing to the Architect to the Council for Greater London, or the Minister.

8. Intelligence Department: The Council for Greater London must provide an "intelligence department" to collect and assess information essential to town planning, and to make recommendations about policy, as an essential part of the process of preparing and revising the Development Plan.

9. Research and Development: The Council would also be the only authority large enough to carry through a programme of research, experiment and development, which should continue and extend the work services to the boroughs. 10. The Transition: "The accumulated skill and experience of the larger existing authorities . . . must be carried forward into the Council . . . and the new Borough Councils." The RIBA fears any prolonged period of uncertainty which will tend to make recruitment of staff difficult and run down "the machinery for architecture and towa planning on which the future of London depends. Annual building programmes totalling tens of millions could be jeopardised, the Report points out.

# County Council Comments

London County Council, having considered reports from its Committees for General Purposes, Education, and Finance, all of which made strongly critical comments on the Royal Commission's proposals, which may be summed up in the words of Councillor Norman Pritchard, "would it not be a tragedy to jeopardise the quality and scope of the unparalleled essential services to Londoners for . . . and to jeopardise also the unique partnership in London Government between the County and the Metropolitan Boroughs, merely because of someone's idea of administrative tidiness? ", is submitting alternative proposals to the Minister for the closer co-ordination of Greater London. The major practical objection to the Greater London Council in fact seems to be the size of the reorganisation involved and the difficulties of the transition period, rather than any fundamental principles involved. "The upheaval involved, affecting so great a number of authorities. could only be justified if there were some firm and indubitable assurance that the result would be a compensating improvement which could not be achieved in any other way. There is no such assurance."

One very real problem of reorganisation would be that "the optimum local government unit" for one service is not the optimum size for another, and the Royal Commission, "having formed the view that the Greater London Borough is the most appropriate unit, has then fitted (even forced) as many services as possible into that structure." The fact that the units are too small for many of the services they would be expected to provide-for instance, special schools, old people's homes, the care of deprived children, which are exceptionally well provided by the LCC-is recognised by the Royal Commission's proposal that some specialist services would involve co-operation between boroughs, for example, the employment of a Children's Officer.

The outstanding performance of the LCC in housing, education, and children's services could not be carried on, it is claimed, by Greater London Boroughs, plus the severely limited powers suggested for the Greater London Council by the Royal Commission. For this reason, the LCC has put forward an alternative scheme, since it recognises

that "there is justification for the view that certain aspects of local administration might be considered from the point of view of Greater London as a whole . . . all concerned with planning in a broad sense of that word. . . . The definition of what is 'Greater London' for this purpose is itself a matter for consideration. In our view the review area within which the Royal Commission's proposals are confined by their terms of reference is not large enough. It should be approximately as large as the area covered by the Greater London Plan of 1944.

"Assuming that the present county councils remain in existence, the functions which require consideration from the Greater London standpoint are all . . . concerned with planning. In broad terms they do<sup>2</sup> not require that the body dealing with them should have powers actually to carry out the physical work which its planning calls for. On the other hand it must be more than a mere consultative or advisory body: its plans within its field must be binding and effective."

The Committee goes on to propose that a Joint Planning Board be set up, composed of an independent chairman and representatives appointed by the local planning authorities and associations of borough and district authorities in the area, and that this Planning Board should "prepare and submit to the Minister for approval a scheme to secure effective co-operation with such agencies as the British Transport Commission, London Transport, the Port of London Authority and the Metropolitan Police."

This Planning Board would be responsible for town and country planning, main roads and traffic management, refuse disposal, and overspill housing.

This Report, which was accepted at the last meeting of the LCC, has been forwarded to the Minister, along with critical reports from the Education Committee, which regards the effective break-up of the London education service " with the greatest possible misgiving," and from the Finance Committee, which opposes the Greater London Scheme on the grounds that it would cost Londoners £6 million on the rates, plus a loss of £5 million in general government grant.

Support for the comparatively painless proposition of a Planning Board, with a marked revival of enthusiasm for the Abercrombie Plan for Greater London as the basis of its work, comes from all the other County Councils involved in the Royal Commission's reorganisation proposals evidently it is quite possible for these authorities to come to agreement on matters which touch them closely.

Middlesex County Council rejects the Commission's proposal, arguing that the problems of Greater London do not justify a new elected authority, but only require consultation and co-ordination.

Essex County Council recognises the need for planning and administration to cover a wider area than is at present possible, but "strenuously contend" that the proposed formation of a Greater London Council is "ill-advised and unnecessary," upsetting a number of services which are now working

well for a new and untried form of local government.

Essex CC proposes a redistribution of functions as follows: County District Councils, covering a population of 60,000 to 100,000 and having the powers proposed for the Greater London Boroughs; a county council, responsible for education, health and welfare services, residential welfare services, children service, planning, main traffic routes, fire and ambulance services; and a Planning Board for the London Region which would prepare the strategic background to County Development plans, as in the case of the Abercrombie plan, and deal with traffic management, co-ordination of overspill and housing, intelligence department and refuse disposal.

Surrey County Council, after a special conference of district authorities in the county, has also put forward the Planning Board alternative, as has Kent CC, and Croydon County Borough Council.

## AIA

# Gold Medal Award

The Gold Medal of the American Institute of Architects for 1961 has been awarded to Le Corbusier, who will probably receive it in person on April 27 in Philadelphia. Previous recipients include Gropius, 1959, and van de Rohe, 1960.

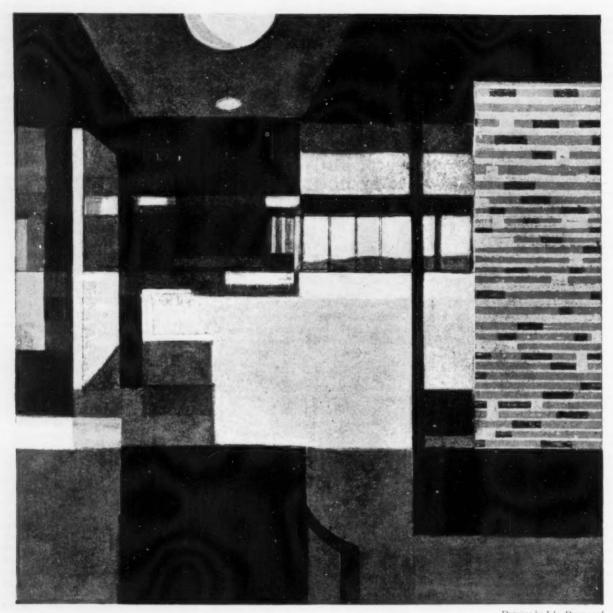
# PILKINGTON COMMITTEE

# Architecture Professors' Evidence

A group of distinguished architects have submitted evidence to the Pilkington Committee on the question of more time and better treatment for architecture and allied subjects in television and broadcasting, and have offered to give verbal evidence if invited.

Signatories of the document are: Richard Llewellyn Davies, Professor of Architecture at University College, London; Robert Furneaux Jordan, Professor of Architecture at Leeds; Arthur Ling, Coventry's City Architect and Planning Officer; Sir Leslie Martin, Professor of Architecture at Cambridge; Percy Johnson Marshall, architect and lecturer in Town Planning at Edinburgh; Robert Matthew, Professor of Architecture at Edinburgh; Robert Gardner Medwin, Professor of Architecture at Liverpool: Jack Napper, Professor of Architecture at Durham; Edward Playne, President of the Architectural Association; J. M. Richards, editor of the Architectural Review, and Graeme Shankland, architect and town planner.

Television producers and others concerned should take a creative part with architects in organised experiments " to discover ways



Drawing by John Drummond

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of putting across architecture and the environment," they propose. Programmes and films of this kind could be used also in and by universities and for Further Education. Audiences should be catered for as intelligent citizens.

They stress the very special relation to these new mass media of "architecture in the widest sense." defined as "covering the applied visual arts and extending from the design of everyday objects in the home to the building of cities and the organising of the physical environment." And they reproach both the BBC and the commercial networks for their prevalent attitude of using the design of things either merely for "background" material, for "lecture-room" treatment or for "brief adulation in a television advertisement."

In contrast, they praise the great contribution to music that sound broadcasting has made over the past 20 years, adding: "We hope and expect that television can do the same for visual subjects over the next 20. We note that, at present, more time is given to the visual arts in sound than in television broadcasting. We press for the correction of this in the near future." What could be (but hardly ever is) done has been shown by Monitor.

To talk about improving our standard of living except in terms of improving our environment and the quality and beauty of everyday objects is nonsense, the group say. Both TV networks should take advantage of the younger generation's growing critical awareness of the confused squalor and ugliness of our cities and towns.

The success of the Design Centre and the publication Which point the way to TV developments in this field: a series of impartial programmes on new products "could attract the widest audiences and be a valuable counter to the claims of commercial advertising."

In general, the commercial services find little favour: on the contrary, the shortage of quality television from the BBC is blamed on their influence, and their further extension is trenchantly opposed.

The memorandum pleads that the general direction of the media should be one which engages the interest of the public as intelligent citizens, rather than as "low-brow" mass consumers for most of the time and narrow specialists for the rest. This should be the main consideration in allocating future channels.

Subjects for wide audiences must be tackled boldly and in depth. But time must also be given to minority audiences, with a free hand for the producers and an increasing part for the universities in programmes for experts or semi-experts.

The Third Programme's value in encouraging experiment and controversy and its generosity to the visual arts and to architecture are commended, though the group criticise its overall "high-brow" character, saying that many of its programmes should be broadcast to wider audiences.

On the subject of local sound broadcasting, the architects say "We welcome the BBC's proposals to develop local sound broadcasting and consider that this should help



The two pictures show the hub of Margate's redevelopment scheme—Cecil Square, as it is, above, and as it will look, below, when G. E. Sewell, the borough engineer and surveyor, gets started on his five-acre, £1-million scheme, which is only the first part of a 20-year plan for rebuilding 30 acres of the town's centre. Margate is not a town of any great architectural merit or interest, but its harbour and the old town around it have an unpretentious, muddled charm, which largely lies outside the redevelopment area. However, the scheme adopted proposes to destroy the agreeable curve of the harbour, by lopping off half the basin with a sea wall and turning it into a car park, inevitably reducing the attractiveness of the old town for holidaymakers on which so much of Margate's life depends.



to strengthen and awaken interest in local affairs. We regret, however, that in the Director General's recent references to the subjects the BBC wishes to cover in local broadcasting, reference is made to gardening, the weather and darts, but none to the local environment."

# INAUGURAL LECTURE Architecture—'A Profession of G.P.s'

In his inaugural lecture as Professor of Building Science at Sheffield University on March 1, J. K. Page, speaking on "Science and Architectural Education" commented on the urgent need for more postgraduate studies in architecture.

"Much lip service has been paid," he said, "to the need to get post-graduate studies in architecture under way, but there is little sign from the architectural profession that they are prepared to make their terms acceptable to potential students. An architect has to study for five years to graduate. He then needs a further two years' professional practice to qualify. If he carries out two years' research before his professional practice it will take him nine years to qualify. At present the Royal Institute of British Architects, unlike many other comparable professional bodies, do not consider architectural research as counting towards its professional practice requirements. A higher degree does not command a higher salary. In the circumstances, not unnaturally, there is no great rush of architectural students to do research, and the situation is unlikely to change unless the RIBA is prepared to face its responsibilities in this sphere in a much more realistic way. At the moment architecture is a profession of G.P.s only. I refuse to believe it can remain this way much longer. A leavening of specialists is urgently needed."

Speaking of the poor standing of architecture in university circles he went on to say: "The mere mention of building in university circles sends people's eyebrows up sharply, and somebody immediately says, 'That is not a university subject, that's just a craft.' In 1958, the annual expenditure on building and civil engineering construction was £2,220,000,000, of

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which £1,570,000,000 was new work and £650,000,000 was for maintenance. In the same year the total cost of the National Health Service was £623,000,000; in other words somewhat less than the maintenance bill for building and civil engineering construction. Here, as a solitary Professor of Building Science, without at the moment any staff to assist me, I look, for example, with envy at the vast scientific resources available to the medical profession in this university. The building industry is far too large and far too important to be left academically in the cold."

The greater part of his address was concerned with the failure of the architect to take the findings of building science into account: the truth of this would hardly be contested by JOURNAL readers; but he also had criticisms to make on this score of the training of the engineer: "It will be useless to improve the scientific training of the architect without giving proper consideration to the architectural and scientific training of the other building engineering consultants. Otherwise it will be impossible to achieve an integrated pattern of thinking about building problems. In particular, I would question whether the present attitude of the Institution of Civil Engineers towards building is a healthy one. A great deal of building construction is supervised by civil engineers, few of whom have had previously any formal academic training on problems connected with building, except on structural analysis and design. For example, proper scientific consideration of the weathering characteristics of building materials and of correct methods of building construction for long term durability is rare in the majority of Civil Engineering schools, yet a recent paper suggested maintenance accounts for 30 per cent of the total annual expenditure on building and civil engineering construction in Great Britain and absorbs 45 per cent of the total manpower of the industry. The civil engineer's illusion that the problems of building are 90 per cent structural and 10 per cent otherwise has to be finally destroyed, for the structural problems probably account only for 10 per cent of the total design effort required."

# ICE & RIBA Housing Large Scale Plant

Once a year the RIBA and the ICE hold a joint meeting to discuss some common interest. These meetings are centred round two papers, one by an architect, one by an engineer, which are published in advance and circulated so that the greater part of the evening can be spent in discussion. This year's meeting was held at the ICE on March 7, when Howard Lobb and W. S. Atkins each contributed a paper on the Housing of Large Scale Plant. Sir William Holford was in the chair.

Though both of the papers were interesting, their presentation by their authors and the subsequent discussion showed that the climate of opinion still does not permit an illuminating discussion of the real points

at issue. Also it must be doubted if the busy, successful practitioners who are the people usually briefed to give tongue on these occasions are those best fitted to contribute.

The subject of discussion, as Sir William Holford was careful to point out, was one which lay well over on the engineer's side of the imaginary boundary which separates the two professions. If the engineers have the meat of this subject, he said, then the architect's contribution was rather like a pinch of salt. Though objectively true when applied to the actual division of responsibility which now pertains, this was probably an unfruitful concept to put before the meeting. The "architect's case" as put forward by Mr. Lobb himself, by Jefferiss Matthews and by Edward Mills was. broadly, that the architect's training fits him to co-ordinate the work of the different engineering specialists and that he alone is equipped to make the vast artefacts humanly acceptable as environment. Unfortunately, this "human acceptability" was clearly interpreted by the engineers present as being concerned only with aesthetics. This was clearly brought out by Mr. Atkins who, trying to do justice to his architect collaborators, cited a vast project of his own on which the consulting architect spent exactly one afternoon's work altering a few details and made a world of difference to the good looks of the job. The engineers evidently resented the architect's claim to be the sole guardian of human values in environment. They pointed, with some justice, to the broadening of recent years of their own educational background and to their own manful attempts to grasp this nettle of aesthetics. Though they were agreed on the need for early collaboration. they were evidently mystified by the architect's claim to be a co-ordinator.

Their point of view was that the difficulty of co-ordination lies in the problem of language. Of the five or six major professional people on the kind of jobs in guestion all but one will be engineers of one kind or another: the real cleavage in language lies not between the four or five engineers, but between them and the architect. Engineers are not aware of the fundamental changes which are taking place in the architect's attitude towards his own technical education and, as this is so, any idea of a fruitful professional interchange is almost unthinkable. Grenfell Baines, alone of the architects who spoke, seemed to grasp this problem when he called for a joint education of architects and engineers during the early years.

# **RIBA**

# North of England Members' Meeting

Members of the RIBA in the north of England (including students and probationers) are to hold a meeting at the Queen's Hotel, Leeds. on May 27, at which Sir William Holford, Donald Gibson, Hubert Bennett, Herbert Johnson, Hugh Wilson, W. G. Howell (chairman of the public re-

lations committee) and A. G. Sheppard Fidler (chairman of the Practice Committee) will all be present, to join in discussion of important current topics, and answer questions.

The meeting will begin at 2 p.m. with discussion followed by tea: at 6 p.m. Percy Johnson-Marshall will give an illustrated lecture on "America Today: a review of planning and architecture," and members wishing to have dinner afterwards at the Queen's Hotel are asked to inform the secretary of their Allied Society in advance.

## COMPETITION

# National Poster Design Award

The Council of Industrial Design is sponsoring a series of awards, the British Poster Design Awards 1961/62, in an attempt to stimulate a high standard of design for British posters. A maximum of 25 awards will be made, and diplomas will be given to the advertiser, the agency, the designer and the printer concerned with each awardwinning poster.

Entries must be submitted to the CoID between April 1 and April 30, 1962. Full details are available from Mrs. C. Mill, CoID, 28, Haymarket, London, S.W.1.

# DIABY

Thermal Insulation of Buildings by N. Foster, Structural Insulation Association. MOW lecture at the Technical College, Blakey Moor, Blackburn, at 7.15 p.m.

MARCH 16 Glued Timber Laminations. W. A. Chugg, F.I.A.C., Timber Development Association, MOW lecture, at the Sun Hotel, Chatham, at 7.15 p.m.

MARCH 17

Work Study in the Building Industry by R. Geary, Organisation and Methods Officer for John Laing & Son Ltd., MOW lecture, College of Technology. Sheffield, at 7.15 p.m. MARCH 17

Prestressed Concrete by H. Kaylor, B.Sc., M.I.C.E., M.I.Struct.E., MOW lecture at the Mining and Technical College, Wigan, at 7.30 p.m.

### MARCH 20

Oxford-proposals for the future city by John Morton and Tom Hancock of Townmaker Ltd., illustrated with colour slides, at the Planning Forum, TCPA, 28 King Street, London. W.C.2, at 6.30 p.m.

MARCH 20 The Law and the RIBA Form of Contract by I. N. D. Wallace, Barrister-at-Law, MOW lecture, the Technical College, Wrexham, at 7 p.m.

MARCH 21 The Major Shopping Street, with special reference to Oxford Street, illustrated lecture by D. Rigby Childs for SPUR, RIBA, at 4 p.m.

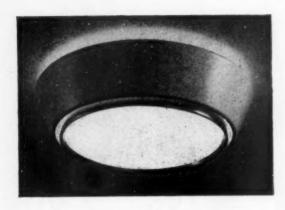
### MARCH 22

Sanmicheli Exhibition, RIBA.

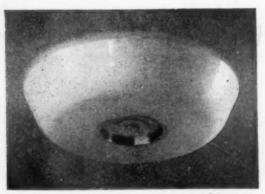
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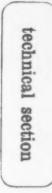
ORIGINALS BY HERMAN HILLER OF AMERICA

Leading parts by Hille—also a multitude of supporting roles. The welded wire chair shells are in black with snap-on upholstery cushions of textile or vinyl fabric easily removed for cleaning. The moulded chairs are in polyester resin, reinforced with glass fibre — practically indestructible — and made with matching steel dies to give a high quality, smooth finish both sides. You have a choice of three seat shapes on any of five underframes, in a

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wide range of vigorous colours. The moulded shells are fixed by rubber shock mounts to the wire, tube or pivot base. Clip-on upholstery can also be fitted to the moulded shells. Sturdy, striking (taken singly or in groups) these chairs give impressive comfort to homes, offices and public areas. Retail prices begin at £7-9-0. Showrooms: 39/40 Albemarle Street, London, W.1, Hyde Park 9576 or 24 Albert Street, Birmingham 4, Midlands 7378. Write for brochure.

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# THE INDUSTRY

This week Brian Grant describes plastic tubing, catalogues for extruded aluminium, lift controls, flame-proofed fibreboard and chain link fencing.

## Pipework for Small Bore Heating

Floline plastics tubing is made from nylon polymers and will withstand temperatures up to 250° F. Its use is therefore recommended for small bore heating systems, and for this purpose it seems to have other advantages as well, as it is made in long lengths, up to 250 ft., and can be curved down to a radius as low as  $3\frac{1}{2}$  in. Joints are made with conventional compression fittings. It is claimed that no lagging is needed because of the low heat emission of the pipe. Only  $\frac{1}{2}$ -in. pipe is made at the moment, and the price is 11d. per ft. (International Boilers & Radiators. Earlsway, Team Valley, Gateshead, 11.)

### Aluminium Data

Three new catalogues from Impalco, the I.C.L. Alcoa combine, deal with extruded aluminium sections. Volume 1 deals with general purpose standard sections, volume 2 containing more specialist products, including some pages devoted to building. Many of the sections shown are for curtain walling, and it would be a help to some if their methods of assembly were shown. The third leaflet provides some elementary information about the various alloys and their uses. (Imperial Aluminium Co. Ltd., P.O. Box 216, Witton, Birmingham, 6.)

# Up and Down Traffic

Reference has already been made in these notes to Marryat & Scott's packaged escalators, brief details of which are set out in a new publication which also deals with passenger and goods lifts. There are also notes on the types of control available, and tables linking traffic with speeds and loads, and giving recommended dimensions. Hospital lifts and the possible arrangement of entrance doors are also covered, and there is a page dealing with continuous or paternoster lifts. (Marryat & Scott Ltd., Wellington Works, Hounslow, Middlesex.)

### Flameproofed Fibreboard

Pyrestos Dribord is pressure impregnated with Pyrolith fire retardant preservative and also treated with a proofing agent which is said to reduce the water absorption to below 20 per cent. The material is intended for thermal and acoustic insulation and has a class I spread of flame rating under BS 476. It is claimed that the fire resistance is not reduced by grooving or cutting. Standard widths are 2 and 4 ft., with lengths up to 12 ft. and a thickness of just over 1 in. It can be painted if necessary, or supplied painted white on one side. The illustration shows the moisture resistance in comparison with untreated wood fibre board. (Pyrestos Ltd., 8, Buckingham Palace Gardens, London, S.W.1.)

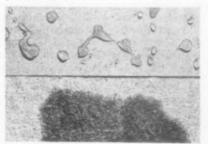
### **Chain Link Fencing**

Barnards Ltd. have just issued an interesting pamphlet on chain link fencing made from plastic covered wire and its probable life in comparison with alternatives. Chain link fencing of this type is not new, but has certainly passed the experimental stage and is by no means a substitute for other materials. The pamphlet starts by admitting that stainless steel wire is probably the ideal material, but it is very expensive, about seven times the price of galvanised, and is only suitable for work where the cost is a minor consideration. The price of aluminium wire fencing is given as about twice that of galvanised. Plastic fencing is made from ordinary mild steel wire over which is extruded a skin of p.v.c., after which the wire is made up into the mesh. Longest life is given when the skin is black, and this is particularly recommended where day temperatures are high and exposure to sunlight is prolonged. White and dark green are also good, blue and yellow reasonable. So far as the life of completed fencing is concerned it seems possible to guarantee a minimum life of six years in industrial atmospheres whereas galvanised mesh exposed in Sheffield had a life varying from 21 to 26 months according to gauge. P.v.c. coated mesh costs about 20 per cent more than galvanised, but the cost of the mesh is only about one-third when the cost of posts and labour is added. Total extra cost of p.v.c. should not be more than 6 per cent. Copies of the pamphlet are available from the manufacturers, who remark, in their covering letter, that chain link is "almost universally loathed by architects, nevertheless it seems to be used fairly frequently." Such realism is rare: good luck to them. (Barnards Ltd., Mousehold Works, Norwich.)



Floline plastic tubing

Pyrestos Dribord and untreated fibreboard when sprinked with water



LUNDON, W.



113

A.J.S

# THE ARCHITECTS' JOURNAL for March 16, 1961 [390

# INFORMATION CENTRE

A digest of current information prepared by independent specialists; printed so that readers may cut out items for filing and paste them up in classified order.



## 9.68 design: general OUTDOOR SURFACES

Design and detail of the space between buildings, by Elisabeth Beazley. The Architectural Press Limited. 42s.

This is an excellent technical reference on such subjects as pavings, trim, walls and fences, and the parking of both cars and bicycles. It was reviewed in detail in the JOURNAL on February 9, 1961, page 206.

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# 10.208 design: building types HOSPITALS

Buildings for the Hospital Service. Hospital Building Note 1. Ministry of Health. HMSO. 1s. 6d.

No major capital investment programme is likely to be positively successful unless the policy objectives underlying it and the procedures for executing it are clear and sound —and are public property. Hospital Building Note No. 1 (" Buildings for the Hospital Service ") which, however, to make full sense, must be read with Ministry of Health Circular M.H.61(4), moves, belatedly, towards this objective. At any rate, the administrative undergrowth is being parted in places.

On the procedural side a big step forward has been taken by the decision to "move to a system whereby the approval of capital projects is accompanied by authorisation of starting dates." If this means what it says and the jargon has an authentic ring about it—it means an end to the present pernicious and wasteful system of "Bring it up to sketch plan stage and we'll tell you then if/when you can start building."

A second major advance is the statement that "a system of cost limits is to be introduced, and the procedure for examining and approving schemes submitted by Boards is to be simplified in the interests of speed and economy." If this means freedom within clearly stated, practicable, even though tough, cost limits, coupled with some mechanism for establishing minimum standards, another corner will have been turned in Savile Row.

The two remaining substantial changes in procedure—the delegation to Hospital Boards and Boards of Governors of full responsibility for projects costing up to  $\pm 60,000$  (instead of  $\pm 30,000$ ) and the preparation of a 10-year forward look at building needs—are in themselves sensible enough. At this point, however, the necessary lead from the centre peters out.

If even tentative 10-year forward looks are to be even moderately realistic, some strategic policy guidance must be given. A policy is something that should tell somebody which things are to come first; it should reveal the scale of values, the priority objectives, the timing, the standards. We must, of course, await the series of Building Notes which are to follow No. 1. but there can be no doubt that Part III of Note No. 1 simply evades this issue. It argues all the difficulties-great enough, it must be admitted. It finds a variety of reasons for ducking the issues which it raises: it excuses itself from a national view here because of local geographical variations; from a technical view there because techniques change (" developments in medicine will involve modifications as time goes on "); from an official view nearly everywhere because "this is essentially a matter for the exercise of judgment" (and in one place "personal judgment"). But whose judgment? To flinch from trying to answer -for fear of answering wrongly?-nearly every issue raised from the middle of page one to the middle of page five of what is only an eight-page document is perhaps understandable. But to remit the whole bundle of unresolved difficulties to 15 different Hospital Boards in England and Wales and to ask them to work on a 10-year plan using their judgment is a plain abnegation of responsibility, common sense and experience. If the issues are ponderable a central development unit has been shown to be by far the best and quickest way of getting to grips with them. If they are truly imponderable it is even more the Minister of Health's duty, in the darkness that prevails, to give a lead.

(14)
625-8

## 18.220 construction: theory CODE OF PRACTICE

Traffic Bearing Structures—Paving C.P. 2006. B.S.I. 30s.

This is No. 6 in the series of Civil Engineering Codes of Practice and was prepared by a committee convened by the ICE.

The Code is divided into five main parts under the headings of design and construction of foundations, concrete roads and airfields, surfacings other than concrete, footways, cycle tracks, and verges, and surface water drainage. Advice is given on the maximum loads which are allowed on the roads of Great Britain by the Road Acts, the load classification system of the Air Ministry in accordance with which the weights of aircraft and strengths of paving are denoted is mentioned and it would have been interesting to have some kind of tabulation of available data. The Code shows that the design of roads and runways is not solely a structural problem, the other properties such as colour, contour, surface, etc., are of importance from the view of safety and durability.

Appendices are included dealing with the design of concrete mixes (which is largely Road Note No. 4) and the standards of riding quality of roads and runways. There are 33 tables and 9 figures which enlarge upon or illustrate the text.

The Code should be read thoroughly by anyone interested in road engineering.



# 18.221 construction: theory COMPOSITE CONSTRUCTION

Studies in Composite Construction Pt. III, HMSO. 8s. 6d.

The purpose of the report is to describe the first field test on a multi-storey steel-framed building, the new Government Offices in Whitehall Gardens, S.W.1. The tests consisted largely of the measurement of strains in selected members of the steel frame, mainly beams, under action of all the types of load and constraint for which they were designed, with a view to learning as much as possible about the structural interaction between these members and their concrete encasements and the neighbouring floor slabs and walls. As construction proceeded and after it had been completed, further measurements were made. The measured strains in the beams all showed evidence of considerable rigidity at the joints which may have been increased by their encasements but they fell short of those predicted for rigidly-jointed bare steel to very different degrees. The strains and deflections due to the test live loads showed considerable stiffening of the bare beams by their encasements and the adjacent slabs and further modifications of the effective loads on them by adjacent walls, the stiffening by encasements and slabs giving rise to effective composite beam sections rather like those of R.C. Tee beams. But, while this stiffening must have played its part in reducing most of the strains which arose during construction, the development of these strains was complex and they showed relatively little evidence of it on the completion of construction if interpreted solely in terms of the final dead loads. They did, however, show one marked difference from the strains predicted for the bare steel, namely, appreciable compression in most beams, presumably due to concrete shrinkage.

The tests are described in fullest detail and there are numerous photographs and figures to illustrate the text. This is, however, an engineer's report though the method of carrying out the tests and the conclusions drawn will be of equal interest to architects.



# Bath after bath



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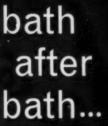
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allons of hot water



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# 20. CONSTRUCTION : COMPLETE STRUCTURES

# lightweight concrete load-bearing construction

We publish this week a description of a 13-storey block of flats under construction at Wandsworth for the LCC. These flats of unreinforced light-weight concrete construction, are notable for their use of a Danish light-weight expanded clay aggregate and a patent system of reusable timber shuttering originating in Austria.

Site plan, Argyle Estate, Wandsworth

When Franz Bittner, an Austrian engineer, devised his system of reusable timber shuttering in Salzburg in the immediate post-war period, it was intended as a necessary tool in the technique of load-bearing ight-weight concrete construction for multi-storey buildings on which he was working. Bittner used foamed slag for his aggregate. His structures were designed as a series of boxes or cells, thus taking what we know as cross wall construction a stage further. When the Bittner system of shuttering came to the notice of the LCC some three years ago, it seemed to provide the opportunity for using lightweight concrete in unreinforced load-bearing construction in which the peculiar structural and constructional advantages of this material could be exploited at a cost at least comparable with that of traditional frame construction. At any rate a sufficiently strong case could be made out for undertaking an exercise in the use of light-weight in-situ concrete and a project, the drawings for which were already in hand using traditional construction, was selected for the purpose. This was a 13-storey block of flats known as "Feldheim" to be erected as an extension to the Argyle Estate, Wimbledon Park Side, Wandsworth. Of the many artificial light-

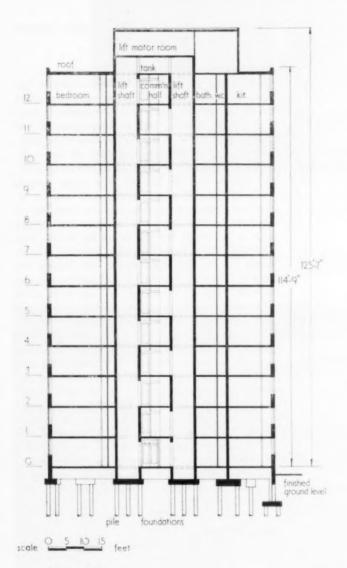


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technical section



The LCC flats at Wandsworth constructed in unreinforced load-bearing lightweight aggregate concrete



Section AA

Ground floor plan



weight aggregates available, it was decided to use one of the lesser-known materials in this country, expanded clay, as manufactured by a special process in Denmark by Lemvigh-Müller and Munck and known as Leca aggregate. Subsequently a contract was negotiated with W. & C. French Ltd., the civil engineering and building contractors. The contractors, who are sole authorised licensees in the UK for Bittner shuttering (under the trade name: Bitcon System), imported sufficient quantities of the Leca aggregate from Denmark for the contract but have now completed the construction of a plant at Ongar, Essex, where Leca will be manufactured and distributed by their subsidiary company, Leca (Great Britain) Ltd.

# The Use of a Light-weight Aggregate

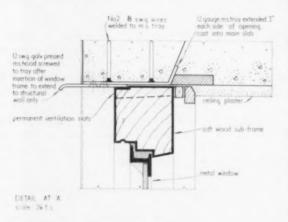
An economical building starts with an economical structure. Where live loads are low, as in multistorey flats or housing, it is obvious that to design an economical structure it is necessary to minimise dead loads in walls and floors. The wide range of patent precast flooring units on the market and the prevalence of light-weight aggregate blocks for partitions stem directly from this point of view. The use of light-weight aggregates for cast-in-situ concrete would seem to follow, particularly with the increased popularity of cross wall construction. A criticism often levelled at light-weight concrete in reinforced construction, namely that there is a risk of corrosion of the steel due to the porosity of the material, does not apply to unreinforced loadbearing structures nor to reinforced concrete of light-weight aggregate vibrated to the required density. It has many advantages, (i) less dead weight in the structure; (ii) good thermal insulation: (iii) easier handling and placing: (iv) easy cutting and nailing. Thus it would appear not only to obey the necessary rules for an economical structure but also to provide other desirable qualities as well. In any concrete loadbearing wall form of construction the cost of shuttering is relatively high. If anything inhibits developments in cast-in-situ concrete work, it is the costly and wasteful use of timber in forming the structure. Research into cast-in-situ techniques must of necessity be coupled with research into economical, and preferably reusable, shuttering. Several ideas have appeared on the market since the war, mostly in the form of soffit shuttering for slabs.

### Design of the Flats

The block of flats is 13 storeys high with extract fan and lift motor room on the roof. It contains 52 flats in all, four flats per floor. Of these, three are two-bedroom and one one-bedroom, except the ground floor which has two of each. The flats are served by two lifts.

Superstructure construction is entirely loadbearing in unreinforced light-weight Leca concrete except the staircase enclosure, which is in normal dense reinforced

concrete. Pile and beam foundations are in normal dense concrete. All external walls (12 in. thick) are loadbearing as are most internal (8 in. thick), including all party walls. Remaining internal walls are 2 in. thick breeze blocks and are not loadbearing. Floors are ordinary reinforced (dense) concrete. The roof slab is reinforced Leca light-weight concrete. Roof superstructures (lift motor room and fan room) are also in Leca concrete. The roof slab is covered with a ventilated no-fines Leca concrete screed with asphalt over. This insulating screed has a high impact strength and is not so friable as a foamed cement screed. The physical structure also permits ready drainage of excess water through temporary drain holes in the roof slab, and the transfer of excess



Detail at A. See section, page 397



Plan of typical upper floor, structural walls shown in solid black

water vapour upwards to the atmosphere through suitably disposed permanent vents.

### The Bittner System

At Feldheim the Bittner System of shuttering was used for forming the loadbearing walls. The design of the shuttering system and its component parts need careful planning, and the ladder positions and the relative heights of the shutters have to be determined prior to the commencement of the work. Basically the system is composed of two components, the ladders and the shutters. The ladder consists of two mild steel angle uprights held together by flat bars acting as rungs. The bars are shouldered to keep the uprights apart and the ends pass through slots in the angles and are themselves slotted. Steel wedges driven through these slots hold the uprights firmly to the shoulders. Before the ladders are assembled, sleeves made of building paper are passed over the rungs, thus enabling the rungs to be easily withdrawn through the concrete wall.

The shutter is a timber panel made up of 4 in. by I in. planks nailed to a 4 in. by 2 in. softwood frame. Shutters are laid horizontally one on top of another and are secured to the ladders by wire clips with buckle fastening passed round the uprights and between the horizontal joints of the shutters. Timber wedges are then driven through the loops formed by the clips. The ladder is thus within the thickness of the wall. After concrete has been poured and the shuttering struck the uprights are detached from the rungs (simply by removing the metal wedges) and removed for re-use. The rungs are withdrawn for re-use and only the paper sleeves remain embedded in the concrete.

### Leca Aggregate

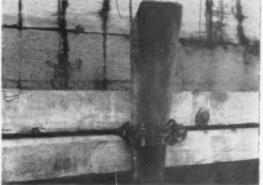
Of the many types of light-weight aggregate known to the building industry in this country—clinker, foamed slag, blast-furnace slag, broken brick, pumice, exfoliated vermiculite, sintered clay, sintered pulverised fuel ash, expanded perlite and bloated clay the last is probably the least familiar. It has been manufactured in this country but for various reasons manufacture ceased. Expanded clay aggregate has been used for some time now both in America and on the Continent and the aggregate known as Leca (short for light-weight expanded clay aggregate) is produced by a patent method of manufacture used on the Continent.

Leca is manufactured from fine grain plastic clay, shaped into pellets and bloated in a rotary kiln. This substance expands with the development of gases which takes place at the pyroplastic stage reached in the firing zone. The even development of gases throughout the substance produces minute globular cells. By sudden cooling of the substance the formation of cells is stopped. The structure of minute separate cells is protected by a semi-vitrified ceramic brownish-red shell which, apart from its colour, has rather the appearance and feel of popcorn.

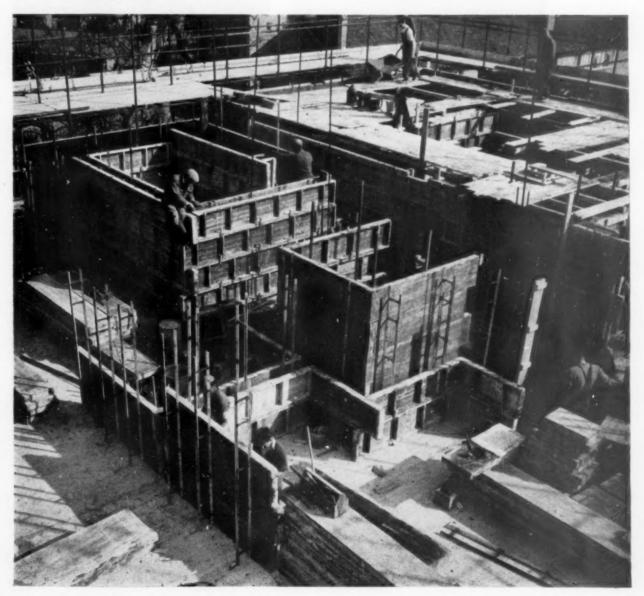
THE ARCHITECTS' JOURNAL for March 16, 1961 [395



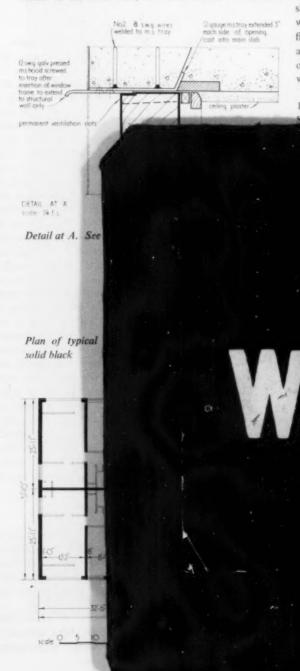
Left: Wire clips for securing shutter to ladder Right: Timber wedge driven through projecting buckle



Timber shuttering being erected foreground). In the background shuttering has been erected and concrete is being poured



concrete. Pile and beam foundations are in normal dense concrete. All external walls (12 in. thick) are loadbearing as are most internal (8 in. thick), including all party walls. Remaining internal walls are 2 in. thick breeze blocks and are not loadbearing. Floors are ordinary reinforced (dense) concrete. The roof slab is reinforced Leca light-weight concrete. Roof superstructures (lift motor room and fan room) are also in Leca concrete. The roof slab is covered with a ventilated no-fines Leca concrete screed with asphalt over. This insulating screed has a high impact strength and is not so friable as a foamed cement screed. The physical structure also permits ready drainage of excess water through temporary drain holes in the roof slab, and the transfer of excess



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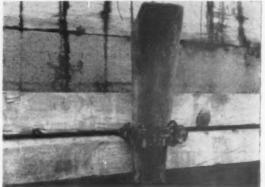
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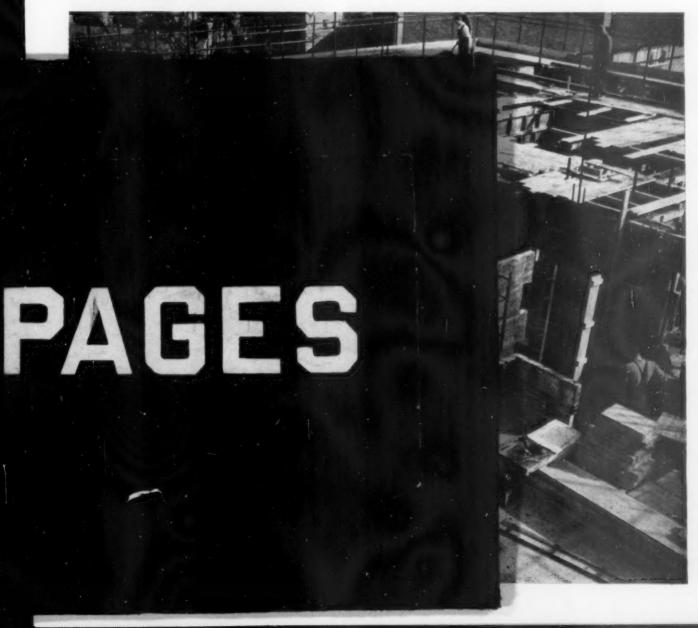
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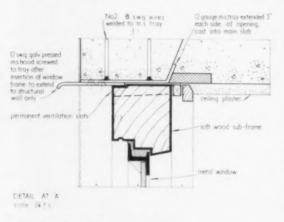


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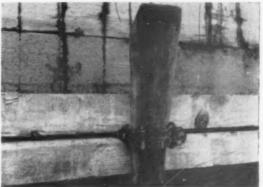
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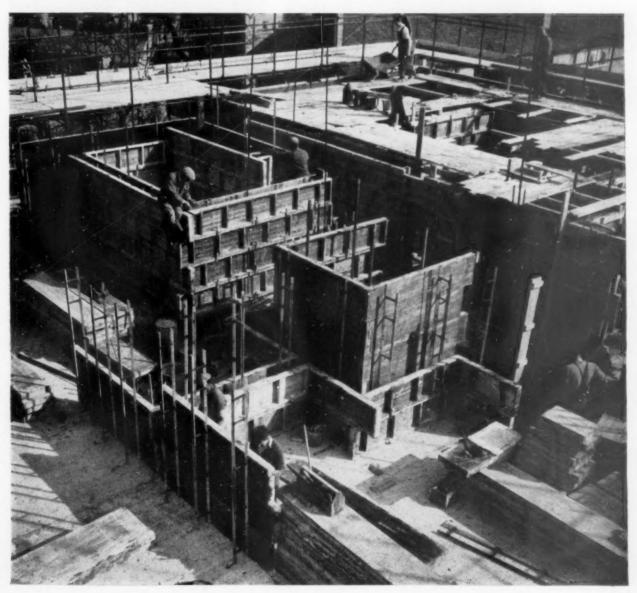
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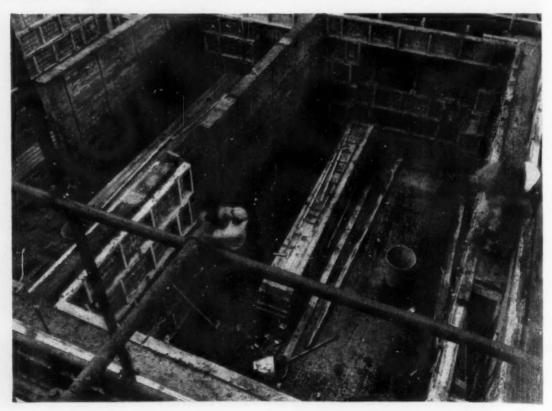


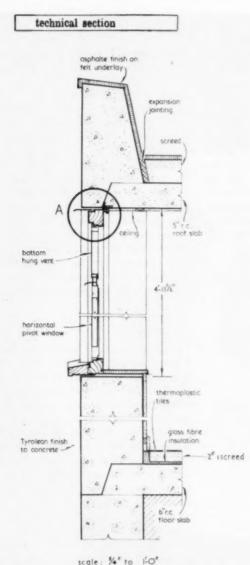
Window frames are secured in position by galvanised straps nailed direct into the concrete

The bent rod used at the base of the ladder for securing the wedge



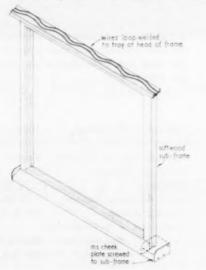
Shuttering being struck





Typical section through external wall

Isometric of typical window subframe showing detail at head for securing frame to wall. In addition, the frame is nailed through galvanised straps direct to the wall



### Appraisal

The flats at Feldheim were not originally designed to be constructed in the cellular structural form which is characteristic of the structures erected by Bittner in Austria. That is to say, the planning was worked out on the assumption that construction would be reinforced concrete frame with brick cladding. When it was decided to use light-weight unreinforced loadbearing construction the working drawings were adapted to suit with the object of altering floor layouts as little as possible. The principal adjustments consisted of thickening up partition walls to a minimum thickness of 8 in. to make them structural. Although the planning works quite well the structural design does not succeed in taking full advantage of the Bittner System which is to standardise wall lengths (and thus shutter sizes). Despite assurances by those concerned that the system is flexible, which indeed it is, the fact remains that this system is an ideal vehicle for modular design and would lose nothing by being submitted to the discipline of a basic module.

Four strengths of concrete were used for the walls, the bottom two storeys and party and lift shaft walls on all floors having the heaviest mix (91 lb, per cu. ft. with a required minimum 28 day works cube strength of 1,800 lb, per sq. in.). The mix (except for party and lift shaft walls) became progressively lighter up the height of the building, the lightest mix at the top being 62 lb, per cu. ft. (required minimum 28 day works cube strength of 1,050 lb, per sq. in.). It was found that the use of an air-entraining agent was essential.

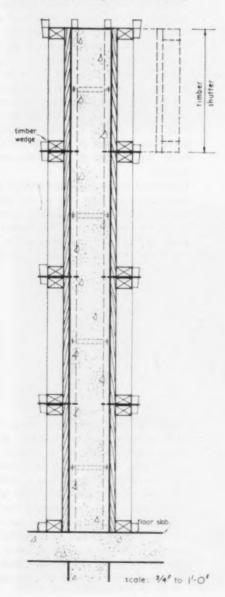
Throughout the job both the LCC and the contractors have carried out field tests on the properties of the concrete, including tests on the compressive strength of various mixes. One of the earliest tests was to assess the thermal conductivity of the walls. Results were highly encouraging. Table 1 lists the k values for the various mixes.

Table	1
Mix	
lb./cu. ft.	k/in. thickness
91	4.8
80	3.2
69	2.7
62	2.4
30 (no fines)	1.05

One of the most significant findings has been that shrinkage cracks have not occurred, probably due to the low elastic modulus of the concrete, and the problem of water entry by capillary attraction does not arise. The whole of the concrete at Feldheim has been thoroughly vibrated and this together with the minute cellular structure of the aggregate has resulted in an impermeable wall structure. This has meant that the original assumption that the external face of the building would need to be rendered to provide a waterproof skin was entirely unfounded. This assumption was made in the light of Continental experience

based on the use of foamed slag aggregate which was not vibrated. Following tests by the London County Council's Scientific Adviser on the differential movement of the Leca concrete and the proposed rendering, and in view of the high waterproofing quality of the Leca concrete walls, it was decided, after much experimental work, to abandon the idea of a  $\frac{1}{2}$  in. thick three-coat hand applied render in favour of a thin thrown-on type of finish. In the long run the fact that it was necessary to apply a finish to the walls was brought about not because of the need to waterproof the walls, but because the finish on the concrete, particularly where the ladders formed V-shaped indents in the wall, was not considered good enough visually to

Wall section showing Bittner shuttering



be left exposed. Ironically one of the most vexing problems confronting the architects, that of finding a suitable decorative finish, could have been avoided if the full extent of the water-resistant characteristic of Leca concrete had been known from the start. In the event a good deal of experiment and research went into finding a suitable decorative finish, one which was reasonably self-cleansing (i.e., would shed the dirt) and frost-proof and not, therefore, liable to spalling. The result was a Tyrolean finish consisting of one part of white cement (plus 2 per cent flaked mica) and  $2\frac{1}{2}$ parts white calcium flint by volume plus sufficient water to produce a creamy consistency.

At this stage it has not been possible to determine the acoustic and fire-resisting properties of Leca aggregate concrete, but the London County Council's Scientific Adviser considers it probable that both of these properties will prove satisfactory.

## Conclusions

As yet cost figures for the flats are not available but it is worth noting that the contract was negotiated on the basis that the cost would not exceed that for a traditional reinforced concrete frame structure. It goes without saying that whilst this project has been an extremely valuable exercise and has underlined the potentials of both Leca aggregate and the Bittner system of shuttering, further developments may prove that this combination can result in cheaper buildings. In fact it should not be difficult to do this. The idea of harnessing the Bittner system to a really well thought out modular grid offers exciting possibilities of off-the-form finishes, experiments for which are being carried out by the LCC architects and W. & C. French Ltd. There are problems yet to be resolved, for example the fairly large indents left in the face of the concrete by the uprights of the ladders. The simplest and most effective solution may be to accept them as an expression of constructional technique, merely ensuring alignment of ladders from storey to storey.

It would seem that the exercise at Feldheim has already vindicated itself. This has been due in no small measure to the excellent co-operation between the LCC architects and their scientific adviser on the one hand and the contractor and his consultants on the other.

Architect to the Council Deputy Architect Principal Housing Architect Architect-in-Charge Assistant Senior Structural Engineer Scientific Adviser Consultants to the Contractor : Architectural Structural

Hubert Bennett F. G. West Kenneth J. Campbell George F. Bailey J. A. Soper J. H. Humphreys Dr. S. G. Burgess

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### Children's Homes

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The large institutional orphanage is now being replaced by small familysized groups. This has led to the emergence of an entirely new building type which we discuss here in relation to four examples, three by LCC at Chislehurst, Harlow and Lewisham, and one by the City of Canterbury.

The architects responsible for these homes were as follows:

HARLOW: Hubert Bennett, Architect to the LCC; F. G. West, Deputy Architect; D. C. H. Jenkin, Senior architect, General Division; P. E. Jones, Assistant architect; H. M. Hurley, architect in charge; A. J. Woodhead, job architect.

LEWISHAM: as at Harlow except for the following: John Stedman, architect in charge; J. M. Stewart, job architect.

CHISLEHURST: Professor Sir Leslie Martin, former architect to the LCC; F. G. West, then Senior architect, General Division; R. V. Crowe, architect in charge; John Fletcher, job architect.

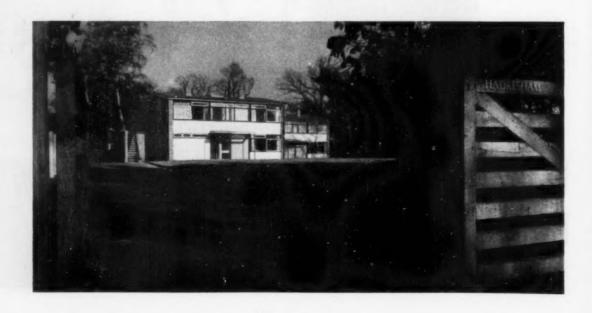
CANTERBURY: J. L. Berbiers, City Architect; C. W. Gummer, Deputy City Architect; G. Baker, Architect in charge.



27



The homes as the public sees them; Canterbury above, and Chislehurst below



These four children's homes are typical of the several hundred houses built since the war for children who are deprived of a normal home life, and for whom the alternatives of boarding out or adoption are not possible. The day of the large institutional orphanage is over, though some old buildings still remain in use either through restrictions in capital investment or because it was hoped that the number of children for whom provision must be made would decrease.

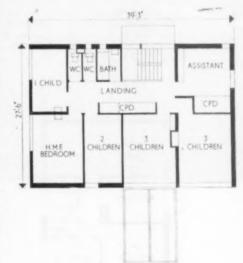
The new era was heralded by the publication in 1946 of the Curtis Report and by the passing in 1948 of the Children's Act. The present views of the Home Office (the responsible Government department) on children's homes are contained in the Seventh Report on the Work of the Children's Department, published in 1955. The aim is to enable each child to live as a member of a small group, similar in composition to a large but otherwise normal family. The number of children in the group may vary from eight to twelve: they are of both sexes and usually range from two to fifteen years in age: although babies are occasionally admitted, and when it is considered desirable children may stay beyond the age of 15. The children are looked after by a housemother, who may be a single woman, or a married woman whose husband lives in the home and goes out to work in the usual way, by one other resident assistant, and daily domestic help if necessary. The homes are managed in the same way as an ordinary household, and the children share in the life and activities of the neighbourhood.

It is suggested that each house should contain a living-room or playroom, a quiet room for reading and other such occupations, and that one of these rooms should also serve as a dining space. Provision for hobbies and crafts should be made in the building or in an adjacent outhouse. It is suggested that the staff will share the children's accommodation, but they will also have some private rooms. Bedrooms should be for two or three children and there should be one single room in case it is necessary to isolate a sick child.

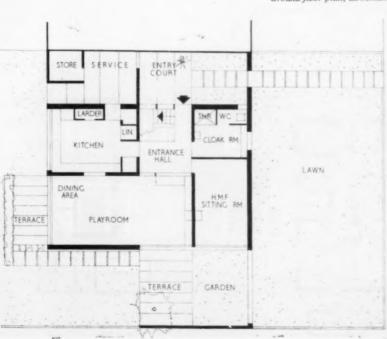
To what extent do the homes at Canterbury, Chislehurst, Lewisham and Harlow provide a suitable domestic environment for the children they serve?











Ground floor plan, Lewisham [Scale: 4" = 1' 0"]



The homes as the public sees them; Canterbury above, and Chislehurst below



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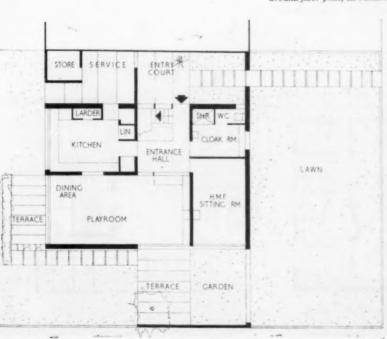
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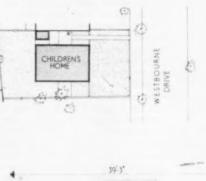


First floor plan, Lewisham children's home

Ground floor plan, Lewisham [Scale: 1" - 1' 0"]



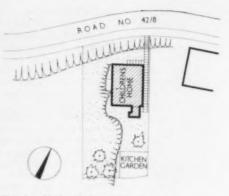
Site plan, Lewisham [Scale: += 1' 0"]



### Siting

-

The homes at Canterbury (p. 400) and Harlow (p. 409), have the advantage of being built in new housing areas where they mingle unobtrusively with their neighbours. This is obviously an ideal situation. At Chislehurst (p. 400) two homes have been placed on a large well-treed site in a neighbourhood of well-to-do pre-war private houses. The homes have integrated extremely well into their environment, and school friends are always to be found visiting. It is good to know that the children have established friendly relations with the occupants of the adjacent old people's home. At Lewisham (p. 409), the problem was more difficult. Sites in the Greater London area are almost impossible to find, and this one-probably the only one available-is smaller than the minimum area normally sought by the LCC. On both sides of the 52-ft.-wide site are three-storey Victorian houses and at the end of the garden is the tarmac playground of a school. Are the neighbours already immune to the noise of playing children, or will the nine in the children's home, out of school hours, be the last straw?







First floor plan, Harlow children's home



Canterbury children's home, first floor

Ground floor, Canterbury children's home [Scale: 1'1'



Harlow children's home, ground floor [Scale 1 = 1 - 1





The homes as seen from the gardens; Harlow above, and Canterbury below. The gardens have to be easy to maintain, with generous grass areas for play, and preferably circuit paths for bicycles etc. Carefully tended flower beds are not possible, unless some of the children become keen gardeners. Sites which have no natural features therefore can appear rather stark and colourless until the shrubs and trees are established



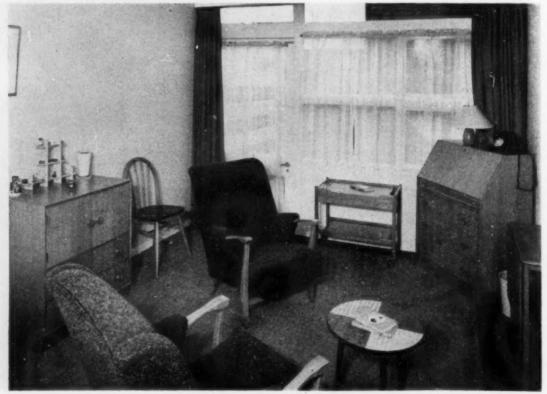
Staff bed-sitting room at Harlow, below





Staff bed-sitting room at Chislehurst

Below, the staff sitting room at Lewisham. The method of providing staff with individual bed-sitting rooms, plus a shared sitting room for daytime use as a retreat from the children, would seem to be a very workable solution







2

Children's bedrooms at Chislehurst, above, and Lewisham, left

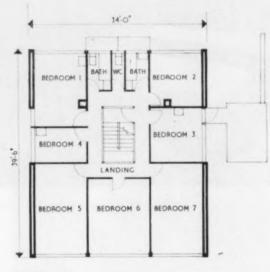
Children's bedrooms at Harlow, right, and Canterbury, below





### Living-rooms

Areas of living-rooms vary from 37 to 42 sq. ft. per child and are thus comfortably above the recommended standard of 35 sq. ft. In terms of rooms, the best accommodation is at Canterbury, where there is a playroom, used also for dining, and a small quiet room. At Chislehurst, there is an L-shaped room in which the shorter arm is separated from the larger by bookshelves to form a sitting-room. The housemother likes this arrangement and finds it works well. When children in the sitting-room want to be particularly quiet, children playing must not make too much noise in the



First floor plan

Chislehurst children's home, ground floor [Scale: #" = 1' 0"



adjacent space—as is customary in ordinary homes, though few families have to cope with the conflicting demands of twelve children! In the homes at Harlow and Lewisham, a sliding folding door can be used to divide the one rectangular living-space. This seems to be an unsatisfactory arrangement: it is difficult for the different characters of playroom and quiet room to develop in what is sometimes two halves of one room, and the sense of separateness given by the sliding folding door is, as far as sound insulation is concerned, illusory.

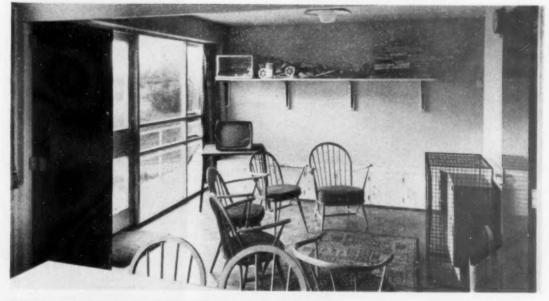
Children in children's homes are probably better catered for in living accommodation than those in ordinary homes: the rooms are theirs and are not intended primarily for adults. This character should be brought out in the architect's design, and in this respect it is interesting to compare the living accommodation at Canterbury (p.407), and Chislehurst (p. 399). In doing so, it must be borne in mind that some of the problems are administrative as well as architectural, that the architects at Canterbury were not responsible for the furnishing, and that Chislehurst cost approximately  $\pounds_3$  tos. per sq. ft. against Canterbury's  $\pounds_2$ , although the difference does not all lie in the finishes.

The main reason why the room at Canterbury is less satisfactory than that at Chislehurst is that although both are domestic in size, the former is institutional in scale and character. Window sills are 3 ft. 6 in. above floor level, which prevents the children from seeing into the garden and gives a boxed-up feeling in the room. There is a pair of glazed french doors, but they have a restricted view. The 3 ft. 6 in. sill line is emphasised because it lines up with the top of the children's toy cupboards. The latter, a built-in fitting consisting of 1 ft. 9 in. high individual compartments, extends along half of one long wall of the room and appears bulky and obtrusive. At Chislehurst, the toy cupboards form a bench-type fitting, I ft. 6 in. high with hinged top lids, ranged along the whole length of the wall. At Canterbury there are no pictures on the walls, and all is plaster and painted wood. At Chislehurst, partly because the playroom and quiet room form one complex space, it has been possible to introduce both brick and natural wood surfaces. At Canterbury the floors are of thermoplastic tiles unrelieved by rugs, while Chislehurst has a thin wood block floor with fitted carpet in the sitting area.

#### Bedrooms

The Home Office recommendations ask that bedrooms be furnished without uniformity, that individual taste should decide arrangement of furniture, choice of colour schemes, and display of personal possessions. Sufficient space should be provided for children's wardrobes and chests of drawers, and to allow 3 ft. between sides of adjacent beds. The area recommended for single bedrooms is 45 sq. ft. per child, and slightly larger areas are now quite usual. In none of the bedrooms visited had the child's individual place of bed, rug and chair been well developed because there was simply no room to do it: neither were shared wardrobes or chests of drawers, where provided in bedrooms, equally accessible to all children (p. 405). One of the rooms at Chislehurst had a work-top under the window at which children could do homework, and older boys had made themselves display shelves (this surely should be encouraged), but there was no pin-up board.

There was no heating in bedrooms, but socket outlets were provided for portable heaters in case of illness. This may still be current practice in English houses but it is not realistic in children's homes. A child's bedspace is the place where he can best exercise his individuality. The bedroom, therefore, is not solely a sleeping space but may be used by a child who wants to be alone for a while or for homework. The room should be adequately heated, and the combination of children, bedding and portable heaters should not be encouraged.





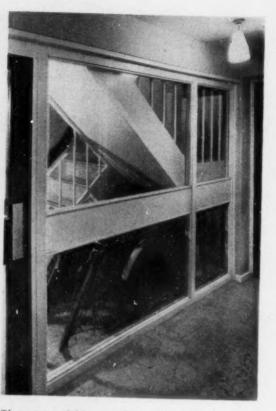
The living rooms in the homes at Harlow, above, Lewisham, left, and Canterbury, below. For comparison with the living room at Chislehurst, see page 399



building illustrated

The kitchen at Harlow

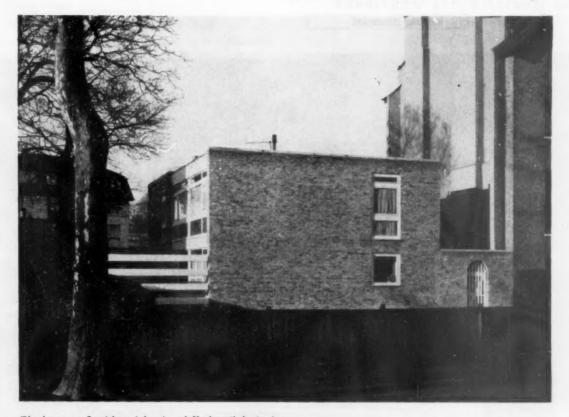




The entrance lobby at Harlow. Some special provision for storing cycles would seem to be essential

The kitchen at Lewisham, below





The homes at Lewisham (above) and Harlow (below). At Lewisham the architects have made a brave attempt at integrating the home with the remaining half of a semidetached pair of houses, which is still standing on the adjacent site





The garden front at Chislehurst

Because much of this article has been critical of the children's homes, it should be stressed that the criticisms are concerned mainly with points of detail. The important thing is that these buildings enable children whose parents cannot look after them to live domestic lives in ordinary residential surroundings.

The costs of the four homes are as follows:-	Harlow	Chislehurst	Lewisham	Canterbury
No. of children	7	12	9	ю
Gross cost including external works, service charges and abnormalities	£4,164	£8,040	£7,143	£4,037
Net cost excluding external work	£3,605	£6,527	£5,994	£3,610
Net cost per sq. ft.	51s. 3d.	53s. od.	59s. 4d.	34s. 6d.

Architects' Journal 16.3.61

### working detail

DRAWING TABLE: OFFICES IN STOCKHOLM

Sven Kai-Larsen, architect (material supplied by A. J. Sherwin)



These ingenious drawing tables in an architect's office are designed to rest, at one end, on a continuous sill. There is no table top, since this is provided by the drawing board itself. Instruments are held in a narrow container on the window side and reference books are placed either on the sill or on tray-type drawers on the room side.

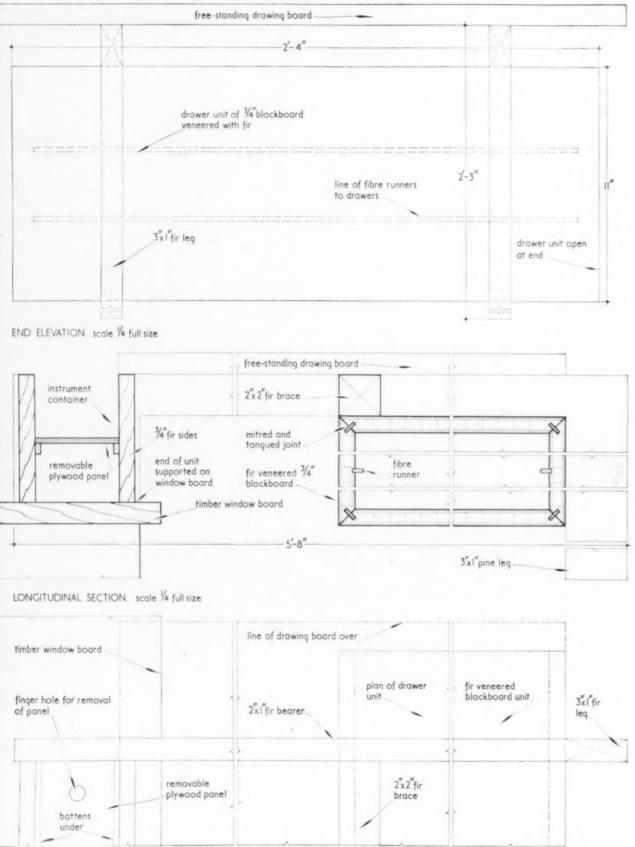


### working detail

(8) FURNITURE AND FITTINGS: 105

DRAWING TABLE: OFFICES IN STOCKHOLM

Sven Kai-Larsen, architect (material supplied by A. J. Sherwin)



PART PLAN. scale 1/4 full size

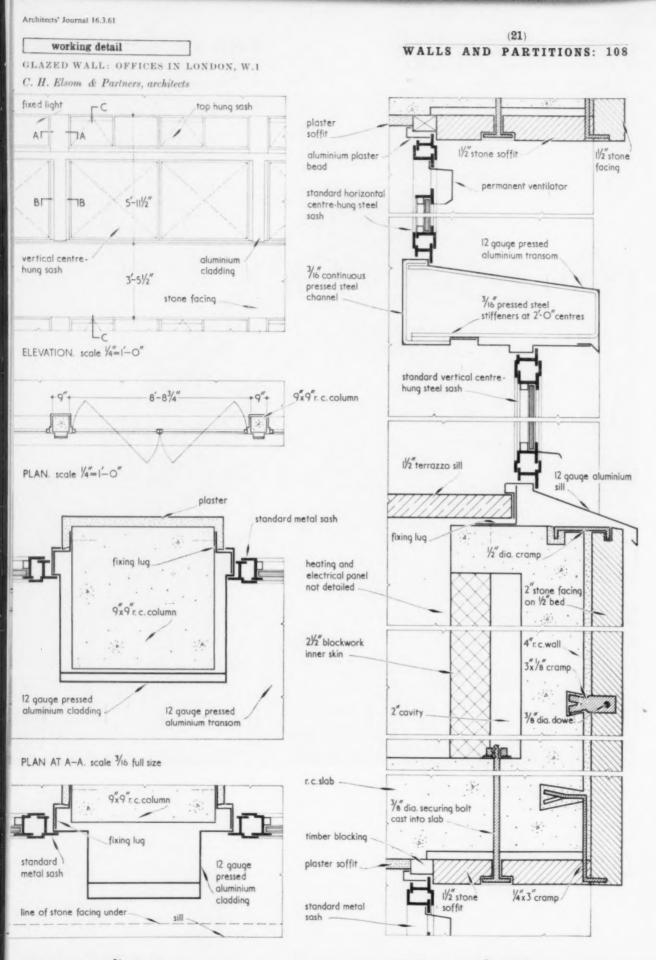
note: figured dimensions in feet and inches are approximate Architects' Journal 16.3.61

### working detail

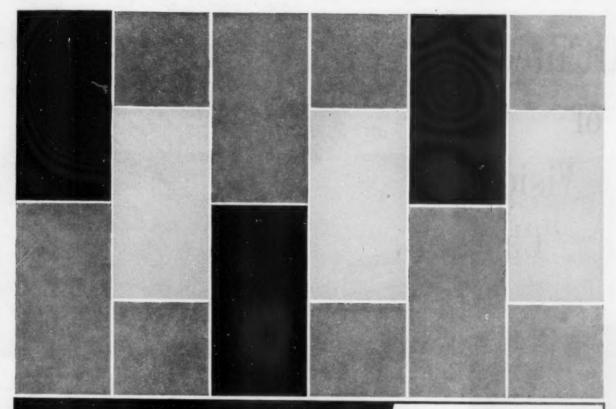
GLAZED WALL: OFFICES IN LONDON, W.1 C. H. Elsom & Partners, architects



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PLAN AT B-B. scale 3/16 full size



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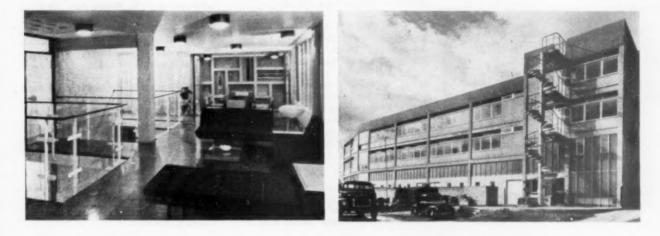
118

### Furniture Showrooms

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### THE ARCHITECTS' JOURNAL for March 16, 1961 [411

sand-lime bricks. The elevational treatment includes the use of an "eyebrow" or horizontal louvre to the windows of the upper floors, a familiar feature of this architect's buildings. The block is slightly canted to follow the building line, which gives an added interest to the design, and which is a natural expression of the fluidity of the structure (rear elevation below). Because of the additional space available, it will be possible for Hille to show many more items of their range than is possible in their London showrooms. The main display area is on two levels and a high degree of spatial interpenetration has been developed by allowing part of the ground floor to open through to the upper level. This showroom, the interior of which has been designed by Robin Day, relies on a combination of mainly white paint and natural materials, which forms exactly the right type of recessive background for the display of the furniture.





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### Announcements

### PROFESSIONAL

Bryden & Woodford, chartered quantity surveyors, have removed their London office to 4, Upper Belgrave Street, Westminster, S.W.1. (Telephone: BELgravia 6171.)

Tozer & Partner, quantity surveyors, have opened a branch office at 47, Grove Street, Wilmslow, Cheshire, J. D. George, A.R.I.C.S., is in charge and will be pleased to receive trade literature.

Tasker, Cassidy & Campbell, A./A.R.I.B.A., have moved their practice to 1, Wardrobe Place, Doctor's Commons, St. Paul's Church Yard, London, E.C.4. (Telephone: CITy 6184.)

Mrs. Florence Knoll, of Knoll Associates Inc., has been awarded an Industrial Arts Medal for well-designed furniture.

R. Howard Owen, M.C.D., B.Arch.(L'Pool), A.R.I.B.A., A.M.T.P.I., has moved to Imperial Chambers, 62, Dale Street, Liverpool, 2. (Telephone: MARitime 1331.)

Z. F. S. Otrzasek, B.A., design consultant, c/o Barclays Bank, Alpes Maritimes, Nice, France, wishes to receive trade literature. Fennell & Baddiley announce the death of Albert H. Fennell, L.R.I.B.A. The practice will be carried on by F. O. Baddiley, M.B.E.(Mil.), A.R.I.B.A., and T. E. Fennell, A.R.I.B.A. The Gateshead office has been closed and all communications should be addressed to their Chester-Je-Street office.

Stanley Ripley, F.R.I.B.A., Dipl.arch., has been appointed deputy city architect, Chester City and County.

Keith Manners, A.R.I.B.A., has started his own practice at 18, Worthington House, Myddelton Passage, London, E.C.1 (telephone: TERminus 0954), and would be pleased to receive trade literature.

Shingler & Risdon have opened a new office at Ringway Centre, Birmingham. The partner-in-charge, David Oglesby, would be pleased to receive trade literature.

H. E. Watkinson, F.R.I.C.S., M.I.Struct.E., M.Inst.R.A., has taken into partnership James Cosgrave, A.R.I.C.S., A.M.I.Struct.E., The practice will be continued as H. E. Watkinson & Partners at 240, Kentish Town Road, London, N.W.5. (Telephone: GULliver 6121.)

#### TRADE

A. J. Wyatt, A.R.I.B.A., has been appointed chief designer of Rapier Design Ltd.

James Oldroyd, T.D., M.A., F.C.I.S., has been appointed general manager of the Lead Development Association and will take up his position in April.

D. F. Yeatman has rejoined A. H. Herbert & Co. Ltd., as architects' technical sales representative on all branches of specialised fixing work.

The Mond Nickel Co. Ltd., an affiliate of The International Nickel Company of Canada, Ltd., has changed its name to The International Nickel Co. (Mond) Ltd.

A. Sutcliffe, J. R. T. Douglas, B.Sc., J. F. Smith, F.I.O.B., P. G. Boosie, B.Sc., A.M.I.C.E., A.M.I.Mech.E., A.M.AM.SOC.C.E., and F. R. Benson, B.Sc.(Eng.), D.L.C., D.I.C., A.M.I.C.E., have been appointed directors of British Lift Slab Ltd., a subsidiary of Robert M. Douglas (Contractors) Ltd.

Clifford Bloxham & Partners Limited have moved to Wellington House, Upper St. Martin's Lane, London, W.C.2. (Telephone: TEMple 1237.)

### Correction

The architects for the new printing house for the University of Cambridge Press (AJ, March 2, 1961, p. 340) are Beard, Bennett, Wilkins & Partners.

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A close-up of one of the 'Gabion' baskets showing the wire coated with p.v.c. based on 'Corvic' I.C.I. vinyl polymer.

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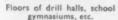
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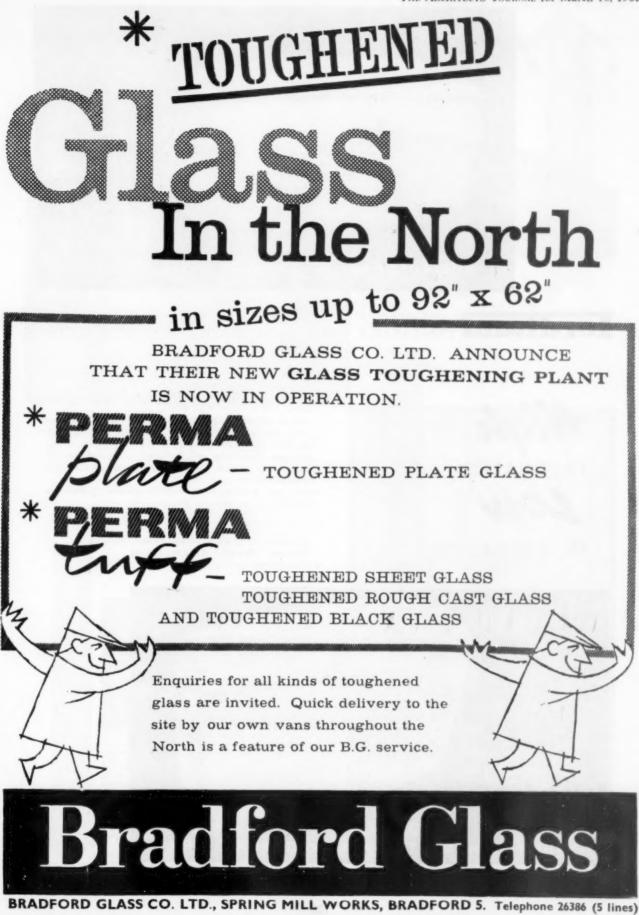


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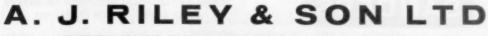


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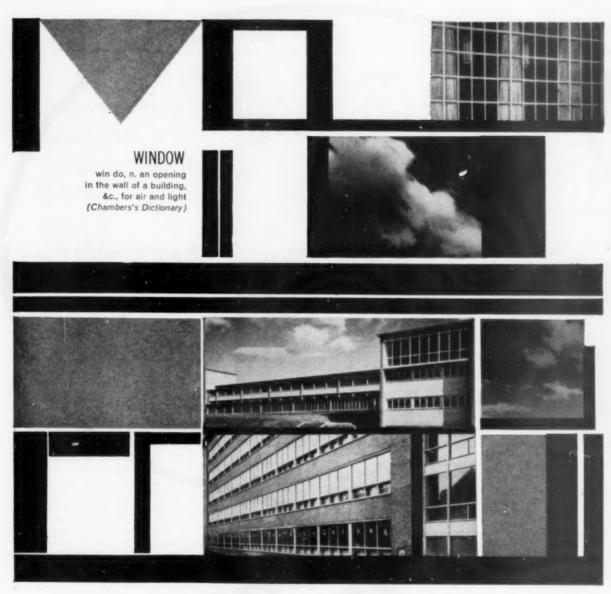
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# News from Hull

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architect MICHAEL ROSENAUER F.R.I.B.A., A.I.A.

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Nothing, if not luxurious, The Carlton Tower in Cadogan Square has gone in for the very best of everything original paintings by Feliks Topolski, interiors by Henry End Associates of Miami and New York, radio and television in every room and a bathroom with every room. And in each bathroom -318 in all-The Carlton Tower have installed the Sanwall water closetpossibly the best designed, most hygienic and durable of its kind. Made by Ideal-Standard from vitreous china, the Sanwall has a high resistance to harsh treatment. Fitting is simple. The Sanwall is supported by a cast iron chair bracket built into the wall and the floor. The cistern is concealed in the wall, but is readily accessible. There are other methods of fixing the Sanwall-details are available from Ideal Boilers & Radiators Ltd., Ideal Works, Hull.



The cistern and supports of the Sanwall are completely hidden in the wall. The clean, free standing appearance of the unit is a remarkable advance in modern design and is certainly the most attractive way of presenting a toilet suite. Made from 'Standard' vitreous china the Sanwall is hygienic, durable and because it stands clear of the floor it makes the job of the cleaner much easier.



### A BATHROOM FOR THE FAMILY

Robert Heritage, Des.R.C.A., F.S.I.A., has completed his design for the second bathroom commissioned by Ideal-Standard and illustrated here. Of it he says :---

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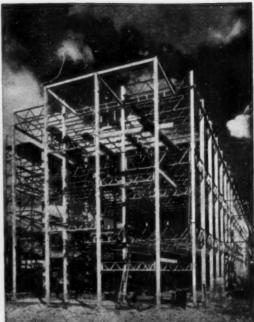


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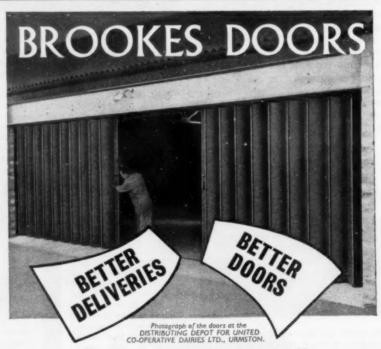
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THE ABCHITECTS JOURNAL For March 16 1961



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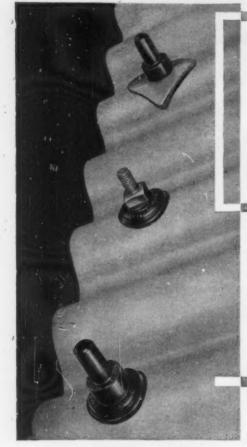
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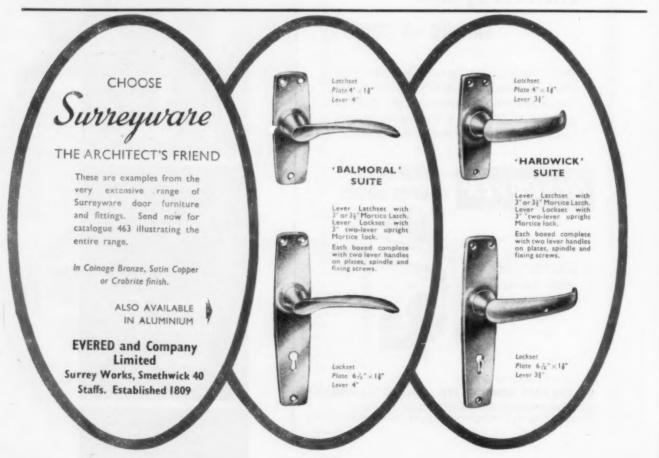
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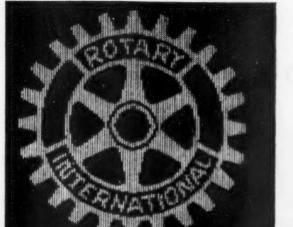
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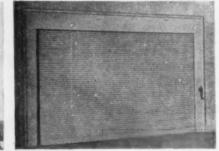


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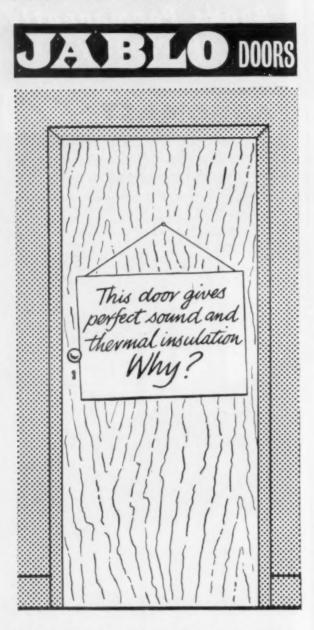


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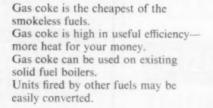
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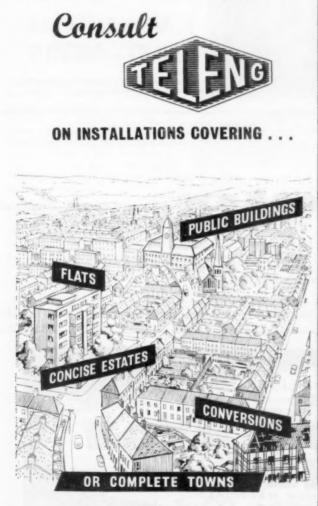
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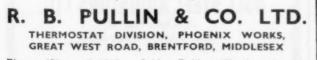
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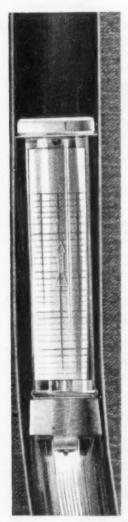


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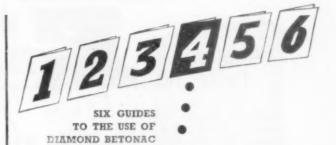
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## NEW STONE & RESTORATION LTD. 33 Sloane Street, London S.W.1

Tel. BELgravia 6271 and:

Also at: 1, Belmont Road, Belfast. Tel. Belfast 656388/9.

Wimpenny's Stone Quarries, Crossland Hill, Huddersfield, Tel. Milnsbridge 42.

W.S

# ☆ What is special about SYNTHANITE

## THESE 10 FEATURES!

Laid on waxed kraft paper or bitumen, making hacking or grouting of base unnecessary.

\* No adhesion to sub-floor-thus movement is not transmitted.

\* Shrinkage negligible means little or no cracking.

★ 600 sq. yds. can safely be laid without expansion joints.

★ Great stability and flexural strength.

- ★ Dries and hardens quickly—ready for floor finish within 6 to 10 days.
- ★ Ideal for acoustic floating floors.
- ★ Permits the use of directly embedded cables for electrical underfloor heating.
- ★ Recommended surface for plastic tiles, rubber, linoleum, wood blocks etc.
- \* Speedy laying.

## CHOSEN FOR:

IMPERIAL CHEMICAL INDUSTRIES LTD. - installation at Mond House.

MIDLANDS ELECTRICITY BOARD—installations at Birmingham, Gloucester, Redditch, Stafford and Cheltenham.

LANCHESTER COLLEGE-by City Architect and Planning Officer, Coventry.

CHOSEN BY BUILDERS & ARCHITECTS EVERYWHERE!



For details of laying facilities and further information contact:

SEMTEX LIMITED, Semtex House, 19/20 Berners Street, London, W.1.

Telephone : LANgham 0401

M

## ROYSTON artificial stone fascia



(Patent No. 828462)

### SPECIFICATION

The Royston is basically two units— 1. A gin. rear gutter block, with provision for casting lintals in rear trough, and shaped to receive Fascia. 2. A 2ft. Artificial Stone fascia, precision made, to lay with

almost invisible joints.

LINING

Finlock supply and fix an aluminium/bitumen lining, for which a guarantee for 20 years is available. Your site is served by a nation-wide organisation, giving a 48 hour service.

SAVINGS

Write now for booklet giving full information showing how to reduce building costs.

## FINLOCK GUTTERS LIMITED

FINLOCK HOUSE, FRANT ROAD, TUNBRIDGE WELLS, KENT.

Edited by D. A. C. A. Boyne and Lance Wright A.R.I.B.A.

## Architects Working Details Volume VII ENGLISH EXAMPLES

Size 12×81 ins. 160 pages. 148 half-tone and line illustrations. 25s. net. postage 1s. 9d.

The Architectural Press 9-13 Queen Anne's Gate, London, S.W.1 Telephone: Tunbridge Wells 3396 (4 lines)

Booklet to :-

NAME.

ADDRESS

## PILKINGTON BROTHERS LIMITED

Please mail the Finlock Technical

In the advertisement on page 82 of the issue of February 16th, the following statement appeared :-

"'U' of single windows 1,000 B.t.u. sq. ft. h deg F".

This is, of course an error, and should have read :--

"'U' of single windows 1.00 B.t.u. sq. ft. h deg F".



## ARCHITECTS

Alison & Hutchinson & Partners have vacancies in their Edinburgh office for Architects in the undernoted' grades. Excellent opportunity for persons of initiativeability and experience to work on a wide variety of interesting and stimulating work including hospitals. large technical colleges, schools, multi-storey housing and central area developments. For Grades 1 and 2 good experience is essential in the design and controlling of major projects:—

### Grade 1.

Principal Assistant Architects. £1,350 rising to £1,800. Grade 2.

Senior Assistant Architects.	£1,100 rising to £1,500.
Grade 3. Assistant Architects.	£900 rising to £1,200.
Grade 4.	

Junior Assistant Architects. £700 rising to £1,000.

Placing on the scale will depend on experience and ability. Vacancies also for architectural assistants of intermediate standard.

Pleasant and congenial office with five-day week and three weeks annual paid leave.

Applications in writing stating grade applied for and full particulars of age, experience and when available in strict confidence to **4 Rothesay Terrace, Edinburgh**.



THE ARCHITECTS' JOURNAL for March 16, 1961

PACE-HEATING PACE-HEATING OR A PACE AGE

MORHEAT Electric Central Heating Panels are simply screwed on the wall. No earth required. Simply switch on for comfortable background heating, and, they are absolutely safe. The secret is in the low temperature, non-metallic MHOGLAS element which is sandwiched between sheets of high quality Swedish masonite. Available in Reeded or satin finish in a range of attractive colours.



MORHEAT LTD., Church Path, Fareham, Hants. Tel.: 2322/3



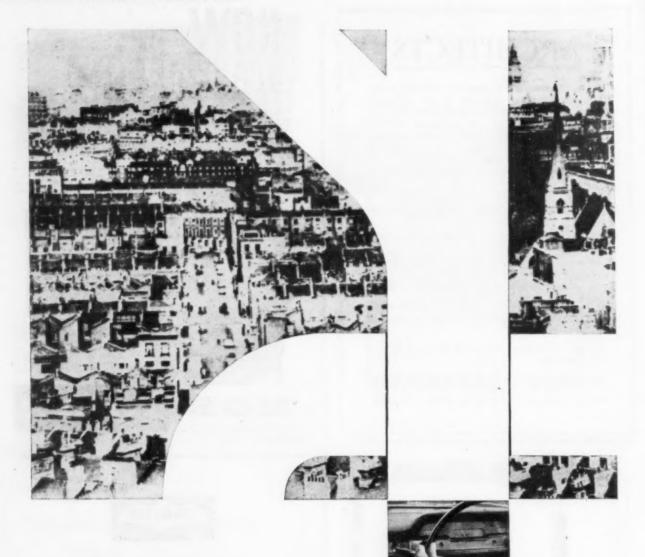
## BIRDS EYE FOODS LIMITED ARCHITECTURAL ASSISTANTS

required to help carry out full architectural services for industrial buildings, and in particular, process areas, canteens, and office accommodation, necessary for the further development of this rapidly expanding Company. Applicants, qualified by examination and/or experience, should show themselves capable of handling building project<sup>6</sup> from sketch design to completion, and will be offered the opportunity of undertaking responsibility, reporting directly to the Company Architect.

A four-figure salary will be offered together with a ful range of employee benefits, including Superannuation Scheme. Full details of age, qualifications and experience should be sent to:

Personnel Officer, BIRDS EYE FOODS LIMITED, HESKETH HOUSE, PORTMAN SQUARE, LONDON, W.<sup>4</sup>.

153



## LONDON'S £200,000,000 OPPORTUNITY FOR ARCHITECTS

The London County Council is planning to spend £200 million on road works over the next twenty years. Architects and Architect/ Planners are wanted now to work with engineers, valuers and surveyors on this enormous programme.

## Architects are needed for:

- (a) Council building on land associated with road improvements.
- (b) Accommodation works-treatment of buildings affected.
- (c) The siting of subways, transformer chambers, etc., resiting public monuments, provision of sculpture and other features.
- (d) Architectural aspects of the design of bridges, bollards, rails, retaining walls, lighting columns and lanterns, road signs and roadside equipment.
- (e) Pavings and surface treatment including surface treatment of subways and tunnels.

### Architect/Planners are needed, for example, to deal with:

(a) Planning advice on the route and widths of improvements, new building lines, accesses, etc. (b) The extent and use of surplus land.

- (c) The redevelopment of lands associated with road improvements.
- (d) The general co-ordination of the three-dimensional aspects of redevelopment.

### HAVE YOU THOUGHT OF JOINING THE L.C.C.?

- \* Promotion by merit \* Flexible salary scales
- \* Special annual grants for outstanding work

Starting salaries for Architects and Architect/Planners up to £1500 according to quality and experience. Vacancies also in Grade I (up to £1700) and Principal Assistant (Professional) (up to £1950).

If you would like to know more, write for full details of the service in which you are interested to:



### Hubert Bennett, F.R.I.B.A., Architect to the London County Council, (EK/2) County Hall, London, SE1

## CLASSIFIED ADVERTISEMENTS

CLASSIFIED ADVERTISEMENTS Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11, and 13, Queen Anne's Gate, Westminster, S.W.1. Normal printing arrangements have been attered to allow for the Easter holiday. The latest dates for receiving advertisements are should set. March 23 issue-Friday, March 17. March 25 issue-Friday, March 28. April 6 issue-Friday, March 28. April 13 issue-Friday, March 28. April 13 issue-Friday, March 28. Care of "The Architects' Journal," at the address given above.

given above

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 Appoint-ments Vacant, we have been pleased to arrange that cuttings of all such classified advertisements appearing in the A.J., shall be despatched by air-mail on Wednesday of each week (one day prior to A.J. publication date). The cost of this special service to Overseas subscribers will be 5s. for four weeks (1s. 3d. for each additional week) and prepayment should be sent by subscribers wishing to take advantage of this service. The charge we are making represents only the actual cost of the postage involved.

### **Public and Official Announcements** 36s. per inch: each additional line 3s

36s. per inch; each additional line 3s.
 AYCLIFFE DEVELOPMENT CORPORATION (New Town of Newton Avcliffe) SENIOB ASSISTANT ARCHITECT Applications are invited for an appointment of Senior Assistant Architect at a salary in accord-ance with Grades A.P.T. IV or V of the Whitley Council for New Towns Staff Scales of Salaries, i.e. £1,140-£1,310 p.a. or £1,510-£1,480 p.a. The commencing salary and grade will be fixed accord-ing to the qualifications and experience of the successful applicant.
 The principal work for the successful applicant will be in connection with the development of the town centre of the new town.
 Appointment subject to N.J.C. Conditions, super-annasion, medical examination and to one menth's notice, in writing, on either side.
 Housing accommodation available, if required. Applications stating age, qualifications and experience together with the names of two referees to be sent to the undersigned. A. V. WILLIAMS. General Manager.

Churchill House, Newton Aycliffe, Nr. Darlington

5864 URBAN DUSRICT OF TETTENHALL ENGINETS AND SURVEYOR'S DEPARTMENT Applications are invited for the appointment of ASSISTANT ARCHITECT on the Staff of the Engineer and Surveyor at a salary within Grade II/IIX (2815-21.140) commencing salary according

Regineer and Surveyor at a same and the second of the second seco

WESTMORLAND COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT Applications are invited for the appointment

SENIOR ASSISTANT ARCHITECT, A.P.T. Grade V (21,310-21,480). Candidates must be Associates of the R.I.B.A. and previous Local Government experience will be an advantage. Opportunity exists for ex-perience in a varied programme of capital building.

Applications, stating age, technical training, qualifications, experience, previous and present appointments with salary, and the names of two referees, to the County Architect, County Hall, Kendal, by Wednesday, 5th April 1961. 6448

 Kendal, by Wednesday, 5th April 1961.
 6448

 METROPOLITAN BOROUGH OF BERMONDSEY
 6448

 SENIOR ASSISTANT ARCHITECT (TEMPORARY) Applications are invited from persons under 51 years of age, qualified by examination as Associates of the R.J.B.A. for a temporary appointment of about two years to design a Public Baths and later to lead a small group in the oreparation of working drawings and specifications.

 Salary up to £1,565 per annum according to qualifications and experience.
 Applications and experience.

 Applications and surveyor, Municipal Offices, Spa Road, S.E.16.
 6428

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

CITY ARCHITECTS DEPARTMENT A unique opportunity exists in this office for competent Architects to take part in one of the most ambitious programmes of varied building works in the country, and vacancies in the establishment occur for ARCHITECTS who will be considered on their ability in design, experi-ence, and architectural outlook, in the following grades:--

consudered on their ability in design, experience, and architectural outlook, in the following grades:J.N.C. "C": £1,560-£1,825 per annum.
J.N.C. "B": £1,410-£1,570 per annum.
A.P.T. V: £1,310-£1,480 per annum.
A.P.T. V: £1,310-£1,480 per annum.
A.P.T. II: £160-£1,510 per annum.
A.P.T. II: £160-£1,510 per annum.
A.P.T. II: £645-£350 per annum.
A.P.T. II: £645 per annum.
A.P.T. III: £645 per annum.
A.P.T. II: £645 per annum.
A.P.T. II: £645 per annum.
A.P.T. III: £645 per annum.
<li

normal nousing development of a summaring character. The department is also engaged on the New Yown Hall, where an exceptional opportunity is presented for working on a building of some 44 million in value, and heing executed in materials of the highest quality. Architects wishing to take part in one of Britain's most stimulating programmes should apply immediately for further details and forms of application to George Kenyon, A.R.I.B.A., A.M.F.P.I., City Architect. 18, Cloth Market, Newcasile upon Tyne, I, indicating the grade for which they wish to apply. JOHN ATKINSON. Town Hall.

Town Hall. Newcastle upon Tyne, 1. 20th February, 1951. WFST SUPFOLK COUNTY COUNCIL COUNTY ARCHITECTS DEPARTMENT Applications are invited for the post of ELEC-TRICAL ENGINEER on A.P.. Grade IV (2).40 -45.310); commencing salary in accordance with qualifications and experience. Applicants should hold a university degree or equivalent diploma in electrical engineering or be Associate Members of the Institution of Electri-cal Engineers, with experience in the design and supervision of electrical lighting and power installations. installations. Housing accommodation may be made avail-

Applications accommodation may be made avail-able as a second se

National Scale of Salaries (21,310 21,300 21,300 annum). Applicants must be Chartered Architects capable of undertaking the design and supervision of building schemes (including housing) carried out by the Corporation. The appointment will be subject to the pro-visions of the Local Government Superannuation Acts 1937-1953 and to the passing of a medical examination.

Rousing accommodation will be made available required and the Council will pay half removal

Applications on a form to be obtained from the Borough Engineer must be delivered to the under-signed not later than 27th March, 1961. V. FORSHAW. Borough Engineer and Surveyor.

Town Hall.

Scarborough. March, 1961.

 March. 1961.
 6285

 KENTEVEN COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT
 63

 (a) ASSISTANT ARCHITECTS. A.P.T. III-IV (£960-£1.340).
 (b) ARCHITECTURAL ASSISTANTS. A.P.T. III-IV (£646-£1.140).

 (c) ENGINEER'S ASSISTANT (ELECTRICAL). A.P.T. I-II (£645-£960).
 (c) ENGINEER'S ASSISTANT (ELECTRICAL). A.P.T. I-II (£645-£960).

 Full particulars of the above appointments may be obtained from the County Architect. County Offices. Sleaford, Linez.
 (c) Applications from suitably oualified persons, to grether with the names and addresses of two referees, should reach the undersigned not later than the 3rd April, 1961.

 Charle of the the County Count

Clerk of the County Council County Offices. Steaford, Lincs.

6015

WEST SUFFOLK COUNTY COUNCIL

WEST SUFFOLK COUNTY COUNCIL Applications are invited from suitably qualified persons for the poet of ARCHITECTURAL ASSIS-TANT within A.P.T. Grades I-11 (2645-2560). N.J.C. Service Conditions; post pensionable, medical examination. One day per week will be allowed for study at a recognised school of architecture. Application forms obtainable from The County Architect. 13 Westgate Street, Bary St. Ed-munds, Suffolk, to be returned as soon as possible. (200)

CITY OF CARLISLE CITY SURVEYOR'S DEPARTMENT PRINCIPAL ASSISTANT ARCHITECTS Applications are invited from qualified Architects for the above posts. A great deal of interesting and sizeable work is in progress and projected. Salary according to A.P.T. V (21,310-41,480 per annum) and staff houses are available. Application forms obtainable from the City Surveyor, 18, Fisher Street, Carlisle. Closing date noon on March 20th. H. D. A. ROBERTSON

H. D. A. ROBERTSON, Town Clerk, 6213

6213 COUNTY BOROUGH OF WIGAN BOROUGH ENGINEER & SURVEYOR'S DEPARTMENT Applications are invited for the following per-manent appointments in the Borough Engineer and Surveyor's Department. (a) PRINCIPAL ARCHITECTS, Grade A.P.T. IV/V (£1,400-£1,400). (b) SENIOR ARCHITECT, Grade A.P.T. III/IV (£960-£1,310). (c) ASSISTANT ARCHITECT, Grade A.P.T. I/IV (£646-£1,310).

(c) ASSISTANT ARCHITECT, Grade A.P.T. 1/1V (466-24,530). There is an interesting and varied programme of work in the Pepartment. Housing accommodation can be offered for the successful married applicants. The point of entry to the salary Grades will be determined by qualifications and experience. Applications, giving name, address, age, present appointment and salary, previous appointments, and also the names of two persons to whom reference may be made, should be sent to the Borough Engineer and Surveyor, Municipal Builder than Friday, 24th March, 1861. ALLAN\_ROYLE.

ALLAN ROYLE. Town Clerk.

Municipal Buildings, Wigan.

Manicipal Buildings. 2659
 Migan. 2659
 NEWCASTLE REGIONAL HOSPITAL BOARD EXPANSION OF ARCHITECTURAL DEPARTMENT
 P. H. KNIGHTON, M.B.E. A. R.I.B.A. REGIONAL ARCHITECTURAL REGIONAL ARCHITECTURAL STAFF
 As the Board is in the process of increasing its Architectural Department in Newcasile to doal with a programme at present totalling about 212m. applications are invited for the following (superanuable) posts which offer either a career of varied, interesting and rewarding work of a high standard, or an excellent stepping-off point for further advancement.
 SENIOR ASSISTANT ARCHITECTS (21300 × 260(5) - 21.600). One to reguistered architects with experience in the design and construction of major public buildings. Experience of hospital work desirable ut not essential. Assistance with reinoval (2905 × 233(1) × 265(6) × 253(2) - 21.50). Applications must have passed the R.I.B.A. Final Examination. For registered architects increments are abe given above the bottom of the grade in accordance with relevant practical expenses of appoint registered architects increments can be given above the bottom of the grade in accordance with relevant practical expenses. Canalife but uncepticated architects areal as alary (2055 × 230(6) × 255(1) - 2900). Inter R.ISA & 200(6) × 255(1) - 2900). Inter R.ISA & 200(6) × 255(1) - 2900). Inter R.ISA & 200(6) × 255(1) - 2900).

A ARCHITECTURAL DRAUGHTSMEN (2475 × 225(6) × 230(2) - 6585).
 3 years' previous experience in an architect's drawing office and good draughtsmanship required. Evening study facilities available at King's College of Durham University in Newcastle.

Details of training, qualifications, experience, present salary, etc., with the names of three architectural referees, should reach the Secretary to the Board, Benfeld Road, Newcastle upon Tyne, 6, by 24th March, 1961. Canvassing will dismalify Tyne, 6, disqualify dismalify. 6300 WEST SUFFOLK COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT Applications are invited for the post of ASSIS. TANT ARCHITECT within Grade A.P.T. IV (£1.140-£1.310 per annun). Applicants must be qualified Architects and pre-terably have experience in Local Authority work. The department can offer varied and interesting experience on Educational, Police and Health programmes. M.J.C. Service Conditions: post pensionable: medical examination. A fureday week is in operation; housing accom-modation may be made available. Application forms obtainable from the County Architect, 13 Westgate Street, Bury St. Edmunds, to be returned as soon as possible. 6197

N

LINDSEY (LINCOLNSHIRE) COUNTY COUNCIL ARCHITECT'S DEPARTMENT North Lincolushire is developing rapidly and the work in the Department is growing corre-gondingly. Vacancies exist for the following grades of ARCHITECTSJUNIOR ASSISTANTS: A.F.T. HILV Salary 2560-21,140 A.F.T. HILSALARY 2646-2615 University 2646-2615

A. B. T. HII V Salary 260-21,310 A. F. T. HII V Salary 260-21,310 A. F.T. HI Salary 260-21,40 Vacancies also exist for SENIOR QUANTITY SURVEYORS, Grade A. F.T. IV, salary 21,140-

SURVEYORS, Grade A.P.T. IV, salary 21,300 Commencing salary within the grade dependent apon qualifications and experience. Five-day week. Fost Entry Training Assistance for study. N.J.C. Conditions of Service. Canvassing will disqualify, and candidates must diaclose in writing whether to their knowledge they are related to any Member or Senior Officer of the Council. Applications giving age, qualifications, experi-ence, present post and salary and names of two referees to be sent to A. Ronaid Clark, A.B.L.B.A., A.M.T.P.I., County Architet, County Offices, Lincoln, not later than 20th March, 1961. 6263 BOROUGH OF ILKESTON Applications are invited for the following

Applications are invited for the following

J. YATES, Town Clerk 624

(c) FLANNING ASSISTANT (Development Con-trol), Grade A.P.T. II/III (2815-21.140 p.a.).
 Commencing salaries will be fixed in the appro-priate grade according to qualifications and ex-perience.

(c) PLANNING ASSISTANT (Development Control), Grade A.P.T. HI/HI (2815-21.140 p.s.). Opmencing salaries will be fixed in the appropriate grade according to qualifications and experience. Applicants for post (a) should be qualified architectural practice and procedure but Local Government experience is not essential; for posts (b) and (c) previous experience in redevelopment and development control work respectively in an urban area is essential. The population of the Borough continues to expand rapidly and an extensive programme of capital works is planned. Opportunity for valuable architectural panned to the Borough continues to expand rapidly and an extensive programme of capital works is planned. Opportunity for valuable architectural and planning experience also exists in conjunction with a comprehensive Redevelopment Scheme new being prepared for the Central Area of the Borough. Housing accommodation available, if required, applications, stating 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 for P. J. Bowyer, Esq., Borough Engineer and Surreyor, Borough Surveyor's Department, Lame and Streek, Scunthorpe, on or before Friday, 24th March, 1961.

BOROUGH OF ENFIELD BOROUGH ENGINEER AND SURVEYOR'S DEPARTMENT (Non-County Borough in the County of Middlesex —Population 109,700: Area-112,400 acres) SENIOR ASSISTANT ARCHITECT. APT IV. Applications are invited, from suitably qualified persons, for the following permanent appoint-ment:-

The second secon

CYRIL E. C. R. PLATTEN, Town Clerk.

6450

Public Offices. Emfield. Middx

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## Town Hall. Sheffield 1

## BOROUGH OF DARTFORD ions are invited for the appointment

Applications

Applications are invited for the appointment of (a) SENIOR ASSISTANT ABCHITECT--Grade APT IV (21,40-61,310, plus £45).
 (b) ARCHITECTURAL ASSISTANT--Grade APT II or III (£615-£1,140 plus £25-£45 according to age and grade).
 Applications are invited from suitably qualified and experienced persons for the above appoint-ments in accordance with the N.J.C. service con-ditions for work on an interesting building pro-gramme.
 The commencing salaries will be in accordance with qualifications and experience.
 HOUSING ACCOMMODATION will be avail-able.

able. Applications stating age, qualifications and experience, together with the names of two referees, should be received by the Borough Engineer & Surveyor, Bridge House, Dartford, not later than Monday. 10th April. 1961. THOMAS ARMSTRONG. *Thown Clerk.* 

Council Offices. Dartford, Kent. 8th March. 1961

Kent. 8th March. 1961. 6452 CITY OF GLASGOW ASSISTANT ABCHITECTS The Architectural and Planning Department has a number of vacancies for qualified Assistant Architect. The Department has in hand a large, varied and interesting programme of work, including Comprehensive Redevelopment. Multi-storev 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 assistantshins is up to £1.560 with placing according to experience. Advances up to 100 per cent of valuation will be made available, where needed, for the pur-chase of suitable houses in or near Glasgow, by successful applicants. Form of application may be obtained from the Principal Administrative Officer, 20. Tron-gate, Glasgow, C.1. A G. JURY. Citu Architect and Director of Planning

Hasgow, C.1. A. G. JURY, City Architect and Director of Planning. 6318

City Architect and Director of Planning. <u>EXTLAND COUNTY COUNCIL</u> The polications are invited for the appointment of ASSISTANT ARCHITECT in the County Architect's Department. Salary according to sale for Professional Assistants (2850–41.150) with placing according to age, qualifications and Architects and should have had wide experience. Candidates must be Registered Architects and should have had wide experience takes and should have had wide experience architects and should have had wide experience takes and should have had wide experience architects and should have had wide experience takes and should have had wide experience takes and should have had wide experience school projects and who are conversant with the scottish Education Department's regulations for school planning. The appointment is super-annable. Housing accommodation may be multications, stating age. experience and multifications, and accompanied by copies of two indersing by Jisk March. 1961. <u>JOHN N SINCLAIR</u> <u>County Clerk.</u> County Euiding.

6313

County Buildings. Lerwick, Shetland. 4th March, 1961.

CENTRAL OFFICE OF INFORMATION requires an EXHIBITIONS DESIGNER to undertake the design of large self-contained exhibitions, planning and co-ordinating separate production. Candidates should be good visualisers and possess originality and organising ability, with good commercial experience; able to interpret the requirements over a wide field of information, technical and scientific activities. Must be able to travel overseas as required. Post is graded SENIOR INFORMATION OFFICER (unestab-lished). Salary £1,573-£1,573. Write, giving age, full details of experience and qualifications of Manager (PE 801). Ministry of Labour, Professional & Excentive Register, Atlantic House, Farringdon Street, London, E.C.4. 6316

 Professional & Executive Register, Anamate House, Farringdon Street, London, E.C.4. 6316

 WESSEX REGIONAL HOSPITAL BOARD There are vacancies for the following posts in the Architect's Department to deal with the Board's expanding hospital building programme: ENGINEERING DRAUGHTSMEN, GRADE II (£1,030 × £35 (2) × £56 (3)-£1,250).

 ENGINEERING DRAUGHTSMEN, GRADE II (£870 × £35 (2) × £56 (3)-£1,250).

 Training in hospital engineering services will be given. It is preferred that applicants should hold one of the Higher National Certificates, or Sections A & B of the Institution of Heating and Ventilating Engineers examination, or an equivalent qualification. These appointments offer an excellent opportanity for gaining ex-perience in the installation of mechanical or the replanning of existing services for major adaptations.

 Please apply to the Secretary, Highcroft, Romsey Road, Winchester, for application form which should be returned by Jist March. 6314

 COUNTY BOROUGH OF RLACKPOOL

COUNTY BOROUGH OF BLACKPOOL SURVEYOR'S DEPT.

Applications (by 21st March) are invited from ARCHITECTS and QUANTITY SURVEYORS of enthusiasm and a capacity for hard work to work in the Architects Section of this Department (Chief Assistant, Architectural Services, A. G. Beckett, A.B.I.B.A., Dip.T.P., A.M.T.P.I.) on an interesting and varied programme of buildings. Five-day week, for-

Vacancies exist for:--ASSISTANT ARCHITECTS, A.P.T. III/IV (£960/£1,310).

(2960)(2,310) SENIOR ASSISTANT QUANTITY SUR-VEYORS, A.P.T. HI/IV (2960)(21,310). Application forms from Arthur Hamilton, B.Sc., A.R.I.B.A. Borough Surveyor, P.O. Box 17, Municipal Offices, Blackpool.

ISLE OF ELY COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT Applications are invited for the following pointments.--

Applications are included applications are included appointments:-(a) ASSISTANT ARCHITECTS. A.P.T. III or (a) ASSISTANT ARCHITECTS. A.P.T. III or cants should be A.R.I.B.A. or have com-pleted Parts I and II of the R.I.B.A. Final Examination, or have satisfactorily completed a course at a School of Archi-tecture.

completed a course at a School of Architecture.
 (b) QUANTITY SURVEYOR. A.P.T. IV or A.P.T. V according to experience. Applicants must be suitably qualified.
 (c) ARCHITECTURAL ASSISTANTS, A.P.T. I or A.P.T. II or A.P.T. II. Gradings will depend on qualifications and experience. In fixing commencing salaries, ability and experience will be taken into account. All posts are subject to N.J.C. Conditions and the passing of a medical examination. Application forms and further particulars from the County Architect. County Hall. March. Clerk of the County Council. County Hall.

HUNTINGDONSHIRE COUNTY ARCHITECT'S DEPARTMENT ADDications are invited for the appointment of ARCHITECTURAL ASSISTANT Grade A.P.T. IV

£1.310 (21.140-21.310). Candidates should have passed the final exami-nation of the Royal Institute of British Archi-

tects. Application forms and further particulars may be obtained from the County Architect, County Puildings, Huntingdon, and completed forms should be returned to the undersigned by the 4th April, 1961.

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

6451

 Huntingdon.
 6453

 ARCHITECTS AND MAINTENANCE SUR-VEYORS. Pensionable posts for men and women at least 25 and under 35 on 1.1.61 (exten-sion for regular Forces service. Overseas Civil Service, established civil service and temporary Government service as Architect or Maintenance Surveyor). Candidates must be registered Archi-tects or, alternatively, for Maintenance Surveyor posts, have achieved Corporate Membership or RICS. (Building Section). or have passed examinations necessary for attaining Corporate Membership. National salary £936–1.258 according to age, rising to 21.430. Promotion norosnects. Write Civil Service Commission. 17. North Audley Street. London, W.1, for applica-tion form quoting 8/60-61.

156

County Hall, March.

6452

For qualified SCIENTISTS, ENGINEERS, ARCHITECTS

AND SURVEYORS

## THE TECHNICAL AND SCIENTIFIC REGISTER

provides a National Employment and Advisory Service. All enquiries are dealt with in confidence by

professionally qualified staff.

A leaflet, giving details of the Service, will be sent on request.

Write for information or appointment to

THE TECHNICAL AND SCIENTIFIC REGISTER, Dept. K. I., Almack House, 26 King Street, London, S.W.1. Telephone : WHI 6200 (Ext. 328)

Issued by the Ministry of Labou

## Senior Architects and Architectural Assistants

are required for the rapidly expanding Technical Division of a well-known firm of Management and Industrial Consultants. The work involves industrial architecture and industrial planning as a member of a team which includes machine specialists, machine designers and process layout engineers. A full range of architectural responsibility from inception to financial account is involved. The work is often original in character and a knowledge of German and/or Italian would be useful. The head office and place of work is at Egham.

Age preferred 28-38. Possession of a University degree or an equivalent qualification from a British University is desirable. Commencing salaries range from  $\pounds 1,000-\pounds 1,500$  according to qualifications and experience. Conditions of service, which include a pension scheme, are attractive.

Applicants are invited to write in confidence to:

Reference QSA, Production-Engineering Ltd., 12 Grosvenor Place, London, S.W.1.



CONSTRUCTORS JOHN BROWN LIMITED

require an

## ARCHITECT

(preferably A.R.I.B.A.)

for work on the design of offices, laboratories and industrial buildings in connection with oil and chemical process plants, both in the U.K. and overseas.

Applicants must have good experience in the industrial field embracing all phases of work from preliminary sketch designs to final construction.

This is a permanent position, and conditions of employment include a five-day week, luncheon vouchers, and a contributory Pension Scheme which carries Life Assurance benefits.

Applications should be sent to:— The Personnel Manager, CONSTRUCTORS JOHN BROWN LIMITED, CJB House, Eastbourne Terrace, Paddington, London, W.2 quoting Ref. No. K 7981.

LAING

## **ARCHITECTURAL STAFF**

JOHN LAING CONSTRUCTION LIMITED Sydney Greenwood, A.R.I.B.A.,

Chief Architect

requires

Architects, Assistant Architects and Architectural Assistants for a recently established Regional Office in Manchester.

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

Architects should be qualified with at least 5 years' experience n schools, Industrial and Commercial Projects.

Assistant Architects should be qualified with 2/3 years' similar experience including domestic experience.

Architectural Assistants should be of intermediate standard with  $2/3\ years'$  experience in Architect's office.

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

Applications giving brief details to:

Group Personnel Manager (MRO. 15) JOHN LAING AND SON LIMITED,

London, N.W.7.

Or arrangements for interviews can be made by telephone (Mill Hill 3636).

HEINZ

H. J. Heinz Company Limited, with headquarters in Harlesden, North West London, manufacture the famous 57 Varieties in three factories, two of which are in Lancashire. The continuing development and expansion of the Company calls for the appointment of an

ef.

## ARCHITECT

to assist the Staff Architect, Peter Brigham, A.R.I.B.A.

The successful candidate will be a senior member of a small team designing all types of building required by the Company. Work at present in hand includes an extensive new building and modernisation programme at the Harlesden factory.

Applicants should be registered architects, aged 26-30, with at least three years' office experience since qualifying. Previous industrial experience would be an advantage, although less important than an enlightened approach to building science, project management and cost' control.

The excellent employment conditions include a non-contributory pension, free life assurance and an attractive progressive salary which will be in line with qualifications and experience.

Applications stating age with a brief summary of personal history to date, including qualifications, should be addressed to:

The Personnel Officer, H. J. Heinz Company Limited, Waxlow Road, Harlesden, London, N.W.10.

## BRITISH RAILWAYS London Midland Region

require

## **ASSISTANT ARCHITECTS**

for general work in connection with the Railway Modernisation Plan and the London Midland Main Line Electrification Scheme.

Applicants should be members of the R.I.B.A. and should be first class designers with several years' experience.

Appointments will be made in the salary range £1,070-£1,145.

Five day week and concessionary rail travel. Superannuation Fund.

Applications in writing quoting reference No. 115(AJ) and stating qualifications, age and experience to :---

> W. R. Headley, A.R.I.B.A., A.A.Dipl. Regional Architect, Chief Civil Engineer's Office, Stephenson House, 67/87 Hampstead Road, LONDON, N.W.1



The Architect's Department's current programme covers all types of commercial, industrial and domestic building projects. Appointments are available for a wide range of experience particularly for

## **ARCHITECTS and ASSISTANTS**

who appreciate the contribution good design can make towards efficient construction and are interested in applying cost knowledge to detailing.

Appointments on a permanent basis are immediately available at Head Office with good progressive salaries for the right man. Five-day week; three weeks' annual holiday.

Similar appointments are also available in our Regional Offices for applicants preferring to work in the Midlands or North of England areas.

Applicants should write to :

E. V. Collins, A.R.I.B.A.,

Chief Architect, GEORGE WIMPEY & CO., LIMITED, 27 Hammersmith Grove, London, W.6.

BRITISH TRANSPORT DOCKS invite appli-cations for an ARCHITECTURAL ASSISTANT at SOUTHAMPTON DOCKS. Candidates should be experienced in design and construction of industrial and office huildings by contract or direct labour and must be A.B.I.B.A. Ability to handle contracts direct with contractor. Com-mencing salary 42,175 per annum. Contributory Superannuation Scheme and certain rail travel facilities

Reperance and certain rail travel scale and present position, to be forwarded to staff and Establishment Officer. British Trans-port Docks (AJ), Melbury House, Melbury Terrace, London, N. 4, to arrive not later than teseday, 28th March, 1961. 641. COUNTY COUNCIL OF THE STEWARTER ASSISTANT ARCHITECT from persons who have have passed the Final Examination of the Royal ample experience in the design and construction scale 21,80 by 270 to 1,460. Transcr of solar gate 21,80 by 270 to 1,460. Frenancy of solar authority house available. Five-day week. Successful applicant will require to provide a space car purchase scheme available. Applica-tors, giving age, qualifications, and details of previous experience and the names and addresses of two referees, to be lodged with the under-gred by 27th March, 1961. BOBT. C. MONTEATH. County Clerk.

County Offices, Kirkcudbright, 8th March, 1961.

Kirkendbright. 8th March, 1961. 6432 LINDEY (LINCOLNSHIRE) COUNTY COUNCIL ABCHITECT'S DEPARTMENT ABCHITECT'S DEPARTMENT ABEA CLERK OF WORKS, Grade A.P.T. IL, 8415/8960, required to take charge of an area of the County covering a radius of approximately 10 miles to the west of Lincoln round to the north to 20 miles to the east of Lincoln. The person appointed will be required to live in this area and he will be required to live in this area and he will be required to live in the area and alteration work. The post carries an essential user's car allowance up to 0 h.p. Commencing salary within the grade dependent upon experience, N.J.C. Conditions of Service. Carvassing will disqualify, and candidates must disclose in writing whether to their knowledge they are related to any member or Senior Officer of the Council. Applications, giving age, qualifications and experience, present post and salary, and the names of two persons to whom reference can be made, to be sent to the County Archited, County Offices, Lincoln, not later than 28th March, 1961. 6451 GLOUCESTERSHIRE COUNTY COUNCIL

GLOUCESTERSHIRE COUNTY COUNCIL COUNTY ARCHITECT'S DEPARTMENT Applications are invited for the appointmen of ARCHITECTURAL ASSISTANTS (QUALIFY ING CLASS), vacancies existing in the following Grades in-Grades

Grades: A.P.T. II Salary 6645-2615 p.a. A.P.T. II Salary 6815-2660 p.a. A.P.T. III Salary 1815-2660 p.a. A.P.T. IV Salary 21,40-21,310 p.a. Applicants for posts in Grades I and II should have passed the Intermediate Examination of the R.I.B.A. and for Grades III and IV the full R.I.B.A. Final Examination. N.J.C. Conditions of Service, Superannuation.

Medical examination.

Medical examination. Applications, stating age, present position and salary, details of previous appointments, together with the names and addresses of two persons for reference, must reach the County Architect, Shire Hall, Gloucester, by 3rd April, 1961. GUY H DAVIS, Clerk of the County Council. 6446

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 L. V. POWELL. Town Clerk

Guildhall. Kingston-upon-Thames. March, 1961.

March, 1961. 6447 MANCHESTER CORPORATION TRANSPORT DEPARTMENT require qualified ENGINEERING ASSISTANT for building and civil engineering construction and maintenance. Salary £1,140/21,310. Point of entry according to qualification and experi-ence. Applications and details obtainable from General Manager, Manchester, L refurnable not later than Wednesday. 22nd March, 1961. 6323

URBAN DISTRICT COUNCIL OF BASILDON (Population 86,500-27,000 acres-rapidly developing district) ESTABLISHED

ARCHITECTURAL ASSISTANT-up to

(b) ARCHITECTURAL DRAUGHTSMAN-up

(b) ARCHITECTURAL DEACOMPRESSION to E825 p.a. Applicants for (a) preferably should be par-tially qualified and have had practical experience and for (b) be competent draughtsmen with ex-perience of architectural work. This post would offer varied experience in housing, public build-ings including swimming pool, parks projects, delegated education. Housing available, Payment of removal expenses considered. Five-day week, Particulars and forms from Engineer & Surveyor, E8, Town Square, Basildon, Essex. Closing 3rd April. 6454

Ausoras expenses considered. Five-day week.
 Particulars and forms from Engineer & Surveyor.
 R. Town Square, Basildon, Essex. Closing 3rd April.
 AUSTRALIA
 THE UNIVERSITY OF NEW SOUTH WALES
 ASSOCIATE PROFESSOR OF BUILDING
 SCHOOL OF ARCHITECTURE AND
 BUILDING
 The University invites applications for appointment to the newly created position of Associate Professor of Building.
 Salary will be not less than £A3,179 per annum.
 Applicants must hold high academic qualifications for the newly created position of Associate Professor of Building.
 Salary will be not less than £A3,179 per annum.
 Applicants must hold high academic qualifications in building or building engineering and should have had extensive practical experience in building or pariation.
 The successful applicant will be responsible to Builders or equivalent institution, and teaching and administration experience is desirable.
 The unccessful applicant will be responsible to Builders or equivalent institution, and teaching and administration experience is desirable.
 The unccessful applicant will be responsible to Building.
 Subject to the consent of the four-year undergraduate course leading to the degree of Bachelor of Building and for the six-year partime diploma course in building. Both courses are fully recognised by the Australian Institute of Building.
 Subject to the consent of the Council of the pariet.
 Associate Professors are eligible for six months' study leave on full salary after threes of service.
 The University reserves the right to fill the position by invitation.
 The University medical examination, to join the superannuation scheme, which provides a pension of up to 2A1600 per annum.
 The successful applicant will be leigible, subject to satisfactory medical examinat

Onlow, Forkington, N.S.W. Australa, Bende Sond April, 1961.
 CONTRERSITY OF KHARTOUM
 Andications are invited for a SENIOR LECTURESHIP or LECTURESHIP IN ARCHI-TECTURE.
 Salary Scales: Senior Lecturer: C\$2,052 × C\$75-C\$2,127 p.a. Lecturer: C\$1,077 × C\$75-C\$1,977 p.a.
 Entry point according to qualifications and exnerience. Cost of living allowance approxi-mately C\$180 p.a. at present. Outfit allowance C\$500 Family allowances: Wife-C\$50 p.a., ist child £900 p.a., and and 3rd child-C\$30 p.a.
 each, (2\$1 = 61 08, 6d, sterling.) Passages are paid for appointee and family on appointment, ermination and annual leave. There is a super-annuation scheme and arrangements can be made to maintain F S.S.U. policies. Appointment on contract for five years, with possibility of at a rent (excluding rates) up to 75 per cent, of starty.

at a rent texturing rules detailing qualifications Applications (10 copies) detailing qualifications and experience and naming three referees by 15th April. 1961. to Registrar. University of Khartonm, c/o Inter-University Council for Higher Educa-tion Overseas, 29, Woburn Square, London, W.C.1. from whom further particulars may be obtained. 6410

6410 BOROUGH OF CASTLEFORD APPOINTMENT OF ARCHITECTURAL ASSISTANT Applications are invited for this appointment in the Borough Architect's Department Salary-Grade A. P.T. II (2815-2850). Applicants should have passed the Intermediate Examination of the R.I.B.A. or its equivalent at one of the successful applicant will be required to pass satisfactorily a medical examination: terminable on one month's motice on either side; housing accommodation, if required, for successful married applicant.

accommonation, it forms obtainable from me to applications, on forms obtainable from me to he returned not later than 9 a.m. on Thursday. the 30th March, 1961. Canvassing disqualifies. ERNEST HUTCHINSON. Town Clerk.

Town Hall. Castleford

## ROYAL BURGH OF STIRLING BURGH ARCHITECT AND PLANNING DEPARTMENT Applications are invited for the following

Applications are invited for the following posts:-BASISTANT ARCHITECT-Salary Scale 2850-21,50 per annum (with placing according to experience). JUNIOR PLANNING ASSISTANT-Salary Scale 2715-2845 per annum (with placing according to experience). The Assistant Architect will be required to take control of an interesting variety of local authority contracts (both large and small) throughout design and construction. The Planning Assistant must be a neat and expeditions draughteman with experience in experience in the experience. The Planning Assistant must be a neat and expeditions draughteman with experience in experience in the experience in experience of Development Plan Maps, etc. Applications for the posts, which are super-preparation of Development Plan Maps, etc. Manuable subject to medical examination, should be addressed to Walter H. Gillespie, Burgh Architect and Planning Offices, ref. Gillespie, Burgh Architect and Planning Offices, etc. 3030

CITY OF CANTERBURY APPOINTMENT OF PLANNING RESEARCH ASSISTANT (TEMPORARY), A.P.T. II (2815-

SAISTANT (TEMPORARI), A.F.T. 11 (2015-Applications are invited for the temporary ppointment of a Planning Research Assistant 1 the City Architect & Planning Officer's tenartment. Appointment will commence in une or July and last from 18 months to two

June or July and last from 18 months to two years; The successful candidate will be engaged on research, survey analysis and general statistical work in connection with the forthcoming Review of the Development Plan, which is due for sub-mission to the Ministry in 1963. The appoint-ment offers considerable scope and experience in this particular field of Town Planning. Applications, stating age, qualifications and experience, together with the names and addresses of two referees, should be submitted to the City Architect & Planning Officer, Muni-cipal Buildings, Canterbury, by April 29th, 1961. Canvassing will disqualify. JOHN BOYLE: Town Clerk. 6352

SUNBURY-ON-THAMES URBAN DISTRICT COUNCIL A vacancy exists in the department of the Council's Engineer and Surveyor for a SENIOR DRAUGHTSMAN experienced in modern archi-tectural design and general building practice. Previous Local Authority experience not essential.

sential. Salary £815—£960 (Grade A.P.T. II) according experience plus London allowance up to £40

year. Applications, giving the names of two persons whom reference may be made, should be sent Mr. A. J. Buttress, M.L.Mun.E., L.R.I.B.A., ngineer and Surveyor, Council Offices, Sunbury-a-Thames, Middlesex, not later than April 4th, 6364 on-1 1961

Applications are invited for the post of ARCH17ECT (two vacancies) ander the WEST PAK1STAN GOVERNMENT, Salary: Rs. 2,000-75-2,375 per month (1 Rupee = 1s. 6d.), plus £30 per month overseas

Contract: 3/5 years. Free passages and medical

attendance. Age Limits: Between 30 and 45, relaxable in

Age Limits: Between 30 and 45, relaxable in special cases. Qualifications: A.R.J.B.A. or equivalent Con-siderable experience in Architectural work especially in design of buildings in Europe, U.S.A., Pakistan or other similar countries. Good knowledge of English essential. Application forms and further information from : The Recruitment Officer Education Division Pakistan High Commission 39, Lowndes Square London, S.W.J. There are no restrictions on nationality or domicile, but Pakistani applicatus should write to the above address for the conditions applic-able to their appointment. 6353 Qualifications :

EASINGTON RURAL DISTRICT COUNCIL ARCHITECTURAL ASSISTANT Grade A.P.T. III (1960-21,140) Applications are invited for the above appoint-ment. Applicants must have had previous Municipal experience, have been trained in the office of a Municipal Engineer, Architect or Sur-veyor, be experienced in Municipal Housing and General Architectural Work, and have the quali-fications specified by the National Conditions of Service.

of Service. The appointment will be subject to the National Scheme of Conditions of Service and the Local Government Superannuation Acts. The successful applicant will be required to pass a medical examination. If required, housing accommodation

If required, housing accommodation will be provided.

Applications on forms which may be obtained from the undersigned must be received by 30th March, 1961. T. AGAR, Clerk of the Council.

Council Offices. Easington, Co. Durham.

6360

6359

ARCHITECTS required by LONDON TRANSPORT for the following posts:-ASSISTANT ARCHITECTS: Salary range £1,140 p.a.-£1,330 p.a. Applicants must be faily qualified and capable of supervising staff. (Reference 129/A.). ARCHITECTURAL ASSISTANTS: Salary ranges £1,060 p.a.-£1,440 p.a. £940 p.a.-£1,020 p.a. Applicants should be qualified to R.I.B.A. Intermediate standard with previous office experience. (Reference 129/B.1.) Free travel: fiveday week, medical examina-tion; contributory superannuation after pro-bation.

Free travel tion; contributory superannuation Applications quoting reference number of post applied for and stating age, qualifications and full details of experience, to Staff and Welfare Officer, London Transport, 55, Broadway, S. 603 SENIOR WORKERS

Officer, London Transport, 55. Broadway, S.W.1. 6991 ALR MINISTRY require SENIOR WORKERS UP in Quantities Division in London. Must be fully experienced and competent to Work Up-entire Bills of Quantities. Candidates must hold O.N.C. or C. & G. (Quantities) or equivalent technical qualifications. Financial assistance and time off given for recognised courses of study. Promotion and pension prospects. Five-day week with 18 days paid leave a year initially. Salaries on annual incremental basis ranging from £975 (age 30 or over) to £1.115. Commencing salary according to qualifications and experience. Appli-cants, who must be natural born British subjects, should write stating age, qualifications and ex-perience to Manager (PE 519). Ministry of Labour, Professional & Executive Register, E.C.4. No original testimonial should be sent. E.C.4. No original testimonial should be sent.

CITY OF BIRMINGHAM PUBLIC WORKS DEPARTMENT Applications are invited for the post of CHIEF ASSISTANT, Town Planning and Redevelopment

Assistance, and the second sec annum)

annum, The post is permanent, superannuable and subject to a medical examination. Applications stating qualifications, age and experience, and naming two referees, should reach the undersigned by the 14th April, 1961. Canvassing disgualifies HERERT J. MANZONI. City Engineer and Surveyor.

Civic Centre, Birmingham, 1. 6422 BOROUGH OF WREXHAM ENGINEER & SURVEYOR'S DEPARTMENT ASSISTANT ARCHITECT Applications are invited for the following

ASSISTANT ARCHITECT—Salary in the range of A.P.T. Grade III (£960—£1,140 per annum

annum). Applicants should have passed Parts I and II of the R.I.B.A. Final Examination or equivalent. Casual car allowance will be paid on the instructions of the Borough Surveyor and the Council will consider the payment of removal exponences. Housing accommodation is available expenses, required.

if required. Further particulars and form of application from the Borongh Engineer and Surveyor, 31, Chester Street, Wrexham. Applications to be returned to the undersigned not later than 12 noon, 27th March. 1961. PHILIP J. WALTERS. Town Clerk.

6444

Guildhall. Wrexham March, 1961.

War Department Works Organisation require TECHNICAL OFFICERS, GRADE 1 (Construc-tion), at various stations throughout the United Kingdom and in GERMANY, MIDDLE EAST and FAR EAST.

Duties: (a) Control of Building and Civil Engineering Services to maintain WD installations in

Services to maintain WD installations in the area; or (b) Assisting in planning and control of main-tenance and small capital works programmes in a regional HQ. Office; or (c) Site Supervision of major capital works executed by contract. Qualifications: O.N.C., Intermediate C. & G. Cert., Associated Membership of Institute of Clerk of Works, Diploma of the Association of Building Technicians or equiv., higher qual. advantagroups.

Clerk of Works, Diploma of the Association of Building Technicians or equiv., higher qual. advantageous. Salary: E1,128 (or above) rising to £1,388 with additions in London and overseas. Conditions include sick pay, 5-day week, 4-5 weeks leave a year plus public holidays. Oppor-unities later for pensionable appointments and promotion to higher grades. Special allowances and family passages for service abroad. Selection by interview for which certain out-of-pocket expenses are allowed. Forms from Ministry of Labour, Technical and Scientific Register (X), 26, King Street, London, S.W.I. quoting E.88/1/A, and appropriate ref. (a), (b) or (c). CAL COUNTY OF BERKSHIRE DEPUTY COUNTY ARCHITEGOT (CAPITAI. WORKS), J.N.C. Scale E (21,860-42,120) Applications are invited for the above appoint-ment from suitably qualified persons. Application form and further particulars may be obtained from the undersigned and all applications are to be received by March 28th, 1951. E. R. DAVIES, Courte of the Council

E. R. DAVIES, Clerk of the Council.

Shire Hall. Reading

 Reading.
 6413

 PETERLEE DEVELOPMENT CORPORATION APPOINTMENT OF DEPUTY CHIEF ARCHITECT
 6413

 Applications are invited for the above appointment on the Corporation's Salary Grade A.P.T. VIII (£1,565-£1,325), the point of entry dependent upon qualifications and experience.

 Applicants must be members of the Royal Institute of British Architects and a Town Plan-ulag qualification will be advantageous but not essential.

 The appointment, which is supremented.

ning quantitation with the extended essential. The appointment, which is superannuable, is subject to the Corporation's Staff Rules and Con-ditions of Service and will be terminable by one month's notice in writing on either side. The successful applicant will be required to pass a medical examination. Housing accommodation will be made avail-able and the post carries an essential car allowance.

able and the post carries an essential car allowance. Applications, stating age, experience and quali-fications and giving the names of two referees, should reach the undersigned not later than 24th March, 1961. A. V. WILLIAMS.

A. V. WILLIAMS General Mana

Shotton Hall, Peterlee, Co. Durham.

Co. Durham. 6329 LINCOLN CITY AND COUNTY OF LINCOLN CHIEF ASSISTANT ARCHITECT-A.P.T. V (21,310-e1,480) Applications are invited from experienced Architects for the position of Chief Assistant Architect on the established staff of the City Architect at a commencing salary of 21,365. The Department is engaged upon an extensive and varied programme of architectural works and applicants must be canable of taking charge of a section responsible for the design and super-vision of all architectural works (excluding new schools). The appointment will be subject to the

vision of all architectural works texcuding new schools). The appointment will be subject to the scheme and Conditions of Service and the Local Govern-ment Superannuation Acts and the successful applicant will be required to pass a medical examination. Housing accommodation may be available. Removal expenses. Applications, stating age, qualifications and details of experience, together with the names of two persons to whom reference can be made, should be delivered to R. R. Alexander. F.R.I.B.A., M.T.P.I. City Architect. Stamp End, Lincoln, not later than 30th March 1961. J. HARPER SMITH Town Clerk. 6397

6397 ROBOUGH OF LEYTON (IN THE COUNT OF ESSEN) COMMITTEE FOR EDUCATION APPOINTMENT OF ARCHITECTURAL ASSISTANT Apolications are invited for the permanent apologitment of Architectural Assistant, Grade A.P.T III, 6960-£1.140 per annum, plus London weighting. The maccessful apolicant will be employed by the Essex County Council and will work in the School Architect's Section of the Borough Engineer and Surveyor's Department. Town Hall, Leyton, E.10. Five-day week is operated.

Forough Engineer and Surveyor's Department. Town Hall, Leyton, E.10. Five-day week is operated. Betails and forms of application from the Borough Education Officer. Education Offices. Kirkdale Road, Levtonstone, E.11. to whom they should be returned within 14 days from the appearance of the advertisement. 6386

STEVENAGE DEVELOPMENT CORPORATION STEVENAGE DEVELOPMENT CORPORATION Applications are invited for appointment as ASSISTANT ARCHITECT in the Chief Archi-tect's Department on New Towns' Salary Grade A.P.T. IV.V. e.1.140/21/40-starting salary according to qualifications and experience. Applicants should be Associates of the Royal Iustitute of British Architects and have experi-ence in design and construction of modern build-ings.

ence in design and construction of ings. Living accommodation will be available in an appropriate case. Local Government super-annuation; five-fay week. Applications, giving details of experience and the names of two referees, should be sont to the Chief Administrative Officer. Daneshill House, Danestrete, Stevenage, Herts., not later than 30th March, 1961.

Danestrete, stevenage, Herts., not isser than 30th March, 1961.
 BOROUGH OF STOCKTON-ON-TEES BOROUGH ARCHITECT'S DEPARTMENT Applications are invited for the following appointments:—

 (a) ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. IV (£1,140-£1,310).
 (b) ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. IV (£1,140-£1,310).
 (c) JUNIOR ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. I (£645-£815).
 (c) JUNIOR ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. I (£645-£815).
 (c) JUNIOR ASSISTANT QUANTITY SURVEYOR. Salary A.P.T. I (£635-£956).
 Housing accommodation will be provided for married applicants for appointment (a).
 Applications, giving details of age, education, training, qualifications and experience, with the names of two referees, should be sent to the Borough Architect. 28. The Square. Stockton-on-Tees, by the 27th March. 1961.
 JOHN B. HAWORTH. Town Clerk.
 Municipal Buildings. Stockton-on-Tees. 6424

Municipal Buildings,

Stockton-on-Tee		6424
		COUNCIL
ASSISTANT 1	DIVISION.	AL PLANNING

ASSISTANT DIVISIONAL PLANNING OFFICER-DARTMOOR NATIONAL PARK Applications are invited for the above post at Exceter on A.P.T. IV (21,140-21,375) with essential car user allowance. Should be A.M.T.P.I. but Architectural or Landscape qualification with some planning experience will be considered. The post is next in seniority after the Divisional Planning Officer. Further particulars of the post and forms of application, returnable by 26th March, 1961, from the County Planning Officer, Bellair," Topsham Road, Exeter, Devon. 6445

 Officer, "Bellair," Topsham Road, Excter. 6445

 CITY OF SHEFFIELD

 APPOINTMENT OF PRINCIPAL ASSISTANT ARCHITECT

 CIVIC CENTRE)

 SCALE ~ C": £1560-£1.825

 Applications are invited from experienced qualified Architects for this important post on the permanent staff of the City Architect. Mr. J. L. Womersley.

 The City Council have recently designated a spacious and attractive site, including the present fown Hall and Public Library, as a Civic Centre. The new buildings which are required will ultimately include a large extension to the Town Hall, new Law Couris, Police Headquarters and and ris Centre. Following the preparation of a comprehensive scheme for the whole centre, the successful candidate's first task will be to design and execute the new Town Hall Extension which is urgently required. Mill cations, stating age, education and train-fing, qualifications, present and past appointments (which dates and sularies), experience and the mames of two persons to whom reference may be made, should reach me not later than the 27th March, 1961.

JOHN HEYS. Town Clerk. 6423

6423 CITY OF PORTSMOUTH EDUCATION COMMITTEE COLLEGE OF ART HYDE PARK ROAD, PORTSMOUTH Principal: W. J. L. GATDON, A.R.C.A. Applications are invited for the post of HEAD of the SCHOOL OF ARCHITECTURE which will become vacant on September 1st, 1961. Candidates should have suitable professional qualifications and have had professional teaching experience, preferably with the senior work of a School of Architecture. The Department is integrated into a new Col-lege building which was opened in Settember, 1960, and is provided with modern, well-equipped studies for its work. The post is graded Head of Department III and the salary scale is £1,800 × £50-£1,950 per and the salary scale is £1,800 × £50-£1,950 per

Application forms and further particulars tainable on application to the Registrar at the 6417

College. THE UNIVERSITY OF LIVERPOOL DRAUGHTSMAN required in the Fabric Maintenance Department, oreferably with Archi-tects' Office experience. The salary range will be 2650 to 2800 per annum depending upon qualifications and experience. Contributory pension scheme. Alternate Saturdays off. Applications in writing, stating age and ex-perience and giving names of two referees, should be received not later than 20th March. 1961, by the Registrar. Quoting reference CV/AJ. 6317

ANTRIM COUNTY COUNCIL PLANNING ASSISTANT Applications are invited 'com holders of a sufficient on Planning and/or Architecture for the position of PLANNING ASSISTANT in the council's Planning Department. Salay Scale: A.P.T. Grade V. 8,140–8,130, ment (Superannuation) Act (N.I.) 1950. Applications, together with the names and defresses of two referees, must be delivered to and the secretary, County Courthouse, Cramine Road, Belfast, 14, not later than 31st March, 1961. 6320 AIR MINISTRY require SENIOR TAKERS wide experience of all classes of work and pre-fuels, Stalaries (inner London, Scale) from £1,445 to \$2,015. Commencing salary A.Q.E. Non-pensionable but long ferm with prospects of to applications, and contentific Register (K.) 2, King Street, London, Scale) from Ministry of Labour, Bethenica and Scientific Register (K.) MORTH RIDING COUNTY COUNCIL Anterions are invitid to the first of the definition of the definitio

britan buildess. Joins Allistry of Labour, Technical and Scientific Register (K).
 King Street, London, S.W.I. Quoting 3.240/04.
 NORTH RIDING COUNTY COUNCIL Applications are invited for the post of BUILDING INSPECTOR for Architect's Maintenance Area based on Richmond and covering the North West Area of the Riding. Grade A.P.T. I. Salary 645-6215 p.a. according to get, qualifications and experience.
 Conditions of Service and applications to be returned to the County March 1966.
 Conditions of Service and applications to the sale of the South Service and applications to be returned to The Clerk of the County Hall. Northallecton, Yorkshire, and applications to be returned to The Clerk of the County Council at the same address by 28th March, 1960.
 UNIVERSITY OF CAMBRIDGE DIRECTOR OF ESTATE MANAGEMENT Applications are invited for the above post. The stipend will be \$2,000, with superannuation benefits and family allowances, and the successful candidate will be expected to take up his duties by 1st October, 1961.
 The Director of State Management will be responsible for the care and maintenance of sites and buildings, for advice on the purchase and sale of property and its management, and for superintending a building programme involving sociersks of works, a direct labour force of 32 and 11 gardeners. The Director will have no responsibility for teaching and research in Bistate Management. Candidates should have experience in the management and development of estates. property maintenance and the promotion of briefs and the examination of plans and the strees, returned and the proposition and the proposition of briefs and the examination of plans and the researce. The Old Schools Cambridge by whom

estimates. Further particulars may be obtained from the Treasurer. The Old Schools, Cambridge, by whom applications must be received not lafer than 30th April, 1961. 6378

Treasartic, rule Oil Schools, Calmirude, by which Applications must be received and rule than 30th April, 1961. 6378 CEBAN DISTRICT OF EBBW VALE ARCHITECT'S DEPARTMENT APPOINTMENT OF DEPUTY ARCHITECT Applications are invited from Corporate members of the K.I.B.A. for this appointment in the Department of the Architect to the Cauncil at a salary within A.F.T. Grade IV (21,140-21.30) of the National Scale of Salaries. The appointment will be subject to three months' notice on either side, to the provisions of the Local Government Superannuation Acts and to the passing of a medical examination. Housing accommodation may be made avail-able if required. The Architect's Department has a varied pro-gramme of work including new housing, slam clearance redevelopment schemes, new Civic Centre buildings which include the construction of an Indoor Swimming Pool (just commencing). Municipal Offices and Council Chamber and Public Hall. Applications endorsed "Deputy Architect."

Municipal others and Connect Architect," Applications endorsed "Deputy Architect," étating age, education, training, qualifications and experience, present and past appointments and enclosing copies of two recent testimonials, should be received by the undersigned not later than noon, 24th March, 1961. HOWARD J. WILLIAMS, Clerk of the Council.

District Council Offices, The Walk, Ebbw Vale, Mon.

6382

Ebbw Vale. Mon. 6382 LANCASHIRE COUNTY COUNCIL COUNTY ARCHITECTS DEPARTMENT SENIOR ASSISTANT ARCHITECTS (N.I.C. Scale "B." c1.565-61.670) Applications are invited from experienced Architects for posts on the permanent staff. The County Council have a large and extremely varied Building Programme, and posts will be filled by men of initiative, imagination and a fair for sensitive design. Applicants are expected to be Registered Architects, as well as Associates of the Boyal Institute of British Architects, and, if appointed. will be able to claim a disturbance allowance up to a maximum of £125, a facility offered by the County Council to cover the expenses of removal and other associated costs. Application forms and conditions of appoint-ment are obtainable from the County Architect, P.O. Box 26, County Hall, Preston, returnable by the 7th April, 1961.

URBAN DISTRICT OF EBBW VALE ARCHITECT'S DEPARTMENT APPOINTMENT OF ARCHITECTURAL ASSISTANT (NON-DESIGNATED POST) Applications are invited for this appointme in the Architect's Department within Gra A.P.T. HI (£960-£1,140) from persons with least Intermediate R.I.B.A. examination. Co mencing salary in accordance with qualificatie and experience. Grade 21 with qualifications

mencing salary in accordance with quanneations and experience. The Department is engaged on an interesting programme of work including new Civic Centre Buildings which involves the construction of an Indoor Swimming Pool (just commencing), Municipal Offices, Council Chamber and Public Hall. In addition there are redevelopment and general housing schemes in course of preparation. Alternate Saturday mornings free, Canteen facilities. Local Government Superannuation Acts apply. Applications with usual information and names of two referees to be received by the under-signed not later than noon. Ist April, 1961. HOWARD J. WILLIAMS, Clerk of the Council.

District Council Offices, The Walk, Ebbw Vale, Mon,

6383

Ebbw Vale, Mon. 6583 CANNOCK UEBAN DISTRICT COUNCIL (Population 43,000) ARCHITECT'S DEPARTMENT Applications are invited for the following posts in the Office of the Council's Architect (Mr. H. Wilcox, A. R.I.B.A.). (a) CHIEF ASSISTANT ARCHITECT (A.P.T. V-E1,310 to 62,480 p.a.). (b) SENIOR ASSISTANT ARCHITECT (A.P.T. IV-E1,310 to 62,480 p.a.). (c) ARCHITECTURAL ASSISTANT (A.P.T. II-E35 to 2590 p.a. or A.P.T. III-E360 to £1,140 p.a.). This developing district is not adversely

(c) ARCHITERTURAL ASSISTANT (A.F.T. II-2015 to 4590 p.a. or A.F.T. III-2500 to E1,140 p.a.). This developing district is not adversely affected by the proposals of the Local Govern-ment Commission and is situated 15 miles north of Birmingham and 9 miles from Wolverhampton. It includes a portion of Cannock Chase which is part of a designated area of Outstanding Natural Beauty, containing good facilities for varying sports and outdoor recreation, and is within reasonably easy reach of Dovedale, the Manifold Valley and other lovely areas in the County. Cannock has a new Grammar School and other good educational facilities. The successful applicants will be engaged on major schemes including a Central Bus Station. Public Baths, New Council Offices, Branch Library, Community Centres, Underground Con-veniences and Town Centre Redevelopment in addition to a continuous housing programme. Married applicants and assistance will be given imarried applicants and assistance will be given inter applicants and assistance will be given inter by 26th March, 1961. H.C. ALLEN. Clerk of the Council. Council House, The Green,

Council House, The Green, Cannock, Staffs

6385

Cannock. GHANA CIVIL SERVICE GHANA CIVIL SERVICE Vacancies exist for ARCHITECTS in the PUBLIC WORKS DIVISION, MINISTRY OF WORKS AND HOUSING. Indises To design, prepare working drawings and supervise the construction of new Govern-ment buildings such as quarters, offices, hospitals, schools, law courts, elc., and also at times to carry out dutises as an executive architect respon-sible for the organisation of direct labour works. Magnetic and the second of the carry out dutises as an executive architect respon-sible for the organisation of direct labour works. Magnetic and the of the Final Examination of the Royal Institute of British Architects: or (i) be Licentiates of the R.I.B.A. by the havailfication which is recognised as exempting from Parts I and II of the R.I.B.A. by the function which is recognised as exempting from Parts I and II of the R.I.B.A. by the function which is recognised as exempting from Parts I and II of the R.I.B.A. examina-tion. Salary in range £1.80-62.080 p.a. Appointments on contract terms for three fuors each of 15-18 months. Gratuity 5150 p.a. Appointments on contract terms for three fuors each of 15-18 months. Gratuity 5150 p.a. Torintments on three children under the seasages for officer, wife and up to three shild for up to three children under the seasages for officer, wife and up to three fullow a child for up to three children there is accommodation at low rental. Interest-dent in Ghana and attending full-time school fayeas Accommodation at low rental. Interest-dent of the cara and care maintenance and the officer of the cara mainte

W.1. G387 GOVERNMENT OF NORTHERN IRELAND ASSISTANT QUANTITY SURVEYOR Applications invited for unsetablished posts in Ministry of Finance, Preference for ex-Service-men, Candidates must be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities). Experience in "taking off" for large building works essential. Salary scale E355-£1,450; entry point according to age and experience. Prospects of pensionable appoint-ment, Application forms obtainable from Director of Establishments, Room 271, Stormont, Belfast, 4, to be completed and returned by 11th April. 1961. 5357

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J. NOEL MARTIN Town Clerk

BOROUGH OF GUILDFORD Applications are invited for the appointment of an ARCHITECTURAL ASSISTAT. com-mencing salary at a point within Grade A.P.T. III (1990-21,140) according to qualifications. Applicants must have the appropriate qualifica-tions and have had practical experience in general architectural work and housing. Housing accommodation will be provided if required, and half removal expenses paid. Five-day week is in operation. Application, with names and addresses of two refererse, must be sent to the Borough Engineer and Surveyor, Municipal Offices, High Street, Guildford, by Thursday, 30th March, 1961. HERBERT C. WEILLER, Town Clerk.

6392

appointments in the Borough Architect's Department;
 (a) SENIOR ASSISTANT ARCHITECT, Grade
 (a) SENIOR ASSISTANT ARCHITECT, Grade
 (b) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (b) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (c) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (c) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (c) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (c) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to £1480.
 (c) ASSISTANT ARCHITECT, Temporary, at a sairy to be determined up to a consideration will be given to the provision of housing accommodation.
 (c) ASSISTANT ARCHITECT, Town Sol, Architect, Town Hall, Wallasev, to whom they should be returned by the 23rd March, 1961.
 (c) ALRERSON, A. G. HARRISON, Town Clerke

 BIRMINGHAM
 REGIONAL
 HOSPITAL

 BOARD
 BOARD

 APPOINTMENT OF ARCHITECTURAL STAFF

 (a) SENIOR ASSISTANT ARCHITECTS, salary

 scale £1.300
 to £1.600

 (b) ASSISTANT ARCHITECTS, salary

 scale £1.300
 to £1.600

 (b) ASSISTANT ARCHITECTS, salary

 scale £1.300
 (Arch, 12).

 (b) ASSISTANT ARCHITECTS, salary scale

 £905
 to £1.600

 Architect by examination.

 These posts are not necessarily restricted to

 offer oportunities for gaining knowledge and

 experience of the whole field of hospital architecture ranging from adaptiation schemes to

 comprehensive new hospital projects.

 snnnable.
 Fivs-day week. Applications (quoting appropriate reference) stating qualifications, age, experience, present position and salary, and salary and salary week. Applications schemes to comprehensive reference, to Secretary, 10, Augustus Road, Birmingham, 15, by 7th April, 1961, 5418

ROYAL BURGH OF ARBROATH BURGH ARCHITECTS DEPARTMENT Applications are invited for the following appointments in the above department. (a) ASSISTANT ARCHITECT on Salary Scale

 (a) ASSISTANT ABCHITECT on Salary Scale CLID-CL200.
 (b) ABCHITECTURAL ASSISTANT or ABCHI-TECTURAL DRAUGHTSMAN on Salary Scale 2785-2975.
 Applicants for post (a) should be members of the Royal Institute of British Architects and preferably with experience in Local Authority work. Placing on scale in both appointments in accordance with age, qualifications and experi-tions. ence

The successful applicants will be required to pass a medical examination and will be subject to the provisions of the Local Government Super-annuation (Scotland) Acts. Should the successful applicants be married, housing accommodation will be made available by the Council. Applications, together with copies of two recent testimonials, should be lodged with W. R. Samson, A.B.I.B.A., Burgh Architect, 32, Hill Street, Arbroath, not later than Thursday, 32rd March, 1961. WILLIAM D. SWITH.

WILLIAM D. SMITH. Town Clerk.

6390

Town House, Arbroath, Angus

Arbinath. Answer: CORPORATION OF DUNDEE CTTY ARCHITECTS DEPARTMENT The Architects' Department is at present of architects' near the states of the arbitrary for architectural work which will provide oppor-for architectural work which will provide oppor-to a chitectural work which will provide oppor-prehensive Redevelopment of a number of a number of large Housing Estates, the Com-prehensive Redevelopment of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a number of a state of a number of a n

Dundee, not later than 31st March, 1961. 6391 CITY OF SALFORD Applications are invited from appropriately qualified persons for the post of ASSISTANT ARCHITECT (General Section), A.P.T. Grade III-IV (2660 to 21,310 per annum), in the Department of the City Engineer and Surveyor, G. A. McWilliam, E.S., A.M.I.C.E., A.R.I.C.S., M.I.Mun.E. The duties will include responsibility for the repair and maintenance of, and alterations to, all types of municipal buildings, and the preparation of reports and estimates. Candidates should have a sound knowledge of building construction and materials. Housing accommodation may be provided in approved cases. A five-day week is in operation. Applications, stating age, education, qualifica-tions and experience, together with the names and addressees of two referees, should be for-warded to the City Engineer and Surveyor, Town Hall, Salford, 3, Lancs, to arrive by the 27th March. 1961. ROYAL COUNTY OF BERKSHIEF

Hall, Saltord, 5, Lancs, to attrive by the 27th March. 1961.
 ROYAL COUNTY OF BERKSHIRE Avoilcations are invited for post of PLANNING ASSISTANT as follows: Applicants with Intermediate Examination of Town Planning Institute-A.P.T. Grade I (£646-£815 D.a.) or A.P.T. Grade II (£615-£960 p.a.) according to experience.
 University graduates-A.P.T. Grade I.
 Applicants with five or more G.C.E. "O" level passes including English Language and Mathe-matics)-General Division. commencing at between £290 and £390 (according to age and gualifications) to £630, with vorcression on bas-ing the Intermediate Examination of the Town Planning Institute to A.P.T. Grade I or A.P.T.
 Grade II according to ability.
 Brawing ability and previous experience in a planning office would be an advantage.
 Forms of application may be obtained from County Planning Officer. 7 Abbot's Walk, Read-ing. Closing date: 27th March. 1961. 6614
 BOROUGH OF SWINTON & PENDLEBURY

BOROUGH OF SWINTON & PENDLEBURY ARCHITECTURAL ASSISTANT Applications are invited for this position within A.P.T. Division Grade III, the commencing salary being determined by qualifications and experience. The work will be mainly in con-nection with housing develoment. Form of application obtainable from Borough Engineer. Town Hall. Swinton, Lancs., must be returned by 6th April. 6457

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to F. B. Poney, by not later than 6419 <u>April. 1961</u> BOROUGH OF BRIDGWATER BOROUGH ARCHITECT'S DEPARTMENT Applications are invited for the post of (a) ASSISTANT ARCHITECT and (b) QUAN TITY SURVEYOR, each at a salary within A.P.T. III.IV (£960-£1,310), according to age and experience. Applicants for appointment (a) must be A.R.I.B.A. and for (b) A.R.LC.S. or I.Q.S. A.R.J.B.A. and for (b) A.R.LC.S. or LQ.S. Application forms and particulars from Borough Architect, Town Hall, Bridgwater, to be returned not later than the 27th March, 1961. H. A. CLIDERO; *Towen Clerk.* 

Town Hall, Bridgwater. oth March, 1961. CITY OF BATH Applications are invited for the appointment of (a) an ARCHITECTURAL ASSISTANT at a salary within Grade A.P.T. II (£615–€960). Applications for this post should have a good draughtsmanship and preference will be given to be who have passed the R.I.B.A. Intermediate Examination. (b) JUNIOR ARCHITECTURAL, ASSISTANT at a salary within Grade A.P.T. I (£645–£815). The programme of building works is extensive and interesting and the appoint ments afford an opportunity for good experience. The Council is prepared to provide housing accommodation if required. Applications, together with the names and didresses of three referees, should be addressed to the City Planning Officer and Architect. 7. North Praved Buildings, Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Architect. 7. North Praved Buildings. Bath. The last day to the City Planning Officer and Planning Officer and Planning Officer and Planning

JARED E. DIXON. Town Clerk.

6344

Guildhall.

Bath. 6th March, 1961.

BOROUGH ARCHITECT'S DEPARTMENT HOLBORN BOROUGH COUNCIL ARCHITECTURAL ASSISTANT required. Salary within A.P.T. 11/111 (2815-21.140) (plus London weighting) according to experience and qualifications. Applications with names of two referees to Town Clerk. Town Hall, High Holborn. W.C.L. 5372

CITY OF YORK Applications are invited from persons with the appropriate professional qualifications for the following permanent appointments: (a) ASSISTANT ARCHITECT (A.P.T. Grade IV. £1,140-£1,310 p.a.). (b) SENIOR ASSISTANT QUANTITY SUR-VEYOR (A.P.T. Grade IV. £1,140-£1,310 p.3.1

VEYOR (A.P.T. Grade IV, 41,140-21,310 p.a.). (c) ARCHITECTURAL ASSISTANT (A.P.T. Grade I, 266-2815 p.a.). The commencing salary in each case will be in accordance with experience and qualificationa. In respect of appointments (a) and (b) the tenancy of a house, if considered necessary, may be offered for a period of 12 months in order that the successful applicants may be afforded time in which to obtain own accommodation. Details of appointments and application forms may be obtained from the undersigned to whom completed forms must be returned not later than first post on 1st April, 1961. E. FIRTH, F.R.L.B.A., A.M.T.P.I. E. FIRTH, F.R.L.B.A., A.M.T.P.I. (*Lity Architect.* 8. St. Leonard's Place.

8. St. Leonard's Place, York. March, 1961.

March, 1961. \* LONDON COUNTY COUNCIL ARCHITECTURAL DRAUGHTSMEN Skilled and experienced Draughtsmen required in Housing Division, Architect's Department, to produce working drawings under supervision. Up to £1,250 according to experience and quality. Form from Hubert Bennett, F.R.I.B.A., Architect to the Council (EK/A/666/3), County Hall, S.E.1.

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### **Tenders** Invited

Tenders Invited 362. per inch: each additional line 32. CITY OF CARDIFF CORPORATION WATERWORKS LLANDEGFEDD WATER SCHEME-SECTION B CONTRACT NO. B.4-TREATMENT WORKS FIXED PRICE TENDERS are invited from experienced Civil Engineering and Building Contractors for the construction of a Treatment Works, Concrete Reservoir, Poreman's House, and Ancillary Works, including the supply of all materials, at SULVAD, Panteg, near Pontypool, Mommouthshire, as follows;---TREATMENT WORKS-Comprising Brick and Reinforced Concrete Buildings to house Control Equipment and Chemical Plant, Reinforced Concrete Tanks for filtration and settlement of water and works in con-nection with the provision and creation of DIAT.

and Schementer of white and works in com-nection with the provision and erection of Jant. RESERVOIR—A water retaining structure of 3 million gallons capacity, with Mass Concrete Walls and Reinforced Concrete Roof, Floors, Columns and Dividing Walls. FOREMAN'S HOUSE—The construction of a brick walled house with timber floors and slate roof on the same site as the Treat-ment Works. ANCILLARY WORKS—Including Road Works, Inter-connecting Pipelines, Drains, Sewers, a small Sewage Disposal Works and an Electricity Sub-station. Tenderers must submit with their Tenders particulars of works similar in character carried out by them. Conditions of Contract, Specification, Drawings, Fills of Quantities and Form of Tender may be obtained from THE ENGINEER, at SLUVAD, PANTEG, NEAR PONTPOOL, MON. to whom application should be made, accompanied by a deposit of 210 198, @L. Cheques should be made payable to Cardiff Corporation and crossed "Not negotiable & Co." The deposit will be

Town Hall

refunded upon receipt of a bona fide Tender, or the return of the Contract Documents and

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6356

City Hall, Cardiff. March, 1961.

## Competition

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

36s. per such; each additional line 3s. ROYAL COUNTY OF BERKSHIRE ARCHITECTURAL COMPETITION NEW COUNTY OFFICES The Berkshire County Council have promoted an open competition for architects for the design of new County offices and a new Council Chamber to be erected on a site adjacent to the present Shire Hall, Reading, at an estimated cost of £815,000. Premiums of £3,000, £2,000 and £1,000 will be awarded to the competitors placed first, second and third respectively. Mr. Frederick Gibberd, C.B.E., F.R.I.B.A., M.T.P.I., F.I.L.A., has been appointed as Asgessor.

Assessor. Copies

Assessor: Copies of the Conditions and Schedules of Accommodation may be obtained from the Clerk of the County Council, Shire Hall, Reading, during the period 20th March to 1st May, 1961, on receipt of a deposit of £2 2s. The latest date for submission of questions is Monday, 26th Jane, 1961, and entries must be submitted by 5.30 p.m. on Tuesday, 31st October, 1961.

Shire Hall, Reading,	E. R. DAVIES, Clerk of the Council.	
Berks.	6232	

**Architectural Appointments Vacant** 

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

BLACKPOOL Pleasure Beach: ABCHITEC TURAL ASSISTANT required to work at Blackpool under general direction of Howard V. Lobb & Partners, London. Minimum two years office experience. Salary about £800 depending on experience. Interesting design and practical experience, with long-term appointment. 5199

**£950-£1.500.** A & C H I T EO. TURAL ASSISTANTS with imagination and designing ability required to assist with large and important new developments in the central London Area. Telephone or write: Trehearne & Normac. Preston & Partners. 83. Kingsway, W.C.2. HOLborn 4071.

developments in the central London Area. Telephone or write: Trebearne & Norma-Treston & Partners, 83, Kingsway, W.C.2. HOLborn 4071. RONALD WARD AND PARTNERS invite applications from ARCHITECTS, Senior and Junior. Long-term prospects, Scope for initiative and responsibility in interesting com-mercial, industrial and civic projects in British Lakes, West Africa and Australia, Salaries com-mensurate with ability. Non-contributory Pension med Life Insurance schemes. Five-day week. Fleasant offices. Apply 29, Chesham Place, Bel-grave Square, London, S.W.1. Tel.: BELgravia X361.

Take Square, London, S.W.I. Tel.: BELgravia 2800 **EXPEBIENCED** and confident ABCHITECTS required to fill positions of responsibility in a growing and varied practice with industrial and commercial work throughout the southern half of the contry. Applicants must have initiative as well as architectural ability to carry through contracts up to 2100,000, working directly with Principals but with minimum super-rision. Apply in writing to Thomas Mitchell & Arthers, 20, Bedford Square, London, W.C.I. 5418 OPPORTUNITY FOR FRUSTRATED INTER-ADD IMAGINATION, UNABLE TO FIND POST OPPORTUNITY FOR FRUSTRATED INTER-ADD IMAGINATION, UNABLE TO FIND POST OPPENT OF TAKE CHARGE IN PROJECTS. WRITE OR "PHONE: NICHOLSON AND BUSHTON, 2. NEW SQUARE, LINCOLN'S INN, W.C.2. HOLBORN 2096. 5616

£850-£1.600. ABCHITECTUBAL ascience and the severance assistants re-guired. Long term prospects. Non-contributory pension and life assurance schemes. Five-day week. Telephone or write: Bonald Ward & Part-ners, 29, Chesham Place, Belgrave Square, S.W.1. Belgravia 3361.

ners. 29. Chesham Place, Belgrave Square, S. W.1. Belgravia 3361. 6105 WOLVEBHAMPTON. Norman & Dawbarn require an ASSISTANT in their Midlands Office. This position could afford useful experi-ence of small and medium size jobs in a young but expanding office, with possibility of later transfer to London Office or overseas if desired. Minimum of two years office experience required if qualified, four years if Intermediate. Excellent working conditions, Eve-day week, three weeks annual leave, lunch vouchers. Write or telephone 7. Portland Place, London, W.1 (LANgham 8011), or Heantum House, Salop Street, Wolverhampton (Wolverhampton 27387). 5628 DLATNE & LACEY require experienced and enthusiastic SENIOB ARCHITECTUBAL ASSISTANT for work on University project. Salary range £1,200 to £1,500. Write 19, Queeen Anne's Gale, Westminster, S.W.1, or ring WHI 12552 for interview. 5617

Anne's Gafe. Westminster, S.W.1, or ring WHI 2552 for interview. 5617 ARCHITECTURAL ASSISTANTS required including contemporary work. Salary 2700-21,000 (plus L.V.8), according to qualifications and experience. Please write, giving full par-ticulars, to Sir Giles Scott, Son & Partner, 9, Gray's Inn Square, W.C.1. 5601 ARCHITECTURAL ASSISTANTS required in busy Bloomsbury office with varied prac-tice. Good salary and prospects for suitable applicants. Five-day week. Write giving par-ticulars of age, qualifications, experience, etc., to box 918, c/o 7, Coptic Street, W.C.1. 5647 OPPORTUNITY for Intermediate or newly-qualified ASSISTANT with initiative and all-round ability, to join youthful expanding prac-tice in Groydon. Apply to Donald Rowswell & Prone CROydon 4080. 5723 WORTH LONDON.-ASSISTANTS required in

NORTH LONDON.-ASSISTANTS required about R.I.B.A. Intermediate standard. Wide variety of interesting work. Five-day week. Facilities for part-time day study. Apply C. R. Owen Ward, L.B.I.B.A., Milland Bank Chambers, Palmers Green, London, N.13. PAL. 1186/7. 5768

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

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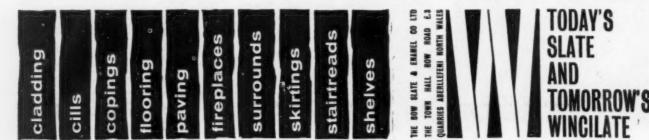
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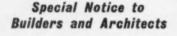
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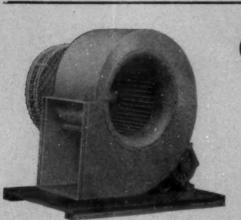
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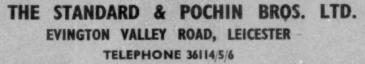
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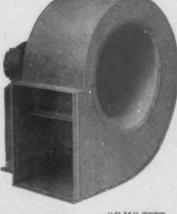
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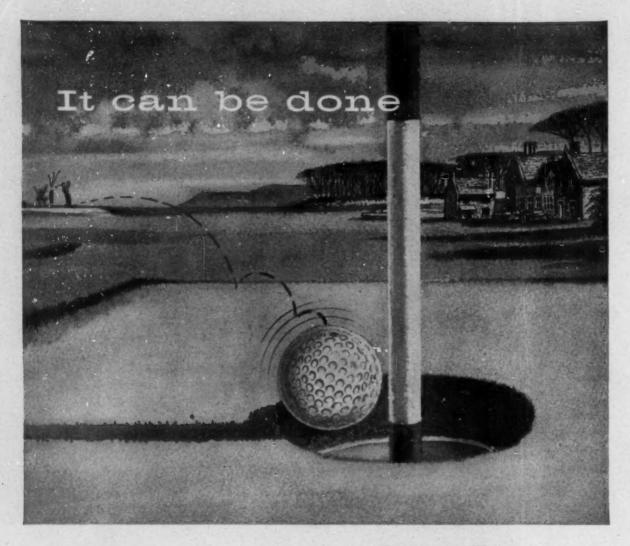
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