ARCHIT



tandard

contents

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

NEWS **COMMENT** and

Astragal's Notes and Topics

Letters News

Diary

Societies and Institutions

SECTION TECHNICAL

nformation Sheets nformation Centre Current Technique Working Details

Duestions and Answers Prices

The Industry

CURRENTBUILDING

Major Buildings described:

Details of Planning, Construction,

Finishes and Costs

Buildings in the News Building Costs Analysed

Architectural Appointments Wanted Vacant and

No. 3225] [Vol. 124 ARCHITECTURAL 11 and 13, Queen Anne's Gate, Westminster, W.I. 'Phone: Whitehall 0611

> Price Is. od. Registered as a Newspaper.

ZDA

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

Institution of Heating and Ventilating Engineers. 49, Cadogan Square. Sloane 1601/3158

IIBDID Incorporated Institute of British Decorators and Interior Designers 100, Park Street, Grosvenor Square, W.I.
Institute of Landscape Architects, 2, Guilford Place, W.C.1.
Institute of Arbitrators. Hastings House, 10, Norfolk Street, Mayfair 7086 Holborn 0281

ILA I of Arb Strand, W.C.2. Temple Bar 4071 IOB Museum 7179

Institute of Builders. 48, Bedford Square, W.C.1.
Institute of Quantity Surveyors. 98, Gloucester Place, W.1.
Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. IQS IR Welbeck 1859 Avenue 6851 Institute of Registered Architects. 47, Victoria Street, S.W.1.
Institute of Structural Engineers. 11, Upper Belgrave Street, S.W.1.
Lead Development Association. Eagle House, Jermyn Street, S.W.1. IRA Abbey 6172 ISE Sloane 7128 LDA

Whitehall 7264/4175 LMBA London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891 Lead Sheet and Pipe Council. Eagle House, Jermyn Street, S.W.1. Whitehall 7264/4175 LSPC

MAFF MARS

Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711

Modern Architectural Research Group (English Branch of CIAM). Secretary:

Trevor Dannatt, A.R.I.B.A., 71, Blandford Street, W.1. Welbeck 4713

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Ministry of Housing and Local Government. Whitehall S.W.1. Whitehall S.W.1. MOE MOH Ministry of Health. 23, Savile Row, W.1.

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Ministry of Labour and National Service. 8, St. James' Square, S.W.1.

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Ministry of Transport. Berkeley Square House, Berkeley Square, W.1.

Mayfair 9494

Ministry of Works. Lambeth Bridge House, S.E.1.

Natural Asphalte Mine Owners and Manufacturers Council. MOHLG MOLNS MOS MOT

MOW NAMMC

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12, Suffolk St., S.W.1. Whitehall I:
National House Builders Registration Council.
82, New Cavendish Street, W.1.
Langham 4 Macaulay 4451 **NFHS** Whitehall 1693 NHBRC Langham 4341

NPL National Physical Laboratory. Head Office, Teddington. Molese Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Molesey 1380 NRDB Mansion House 9383

NSAS National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838 NT

National Trust for Places of Historic Interest or Natural Beauty.

42, Queen Anne's Gate, S.W.1.

Political and Economic Planning.
Reinforced Concrete Association.

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Royal Society of Arts. 6, John Adam Street, W.C.2.
Royal Society of Health. 90, Buckingham Palace Road, S.W.1.
Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. RSA RSH Sloane 5134 Wimbledon 5101 **SBPM**

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Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
School Furniture Manufacturers' Association. 30, Cornhill, London, E.C.3. **SFMA** Mansion House 3921 SIA

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Scottish National Housing. Town Planning Council.

Hon. Sec., Robert Pollock, Town Clerk, Rutherglen
Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. SNHTPC SPAB

Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2.

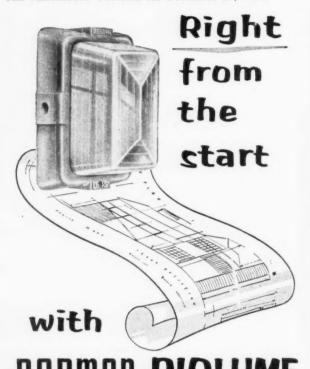
Temple Bar 5006

Timber Development Association. 21, College Hill, E.C.4.

City 4771 TCPA

TDA Town Planning Institute. 18, Ashley Place, S.W.1.
Timber Trades Federation. 75, Cannon Street, E.C.4.
War Damage Commission. 6, Carlton House Terrace, S.W.1.
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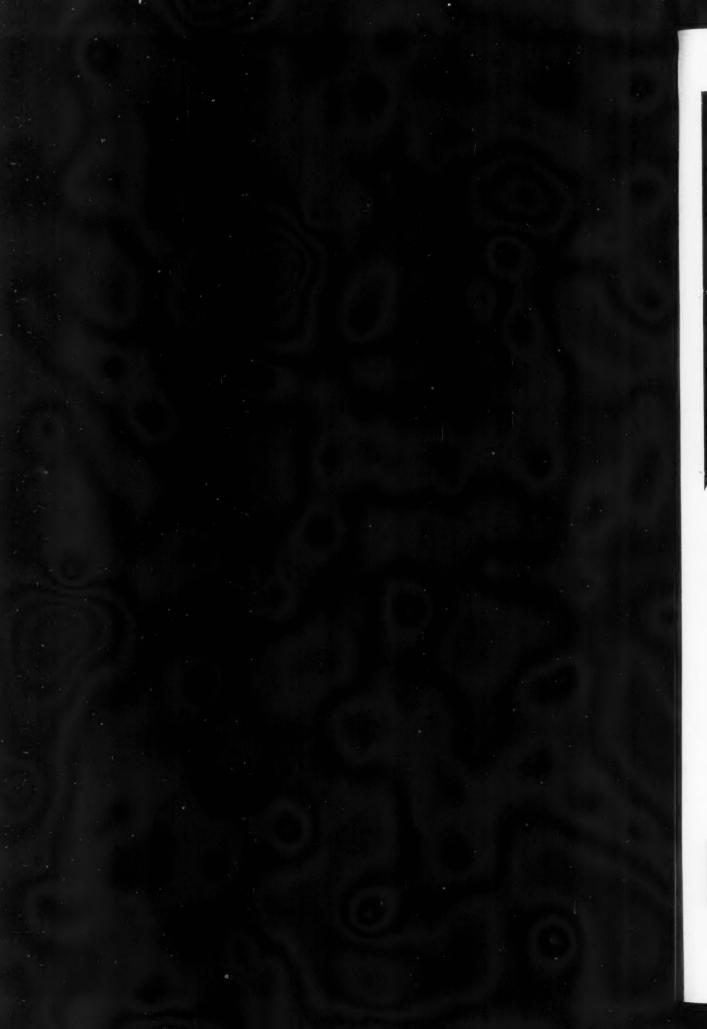


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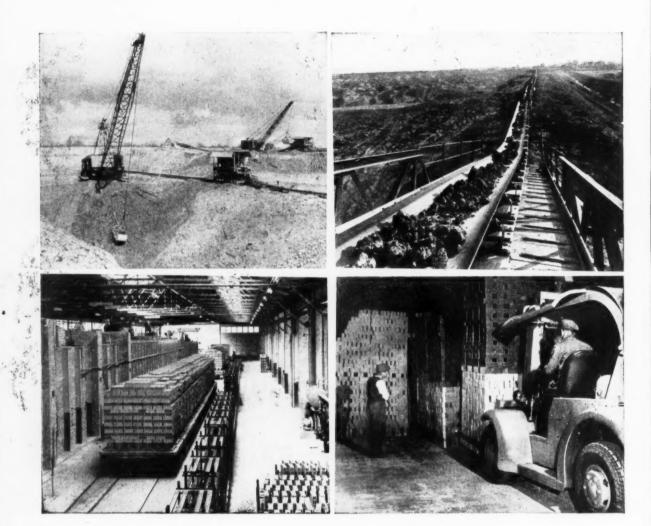
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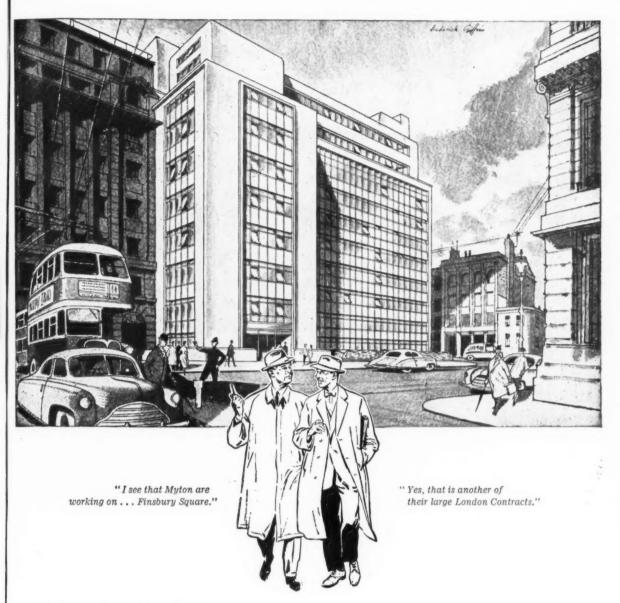
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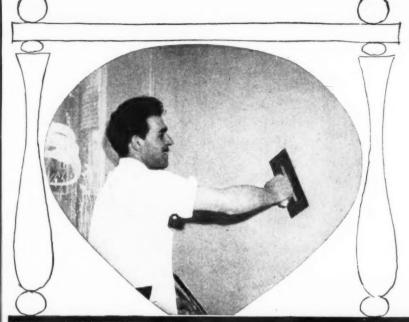
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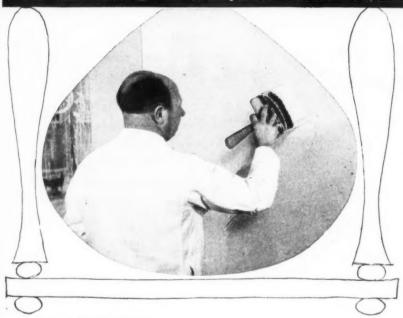
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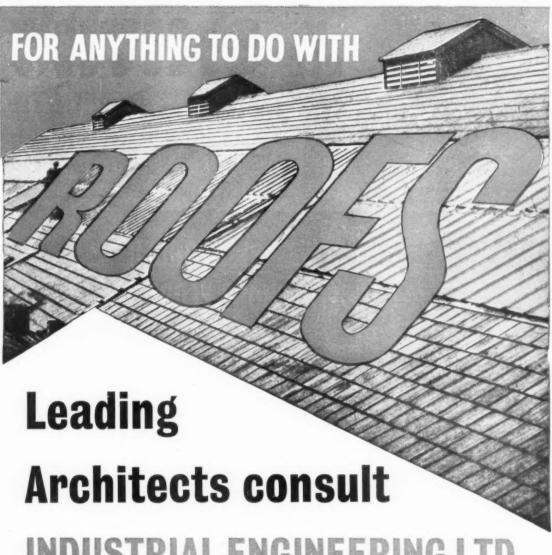
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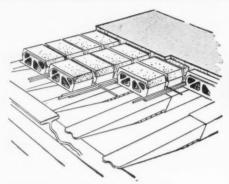
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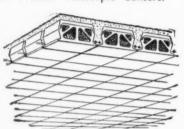
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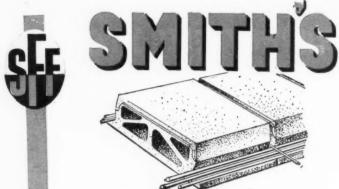
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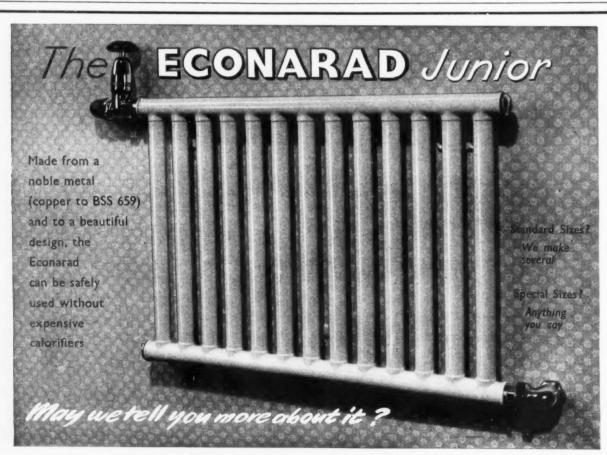
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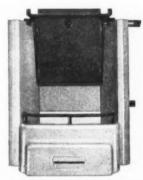
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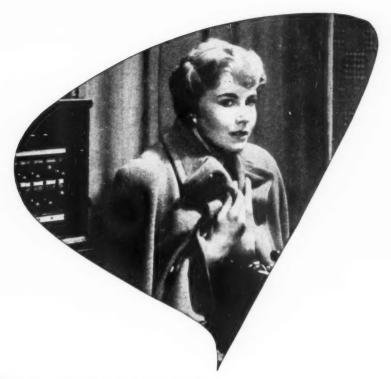
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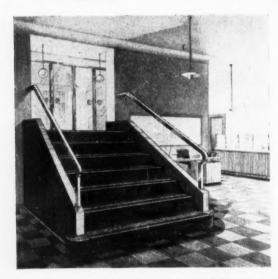
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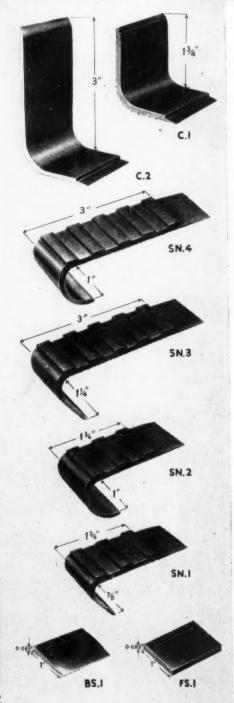
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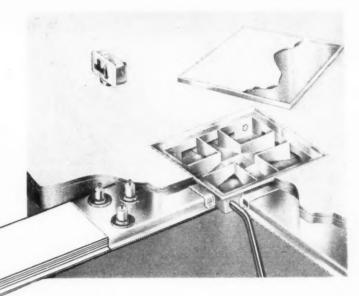
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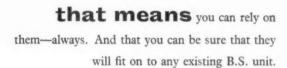


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This advertisement is one of a series featuring Canadian Douglas Fir, Spruce, Red Pine, White Pine and Pacific Coast Hemlock.

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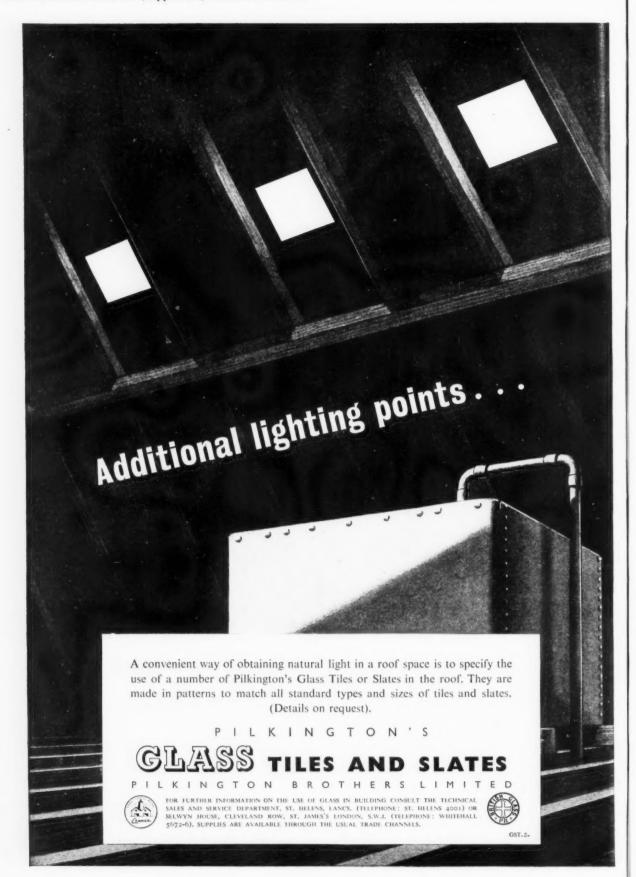
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GALVAFROID once applied, dries quickly with a concentration of 92-95° a metallic zinc in the dry film. It can be applied successfully over adherent rust and on wet surfaces and is touch dry in 30 minutes.

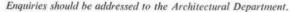
GALVAFROID confers electro-chemical (i.e. cathodic) protection, which prevents side-ways spread of rust under the coating should the coating be mechanically damaged by abrasion, etc. It can be left as a self-finish but in very severe corrosive conditions the best results are obtained with GALVAFROID in conjunction with a non-saponifiable paint finish.

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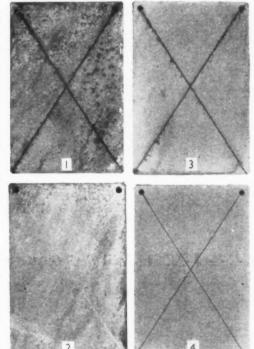
The test plates shown in the photographs have been damaged by deep diagonal scratches before 28 days exposure to the accelerated corrosion test in accordance with B.S. 1391 (SO₂ test).

- 1 Two coats of red lead paint
- 2 Two coats of GALVAFROID
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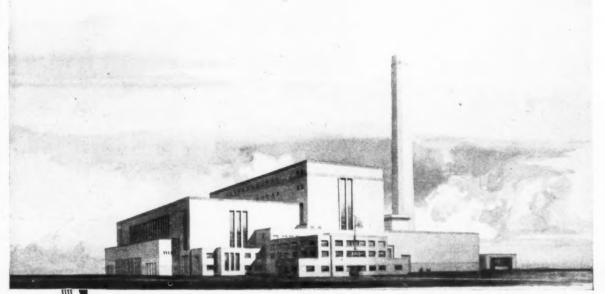
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USS 25



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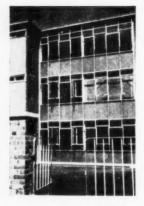
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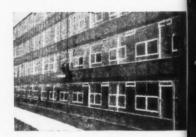












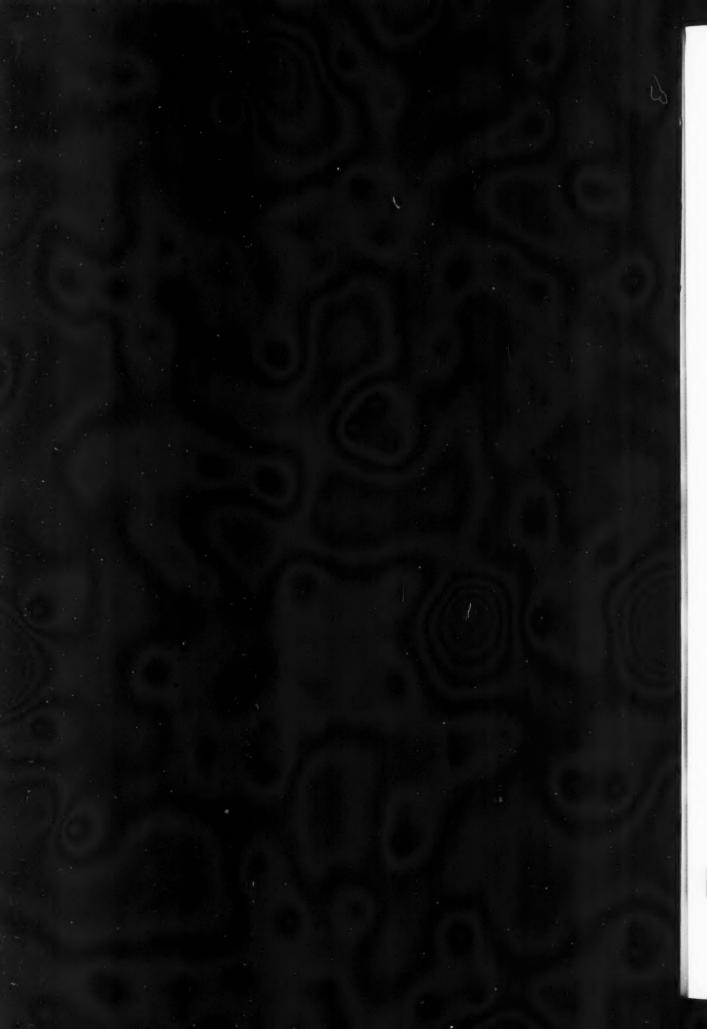
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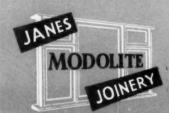
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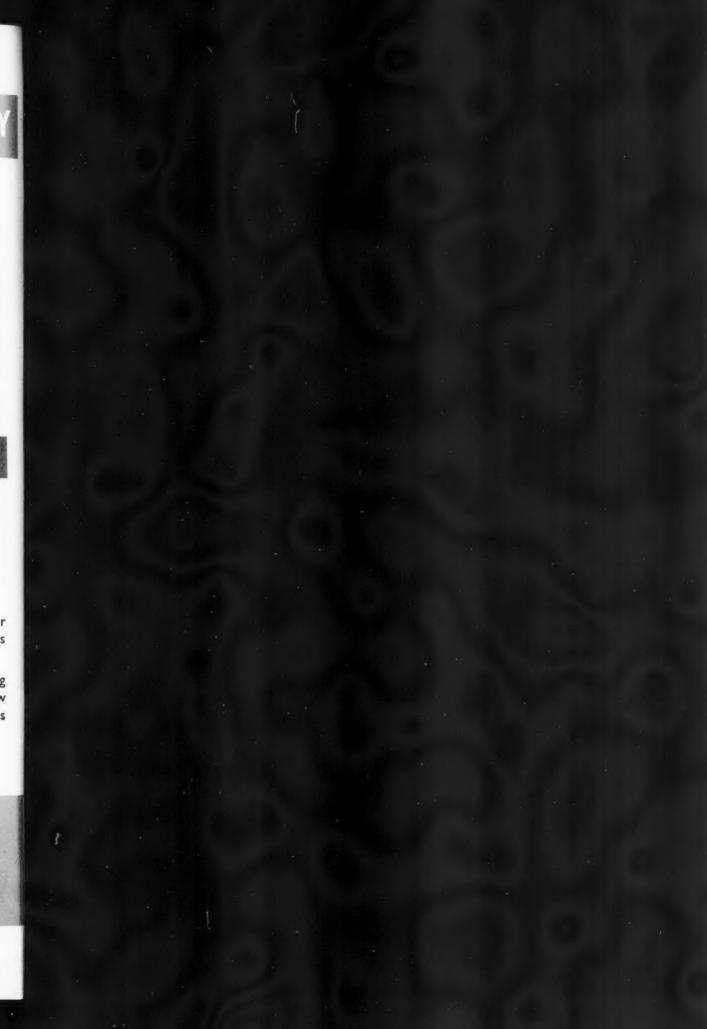
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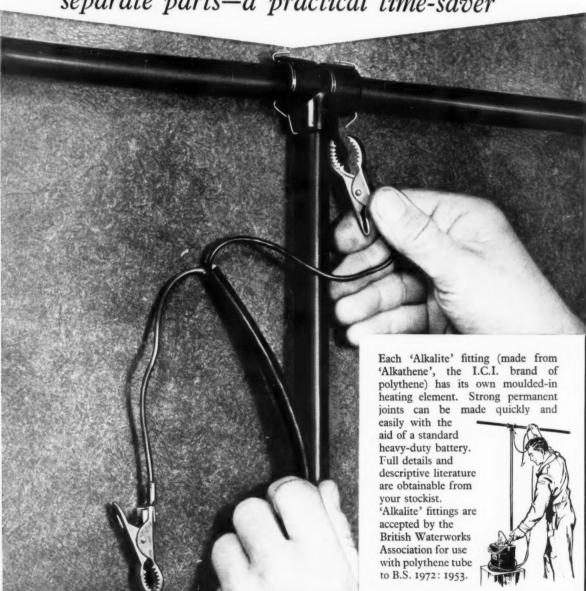
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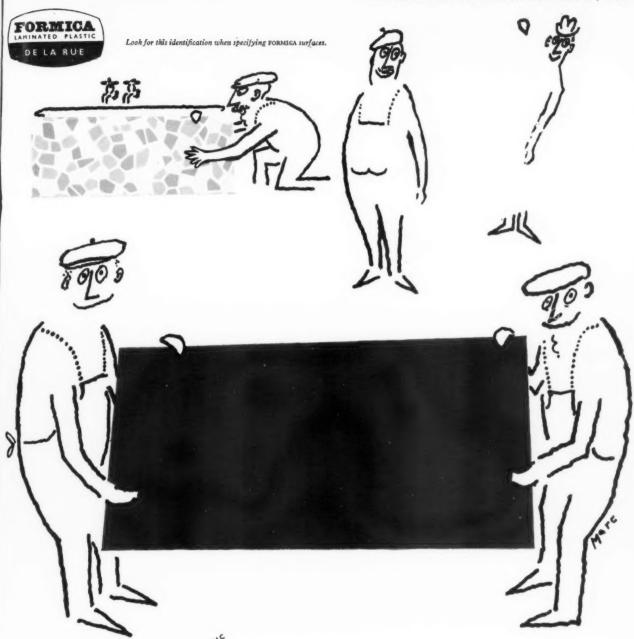
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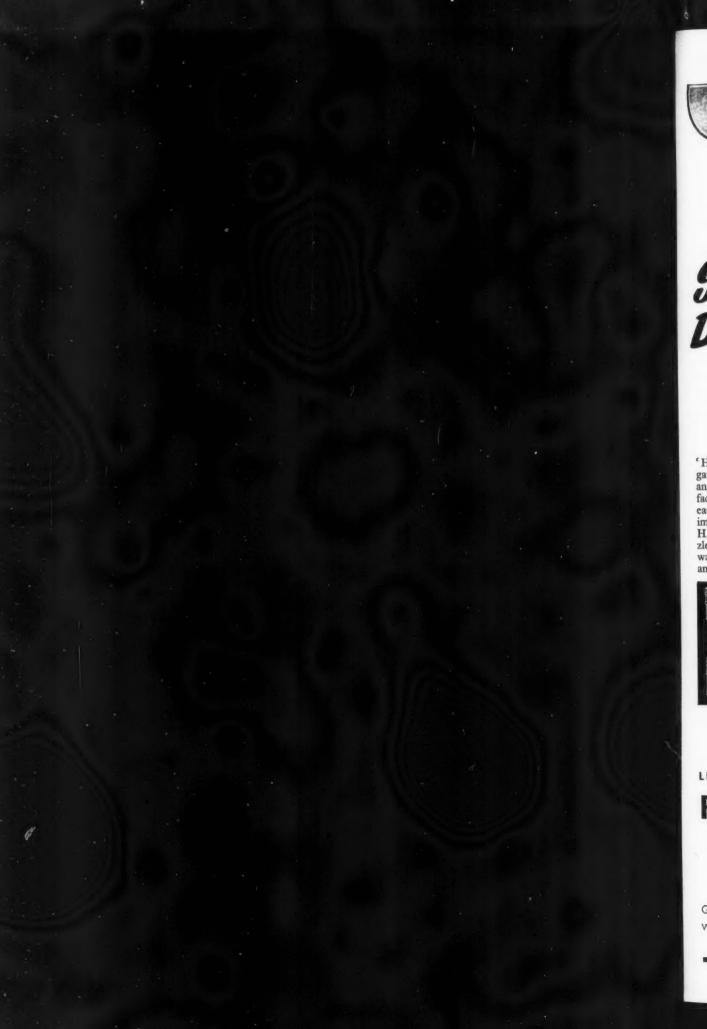
THE ARCHITECTS' JOURNAL for December 20, 1956

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THE ARCHITECTS' JOURNAL

No. 3225 Vol. 124 December 20, 1956

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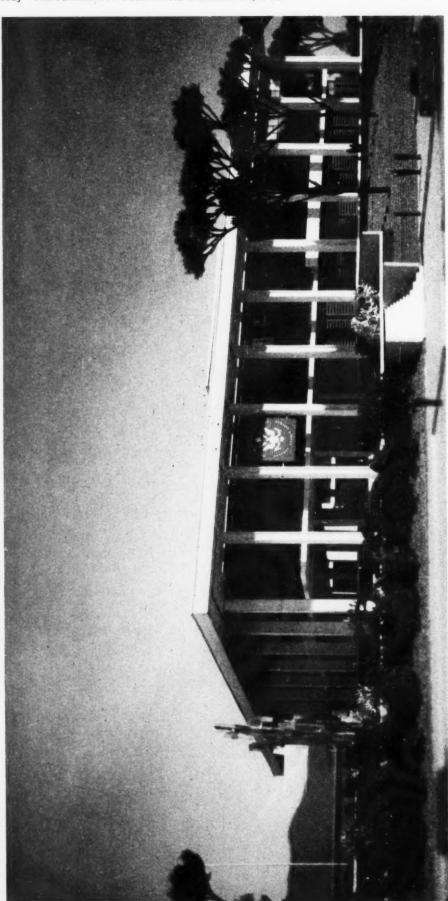
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NOT QUITE ARCHITECTURE

ARCHITECTURE OF THE ROLLS ROYCE

Trying and failing to buy exactly what you want is a good way of finding out how your fellow countrymen live, or perhaps how the manufacturers of consumer goods think they live, or perhaps how they think they ought to. From hunting for a large convertible car you learn that the moralists and arbiters of taste at Coventry and places like that think that fathers and mothers of families don't like fresh air. Gay bachelor dogs can get the most delicious little convertibles to go dating in; a few manufacturers wink so far at youthful pleasure as to make a four-seater convertible for square dates. But supposing you are married, and have three or four small children, and the pot, and the Kiddiecraft Totseat, and the basket full of bottles of milk and polythene bags of lettuce, and the bigger basket full of nappies, do vou still enjoy the open air? No; saloon for you. By then you are sedate, half blind, and miserable. You have catarrh if not positively fibrositis, and it no longer means anything to you to see the whole vault of the sky resting on its corbels of woods and fields, or to go through the summer air instead of carrying a chunk of it about with you, or to see higher than the first man-height modulus up the buildings you pass.

Desperate, then, after the Motor Show, I looked at a twenty-year-old Rolls Royce convertible. Certainly there was more room in it, but on the wrong axis.



thens Embassy

At the time of his visit to London last April to receive his Royal Gold Medal, Walter Gropius revealed that he had just joined the growing roster of distinguished American architects who have been commissioned to design buildings for the US Foreign Service. In his case the commission was for an Embassy in Athens, and the photograph of the model, above, shows his design to be as true to the canons of our own time as everything else he has ever designed, and yet far more true to those canons of Classical Architecture (by which all building in Athens will inevitably be judged) than, for instance, the laborious reconstruction of the porticoes of the Stoa on which so much American money has been so pointlessly laid out. In this inner classicism the design follows not only the disciplined dispositions of Gropius' own mind, but the whole trend of recent US embassy design, which tends to compliment local tradition by revivifying it. Thus,

whatever one may think of Saarinen's design for Grosvenor Square, one cannot but admire his lively, not subservient, attitude to its Georgian background, while Ed Stone's project for New Deihi sums up many of these qualities of Indian architecture that are proper to a ceremonial building of the Twentieth Century—without being an air-conditioned Taj Mahal. These New US embassies seem to presage a really new look in Design for Diplomacy—they are not arrogant, they do not play to the gallery; they are not disguised as Belgravian residences or Palladian villas (Let us never forget the harm done to Britain by the new Embassy in Rio)—but they make prestige for the US by treating the inhabitants of the cities where they are built as intelligent enough to recognize, and cultured enough to appreciate. good modern architecture when they see it. An attitude which N.Z. adopts but with not, unfortunately, the same results, as yet.

eclectic Styles. bonnet bury. S mously and car so mar fandriv Lady c off to c final to The ca model) block is window you pr can ju works, prayer

You still

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Inform

House book Facto You still didn't get beyond the square date: the only thing was that with the great length, it could have been satisfactorily horizontal.

But there was one advantage I hadn't foreseen. We like sometimes at weekends to drive out and look at a house or a Cathedral; say Osterley or Winchester. If we had bought that Rolls the petrol consumption would have been so terrific that we should not have been able to afford this any more. But we should not have needed to. On a gasless Sunday morning, therefore—and I suppose this applies to all Rolls-owners now-I pictured myself going out to the garage, opening the door to get a good dose of sunlight, and contemplating first my private Osterley, the radiator. The proportions of this majestic frontispiece are not, as is sometimes said, based on the Parthenon; it is much closer to a Roman Corinthian portico. At any rate the grille in front suggests fluting on the columns and there is a statue, suitably florid, and properly placed at the apex of the pediment. It's only a pity that imagination is left to supply capitals and acroteria.

But the architecture of the Rolls is eclectic; it is neutral in the Battle of the Styles. Osterley outside, but lift the bonnet and you have Winchester, Canterbury. St. Albans. The engine is enormously long, as long as a nave. Exhaust and carburation manifolds sweep up like so many flying buttresses, the fan and fandrive stand down at one end like a Lady chapel and the carburettor stands off to one side like a chapter house. The final touch (can it have been conscious? The car I am thinking of was a 1938 model) is that the sides of the cylinder block are broken up into a run of little panels for all the world like clerestory windows. If the engine is running, and you put your ear very close to it, you can just hear the faintest whisper of the works, or the faith, going like murmured prayer inside.

WAYLAND YOUNG



Information Sheet corrections

pages 894-897

House Conversions and Improvements: book review page 900

Factory at Hemel Hempstead

pages 901-914

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

The Editors

EVERYONE'S GUIDE TO ENVIRONMENT 7HEN Deal Town Council heard of Outrage, the Architectural Review's attack on the abuse of our environment, they asked their borough surveyor to compile a list of the outrages which existed within their boundaries, and they have now started to put things right.

This month's Review is a weapon for all those with any claims to a civic conscience to use in order to emulate Deal's example and to launch a counter attack on outrages and on the perpetrators of them. Appropriately, this month's Review is called "Counter-attack." We recommend it to every architect or planner, whether in private or public office. Copy in hand they should study their neighbourhood, the roads and streets on which they drive to work, their offices, the area where they park their car, the route to their favourite lunching place. They should take it with them when they visit building sites or clients, or local authorities. All the time they should be measuring what they see against the standards given in "Counter-attack." They should try to discover not only where planning and design has failed—or has not even been attempted, but also to formulate what the answer should be.

The triumph of "Counter-attack" is that it supplies examples of the answers to almost every visual problem by means of a Case-book. It divides this country's environment in five categories: wild country, arcadia (by which the editors mean not suburbia, but the housing in pretty, trim, sylvan settings typified by parts of Welwyn and other garden cities), town and metropolis. In this Case-book is shown the right and the wrong way of handling the dozens of details which go to form our environment. The list of details is comprehensive.

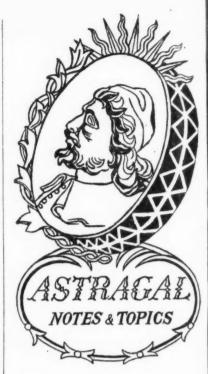
Architect-planners, the local architectural societies, and not least the architectural schools, have, with this article, a magnificent opportunity to show their public-spirited interest in a matter on which the general public should instinctively turn to them for guidance. They can press the committee men and councillors to make fuller use of their professional services to get some of the mess which is fast wrecking this country effectively cleared up. Of course no one pretends that everything can be put right in a day. But the lists can be prepared now of what is wrong, so that gradually, as each year outworn stock has to be replaced, roads re-made, car parks re-sited, and so on, the right ideas are there and waiting to be carried out. "Counter-attack" is the demand for action which should be borne forward by the support of a united, enlightened profession.

SHALL WE MAKE THE YARD EQUAL 90 CENTIMETRES?

Speaking recently to the Modular Society, H. A. R. Binney, Director of BSI, discussed the importance of Modular Co-ordination in building for the export trade. Likening the revolution in building technique to the 19th-century revolution in the textile industry he suggested that one of its natural effects will be to produce an international market in all but the bulkiest of manufactured building components; and that in consequence we must use modular coordination both to cheapen the cost of home products and to ensure their dimensional acceptability in other countries. The possibility of such an international market is inherently attractive to British architects, not so much because they desire commercial success for our industry, as because they feel that British manufacturers are not trying hard enough to produce good industrialized building components, and they hope that awareness of a larger, more critical market might encourage them to do better.

If such a market were to develop it would certainly pose, in a more acute form, the problem of a universal system of measurement. Agreement on the choice of a module within both the metric and the foot/inch groups of countries would go some way towards easing the dimensional problems posed by such a market; but even so the need for every manufacturer in the market to produce metric and foot/inch versions of every item on his range is likely to prove a harsher deterrent than almost any fiscal barrier. On this issue Mr. Binney very propertly sat on the fence. It is interesting to recall, however, that the Hodson Committee, which was set up by the Board of Trade to consider this matter and make its report in 1951, advised that Great Britain should change to the metric system over a period of 25 years, provided the United States were to do the same. The motive for doing the change this way is not so much the inherent convenience of metric measurement, for investigations show that factorization by twelve is more convenient than factorization by ten. The motive is rather that the foot/inch countries have more to gain by the establishment of a single system and, being the more cohesive group, would find it easier to make a shift. For this reason there is much to be said for the proposal that the foot/inch countries should adjust their measurements to make the statutory yard equal 90 instead of 91.438 centimetres. This would secure interchangeability on the world market while retaining for the foot/inch countries their habitual terminology.

This is a most urgent matter for a nation of exporters like ourselves. Since evidently the cost of making the change would have to be borne by the nation as a whole and not by the industries affected, a new commission should be set up forthwith to find out what this cost would be.



DUTCH AT WORK

A disenchanted traveller, just back from the Low Countries, tells me that he thinks our perennially high estimate of the quality of Dutch housing may need cutting down to size, particularly where Amsterdam is concerned. Unlike many visitors, he pursued the subject back to its source-the early apartment blocks of that forgotten architect, de Klerk. Even those of 1913 will still bear looking at, he says, like the very early work of the LCC, and the buildings done round about 1917-19 by de Klerk, though eccentric in detailing, show a nice sense of how to make urban densities without making slums, a developed sense of making streetscape, and the provision of tenant facilities like common-rooms and shops within the block.

Trees, I am told, are conspicuously missing from the newer developments. Going to see friends in the newly developed outer suburb of Slotervaart one evening, my friend passed through a landscape "entirely devoid of vertical features, Ian Nairn's paradise "—no trees, no lamp-posts, no sign-posts, just a narrow brick road wandering through a sea of black mud, into which the taxi skidded from time to time because the roads had no kerbs. The suburb when reached finally (after the taxi-driver had twice got lost) consisted, he says, of quite pretty little

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contemporary-type houses, but gappily laid out and at densities no higher than the prairiest of English New Townsand no trees or landscaping. He seems to share the general opinion that, at the moment, the Hague is doing as well, or even better, than any other town in Holland as far as housing is concerned.

... AND PLAY

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When I asked my friend about the much-praised Amsterdam pavement playgrounds for children in high-density zones, he replied, "There is no doubt that they have completely revolutionized the lives of the children. Little rough-necks, who used to have nothing better to do than belabour the underside of the coalman's horse with sticks, can now balance on top of the climbing frames so thoughtfully provided, and clout the horse on the head -and this, mind you, when they were supposed to be on their ultimate best behaviour because Sinterklaas was due in town the next day."

Having surreptitiously looked in my desk dictionary, I can now reveal that Sinterklaas is the Dutch Father Christmas, who arrives in Amsterdam on the fifth of December, accompanied by two Black Knights, one of whom distributes goodies to the good, while the other administers birchings to those who annov the coalman's horse.

MODERN ARCHITECTURE IN BRAZIL

Brazil and Germany are the subject of two books just published by The Architectural Press. The Brazil book* is a worthy successor to the famous Brazil Builds, the wartime publication by Philip Goodwin and Kidder Smith, which first awakened so many architects to a realization that at least one country in the new world was developing its own distinct version of contemporary architecture. Since that pioneer account, there has been only one other comprehensive attempt to review Brazil's architectural progress. This was Contemporary Architecture in Brazil, in two volumes, edited by G. Carneiro, and published in 1949 in Rio de Janeiro, but it was only published in Brazil and hence had a very limited circulation outside the country. For the

terest in Brazilian architecture has already been aroused, this latest book by the well known Brazilian architect. Henrique Mindlin, is to be strongly recommended.

He presents in one very well-produced volume nearly all the important works that have been executed so far in Brazil. Here are most of those exciting and exotic exercises in plastic form with which we are by now familiar enough through journals and exhibitions: here, too, are numerous modern buildings which bring out the excellent contribution the Brazilians are making in terms of the modern use of such traditional elements as the azuleijo, the pierced screen, and the brise soleil or sun breaker. While enjoying this book, it is necessary, of course, to remind oneself that as yet, through no fault of their own, the Brazilian architects have not really begun to tackle many of the basic architectural problems of their country, that most of their buildings are "custom built" for sophisticated and wealthy clients, and that the examples of good contemporary architecture, while giving the impression of being plentiful enough when collected together in one large volume, are still very few and far apart on the ground.

POST-WAR GERMANY

"As the proportion of bad architecture is so overwhelmine, the question will be asked whether the selection in this book is at all representative of Modern German Architecture "-so runs (in part) Hubert Hoffmann's introduction to the other Architectural Press book New German Architecture*. a substantial survey of buildings put

*Architectural Press 56s.



average British architect, whose in- What part of Europe do you suppose this is? Astragal publishes this photograph by Eric de Mare as a Christmas card for all Betjemanes. And there is your clue. The building is no nearer to Central Europe than St. Pancras station.

^{*} Modern Architecture in Brazil. By Henrique E. Mindlin, Architectural Press 84s.

up in the Western Zone since the war. Whether or not the selection is representative, to have assembled over 130 buildings, projects and town plans, none of them bad, all competent, many first-rate and a few brilliant, seems no cause for apologies in a country that was flat on its back ten years ago and is still split down the middle.

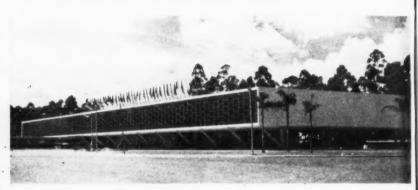
The picture of German post-war building that emerges is primarily one of competence of soundly designed and (as far as can be seen) soundly built buildings, that are not likely to set the Thames-or the Rhine-on fire, but add up, in the mass, to a level of production that reflects great credit on German architects (and their training). The few originals who stand out are genuine originals, not plastic acrobats nor eccentrics. When you think you have pinned down an eccentric-say Hans Scharoun-a few minutes' contemplation of his planning and circulations will convince you that he knows perfectly well what he is doing, and the result would be a workable building of genuine originality that is unlike anything else being designed in the world at the moment. In terms of space allotted, the hero of this book is Egon Eiermann, the designer of that famous textile factory at Blumberg, an architect who has style without being stylish, who works close to the bone of purely rationalist approach, and yet makes buildings of remarkable, under-stated eloquence — something imitators, one or two of whom are in the book, don't always pull off. He is, clearly, one of the finest designers at work in Europe today, and as a designer of industrial buildings can rank even with Mies-whose work for the Vereinigten Seidenwebereien at Krefeld he is continuing and extending with a very smooth new office-block.

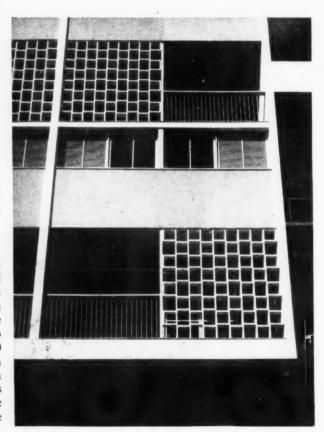
NOBEL ARCHITECTURE

This is the time of the year when the RIBA Council confers on the Gold Medal. This honour has now been given annually for over 100 years, with the exception of 1901 (owing to the death of Queen Victoria) and 1924 (no doubt a low point?). Since 1920 there has been a tendency to give a Medal only every third year to a foreign architect. This, I think, is wrong. The terms of the award are that it is "annually conferred on some

THREE NEW BOOKS FOR YOUR







" Modern From Architecture Tob: Brazil." house by Oscar Niemeyer, in Rio de Janeiro. Above: Palaces of Nations and States, Sao Paulo, by Nie-Lotufo, meyer, Uchoa, and Eduardo Kneese de (associate Mello architects: Estelita and Lemos). Left: housing development in Rio, by Reidy.

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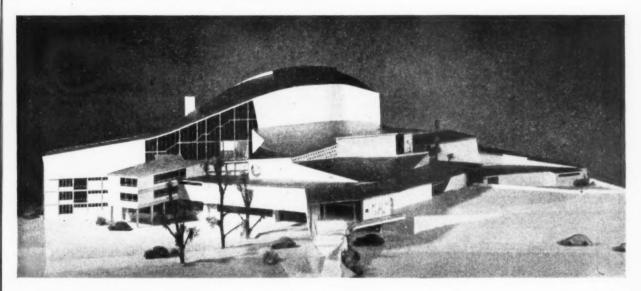








The photographs on the left are from "Modern Architecture in Brazil" (84s.), by Henrique E. Mindlin, reviewed by Astragal on page 885. Those above are from "House Conversion and Improvement" (42s.), by Felix Walter, reviewed on page 900. (Left to right: Fairlawne, Kent; 1-8 Paultons Street, Chelsea, and exterior and interior of 31 Fitzjohns Avenue, Hampstead). The photograph below, of a theatre in Kassel by Hans Scharoun, is from "New German Architecture" (56s.), selected by Gerd Hatje, Hubert Hoffmann and Karl Kaspar, reviewed on the opposite page. All books are published by the Architectural Press.



distinguished architect or man of science or letters who has designed or executed a building of high merit or produced a work tending to promote or facilitate the knowledge of architecture, etc., etc., etc.,

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In view of this I think the medal should be international and should not be given automatically to a British architect unless there is someone with a better claim than a foreign architect. Then again, in view of the above terms of award, I cannot feel that enough stress has been given in recent years to the broader field in which honour could be conferred. Engineers, writers and perhaps even a client or two might be considered. And would it not be better to award it to men whose careers are still in mid-stream? It should go to those who have not exactly crossed

over to the other side, but who are in calm enough waters to look back to where they have swum from.

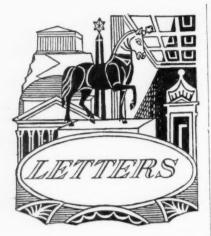
ARCHIMATION . . .

dance, held in the clotted cream and gold of the Grosvenor House ballroom last week. It was the customary success as far as participant enthusiasm was concerned. Students had arranged decorations and organized sideshows, the room was packed with people, amongst whom it was possible to distinguish the odd architect. The hotel provided what was described as a supper but was really an excellent dinner held at the time most people start thinking of going to bed.

The tables, as last year, were decorated by a countless number of red,

white and green menus, to a design by Theo Crosby, the versatile technical editor of Architectural Design. A large number of advertisers had racked their brains to produce special advertisements on the theme of the dancearchimation. Indeed, it was rumoured that Peter Trench of Bovis designed and drew his own advertisement. If true, this was a remarkable achievement by someone who is obviously a repressed architect. By and large the advertisers' efforts were better than the students. The ballroom is impossible to decorate at modest cost, but the standard of wall-painting was low enough, one would have thought, to spoil the enjoyment of any teaching staff attending. The real proof of the success of the evening is, of course, in the profit made for the ABS.

ASTRAGAL



" Ten Durham Architects" Milton S. Teague Mayer Hillman

A. C. Townsend, F.R.I.B.A. Principal, Portsmouth School of Architecture

John Fraser, Press Officer, BEDA

What's Wrong With RIBA?

SIR,-We agree heartily with your correspondents from Ayr that membership of the RIBA is valued by young provincial architects solely for evidence of qualification. We feel that to ask how many take this view is superfluous; the answer, quite notoriously, is about 99% of them.

We understand that about half the total RIBA income is spent on administration and the upkeep of its London headquarters. We should be interested to know how many young, provincial architects have ever even entered the building or can afford the fare to visit London at all?

In view of the criticism so widely voiced, we suggest three alternative courses:

(a) Redirect the RIBA's activities to benefit more closely the members who contribute the bulk of the Institute's income. (b) Cut the expense of maintaining the

headquarters to a level appropriate to the numbers using it, and decrease provincial subscriptions accordingly.

(c) Admit that RIBA (or equivalent) examinations are principally the road to Registrations and that the principal of the result of the result

tion, and that membership, solely as a qualification, is now redundant.

In the latter case, could we not spread

some of the six guineas saved in supporting a body which benefited its members more equitably?

JEREMY B. LOWE (A), W. RAMSAY (A), K. SWALES (A), ROBERT BURN (S), CHARLES E. DOWSE (A), DENNIS ROBSON (A), W. G. ORD (A), MALCOLM J. ESTELL (A), JOAN WYKES (A), C. R. B. BROWN (A). Durham.

The Hillman Plan

SIR,—I was present at the proceedings at the Housing Centre described in your issue, for November, at which students of the Dept. of Town Planning of University College presented two alternative schemes for a New Town.

While some interest was shown in the majority report, there was not the least doubt that much more originality and relevancy was shown in the avant-garde project of Hillman and his co-workers

It is unfortunate that you could not find more space, other than a small detail of a residential core, to illustrate in a comprehen-sive coverage a most stimulating and imagin-ative scheme, which I feel sure would be of far greater interest to your readers.

MILTON S. TEAGUE.

London.

A Mistake

SIR,—I should like to correct a mistake in your report of the "Alternative New your report of the "Alternative New Town" (November 22) prepared by J. B. Lehrman and myself, former students of the Town Planning Department of the University of London. There is a typo-graphical error; you have written "and no attempt has been made to create an order which would . . . tie it all together as a unity." The whole point is, of course, that an attempt was made to create an order by axial orientation of roads and buildings, height standardization etc.

MAYER HILLMAN. London.

[We apologise to Mr. Hillman for this misprint, Eps.1

Liverpool Reunion

SIR,—In accordance with the wishes of all who attended the "1920-1925 Group" who attended the "1920-1925 Group" Reunion Dinner held on April 20, 1956, in London, I am writing to all old students who were at the Liverpool School up to the time of the late Sir Charles Reilly's retirement.

I am asking you to support a proposed reunion Dinner to be held in Liverpool next year. Provisional arrangements have been made with the Adelphi Hotel to hold the Dinner on Saturday, April 27, 1957, and with this early notice it is hoped that you will reserve the date and join in making the

occasion an historic one.

Of the 1920-1925 Group there are 49 of us in Great Britain and Northern Ireland, whilst of the 1925-1933 period there are 110, a total of 159. It is hoped that at least a 100 may attend, and I trust that this will not prove to be an unduly optimistic

estimate.

Portsmouth.

A. C. TOWNSEND.

The Case For Gas

SIR.—There are statements in your leading article under the above heading (November 29) which call for some comment. We cannot cavil at the gas supplement since you say it is paid for by the Gas Council—indeed the Electrical Development Association, for the past three years, have been publishing a series of "Electrical Data for Architects" advertisements.

You refer in your leader to "the lack of a national fuel policy". A few years ago a vigorous campaign was carried out for the establishment of a national fuel policy. This led to the appointment of the Committee on National Policy for the Use of Fuel and Power Resources (the Ridley Committee), which submitted its report in September 1952. Among its 40 recommendations, No. 38 was in the following terms: "Within an appropriate framework of prices with triffs." appropriate framework of prices and tariffs,

appropriate framework of prices and tariffs, competition between the gas and electricity industries should continue".

We are inclined to agree with your statement that the gas/coke combination ought to be half as expensive as electricity or coal. But is it? There must be an explanation.

First, gas and coke cannot be made from the grades of coal burnt in power stations, which is of the poorest quality. Second, gas cannot be as economically or efficiently transmitted and distributed as electricity.

You also state that "in practice domestic heating is charged at a lower tariff to make electricity competitive in this field and industry is made to pay the difference". That is not the state of affairs at all as care is taken that each class of consumer pays their proper share of the costs entailed in giving proper share of the costs entailed in giving them a supply. This is a very complex question but for those interested there are plenty of published papers on the subject. The most recent—the paper on "The Domestic Consumer" given by Mr. D. Bellamy, Chairman, Yorkshire Electricity Board, at Torquay this year—contains a detailed analysis of the position and gives a complete answer to the allegation that domestic electricity charges are too low. domestic electricity charges are too low.

Therefore, architects need have no hesita-tion, from the point of view of the national interest, in specifying the use of electricity for heating as well as other purposes.

JOHN M. FRASER. London

The Technical Editor Replies

One object of our leader was to express a doubt whether competition at the commercial level now carried out by our nationalized fuel industries was in the nation's best interest, and indeed whether it could be accounted "a national fuel policy" at all. As Mr. Faser points out, the question of differential tariffs as between one class of consumer and another is very complex, and it is possible to find figures We would say. to prove almost anything. We would say, however, that, granted the kind of interhowever, that, granted the kind of inter-fuel competition now countenanced by the Government, it is to be expected that the promoters of each fuel should use differen-tial tariffs to make the use of their fuel economic over as much of the fuel-using range as possible; further, that the Herbert Report*, published in January of this year, shows that we are not alone in believing that the electricity industry does in fact do that the electricity industry does in fact do this in respect of the domestic consumer. Paragraph 388 of this Report reads as

This question of the correct cost-relationship between the various classes of con-sumer has been brought to our attention particularly by the complaint that industry s required to pay much more for its electricity than domestic consumers who may similar individual load characteristics. In justification of this complaint it is alleged that the average price per unit of electricity for domestic consumers has risen only slightly since 1938, whereas the average price of electricity for industrial consumers has risen by 77 per cent. during the same period. It is a fact that there is a marked difference between the methods of charging for industrial and domestic supplies, in that, firstly, the actual electrical demand of in-dustrial consumers is measured by a demand dustrial consumers is measured by a demand meter in addition to a consumption meter and, secondly, industrial tariffs contain a fuel clause whereby increased cost of fuel to power stations in the area of supply is automatically passed on to the industrial consumer. On the other hand the development of the five-day week and shorter working hours has meant that industrial firms working one shift per day tend to concentrate their electrical demand during about eight hours on each of five days a week. We think there should be further research We think there should be further research into the relationship between the cost of supplying the different classes of consumers and the charges made to those classes of consumers."

Report of the Committee of Inquiry into the Electricity Supply Industry. H.M.S.O. 6s. 6d.

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Michael Ventris memorial fellowship was proposed last week in a letter to *The Times*. The letter read as

Sir,-Michael Ventris died at the age of 34 on September 6 in a motor accident. His discovery that the Linear B texts of His discovery that the Linear B texts of Knossos, Pylos, Mycenae, and other sites were Greek ranks as one of the most brilliant achievements of scholarship and has been internationally acclaimed a feat of the same order as that of Champollion in deciphering the Egyptian hieroglyphs. The discoverer was awarded the Order of the British Empire by Her Majesty the Oueen, an honorary doctorate by the University of the University of the University of the British Empire by Her Majesty the Oueen, an honorary doctorate by the University of the British Empire by Her Majesty the Oueen, an honorary doctorate by the University of the British Empire by Her Majesty the Oueen, an honorary doctorate by the University of the British Empire by Her Majesty the Oueen, an honorary doctorate by the University of the British Empire by Her Majesty the Oueen, and honorary doctorate by the University of the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the British Empire by Her Majesty the Oueen and the Oueen and the British Empire by Her Majesty the Oueen and the O Queen, an honorary doctorate by the University of Uppsala, and an honorary research associateship by University College, London. The brilliance of this discovery is matched by its importance and it will take years to work out the consequences of the new knowledge which proves that Mycenaean civilization was Greek-speaking, gives us texts contemporary with and com-parable with texts from the adjoining civilizations of Egypt and the Near East,

and shows us the state of the Greek language half a millennium before our earliest Greek literature.

Michael Ventris was trained and practised as an architect. To his profession he brought the same analytical brilliance that distinguished him as a classical scholar, and there lay ahead of him a career of exceptional promise. He had an uncanny gift for languages ancient and modern, and was fired to study the Linear B texts by a lecture given by Sir Arthur Evans which he heard when he was a schoolboy at Stowe. He was, moreover, a person of quite peculiar charm who was instantaneously loved by all with whom he came into contact.

We feel that many people will wish to join us in forming some memorial to his genius and personality. We hope that it may be possible to found a Michael Ventris memorial award or studentship, which would be open both to post-graduate would be open both to post-graduate students who were working on subjects connected with Mycenaean civilization and to students of architecture, because we that thus his two main interests would be represented. The fund would be used either for studentships or for grants and would be administered by a trust representwould be administered by a trust representing the two interests. Contributions should be made out to the Michael Ventris Memorial Fund, and sent either to the Secretary, Architectural Association, 34-36, Bedford Square, W.C.I. or to the Secretary. Institute of Classical Studies, 50, Bedford Square, W.C.1.

Yours faithfully,

R.D. BARNETT, Keeper of Western Asiatic Antiquities, British Museum; John CHADWICK, Lecturer in Classics, Cam-CHADWICK, Lecturer in Classics, Calif-bridge University; Kenneth M. B. Cross, President, Royal Institute of British Architects; IFOR Evans, Provost of University College, London; A. W. Gomme, President, Hellenic Society; GONTRAN GOULDEN, President, Architectural Association; SINCLAIR HOOD, Director, British School at Athens; R. D. H. JENKINS, Chairman, Managing Committee, British School at Athens; FURNEAUX JORDAN; JOHN F. LOCKwood, Vice-Chancellor, University of London; L. R. Palmer, Professor of London; L. R. Palmer, Professor of Comparative Philology, Oxford University; N. Pevsner, Professor of History of Art, Birkbeck College, London University; Eric V. Reynolds, Headmaster of Stowe School; Torgny Segerstedt, of Stowe School; TORGNY SEGERSTEDT, Rector of Uppsala University; E. G. TURNER, Director, Institute of Classical Studies; A. J. B. WACE, Emeritus Pro-fessor of Classical Archaeology, Cam-bridge University; T. B. L. WEBSTER, Professor of Greek, University College, London University.

Moving from slums alarms people occasionally, says a MOHLG report on slum clearance, published last week (Moving From the Slums: HMSO. 1s. 9d.). The report was prepared by the Housing Management Sub-committee of the Central Housing Advisory Committee, which places importance on local authorities giving families full and early information about what is to be done why it is to be done and when be done, why it is to be done, and when, and in using humane, experienced and well-qualified staff for both home visits and interviews at the office. Local authorities are recommended to review arangements for visiting and interviewing families who are to be moved, and short training courses for housing management staff engaged in slum clearance work are advocated. The importance of ties with relatives and friends is stressed: "Where two or three families have long been relying on each other as neighbours, they may well look for each other's help even more in a fresh area and would welcome a joint move. Our own feeling is that the strongest efforts should be made in these cases to move families

Pictures from the RIBA exhibition, "Architectural Treasures of Czechoslovakia" which opened at 66, Portland Place, last week. Left: the baroque church of the Brevnov Monastery, near Prague. Right: a renaissance house in Telc after recent renovation.





with their neighbours." In the Committee's view greater effort should be made, especially in the redevelopment of central areas, to provide more houses for families with young children, leaving the flats to be occupied by childless people or those whose children are of school age or over. The special problems of old people are discussed in detail. Local authorities are recom-mended to seek the help of such bodies as Old People's Welfare Committees and the Women's Voluntary Services in helping old people to move and to settle down in their new homes and to ensure that services on which they have relied previously, such as a home help or "meals on wheels," are still available. The "corner shop," in the Committee's view, meets a definite social need, and they believe that more shops of this kind would do as much as anything else to help new tenants to feel at home. Plans of such shops are appended to the report. Local authorities are urged to make full use of their powers to pay compensation to displaced shopkeepers and to do their best to provide premises in which small business can be enabled to carry on.

Revised RIBA Contract. The Joint Contracts Tribunal have given news of their progress with revisions to the standard Public invitation to suggest amendments brought in over 1,400 points from 134 different bodies or individuals. So far some 500 of these points have been considered by the Tribunal. The Tribunal was recon-stituted in October 1955 to include representation by the Association of Municipal Corporations, the County Councils Associa-tion, the LCC, the Urban and Rural District Councils Associations, and later the Metro-politan Boroughs Standing Joint Committee. After the resignation of Sidney Tatchell in July, Sir Percy Thomas became chairman.

Architects using aluminium in such a way that it has made a "significant contribu-tion . . . æsthetically or structurally," in the building field, will be eligible for a \$25,000 award from the Reynolds Metal Company. The R. S. Reynolds Memorial award will be made in memory of the late Richard Samuel Reynolds, "whose vision, enterprise, and courage made an historic contribution to the creative development of aluminium as a revolutionary new metal in the services of mankind." The award may the services of mankind." The award may be made jointly to two or more persons. Recipients will be chosen each year by a committee of architects working under procedures established with the counsel and co-operation of the American Institute of Architects. The award will be international in scope. It may be conferred upon an architect of any nationality for work done in any country. Prime consideration will be given to the creative value of the contribution, and its potential influence on the architecture of our times, rather than to the size or type of structure. Preference will be given to work completed during the 12 months preceding an award, but the iudges, if they wish to do so. may acknow earlier work in selecting award recipients.

What You Mustn't Do. ARCUK's Professional Purposes Committee have revised principle VII of their code of conduct. It now reads: "An architect must not, while now reads: practising his profession, carry on or engage in any operation of trade or business which is inconsistent or out of keeping with the fitting and proper discharge of his duties or which would raise doubts as to his pro-fessional integrity as an architect."

In addition, example III of principle III has been revised: "An architect may adver-tise for salaried employment. Such an advertisement in the lay press must be anonymous but in the architectural pro-fessional press or the technical press the

name of the architect may be disclosed. Advertisements may be inserted in the press by architects requiring assistants and the name of the advertiser may be disclosed.

The term "lay press" relates to any periodical not published specifically for architects (architectural professional press) nor for other allied professions, Engineers, Surveyors, Auctioneers and Estate Agents (tech-

nical press)."

The Professional Purposes Committee, in agreement with the Practice Committee of the Royal Institute of British Architects, recommend that booklets issued by estate owners or others offering plans of houses designed by an architect or architects may contain the names of the architects responsible for them provided. (a) That the architect's name is not ostentatiously displayed. (b) That the letter press accompanying the designs must not be such as could be construed as an indirect offer of the architect's services. (c) That publication of the booklet was not solicited or induced by the architect and that the architect is in no way concerned with its distribution.

The Professional Purposes Committee have considered a complaint that an architect had inserted a displayed advertisement in a local paper advertising building sites for sale, his name appearing in large letters. tect in reply had said that the advertisement was inserted while he was abroad and had been consulted he would have insisted that his name and affix were only in the smallest type. The Committee have instructed the Registrar to reply that an architect must not in any case publish an

advertisement offering property for sale.
The Committee have had referred to them
by the Royal Institute of British Architects an enquiry concerning the printing of articles and interviews with illustrations of architectural projects which have not been commissioned. The Committee are in agreement with the views of the Practice Committee of the Royal Institute that so far as concerned publication in the press no distinction should be made between work been commissioned and projects which had not been commissioned, provided that the architect was shown a proof of the article beforehand and in the case of a lay press he had not solicited publication.

The Committee have considered a complaint that an architect is a director of a road construction company. The solicitor complainant reports that the architect had no financial interest in the company and that since receiving the complaint he had resigned his directorship. In the circumstances the solicitor complainant does not find that there is a prima facie case of dis-graceful conduct. On the other hand, the graceful conduct. On the other hand, the Committee are informed that the architect has already received two warnings, for being a director of a building company (which he resigned) and for allowing an advertisement to be inserted in a local paper containing the words "all buildings designed and supervised by our resident architect followed by the architect's name. In the circumstances the Committee have caused a strong letter of warning to be sent to the architect concerned.

ARCUK's Board of Architectural Educa-tion have considered the IAAS's intention to conduct architectural examinations at Intermediate and Final levels in 1957 (The IAAS had asked for the approval of the syllabus). The Board have informed the Association that they cannot give prior approval to the examination regulations, syllabus, etc., as such. They look forward, however, to receiving the necessary examples of work both in the Testimonies of Study and in the examinations themselves in due course.

PLANNING AND THE MOTOR-CAR

H. Myles Wright

How can we plan for the motorcar? Professor H. Myles Wright discussed this question in a talk (shortened here) at the RIBA.

A motor car has been rightly called a pair of seven-leagued boots, a raincoat, a shopping basket, mobile office and even a makeshift week-end cottage: always at one's disposal for as little as 3d. a mile all and with virtually no breakdowns. In the of the few really good things: if you can I am sure that all who can will and that the social revolution, churning on, will make cars as plentiful among wage earners as television sets.

The commercial vehicle is not quite so advantageous because, on long hauls, the restriction to 20 m.p.h. in Britain deprives the truck of one of its great advantages. On the Continent and the USA 30- and 40-ton the Continent and the USA 30- and 40-ton loads travel at 50 m.p.h. And on short hauls loading and unloading points are so often congested. At Manchester docks, vehicles wait an average of one hour and three-quarters before they can unload. Nevertheless the residual advantage is so great that nearly three-quarters of all goods by value now move by road.

It follows that organized bulk transport, human or other, along fixed routes, is declining and individual small unit any direction transport is increasing. This is made only too plain by the financial difficulties of the railways and the drop in the passengers carried by London Transport

passengers carried by London Transport and other bus companies.

In the last two years we have, I think, reached a new stage in the battle between the forces making for dispersal and those which favour continued concentration of people and jobs in and very near the larger Motor vehicles have become available for all who can pay for them, we cannot postpone much longer the construction of special motor roads, and we have decided to pay much more attention to slum clearance. It is this last resolve, if it is clearance. It is this last resolve, if it is really a resolve, that will compel us to examine dispersal much more searchingly and to take more determined and controversial action than we have so far.

To move two million people out of the big towns-right out of them and not merely to their edges—is likely to be very difficult indeed. It even seems to be so difficult that we have not got to the point of looking at it the creation, in these days, of nearly one million new jobs outside the big towns; and, of course, the closing down of one million

jobs in the big towns.

I suggest that the most far-sighted, energetic and wealthy firms and people will decentralize themselves. coming motor roads and atomic power stations, in conjunction with the electricity grid, television and teleprinters will form a frame on which a new motorized industrial and office-working aristocracy will build their own settlements, somewhere near a motorway and perhaps 50 miles from both London or 25 from Birmingham. It seems surprising that more land and property companies have not thought already of shopping and office estates like the imagi-nary Cressington or the real shopping centre nary Cressington or the real snopping contact Wilmslow near Manchester that opened at Wilmslow near Manchester that some a few weeks ago. I am sure that some developments of this kind will be proposed directly we have our first motorways. live, say, in Northampton and work in such a new centre, half-way between A5 and A6

Britain a and as pl nerson co But un of this ty help to would be At the the new tinued co big cities Minister springing wants the themselve overspills sent to a A big ci money is ocal aut tion and buy the has been there m family n day. So ceiving a at all hard-hea councillo seem to ing mone uneral Yet the be rebuil move or gestion is There ar persal an ontinue stances d would ex baker ga expansion

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and not far from A1, might well be to have Britain at your command in a motorized age and as pleasant surroundings as a reasonable person could wish for.

But unorganized private decentralizations of this type would probably give very little help to the big overspill problem. They would be too small in scale and too few. At the present moment, at the outset of the new battle between dispersal and continued concentration, the Ministry and the big cities are at odds with each other. The Minister is disturbed at the new offices springing up in central London and also wants the big cities to put green belts round themselves and to arrange for their own overspills. But he will not apparently consent to any more new towns being started. A big city, on the other hand, looks with lack of enthusiasm at the prospect, when money is very tight, of bribing some other local authority to take some of its population and employment and of then having to buy the site vacated by the employment. And if a family moving from the big city has been living in a privately owned house, there may be nothing to stop another family moving into that same house next day. So the big city may subsidize the re-ceiving authority for ten years for nothing It is hardly surprising that to many at all at all. It is nardly surprising that to many hard-headed but not at all thick-headed councillors of big cities the present schemes seem to combine the advantages of throw-ing money away and paying for your own

Yet the slums are there and they cannot be rebuilt unless half a million or so families move out of the big cities. Traffic congestion is also with us and is increasing fast. There are powerful forces making for dis-persal and also powerful forces making for continued concentration. In these circumstances development is taking the form one would expect in this huge pull-Devil-pull-baker game. There is more or less random expansion on the outskirts of the big cities and as much central flat building as public opinion will stand. Outside London, the opinion will stand. Outside London, the danger of decay of the inner portions of the Victorian cities seems to me very real. Liverpool has more than 700 empty offices

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If the great provincial cities are to prosper in the motor age they must surely have a great deal of money spent on them, mainly motor them. to open them up to motor traffic. Unless a car can run right in to the central business district, or a lorry run right into the docks or industrial district, and get away again over unobstructed roads, the prosperity of the city will certainly decline. All who can will move out. To ensure unobstructed access to central districts will require urban motorways running above or below local foods when they come near the centre. I do not think we can say that we cannot afford these. Holland, Belgium, Germany and other countries have built of the are a to build urban motorways and they are a famorican cities. If big cities are to prosper in a motor age they cannot do without such roads.

The motorways will make a great dif-

ference to the appearance of our cities but not necessarily for the worse. Their scale is very large but they can also be very fine to look at. They will be the 20th-century equivalents of the Victorian railway viaducts and cuttings, and they will require skilful design by men trained in traffic engineering, of whom we have too few. They will be the new skelcton of the town. I see the town into sectors, provided they are sunk or raised. It is a major traffic route at ground level that severs one neighbourhood

from another.

I believe a big city should not fear the cost. If necessary the motorways may be made toll roads. Few motorists jammed in Moorgate or Oxford Street, would grudge a shilling to be wafted to the Barnet By-pass. As one who lives on the far side of the

Mersey Tunnel, I find that great work has two great advantages. It offers an enormous saving of time over the old ferries and it makes one consider (grinding one's teeth) whether one really needs the car and whether two trips could not be combined into one.

Toll roads, however, require toll gates and a large "stacking up" space. Otherwise the queues of vehicles at peak hours will block approach roads.

If room for urban motorways and their space-consuming approaches is to be found in the central districts, overspill, as now estimated, would be somewhat increased. At the same time if the town has been given new lease of life by the construction of the motorways, the export of jobs may become more difficult. I see no prospect of getting over this difficulty within, say, 20 years except by the creation of satellite towns fairly close to the exporting city. These satellites should be placed near a These satellites should be placed near a motorway, and if possible a railway line serving the exporting city, and should concentrate to begin with on the provision of jobs. Each would be an industrial estate, office centre and, so far as possible, a shopping centre laid out for a motor age. It would aim to draw out workers from the parent city. In the early stages workers parent city. In the early stages workers would travel out daily, thus helping local transport companies to balance their rushtraffic and their budgets. Houses would follow, either in the new town or in adjoining existing small towns. The exporting city would be very closely linked with the new town or new regional employment centre. It might even own it and manage it so that one could have as it were, a job in Manchester-in-the-town or in Manchester-

This brings us to the problem of how far the satellite should be from the parent city. It is too complicated to examine fully here. In brief I believe that many employments and people will be willing to move a little way out of their home town but unwilling to go right away. The alternatives are not therefore long-distance decentralisation versus satellites, but continued random sprawl versus the satellites: a very different matter. Allowing for a green belt and faster travel by motorways, a distance of 10 to 15 miles seems most suitable for a provincial

One may also point out that a new town containing jobs and not people would seem to have great possibilities for London. might be placed, for example, just outside the green belt among the northern new towns, near trunk roads 5, 6 and 1. The Minister has said he is very worried about the rush of new office building in central London. A new centre for up to 50,000 office workers on the outskirts would help to balance the inward flow of workers, would be extremely well placed for motorists and could hardly fail to be profitable. This kind of thing has already happened in the United States.

The broad proposal for overspill is there-fore that plans should be based on drawing some firms and people out to the neighbour-hood of "motor age" employment centres 10 or 15 miles away, and on the recasting of the exporting city to provide as well as possible for motor vehicles. This will cost great deal of money but the city that does it well is likely to score very heavily over those that do not. The eventual aim is a those that do not. city on a regional scale—whatever local authority boundaries may be. There would be one set of advantages for firms in the central city, another for those in a satellite. But there would be close connections between the two. A single firm might well be split, with directors in the centre and the hundreds of young ladies working calculating machines in the satellite town, ten minues from the tennis club. Most of the minues from the tennis club. Most of the advantages of large cities would be retained: the large labour force, local market, local skills; but the jobs and the population would come to be regrouped in two divisions: a larger one in the exporting city and a smaller, fully motorized one 10 to 15 miles away in two, three or four, satellites.

There would be great difficulties in bring ing about this regrouping. I therefore reply in advance with the question: "What are your alternatives?"—supposing we are -supposing we determined to move two million people in 20 years.

What are the chances of the creation of a

kind of motorized central area?

There are undoubtedly great advantages in a big scheme. The amount and quality of accommodation, the convenience and publicity value of a 50-acre scheme, carried out as one project, would far exceed the total offered by 20 scattered redevelopments of equal total acreage.

equal total acreage.

A scheme covering 63 acres would contain enough room for 30,000 workers and visitors and 6,000 cars. Its shops and offices would contain not far short of half the floor space now in use for those purposes in the central area of Liverpool. It would be a capacity contains a contain. super-Coventry, entirely pedestrian. There would be two floors of shop windows and entrances, the upper being approached by the overbridges. Once one had arrived in the centre it would be almost impossible to be run over. A city that carried out a project of this kind with sufficient energy and boldness might achieve a great success But we must not underrate the traffic problem, especially the peak hour traffic if the whole nation is to remain of one mind on one point: that it is going to stop work between 5 and 6 p.m. If we assume that 7,500 people try to leave in the fashionable hour in 5,000 cars (leaving, say, 17,000 to go by bus) it is certain that would not be able to do it. A reasonable guess is that it would take two hours

to clear the car parks.

Things would be improved if the project were extended to include neighbouring land, and to provide tunnel access to the car parks from some distance away and also a bus station where buses could stack up and

load quickly at the rush hour.

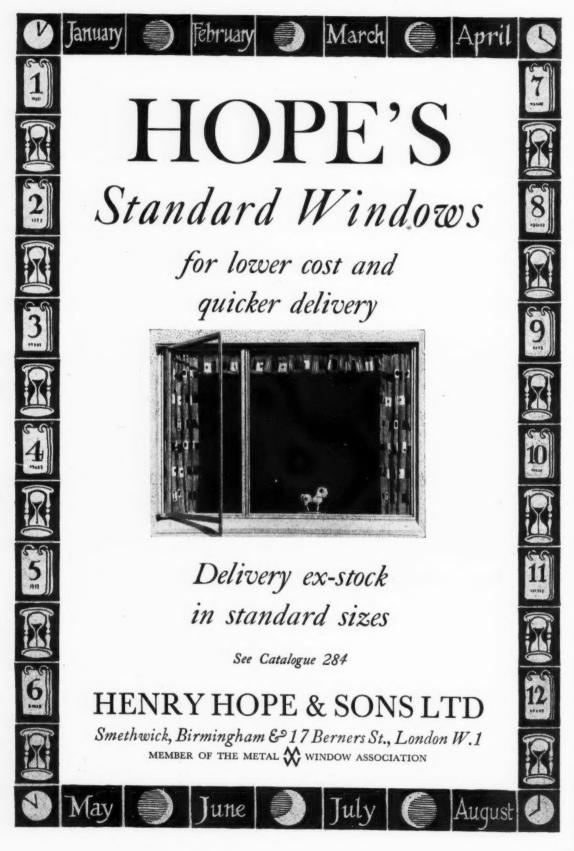
The project thus becomes very large and would probably not allow more than about a quarter of the workers and visitors to drive to and from the centre. But that does not mean it would not be worth while. My own view is that if a big city carried out a large scheme of this kind it might rein-vigorate its central area and make it very attractive to offices and shops for a long period ahead.

We have to remember that a motorized central area in a big citya million population—is an impossi-y. The great advantage of being in a town centre is proximity to other traders and professions, to exchanges and tele-communications: to be on the spot, in the know. As more motor vehicles are used, demanding room for their storage and know. movement, the people are inevitably pushed further and further apart. We have made some studies at Liverpool of how much further. It is clear that it is a great deal further directly the ratio of cars to workers becomes over one car to five people. The trouble occurs not when the vehicles are at rest, but when many of them try to move at the same time. To avoid congestion in rush hours much land is needed for ar the same time. To avoid congestion, rush hours much land is needed for approach and dispersal routes.

It is contended that for British cities—

and here I am thinking mainly of the large and here I am thinking mainly of the large provincial cities—our aim should be a very great improvement of vehicular access to the centres, and some fully "motorized" satellite towns not too far away. The whole would be a balanced city on the regional scale. There would be one set of advantages in the centre (and one for cert parking expect. in the centre (and one for car parking space for every five or seven people) and other advantages in the fully "motorized" satel-lites. The architectural engineering problems are very great. They seem to demand

more attention.



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PLANNING FOR OVERSPILL

A TCPA Conference

A correspondent who attended the recent TCPA Conference on "Planning For Overspill," at Birmingham, writes the following report of papers and discussion.

The Town and Country Planning Associa-tion and the Midlands New Towns Society held a joint regional conference in Birming-ham last month, to review the difficulties of the local planning authorities in the West Midlands in their attempts to plan for overspill dispersal, and to examine what further steps are necessary for real progress. Three main speakers, Alderman Bowen (Chairman of Birmingham's Overspill Com-

mittee), Peter Self and Herbert Jackson each introduced various aspects of the overspill theme, but most of the discussion centred on the proposals and agreements made by the City of Birmingham in its efforts to decentralize some of its population. Alderman Bowen made abundantly clear

both the size and the urgency of the prob-lem with which Birmingham—in common with nearly all other big cities—is now faced. Soon after the war, when the West laced. Soon after the war, when the West was estimated that by 1962 the total overspill from the towns and cities in the conurbation would amount to nearly 340,000 persons, Birmingham's share being 220,000. Since then there has been a revision of these estimates and the final total is still an open pursting, but it seams probable that the question, but it seems probable that the figure of 221,000 persons, quoted by Alderman Bowen, is a reliable guide to the size of the problem so far as Birmingham is concerned. To house these, some 64,000 new dwellings will be needed; the problem is

dwellings will be needed; the problem is where to put them.

No more than 12,000 houses and flats can be built on land within or near to the city itself, so by far the greater part of the total will have to be accommodated elsewhere. The City Council has explored all the methods available—peripheral expansion, town development and new town construc-tion—and is convinced that all these will have to be used if a satisfactory long-term

A determined effort has been made to operate the provisions of the Town Development Act, and after 12 months of discussion with neighbouring authorities, tentative agreements have been reached with 18 of them in five different counties for schemes which vary in size from a mere 60 schemes which vary in size from a mere 60 houses to larger estates of up to 3,000 dwellings. But even if all these projects materialize (which, to say the least, is very optimistic) they cannot be expected to provide more than 16,000 dwellings in all. This still leaves a total of some 123,000 Birming-ham citizens who will have to be found ham citizens who will have to be found homes. The City Council see no way of achieving this except by building at least one new town, and they think that the powers of the 1946 New Towns Act should be used for this purpose.

The usual objections-financial and social The usual objections—financial and social—were raised by the receiving authorities during the negotiations. To allay at least some of their fears the city itself has agreed to pay a yearly subsidy on overspill construction of £8 per dwelling; so, taking into account the Exchequer contribution, there is a total subsidy of £32 for a ten-year period on each dwelling built. Moreover, since the city is now convinced that decentralization can only be effective in the long run if jobs as well as homes are moved, it was suggested that the receiving authorities could expect to make a useful profit if they acquired and developed land for industrial

acquired and developed land for industrial use in their reception areas, and some are, in fact, taking steps to do this.

Two other problems which retard the operation of a planned decentralization programme were discussed, both of which are seen in an acute form in the City of Birmingham. One was the difficulty of preventing new immigrants "filling up" privately owned dwellings, when the local authority was acting to reduce overall denauthority was acting to reduce overall density by clearance and redevelopment. Even though the city now owns one-third of all the residential property within its boundaries, and can exert a measure of control over these, a great deal of its efforts would be vitiated if immigration into the city was allowed to continue unchecked. This problem was thought to be so serious that the council has tried to secure special Local Act powers to meet it.

The second was the familiar problem of the future use of the vacated industrial sites in the central area. Here, in the Alderman's view, the Government's credit squeeze had made a difficult situation worse. Although the long-term gains accruing from a move to a new site were becoming more widely recognized, very few firms were now prepared to face the high cost of transfer, even to a prepared site in a reception area. Those that were prepared to move were insisting upon getting the maximum returns for their old site—not the District Valuer's for their old site-not the District Valuer's price. Under these conditions, public acquisition, the only real guarantee against continuing unsuitable use, was virtually impossible, and the city would welcome a lead from the Minister on this difficult question.

Following Alderman Bowen, Peter Self developed a powerful argument for industrial decentralization. The planned distribution of *employment*, he maintained, was the key to the whole overspill problem. The pressure of population in Birmingham and in other great towns was primarily the result of too many jobs. Population, he argued, cannot be reduced unless the employment capacity of these cities is first reduced, so that planned dispersal of industry is the first and vital step.

known that a certain amount of in-It is known that a certain amount of industrial dispersal is taking place naturally—although certain forces, notably lack of capital, slow down this movement very much. Mr. Self thought that planners could speed up the outward flow if they set about creating counter-attractions to reduce the effects of the pull now exerted on industry by the conurbations. But, to make these counter-attractions strong enough to these counter-attractions strong enough to be effective, the new development must be on a "new town" scale, for only by this means can the range of sites that the industrialist expects be made available to him. Smaller schemes, although they too would be needed, could never be expected to have the same attraction.

Some financial incentives, he agreed, would be needed, but he was not convinced that artificially low factory rentals on reception sites was the answer. The London new towns had done quite well without this. His suggestion was the establishment of a fund, possibly financed by a special levy on all industry, to serve a dual purpose—the pay-ment of reasonable costs to industrialists vacating non-conforming central area sites, and the provision of contributions towards and the provision of contributions towards financing the extra costs of movement, particularly for smaller firms who should perhaps be encouraged to move in selected groups to prepared sites. By concentrating our attention on the key field—industry and concentrations of descriptions. employment—the business of decentraliza-tion could be organized with a minimum of additional statutory controls.

Mr. Jackson examined the implications of the Minister's "green belt" policy on the overall land use problems of the area. On the whole, he welcomed the revived interest in the green belt idea and the vigour with

which the Minister was assisting the local planning authorities to enforce its preser-At the same time he felt that there was a risk that a too rigid application of restrictive powers would result in a decline of public support—especially now that the pinch of overall land shortage was becoming more generally felt by developers of all

The green belt was a vital part of the planned land use for the area, and must be considered regionally, not locally. He felt that there was a need for "some elastiin the operation of controls. We must remember that the most important function of the belt was not to provide "open spaces" or "urban lungs," conserve water catchment areas or mineral resources, (although it could, and did, do all these useful things), but to contain and mould the form of the urbanized area so that the form of the urbanized area so that orderly redevelopment could take place within it. It should act as a corset, not a garrotte. When, as was the case in the West Midlands, new expansion on a large scale was inevitable, the only satisfactory solution was the attraction of the surplus to carefully cheen gites well outside the to carefully chosen sites well outside the

green zone.

From the papers themselves and the discussion which followed, a number of conclusions can be drawn. The first is the conclusions can be drawn. The first is the folly of attempting to solve problems of this size and complexity by anything other than co-ordinated activity on a regional scale. If, after twelve months of effort, one of the largest and most active local authorities can find sites for only a fraction of ties can find sites for only a fraction of its overspill—and this distributed in penny packets to anyone who will "have a go" on the financial terms offered—something is seriously wrong with the system being operated. Even if we take the most cynical view of local government activity, which is not by any means justified, it is impossible to believe that the faults are all on one side. The machinery required does not at present exist—although the joint over-spill committee is clearly a step in the right direction. A regional problem demands a regional solution. It can never be solved by

piecemeal methods.

Secondly, we must recognize that all forms of development have a part to play in the process. One or more completely new towns process. One or more completely new towns will be required, as well as redevelopment, controlled peripheral development and town development schemes. The size of the operation alone makes this quite clear. From the financial point of view too, there are strong arguments in favour of this type of undertaking, now that the London new towns are slowly moving out of the red and showing a profit on their revenue account. There is no reason to suppose that this success could not be represed in the this success could not be repeated in the

West Midlands and elsewhere.
Finally, the most significant fact to emerge was the dominance of industrial and employwas the dominance of industrial and employ-ment policy as the key to the whole process of decentralization. Up to now, most local authorities, and probably most planners, have seen the overspill problem in terms of housing. The slowness of our progress suggests that this view is proving to be badly out of focus. We must concentrate on re-deploying the centres of employment (and this means offices as well as factories) that are congesting our big cities so that the housing will be drawn more naturally to new employment centres deliberately created elsewhere. We should aim to achieve, in Mr. Self's words. "a general shift of enter-prise" in which all local authorities can play a profitable part, rather than a mere redistribution of municipal housing estates. This need to attract industry is a further argument in favour of operations on a new

town scale, for this affords the best means of achieving it. It suggests, too, that the selection of new town sites should very largely be determined by the availability of land suitable for industrial use, for the success of the new town as a means of IN RESTAURANTS



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decentralizing the parent city will depend on the amount of employment it can draw

There is no evidence that the Minister is thinking of decentralization in these terms. Unfortunately, it is in the vital industrial field that the powers of direction and control appear to be least effective, and official policy most uncertain, while it would seem that any mention of further new towns is taboo. The conference brought out most clearly the real issues that must be faced before our decentralization programme can be made to work. It is to be hoped that they will be studied carefully in Ministerial and acted upon-not only in the West Midlands but wherever the need to decentralize is pressing.

GET TO KNOW YOUR CLIENTS

Paul Brenikov

"There is urgent need," says Paul Brenikov, for a series of joint investigations in which planners and sociologists would cooperate to produce a plan of action devised to solve a particular planning problem." Mr. Brenikov writes this after reading a sociologist's analytical study of social conditions in two widely contrasting sections of Oxford—a study which he reviews below.

Moving people out of "the slums" into new municipal housing estates has, by now, become so commonplace that it is accepted almost everywhere and provokes little comment. To planners, who are among the technicians most deeply concerned with this kind of activity, it is part of the normal day-to-day routine. Most of them are so occupied with the business of getting the job done that they have very little opportunity of thinking out what such transfer means in human terms. If challenged on this point they would probably maintain that life in the newly-created (and infinitely superior) environment could, and should be, superior) environment could, and should be, far better than was possible in the old. This is obviously true: but it is equally obvious that it leaves a great deal unsaid. A recent book by J. M. Mogey, "Family and Neighbourhood," gives some indication of the rest of the story. Mr. Mogey, "sociologist at Oxford her proposed." a sociologist at Oxford, has prepared a detailed analytical study of social conditions in two widely contrasting sections of that city. One, St. Ebbe's, is in the central zone and is scheduled for redevelopment: the other, a housing estate built between 1946 and 1950 is a reception area on the outskirts of the city, three miles from Carfax. Throughout the study, the author is at pains to present a picture of life and society both these areas as it appears to the in both these areas as it appears to the inhabitants themselves, and results are presented "not as truth, but as what people say." The methods adopted to achieve this—the "free interview" of a carefully selected sample of households: observations at a number of key points: clubs, pubs, W.E.A. classes and the like—are fully described and make interesting reading to those unfamiliar with the sociologists' methods. methods. logists

In the course of his report of what the

people he met in St. Ebbe's and on the Barton Estate had to say about the way they live, Mr. Mogey examines their views on the family, "relatives, neighbours and the family, "relatives, neighbours and friends," "societies and associations, work and "status and class." In his con-In his conclusion he attempts to analyse the different characteristics of each group, summarising their views in two delightful tables showing accepted "respectable" and "not respec-table" conduct for each, and assesses the changes in outlook that seem to occur when a family moves from St. Ebbe's to the new estate

All this makes fascinating reading for the planner and gives him a surprising insight into the aims and ideals of the people whom, too often, he deals with simply as population figures in the overspill table or families of a particular size that somehow have to be fitted into a limited range of standard low-cost houses. More disquieting are Mr. Mogey's cutting comments on the results of some of the planners' and architects' efforts. The devastating thumb-nail sketch of his first impressions of the Barton Estate, his dry account of the apparently glaring errors in its location and layout, and the criticisms of the design of the houses themselves in the light of the habits of the people living in them, make embarrassing reading.

The conclusions arrived at after this painstaking study are simple and credible enough. Torn from the cosiness and neighbour-liness of the older environment, where the pattern of life and the individual's place in it is well defined, clearly understood and established tradition, the newcomers are bewildered and disorientated by their new surroundings. Some, it appears, attempt to continue the old familiar pattern. When this fails their outlook changes and turns inwards towards the "household family," which replaces the "neighbourhood" as the predominant social entity of which they are aware. They begin to follow a more isolated, perhaps more "middle class" way of life. Further fundamental changes in outlook and ideals may result and these are, in part, reflected in the views obtained. As might be expected, this re-adjustment cannot take place without some increase in tension, but is seems that for the majority at least it is achieved without undue strain or resentment. Most of this was known, or suspected, before. It is difficult to say if the two groups studied are representative of these types of society throughout the country as a whole. It is not suggested that they are. But, supposing this to be even broadly true, are we placed in a better position to make future transfers of this kind easier and more satisfactory than before? Unfortunately, no. The book reports and analyses, it increases our knowledge of the people we are dealing with, but does not go beyond this. It shows us very clearly the ways in which Barton and St. Ebbe's are "different" but the problem of which is "better" is largely avoided; although in his last paragraph Mr. Mogey suggests that, on balance, the change in outlook that follows a move to the new environment can be a liberation from the narrow and confined social atmosphere at St. Ebbe's. There is no discussion at all of the kind of facilities that are required, in either place, to satisfy the needs of the inhabitants. Thus, although the reasons for the failure of the Barton "Community Centre" are examined at very great length, there is no suggestion as to how they could have been avoided.

It would be wrong to criticise Mr. Mogev on this account. His book is a detailed report, not a plan of action. This study, he tells us, "is about people rather than places or town planning." It is written for sociologists, not planning. It is written for socio-logists, not planners. At the same time it does raise an important and fundamental issue—the place of Social Survey in the planning process. Planners plan for people.



Torn from the cosiness and neighbourliness of the older environment, where the pattern of life and the individual's place in it is well defined, clearly understood and established tradition . . .



. . the newcomers are bewildered and disorientated by their new surroundings." (Top: St. Ebbe's an area in Oxford scheduled for redevelopment. Above: a reception area, Barton Estate, on the outskirts of

They need, as this book shows, to know a great deal more about them. The sociologist ought to be able to provide this knowledge and take his place in the planning team along with other specialists. Yet, in spite of the clear need for his expert knowledge, the contribution he can make seems to remain unrealised. To the planner at to remain unrealised. To the planner at least, this seems to derive from the methods and aims of the sociologists' investigations. Time and again, when confronted with a social scientist's analysis, the planner looks in vain for any concrete proposals or suggestions on which he might act. After all the questionnaires have been analysed and the tables prepared, what advice is offered that will be of real value when preparing the next redevelopment scheme or the layout of the new overspill reception area? These difficulties may seem curious or misplaced to the sociologist, whose approach to the problems involved is different. They cause deep disappointment to the planner, who is convinced of the immense potential value of social science to the planning process. After reading Mr. Mogey's study one is more conscious than ever of the urgent need for a series of joint investigations in which planners and sociologists would co-operate to produce a plan of action devised to solve a particular planning problem. There seems no real reason why this should not be done—or is it that there is no such thing as "applied social science"?

Swiss Landscape. Talk by Maurice Lee at an ILA meeting. At the HC, 13, Suffolk Street, S.W.1. 6.15 p.m. DECEMBER 20

Recent Architecture in West Germany and East Berlin. Talk by Ian McCallum. In the BBC Third Programme, "Foreign Review," 7.15 p.m.

DECEMBER 23

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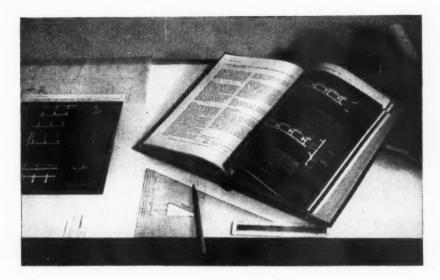
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THE LIBRARY OF INFORMATION SHEETS

This week part of the Technical Section is devoted to the customary annual review of the Library.

From time to time, and regularly each December, all Sheets are examined and checked, and where a manufacturer's products form the subject of a Sheet the manufacturer in question is asked to certify that the data are still current. Where a Sheet is found to require considerable modification, it is cancelled and readers should remove such Sheets from their collections. Where only small variations are involved, revision notes enable the Sheet to be corrected.

The Sheet 46.Z (A-FR) published in the issue of 13.12.56 and the two Sheets 46.Z (FU-P) and (Q-Z) published in the issue of 27.12.56 give an up-to-date index cancelling all previous indexes.

On the following pages will be found a list of the revisions and cancellations which have become necessary during the year, and a statement of the contents of the Library with all Sheets current at this date in correct sequence. For the benefit of new subscribers, we also give information on the method of filing Sheets.

REPRINTS

To enable new subscribers to complete their Library all Sheets published since the inception of the new series in October, 1947, have been checked and reprinted. Readers requiring sets or individual Sheets should fill in the form printed in the adjoining column. Sets are available as follows:

Oct., 1947-Dec. 27, 1956 inclusive £4 18s. od.

Specially designed binding cases to hold approximately 100 Sheets may be obtained at the price of 6s. Od. (postage 6d.) each. Individual Sheets may be ordered at the price of 3d. each, and the publishers will quote for sets not detailed above.

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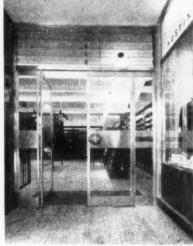
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FILING INSTRUCTIONS

Every Information Sheet is perforated so that it may be readily removed from the JOURNAL and has a classification symbol printed in the top corner, for example, 32.C20. The key to the classification system is contained in Sheet 1.A1, reference to which should make filing a simple matter.

The first number of the symbol, 32, refers to one of the 46 main subjects into which the Library has been divided (in this case, water heating): the letter that follows refers to the section, C (in this case, units: gas), under subject 32: the final number indicates the position in which the Sheet is to be placed in the appropriate section.

Every December a check list of the contents of the Library is issued showing the correct sequence of all Sheets published to date. Throughout the year, any revisions to or cancellations of Sheets are noted in the Journal and the Editor will always be pleased to assist if any difficulty is encountered in keeping the Library in order.

CORRECT SEQUENCE OF COMPLETE LIBRARY AT DECEMBER 13, 1956

	1.A1	1.A2	1.A3	1.B1	1.B2	1.B3	15.C3	15.C4	15.C11	15.Q1	15.Q2	15.R1	28.E2	28.E10	28.E20	28.J1	29.A1	29.C1	
	1.B4	1.B5	1.B5a	1.B6	1.B7	1.B8	15.86	15.S8	15.T8	15.T9	15.U1	15.Z1	29.C2	29.C3	29.C10	29.F1	29.G1	29.H1	
	1.B9	1.B10	1.B11	1.B12	1.B13	1.B14	15.Z2	16.B1	16.C1	16.J1	17.B1	17.B2	29.H2	29.H3	29.H4	29.J1	29.J3	29.J4	
	1.B15	1.B16	1.B18	1.B19	1.B20	1.B21	17.D1	17.D2	17.H1	18.E1	18.F1	18.F2	29.J5	29.J6	29.J10	29.J11	30.B1	30.B2	
	1.B22	1.B23	1.B24	1.B25	1.B26	1.B27	18.G1	18.H1	19.F1	19.F2	19.F3	19.F11	30.B3	30.B4	30.B5	30.C1	30.C2	30.C3	
	1.B28	1.B29	1.B30	1.B31	1.B32	1.B33	19.G1	19.G2	19.G3	19.G4	19.Z1	19.Z10	30.C4	30.D1	30.D10	30.D11	30.D12	30.D21	
	1.B34	1.B35	1.B36	1.B37	1.B38	1.B39	19.Z11	20.C3	20.C4	20.C10	20.C13	20.D1	30.E1	31.C3	32.C3	32.C10	32.C11	32.C20	
	1.B40	1.B41	1.B48	1.B49	1.B55	1.B56	20.D2	20.E1	20.E2	20.E3	20.Z1	20.Z2	32.C21	32.C22	32.C23	32.C24	32.C25	32.C26	
	1.B57	2.A1	2.A2	2.A3	2.A4	2.A5	20.Z5	20.Z6	20.Z7	20.Z8	21.E2	21.G2	32.C27	32.C28	32.C29	32.C30	32.C31	32.C32	
	2.B1	2.B2	2.B3	2.B4	2.B5	2.H1	22.D1	22.D2	22.D3	22.D4	22.D5	22.D6	32.C33	32.C34	32.D7	32.D8	33.B1	33.B2	
	2.H2	4.A1	4.A10	4.A11	4.A12	4.A13	22.D12	22.D13	22.D16	22.E1	22.E2	22.F1	33.C1	33.C2	33.C3	33.C4	33.C5	33.C6	
	4.A14	4.A20	4.E1	4.E2	4.L1	4.L2	22.F2	22.F3	23.B1	23.B2	23.C1	23.C2	33.C7	33.C8	33.C9	33.C10	33.C11	33.C12	
	4.L3	4.L4	4.L5	4.L10	4.L11	4.N1	23.C3	23.E1	23.H1	23.H2	23.H3	23.H4	33.D1	33.K1	33.L1	33.P1	33.P2	33.Q1	
	4.N2	5.B1	6.A1	6.A10	6.A11	6.A20	23.H5	23.H6	23.H7	23.Z1	23.Z2	24.C1	33.Q2	33.Q3	33.Q6	33.T1	33.U1	33.U4	
	6.A21	6.B1	6.Z1	6.Z2	6.Z3	6.Z5	24.D1	24.D2	24.D3	24.D4	24.J1	24.J2	33.U5	34.Z1	35.B1	35.B2	36.A1	36.A2	
	7.C1	7.C2	8.E1	8.F1	9.C1	10.B1	24.L1	24.L2	24.M2	24.M3	24.M4	24.N1	36.A3	36.B1	36.D2	37.C1	37.C2	37.D1	
	10.B2	10.B3	10.B4	10.B5	10.E1	10.F1	24.N2	24.N3	24.N4	24.S1	24.S2	24.Z1	37.D2	37.D3	37.D4	37.D10	37.H1	S37.H1	
	10.G1	10.G2	10.G3	10.G4	10.G5	10.G6	24.Z2	24.Z3	25.A1	25.A2	25.A3	25.A4	37.H2	37.H3	37.H4	37.H10	37.H11	38.A1	
	10.G10	10.G11	10.G12	10.G13	10.G14	10.G15	25.A5	25.A6	26.A1	26.A3	26.C1	26.C2	38.C1	38.C2	38.C3	38.D1	38.D2	38.E1	
	10.G20	10.G21	10.G22	10.J1	10.J2	10.J3	26.D1	26.D2	26.D6	26.E1	26.E2	26.F1	40.B1	40.B2	40.C1	41.B1	42.B2	42.C1	
	1014	11.C1	12.F1	12.N1	13.C10	13.C11	26.F2	26.F3	26.F4	26.J3	26.J6	26.J10	42.C2	42.C3	42.C4	42.C5	42.C6	42.C7	
	13.C12	13.H1	14.B1	14.B2	14.B3	14.F1	26.J20	26.K1	26.M1	26.M2	26.M3	26.Z1	42.E1	42.K1	42.K2	43.E1	43.E2	43.E12	
	14.K1	14.L4	14.L12	14.L13	14.L14	14.L15	27.B9	27.B10	27.B12	27.B13	27.C1	27.F1	43.E13	43.E14	43.Z2	43.Z3	43.Z4	44.D1	
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technical section

REVISIONS 1956

8.E1-Face of Sheet, "resin-bonded semi-rigid slab" add under "nominal thickness inches" " 1 to 2" and "nominal density" "9" and amend figures under "stock sizes and quantities" to "48 in. × 36 in.

The address of the manufacturer's Glasgow office is now

6. Newton Place, Glasgow C.3.

10.B1-4, 16.B1, 16.C1, 41.B1—These Sheets should be checked with the latest (1955) revisions to the relevant British Standards.

12.N1. 19.F1-3, 19.Z1, 27.Z1, 38.E1—The Board is now known as the Natural Rubber Development Board.

13.H1—The manufacturer's address will be Hanover House, 73-78, High Holborn, London, W.C.1 from Jan. 1st. 1957.

18 in. substitute $17\frac{5}{8}$ in. and for 12 in. substitute $11\frac{5}{8}$ in. Heading "Colours," add "Special colours can be produced to order."

15.B1, 15.C1-4, 22.D1-5, 27.F1, 28.D1, 28.E10-The word "Lloyd" should be deleted wherever it occurs and replaced by "Bowater."

The manufacturer is now known as Building Boards Division, Bowater Sales Company Limited and the telephone number is Mayfair 8080.

15.B4, 36.A2, 36.A3—The name and address of the manufacturer is now Cape Building Products Limited, Cowley Bridge Works, Uxbridge, Middlesex. Telephone: Uxbridge 4313. Telegrams: Incorrupt, Uxbridge.

15.C1-4, see 15.B1.

15.S6—Reverse, 'heading "Characteristics," sub-heading "Heat resistance," second sentence to read "...material will safely withstand 155° C (310° F.)". Heading "Patterns and Colours," first sentence, insert "and plain" after "faintly patterned"; second sentence, delete "Real wood veneers." Heading "General applications," sub-heading "Veneers," first sentence, substitute $\frac{1}{2}$ in. for $\frac{3}{4}$ in.

15.S8—Reverse, heading "General," first sentence to read "... laminated plastic sheets are either plain or faintly patterned . . . " Delete reference to Sheet 15.S7 and substitute "The standard pattern range includes:

" Linette (a weave print)

" Coarse linette

" Onyx

"Softglow (a faint arabesque)

" Capri

"A number of wood-grain prints, some of which are

available in alternative tints."

Heading "Decorative Treatment," sub-heading "Interlaminate all-over designs," delete "... fully dealt with on Sheet 15.S7" and substitute "available to order in a choice of combinations from the standard colour range. It includes three designs Bow-square, Star-dot and Cocktail which are on backgrounds of Softglow pattern.'

15.T8—Face and reverse, add "Edge-secured" to heading before "Panels." Reverse, heading "Fixing," sub-heading "Veneers," last paragraph to read "The adhesives recommended are De La Rue Domestic or On-site adhesive. Last sentence to read "... a temperature of 240° F.

15.T9-Reverse, heading "General," end of paragraph add "except as replaceable units from offcut materials." Heading "Construction Generally," second sentence to read "...any surface that need not be highly heat-resistant, an impact type adhesive (e.g. De La Rue Domestic or On-site adhesive) may

be used . . . " Heading "Edge Finishes," third paragraph, second sentence to read ". . . bevelled back at an angle varying between $22\frac{1}{2}$ deg. and 70 deg. . . . "

16.B1-see 10.B1.

16.C1-see 10.B1.

17.H1—Reverse, heading "Material and Components," sub-heading "Tiles," delete "26 s.w.g." Sub-heading "Eaves trim," delete "rolls of any length or flat strips" and substitute "lengths." Heading "Fixing," last paragraph to read
"... verges, abutments and valleys. The verge trim is turned up at the lower edge during fixing to give a smooth edge."

18.F2—Reverse, heading "Skirtings" add to end of paragraph "Skirtings curved to a wider radius than those shown on the drawings are available in standard heights of $2\frac{3}{4}$ in., $3\frac{3}{4}$ in. and 43 in."

18.G1—Reverse, second paragraph, delete last sentence "A grease-resistant . . ." Heading "Sizes," delete "12 in. by 12 in." Heading "Applications," sub-heading "Wood sub-floors," first sentence, amend to ". . . flat-headed screw nails." Heading "Skirtings" amend "Coved Skirting Cement" to "L.505."

18.H1—Reverse, heading "Sizes," delete second sentence. Heading "Applications," sub-heading "Wood sub-floors," (iii) to read ". . . with adhesive M.N.82."

19.F1—Face, heading "Fixing to sub-floors," delete "ground floor" after sub-headings to first and second details. Heading "Preformed rubber skirting," substitute "coving" for "skirting" and delete overall dimensions of coving.

Reverse, add at end of first paragraph "Rubber flooring should conform to the requirements of British Standard 1711: 1951." Heading "Types and Sizes," sub-heading "Sheet rubber," end of sentence should read "3 ft. to 6 ft. wide." Sub-heading "Inlaid tiles," second sentence should read "They are available from 3.75 mm. thickness..." Heading "Preparation of Surfaces," sub-heading concrete sub-floors," delete last sentence in paragraph and sentence before should read ". . . should be fixed to a 3:1 sand/ cement screed not less than 1 in. thick." Sub-heading "Other solid floors," delete "e.g. asphalt or pitchmastic." Heading "Skirtings," second sentence, add after rubber units "usually termed rubber coving and available in a range of sizes." See also 12.N1.

19.F2 and 3, see 12.N1.

19.Z1-Face, heading "Fixing to sub-floors," delete "if required " after " screed " on first detail. Reverse, heading "Preparation of surfaces," sub-heading "Concrete sub-floors," second sentence should read "The cement/mortar screed on the sub-floor should be not less than 1 in. thick." See also 12.N1.

20.C4—Face, in table of safe distributed loads, under beam size 15 in. by 5 in., load 34 tons, the figure should be 6.3.

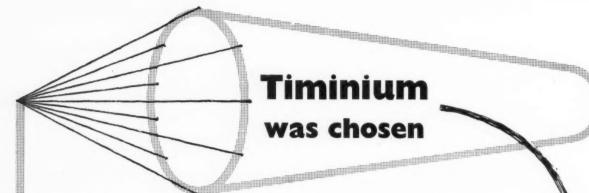
20.D1-Reverse, heading "Sizes," to read "The straight block is 195 in. by 9 in. wide . . .

20.Z5—The address of the Nottingham office is now 17, Huntingdon Street, telephone Nottingham 53266, and the Leeds office 2, Central Road, Leeds 1. The London telephone number is now Amherst 2388.

22.D1-5—The systems described on these Sheets are now known as Bowater System of Board Fixing B.T.1, B.T.4, B.T.3, B.P.1 and B.T.2 respectively. See also 15.B1.

23.C1-3, 24.D1-4—BS. 990 is being revised and these Sheets should be checked with the latest issue when it is published. The BS. will now include the Z range of windows based on a width of 2 ft. 0 in.

24.D1-4, see 23.C1.



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Head Office: Redfern Road, Tyseley, Birmingham 11. Tel. Acocks Green 4211.

Offices in LONDON · BIRMINGHAM · MANCHESTER · LEEDS · GLASGOW · BRISTOL · BELFAST AND DUBLIN,

technical section

24.M2—Face, the section of the glazing bar has been redesigned but constructional details are unaffected.

24.Z2-Face, heading "Alternative Methods of Fixing Surround to Structure," lower detail, the fixing now recommended is a 3- or 4-in, stainless steel 12-gauge screw in a white metal plug.

26.E2—Steel stools are now available: the manufacturer should be consulted for details.

Reverse, heading "Further Information," add after "soil testing" and re-levelling buildings by jacking."

26.J10—The manufacturer's address is now 142, Shoreham Road, Hove 4, Sussex. Telephone Hove 71388.

27.B10-The aluminium-alloy channel sections are discontinued and replaced by 20g. tight-coat galvanised steel channels in lengths of 16 ft. 0 in. The complete weight of the ceiling is now 2 lb. (C.3.G tiles) and 21 lb. (C.4.G tiles). The manufacturer's address is now 58, Highgate West Hill, London, N.6. Telephone Fitzroy 1221. Telegrams Kulmco London N.6.

27.F1-see 15.B1.

27.Z1-see 12.N1.

28.B1—Face, first entry, under "Type," is amended to "Rocksil Building Mat"; under "Description," first entry, substitute for "normal inflammable bonding agent" the word "bitumen"; under "standard sizes" add widths of 24 in. and 48 in.

28.D1—see 15.B1.

28.E10-see 15.B1.

29.H1—Face, the hardwood wedges are now replaced by

m.s. Parkerized wedging clips.

Reverse, heading "Components," sub-heading "Insulation," to read "... with $1\frac{1}{2}$ in. strips over all tubes and headers." The manufacturer's address is now 7-12, Tavistock Square, London, W.C.1. Telephone Euston 6084-8.

33.P2—Face, heading "Section thro' trap," the dimension line noted " $1\frac{1}{2}$ in. seal" has been incorrectly carried beyond the end of the dividing wall of the trap which determines the extent of the seal.

36.A2-see 15.B4.

36.A3-see 15.B4.

36.D2—Reverse, the heading to the last paragraph is amended to "Regulations governing installation and types' following should be added at the end of the paragraph.

"The following notes show the types and sizes acceptable to each authority.

"London County Council:

"Hand operated, with fusible link release.

" Not exceeding 8 ft. 0 in. in width and 7 ft. 0 in. in height. "Mechanically operated, including fusible link release.
"Not exceeding 144 sq. ft. in area or 14 ft. 0 in. in width and 12 ft. 0 in. in height.

"Application for exceeding these sizes will be considered.

"Fire Offices Committee:

"Hand operated, without fusible link release.

"Not exceeding 56 sq. ft. in area or 8 ft. 0 in. in width

and 7 ft. 0 in. in height.

"Special application for exceeding these sizes and for use of mechanical winding gear will be considered.

" Ministry of Transport:

Hand operated, with fusible link release.

'Not exceeding 7 ft. 0 in. in width and 7 ft. 0 in. in height and suitable for the steel structure of ships.

"Special application for exceeding these sizes and for use of mechanical winding gear will be considered.

37.D10—Reverse, heading "Components," sub-heading "Door and frame," add "Double doors are available if required."

38.C1—Face and reverse, substitute "white spirit" for "turpentine" in every case.

Reverse, heading "Preparation and Application," sub-heading "Varnishing," second sentence to read ". . . a pale varnish, e.g. Mirovar.

38.C2—Face, top note to read ". . . for drying between coats and, on woodwork and other smooth surfaces, glass-paper and dust off between coats." Entry "New metal: internal or external," last column, 1st coat, add "or 08157 Zinc Chromate Primer.'

Face and reverse, substitute "white spirit" for "turpentine" as for 38.C1.

Reverse, heading "Materials," sub-heading "Duradio Enamel Paint," add after "colours" "all intermixable."

38.C3—Reverse, heading "Colours," to read ". . . available in thirty colours."

38.D2-Reverse, heading "Colours" to read ". . . is available in 28 basic colours . . . a chart is available showing 76 additional colours . . .

38.E1—see 12.N1.

40.C1—Reverse, heading "Specifications," column heading "Minimum Specification," delete "20 per cent" in each case and substitute "15 per cent."

The manufacturer's address is now 99, Wandsworth Road, London, S.W.8. Telephone: Reliance 5566.

41.B1-see 10.B1.

42.E1—The address of the manufacturer's Coventry office is now Needlers End Lane, Balsall Common, nr. Coventry. The telephone number remains the same.

42.K1—Reverse, first paragraph, last sentence to read "... widths over 10 ft."

43.Z4—Reverse, heading "Surround," last sentence, delete " pin-head ceramic tiles." Add to the list of manufacturers: Commercial Marble & Tiles Ltd.

Address: Selbourne Gardens, Newcastle-on-Tyne 2.

Telephone: Newcastle-on-Tyne 811373. Telegrams: Tiles, Newcastle-on-Tyne.

44.D1—The address of the manufacturer's London Office is now Dundas House, 59, St. James's Street, London, S.W.1. Telephone: Hyde Park 0093-4.

CANCELLATIONS

Sheets 10.F1, 15.B1, 32.C20, 32.C22-6, 32.C32, 33.C1-3, 33.C9, 43.E13, 43.E14 and 44.D1 were cancelled and republished this year. 15.T6, 21.C1, 21.C2, 24.M1, 33.B3, 38.B1, 42.D1 and 42.L1 are cancelled but are being revised and will be republished. 32.C21, 32.C27, 32.C28 and 32.C30 are in process of being revised and republished. Sheets 1.B60, 14.L11, 15.R2, 15.S7, 19.J2, 20.C12, 27.B11, 31.C2, 32.B1, 39.B1, 41.A1 and 44.D2 have been cancelled and should be withdrawn from the Library.

I knew it when it was a tree . . .





Now it's wood really ready for work. The knots have gone. The trouble has gone. It's just pure wood, compressed into sheets that won't split or splinter or crack. It's ready to be made into wardrobes and walls, doors and floors and linings for roofs. It's got a thousand uses but only one name

Bowater Board

(you used to know it as Lloyd Board)



STANDARD AND SUPER HARDBOARDS, LEATHERGRAINED, REEDED AND PEGBOARD, INSULATION BOARDS AND 'TALON' FIXING SYSTEMS.

Building Boards Division, Bowaters Sales Company Ltd., Bowater House, Stratton St., London, W.1. MAYfair 8000

CRC.28

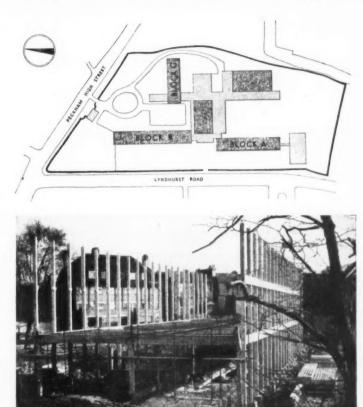
technical section

PECKHAM SECONDARY SCHOOL

The new LCC secondary school at Peckham High Street, which is at present under construction, will provide places for 1590 pupils. It is planned as a series of semi-isolated blocks around a core consisting of assembly hall, dining spaces and kitchen (see plan right). Three of these blocksthe two classroom blocks (A and B) and the office, library and art centre block (C)—are built in an interesting system of multi-storey construction in precast concrete, partly prestressed. Block A is four storeys high, and Blocks B and C three storeys (below). All three blocks are 41 ft. wide with 10 ft. 6 in. floor-toceiling heights. They have a line of central columns and a spine beam of in-situ concrete, with exposed precast post-tensioned columns and precast concrete sill beams along both eleva-

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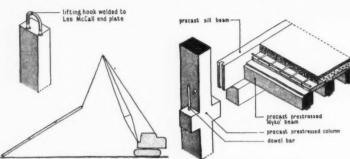


tions (right). "Myko" prestressed beam units span 20 ft. 6 in. between sill beams and spine beam at each floor level; infilling is of foamed slag blocks with a reinforced structural topping. The external columns are 9 in. by 6 in. and spaced at 6 ft. $2\frac{1}{4}$ in. centres. They were post-tensioned by the Lee-McCall system; $\frac{3}{4}$ -in. diameter bar was used for the three-storey (33 ft.) columns and 1-in. bar for the four-storey (43 ft.). The columns were designed for lifting from one end only: a 1-in. diameter hook bar welded to a Lee-McCall end plate was left

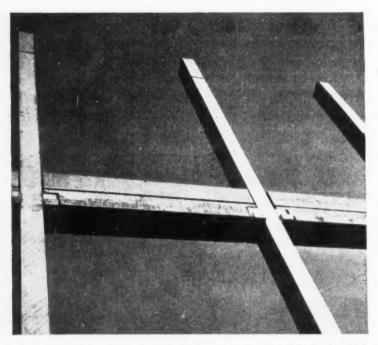


technical section

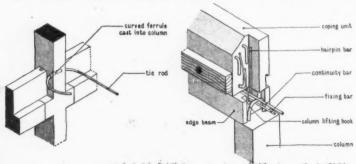
PECKHAM SECONDARY SCHOOL continued



projecting from the top of the columns for this purpose (above left). The sill beams are connected to the columns by means of dowel bars which project from the nib of the column and fit into a vertical groove in the beam (above right, and photograph below); the bars are then grouted in position. Connection



of the sill beams and columns with the floor units is achieved by hooks which project into the in-situ topping (below left). The precast 6 in. by 9 in. roof edge beams and coping units are tied by a series of projecting bars (bottom right) which are later grouted up. The roofs are of "Trofdek" timber decking, and reinforced concrete ties across the building are provided at alternate columns by using the decking as permanent shuttering. Architects: Lyons, Israel and Ellis; engineers: Dr. K. Hajnal-Konyi and Sidney M. Myers.



INFORMATION CENTRE

9.59 design: general CONVERSIONS

House Conversion and Improvement. Felix Walter, F.R.I.B.A. (Architectural Press, 42s.) For anyone concerned with the conversion or improvement of dwellings, urban or rural, this book provides a clear and comprehensive guide. For those who are not directly involved in this kind of work it provides a clear picture of a situation peculiar to the present, a time when building costs are high, when land is expensive and either overcrowded or misused, and when our cities and many towns are numbed by the deadweight of substandard quarters. Through the illustration of a wide variety of schemes this book shows how the situation can be met and turned to positive advantage through the careful surgery of conversion and improvement.

The first two chapters describe the general characteristics of conversions and chapters 3 and 4 deal with improvements. Examples are illustrated with good photographs, plans and sections; the text accompanying the illustrations describes the peculiarities of each scheme, how these were met, how the resulting plan was serviced, and how much the scheme cost. The schemes are predominantly urban. It may be regretted that there are few illustrations of improvements to agricultural dwellings for these, particularly groups of cottages adjoining a farm, present a set of special problems germane to rural life and are frequently the object of improvement grants.

The second part of the book, chapters 5, 6, and 7, is concerned with the wider planning implications of conversion and improvement. John Ratcliff discusses the general pattern of towns and the effect of this pattern on the statutory development plans. H. F. Clark, with the aid of drawings by Gordon Cullen, outlines the simple, yet so rarely employed techniques of bye-law street surgery; the playground on the vacant lot, or even the single hardy tree, which may animate the desolate monotony of our industrial centres. The 7th chapter is concerned with buildings of historic or architectural interest.

The third part of the book, chapters 8, 9, 10, and 11, has been prepared by Ernest Watkins. It deals very concisely and adequately with the labyrinths of law and finance relating to conversion and improvement. D. T. H. Nicholson joins Mr. Watkins in the 10th chapter which is concerned with Valuations for rating and taxation. The book ends with a useful glossary of terms used elsewhere in the book, used in the Housing Repairs & Rents Act 1954, and in other legislation to which this act refers.

FACTORY

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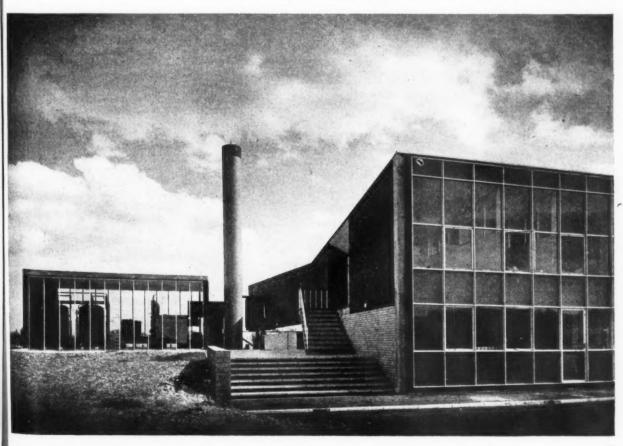
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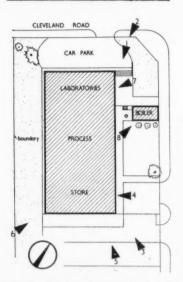
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and the of ent ngs law ant ich our onchi-, 9, nest and and vecins vith ook ised sing ther in CLEVELAND ROAD, INDUSTRIAL ESTATE, HEMEL HEMPSTEAD, HERTS consulting engineer: OVE ARUP and PARTNERS; assistant architects PHILIP DOWSON and FRANCIS PYM; quantity surveyors LANDON and EVERY

The designers of this building have found a completely unified and direct solution to the problem of the small factory in spite of the rules laid down by the Development Corporation for factories in the industrial estate. (These rules are discussed overleaf.) This is the first factory at Hemel Hempstead to be analysed in the JOURNAL.







Key plan showing photographic viewpoints (viewpoint 2 is not quite accurate)

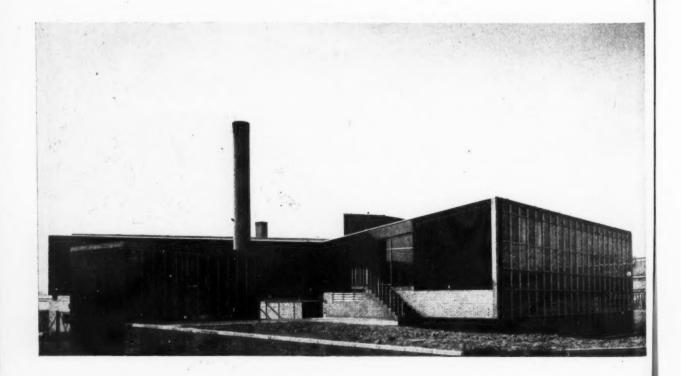
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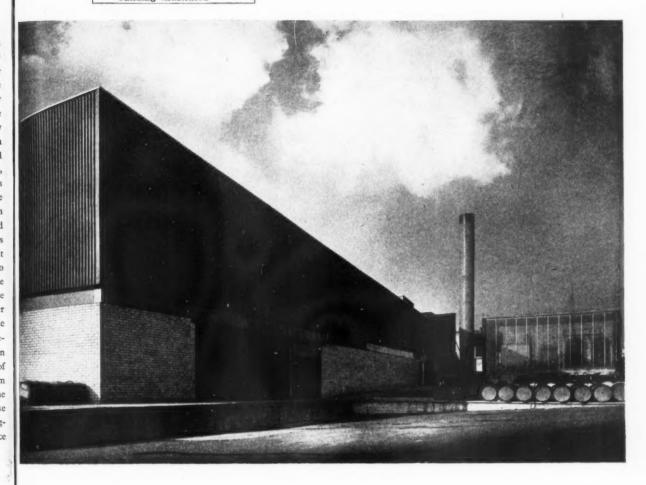
in CLEVELAND ROAD, HEMEL HEMPSTEAD

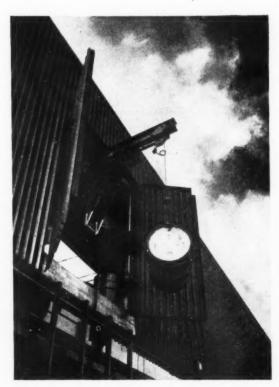
OVE ARUP and PARTNERS, consulting

engineers

Viewpoint 2 (below): the Cleveland Road elevation from the north. It will be seen from this picture that the architects managed to overcome some of the limitations imposed by the rules laid down by the Development Corporation. For instance, one of the Corporation's requirements was that the main road frontage should, if possible, consist of a two-storey office block-presumably so that the factory should be screened or disguised. The architects got round this rule by treating the whole accommodation as one unit, within a single main structure. Then again, the Corporation wanted a particular facing brick to be used on the main elevation, and carried round to the side elevation. The architects avoided using the brick specified by treating the whole elevation as one large window. They faced it with curtain walling, made up of aluminium-frame members, with tinted glass used as infilling in the spandrels. Since the services could best be brought on to the site from its north-east corner, the north-east part of the building was planned to receive them. The works laboratories were placed on the ground floor, under the offices, and the lavatories were grouped together on the east side of the block. The boiler house, which was illustrated as a Working Detail in the JOURNAL for July 12, 1956, was built as a separate and freestanding unit. It stands between the factory and the eastern boundary of the site, at the end of a gently-rising slope of made-up ground, and it prevents the open-air paint-drum store and loading bay being seen from the main road. The made-up ground hides the duct connecting the boiler house to the factory, at the same time providing a suitable settingoff level to the half flight of stairs up to the office entrance on the first floor.







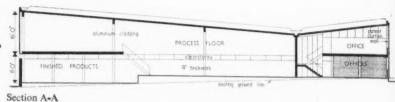
Viewpoint 3: from the east, with the loading bay in the foreground. To take advantage of the fairly steep slope of the site, away in a southerly direction, the main process area has been arranged on section at a mezzanine level between two floors used for storage at the south end of the block. If a flat roof had been used over the building the ceiling height over the process area would have been unnecessarily high; to reduce the overall volume an inverted pitch roof has been used. This has the added advantage of permitting the head of the office windows on the north side to be raised, thus increasing daylight penetration, and also of simplifying the drainage of rainwater from the roof; it is collected by a large valley gutter into a single 6-in. pipe. This pipe is placed in a vertical duct, which is positioned within the block, close to the boiler house. The lavatories are grouped around the duct: those for the offices are on the first floor, and those for the works are directly underneath, on the ground floor. The cold-water storage tank is in an exposed housing on the roof, directly above this single core of services. Because of the slope of the site, a loading bay could be formed by carrying out the lower floor level beyond the building. Vehicle access to this is from a service road running along the eastern side of the site. Viewpoint 4 (left): raw materials delivered to the loading bay are hoisted by a jib crane and through double doors into the raw materials store on the first floor.

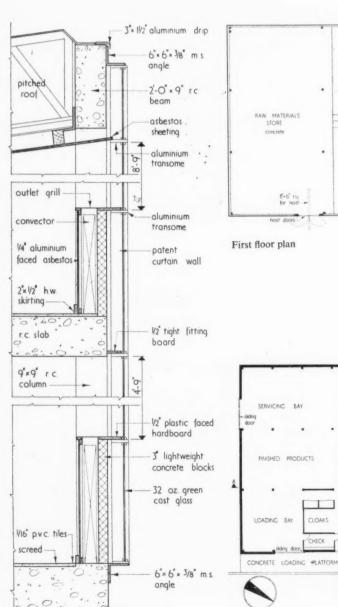
FACTORY

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in CLEVELAND ROAD, HEMEL HEMPSTEAD OVE ARUP and PARTNERS,

consulting engineers

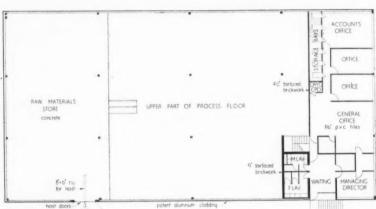




[Scale: \frac{1}{4}" = 1' 0"]

Section B-B

Ground floor plan [Scale: 12" = 1' 0"]



PROCESS FLOOR

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VIIII o

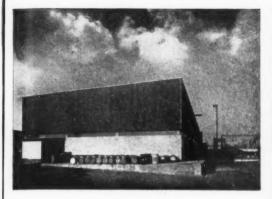
CHEMICAL

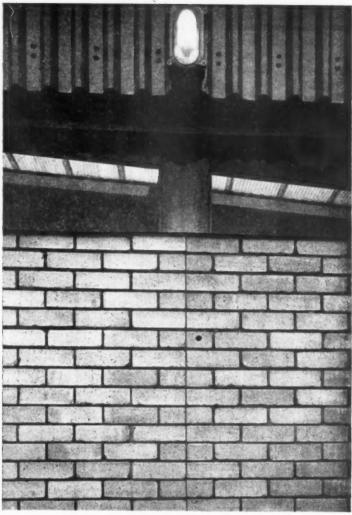
LABORATORY

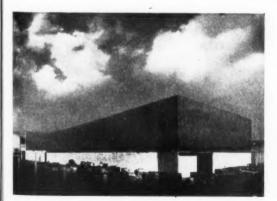
CONCRETE

OFFICES

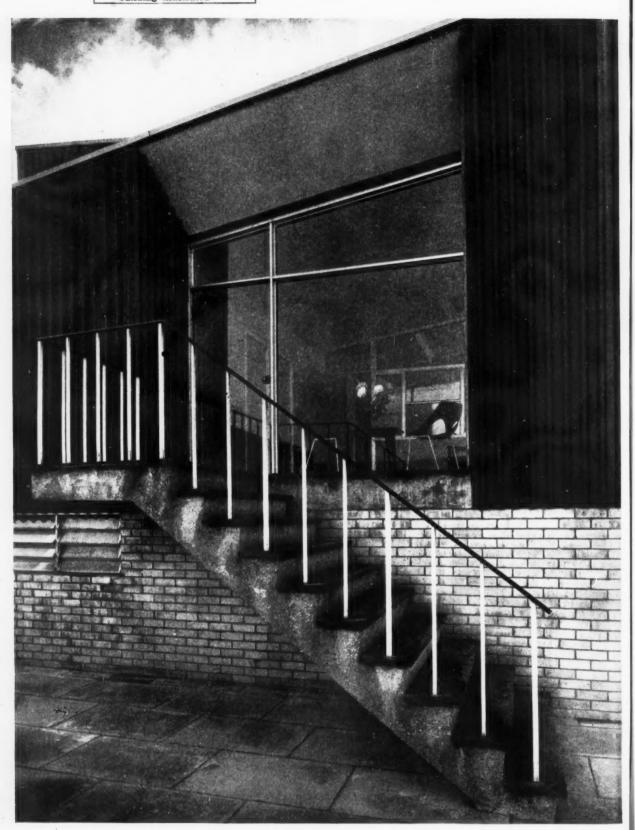
patent curtain wall-





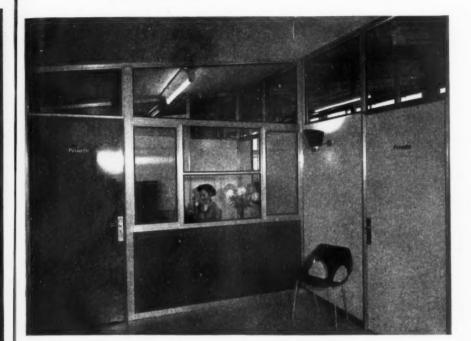


Viewpoint 5 (above left): secondary doors are provided to the products store on the south elevation. The structure of the building is a reinforced-concrete frame, with suspended floors formed of in-situ 12-in. thick continuous structural concrete slabs. Infilling between stanchions to form the external walls is of Uxbridge flints up to clerestory level, the brickwork being left fair-faced both sides. Above clerestory the block is continuously clad on three sides with corrugated aluminium sheeting, which is painted externally with chlorinated rubber a dark green (approximately Munsell reference 5G2/4). The clerestory is formed by glazing directly into the structure to avoid the use of window frames. Vertical joints are formed with lead cames, and the glazing is carried across the outer face of the external stanchions (above). Shrinkage of the flint bricks has been allowed for by vertical expansion joints at stanchion centres. A similar treatment is used for the west face of the building (viewpoint 6, left). This external cladding was illustrated as a Working Detail in the JOURNAL for June 28, 1956. By arranging access and services on the north and east sides of the building, the architects left this side free for expansion as required. Such an extension would be facilitated by the demountable character of the cladding above clerestory level.



Viewpoint 7: The offices are reached by a half flight of stairs from made-up ground. The slate treads are supported by reinforced concrete. A small entrance hall is naturally lit by its

external wall being completely glazed from floor to ceiling. The armour-plate entrance door, requested by the client, is set within this unit.



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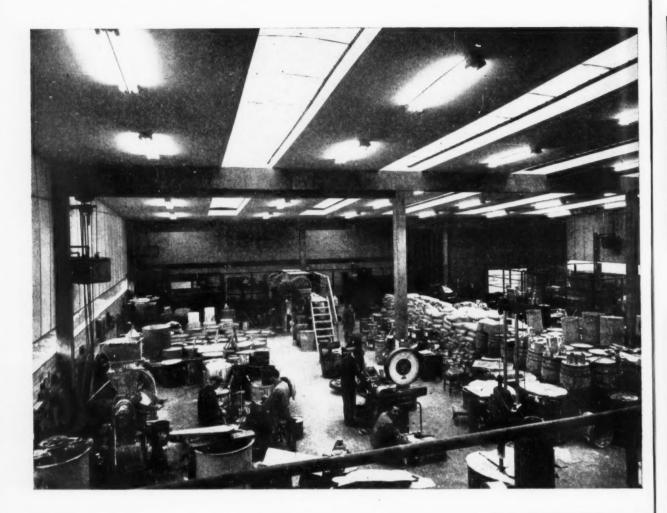
in CLEVELAND ROAD,
HEMEL HEMPSTEAD
OVE ARUP and PARTNERS
consulting engineers

Above: opposite this glazing is a small enquiry counter and telephone switchboard room. Internal partitions in the office area are carried out in demountable units, built up of aluminium extended sections, with infilling, up to door-head height, of sandwich panels, outer skins of painted hardboard and fibre egg-crate packing between. The offices (below left) are heated by convectors running continuously under the sills, in purpose-made housings designed to direct warmed air vertically upwards across the face of the glass, to minimise down draughts and condensation. The convectors are insulated by 3-in. thick skin of lightweight concrete blocks, placed between

them and the curtain walling. Screening for the control of sunlight and sky glare throughout the offices is by means of venetian blinds. The floors are finished with p.v.c. tiles, and the ceiling is lined with asbestos cement sheeting, providing a measure of sound absorption. Access from the offices to the process area and laboratories on the floor below is by a staircase screened from the process area by patent glazing with Georgian wired roughcast glass (below right) as seen from the process area. Apart from a small strip of clerestory lighting, the offices and laboratories are otherwise separated from the process area by a nine-inch brickwork partition.







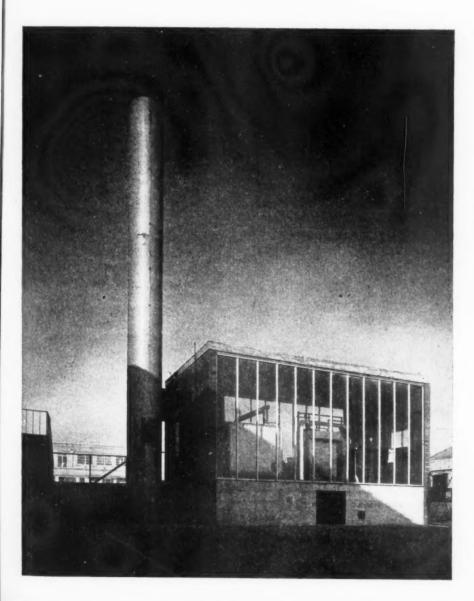
Above: the process area, which is used for the manufacture of specialised paints, concrete additives and other similar chemicals for the building industry. The roof structure is formed by exposed concrete beams, supported by concrete stanchions at 23 ft. 4 in. centres. Oiled hardboard for shuttering has given a high quality natural finish. Spanning 35 ft. between the beams are timber space-frame units, built up of light timber and steel sections fixed to §-in. plywood sheets. These are triangular in section, and rely for their stiffness on the principle of having folded planes of stressed structural skins. They may be regarded as a development of the Punt system. They will be illustrated as a Working Detail in a later issue of the JOURNAL. Between the units, continuous strip roof lights are formed of corrugated and reinforced glass fibre sheeting. These provide a high level of diffusion and evenly-distributed natural lighting. The upper walls and ceiling are lined with asbestos boarding to increase the fire resistance of the structure, particularly that of the timber roof (right). The detailing of the inner surfaces of the process area (e.g. the asbestos cement sheeting, the clerestory glazing and the brickwork of the external walls are all in one plane, with hardly any exposed services) is such that there are no ledges for the collection of dust, and there is an extremely straightforward and precise general background to the work.





Attention to the simplification of detail has been carried through to the smaller and less important elements, for example the clocking-in display (left). Apart from small areas of strong colour in the office area, however, it has not been used in a positive manner to contribute to creating the right character of environment, finishes being left natural, or painted with light pale colours or white. Heating is by convectors slung from the side walls in which are carried the flow and return pipes. Artificial lighting throughout the building is by twin-batten fluorescent fittings with bare lamps, designed to give 25 lumens per square foct.

The boiler house (below: viewpoint 8), the only element not included in the main block, is an *in situ* concrete slab carried on brick and walls, with the side walls formed of patent glazing. The boilers are automatically fed with fuel oil, which is stored under the main floor, with access on the south side. The free-standing flue is constructed in *in situ* concrete.

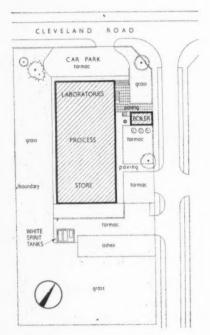


FACTORY

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STRUCTURAL ELEMENTS

Upper floor construction

Solid slab

Solid slab

Location

Office floor

Raw materials store

Site plan

CLIENT'S BRIEF: his stated requirements

A process area for the production of paints and concrete additives, with stores for raw materials and finished products. In addition two laboratories were required, and a suite of offices. Hemel Hempstead Development Corporation laid down that the office and laboratory accommodation should be on two floors, and placed along the north edge of the site, to form the road frontage.

SITE: topography, surroundings, access and planting

The site slopes markedly to the south, and is between two other recently built factories in the Hemel Hempstead industrial estate. Primary access is provided by the road on the north edge of the site, and there is also a service road along the eastern boundary. The site, which was previously open farmland, was devoid of any trees or other significant planting.

PLAN: general appreciation and relation of units

Advantage was taken of the sloping site to plan the process area at a mezzanine level between the raw materials store and that for finished products. This layout also permits the gravity feeding of materials. By placing all the ancillary accommodation, including the offices, laboratories and the boiler house, on the north and east sides of the process area, it can be expanded as required to the south and east. For simplicity and economy, the separate units of the factory were combined under one roof structure. The resulting large volume over the process area was reduced by lowering the roof at this point, giving an inverted pitch, which simplified the roof drainage, and permitted the head of the windows to be raised for the offices, to increase daylight penetration. Cloakrooms and lavatories are grouped round a single vertical services duct, on the east side of the block adjacent to the free-standing boiler house.

MAIN CONSTRUCTION: general appreciation

The two first floors are solid slabs of reinforcedconcrete, supported on reinforced-concrete columns. The rest of the structure is reinforcedconcrete-framed, the external walls being formed of light cladding, with brick infilling below 6 ft. 9 in. and the roof of timber stressed skin space frame units spanning 35 ft., with roof lights between the units.

cost per sq. ft.

contingencies

preliminaries and insurances

frame or load-bearing element

Reasons and comments

An economic span with in-situ finish

upper floor construction

1

6

To allow for heavy superimposed loads Flu

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Work below ground floor level: foundation type Mass concrete footings	Location Under columns	Materials 1:2:4 concrete	Finish		Reasons and comments		
Structural floor	Process area, store	I:2:4 concrete			Isolated into 150 sq. ft. bays		
				wor	k below ground floor level	3	4
External wall and facings	Location	Materials	Finish		Reasons and comments		
Brickwork	Up to clerestory on main block	Uxbridge flints	Built in two fair-faced bo		Hard wearing at floor level. Shrinkage joints are incor- porated at 35-ft. intervals		
Brickwork	Boiler house	Black concrete bricks	Fair-faced				
Corrugated sheeting	Above clerestory	Trough section aluminium	Pre-treated, primer, a co- chlorinated a		Light cladding of structure, which can be easily removed for extension		
					brickwork	2	7
					corrugated sheeting	4	1
Frame or load bearing element	Location	Materials	Beam spans	Column grid	Reasons and comments		
Reinforced-concrete frame	Main structure	1:2:4 vibrated, in oiled hardboard shuttering to give fair-faced finish	23 ft. 4 in.	23 ft. 4 in. × 35 ft.	The column grid arose out of planning and structural considerations		

Finish

Steel float floor, steel pan shutter ceiling soffit

Ceiling as above but painted

Materials

12-in. reinforced-concrete slab

12-in. reinforced-concrete

					5	u
itaircases	Location	Materials	Finish	Reasons and comments		
	Main entrance	Reinforced concrete	Slate treads	Placed externally to save space		
	Raw materials store	Reinforced concrete	Steel float	Combined with a shute for materials		
	Office to process area	Reinforced concrete	Granolithic	A secondary escape, as well as for internal circulation		
eight: floor to floor 9 ft.				staircases		6
				otali cases		
coof construction	Location	Materials	Finish	Reasons and comments		
composite timber and tressed skin space frames	Generally over block	Plywood, timber and steel, with synthetic resin glue	Two layers roofing felt with mineral finish, and painted asbestos board soffit	Developed from consideration of span, daylighting, achieving a minimal dead load, and a dust free interior		
olid slab	Lavatories, boiler house	Reinforced-concrete slab	Two layers roofing felt	roof construction	11	5
Roof lights	Location	Materials	Finish	Reasons and comments		
Continuous between tructural space frames	Process area and stores	Corrugated glass fibre; reinforced and resin bonded		Ease of fixing without frames or flashings, and a minimal dead load; also a diffusing effect on penetrating sunlight		
				roof lights		11
Windows	Location	Materials	Finish	Reasons and comments		
Curtain wall	North elevation	Aluminium	Natural	Seemed suitable at the time		
Clerestory	Generally	Lead cames between lights	Natural	Economy due to glazing directly into structure		
Boiler house	North and south sides	Patent glazing	Natural	Ease of replacement to		
				equipment windows	1	9
External doors	Location	Materials	Finish	Reasons and comments		
Flush	Process area	Faced with exterior grade ply	Hard gloss paint			
Glass	Main entrance	3-in. armour plate glass		A detail of the client's brief		
				external doors		5
Glazing	Location	Materials	Finish	Reasons and comments		
	General	24 oz. and 32 oz.				
	Main entrance	1-in. plate				
	Below sills, north elevation	Cast coloured glass				
PARTITIONING				glazing		1
Internal partitions	Location	Materials	Finish	Reasons and comments		
Demountable	Offices	Aluminium frames, with hardboard in-filling	Aluminium natural, hardboard matt painted	Light weight and movable		
Permanent	Between process and offices	Brickwork	Fair-faced	Sound insulation and low cost		
				demountable partitions permanent partitions	1	7 2
W.C. doors and partitions	Location	Materials	Finish	Reasons and comments		
Prefabricated	Cloakrooms	Plywood, aluminium-faced both sides	Hard gloss paint	For good appearance and economy		
	**			w.c. doors and partitions		1
Internal doors	Location	Materials	Finish	Reasons and comments		
Solid flush	Throughout	Plywood-faced	Hard gloss paint	internal doors		2
r			m			4
Ironmongery to internal doors	Location	Materials	Finish	Reasons and comments		
	Throughout	Cast aluminium	Satin	Ironmongery of German origin was chosen for both		

FINISHINGS

Floor finishes	Location	Materials	Finish	Reasons and comments
Γiles	Offices, cloakrooms	⅓-in. PVC 9 in. × 9 in.		
Tiles	Boiler house and works cloakrooms	½-in. quarries 6 in. × 6 in.		
ointless	Laboratories	Asphalt		
Concrete	Process area and stores	In-situ concrete	Steel float	
				floor finishes
Wall finishes	Location	Materials	Finish	Reasons and comments
Process area and stores	Below clerestory	Brickwork	Fair-faced	Durability at low level
Process area and stores	Above clerestory	Asbestos boarding	Painted white	Dust free finish
Works lavatories	All walls	Brickwork	Painted	Economy
Offices and lavatories	All walls	Plaster	Painted	wall finishes
				wan musics
Ceiling finishes	Location	Materials	Finish	Reasons and comments
Roof	Factory and offices	Asbestos board	Painted	Fire protection
Concrete slabs	Laboratories	Fair-faced concrete		Economy. Price included in structure
Decorations	Location	Materials	Finish	Reasons and comments
	Internal walls where painted	Emulsion		Certain paints made by the client
	Aluminium externally and steelwork	Chlorinated rubber		
	Doors and W.C. partitions	Hard gloss		
	Boiler etc.	Heat resistant paint		
				decorations
FITTINGS				
Cloakrooms	Location		Finish	
	Locuston	Materials	4 9760370	Reasons and comments
	ALUCTORS DIVE	Hardwood	Polished	Reasons and comments
	Locuston			Reasons and comments
	a.oc.mestor	Hardwood	Polished	Reasons and comments cloakrooms
Lockers	a.oc.masovi	Hardwood	Polished	
SERVICES Rain water disposal	Location	Hardwood	Polished	
SERVICES Rain water disposal		Hardwood Wire	Polished Galvanized	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without
SERVICES Rain water disposal	Location Above services duct	Hardwood Wire Materials To one 6-in. cast iron with	Polished Galvanized Finish	Cloakrooms Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was
SERVICES Rain water disposal Open gutter Plumbing internal:	Location Above services duct	Hardwood Wire Materials To one 6-in. cast iron with	Polished Galvanized Finish	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors
SERVICES Rain water disposal Open gutter	Location Above services duct across the block	Materials To one 6-in. cast iron with 4-in. cast iron overflow	Polished Galvanized Finish Painted	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal
SERVICES Rain water disposal Open gutter	Location Above services duct across the block Location	Hardwood Wire Materials To one 6-in. cast iron with 4-in. cast iron overflow	Polished Galvanized Finish Painted	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal
SERVICES Rain water disposal Open gutter Plumbing internal: waste disposal	Location Above services duct across the block Location Services duct area Location	Materials To one 6-in. cast iron with 4-in. cast iron overflow Materials Copper and cast iron	Polished Galvanized Finish Painted Finish Capacity	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal
SERVICES Rain water disposal Open gutter Plumbing internal: waste disposal	Location Above services duct across the block Location Services duct area	Materials To one 6-in. cast iron with 4-in. cast iron overflow Materials Copper and cast iron	Polished Galvanized Finish Painted	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal Reasons and comments
SERVICES Rain water disposal Open gutter Plumbing internal: waste disposal Hot water storage	Location Above services duct across the block Location Services duct area Location	Materials To one 6-in. cast iron with 4-in. cast iron overflow Materials Copper and cast iron	Polished Galvanized Finish Painted Finish Capacity	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal Reasons and comments
SERVICES Rain water disposal Open gutter Plumbing internal: waste disposal Hot water storage Calorifiers	Location Above services duct across the block Location Services duct area Location Boiler house	Materials To one 6-in. cast iron with 4-in. cast iron overflow Materials Copper and cast iron Materials Galvanized steel insulated	Polished Galvanized Finish Painted Finish Capacity Two 500 gallons	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal Reasons and comments
SERVICES Rain water disposal Open gutter Plumbing internal: waste disposal Hot water storage Calorifiers Cold water storage	Location Above services duct across the block Location Services duct area Location Boiler house Location Over services duct in	Materials To one 6-in. cast iron with 4-in. cast iron overflow Materials Copper and cast iron Materials Galvanized steel insulated	Polished Galvanized Finish Painted Finish Capacity Two 500 gallons Capacity	Reasons and comments Inverted pitch roof allows rainwater to collect into one single pipe, which was connected to main without interceptors rain water disposal Reasons and comments

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	analysis				S	d
leating installation: eat exchanger type	Location	Criteria temperature	Air change rate	Reasons and comments		
Convectors	Throughout	65° for 32°	Two per hour	In offices and laboratories air		
Init heaters	Factory areas	60° for 32°		discharges vertically in plane of glazing, from purpose- made housings		
Boiler type and capacity	Location	Heat load and fuel type	Stoking method	Reasons and comments		
ectional cast iron	Boiler house	750,000 B.Th.U.	Automatic			
04,000 B.Th.U.		200 seconds oil				
Vater heater type	Location	Fuel type	Stoking method	Reasons and comments		
Calorifier	As above	heati	ng installation, holler type a	nd capacity, water heater type	6	
		neati	ng manation, boner type a	no capacity, vater neater type		
Orainage: type of system	Location	Materials	Finish	Reasons and comments		
Domestic	To north-east corner of site	Cast iron and salt glaz		Drainage concentrated as far as possible for short runs.		
Trade effluent Surface water	To north-east corner of site To north-east corner of site	Cast iron and salt glaz		One settlement tank for trade effluent		
				drainage	1	1
Gas installation	Location	Materials	Finish	Reasons and comments		
	Laboratories	Steel tubing to B.S.13	87	Supply to benches		
Incinerator	Cloakroom	Steel tubing to B.S.13	87	gas installation		
				gas instanation		
Electrical installation: source and fitting type	Location	Illumination level	Quality	Reasons and comments		
Fluorescent	Generally	25 lumens per sq. ft.	New warm-white tubes			
Tungsten	Products store and lavatories	7 lumens per sq. ft.				
Wiring and switching types	Location	Ma	terials	Reasons and comments		
General wiring	Throughout	mir	canized rubber insulated in condu terally insulated copper covered te in m.s. trunking	uit		
Power supply type	Location	Ног	v distributed	Reasons and comments		
Single and three-phase		electrical	installation, wiring and swit	ching types, power supply type	4	
Paved areas	Location		terials	Reasons and comments		
Paths	Entrance and main paths		. precast concrete			
Roads	North and south of main bu	ilding Bitt	amenized granite chippings	Total for all external works paved areas	3	
			i	total net cost per sq. ft. of floor	50	
THERMAL INSU	ULATION					
Туре	Location	<i>U</i> -1	value	Reasons and comments		
I-in. glass wool	Roof and upper walls	0.2				
FIRE						
Structural precautions	Grade of protection apparatu	s Spi	rinklers	Reasons and comments		
Reinforced-concrete frame to structure; fire-resistant lining to timber roof						
Planning precautions	Access for fighting	Me	ans of escape	Reasons and comments		
Alternative stairs to offices	All four sides of building	Esc	cape doors and alternative stairs	Two 75-ft. hose reels have been provided		
TIME SCHEDU	LE					
-						
Drawings T September 30, 1954 Ja	ender date Contra	ct signed Work	commenced Work comple	ted Type of contract		

RATIOS

Area of enclosing walls 0.702	Area of windows (including external doors)	0.2
Total floor area	Total floor area	1
Area of solid wall 0.502	Total roof area	0.73
Total floor area	Total floor area	1

COST ANALYSIS

Total floor area (excluding basement)	Tender date January 1, 1955	Tender cost of superstructure, installations and finishings £31,390	Tender cost of foundations
Tender cost of external works	Gross total cost	Cost per ft. super of floor area	Cost per ft. cube
£2,358	£36,800	50s. od.	3s. 111d.

COST COMMENTS

The functional requirements of any building must be well to the fore when examining the distribution of costs. In this instance the building is part factory, warehouse, laboratories and offices, designed at a tender cost of 46s, 6d. per ft. super (excluding external paved areas). External walls: this includes windows, doors and glazing analysed at a total cost of 8s. 111d. per ft. super of floor area. The same elements of the British Tabulating Machines Factory at Stevenage, amounted to 5s. 6d. (AJ, October 6, 1956). The smaller C.B.P. factory, however, has a higher perimeter to floor area ratio (0.7) than the much larger Stevenage factory (0.30). With the same ratio the perimeter cost at the

which = 5s. rd.

Frame: the in-situ concrete frame in relatively small spans has proved very economical at 1s. 1d., although possibly slower to fabricate

Roof: this element which includes the ceiling finish has a ratio of 0.73 which, at a cost of 11s. 5d. per ft. super of floor area, is the equivalent of a unit rate of £7 per yard super. If this type of construction had been applied to the

tabulating factory roof, with a roof to floor area ratio of 0.93, other things being equal, the 0.93

analysis cost would have been 11s. 5d. 0.73

or 14s. 6d. per ft. super of floor area in lieu of roof 5s. Id. plus ceiling 11d.

Internal finishings: the internal finishings at 1s. 5d. have been kept down to a minimum, e.g. the site slab was trowelled only in the process area and stores. The client provided all the paints required, except the hard gloss paint.

Rain water disposal: part of the roof cost can be offset by the very simple roof drainage.

Heating: further investigation would be necessary before it could be said that this was the expensive scheme that it looks. Factors which obviously have affected the cost will include such items as the volume to be heated in relation to the comparatively small floor area, and the higher criteria required in the processing and stores area that is normally required in produc-

Electrics: the fairly high standard of lighting (25 lumens) is required throughout most of the

With the exception of the roof element, and possibly the heating, the keynotes of this scheme have been simplicity and economy.

SITE ORGANIZATION

Site labour and equipment: equipment used for pouring isolated in situ portal frames comprised 10/7 diesel R. & R. mixer, concrete being raised directly into position by the use of a tower hoist. Prefabricated timber roof sections were assembled at ground level and raised directly into position in one piece by the use of Iones KL44 mobile crane. Remainder of equipment was normal for the usual trades.

Sub-letting: painting and decorating-owing to difficulty of obtaining suitable tradesmen in the Hemel Hempstead area.

Tob management: the contract was controlled by the contracts manager, via area supervisor to general foreman level. Progress chare was maintained. Fortnightly site meetings were held. Incentives were adopted where practicable.

CONTRACTORS

General contractors: David Chaston Ltd. Sub-contractors-Heating: G. N. Haden & Sons. Ltd.; electricity: Electrical Installations Ltd.; wallspan: Williams & Williams Ltd.; steelwork cladding: Carter Horseley Ltd.; internal glazed partitions: Triplewood Ltd.; stairs and hand rails: Grill Floors Ltd.; roofing felt: Ruberoid





working detail

STAIRCASE: OFFICE BUILDING IN PARIS

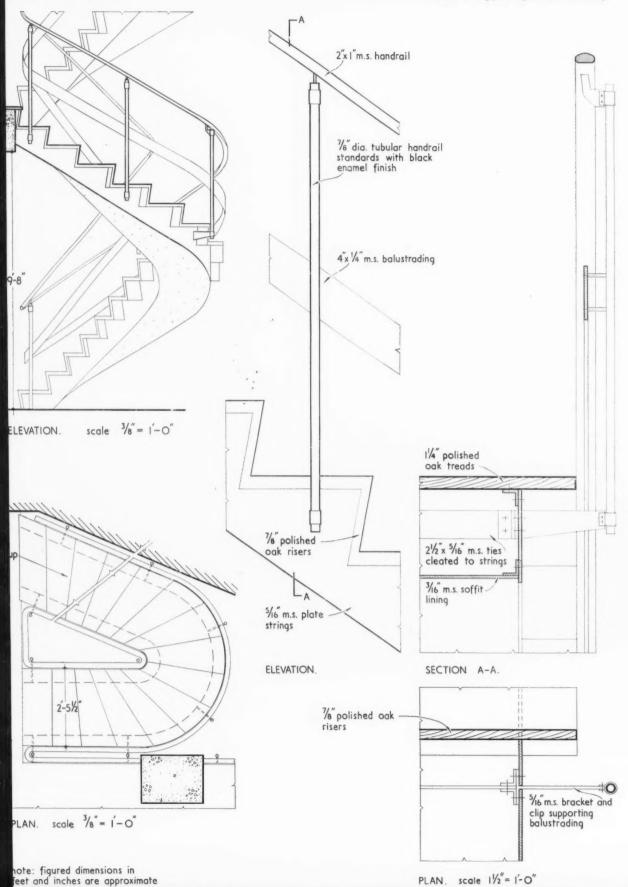
Pierre Forestier, architect

(material supplied by R. K. Dewhirst)



The two members which form the carriage of this stair were each cut from a single $\frac{1}{16}$ in, mild steel plate. To further complicate the setting out, all but the bottom are "dancing steps" (i.e. each riser radiates from a different centre on plan) as is usual in French curved stairs. A $\frac{1}{16}$ in, m.s. plate covers the soffit. The m.s. angles which connect carriage, soffit and talustrade brackets are wholly concealed within the tody of the stair. The "paper sculpture" convention which is used on the main structure of the stair and on the half-height rail is used also in the brackets supporting balus ers and handrail. All visible meta' surfaces are enamelled either black or white.

(material supplied by R. K. Dewhirst)



PARTITION: OFFICE BUILDING IN MILAN

Giuseppe Valtolina, architect

(material supplied by R. K. Dewhirst)

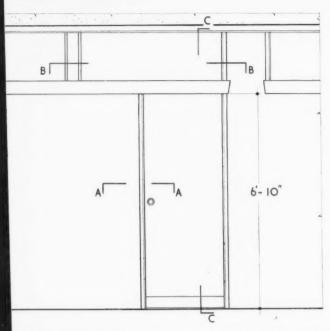


The interest of this detail lies in the finishes, which are typical of new office buildings in Milan. The partition is of rendered clay blocks to which a ribbed grey linoleum has been stuck. Apart from the sill (which is hardwood painted bright yellow) all trim is formed of anodised aluminium extrusions. The door is solid-core timber, faced with a plain linoleum coloured deep blue-grey.

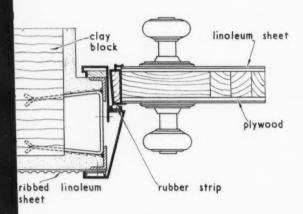
working detail

PARTITION: OFFICE BUILDING IN MILAN

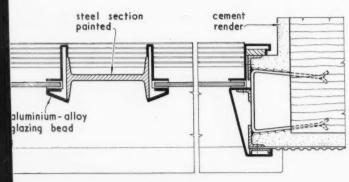
Giuseppe Valtolina, architect



PART ELEVATION OF PARTITION FROM CORRIDOR SIDE. scale 3/6" = 1'-0"

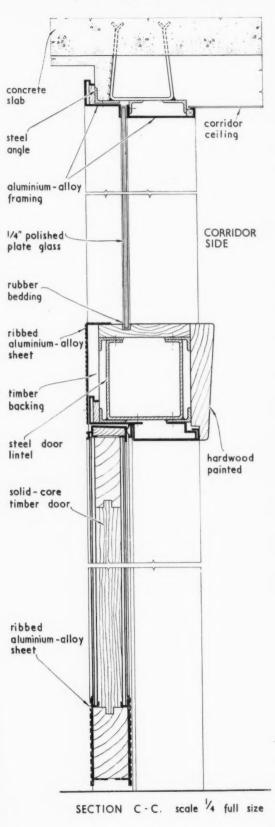


SECTION A-A. scale 1/4 full size

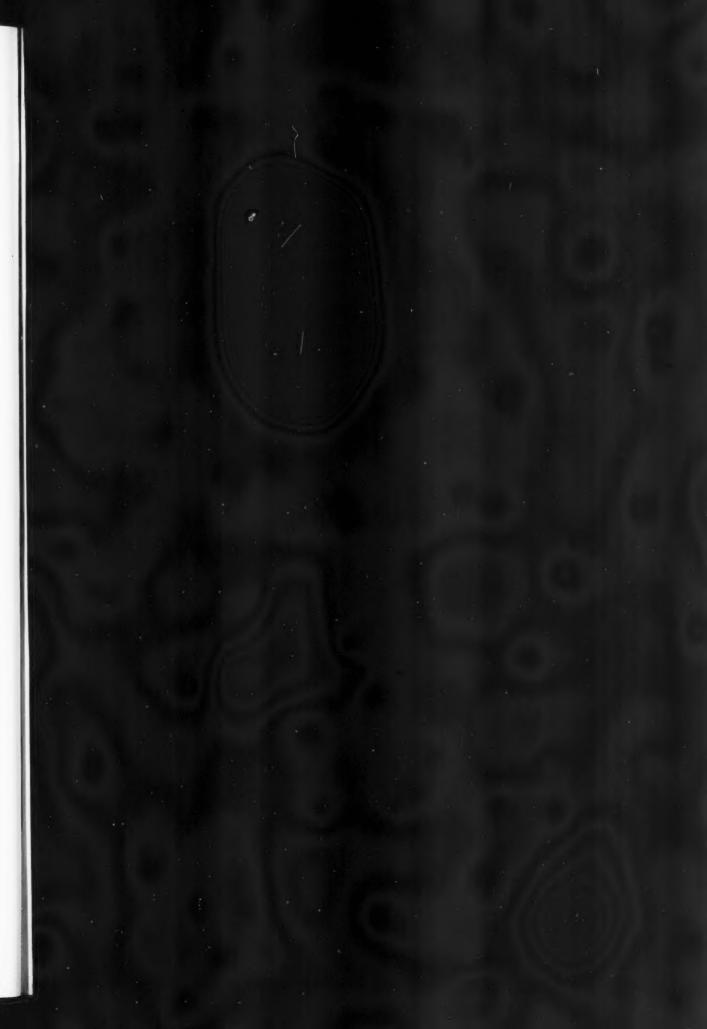


SECTION B-B. scale 1/4 full size

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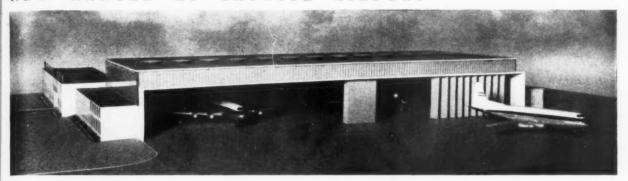


note: figured dimensions in feet and inches are approximate.



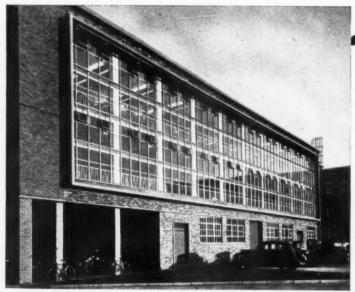
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NEW HANGAR AT GATWICK AIRPORT



A new hangar and auxiliary building, which will have a structural frame of precast concrete, are to be erected at Gatwick Airport for "Transair" Ltd. The contract also includes construction of aprons to the building, "warming-up" areas for the aircraft, and car parks and roads, all of which will be of reinforced concrete. The hangar will be 282 ft. long by 112 ft. wide and 41 ft. high; it will have a clear height of 30 ft. and a maximum clear span of 140 ft. Roof beams will be prestressed. Sliding doors fill one of the longer sides; infilling for the other walls will be patent glazed panels. There will be a single-storey annex, with a clear span of 27 ft. 5 in. and a clear height of 13 ft. 9 in. on one of the short sides and on the closed long side. On the other short side a

two-storey annex is planned which will have clear spans of 19 ft. 2 in. and clear heights of 18 ft. 3 in. In addition a two-storey canteen and office block will project from the closed rear wall of the hangar; this block will have double spans of 19 ft. 2 in. and clear heights of 21 ft. 1 in. The superficial area of the annexes and canteen and office block will be 24,700 sq. ft. All these buildings will have a wall infilling of patent glazed panels. Architects: Clive Pascall and Peter Watson; quantity surveyors: C. E. Ball & Partners; general contractors: Sir Alfred McAlpine & Son Ltd.; design and erection of structural frame: The London Ferro-Concrete Co. Ltd. in collaboration with A. J. Harris, engineer.



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

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HUCKNALL, NOTTS Announcements SHOE SHOP

This shop, designed by John Dudding and Partners, occupies a strategic position in the main street of a Nottinghamshire mining town. The ground floor is openly planned with stock shelves dividing the fitting rooms from the central shopping space. This central area rises through two floors and is lighted from above the circular stairs giving quick access to stock rooms on the balcony, which may also be reached by a secondary staircase at the rear of the shop. Offices and staff rooms also open off the balcony. The structure is a reinforced-con-



crete frame with circular columns on the ground floor carrying a brick-faced superstructure. General contractors: Allcock and Sisson Ltd.

PROFESSIONAL

G. B. E. Norburn, FRIBA, G. C. W. Ogilvie, FRIBA, and P. B. A. Browning, ARIBA, have much pleasure in announcing that John Pickering, Dip. Arch. (Leics), ARIBA, has now joined them in partnership as a prin-cipal. The firm will continue to practise in Nairobi and Mombasa under the present style of Blackburne Norburn.

Taylor, Whalley & Spyra, MISTRUCTE/BENG, AMICE, MISTRUCTE, Consulting Civil Engineers, have moved from 20, Dorset Square, N.W.I, to 24, Harley Street, W.1 (telephone: Langham 0172/3).

The Faculty of Architects and Surveyors held its 30th AGM at 68, Gloucester Place, W.I., on November 29. At the council meeting following the AGM, Godfrey S. Agar was elected president for the ensuing year. The annual dinner and ball of the Faculty was held at the May Fair Hotel in the evening when James A. Dimmitt, Agent General for Western Australia, was the guest of honour. guest of honour.

TRADE

Semtex Ltd., a subsidiary of Dunlop, announce that they have moved their Bir-mingham depot to Block "B," Fort Dunlop, Erdington, Birmingham 24 (telephone Erdington 2121).

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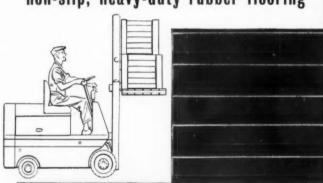
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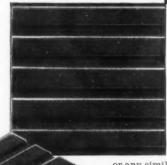
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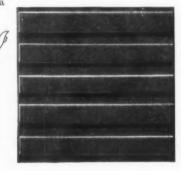
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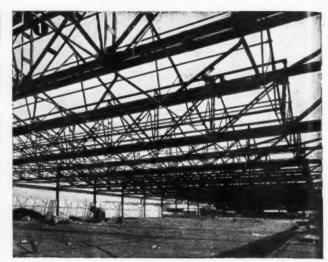
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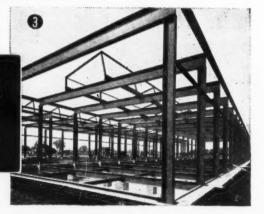
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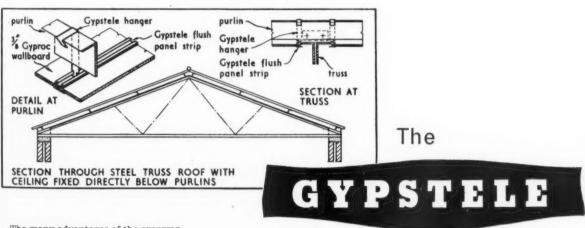


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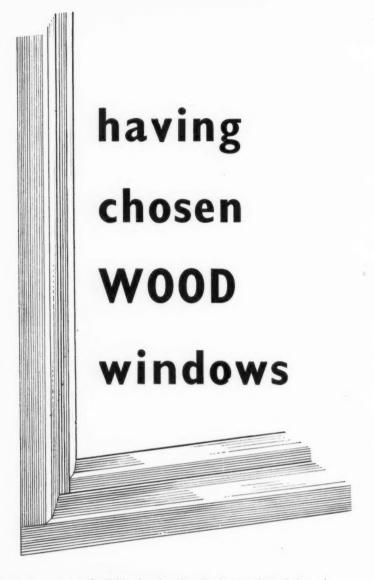
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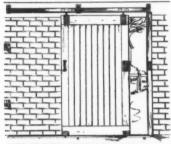
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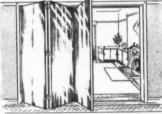
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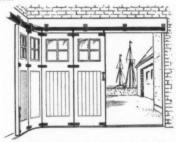
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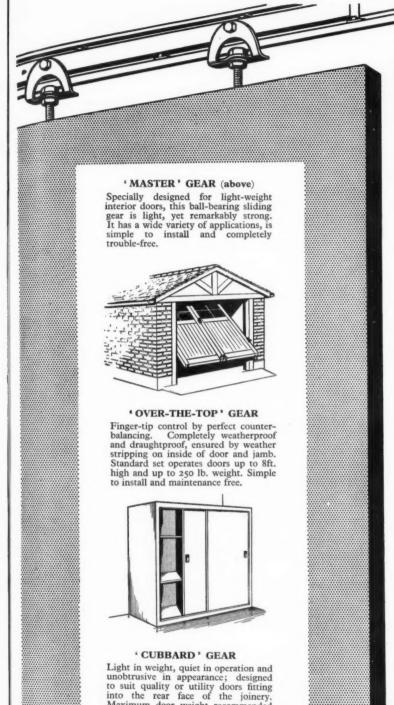
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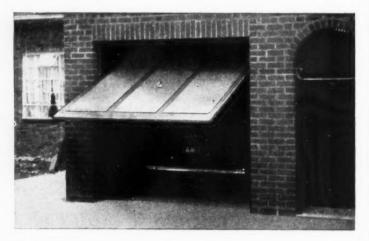


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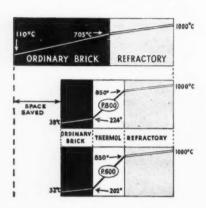
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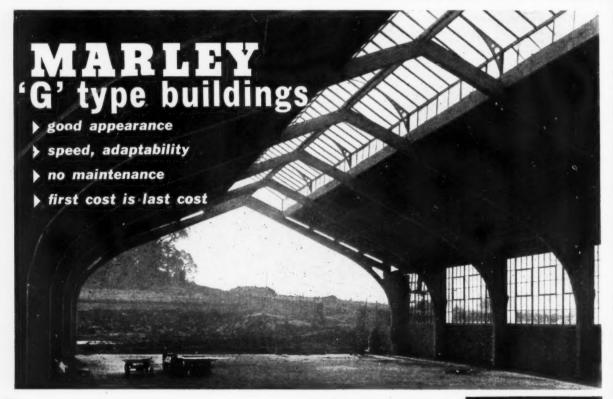
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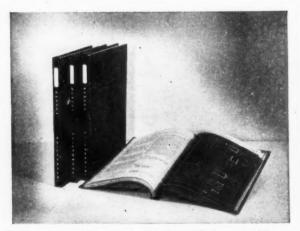
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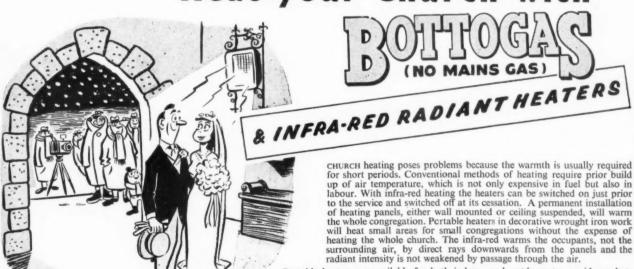
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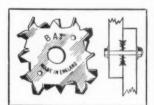




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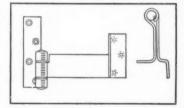
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(e) JUNIOR ASSISTANT BUILDING SURVEYOR (JGENERAL (£124 10s. -£656).
London weighting is payable in addition: Under 21 years -£10 p.a.; 21 and under 26 -£20 p.a.; 26 and over -£30 p.a.

Applicants for posts (a) should have experience in surveys and preparation of reports and drawings. Preference will be given to Corporate Members of the Royal Institution of Chartered Surveyors (Building Sub-division).

Appointments (d) and (e) offer facilities for training to applicants of school leaving age who are desirous of entering the surveying profession. Previous experience in local government will be an advantage for posts (a) and (b) but is not essential.

The point of entry within the grades may be fixed above the minimum.

essential.

The point of entry within the grades may be fixed above the minimum.

Application forms from the Borough Engineer and Surveyor, Town Hall, S.W.11. Closing date 1st January, 1957.

Ist January, 1957.

4729
CITY AND ROYAL BURGH OF EDINBURGH
CITY ARCHITECT'S DEPARTMENT
Vacancies exist for the following positions:
SENIOR ASSISTANT ARCHITECT'S. Salary
£900 × £30 to £1,050 to act as Group Leaders in
charge of a number of Assistant Architects. Must
be qualified by examination and have had experience of handling building contracts.
SENIOR ASSISTANT ARCHITECTS. Salary
£710 to £925. Must be qualified by examination
and have had a good general experience.
ASSISTANT ARCHITECTS. Salary £550 to
£370. For salaries above £700 per annum applicants must be qualified by examination otherwise
must have passed intermediate Examination and
must be continuing their studies towards attaining the full qualification.
In the foregoing appointments placing may be
made according to experience.
Applications giving full details and the names
of two referees should be sent to A. Steele, City
Architect, City Chambers, Edinburgh 1, not later
than 4th January, 1957.

STAFFORDSHIRE COUNTY COUNCIL

STAFFORDSHIRE COUNTY COUNCIL EDUCATION ARCHITECT'S DEPARTMENT SENIOR ASSISTANT ARCHITECTS and ASSISTANT ARCHITECTS. Applications are invited from suitably qualified and experienced architects. Salary to be determined on the A.P.T. Grades according to qualifications and experience. JUNIOR ASSISTANT ARCHITECTS: Vacancies exist for Junior Assistants with experience in an Architect's Office. Salary according to age and experience.

in an Architect's Office. Saiary according to speand experience.

The Department has a large programme of varied and interesting work and is contained in modern offices situate in a pleasant part of the town. Lodging allowance possible for married applicants maintaining a home outside the County. Forms of application from: The County Education Architect. Green Hall, Lichfield Road, Stafford. Closing date 27th December.

T. H. EVANS.

Clerk of the County Council.

CRAWLEY URBAN DISTRICT COUNCIL
(Crawley New Town—Population 35,000 Rising to 60,000)

APPOINTMENT OF SENIOR ASSISTANT
Applications are invited from suitably qualified and experienced persons for this appointment at a salary within Grade A.P.T. V (£815—£995) of the National Scales.

The appointment is subject to the provisions of the National Scales.
The appointment Superannuation Acts and to the National Joint Council's Scheme of Conditions of Service. The person appointed will be required to pass a medical examination before the appointment is confirmed.

This is a new appointment to a new authority and offers wide scope.
The Council will assist in the provision of housing accommodation, if required.
Applications stating age, qualifications and experience, together with the names of two referees should be sent to the undersigned not later than 3rd January, 1957.

Canvassing, directly or indirectly, will disqualify and applicants must disclose whether they are related to any member or senior official of the Council.

R. W. J. TRIDGELL.

Clerk of the Council

R. W. J. TRIDGELL. Clerk of the Council.

Robinson House, Robinson Road, Crawley, Sussex.

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
Vacancies for ARCHITECT'S Grade III (up to £987), and ARCHITECTURAL ASSISTANTS (up to £818), for widespread construction programme which includes houses, blocks of flats, schools of all types, and various public and industrial buildings. Application forms and particulars from Architect (AR/EK/A/2), The County Hall, S.E.I. (1189)

WEST MIDLANDS GAS BOARD
BOARD HEADQUARTERS
ASSISTANT ARCHITECT
The successint cannidate with De engaged upon
a wide cross section of interesting work including
industrial projects, canteens, showroom and
generostation premises.

a wide cross section of interesting work including industrial projects, canjeens, showroom and demonstration premises.

Commencing satary will be in accordance with experience and qualineations and within the range of A.P.T. trade 11 (£850 to £975 per anom) of the National Salary Scales for Gas Scales.

annum) of the National Salary Scales for Gas Stalls.

Ine appointment will be subject to the provisions of the Board's superannuation scheme and the successful candidate may be required to pass a medical examination.

Applications stating age, and giving full details of experience and qualineations, together with the names of two reterees, and stating whether car driver, should be addressed to the Industrial Relations Officer, West Mulands Gas Board, 6, Augustus Road, Edgbaston, Birmingham, 15, to reach nim not later than Monday, 31st December, 1956.

J. C. INGRAM, Secretary to the Boo

NORTH RIDING EDUCATION COMMITTEE
Applications are invited for the following posts
in the Education Architect's Department:—
(a) ASSIANI ARCHITECTS (1wo), A.P.T. IV.
Salary L/27 15s.—1907 2s. 6d. A.R.I.B.A. required

(b) ARCHITECTURAL ASSISTANT, A.P.T. Saiary ±609 1/s. 6d.—±691 17s. 6d. Stud

Salary ±609 1/8. 6d.—£691 17s. 6d. Student R.I.B.A.

(c) ARCHITECTURAL ASSISTANT, A.P.T. I. Sa.ary ±634 5s.—±625 5s. Student R.I.B.A.

(d) ASSISTANT QUANTITY SURVEYOR. A.P.T. IV & V. Salary £727 15s.—£694 5s. A.R.I.C.S. required.

(e) ASSISTANT QUANTITY SURVEYOR, A.P.T. Special. Salary £767 5s.—£651.

(a) LEARNER QUANTITY SURVEYOR, H.G.D. Salary £184 10s.—±512 10s. G.C.E. required. Previous experience may be taken into account in fixing commencing salary and experience with Local Authority not essential. Car, travelling and subsistence allowances, where applicable. Local Government Superannuation Act. Canvasing disquaities. Further particulars from F. Barraclough, County Hall, Northallerton.

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
ARCHITECTURAL and SURVEYING ASSISTANTS required for BUILDING ACT and BY-LAY WORK in connection with the Council's constructional and fire-precautionary standards. Starting salaries up to £818 according to qualifications and experience.
Particulars and application form from The Architect (AR/EK/BCW/3), County Hall, S.B.1. (2223).

THE CORPORATION OF GLASGOW ARCHITECTURAL AND PLANNING DEPARTMENT

DEPARTMENT
Applications are invited for the post of SENIOR
INSPECTOR OF WORKS from suitably qualified
persons who have a first-class wide experience
in the supervision of large scale building projects
and who possess a sound technical knowledge combined with administrative and organisational
skilitiv.

ability.

Salary scale £1,250-£1,350 per annum.
The appointment will be superannuable, subject to medical examination.
Particulars of appointment and form of application may be obtained from the Principal Administrative Officer, 20, Trongate, Glasgow, C.1.
Candidates who submitted an application in response to a previous advertisement need not renew application.

City Architect and Planning Officer.

FEDERAL GOVERNMENT OF NIGERIA
ARCHITECTS, PUBLIC WORKS
DEPARTMENT
To prepare sketch plant, working drawings and detailed specifications for various types of buildings and carry out general work of an Architectural Office.
Appointments on contract. Salary range £1,290 to £1,962 p.a. Gratuity £150 p.a.
Free passages for officer and wife and refund of up to cost of two adult passages for children. Allowance of £75 each for two children mainfained outside the territory. Quarters, if available, at low rental. Generous home leave on full salary.

tailed outside the territory. Quarters, if available, at low rental. Generous home leave on full salary.

Candidates must be A.R.I.B.A. with wide general experience. Knowledge of Hospital planning would be an advantage.

Write Director of Recruitment, Colonial Office, London, S.W.I., giving briefly age, qualifications and experience, quoting BCD.112/14/04. 4776

ISLE OF ELY COUNTY COUNCIL PLANNING DEPARTMENT

Vacancy for PLANNING ASSISTANT: Salary within range £543-£361 (A.P.T. Grades I.II or Special Grade). Candidates should be professionally qualified for Special Grade. Duties concerned with preparation of Town Maps for March and Ely. National Conditions. Application form and Conditions of Appointment from County Planning Officer, returnable by 13th January, 1957.

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

County Hall, March, Cambs.

4759

CITY OF BIRMINGHAM PUBLIC WORKS
DEPARTMENT
Applications are invited for the following posts
at the Redevelopment Section.
3 ONE CHIEF PLANNING ASSISTANT.
Salary Grade A.P.T. VII (£999 78. 66.—£1,230
per annumer.

per annum).

ONE SENIOR PLANNING ASSISTANT.
Salary Grade A.P.T. VI (£902-£1,107 per

b) ONE SEMIOR PLANNING ASSISTANT.
Salary Grade A.P.T. VI (£902-£1,107 per
annum).

(c) TWO SEMIOR PLANNING ASSISTANTS.
Salary Grade A.P.T. V (£814 17s. 6d.—
2034 5s. per annum).

(d) ONE PLANNING ASSISTANT. Salary Grade
A.P.T. IV (£727 15s.—£907 2s. 6d. per annum).
Commencing salaries in accordance with qualifications and experience.
Candidates must be Associate Members of the
Town Planning Institute and in respect of posts
(a), (b) and (c), preference will be given to
applicants with an additional qualification in
Architecture and/or Civil Engineering.
Summary of Duties to be Undertaken:—
Post (a). Responsibility for preparation of
layout plans of Redevelopment Areas. Preference
will be given to applicants with experience of
Central Redevelopment Schemes including industrial re-location.
Post (b). Preparation of detailed considerations in layout plans. Experience in perspective
presentations will be an advantage. (ii) Preparation of studies of various aspects of redevelopment.
Post (d) General planning duties.

Post (d) General planning duties.
The appointments are permanent, superamnable, subject to medical examination and terminable by one of the subject to medical examination and terminable by one of the subject to make the subject to stating qualifications, age and experience, together with the names of the superamnable to the

reach the
February, 1957.
Canvassing disqualifies.
HERBERT J. MANZONI,
City Engineer and Surveyo

Civic Centre,
Birmingham, I.

BRACKNELL DEVELOPMENT
CORPORATION

Applications are invited for the post of
JUNIOR ARCHITECTURAL ASSISTANT within
the salary grade £180 × £20 × £25(12)—£500.
Higher General Division. Commencing salary
within the grade will be decided according to
experience and ability.

Superanuation schemes. Medical examination.
Housing available in due ccurse, Apply by 4th
January 1957, giving age, education and qualifications; experience and appointments held (with
dates and salaries) and two referees, to General
Manager (J.A.A.). Bracknell, Berks.

4778
CLARE RURAL DISTRICT COUNCIL
APPOINTMENT OF ARCHITECTURAL
ASSISTANT
Applications are invited for the appointment
of Architectural Assistant at a salary in accordance with A.P.T. Grade II of the National Salary
Scales, together with a travelling allowance.
Applicants must be suitably qualified, well experienced in building contract procedure, supervision of house building, the preparation of
interim valuations, and the settling of final
accounts. The appointment will be subject to
the National Conditions of Service, the Local
Government Superanuation Acts, the satisfactory
passing of a medical examination, and to one
month's notice on either side.

Applications, and the names of three persons
to whom reference may be made, should reach
me not later than 5th January, 1957.

Clerk of the Council.

Stonehall, Clare, Sudbury, Suffolk. 10th December, 1956.

Applications invited from suitably qualified persons for appointment of SENIOR QUANTITY SURVEYUR. Borough Engineer's Department, A.P.T. Grade IV (£727 lös. to £907 2s. 6d.). Superamuation. Medical Examination. If required, provision of housing accommodation will be considered.

will be considered.

Applications stating age, training, qualifications and experience, with names and addresses of two referees must reach me by 28th December.

EDWARD S. SMITH,

Town Clerk.

Town Hall, Bury. 6th December, 1956.

6th December, 1956.

NOTTINGHAMSHIRE COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT
APPOINTMENT OF ASSISTANT ARCHITECT
Applications are invited for the appointment of
Assistant Architect. Salary 4814 17s. 6d. to
1994 5s. per annum. Applicants must be qualified
Architects with experience in the design and
grouping of buildings. Experience in the redevelopment of built-up areas and the preparation
of housing layouts would be an advantage.
Further particulars from County Director of
Planning, Shire Hall, Nottingham, to whom
applications must be submitted not later than
3rd January, 1956.

A. R. DAVIS.

Clerk of the County Council

DURHAM COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
QUALIFIED ARCHITECTS. Salary scale
A.P.T. V (834 178, 6d, to £994 5s.). The appointments are subject to medical examinations for
the purpose of the Local Government Superannuation Acts, the Council's Scheme for the time
being governing payment of salary during sickness, annual leave and other conditions of service.
Applications, including the names and addresses
of two persons to whom reference may be made
should be addressed to the County Architect,
South Street, Durham. Canvassing members of
the Council is prohibited.

J. K. HOPE,

hibited.

J. K. HOPE,

Clerk of the County Council.

4770

LONDON COUNTY COUNCIL

Vacancy for ASSISTANT SENIOR ARCHITEUT (£1,500-£1,800) in charge or the Theatres
Section. The Section consists of 20 professional
and technical staff and advises on the planning
construction, equipment and maintenance of
places of public entertainment with a view to
safeguarding personal safety. Candidates should
be A.R.I.B.A. or A.R.I.C.S., have knowledge of
the application of statutory control, possess
organising ability and qualities of leadership.
Application form, returnable by 1st January,
1957, from The Architect (AR/EK/ASA/1),
County Hall, S.E.I. (2380).

METROPOLITAN BOROUGH OF LEWISHAM SENIOR ASSISTANT ARCHITECT Salary scale £24 rising to £1,024 p.a. (A.P.T. V) plus London "Weighting" age 26 and over £30 p.a. Applicants must possess an approved University degree in Architecture or be Associates of the R.I.B.A. Particulars and form of application from the Town Clerk, Lewisham Town Hall, Catford, S.E.6. Closing date 29th December, 1956

METROPOLITAN BOROUGH OF
SHOREDITCH
Applications are invited for the appointment of ASSISTANT ARCHITECT. Salary A.P.T. IV C157 158.—4937 28. 6d. Subject to medical examination., Council's Superannuation Scheme and N.J.C. Conditions.
Applications to Borough Architect, Town Hall, Old Street, E.C.1, stating age, training and experience, giving names of two referees, to arrive by 5th January, 1957.

BOROUGH OF BARKING CLERK OF WORKS — A.P.T. II

The salary scale is £595 to £675 by £20 per annum (plus 2½%) plus London weighting £20 to £30 per annum according to age, and the working hours will be 44 per week of 6 days.

Applicants must have been apprenticed to a bona fide building contractor in one of the recognised trades and in addition must have served for a considerable time in that trade. Membership of a recognised clerk of works diploma (by examination) of an approved technical association will be an advantage.

Written applications, with the names and addresses of two referees, should reach the undersigned not later than 9 a.m., Monday, 31st December, 1956.

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Requests
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Town Hall, Barking, Essex.

Barking, Essex.

HAMPSHIRE

Applications are invited for the appointment of a TECHNICAL ASSISTANT in the County Planning Department on Grade III of the National Scales (£565—£785) to work in the North-East Area Office at Basingstoke. Candidates must have passed the Intermediate Examination of the Town Planning Institute or of a related professional body and have had erreprience in the Planning Department of a Local Authority. The appointment is pensionable and will be subject to a satisfactory medical report. In approved cases the County Council assist with removal and other expenses.

Applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names of two referees, should reach the County Planning Officer, Litton Lodge, Clifton Road, Winchester, by 31st December. 4795

CAERNARVONSHIRE COUNTY COUNCIL Applications invited for the post of PLANNING ASSISTANT, County Planning Department, Grade A.P.T. III/IV (£556/£997). Preference given to candidates possessing an appropriate university degree or equivalent technical qualification. Experience in research and surveying will be an advantage. Further particulars and application form from Clerk of County Council Caernaryon. Closing date 12th January, 1957. 4782

COVENTRY CORPORATION

ARCHITECT. A.P.T. V. (£814-£994). Housing

COVENTRY CORPORATION
ARCHITECT, A.P.T. V. (£814-£994). Housing accommodation may be available. Application forms, etc., from City Architect and Planning Officer, Bull Yard, Coventry, returnable by 7th January 1

January.

STEPNEY M.B.C. require PRINCIPAL
ARCHITECTURAL ASSISTANT (permanent
establishment). Salary £902—£1,107 p.a., plus
L.W.A., commencing according to qualifications
and experience. Applicants must be Registered
or qualified Architects; be capable of supervising
architectural staff; and should have had considerable experience in design, construction, and
the administration of large building contracts,
preferably with a local authority.
Forms and other particulars from Town Clerk,
227/233, Commercial Road, E.1. Closing date:
2nd January, 1957.

THE CORPORATION OF GLASGOW

THE CORPORATION OF GLASGOW ARCHITECTURAL AND PLANNING DEPARTMENT

Applications are invited for the post of PRINCIPAL ASSISTANT ARCHITECT.
Salary scale: £1,150×£20-£1,250.
Applicants must be Members of the R.I.B.A and must have had wide housing experience and possess administrative ability. The appointment will be superannuable, subject to medical examination.

will be superannuable, subject to medical examination.

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

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



Lady Allen of Hurtwood, F.I.L.A. and Susan Jellicoe

The new small garden

THIS IS A PRACTICAL book in which, with over 130 photographs and plans, the authors illustrate and describe an expertly made selection of successful and charming small gardens. Most of them have been constructed at small cost; all are designed to provide the maximum of peace and relaxation for a minimum of hard work. The plans have been worked out to meet a wide variety of site problems and conditions and the examples include long narrow gardens, children's gardens, a tree garden, a water garden, a roof garden, a scree garden. . . Full details of the materials and plants used in many of the gardens are given; and there is a useful 'How to find out' appendix.

Size 83 in. by 53 in. 128 pages with over 100 half-tones and 25 line blocks. Price 15s. net, postage 1s.

THE ARCHITECTURAL PRESS 9-13 Queen Anne's Gate Westminster S.W.1.

Applications are invited for the appointment of an ARCHITECT, Grade II, at a salary up to 1900 per annum, in the office of the Divisional Architect at Divisional Headquarters, National Coal Board, Longbenton, Newcastle-upon-Tyne, Applicants must be Associates by examination of the R.I.B.A., with two or more years' experience in the preparation of working drawings and details of good class work.

Applications, stating age, training, and details of past and present appointments, should be submitted to Staff Department, National Coal Board, Northern (N. & C. Division, Whitley Road, Longbenton, Newcastle-upon-Tyne, 12, by 31st December, 1956.

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published

Ist December, 1956.

FIFE COUNTY COUNCIL
Required for Planning Department:—
(a) DEPUTE COUNTY PLANNING OFFICER,
Salary scale: £1,150, by increments of £52 10s. to
£1,465 per annum, with placing according to experience and qualifications. Should be Members
of Town Planning Institute, have good administrative and planning experience, and be able to
supervise technical staff.
(b) SENIOR PLANNING ASSISTANT. Salary
scale: £305 to £925. Should have the Intermediate Examination of the Town Planning
Institute and have practical experience in a
planning office.
(c) PLANNING ASSISTANT. Salary scale:
£500 to £700.
Applicants should have had appropriate training
and experience in a planning office.
(d) PLANNING ASSISTANT. Salary scale:
£550 to £625.
Applicants should have had appropriate training
Applicants should have had appropriate training

255) to £625.

Applicants should have had appropriate training and experience in a planning office.

Superannuation Scheme on satisfactory medical report. Housing requirements may be met. No canvassing. Applications, giving full particulars, to be lodged by 15th January, 1957, with the County Clerk, County Buildings, Cupar, Fife. 4797

Architectural Appointments Vacant 4 lines or under. 7s. 6d.; each additional line, 2s.

A RCHITECTURAL ASSISTANTS required. State salary, age, experience, etc. Harvey & Scott, 2, Lynedoch Place, Glasgow, C.3. 4278

KNIGHTSBRIDGE. — ARCHITECTURAL ASSISTANT required. Salary range £500— £800.—Telephone BEL 3365, or Box 4777.

A RCHITECTURAL ASSISTANT required: qualified or Intermediate stage. Must have good experience, and considerable capacity for work.—Write, stating salary required, to David Carr & Stuart Matthew, 14, Lynedoch Place, Edinburgh.

A RCHITECTURAL ASSISTANT required, with about four to five years' office experience. Write or telephone giving full particulars, including age and salary, to Hasker & Hall, Architects, 13 Welbeck Street, W.1. (WELbeck 0061). 4561

POST-INTERMEDIATE ASSISTANT required, in large London Office with widely varied practice. Lewis Solomon, Son & Joseph, 21. Bloomsbury Way, London, W.C.1. Telephone HOD

ODFREY BONSACK LTD., interior decorators and builders, require the services of a YOUNG ARCHITECT with some experience, who is interested in designing (for home and industry), as full-time assistant to Godfrey Bonsack. Please write with full particulars to 25, Davies Street, London, W.1.

25. Davies Street, London, W.I. 4691
CO-OPERATIVE WHOLESALE SOCIETY LTD.
ARCHITECT'S DEPARTMENT. MANCHESTER
CHOPFITTING DRAUGHTSMAN required, experienced in shop equipment and modernisation of interiors.

The position calls for the preparation of layouts and perspectives with a modern approach to store fitting problems.

The post is pensionable, subject to medical examination and there is a five-day week in operation.

Applications giving age, details of previous experience and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester 4.

JUNIOR ARCHITECTURAL ASSISTANT required by City firm. Minimum 3 years' drawing office experience (not domestic). Work of interesting character, with good scope. Salary £450—£550.—Box 4738.

A RCHITECTURAL ASSISTANCE required for Bishop's Stortford office, up to Intermediate standard.—Apply by letter, stating age, experi-ence, and salary required, to Gerald Lacoste, F.R.I.B.A., 30, South Street, Bishop's Stortford.

A RCHITECTURAL ASSISTANTS (Senior and Junior), with experience, required for small office in Kensington. Salary £400—£850, according to experience.—Box 4737.

A R.I.B.A. required for office in West Africa.

A Must be single, keen, not afraid of responsibility and hard work, and capable of getting on with Africans. Passages paid, accommodation and transport provided, liberal local and home leave, salary by arrangement. Possibility of partnership in expanding practice in Gold Coast and Nigeria after two years' satisfactory service. Interviews in London. Previous tropical experience not essential, but some practical office and site experience since qualifying desirable. Arthur Lindsay, A.R.I.B.A., Accra.—Box 4721.

SENIOR ARCHITECTURAL ASSISTANT
MUST belong to the Modern School of Design.
Write, stating experience, age, and salary
required. Accommodation available for suitable
applicant.—Box 4724.

A SSISTANTS required in medium sized busy office. Capable of taking complete charge of contracts under general supervision. General practice, including Housing Schemes, Office Blocks, Factories, etc.—Apply in writing only, stating age, qualifications, experience, and salary required, to Thomas Sibthorp, F.R.I.B.A., A.R.I.C.S., A.M.T.P.I., 10, Manchester Square, W.1.

A RCHITECTURAL ASSISTANT required by busy practice in Buckinghamshire, 30 miles from London. Preferably qualified. Also BUILD-ING SURVEYOR, capable of carrying out large land and building surveys, but with some Architectural experience. Salaries according to age and experience.—Please write, giving full details, to Box 4774.

A PRIVATE Office has several vacancies for ARCHITECTS interested in New Building Techniques. Previous experience not essential, and work will include the research and development of standard structural and building elements.—Apply A. M. Gear, F.R.I.B.A., 12, Manchester Square, W.I.

C. JANES, LTD., have vacancies for DRAUGHTSMEN on the staff of their

Planning Department.

(a) With experience in the design and constructional detailing of houses, shops, flats, factories.

etc.
(b) With experience of land surveying, Estate layouts, road and drainage schemes.
Staff pension scheme in operation and housing accommodation can be provided.
Apply to Head Office at 183, High Town Road, Luton, giving particulars of previous experience and stating salary required.

4766

Still thinking of Christmas presents? We would remind you that BOOKS often solve the problem most happily from all points of view. May we send you our Christmas list? Send a card to ARCHITECTURAL PRESS, 9-13 Queen Anne's Gate, London, S.W.1.



Cabinet Model

AQUALUX

water softeners

Simple to install, easiest to

Simple to install, easiest to regenerate. Solve all HARD WATER Problems. Furring of Pipes, Boilers and utensils is completely eliminated. Washing-up is made easy and Soap bills cut to a minimum. The CABINET model (left) is The CABINET model (left) is connected to the mains and supplies Soft Water from every tap, both hot and cold.
Standard colours are Cream or Green, but any colour can be supplied to match your particular scheme.

Capacities: 1,000 to 4,000 gals.

Write for literature.

L.H.R. Model, Special lowhead-room model for fitting under draining boards or into

its. Capacity 1,000 gals

AQUALUX LTD 118 EMILY STREET BIRMINGHAM 12 Phone: CALthorpe 1164



Sole Manufacturers:
ARCHIBALD KENRICK & SONS LTD., WEST BROMWICH, STAFFS

SPECIFY for SAVING - in WEIGHT, MAINTENANCE AND CLEANING COSTS "CODE" C.4 OFFSET EASY-CLEAN HINGE 0 PRESSURE DIE CAST aluminium alloy. Weight only 12 ozs. per pair. TESTED to equivalent 60 years' movements in use. 0 APPROVED to B.S.S. 1490. Specified by L.C.C. and other Municipal Authorities. 0 O 0 Code Designs Ltd. 415 OLDFIELD LANE, GREENFORD, MX

A RCHITECTURAL ASSISTANTS.—Imperial Chemical Industries, General Chemical Division, requires Architectural Assistants for the Architectural Section of its Chief Engineer's Department at Runcorn, Cheshire. Successful applicants will be employed on the design of amenities, offices, canteens and laboratory plants, and applications are invited from persons holding either a Degree or a Diploma in Architecture. Preference will be given to Associates of R.I.B.A., with one or more year's experience since qualification. Pension Fund and Profit-sharing Schemes, Where necessary assistance can be given to married men in connection with house purchase and removal expenses.—Apply, giving details of age, qualifications and previous experience, to Staff Manager, Imperial Chemical Industries, Ltd., General Chemical Division, Cunard Building, Liverpool, 3.

OOD ARCHITECTURAL ASSISTANT or DRAUGHTSMAN wanted in small expanding Architect's office, Moorgate, for varied commercial work on large schemes. Good salary and prospects to suitable applicant.—L. Robinson. Chartered Architect, 120, Moorgate, E.C.2, 4785

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Acme Flooring & Paving Co. (1904), Ltd Aqualux, Ltd.	70	Fire Armour, Ltd	24 [] 13 []	Marley Concrete Co., Ltd	66
Architects' Benevolent Society	79	Floor Quarry Association, The		Midland Woodworking Co., Ltd	42
Architectural Press, Ltd., The 68, 70, 72, 74	. 75	Freeman, Joseph, Sons & Co., Ltd		Mills Scaffold Co., Ltd	80
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				Plus Gas Co., Ltd., The	71
		Car Connoll Who	1615	Prefatile (G.B.), Ltd	67
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British Trolley Track Co., Ltd	57				
Broads Manufacturing Co., Ltd	69				
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		Halstead, James, Ltd.	16	Semtex, Ltd.	53
		Harris & Sheldon, Ltd	47	Sharp Bros. & Knight, Ltd	56
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Canadian Government, The	28	Hills (West Bromwich), Ltd	36	Sundeala Board Co., Ltd.	8
Chemical Building Products, Ltd	65	Hope, Henry, & Sons, Ltd	11	Surrey Concrete Co., Ltd	66
Code Designs, Ltd	75 D				
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Costain, Richard, Ltd	35				
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				Teleflex Products, Ltd	51
				Thermacoust, Ltd	24
		Imperial Chemical Industries, Ltd	40 🖂	Thompson, John (Beacon Windows), Ltd. Thorn, J., & Sons, Ltd.	59
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		Janes, H. C., Ltd.	38		
				Venus Pencil Co., Ltd.	5
				Vere Engineering Co., Ltd	61
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Ellis School of Architecture	76	London Electric Firm, Ltd Lumenated Ceilings, Ltd		Webster, James & Brother	6
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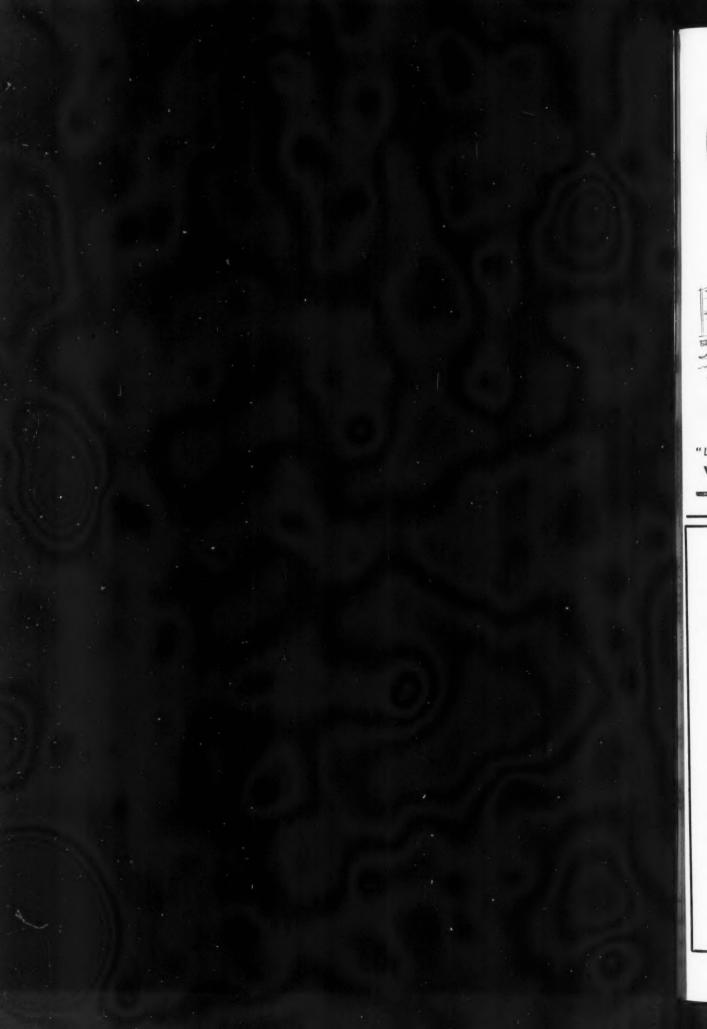
76 [51] 24] 63] 52] 49] 3

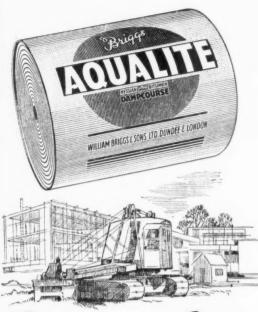
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