The Architects' JOURNAL for December 24, 1959

THE ARCHITECTS' JOURNAL

standard contents

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

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THE ARCHITECTURAL PRESS

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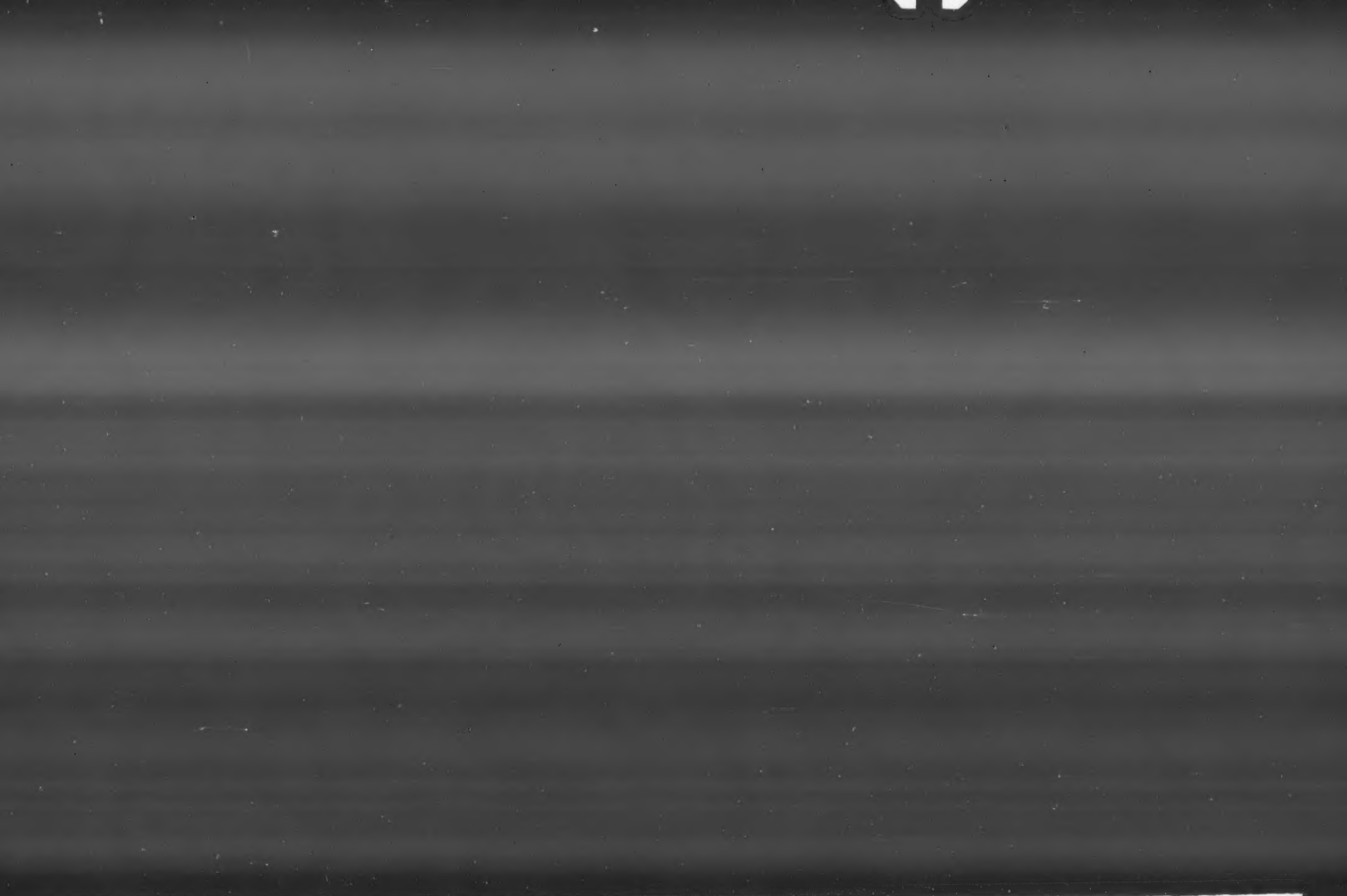
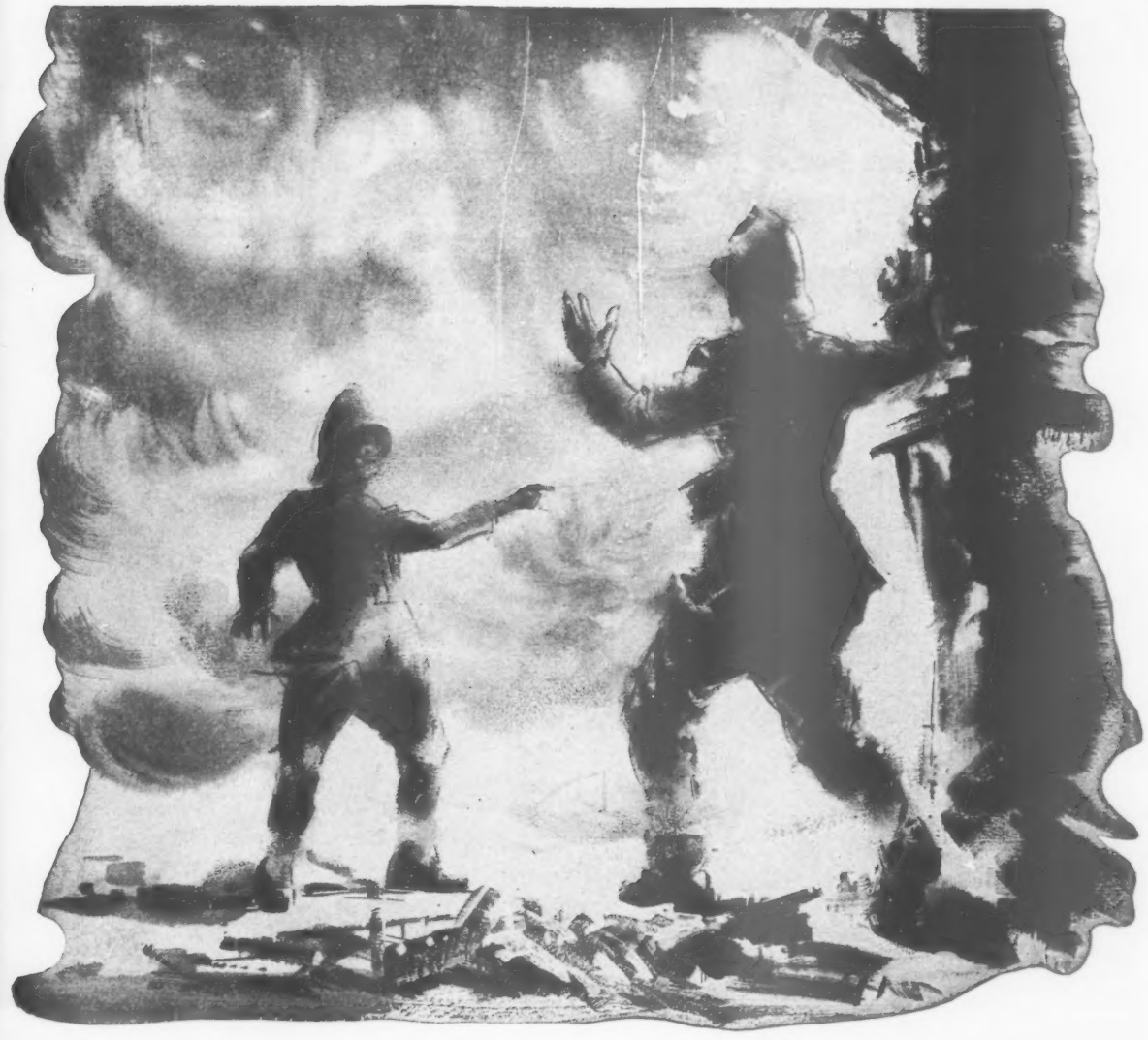
★A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ii one week, Il to Z the next. In all cases where the town is not mentioned the word LONDON is implicit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

ILA	Institute of Landscape Architects. 1, Park Crescent, Portland Place, W.1. Museum 3473
I of Arb	Institute of Arbitrators. Hastings House, 10, Norfolk Street, Strand, W.C.2. Temple Bar 4071
IOB	Institute of Builders. 48, Bedford Square, W.C.1. Museum 7197
IQS	Institute of Quantity Surveyors. 98, Gloucester Place, W.1. Welbeck 1859
IR	Institute of Refrigeration. Dalmeny House, Monument Street, E.C.3. Avenue 6851
IRA	Institute of Registered Architects. 68, Gloucester Place, W.1. Welbeck 9966
ISE	Institution of Structural Engineers. 11, Upper Belgrave Street, S.W.1. Sloane 7128
JFRO	Joint Fire Research Organisation (DSIR & Fire Offices' Committee). Fire Research Station, Boreham Wood, Herts. Elstree 1341/1797
LDA	Lead Development Association. 18, Adam Street, W.C.2. Whitehall 4175
LMBA	London Master Builders' Association. 47, Bedford Square, W.C.1. Museum 3891
MAFF	Ministry of Agriculture, Fisheries and Food. Whitehall Place, S.W.1. Trafalgar 7711
MOE	Ministry of Education. Curzon Street House, Curzon Street, W.1. Hyde Park 7070
MOH	Ministry of Health. 23, Savile Row, W.1. Regent 8411
MOHLG	Ministry of Housing and Local Government. Whitehall, S.W.1. Whitehall 4300
MOLNS	Ministry of Labour and National Service, 8, St. James's Square, S.W.1. Whitehall 6200
MOS	Ministry of Supply. Shell Mex House, W.C.2. Gerrard 6933
MOT	Ministry of Transport, Berkeley Square House, Berkeley Square, W.1. Mayfair 9494
MOW	Ministry of Works. Lambeth Bridge House, S.E.1. Reliance 7611
NAMMC	Natural Asphalte Mine Owners and Manufacturers Council. 14 Howick Place, Victoria Street, S.W.1. Victoria 1600 & 6477
NAS	National Association of Shopfitters. 2, Caxton St., S.W.1. Abbey 4813
NBR	National Buildings Record. 31, Chester Terrace, Regent's Park, N.W.1. Welbeck 0619
NCBMP	National Council of Building Material Producers, 10, Storey's Gate, S.W.1. Abbey 5111
NEFMAI	National Employers Federation of the Mastic Asphalte Industry. 21, John Adam Street, Adelphi, W.C.2. Trafalgar 3927
NFBTE	National Federation of Building Trades Employers. 82, New Cavendish Street, W.1. Langham 4041/4054
NFBTO	National Federation of Building Trades Operatives. Federal House, Cedars Road, Clapham, S.W.4. Macaulay 4451
NFHS	National Federation of Housing Societies. 12, Suffolk St., S.W.1. Whitehall 1693
NHBRC	National House Builders Registration Council. 58, Portland Place, W.1. Langham 0064/5
NPL	National Physical Laboratory. Head Office, Teddington. Molesey 1380
NRDB	Natural Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383
NSAS	National Smoke Abatement Society. Palace Chambers, Bridge Street, S.W.1. Trafalgar 6838
NT	National Trust for Places of Historic Interest or Natural Beauty. 42, Queen Anne's Gate, S.W.1. Whitehall 0211
PEP	Political and Economic Planning. 16, Queen Anne's Gate, S.W.1. Whitehall 7245
RCA	Reinforced Concrete Association. 94, Petty France, S.W.1. Abbey 4504
RIAS	Royal Incorporation of Architects in Scotland. 15, Rutland Square, Edinburgh. Fountainbridge 7631
RIBA	Royal Institute of British Architects. 66, Portland Place, W.1. Langham 5533
RICS	Royal Institution of Chartered Surveyors. 12, Great George Street, S.W.1 Whitehall 5322/9245
RFAC	Royal Fine Art Commission. 5, Old Palace Yard, S.W.1. Whitehall 3935
RS	Royal Society. Burlington House, Piccadilly, W.1. Regent 3335
RSA	Royal Society of Arts. 6, John Adam Street, W.C.2. Trafalgar 2366
RSH	Royal Society of Health. 90, Buckingham Palace Road, S.W.1. Sloane 5134
RIB	Rural Industries Bureau. 35, Camp Road, Wimbledon, S.W.19. Wimbledon 5101
SBPM	Society of British Paint Manufacturers. Grosvenor Gardens House, Grosvenor Gardens, S.W.1. Victoria 2186
SE	Society of Engineers. 17, Victoria Street, Westminster, S.W.1. Abbey 7244
SFMA	School Furniture Manufacturers' Association. 30, Cornhill, E.C.3. Mansion House 3921
SIA	Society of Industrial Artists. 7, Woburn Square, W.C.1. Langham 1984/5
SIA	Structural Insulation Association. 32, Queen Anne Street, W.1. Langham 7616
SNHTPC	Scottish National Housing. Town Planning Council. Hon. Sec., Robert Pollock, Town Clerk, Rutherglen
SPAB	Society for the Protection of Ancient Buildings. 55, Great Ormond Street, W.C.1. Holborn 2646
TCPA	Town and Country Planning Association. 28, King Street, Covent Garden, W.C.2. Temple Bar 5006
TDA	Timber Development Association. 21, College Hill, E.C.4. City 4771
TPI	Town Planning Institute. 18, Ashley Place, S.W.1. Victoria 8815
TTF	Timber Trades Federation. 75, Cannon Street, E.C.4. City 5040
WDC	War Damage Commission. 6, Carlton House Terrace, S.W.1. Whitehall 4341
ZDA	Zinc Development Association. 34, Berkeley Square, W.1. Grosvenor 6636





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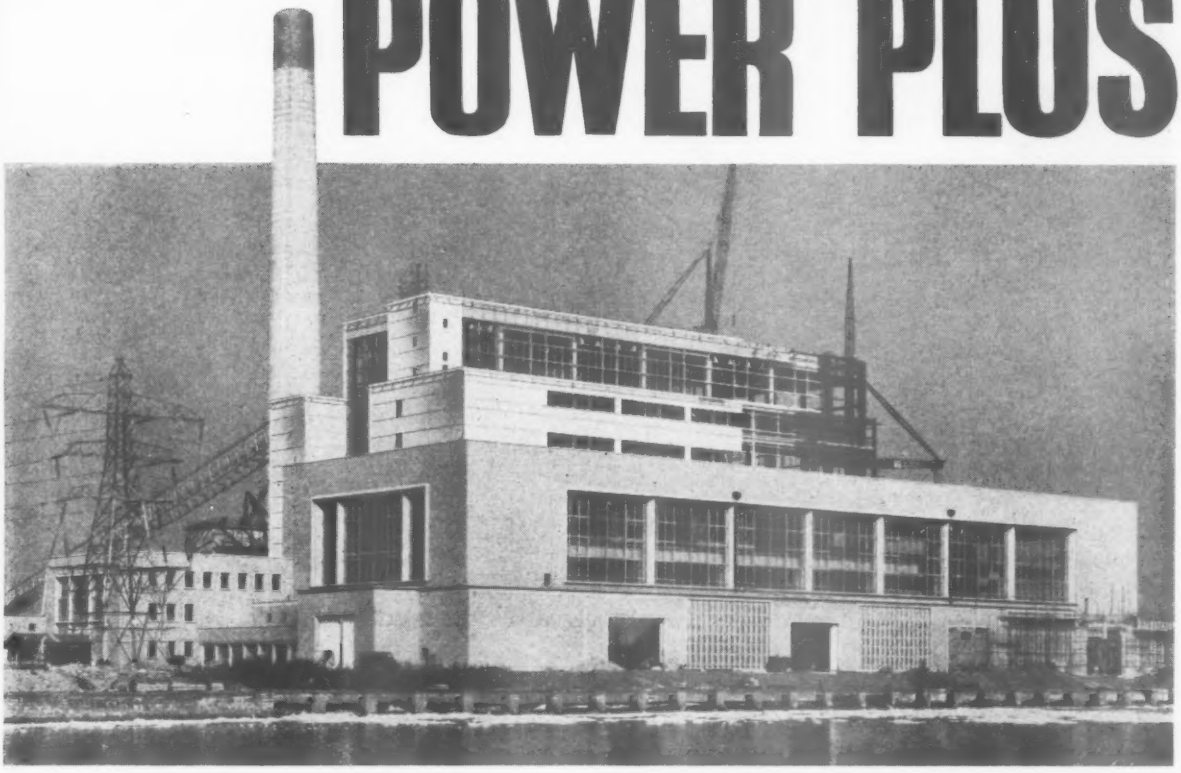

STAYTHORPE 'B' POWER STATION

For: Central Electricity Generating Board, Midlands Group.

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St. Andrews House,
Mansfield Road,
Nottingham.

Consulting Engineers & Contractors
Messrs. Balfour Beatty & Co. Ltd.

Acknowledgements to
Chief Project Engineer,
Mr. R. R. Maddock, B. Eng., A.M.I.E.E., A.M.I. [Mech. E.,
C. E. G. B. Midland Project Group.

With the aid of Febspeed Plus Cement Frostproofer bricklaying work proceeded on this contract throughout the 1958/59 winter. During the months of January and February, work continued with frequent cycles of freezing and thawing occurring, the lowest recorded working temperature being 28°F., falling at night to 17°F.

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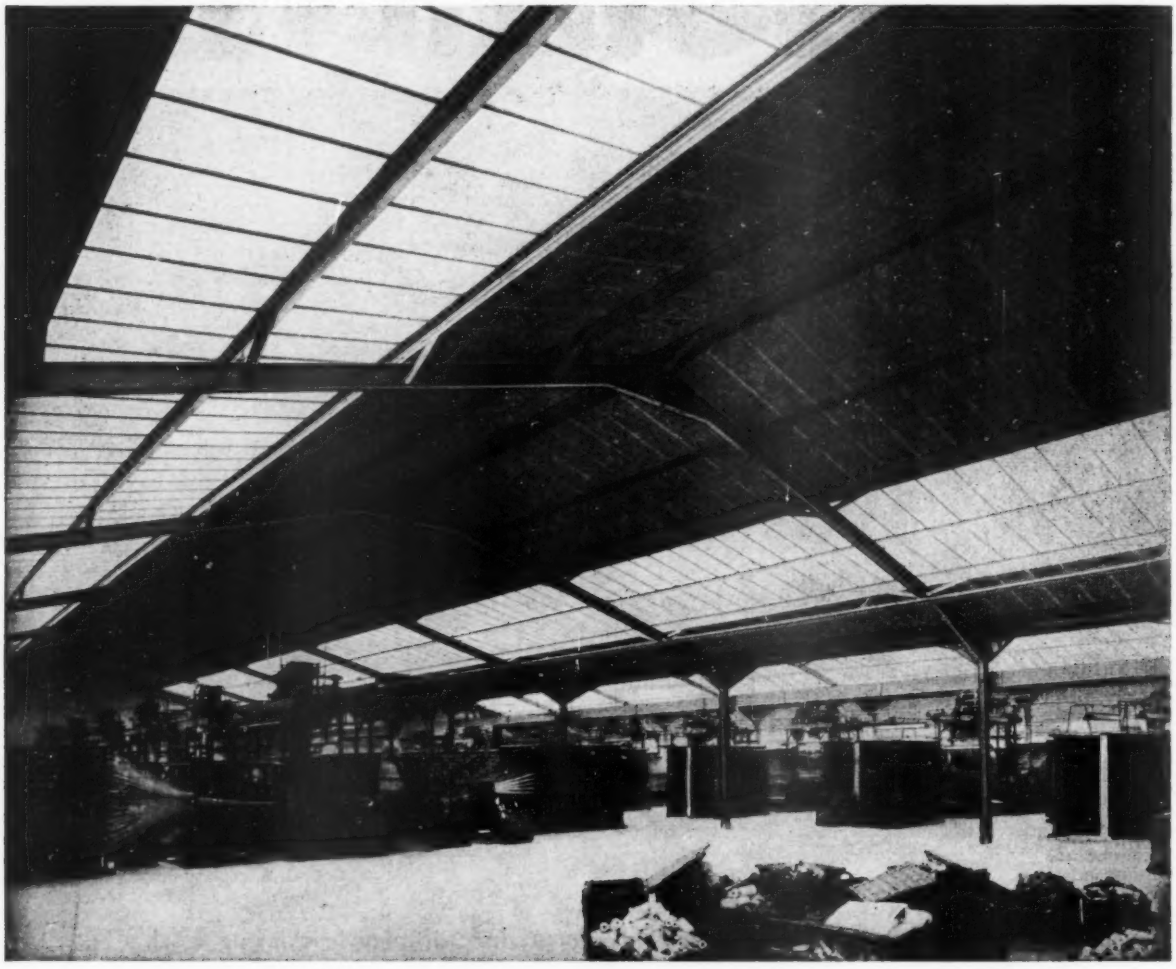

This is a typical Clearspan steel portal roof—light, clear and spacious. Yet Clearspan costs less than other forms of construction. As the subject of careful cost comparison in the "Architects' Journal", June 5th, Clearspan showed a saving of 3s. 4d. per square foot over its nearest rival, a total saving of £7,000.

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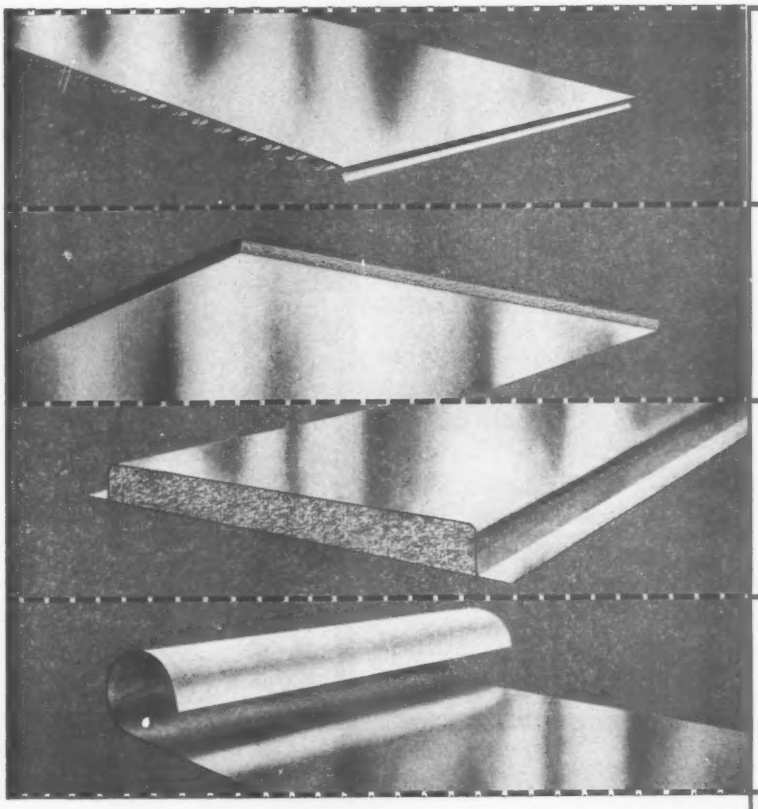

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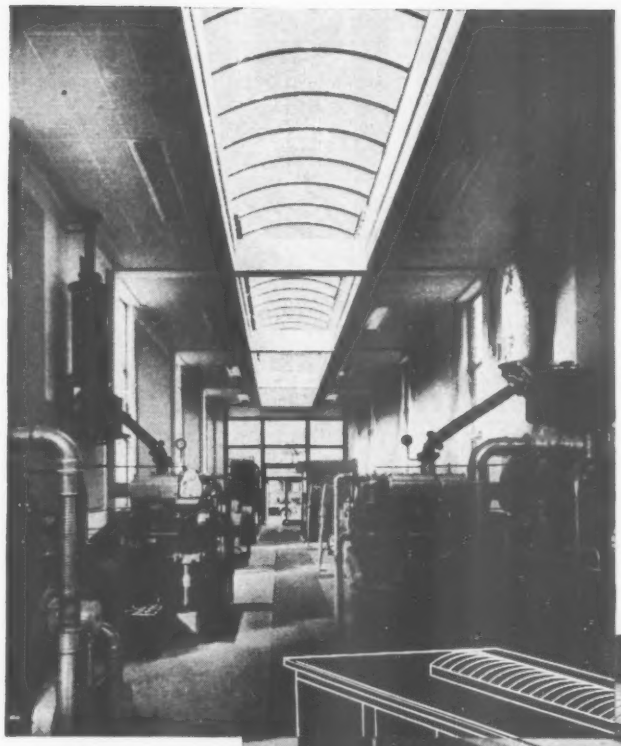

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Contractors: The Demolition & Construction Co. Ltd

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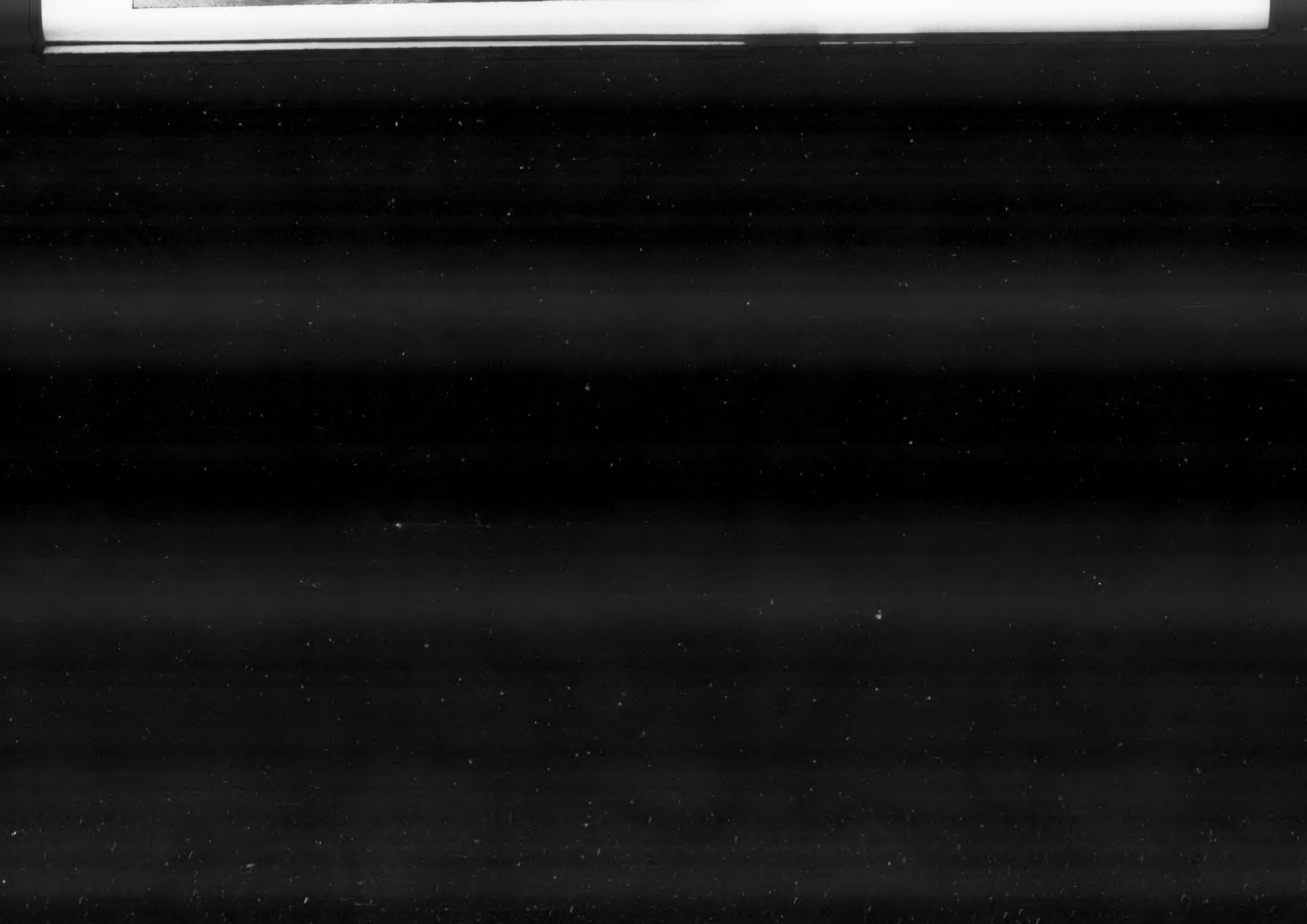

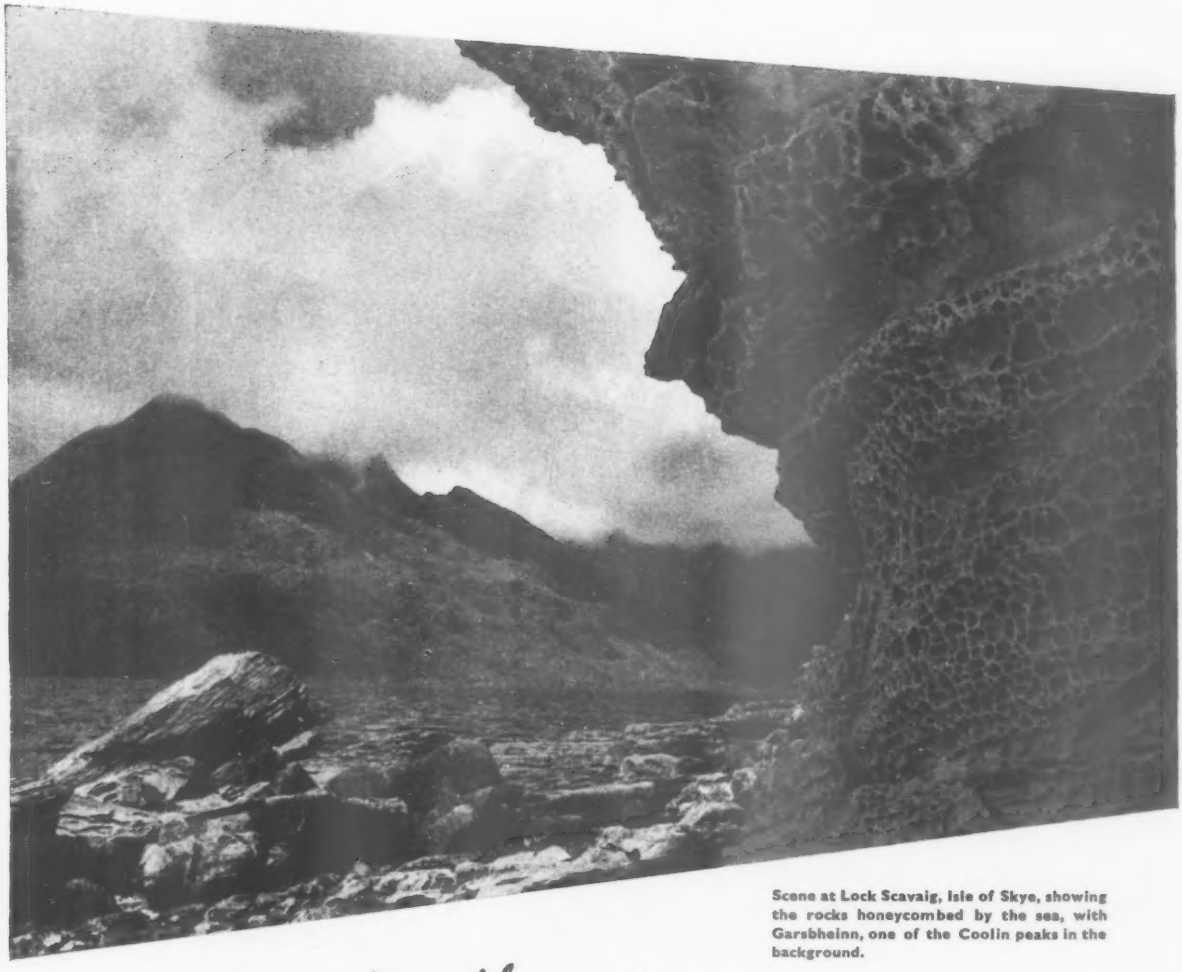

Scene at Lock Scavaig, Isle of Skye, showing the rocks honeycombed by the sea, with Garsbheinn, one of the Coolin peaks in the background.

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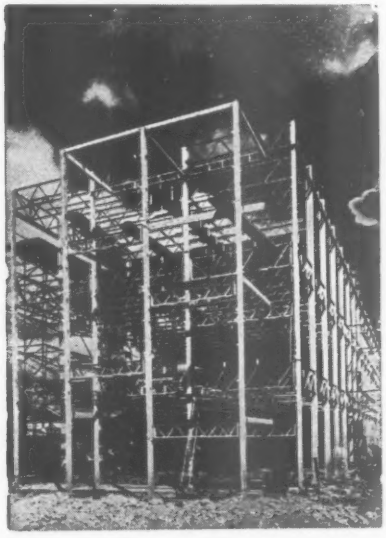
structural steelwork

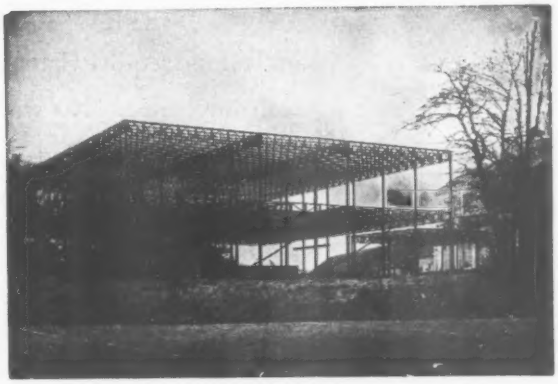
THE BOWATER PAPER CORPORATION LIMITED. The Architects for the new Office Blocks at both Mersey and Northfleet designed for Lattice Steelwork on a modular grid which allowed service lines to be run between floor and ceiling and gave complete flexibility for internal arrangements.

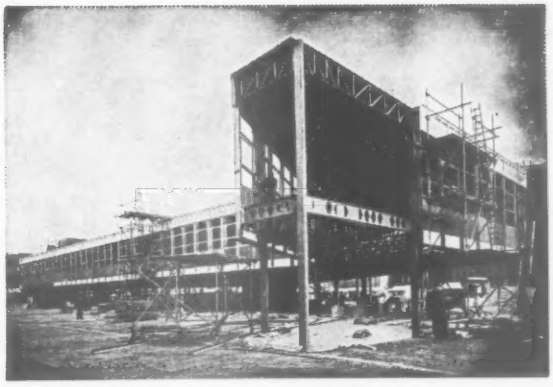
Architects: Messrs. Farmer & Dark.



YORK. For the City of York a Grammar School. Sommerfelds designed the Steelwork on a 3 ft. 4 in. modular grid allowing complete freedom for the Architect to use curtain walling and internal arrangements.

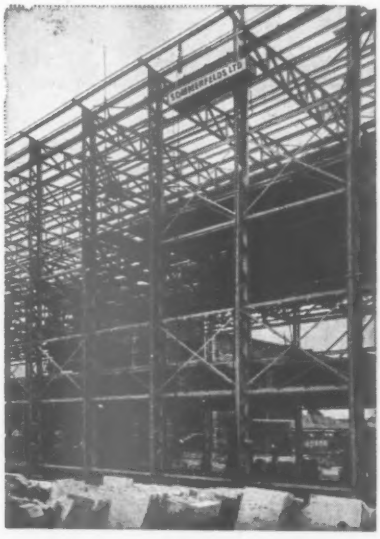
Architect: E. Firth, F.R.I.B.A., A.M.T.P.I., City Architect.





B.E.A. For this B.E.A. Building, speed was the essence of the Contract. Sommerfelds designed the Steelwork and from unloading the first lorry on site to the completion of a 250 ton steelwork erection took three weeks.

General Contractors: Messrs. Richard Costain Limited.



I.C.I. For I.C.I. a Laboratory Block. A multi-storey building with a height to eaves of 44 ft. and uninterrupted spans of 50 ft. on each floor. Deep Lattice Beams and light stanchions were used with considerable saving in steel requirements.

Architects: Messrs. J. Douglass Matthews & Partners.

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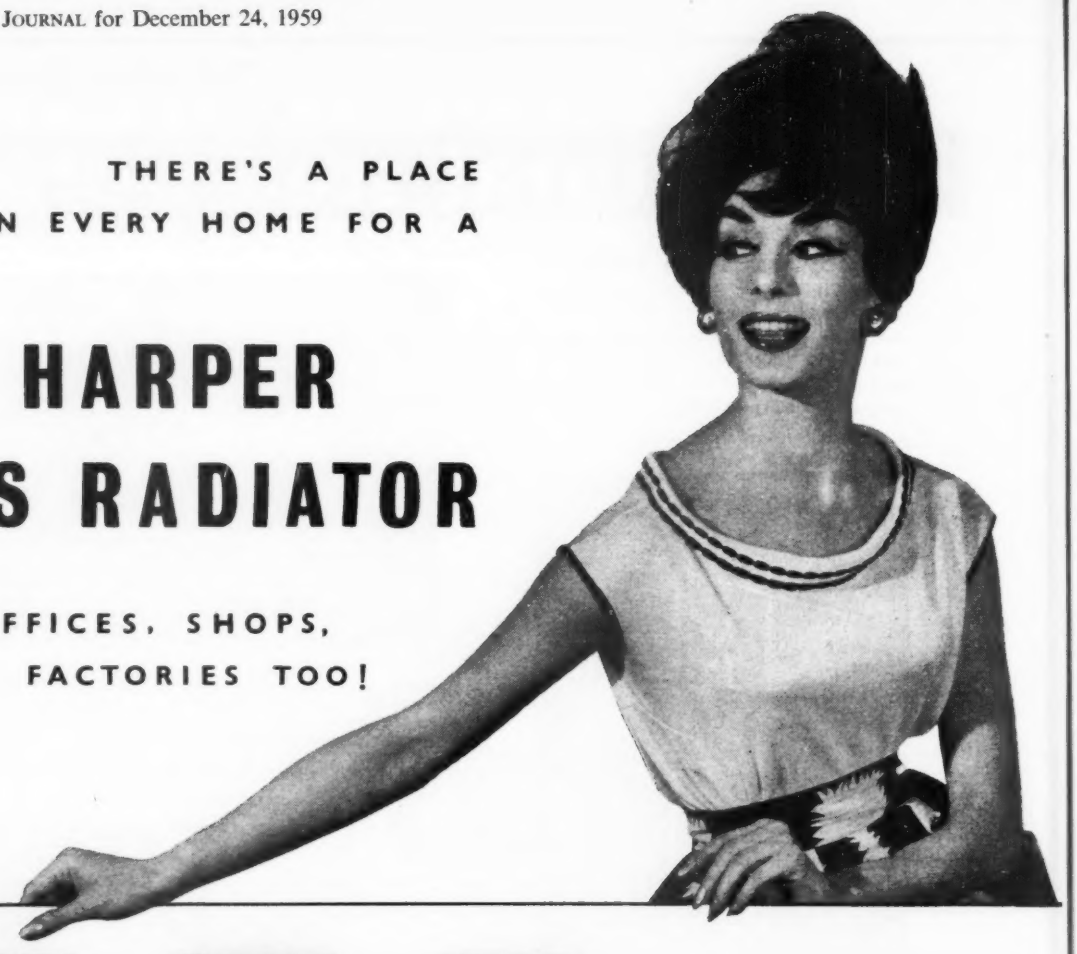
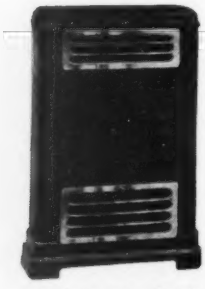
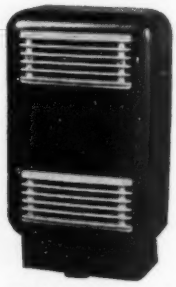


Model No. 3161. *Finish —Base and body heat resisting coinage bronze paint. Baffle vitreous enamelled. Louvres cream vitreous enamelled. Burner—cast iron with luminous bray jets.* ¾*in. gas inlet, can be fitted for R.H. or L.H. feed. Governor — constant pressure. Gas Consumption—*18 *cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour* 8,100 *B.Th.U. at* 500 *c.v. Dimensions—Height* 29½ *in. Width* 17½ *in. Depth* 7 *in. Weight* 42 *lb.*



Model No. 3160. *Finish —Heat resisting coinage bronze. The top louvre and the door (which has concealed hinges) are cream vitreous enamelled. Burner—cast iron with luminous bray jets.* ½ *in. B.S.P. inlet for R.H. or L.H. feed. Governor—Constant pressure. Gas Consumption* 12 *cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour—*5,400 *B.Th.U. at* 500 *c.v. Dimensions—Height* 25 *in. Width* 17 *in. Depth* 6¼ *in. Weight* 31½ *lb.*



Model No. 4008. *Finish —Base and body heat resisting coinage bronze or pearl blue. Baffle vitreous enamelled. Louvres cream vitreous enamelled. Burner—Cast iron with luminous bray jets.* ½ *in. gas inlet can be fitted for R.H. or L.H. feed. Governor—Constant Pressure. Gas Consumption—*8 *cu. ft. per hour at* 2½ *in. W.G. Maximum Output per hour—*3,600 *B.Th.U. at* 500 *c.v. Dimensions—Height* 20⅛ *in. Width* 2⅛ *in. Depth* 5⅛ *in.*

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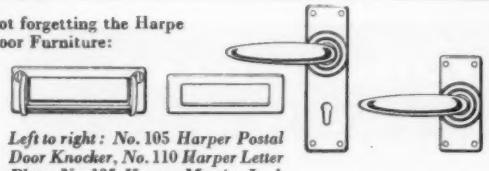

Left to right: No. 105 *Harper Postal Door Knocker, No.* 110 *Harper Letter Plate, No.* 135 *Harper Mortice Lock and No.* 130 *Mortice Latch.*

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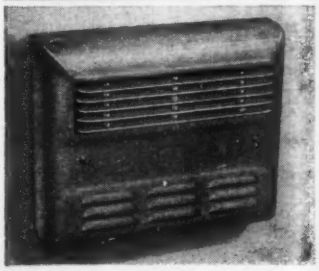

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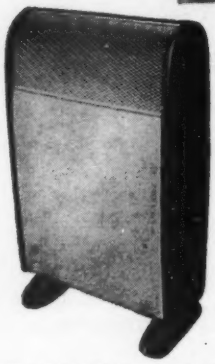

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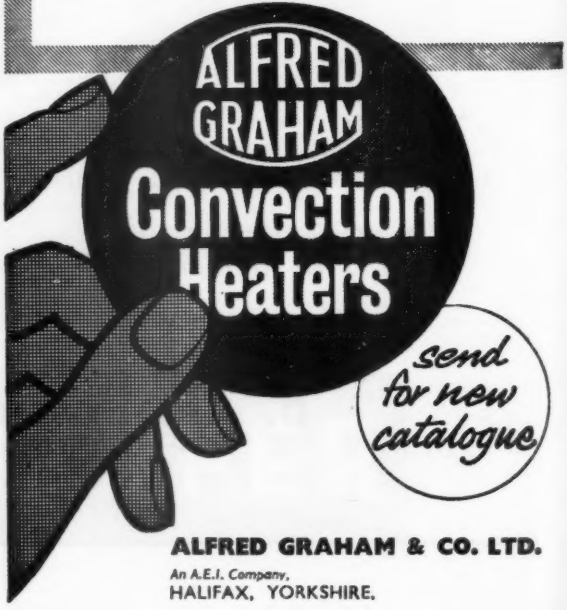

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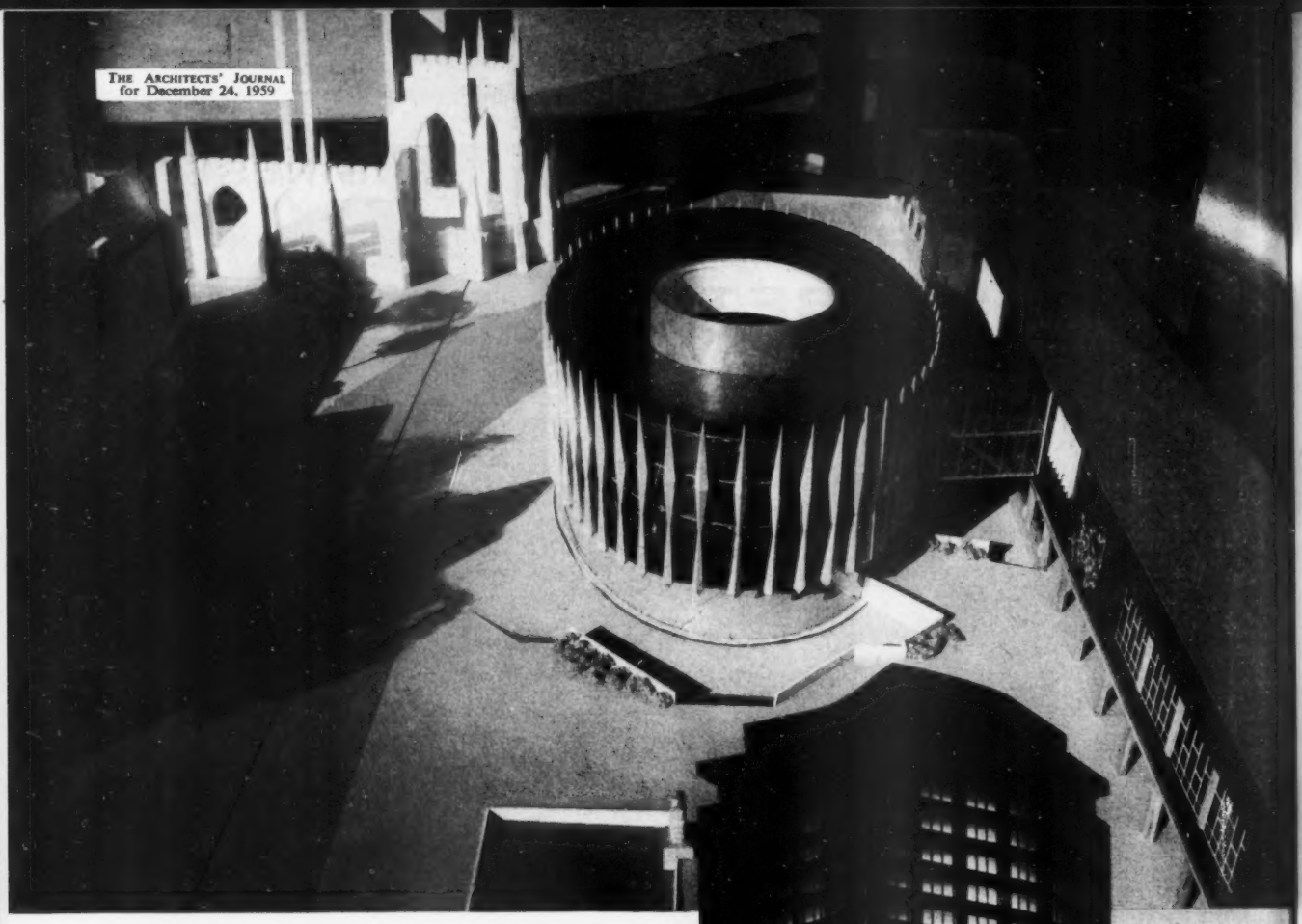

building preview of 1960

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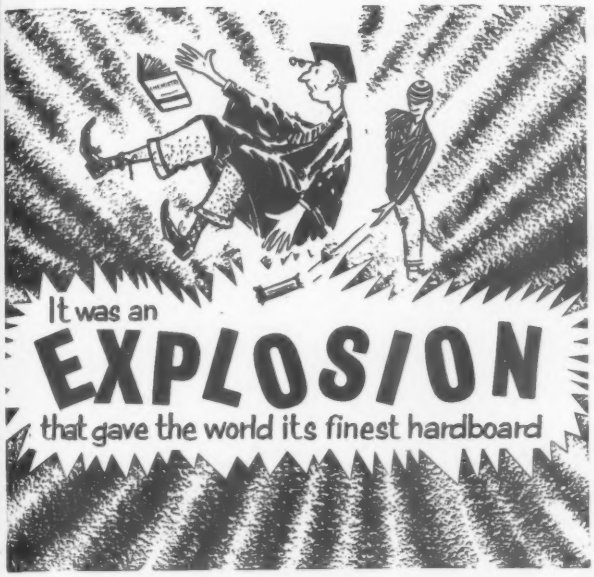

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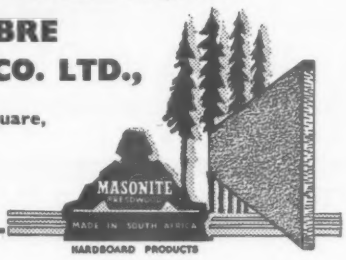

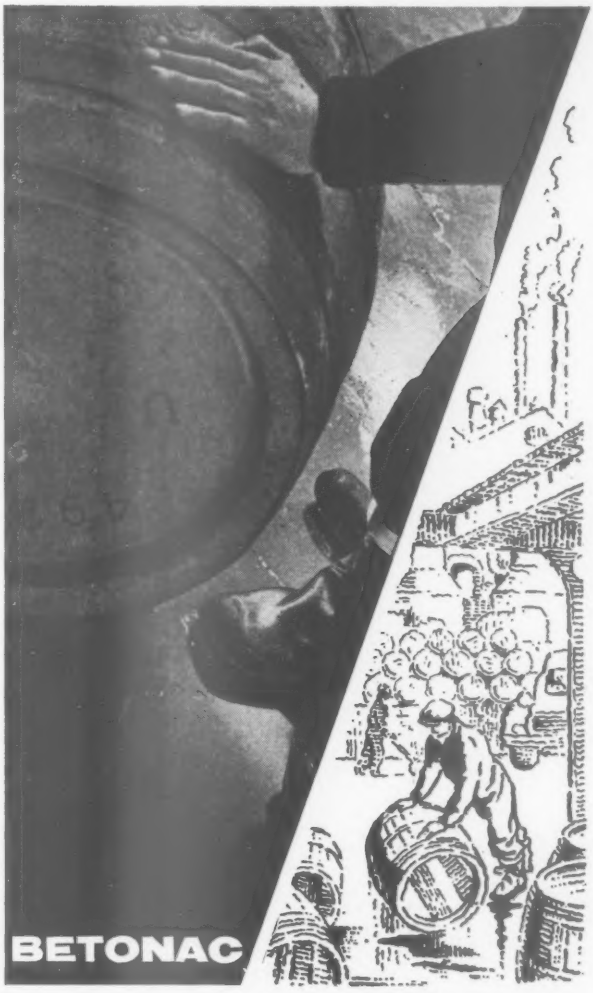

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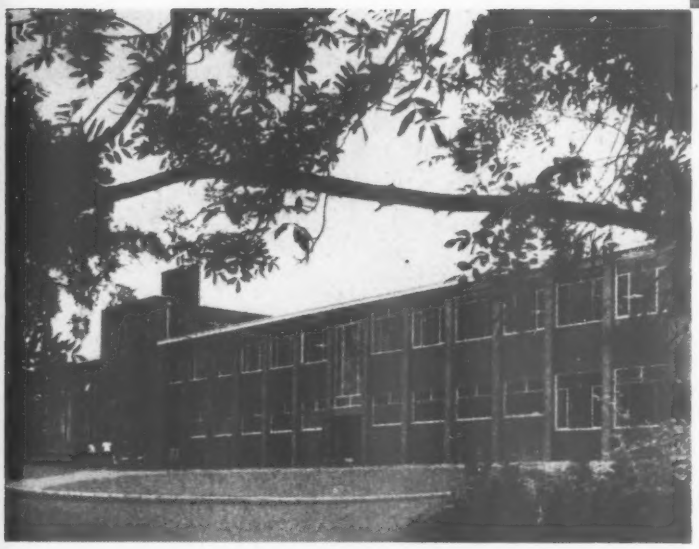

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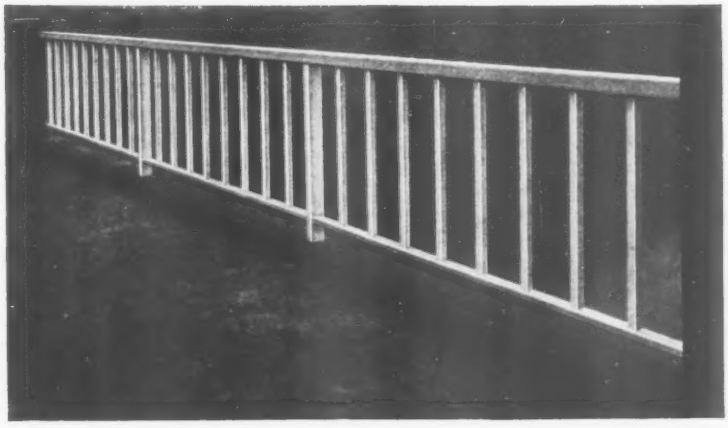
How they use *R·H·S* For Balustrading

Tubewrights Ltd., London, S.W.1.



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1⅛ × 1⅛	3½ × 1⅛
1⅞ × 1⅞	3⅜ × 1⅞
2½ × 2½	4⅛ × 2⅜
2⅜ × 2⅜	1⅞ × 13/16
2½ × 2½	2⅜ × 1
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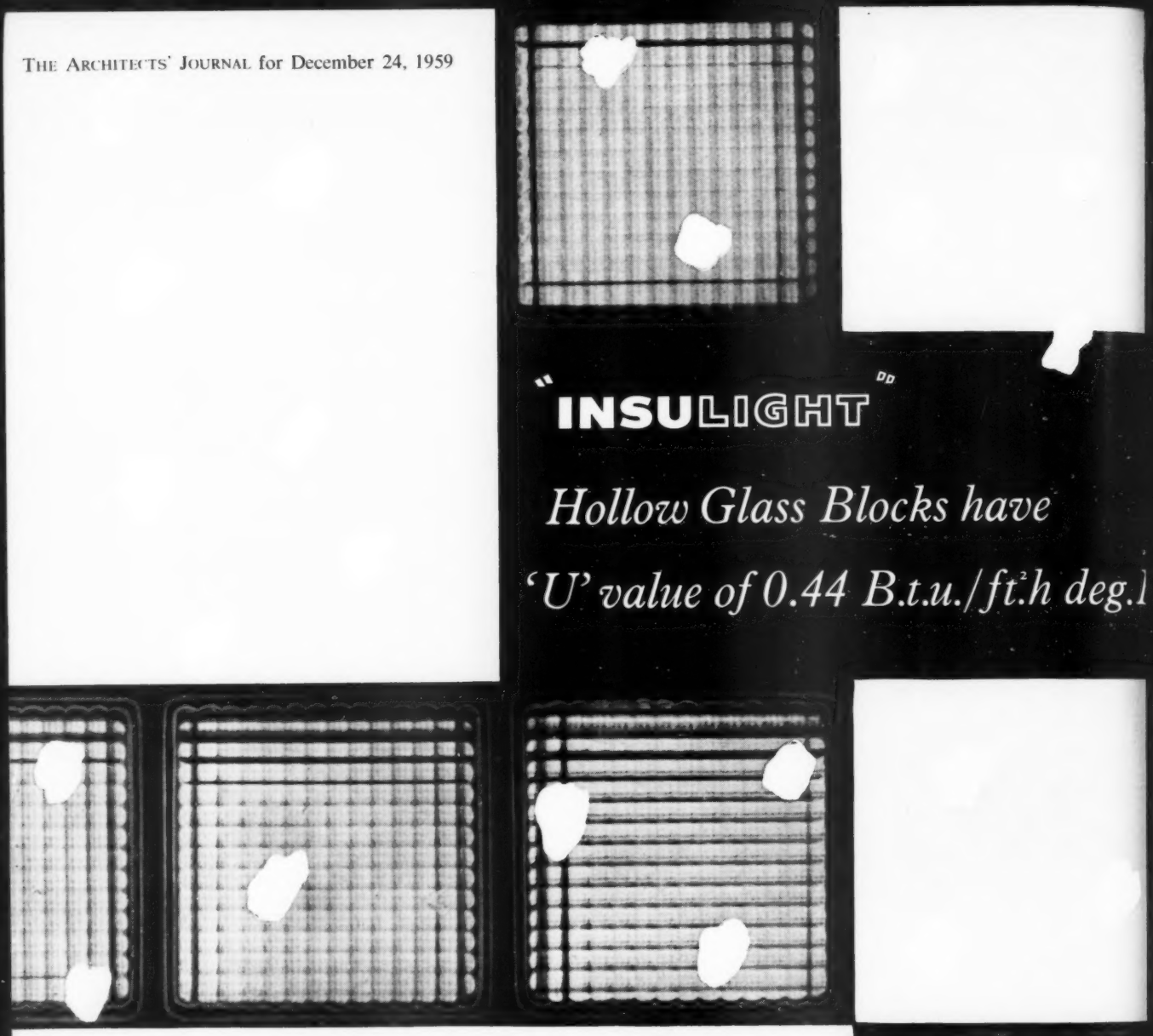

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The Architects' Journal

No. 3375 Vol. 130. December 24, 1959

9-13 Queen Anne's Gate, London, S.W.1. Whitehall 0611

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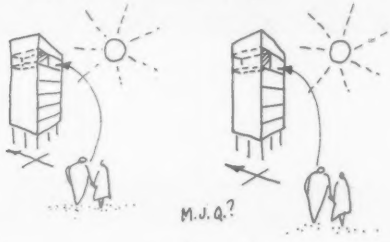
NOT QUITE ARCHITECTURE

A FREE HAND

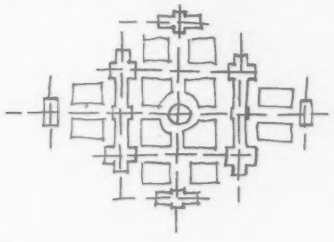
Observers of the architectural scene, and particularly the literary elements, are always agog, like seals anticipating fish, whenever a trend shoves its green shoots through the soil of muttering discontent. It must, therefore, be emphasized that this is not a statement, announcement or declaration, but merely an account of an established trend which every day in every way is getting more and more integral; specifically the free-hand illustration.

As ever, Corbusier has a lot to answer for. Undergraduate and other magazines specializing in the Higher Thought-Flow brim over with words like "architectonic" and "thus" and everything is clarified by a sketch (1) which bows in unblushing homage to the modular man, whose right arm is apparently as strong as ever.



1 2

The Mark 2 version (2) is basically the same, with a symbolist overtone reflecting a parallel in another Art Form, which these days is invariably jazz. Dave Brubeck is almost a cliché in this context (reflecting as he does the ultimate harmony of diverse elements in an overall pattern, etc., etc.) but the adjacent drawing has dragged in the Modern Jazz Quartet, thus enabling initials to be used:



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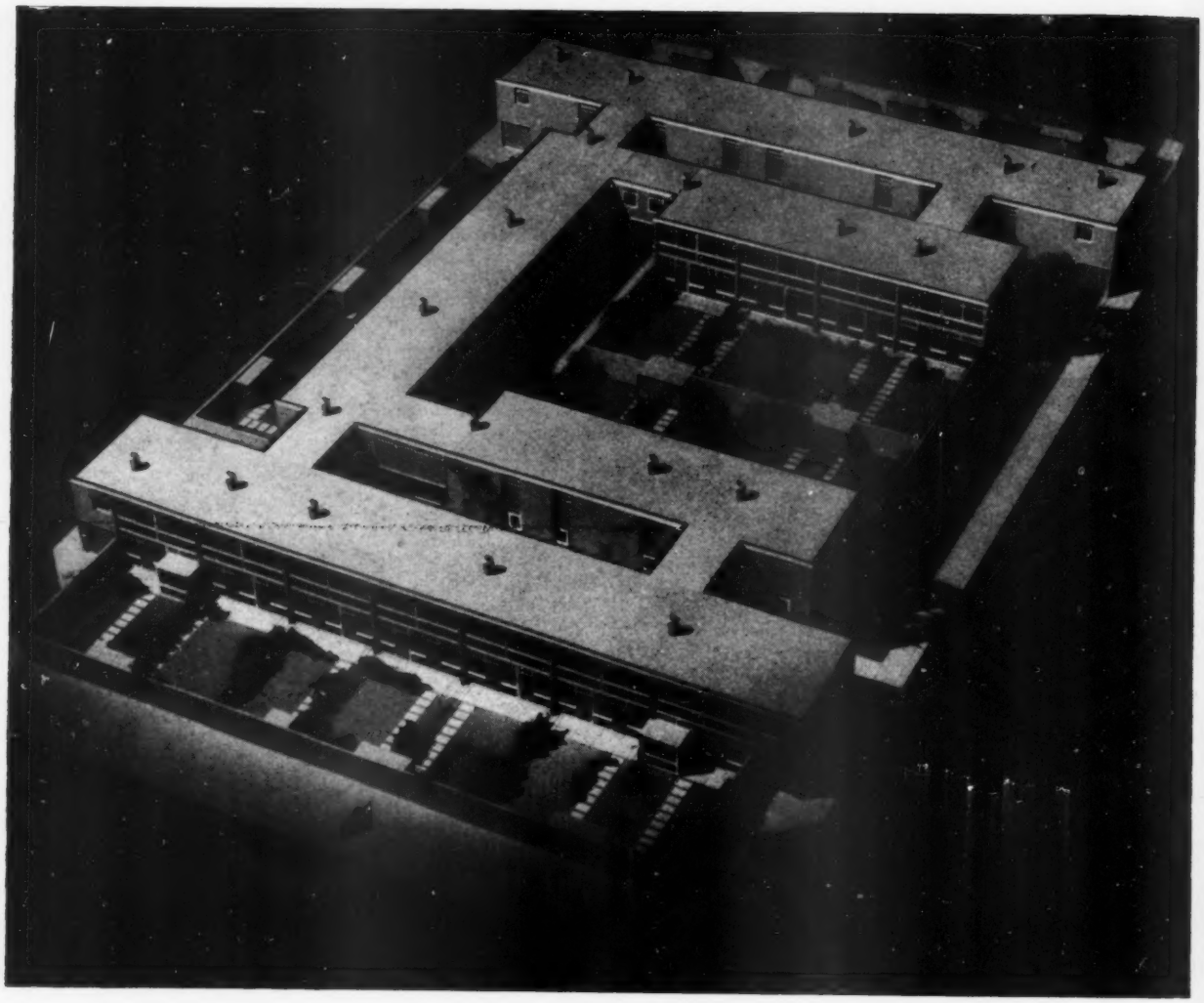


The Return of the Ginnel

Cut a slice one maisonette thick from three tall slab blocks, place them on the ground with the access corridor 15 ft. wide, but open to the sky, and you have compact terrace houses with gardens sited on a pleasantly intimate 15-foot footpath, as illustrated in the sketch left. The model shows an experimental design for these terrace houses and gardens at a density of 120 people to the acre by the Housing Division of the LCC Architect's Department. Here is a drastic reduction of a hitherto important, if arbitrarily decided dimension: the space between houses. By careful planning of the houses the LCC has skilfully shown that a reduction of space between terraces is not necessarily a reduction in standards, and have evolved a type of planning which will give much needed variety in the urban scene.

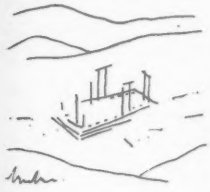
this produces a greater overall simplicity, and makes the thought more profound.

*

Despite 1959 theorising, there is still a place in our lecture rooms, journals and hearts for the Academic standard free expression (3) which presents to the world a system of axes and cross-axes. The example is purely typical, but the most common application of this technique is in the criticism of the development plan for the St. Paul's precinct.

*

Representational perspectives are in many ways much more fun than the I-say-look-at-this-principle demonstrations. Indeed, they are an essential part of any celebrated man's excursions into the fivepenny Sunday newspapers, where their function is to make a salient point about the glory that was somewhere, and why it isn't any more (4). Slick execution tends to overshadow subject material, as in the case of men who engrave Omar Khayyam on threepenny bits.



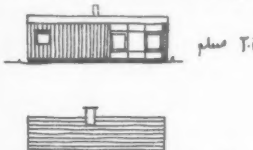
4

5

Perspective-with-moral is a much more angry proposition (5). It relies for its impact on barbed wire, advertisements, semi-s, Local Government and all the Ministries. It forms an abstract composition from real decomposition, but it is an adaptable medium and is often supplemented with arrows and comments so that we are, in a way, almost back to the Stylised post-Corb, with comment, although the Social Realism of it all is more immediately apparent.

*

Understandably, the small general practitioner in a far-flung outpost finds difficulty in relating his own work to these thumb-nail masterpieces; but occasionally he is inclined to doodle, ponder and weep (6).



6

What with the *Daily Mirror*, Alfred Wurmser and current publicity methods, it seems there may be something overall about this, and that the word as a means of communication is losing ground constantly to the visual image, a process which will certainly have the full co-operation of TV. Certainly it is an interesting thought and perhaps somebody will write a deep book on the subject, suitably illustrated.

ALAN PLATER

The Editors

THE SECRET COMPETITION

IN the system of " competition by tender " a local authority which has acquired a valuable site by negotiation or compulsory purchase invites selected developers to tender a ground rent and to submit a development scheme. An *ad hoc* committee of the RIBA considers that the system puts architecture in jeopardy, and is trying to devise a new form of competition that will eliminate its evil results.

It is objected that while a local authority may exceptionally accept a bid other than the highest, in virtually all cases the developer making the highest bid gets the site. The quality of the architecture becomes quite incidental, because the local authority nearly always chooses the scheme that offers the highest financial yield. This, it must be pointed out, is not peculiar to the development of local authority sites. If theatres and hotels are being pulled down and offices or shops going up in their place, it is because the financial yield on theatres and hotels is very much less than the yield on shops and offices. Nor is it any secret that some developers employ architects whose principal skill lies in achieving the highest financial return rather than the highest architectural quality. In competition by tender these evils are aggravated, for local authorities are using this method for the comprehensive development of large sites of exceptional importance where the primary aim should be to secure a civic improvement. This may well conflict with the developer's aims. One solution is surely to encourage local authorities, instead of discouraging them as at present, to carry out much of the development themselves, either through their own architects or private architects, and in consultation with prospective tenants. Why should the local authorities have to pay for all unprofitable development such as schools, open spaces and roads, but not be allowed to develop the profitable sites as well—particularly as local authorities will accept a lower yield than the commercial developer, and can therefore more easily give priority to good planning and architecture?

Where private developers are to lease the site the key to the problem is the separation of the bid from the architecture. Is it not possible for the local authorities, instead of putting up the sites to auction, to fix a ground rent on the advice of their valuers? They could then either invite developers and their architects to submit schemes, or hold an open or a

limited competition in circumstances where a fairly detailed schedule of accommodation can be prepared without the participation of the developers? We are not convinced by the argument that an open competition might saddle the developer with a strange architect; the same objection applies equally to all competitions.

A strange architect may be uncomfortable for a developer but it is an inevitable aspect of practice, and very desirable when it leads to new ideas being developed through the friction of strange minds.

One of the main reasons why the competition by tender system is out of favour however, is because there is no adequately developed yardstick for easily measuring the performance standards of designs submitted in competition. There is no adequate machinery for rapidly assessing the qualities of design in terms of lighting, heating, maintenance, noise levels and efficiency of layout, and so forth, which would cause the assessing of designs submitted to be more accurately done on a truly functional basis, and enable efficient performance to be equated with high financial return.

IN AND OUT OF STEP

The architectural profession rallied strongly behind the Civic Trust at the Piccadilly Circus enquiry. Elwyn Jones, the Civic Trust's QC, not only announced his intention to call Sir William Holford, Thomas Sharp, Furneaux Jordan, Jane Drew, and J. M. Richards as expert witnesses, but said he was ready to call a substantial body of the most eminent architects in the country if necessary. And Cadbury Brown was there for the Architectural Association.

Jack Cotton's secret weapon was Sir Howard Robertson, who was a confident witness when he was saying how nice Cotton, Ballard and Blow's building was, but rapidly deflated under cross-examination by Elwyn Jones. It put him in an awkward position, he confessed, when Elwyn Jones, having asked if he was not out of step with architects of distinction, produced *his* secret weapon—a letter signed by nearly 60 of the best known architects in Britain asking the Minister to reject the building.

*

Sir Howard accepted the description of the building as an advertisement hoarding. Asked how high a hoarding should be he said " unlimited." Asked about the possibility of signs being seen from Buckingham Palace he exhibited some concern for the privacy of the royal family (though none for the privacy of lesser mortals), and reduced the maximum height to " a reasonable height." Asked to define a suitable sign for a building over 100 feet he offered two suggestions: the letters " BOAC " or " a flag," and confessed that he wouldn't like to see any of the advertisements that adorn Jack Cotton's model or perspective on a building more than 100 feet high. And Shell, it seems, don't want advertisements on Sir Howard's own skyscraper.

IT ISN'T DONE

How much do you think it would have cost to be represented at the Piccadilly enquiry? Before the Civic Trust decided to take part a friend of mine thought of organizing a committee of objectors and asked a town planning consultant if he would represent them. The consultant said he thought the Town Planning Institute would consider it unprofessional for him to present a case and cross-examine witnesses. The Institute confirmed this, pointing out that a consultant should appear only as an expert witness. So if my friend had gone ahead and employed counsel (two, if one was a QC) and a solicitor it might well have cost him a thousand pounds. Is this what comes of having lawyers in the TPI?

WHY ARE WE WAITING?

For twenty-one years architects have waited eagerly for volume 2 of Fitzmaurice's *Principles of Modern Building*. But all that's turned up after this long wait is a revised edition of volume 1. Revision was certainly needed because there have been a lot of technical developments since 1938, but let's hope we don't have to wait for yet another revision before getting volume 2.

BRICKS INSTEAD OF CROPS

Forty thousand acres of farming land in Britain are being built on every year. So says Robin Best, of Wye College, who has been digging out some fascinating information on how many acres remain to be spoiled by nuclear power stations. It seems that three and a quarter million acres of farmland are used for such things as reservoirs, which are continuing to sprawl and to cover parts of the wooded and wild country as well. Twenty-four million acres of cropped and grassed agricultural land remain, but the *Economist* says that in the next fifty years towns will stop 20 per cent. of the agricultural output if they grow at the present rate. Even so, says the *Economist*, only 10 per cent. of the country is built on, and although sensible planning is needed, there should be no Canute-like attempt to hold back the full tide. How much land, I wonder, can we afford to urbanize and still have real country near enough for town dwellers to enjoy it?

JUBILANT MASONS

The London Association of Master Stonemasons celebrated their Golden Jubilee last week with a pleasant dinner and the minimum of regret for the past, although President D. H.

This perspective is a neat example of the skill of the artist in providing subsidiary interest in a sketch to distract the eye from the main purpose of it: depicting Frank Booth's latest interpretation of Cotton, Ballard and Blow's design for the Monico site, Picadilly. Even so, the unpleasantness of having two such axial designs as the County Fire Offices and the ad-palace alongside is easily discernible, as is the disastrous break in the skyline on either side of the squat block. An inspection of the early design drawings on view at County Hall last week was interesting. One low, unlit wing appeared empty save for the word "services," which also described the top floor over the restaurant wing. The office floors were 60 ft. deep in parts which would be unsatisfactory for daylighting and the main columns on the pavement differed in size and span on elevation and plan. Such details indicate the degree to which the design for this important site had been considered. In the latest drawings, the third set shown, prepared by Frank Booth, the fenestration had been improved, the crane on top removed, and, it was claimed, the podium reduced in height. The absence of a scale prevented this point from being checked. The draughtsmanship did not disguise the unpleasant proportions of the block and the inadequacy of the proposal in planning terms.

Thornton could not help rather wistfully wishing that architects did not make more use of stone and in greater thicknesses than two-inch ashlar. However, he did recommend that more research be done into new ways of using stone, which is a more positive approach. Sir Hugh Casson, replying for the guests, admitted to being the first architect to build in brick in Oxford, but for the good reason that every mason there was engaged in repairing the mistakes of both professions—a neat excuse from the man whom builders greet with relief as the architect who makes jokes with his mouth and not with his pencil.

PERIOD HUMOUR?

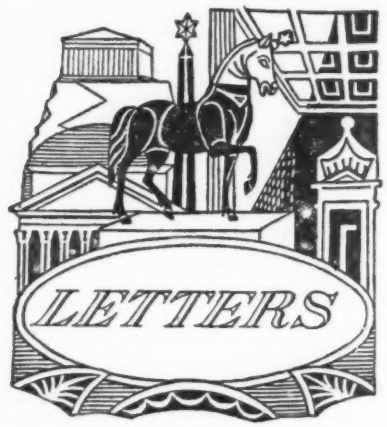
The Board of Trade's exhibit on the ground floor of the Coliseum exhibition building, New York, which will be the biggest display in the British exhibition there, opening in June 1960, is being kept as a surprise, but ASTRAGAL, having studied the FBI's handout, deduces from the subjects omitted from the trade and industrial sections that it will certainly include examples of our development in jet engines and atomic energy. The display, by the COI, will consist of "entirely new techniques," which is encouraging. Not so encouraging is the indication of the display in other areas given at last week's press conference, as my illustration shows. The co-ordinating designers are James Gardner and John Lansdell, the pair who handled the much-debated interiors of the Brussels exhibition. As at Brussels, apart from a portion of one floor, all the stands are independently designed to provide that visual chaos which some people profess to find stimulating, but which just appals ASTRAGAL.

Sketch by John Lansdell of a stand for "period" furniture at the British Exhibition in New York next June. See "Period Humour."

*

Emett's model railway of Festival fame is being refurbished, there will be a series of "English gardens" cartoons from Punch, and an "English inn . . . staffed by English barmaids will invite the American visitor to enjoy true British hospitality" in four bars designed in different period styles. A series of furnished rooms, again "period," will show "period" furniture, not antiques, of course, but the reproduction stuff which apparently still sells so well in America. Tucked away behind the "period" stand are the smaller stands showing contemporary furniture of which, no doubt, we are right to be diffident when showing in a country with the standards of the US. Although not referred to in the press handout, the COID are helping in the selection of the Government exhibit, so maybe there is still hope that things will turn out all right on the night. But ASTRAGAL can't help feeling that a few British intellectuals will be avoiding the eyes of sophisticated American friends next summer.

But let's forget the pains to come. ASTRAGAL wishes readers a relaxed and enjoyable Christmas and as happy as possible a New Year. ASTRAGAL



Alfred Levy, A.R.I.B.A.

B. E. Drake, A.R.I.C.S.

A. E. Ward,
Secretary, Institute of Registered Architects

Frederick Hill, F.R.I.B.A.

Schools at Coventry

SIR: In the first paragraph of his letter, Mr. Robson refers to the editorial introduction. It is not really for me to explain its meaning and I would have thought it was obvious. Mr. Robson's complaint apparently is that it is too obvious!

With regard to the article for which Mr. Drake and I were responsible, no claims for "new discoveries" were made. As the title indicated it was simply "An exercise in cost and programme planning"—a description of a procedure adopted to achieve two objectives which have hitherto been somewhat elusive: to determine at design stage how much the building will finally cost, and at working drawing stage when it will be completed. We realise that other architects have designed and built with traditional materials in a rational manner but this is by no means common practice; nor has the process been applied to the extent of producing a special form of working drawing and a precise method for the control of the building operations on the site.

The misquoting of the cost analyses figures makes me wonder whether Mr. Robson has given the article more than a cursory glance.

ALFRED LEVY

Coventry

SIR: Thank God someone read it.

That curious remark about "this approach which was first seen at Amersham" is contained in what is quite obviously the Editor's introductory blurb. Mr. Robson should re-address his enquiry.

I am not sure that Mr. Robson's comment on the accuracy of the cost analyses is in the best of taste but it is perhaps understandable since he has himself misquoted the figures contained in the article.

That these simple schools were neither extraordinarily cheap nor quickly built is true; we did not set out to make them so. However, the use of cost planning did allow us to obtain good value for money, as a reference to the specification notes in the cost analyses will show. I am delighted that Mr. Robson achieves similar standards, together of course with Architecture.

Only a determined misreading could have produced Mr. Robson's final paragraph. No doubt your readers will judge where the silliness and architectural pretensions lie.

B. E. DRAKE

East Horsley

Plans for sale to the public

SIR: My Council have had under consideration the recent competition as a result of which the public can now purchase books of the thirty selected small house designs and also the working drawings of any of them at a nominal cost.

It is understood that the organizers of this competition sought to improve the standard of design of small houses, to encourage the employment of architects by the public and to provide further opportunities for architects. My Council are fully in accord with these admirable aims, but share the concern of a number of architects who have written the Institute on the subject that this is not the most suitable or effective way of realizing them.

Concern is also felt about the possible effect of this scheme on architects in private practice and the cut-fee basis which results from its operation. My Council feel strongly that this whole idea is unfortunately conceived and should be re-examined.

A. E. WARD
Secretary
Institute of Registered Architects

London

Inefficient Advertising

SIR: When, Oh! when, will manufacturers realize that efficiency in sales organization is as much an advertisement as the glossy brochures they send out?

I regularly receive such literature in duplicate and recently one manufacturer even sent me three entirely separate and completely identical sets of literature. Apart from the appalling waste of man hours and material this does not lead any sensible professional man to respect the manufacturer concerned.

FREDERICK HILL

Birmingham

DIARY

The Rebuilding of Cities. Christmas Holiday Lectures for Young People by P. E. A. Johnson-Marshall at the RIBA, 66, Portland Place, London, W.1. Admission by ticket (free). 3 p.m.

DECEMBER 29 TO 30

Exhibition of Sculpture in Ciment Fondu. At the Building, Centre, 26, Store Street, W.C.1. UNTIL JANUARY 2

The Effect of Industrial Development in Rural Areas. RICS General Meeting at 12, Great George Street, London, S.W.1. 5.45 p.m. JANUARY 4

Architectural Education. British Architectural Students' Association annual conference at Churchill Hall, Stoke Bishop, Bristol 9. JANUARY 8 TO 10

PICCADILLY

Architects' Letter

A letter strongly urging the Minister of Housing and Local Government to reject the proposed building on the Monico site, Piccadilly Circus, or any similar proposal, was signed by nearly 60 well-known architects on the eve of the public enquiry.

The text of the letter, which read to the enquiry by Elwyn Jones, Q.C., counsel for the Civic Trust, is as follows:

"The historical and social importance of Piccadilly Circus to our nation and Commonwealth demands that any new building within it should be of good architectural quality. In our opinion the proposed building for the Monico site falls far short of achieving this. Moreover it appears to preclude any satisfactory comprehensive development in the future.

"We all, therefore, strongly urge that the Minister should reject this or any clearly similar proposals.

"We suggest that the Minister should set up an advisory group which would examine the unique function of Piccadilly Circus and, within a few week, recommend how best it can be developed.

"A number of us would be able to give evidence at the enquiry."

The signatories of the letter were: David due R. Aberdeen, J. M. Austin Smith, H. T. Cadbury Brown, Eric Brown, Derek Bridgwater, Sir Hugh Casson, Peter Corke, Kenneth Capon, Neville Conder, M. H. Cooke Yarborough, Peter Chamberlin, Denis Clarke Hall, Anthony Cox, James Cubitt, Frankland Dark, R. Llewelyn Davies, Trevor Dannatt, Jane Drew, J. Eastwik-Field, Cecil Elsom, Tom Ellis, Gebriel Epstein, Maxwell Fry, David J. Green, Alexander Gibson, Frederick Gibberd, Erno Goldfinger, James Gowan, William Howell, Bronek Katz, G. A. Jellicoe, John Lacey, Denys Lasdun, Alick Low, Eric Lyons, Cyril Mardall, James Melvin, Leonard Manasseh, Edward Mills, Peter Moro, Hildago Moya, Edward Playne, Philip Powell, Geoffrey Powell, Michael Powers, Frederick MacManus, Geoffrey Robson, Eugene Rosenberg, John Stillman, Peter Shepheard, Richard Sheppard, Peter Smithson, Gordon Tait, Rodney Thomas, Herbert Tayler, Ralph Tubbs, Bryan Westwood, Norman Westwood, F. R. S. Yorke.

MOHLG

Building By-Law Amendment

On December 4 the Minister of Housing and Local Government issued amendments to the model by-laws which enforce a somewhat higher standard of insulation in domestic buildings and lay down new requirements for flue pipes. These changes (which do not become law until they are accepted by each local authority) were proposed in draft a little more than a year ago, though in fact their substance has changed quite substantially in the meanwhile.

The original draft proposed minimum U values of 0·23 for the roof, 0·30 for walls and 0·40 for the ground floor. Commenting on these figures in a leader, the AJ remarked that they were not very low and guessed that the high figure for the floor was occasioned by MOHLG's unwillingness to face the cost of adding insulation to the traditional suspended timber ground floor. Be this as it may, MOHLG has evidently thought better of this matter and, though the new figure for the roof has risen to 0·25 and the figure for walls remains unchanged, that for floors has dropped quite spectacularly to 0·30. This figure can only be got by adding insulation. How much insulation is required of any given kind and in most common forms of construction is given in schedule form.

The new paragraphs concerning flue pipes merely set out to close a curious gap in our regulations. Henceforward flue pipes will be subject to restrictions which are analogous to those affecting chimney flues. The conditions are slightly less onerous in the final version than they were in the draft and it would be difficult to find fault with them.

The debate on traffic in the House of Commons on December 10 *was noteworthy for the recognition by several speakers of the fact that traffic is not merely a road engineering, but a town planning and an architectural problem.* Motropolis*, *the special issue of the* ARCHITECTS' JOURNAL *on this subject, was quoted with approval by the Minister of Transport and by Hugh Molson, the former Minister of Works. We publish below excerpts from some of the speeches made in the debate.*

COMMONS DEBATE TRAFFIC CHAOS

Recognition of the Architects' Role

Anthony Wedgwood Benn (Labour, Bristol South-East):

Over the last seven years, £2,400 million has been spent on new vehicles and £3,920 million has been spent on petrol and licensing, making a total of more than £6,000 million on buying vehicles and using them, whereas only £295 million has been spent on new roads—a mere one-twentieth of the total.

We have here one of the dilemmas and absurdities of the present situation. The community appears not to be willing—at least, the Government do not give it the chance to be willing—to devote what is required to its basic transport investment.

Before major projects for motorways, particularly urban motorways, are considered, the investment programme should be discussed in co-ordination with the British Transport Commission and, in London, the London Transport Executive. For instance, the Victoria tube scheme—here again, we hope for an announcement—would be not only cheaper by about half compared with an urban motorway, but it also would give us a much better return on our money. Every town planner now agrees that the urban motorway is not the answer to the transport problem in the cities. It is not possible to provide roads to allow everyone who works in our great cities to come in by car. There is a limit to what can be done. If one has unplanned urban motorway development, one may well attract traffic which a city cannot hold.

Now is the time to do in this country what is already recognized to be important in the United States, namely, to revive public transport and give it its status in the life of the cities. Motor traffic can kill cities in three ways. It can kill them by congesting the cities so that no one can move about in them. It can kill them by consuming the cities with great ribbons of concrete in the middle of them, driving everyone out. It can kill them by deserting the cities for rural shopping centres and for other forms of life, leaving the cities as ghost towns of the future.

If we allow office building to go on in the middle of London absolutely unchecked, as it has done in the last few years, it will become totally impossible to meet the transport needs of the Metropolis. As the Minister knows, 44 million sq. ft. of new office accommodation has been provided in London during the last 10 years, which is very nearly as much as the total factory floor space in Scotland and Wales for a comparable period. The magnet of London has been allowed to go on unchecked by anyone.

Ernest Marples, Minister of Transport:

Where are we going? In 1960, there will be 5½ million private cars. In 1975, it is estimated that there will be 13½ million private cars. That is a great deal. I agree with Mr. Benn about the number of people coming into London. Ninety four per cent come by public transport and 6 per cent by private car. Imagine what it would be like if those two were reversed. Therefore, whatever happens, we must now allow public transport in the heart of London to become disintegrated and go to pieces. If it does, it will be like Los Angeles, which has a population smaller than London's and which stretches 130 miles. If London was to be planned on the same scale as Los Angeles, it would stretch from here to the Lake District. We cannot do that and have great slabs of concrete, as the hon. Member said, dividing the heart of the community.

The problem was put best by the ARCHITECTS' JOURNAL, which said:

> "Is Motropolis, the motorized city, to be dominated and destroyed by the motor, or is it to be the city in which civilized man lives a civilized life, using the motor vehicle sensibly and economically as a tool for mobility?"

I agree wholeheartedly. It worries me a great deal.

This is not merely a road engineering problem. It is not merely the construction of roads or offstreet car parking. It is a design for living in the fourth quarter of this century. We must come to terms with the motor car without letting it destroy our way of life. We cannot allow it to grind the amenities out of existence. I have read a number of books on this subject. In one, which I consider to be the best, the author said that he was humbled by the size and scope of the problem. I am, too.

I have been thinking on these lines, and I ask hon. Members during the course of the debate to give me their views on these thoughts. Should we have a long-term study group, full-time, with no executive responsibility, to go not merely into the road programme, but to consist of architects and town planners, embracing both roads and amenities, to see which way we are going and how we can come to terms with this problem? I believe that something like that should be set up before it is too late and disaster overtakes us, as it has done some of the American cities. I ask hon. Members for their views about this.

Another reason for this is that road accidents, which the hon. Member for Bristol, South-East did not mention, are absolutely frightening. They sicken me. I do not think that an ultimate solution will be arrived at until the pedestrian is segregated from the vehicle. In the next 50 years, at the present rate and without any increase, 15 million persons will be injured and 300,000 killed. The point is that the casualties are increasing. They are not staying at the same rate. In October this year, total casualties were 17 per cent greater than in October, 1958. The corresponding increase in traffic was only 11 per cent. If the casualties go on at that rate, everybody could expect to be a casualty at least once in his lifetime. That is all the more reason for starting at a reasonably early date some sort of study group to consider which way we are going. The more violent the controversy, both outside and inside, the greater the clash of minds on this issue, the better it will be for the ultimate plan.

*Motropolis: reprints 1s. 6d. post paid.

Frank Tourney (Labour, Hammersmith North):
I live in Watford, which is an old-fashioned market town and has a main roadway running through it only 17 ft. wide, the pavements of which are about 6 ft. wide. Multiple shops have taken possession of the old property and have rebuilt on the existing building line because of the high value, and the problem of the local corporation is that it cannot buy out these people because it cannot afford to pay compensation.

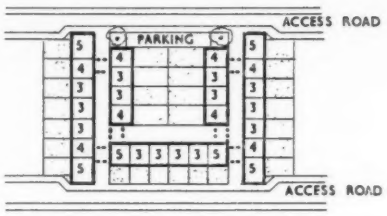
Geoffrey Johnson Smith (Cons., Holborn and St. Pancras South):
I cannot claim, certainly on this occasion, that he who is tired of Holborn and St. Pancras South is tired of life, but I do claim that within the boundaries of my constituency one will find as rich a microcosm of London life and human endeavour as one will find anywhere else.
It has its railwaymen, its university men and women, its doctors and nurses at some of our most famous hospitals, its lawyers at the Inns of Court, its traders and retailers both large and small, its publishers, its office workers, its famous restaurateurs and hoteliers, not to mention the diverse racial groups which live there. It is a shocking indictment of this automobile age that this cosmopolitan area should find the very fabric of its life rent and in danger of being torn asunder by the traffic which clogs its streets.

Hugh Molson (Cons., High Peak):
Let me begin by saying a few words about long-term policy. I very much welcome what my right. hon. Friend said about a study group. If he has not already done so, I ask him to read a most remarkable article in the ARCHITECTS' JOURNAL of October. This makes it plain that this matter is not merely a traffic matter but a matter of the planning and construction of our cities in the future. My right hon. Friend will have to secure the co-operation not only of the Minister of Housing and Local Government but also of all the local authorities in the country. Until recently there was far too little co-operation. . . . it would cost £45 million to provide the off-the-street parking accommodation for even the 30,000 long term parkers of today. When we consider the future, that figure of £45 million may be doubled, trebled, quadrupled or multiplied even more. It would involve the demolition of London. Let us make no mistake, the people of London and the amenity societies are not prepared to tolerate the demolition of the whole of London merely to suit the convenience of commuters. The same thing applies to other towns, resorts and any places to which people go.

LCC

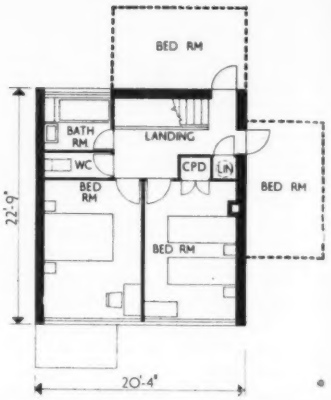
Terrace Housing

With the aim of providing as many houses with gardens as possible in areas of high density the Housing Division of the LCC Architect's Department has designed this layout of two-storey terraced houses, some of which are separated by a pedestrian way only 15 ft. wide. It is emphasised that this is an experimental design and that its approval by the appropriate Committees of the Council, which is in principle only at this stage, must not be taken as an indication of any general relaxation of the Council's standards for the widths of streets.

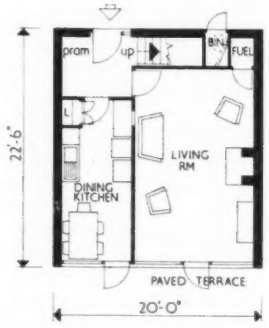


Site plan. The figures indicate the number of habitable rooms in each type. The 5-roomed houses at the end of the terraces adjoining the access roads have garages. Each bridge contains two bedrooms, separated by a party wall. The parking and garage provision is 25 per cent.

The basic type arrangement shown, which can be adapted to a certain extent to suit special site conditions, has an approximate density of 120 persons per acre and contains a mixture of various sizes of dwellings. This is achieved by the use of houses in which all habitable rooms face one way and which can be sited close to one another and by the elimination of roads. Most of the houses are sited on either side of a central footpath and, as no habitable rooms face on to this, preliminary approval has been given to the houses being only 15 ft. apart subject to certain restrictions upon the length of the footpath and to there being satisfactory access from a vehicular street. At intervals the footways are crossed at first floor level by bridges containing extra bedrooms. The main windows face outwards, over the gardens.
Apart from providing houses with gardens to a high density, the scheme should produce a pleasing environment with a closely-knit and definite character. The bridges play an important part in unifying the terraces, and add interest to the footpaths, which by being 15 ft. wide should be pleasantly proportioned and intimate in scale. Attention will be given to paving and creepers will be planted against the walls; Glazed panels at the front doors and a few small windows will prevent a completely dead pan look and ensure that the presence of the houses is felt outside.
The relation of the layout with the surroundings will require careful integration to ensure that the footways to a great extent remain private for the use of tenants. At the same time, the internal planning of the houses makes the staircase, landing and bathroom an effective sound barrier to the remaining rooms.
The east/west orientation, and size of the unit, impose limitations, and extensive repetition would be monotonous. However, it is envisaged that the layout might be used as part of comprehensive schemes where other higher buildings would allow for communal facilities such as playgrounds and open spaces.

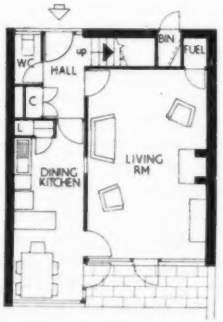


Upper floor plan of types 3, 4 and 5 (2, 3 and 4 bedrooms). The third and fourth bedrooms in types 4 and 5 are on bridges over the footpaths and are shown in outline.



Ground floor plan of types 3 and 4 (2 and 3 bedrooms).

Upper floor plan of type 5 (4 bedrooms) only at end of terrace with garage under.



Ground floor plan, type 5 (4 bedrooms), at end of terrace; the extra bedrooms on the first floor are over a garage, or on bridges.

The result of the competition organized by the Roads Campaign Council for the design of a system of motor roads and parking garages in the County of London is as follows:

First prize (£2,000) *J. A. Proudlove,* M.Eng., M.I.Mun.E., *lecturer in Civil Engineering at Liverpool University.*

Second (£1,000) *W. K. Smigielski,* M.T.P.I., Ing.Arch. (*Warsaw*), *head of the Department of Town Planning, Leeds School of Architecture and Town Planning.*

Third (£500) *I. W. Morrison, Canberra, Australia, engineer and town planner* (*in association with A. S. Travis,* A.M.T.P.I., *town planner with the LCC*).

The other two finalists in the second stage of the competition, who each receive £250, *were Dr. P. Brigham,* A.R.I.B.A., T.P.Dip., *Gerald Latter,* A.R.I.B.A., *both of London, and Bruce Mecartney, Bachelor of City Planning, University of Pennsylvania, and I. Boileau,* A.M.T.P.I. (*Senior Lecturer Town Planning, Sydney University*), *G. Chadwick,* B.Sc., A.M.T.P.I., A.I.L.A., *lecturer in Town and Country Planning, Manchester University, and F. Medhurst,* A.R.I.B.A., A.M.T.P.I., *lecturer in Town and Country Planning, Manchester University.*

The assessors were Professor Sir William Holford, F.R.I.B.A., M.T.P.I., *Professor W. Fisher Cassie,* F.R.S.E., M.I.C.E., *and Colin D. Buchanan,* A.R.I.B.A., A.M.I.C.E., M.T.P.I. *The jury's award was unanimous.*

We publish in this issue the five finalists' schemes and a summary of the conditions and an article in which an architect-planner draws some important conclusions from the competition. He has also contributed comments on each of the five finalists' schemes, with each of which we give the appropriate excerpt from the assessors' report.

RESULTS AND APPRAISAL OF THE

LONDON ROADS COMPETITION

The Conditions

Competitors were required to draw an outline plan showing their long-term proposals for urban motorways and parking facilities in the County of London. In detail they were asked to show, in an area not more than 1½ miles square, how the proposed general scheme of development related to the outline plan. At the final stage they were required to illustrate, with models and drawings, "detailed treatment of the motorway related to its immediate surroundings" in part of the selected area. This had to show either a major interchange between two motorways or an access point between a motorway and the existing street system and, in addition, a major off-street parking facility, improved circulation on the existing streets, and short-term parking space related to the normal street system.

The competitors were advised that a network of urban motorways might offer the only means of handling road traffic safely and economically, and were advised to design them for flows of over 1,000 vehicles per hour per lane. As these volumes can only be achieved in comfort at a limited speed competitors were advised to adopt relatively low design speeds in central areas. The choice of new routes was to be based on (*a*) a 1954 traffic count, increased about 300 per cent to allow for expected increases; (*b*) existing and proposed future development of land, bearing in mind that the LCC's decentralization policy would not of itself solve London's traffic problem; (*c*) road development proposals outside the County boundary; (*d*) existing and proposed public transport facilities and (*e*) topographical and geological features. It was suggested, inter alia, that urban motorways should have frequent access points to serve short journeys, that car parking and other terminal facilities needed direct access to the motorways, and that the demand for parking might rise to 18,000 vehicles to the square mile. No estimate of cost was required, but the assessors had regard "to the general economic assessment of land property and historic values made by each competitor."

An Appraisal by an Architect Planner

This competition has proved a most useful exercise. For the first time the talk about urban motor roads in London has been translated into specific plans, and we are able to assess far more accurately their feasibility, the contribution they would make to the solution of the whole traffic problem and the creation of a new urban scene, and their cost in terms of money and the destruction of civilized values.

Competitors were required to design a plan for motor roads and parking places in London. As the promoters are campaigning for the construction of motor roads they naturally want to know what a motor road plan would look like, and there is no ground for complaining that competitors should have been asked to design something else. But the conditions were far too narrowly drawn, because a motor road plan must necessarily form part of a comprehensive transport plan, which must itself be an integral part of a radically revised development plan.

Probably nobody doubts that urban motor roads are essential for the segregation and movement of traffic. But are they feasible in central areas? And what happens when the vehicles have left the motor road. How is the free movement of pedestrians to be reconciled with the need for motor vehicles to penetrate to, and to serve, nearly every building in the city? Unfortunately the conditions required an engineering rather than a planning solution. They did not mention pedestrians or the need to segregate vehicles from pedestrians, and produced no new ideas on the reconciliation of this conflict.

Inevitably the competitors had to be given some data to work on, and they were in fact asked to design for a daily movement of 120,000 vehicles in an average hour in both directions crossing the cordon line bounding central London. This is about three times the estimated traffic in 1954 (traffic volumes have not increased greatly since 1954, owing to congestion). The winner's scheme is designed to deliver about 43,000 v.p.h. in each direction on motorways, while the existing street system continues to deliver about 25,000 vehicles an hour (which shows how little conditions would improve) and provides for 120,000 parked vehicles, more than double the present number.

But the design data is necessarily arbitrary. Why should the number of vehicles coming into central London be nearly trebled? Is the increase to consist largely of daily motoring commuters, and if so, is this desirable? Granted that an improved road system including motor roads is necessary, even to cope with existing volumes and to liberate the pedestrian, is it not preferable to move more commuters by improved public transport? How much can the relocation of homes, workplaces and entertainments affect the daily traffic flow? How would a new road system affect development? These are questions that can only be answered by a far more intensive and comprehensive study than any competitors could be expected to undertake.

Competitors were required to respect "historic values," but not the equally or more important living values of existing precincts, neighbourhoods, communities or other social groups. Nor was there any reference to the three-dimensional implications of urban motorways. The first prize-winner may well have produced the best traffic engineering solution, within the terms of the conditions, but he has not made life very much better for the pedestrian. The second prize-winner produced a town-planning solution, and tried to solve the basic pedestrian-vehicle conflict in detail, with a bold and imaginative three-dimensional plan for Soho and the West End. But by doing so he really went beyond the terms of the competition, and by advocating a policy of higher plot ratios and increased concentration at the centre he went far to ensure the failure of his enlightened ideas on town design.

A feature common to most of the finalists' schemes was the use of the main line railway termini for garages or motorway termini. This model shows Euston Station used in this way in the scheme by Brigham, Latter and Mecartney.

If this competition has revealed anything it is the immense complexity and difficulty of the task that was set and the problem to be solved, so it is not very surprising if none of the solutions can be accepted as satisfactory, or that any one of them can easily be criticized in detail. The difficulties are well illustrated by the variety of solutions adopted by the finalists, each of whom bases his scheme on different principles, although some features are common to most—siting motor roads over or parallel to railways or main roads, elevating motor roads and using the main railway termini for multi-storey garages.

Disrupting neighbourhoods

The only competitor who tries to sink his motor roads (in an attempt to avoid their disrupting visual and social effects) runs into serious difficulties. It is significant that the winner abandons the theory of the inner ring road and radials, which formed the basis of the Abercrombie plan, in favour of a system of radials coupled in pairs at a tangent to the centre—a theory which, it must be said, it is difficult to reconcile with the plan he shows on the ordnance map.

None of the finalists is entirely successful in respecting existing precincts or neighbourhoods or in avoiding substantial demolitions of recent building. If we want omelettes we shall have to break eggs, and some degree of disruption and destruction is inseparable from any urban motorway system. But how many eggs, and which eggs, are we prepared to break? The competitors should surely have been asked to define with some precision the areas into which the motor road must *not* be allowed to penetrate. A close study of the schemes shows the profound and often alarming effect the new motorways would have on London's townscape, and the disruption of neighbourhoods and communities. The winner cheerfully runs an elevated motorway along Birdcage Walk in St. James's Park, and allows it to terminate in Parliament Square which, far from becoming the centre of a parliamentary precinct (as Abercrombie conceived it) becomes more than ever a traffic maelstrom. The south side of Regents Park, with its Nash terraces, seems to have an irresistible attraction for motor road designers. What Basil Spence will say about Mr. Proudlove's plan to run a road some 200-ft. wide through Canonbury Square remains to be seen. There could be no more convincing demonstration of the need for architects to be members from the start of any group designing motor roads or studying this problem.

Indeed, the difficulties of running elevated motorways through the historic precincts of central London are so great that there is much to be said for the view of Boileau, Chadwick and Medhurst, who were unsuccessful finalists, that it is not feasible to provide them. They propose instead, radial motorways leading to termini linked by a tightly drawn inner ring road, and rely upon long-term redevelopment with a pedestrian upper level to solve the problem of congestion in central London.

It is understandable that competitors were not very familiar with the whole of London. But even in the areas they chose to detail their roads go slap through major buildings recently completed or under construction (New Zealand House, for example, and the new Vickers skyscraper). Nobody seems to care much how the roads cross the East End, where an enormous amount of rebuilding has taken place, and the LCC is laboriously sorting out the mess of the 19th century.

No new ideas have emerged for the architectural solution of the conflict between fast elevated (often 40 ft. high) and curving motorways on the one hand, and existing buildings on the other, short of complete redevelopment. This may be the answer in areas ripe for rebuilding, but not in areas we wish to retain. What does emerge very clearly, however, is that with the best will in the world nobody designing an urban motorway system can avoid destroying valuable buildings, some of them new. The failure of the 1951 Development Plan to include a new road plan has made it impossible to safeguard any new routes, and every year that passes without a new plan will see yet more possible road lines obstructed by large and costly buildings.

How much would it cost?

No estimate of cost was required, but the cost of these schemes would vary immensely (traffic engineering is still a very inexact science), and all would cost fabulous sums of money by current standards, particularly when it is remembered that the motor roads would be superimposed upon a mass of lesser road improvements. (The winner, for example, postulates that the existing road network would continue to bring in nearly as much traffic as before, the extra two-thirds being moved along the motor roads). The length of motorways proposed ranges from 30 miles to 125 miles. If one allows, as one competitor does, £6 million a mile, the cost would range from £180 million to £900 million on motorways alone. But is £6 million a mile enough, with land and buildings at their present prohibitive price—more than £1 million an acre at Piccadilly Circus? The London Roads Committee said this year that Abercrombie's 11-mile inner ring road would cost £180 million, more than £16 million a mile. About two-thirds of this would be acquisition costs: how, one wonders, can urban motor roads be justified economically until the problem of land values is solved.

Ian Morrison, the third prize-winner, estimated that 110,000 cars would have to be parked in multi-storey garages. As the London Roads Committee estimated the cost at £1,500 a place, these might cost £165 million. To all this would have to be added the cost of improvements to the ordinary road system, and the redevelopment required to resolve the pedestrian-vehicle conflict. And on top of this again must be added the cost of improving and modernizing the public transport system by rail, tube, or monorail. We are entering the realm of expenditure by the £1,000 million, and one must ask whether it is desirable to spend money on this scale to enable more private motorists to commute by car.

The winner himself points out very clearly that even the execution of his plan cannot "solve" the traffic problem in London. He comes, in fact, to the same conclusion as the ARCHITECT'S JOURNAL in Motropolis. This is what he says in his report:

"It is certain that the measures proposed will not 'solve' London's traffic problem, if by that is meant providing road space for all vehicle owners with no delays or congestion. Nor does it appear to be feasible to provide parking space for all commuters desirous of travelling by private transport on the scale of many European and American cities, so measures should be instituted to provide for the continuance of effective public transport.

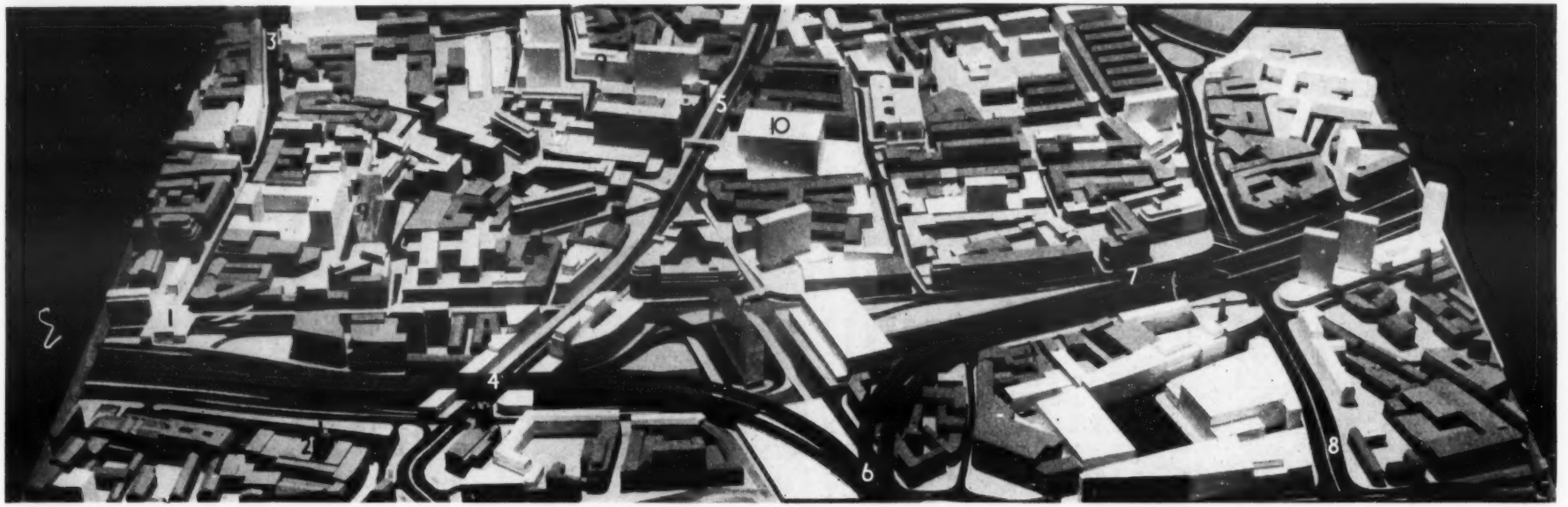
"Only by bringing the place of work closer to residential areas does there appear to be any real solution to the travel problems created by the gross unbalance in London's living and working locations. Decentralization of industry has been accepted and must be followed by decentralization of commerce.

"It is hoped that the LCC plan to limit development in Central London will receive the support of business to the great benefit of its employees. The great 'prestige' buildings being erected in Central London may well be the last if they result in congestion which brings complete and utter stagnation.

"Whilst it may be argued that the roads here proposed will result in an even higher concentration of vehicles in Central London the converse also applies. Such roads could well be the key to successful decentralization."

What this really points to is the need for a complete and radical revision of the 1951 County of London Plan. It was irrational in 1951 to make a plan without a new road system. It would be equally irrational today, when we are planning for 20 or 30 years ahead to superimpose a new road plan on an antiquated development plan. Much has happened since 1951, when the LCC had not begun to think of the problem of office concentration, and had not devised its policy of decentralization of offices or attempted to bring residences back to the centre—policies which, incidentally, may still only be in their infancy. Since 1951 the LCC has raised its car parking standards from one car place to 5,000 sq. ft. to one to 2,000 sq. ft. In 1951 nobody foresaw vehicle production or car ownership on the scale that is foreseeable today.

The LCC, like other planning authorities, is now engaged on the laborious task of the quinquennial review of the 1951 Plan. But, on instructions from the Ministry of Housing and Local Government, it is only making minor changes. It is solemnly proposed that the real thinking on London's problems need not begin until 1964, and need not come into operation until several years after that. If the Ministry studies this competition, and listens to the words of the Minister of Transport, it will scrap the current quinquennial review and order the most profound rethinking of the development plans. Nothing less than a new development plan, of which a comprehensive transport plan would be an integral part, is required.



The model of the area (Farringdon Road, Fleet Street) selected for detailed study.

KEY: 1, "Piazza" at Ludgate Circus. 2, Old Bailey. 3, Fleet Street. 4, Overpass at Holborn Viaduct. 5, High Holborn. 6. Smithfield. 7. Farringdon Road. 8, Clerkenwell Road. 9, Multi-storey garages. 10, Gamages.

The plan on the opposite page shows the system of motor roads, new roads, improved roads and parking places in central London (key below). The basic principle is the linking of radial roads at a tangent, instead of providing a ring road. Note the new street (top right) 160 to 220 ft. ploughing through Canonbury Square in Islington, and the elevated motor road in Birdcage Walk, St. James's Square.

ASSESSORS' REPORT: Although the maps are difficult to understand at first sight, it tackles systematically, in an admirable report, all the major problems posed by the competition: the effect on design of estimated future traffic loads; the advantage over the conventional ring and radial system of a loop or tangent arrangement, with radials connected in pairs across the central area and interchanges between the roads leading from it; the use of direct underpasses on main traffic streets leaving turning traffic to the minor ones; the location, design and intersection of motorways with fronting collector roads; the adaptation and improvement of the existing road pattern; care for the rights of the pedestrian; and parking spaces related to the volume of building and traffic generation proposed. In other words, the scheme outlines a combined operation, based on the view stated in the report

". . . that the increase in private transport is inevitable and that it must be anticipated and provided for, with the motorist paying a fair price for the privilege."

The improvements proposed in the LCC's Development Plan for London are incorporated in this scheme, and they are not only extended but integrated with the author's suggestion for limited-access highways, of which an interesting and typical example is given in model and graphic form on the line of Blackfriars Bridge and the Fleet valley. The model to a scale of 1:1,250 shows that a modern urban motorway need not seriously disrupt an existing town pattern.

COMMENT: The three basic principles in this scheme are: (*a*) the substitution of the traditional inner ring road by a loop system in which the radial motorways are linked in pairs at a tangent close to the centre, to provide 12 new six-lane radial motorways, supplemented by a number of "cross-links," to treble the capacity of the roads into central London, one-third of the load to be taken by the existing streets, and two-thirds by the motorways; (*b*) increasing the capacity of the main traffic streets of central London to handle the increased traffic delivered to the new system by improvements to the existing arteries and intersections and the creation of additional main traffic streets east and west through central London; (*c*) these improved major traffic streets divide the area into a number of large blocks, within which the internal circulation systems lead to parking places. For the provision of parking the scheme relies heavily on redevelopment to LCC standards. The motorways are located along "cleavage" lines, parallel to existing radials, or elevated above roads widened to 200 or 300 ft. Special intersections are designed for built-up areas.

A study of the drawings and models reveals some wide gaps between theory and practice,

(top right) 180 to 220 ft. ploughing through Canonbury Square in Islington, and the elevated motor road in Birdcage Walk, St. James's Square.

report

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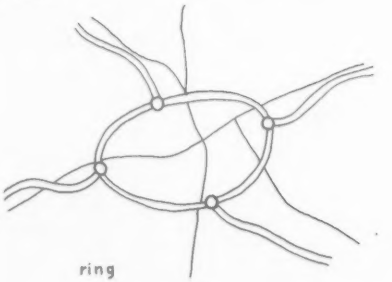
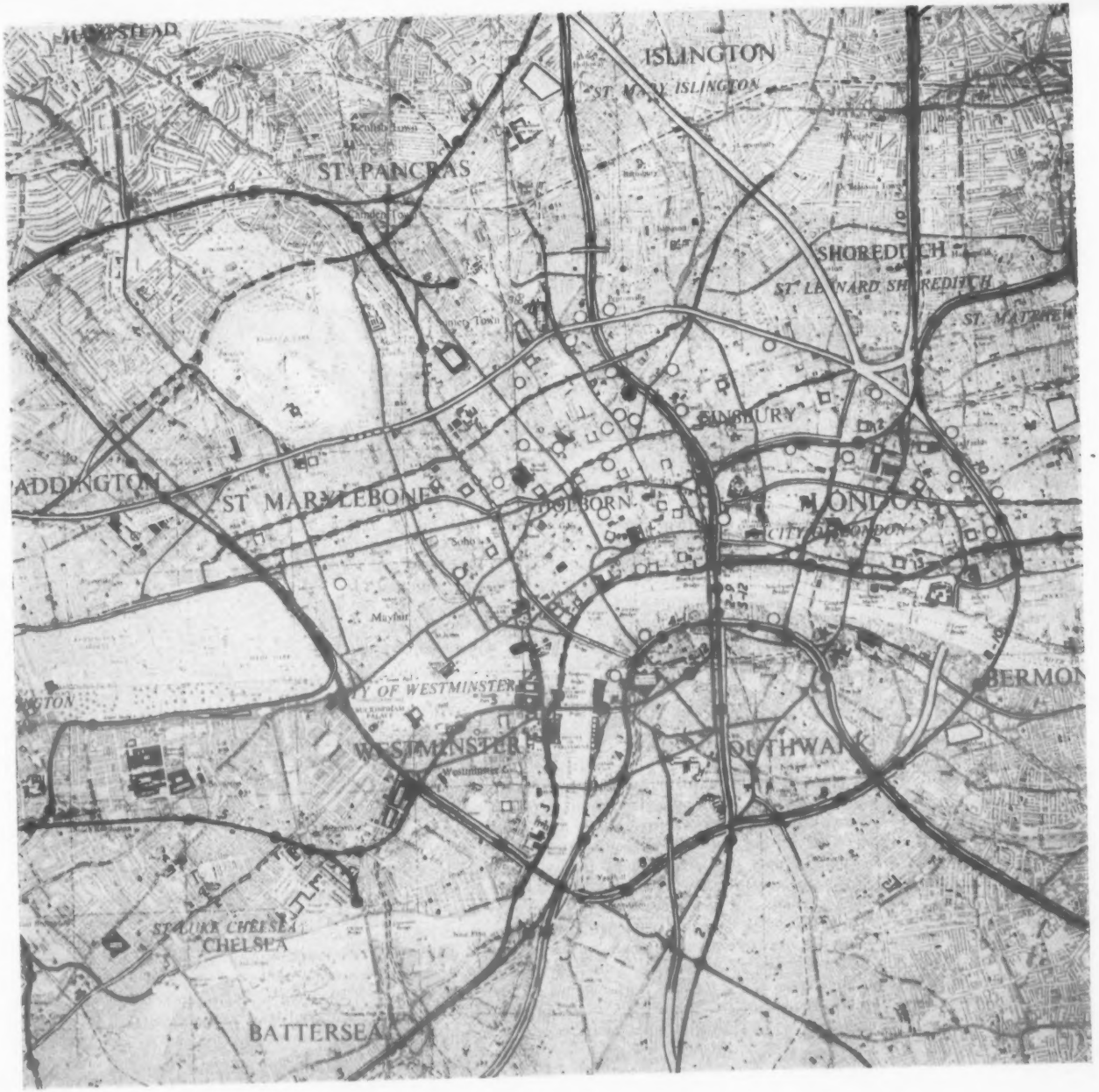
provide 12 new six-lane radial motorways, supplemented by a number of "cross-links,"

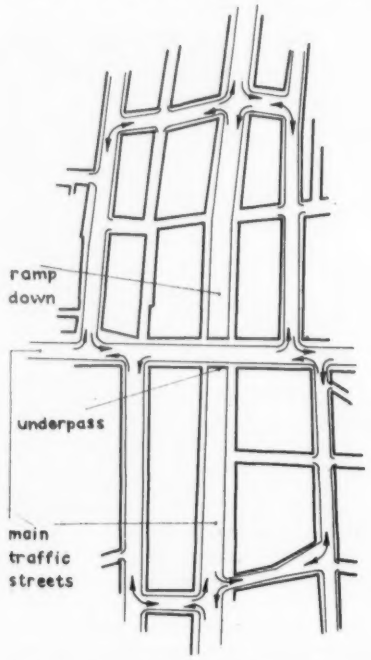
A study of the drawings and models reveals some wide gaps between theory and practice,

Major traffic street (Central London)
New street
Improved street 6 lanes wide where two-way, capacity about 600 v/hr/lane
New street 160-220ft wide to allow through lanes later
New street with central elevated limited access road
Limited access road with over or under bridges of all crossing streets, 3-lane carriageways, cap 1200 v/hr/lane
Access point, 4 slip roads 2 lanes each
4-lane spur feeder
Interchange junction between limited access roads, capacity equal to entering roads
Tunnel
Short term parking space
Long period parking space
Commercial vehicle parking and transport operators depots

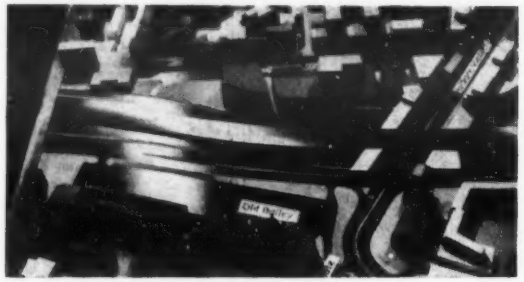
Below: this simple diagram shows the loop or tangential system of motor roads, adopted by this competitor instead of the ring road. The advantages of the loop system include less heavy loading of roads near the centre (though roads are more numerous) more frequent access points, fewer major intersections, better access to centre.







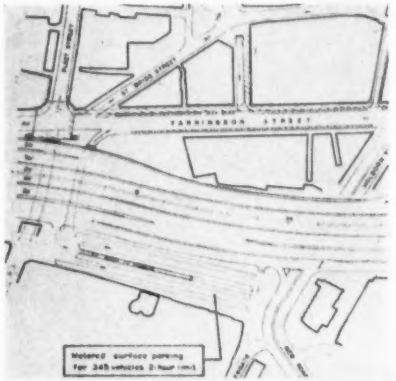
The assessors commend this ingenious design for introducing an underpass into a tight street pattern.



Above, the approach to St. Paul's, Fleet Street and Ludgate Circus left. Plan of this detail is above right.

Right, intersection at Smithfield. Note the access ramps flying over Smithfield Market and Holborn Viaduct (extreme left), and the way the designer allows the road to cut through buildings (bottom right) without considering the redevelopment of the area.

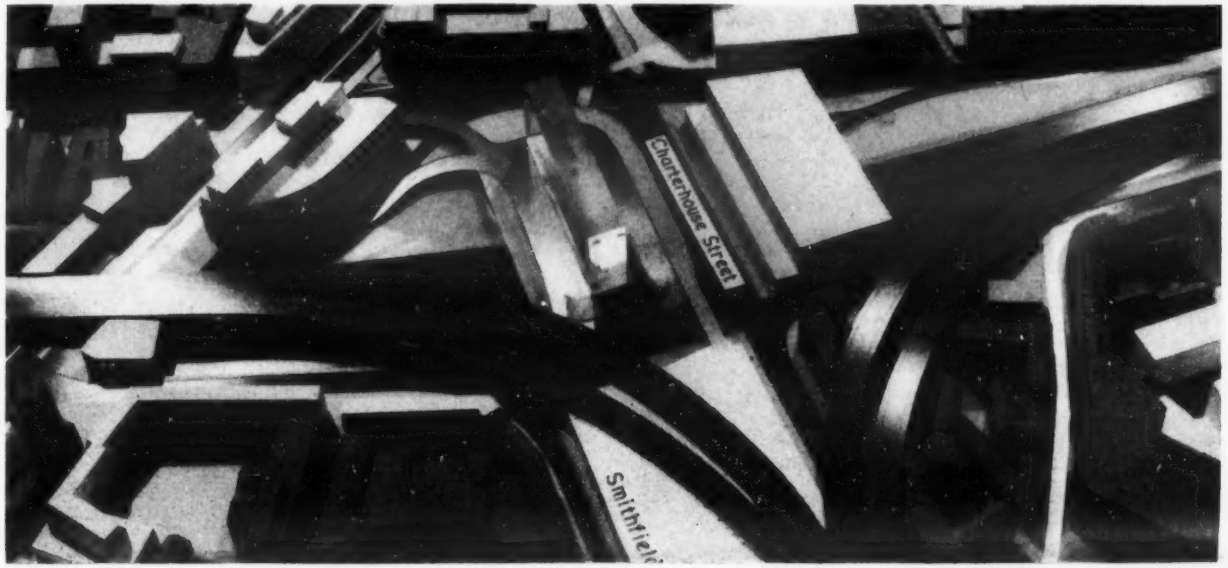
and a ruthless disregard of urban values and town design. The assessors say that Mr. Proudlove cares for the rights of the pedestrian. In fact, however, he clearly gives priority to vehicular traffic, while providing subways for pedestrians at intersections. He drives roads through areas of architectural unity and distinction (*e.g.*, Canonbury),



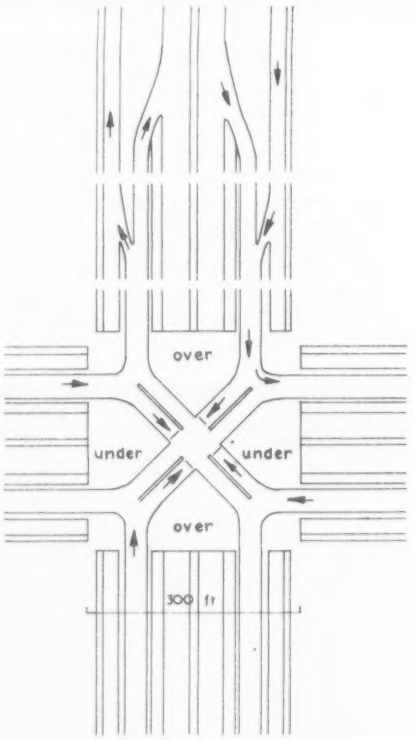
and through neighbourhoods which have been largely rebuilt since the war (*e.g.*, Shoreditch), and terminates his elevated motor road through St. James's Park in an access point at Parliament Square. His improved traffic roads perpetuate the penetration of fast vehicular traffic into precincts (*e.g.*, Harley Street, Bloomsbury). Some roads widened to 200 feet seem to end in the air (*e.g.*, Tower Bridge Road widened in this way, runs into Tower Bridge, an opening bridge and a notorious bottleneck for which no improvement is proposed).

DETAILED SCHEME: The area selected for detailed study lies North of Fleet Street. Here a bold solution has been attempted. Holborn Viaduct and Blackfriars Southern Region stations are removed, and a north-south motorway runs over the District Railway and Farringdon Road, paralleled by one-way fronting roads serving as collectors for the access ramps. Large parking garages are given direct access from the motorway, and for part of the area there are elevated pedestrian walkways. But it is incomprehensible that the assessors consider that the model "shows that a modern urban motorway need not seriously disrupt an existing town pattern."

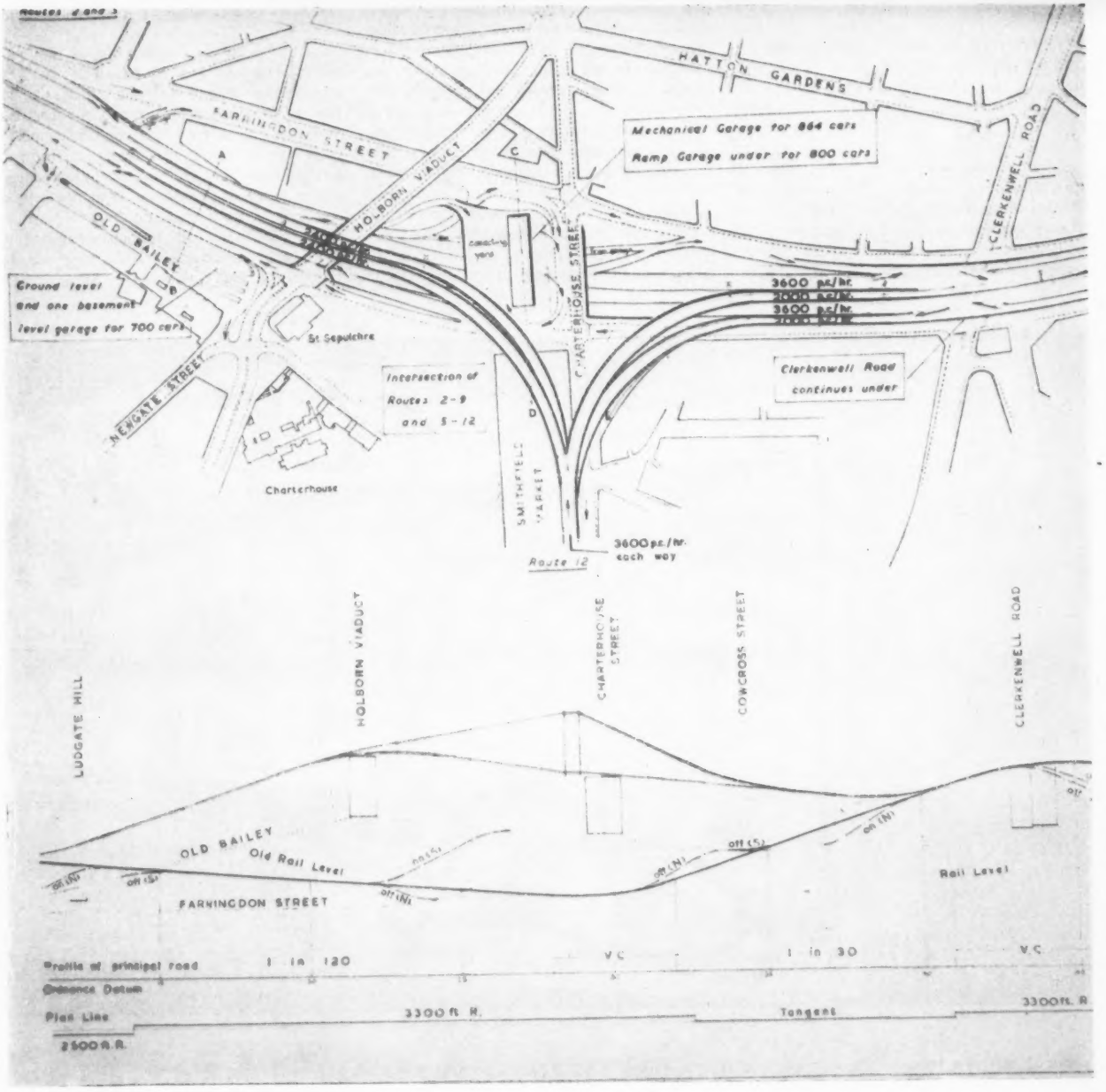
The new road in fact reveals all the limitations of the "engineering" solution. It soars over Holborn viaduct and into Smithfield, lopping bits off the tops and sides of buildings, leaves isolated sites and unresolved spaces, and bursts open the traditional canalized approach to St. Paul's with a 300-ft. wide gash at Ludgate Circus. Mr. Proudlove earns our gratitude by removing the Blackfriars railway bridge that now obstructs the view of St. Paul's, only to replace it with another obstacle, a motor road on which is superimposed a pedestrian "piazza" of doubtful merit or utility. The pedestrian has to walk under all this in a tunnel to reach St. Paul's from Fleet Street. Cars are to be parked along a strip of land, too narrow for redevelopment, between Ludgate Hill and the Old Bailey, and a large part of these works is sited on land where substantial office blocks are now being built.



the designer allows the road to cut through buildings (bottom right) without considering the redevelopment of the area.



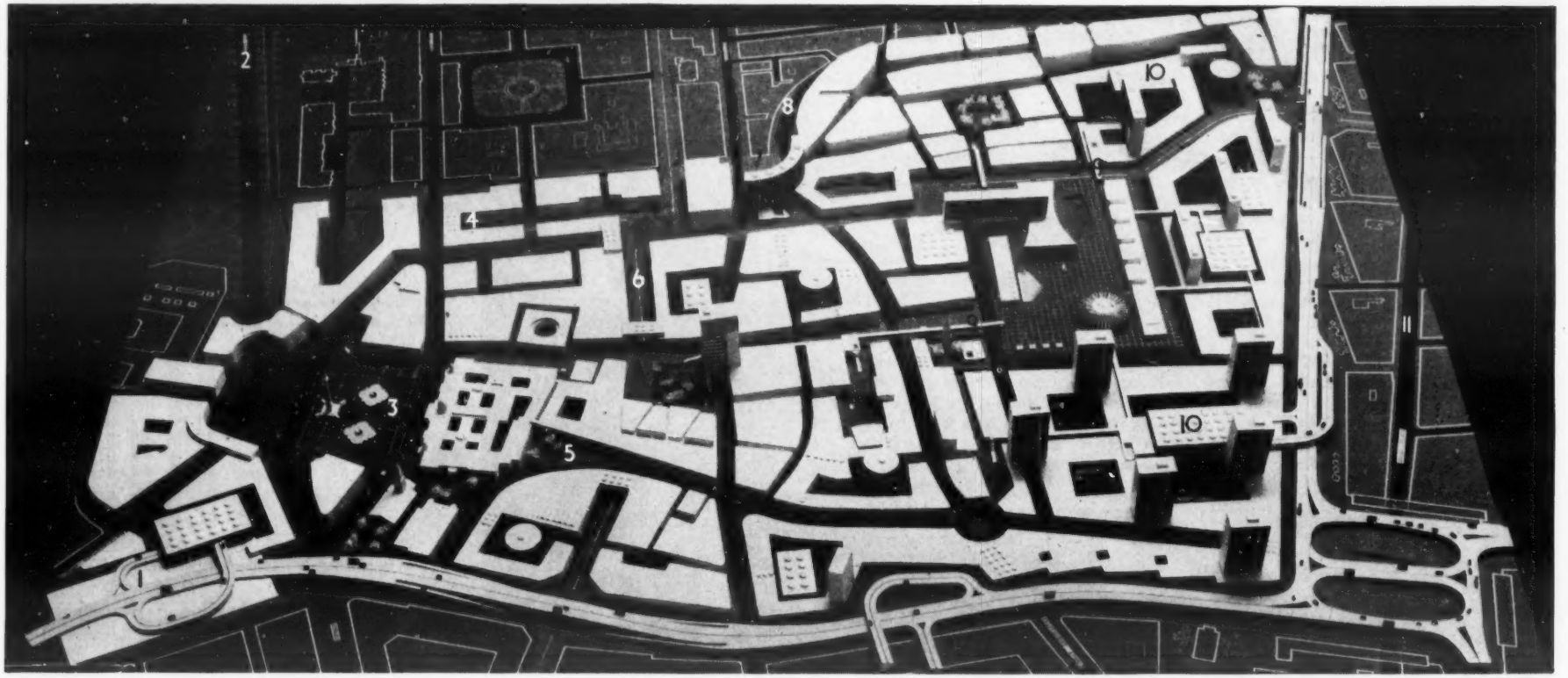
The assessors also commend this design for an interchange in a central area between two motor roads because it is economical in land.



Plan and section of the interchange at Smithfield, where the motor road runs above the District Line. Note the flyover crossing over Holborn Viaduct, where several storeys have to be lopped off the buildings.

The conflict between vehicular and pedestrian traffic remains largely unresolved, despite the upper level walkways in Farringdon Road and adjacent to it. Holborn, for example, becomes a fast twin-carriageway road, and the provision of a pedestrian bridge connecting Gamages to the new *Daily Mirror* offices only emphasises its unsuitability for pedestrians, or as a street for shopping and commerce.

LONDON ROADS COMPETITON: SECOND PRIZE-WINNING DESIGN BY W. K. SMIGIELSKI



This model of the area (Soho and Trafalgar Square) selected for detailed study shows very clearly the designer's feeling for a solution of the traffic problem that would also create great architectural possibilities and liberate the pedestrian. Most of Soho becomes pedestrian at the plus 25-ft. level, Leicester Square and most of Trafalgar Square become pedestrian on ground level and are linked by a pedestrian way.

KEY: 1, Charing Cross Station. 2, The Mall. 3, Trafalgar Square. 4, Tunnel. 5, Charing Cross Road. 6, Tunnel under Leicester Square. 7, Piccadilly Circus. 8, Regent Street. 9, Elevated footpath. 10, Multi-storey garages.

ASSESSORS' REPORT: This scheme is the most attractively presented of any. The author appreciates the fact that local authorities, landowners, traders and the public generally are likely to resist major traffic improvements and the change and disturbances they will cause, unless it is demonstrated to them in a convincing way that London could have a new look as well as new traffic ways, that their environment as a whole would be made more pleasant, and that pedestrians would come into their own again.

The models and drawings showing the re-planning of one of the most complicated and difficult stretches of Central London (including Piccadilly Circus and Trafalgar Square) present this general case in an imaginative and comprehensive way. In particular the needs of the pedestrian are well catered for. The traffic engineering details, however, are not of the same high standard. In particular the interchanges from motorways to distributive roads do not appear capable of taking the necessary loads. But the system proposed is deficient rather than defective; in other words, some of the principles adopted could be better adjusted to design data and topography than they are, and more of the existing street system could be retained. The modified gridiron pattern of major highways which is here proposed is capable of further development and compares favourably with a system based on radials feeding into an inner ring.

OUR COMMENT: This is the only scheme to proclaim a set of simple principles and then put them into practice, as follows: (*a*) London's traffic is seen in the form of a grid of roads parallel to and at right angles to the river, modified by the magnetic pull

Right: this competitor's clear recognition of London's

own again.

The models and drawings showing the re-

posed is deficient rather than defective, in other words, some of the principles adopted could be better adjusted to design data and

London's traffic is seen in the form of a grid of roads parallel to and at right angles to the river, modified by the magnetic pull

Right: this competitor's clear recognition of London's precincts respects the principles of Abercrombie's County of London Plan.

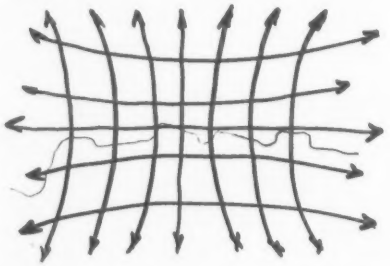
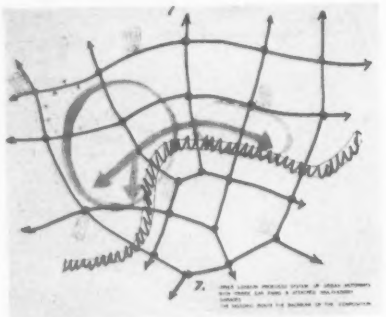
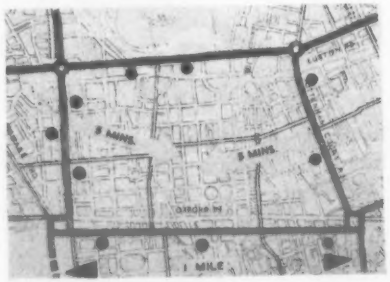


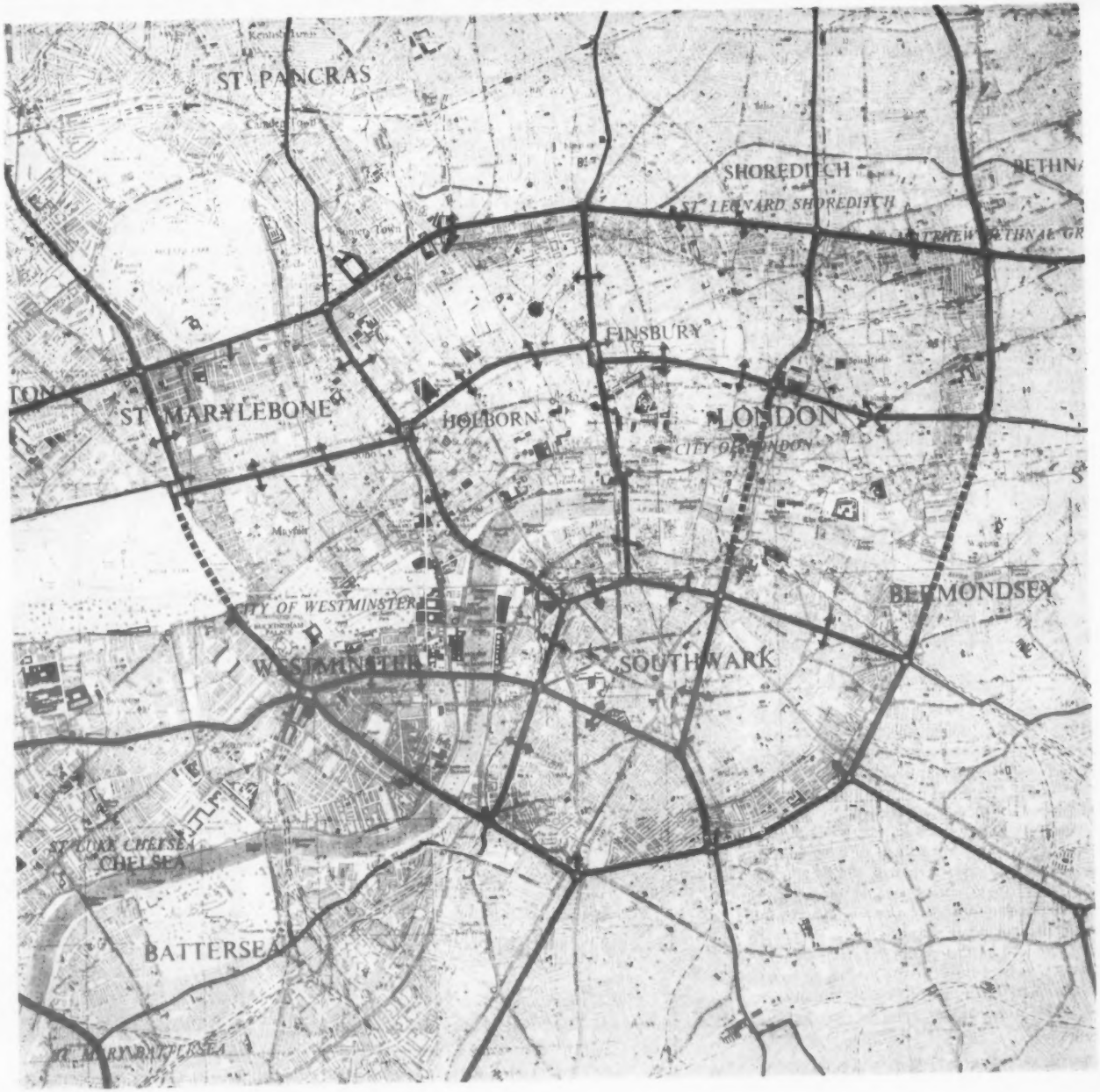
Diagram showing the functional system of circulation, the grid becoming tighter at the centre.

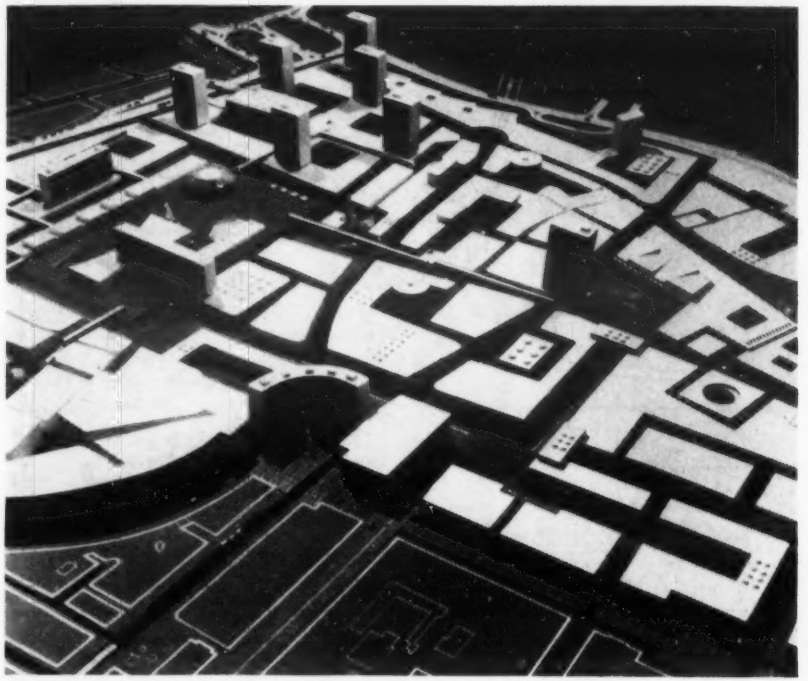


This diagram shows the "historic route" linking the City and the West End which is the backbone of the composition, and which Mr. Smigielski conceives as a mainly pedestrian way, without, however, fully developing the idea.



Superblock, showing location of multi-storey garages on motor roads, five minutes walk from the centre.





This view shows the predominantly pedestrian character given to Lower Regent Street (right of model) and Piccadilly, which have been relieved of all but local traffic. It also shows a new N.-S. road south of Piccadilly Circus diving underground just where New Zealand House is being built.

The pedestrian way from Trafalgar Square to Leicester Square (above right).

of inner London which draws the lines of communications closer to the centre. (*b*) This system is fitted organically into the existing pattern and provides good accessibility to the centre. (*c*) The system is linked by an inner ring road which also connects the main line railway termini, where fringe car parks are located. (*d*) The resulting superblocks are approximately 1 mile square, and since car parks would be constructed in association with the motorways the centre of each block would be no more than 5 minutes walk from the car park. (*e*) Routes freed from heavy traffic are regained for the pedestrian.

A particularly attractive idea, not properly worked out, is a pedestrian walk along the historic route from St. James's Park across a pedestrian Trafalgar Square (with a link to a pedestrian Leicester Square) along the Strand to Fleet Street, St. Paul's and the Tower. This is the only scheme that really tries to free the pedestrian as well as the motor car throughout the area he has selected for detailed study. Motorways are elevated throughout, except for necessary tunnels, and are sited along or over railways, parallel to existing roads, along widened existing streets. The weakness of his engineering (which the assessors say, can be put right) is the limited capacity of the elevated roundabouts, designed to save space in central areas.

The routing of some of the motorways is not as organic as Mr. Smigielski would have us believe. He too cuts through the neighbourhoods of Shoreditch and Bethnal Green, which to a large extent have been redeveloped since the war, and seems to carry an elevated motorway in front of the Nash Terraces at Regent's Park, which he says would be "unaffected." Some of his superblocks are too large (one stretches from Oxford Street to the South Bank), and the huge main-line railway station car parks (up to 3,500 cars each) might well create insoluble rush hour problems. This competitor urges the revision of the LCC Development Plan, but he wants more concentration in the centre, not less, by increasing bulk "to make the scheme pay." This policy would only undo his own good ideas. Public transport does not figure in Mr. Smigielski's scheme of things—or if it does, he does not say so.

DETAILED SCHEME: It was a courageous decision to tackle Soho and the West End, and the excellent model does show convincingly that one can seek the answer to the traffic problems of Piccadilly Circus outside the Circus altogether. It is a sound idea to route the E-W and N-S motor roads through the poor quality property south of Oxford Street and East of Charing Cross road. By running new roads south of Piccadilly and east of Regent Street, connecting at a roundabout south-east of Piccadilly Circus, most of the traffic is diverted from Piccadilly (which like Lower Regent Street becomes predominantly pedestrian) and from the Circus itself. Leicester Square, underpassed from E to W in tunnel, becomes wholly pedestrian, and Soho is totally redeveloped with a pedestrian entertainment level at plus 25 ft. The redevelopment of Soho, whose character is essentially intimate, in this open draughty way is highly questionable, and it is unfortunate that Mr. Smigielski dropped a clanger by running his new N-S road through New Zealand House, now under construction.

This competitor emphasises, correctly, that traffic is a planning not an engineering programme, and calls for collaboration between architects, engineers and planners in the design team. His detailed scheme shows that he can apply this principle in practice.

LONDON ROADS COMPETITION: THIRD PRIZE-WINNING DESIGN BY I. W. MORRISON

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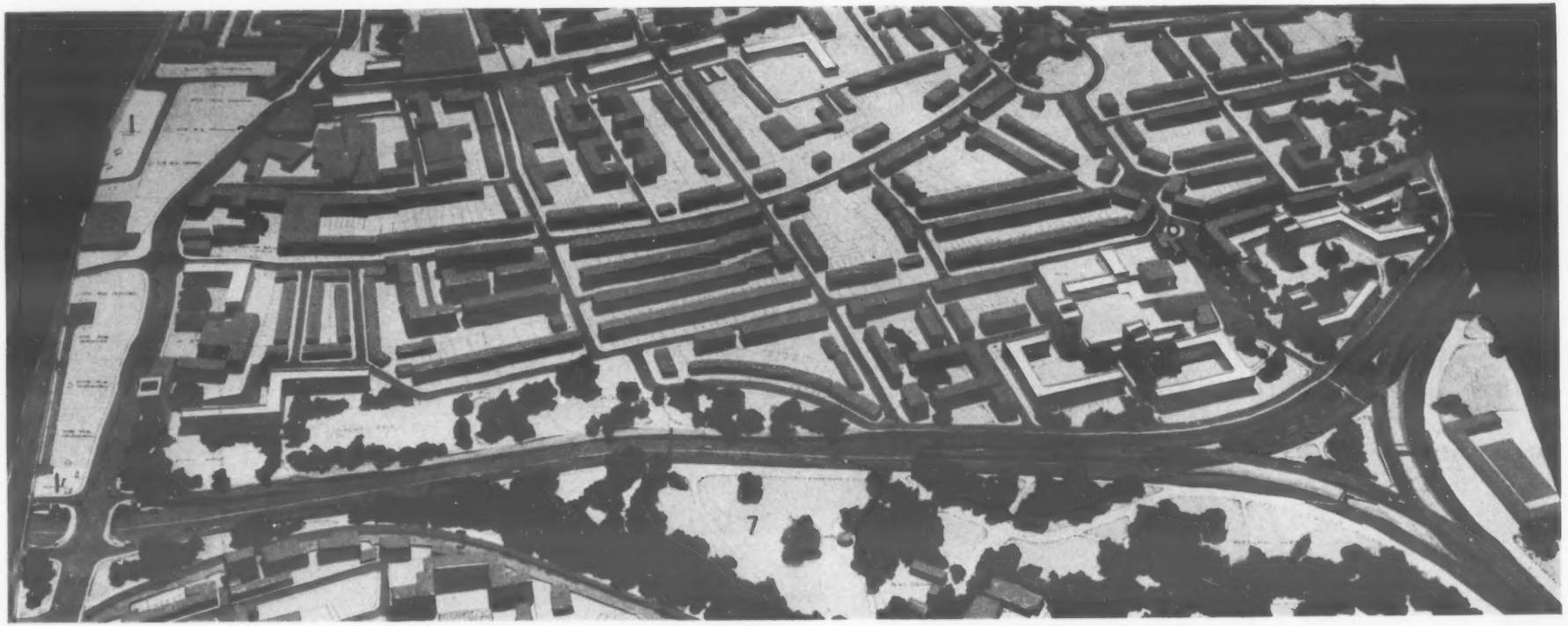
LONDON ROADS COMPETITION: THIRD PRIZE-WINNING DESIGN BY I. W. MORRISON



Model of the area selected for detailed study in South Hackney. As only one pedestrian bridge is provided, this residential area is almost cut off from Victoria Park on the south.

KEY: 1, Off street parking. 2, Mare Street (widen and restrict access). 3, Grand Union Canal. 4, Well Street (by pass to shopping centre). 5, New perimeter access road. 6, Short term parking in shopping centre. 7, Victoria Park.

ASSESSORS' REPORT: This is an excellent and practical entry as far as it goes. But it does not go quite far enough for the purposes of this competition. The system proposed has the merit of being based on the existing road pattern and not cutting across it, and consists essentially of a network with three-way interchanges and with the motorways mainly in cuttings in order to avoid damage to the built-up area of the town. An interesting feature of the scheme is that the scale of proposals is decided on the assumption that special motorway bus services will be provided. Although, in the area of detailed study, the problems of traffic flow and safety on local streets are very well handled, the worst problems, *i.e.*, in the central areas where shops, services and pedestrians are most heavily concentrated, are not dealt with.

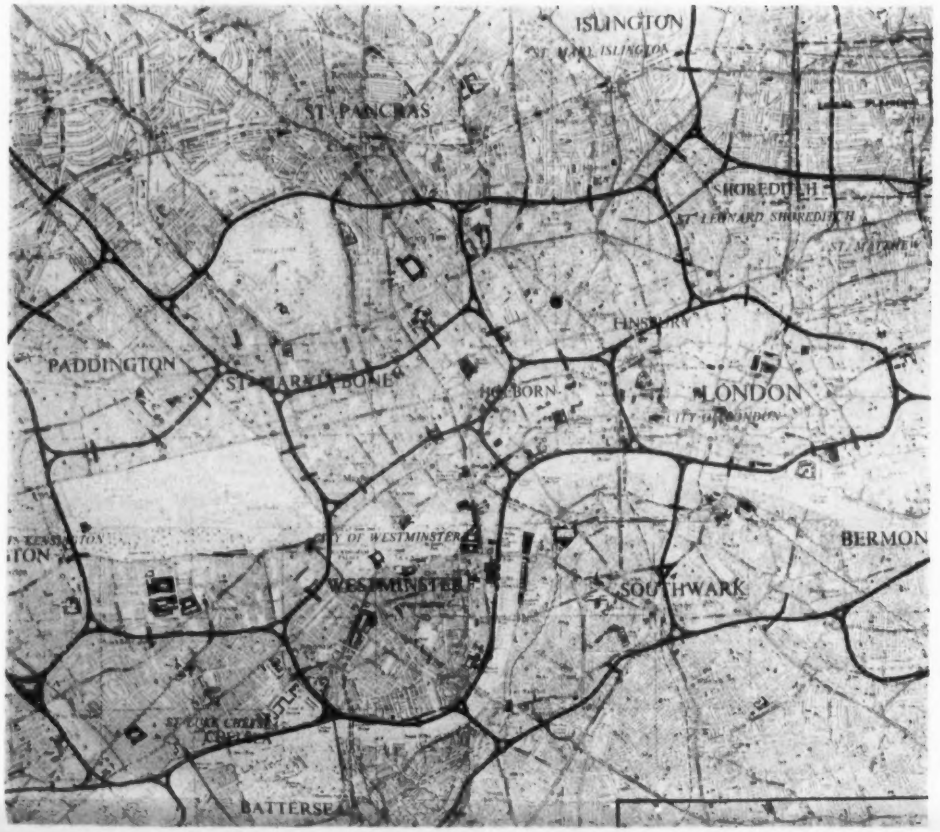
COMMENT: The new idea in this scheme is the triangular motorway junction, and the attempt to run motor roads in cutting. Unfortunately, the need to avoid the District and Circle lines, and to pass over some railways and roads, results in the motorways climbing from minus 20 ft. to plus 40 ft. at several places, with a switchback effect. This is particularly marked where the *Evening News* riverside motorway plan has been adopted. Although the three-way junction uses less land than a four-way junction, it tends to force traffic away from the direction it wishes to flow. The motorway cuts through such precincts as Bloomsbury, Harley Street and Charterhouse: Mr. Morrison may think that by sinking his road he avoids damaging visual effects, but if so, he underestimates the effect of demolitions for a six-lane motorway. No estimate of cost is given, but surely the cost of property acquisition, excavation, tanking and diversion of services would be prohibitive?

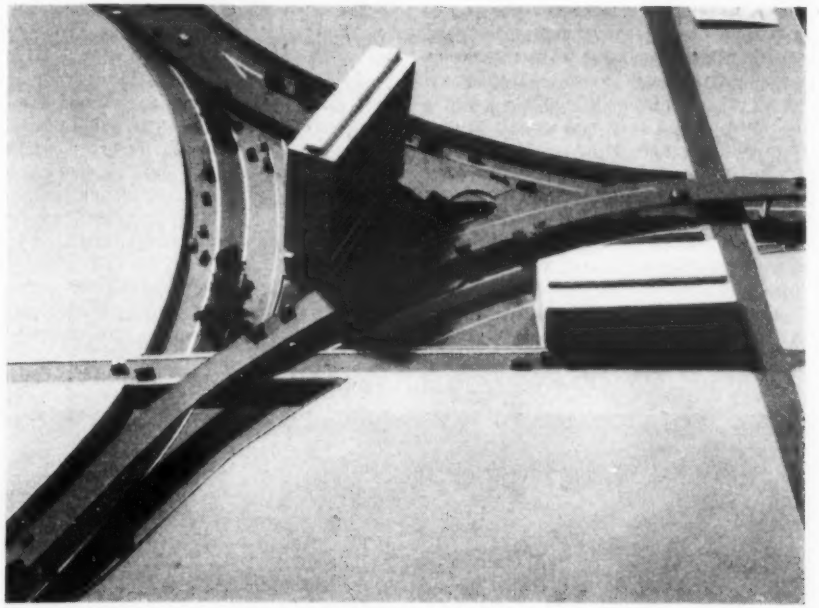
DETAILED SCHEME: The detailed scheme covers an area of Hackney north of Victoria Park. Pedestrian traffic is not referred to, and it is intended that pedestrians should cross the sunken roads by bridges. But only one bridge is in fact provided in this area,

LONDON ROADS COMPETITION: THIRD PRIZE-WINNING DESIGN BY I. W. MORRISON continued

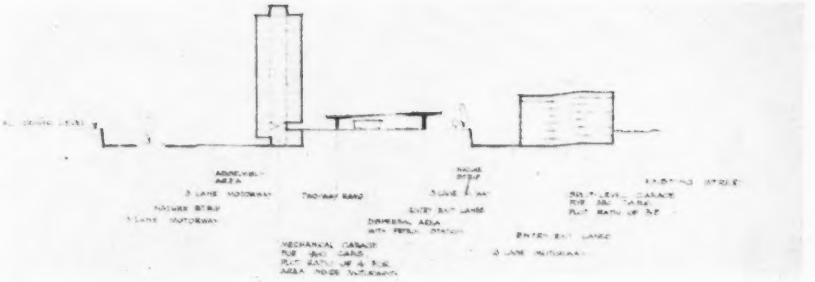
which is virtually cut off from its Park. The proposed treatment of the three-way intersection is interesting, but the triangular space is difficult to handle architecturally (Mr. Morrison's model shows a building with the corner lopped off), and a multi-storey mechanical garage for 1,000 cars at this point is a doubtful proposition.

System of motor roads with three-way junctions, mostly in cutting, but incorporating the riverside highway. This map shows how a system of this kind, despite certain advantages, tends to divert traffic from the direction in which it wishes to go.





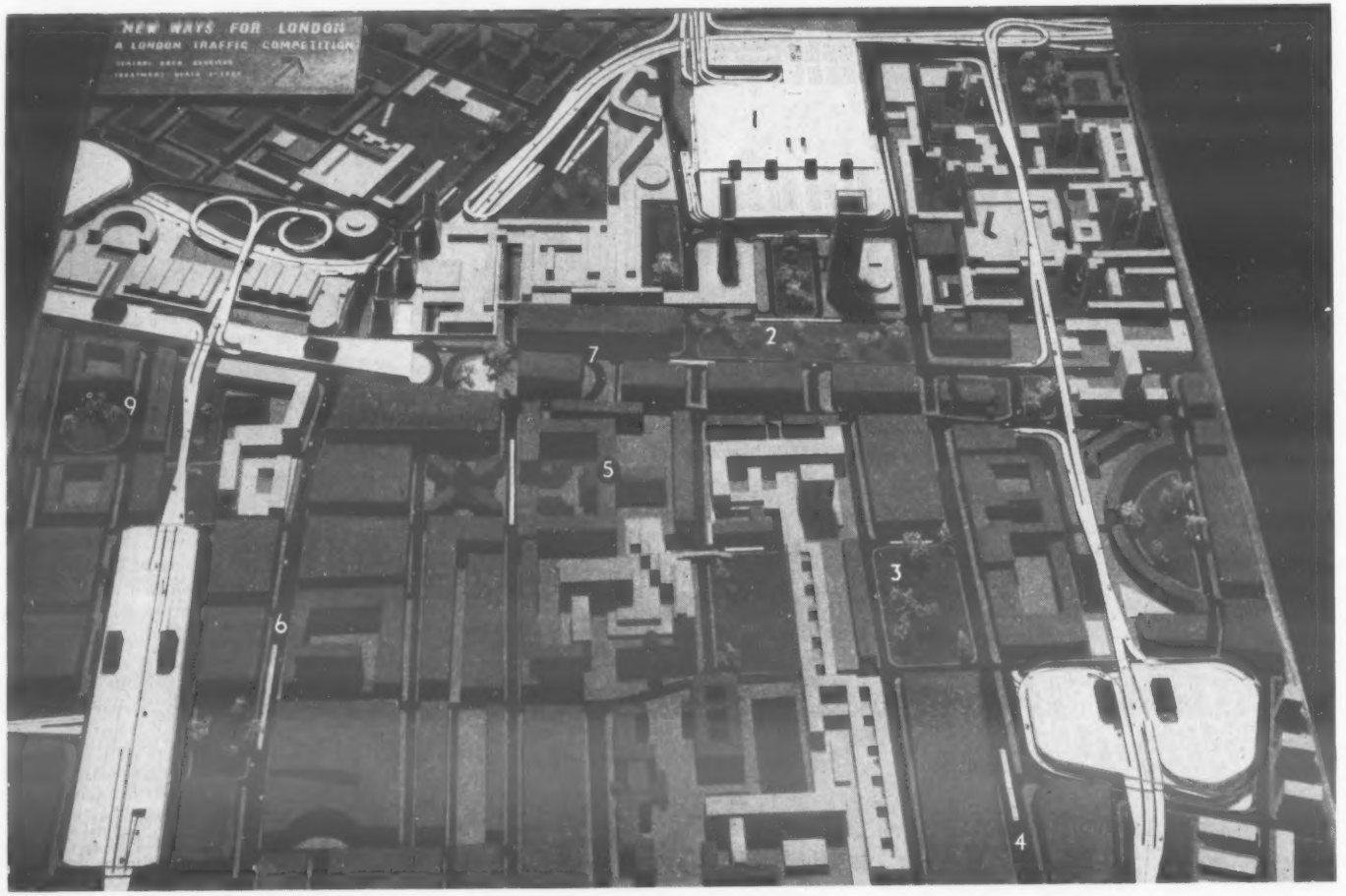
Model of a three-way intersection, with mechanical garage for 960 cars in centre, and split level garage for 330 cars at side. A section through this model is below.



SECTION AA

LONDON ROADS COMPETITION: DESIGN BY P. BRIGHAM, G. LATTER AND B. MECARTNEY

ASSESSORS' REPORT. This scheme shows



Bloomsbury is the area selected for detailed study. The assessors say that the car parks are far too big and the interchanges too complicated.

KEY: 1, Euston Station. 2, Euston Square. 3, Tavistock Square. 4, Woburn Place. 5, University College. 6, Tottenham Court Road. 7, Euston Road. 8, Charlotte Street. 9, Fitzroy Square.

ASSESSORS' REPORT. This scheme shows to rather less advantage in model form than its drawings at the preliminary stage would have led the Jury to expect. The idea of having large interchange and parking facilities on the fringe of the control area (*e.g.*, over Euston Station) with comparatively narrow elevated highways in between—some of them one-way—is, however, interesting in principle and worthy of further study and simplification. But the car parks shown here are far too big and the interchanges too complicated for easy operation. Moreover, conditions for the pedestrian are not improved.

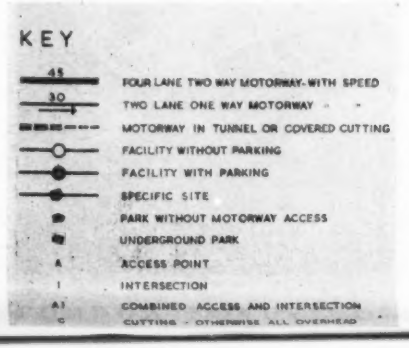
COMMENT: The interesting new idea here is the use of one-way two-lane motorways within the central area, connected to a system of 4-lane motorway radials and an inner circuit, with fringe car parks at interchanges. Whether the one-way motorways have the advantages claimed for them is open to doubt. There are 125 miles of motorway, and while a two-lane motorway will use less land than a four-lane motorway, this scheme does seem to be extravagant in the use of land, and would involve long detours. The interchanges and car parks are also wasteful of land. Although these competitors have taken care to route their motorways around the Bloomsbury precinct, which they have chosen for detailed study, their elevated motorways could only be built at a heavy sacrifice. There is an access point at the Tower of London, and an elevated riverside motorway cuts right through Parliament Square into St. James's Park, while another runs in front of the Nash Terraces in Regent's Park. Several residential areas suffer similarly. The segregation of vehicles from pedestrians in the overall town pattern does not seem to have been studied seriously enough, but these competitors showed in their report an exceptionally clear grasp of the basic fact that traffic is a function of land use. In effect they argue for a new development plan, within which the roads and all forms of mass transit would form a system, rather than two competing systems, and

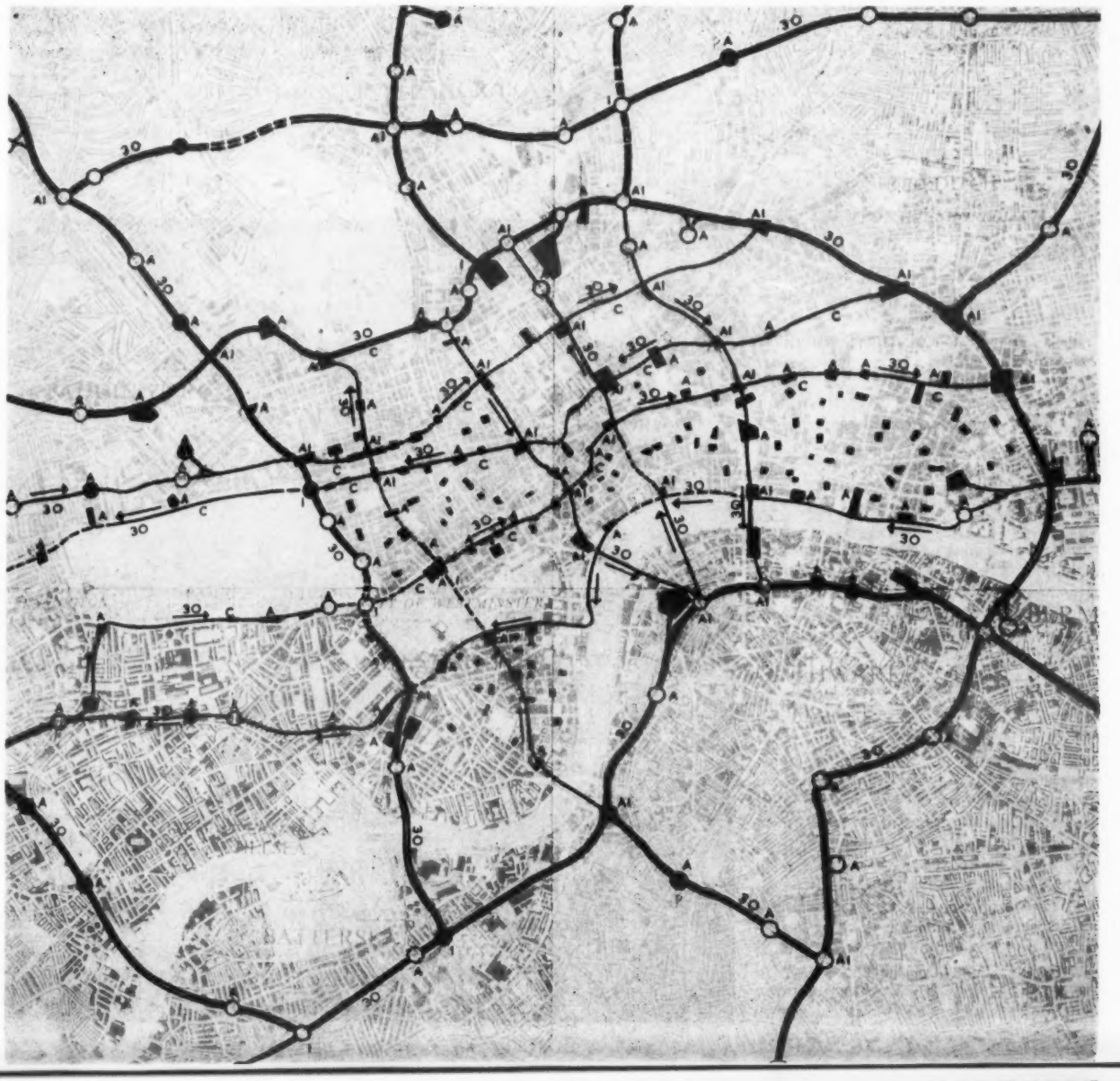
LONDON ROADS COMPETITION: DESIGN BY P. BRIGHAM, G. E. LATTER AND B. MECARTNEY continued

clearly see that a new road system would be a positive factor in promoting or inhibiting development as desired.

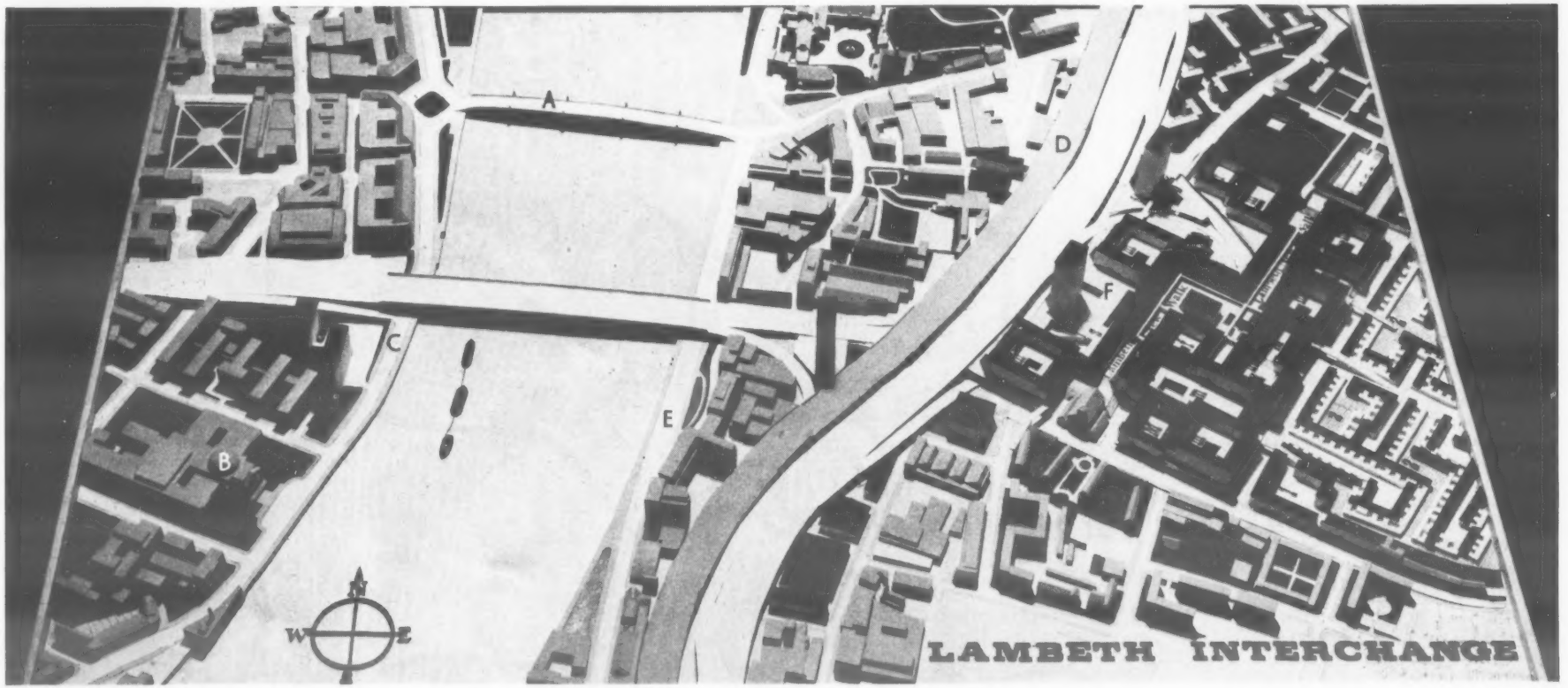
DETAILED STUDY: Bloomsbury is selected as the area for detailed study. The model does not bear out the claim that a one-way system would result in simplified junctions, for the junctions shown are the most complicated to be found in any of the finalists' schemes, and consume the most land. The use of 5 per cent. of the area for car parking seems sensible, and the large park on the roof of Euston station involves no loss of land at all. The siting of several of the intersections is quite unrealistic. For example, there is a junction at Theobald's Road and Southampton Row on a site where large office blocks have recently been built. A serious effort has clearly been made to respect Bloomsbury as a precinct, and to study the architectural treatment of the interchanges and the fringe car parks. The effort serves mainly, however, to expose the difficulties of the problem, and, unless motor-cars are going to be very much quieter in future than they now are, the high density flats near Euston are going to be noisy places to live in.

The feature of this design is a system of one-way motorways in central London, an idea which the assessors think worth pursuing. But note the overhead motorways in St. James's and Hyde Parks, and the four-lane motorway cutting front of the Nash Terraces in Regent's Park.





LONDON ROADS COMPETITION: DESIGN BY I. BOILEAU, G. E. CHADWICK AND D. F. MEDHURST

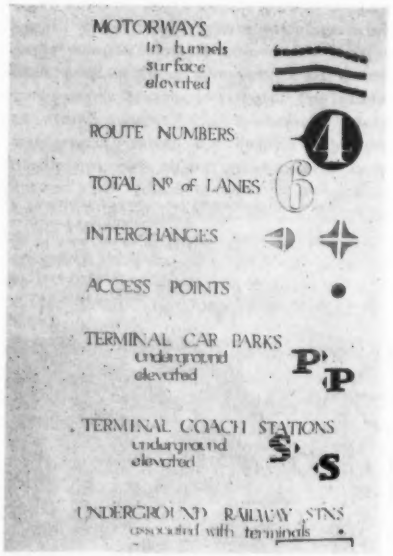


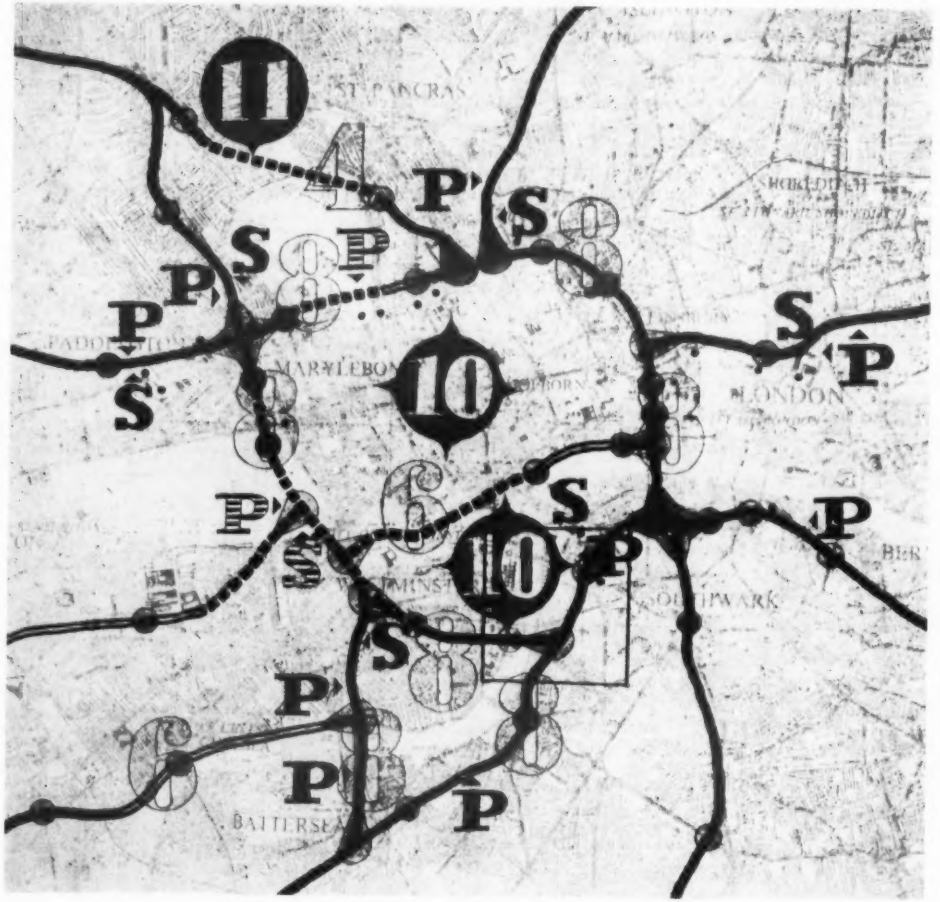
KEY:
A. Lambeth Bridge
B. Tate Gallery
C. Millbank
D. SR main line to Waterloo
E. Albert Embankment
F. Pedestrian podium over motorized interchange

The detailed area selected for treatment is on the south bank at Lambeth Bridge (top left). This shows the elevated motorway running parallel to the line from Clapham Junction to Waterloo, and the interesting treatment of an interchange, where the land lost is largely regained by constructing a pedestrian podium. To the right of it is a housing layout providing a garage per house and complete vehicular-pedestrian circulation. The new bridge, alas, would run slap into Vickers' new skyscraper on Millbank.

ASSESSORS' REPORT: This competitor goes back to the ring and radial method supplemented by an east-west route mainly on the line of the northern embankment of the Thames. Moreover the inner ring is drawn close to the centre and makes with the chief radials a number of trumpet-shaped junctions which are themselves to be used as the sites of fairly dense concentrations of building. One of them is shown in model form over what is now Lambeth Walk. The design has attractive features but is less interesting than its competitors in terms of land-use and of traffic engineering, and deliberately avoids the problem of car parking inside the inner ring.

COMMENT: This scheme is really based upon a determination to solve the traffic problem by an overall attack in which urban motorways play a limited part, and the least damage is done to valuable buildings or established communities. Elevated motorways (some with car parks beneath) are sited parallel to the main railway lines, so that the roads follow cleavage lines between communities. The main railway stations are connected by a ring road and used for fringe car parks, but large car parks are not provided within the central area on the ground that they would only increase congestion. It was not considered feasible to provide motorways in central London in the direction of the major traffic flows, as the competition required, and these competitors rely on long-term redevelopment to relieve traffic congestion there, with restrictions on traffic in the meantime. In redevelopment they would organize pedestrian circulation on a 20-ft. podium, and their concern for pedestrians is demonstrated in two other ways. Roads in the royal parks are in tunnel or covered, so that the parks become entirely pedestrian. And at major interchanges the land lost to the





This design relies upon an inner ring road connecting the main-line railway terminals, at which large car parks are provided, and radial motorways which follow the line of railways. Car parks and motorways in the centre are deliberately omitted, partly to avoid congestion, and partly because the competitors rely on comprehensive redevelopment to remove congestion and provide pedestrian circulation on a 20-ft. podium.

roads is largely recovered by erecting a pedestrian podium and buildings.

These competitors emphasize that any road plan must form part of a comprehensive city plan, without which motorways cannot alone remove traffic congestion. They propose vigorous town planning measures to secure the proper distribution of work-places so as to reduce long journeys to work, a co-ordinated road and railway development plan, and express motorway buses. Their motorway system, however, fails to serve such areas as the East End and the docks, and their limited use of motorways in the centre must have told against them. It is questionable whether such a limited system could serve the centre adequately.

DETAILED STUDY: The area selected is the south bank of the Thames between Lambeth and Vauxhall bridges. This shows very effectively an elevated road running alongside the main Southern Region line to Waterloo, with an interchange used for building purposes. Access is provided at two levels, with space at ground level for service industry, storage and car parking, and at the higher level there are shops, public houses and maisonettes. Pedestrians can circulate freely over the land occupied by the motorway link roads. The area round Lambeth Walk is redeveloped for housing, on the basis of one car per house, and pedestrian-vehicular segregation. The new bridge over the Thames runs into the site of the Vickers skyscraper, now being built, and takes a piece of Westminster Hospital.

technical section

INFORMATION CENTRE

(98)

19.224 construction: details

HOUSE CONSTRUCTION

A Study of Alternative Methods of House Construction. National Building Studies. Special Report No. 30. HMSO, 7s. 6d.

This is a study based on field work carried out on a considerable scale (over 400 houses) between the years 1953 and 1956. The object of the study was to test whether various innovations in technique made the building of the traditional semi-detached council house cheaper. Most of these innovations involved a greater degree of factory production than is usual in this class of the work and the general conclusion of the study is that this made the work more expensive. Some of the more important detailed conclusions are as follows. It is of no avail to use self-finished prefabricated panels to cut down the amount of site plastering unless you eliminate site plastering altogether. The extra man hours to make good small, awkwardly shaped areas of plaster more than outweigh saving on the remainder. Apart from this, the extra cost in materials and factory overheads of making such items as floor panels and timber stud wall panels exceeds any saving which would be made on site. Trussed rafters cost 7 per cent. more than the traditional roof and trussed purlin roofs 14 per cent. more, but this added expense might be justified if you can exploit the fact that they do not need intermediate support. It does not pay to hang doors on their frames before erection as they will have to be re-hung afterwards. Prefabricated plumbing gave a disproportionate amount of trouble, chiefly in design labour.

(56)

26.135 services and equipment: miscellaneous

COKE-BURNING APPLIANCES

Coke-Burning Appliances Handbook. The Gas Council. 35s.

The Gas Council has just published the sixth edition of its *Coke-Burning Appliances Handbook.* Those who are familiar with the 5th edition published in 1957 may be taken aback that the new edition costs 35s. instead of 15s., but there is a reason for this which is of some significance. In the past difficulty has been found in keeping the handbook up-to-date as new appliances of improved design and which take account of the provisions of the Clean Air Act are constantly coming onto the market. The new 6th edition, therefore, is in the form of a loose leaf folder into which supplementary sheets may be inserted and from which superseded ones may be removed. Supplementary sheets will be issued free of charge to all those who have paid their 35s.

8 ESTIMATING

current wage rates, market prices and measured rates

The prices feature this quarter shows a tendency for a number of materials to rise in price. Namely, clinker blocks, stoneware pipes, roofing, lead and copper, and these have resulted in corresponding increases in rates for measured work. There have, however, been decreases in sand and shingle, resulting in lower prices for concrete, stonework and asphalt. The prices are prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors.

Wage rates
Rates of wages rose on February 2, 1959, and are now as follows:

	Craftsmen	*Labourers*
London District	s d	s d
Within 12 miles radius	4 10½	4 4
From 12 to 15 miles radius	4 10	4 3½
Liverpool and District	4 10½	4 4
Grade classifications		
A	4 9	4 2½
A1	4 8½	4 2

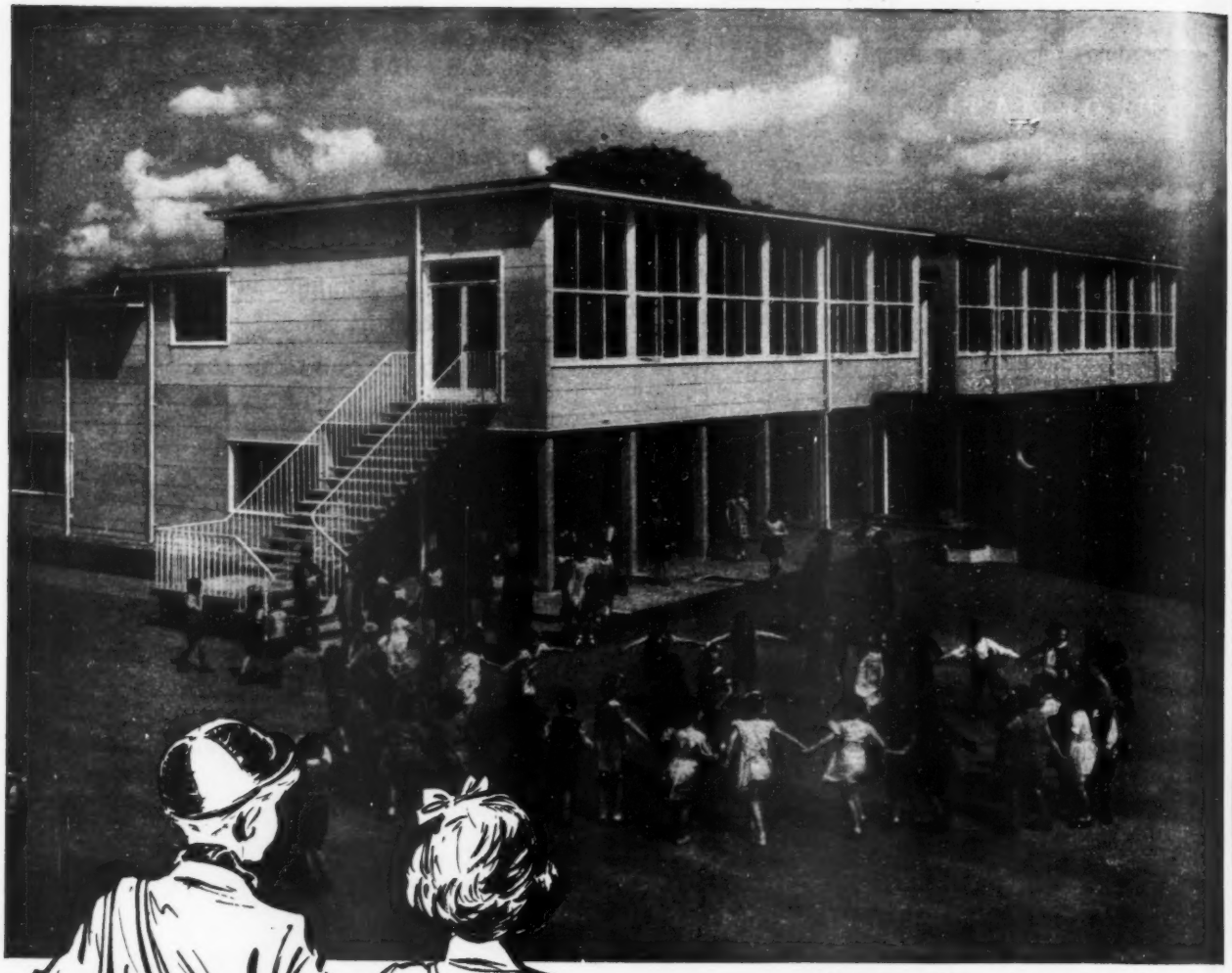
Market prices
Prices are given for the major items in each trade, they are intended as average prices and include delivery in the outer London area. They do not include overhead charges and profit.

Measured rates
Prices are for work carried out in the Outer London area and include 10% to cover overhead charges and profit except in the case of work which would be carried out by specialists when 5% has been allowed.
The prices given in italics represent the total value of the materials included in the measured rates, including an allowance for waste and 10% for overhead charges and profit. The cost of labour included in the measured rates (including its proportion of overhead charges and profit) can be ascertained by subtracting the prices in italics from the prices in heavier type.

Abbreviations
Inches: In. Feet: ft. Yards: Y. Yards cube: YC. Yards super YS. Feet cube: FC. Feet super: FS. Ton: T. Feet run: FR. Thousand: M. Square: Sq. Number: No. Hundredweight: C. Pound: lb. Gallon: Gal.

Preliminaries
To all estimates based on prices for measured rates add, if required, for Preliminaries, water, insurances, etc. depending on the nature of the job.

Price changes
* Shows changes in market prices and measured rates since the last issue (September 24, 1959.)



Architects: John Dudding & Partners, F/A.R.I.B.A., in collaboration with F. Hamer Crossley, Esq., Dipl. Arch. (L'pool), F.R.I.B.A., County Architect.

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P.I.

technical section

EXCAVATOR

		s	d
Market prices			
Carting away, up to 8 miles	YC		
Hand loaded		*6	6
Machine loaded		*5	6
Hardcore	YC	10	0
Measured rates			
Hand excavation and disposal			
NB: the following are applicable to excavation in heavy soil.			
Excavating over site to remove top soil and vegetable matter, 6 in. deep	YS	1	3½
As above, 12 in. deep	YS	2	7
Excavating over site to reduce levels and getting out	YC	10	4
Excavating for basement and getting out	YC		
Depth up to 5 ft.		11	7
Depth between 5 & 10 ft.		16	10
Depth between 10 & 15 ft.		22	0
Excavating surface trenches and ditto	YC		
Depth up to 5 ft.		14	3
Depth between 5 & 10 ft.		19	5
Depth between 10 & 15 ft.		24	7
Excavating basement trenches and ditto	YC		
Commencing 5 ft. below existing ground level		19	5
Commencing 10 ft. below existing ground level		24	7
Commencing 15 ft. below existing ground level		29	9
Wheeling surplus excavated material not exceeding 100 yards and depositing	YC	5	2
Add to last for:			
Roughly spreading and levelling	YC	1	7
Spreading, levelling and consolidating to make up levels	YC	3	4
Returning, filling-in and well ramming excavated material around foundations	YC	4	7
Loading surplus material into lorries and carting to tip. not exceeding 8 miles	YC	*14	1
Excavating from spoil heaps selected top soil, wheeling not exceeding 100 yards, and spreading, levelling and consolidating, not exceeding 6 in. to receive turf	YS	2	3
Mechanical excavation and disposal			
Excavating for shallow surface excavation and loading into lorries or dumpers (using ⅜ yd. cube excavator)	YC	3	0
Excavating for surface excavation and removing, spreading and levelling not exceeding 200 yds. (using 6 yd. cube scraper)	YC	2	11
Removing excavated material and depositing, not exceeding 200 yds. (using 3 yd. cube dumper)	YC	2	2
Planking and strutting			
Planking and strutting to sides of surface or basement excavation	FS		
Depth up to 5 ft.			8
Depth up to 10 ft.			10
Depth up to 15 ft.		1	0
Planking and strutting to sides of surface and basement trenches	FS		
Depth up to 5 ft.			2
Depth up to 10 ft.			3½
Depth up to 15 ft.			4
Hardcore, etc.			
Hardcore filled-in in layers, each layer well rammed	YC	20	8
		13	*9*
Bed of ditto, 4-in. thick	YS	3	5
		1	6½

CONCRETOR

		s	d
Market prices			
Portland cement, 6 tons and over	T	113	6
Rapid hardening, 6 tons and over	T	124	0
¾-in. down, washed, crushed and graded shingle	YC	*16	6
1½-in. ditto	YC	*15	6
Sharp sand	YC	*20	0
⅜-in. diam. mild steel rods to BS 785 delivered station	T	860	0
⅝-in. ditto	T	922	6
Measured rates			
Portland cement mass concrete in foundations etc.	YC		
1 : 12, 1½-in. " all-in " aggregate		*58	4
		37	*1*
1 : 3 : 6, 1½-in. aggregate		*67	3
		46	*0*
1 : 2 : 4, ¾-in. aggregate		*75	0
		53	*9*
1 : 1½ : 3, ½-in. aggregate		*76	10
		55	*7*
Add for:			
Working around rod or mesh reinforcement	YC	5	2
Walls not over 6-in. thick	YC	25	10
Walls 6-in. to 12-in. thick	YC	18	2
Walls over 12-in. thick	YC	12	11
Columns not over 72 sq. inches	YC	49	2
Columns 72 to 144 sq. inches	YC	38	9
Columns over 144 sq. inches	YC	31	0
Suspended floors and roofs not over 4½-in. thick	YC	20	8
Suspended floors over 4½-in. to 6-in. thick	YC	18	1
Suspended floors over 6-in. to 12-in. thick	YC	15	6
Beds not over 4½-in. thick	YC	10	4
Beds 4½-in. to 6-in. thick	YC	7	8
Beds 6-in. to 12-in. thick	YC	2	7
Hollow tile floor of clay tiles 4-in. thick at 15-in. centres laid on formwork (measured separately), nibs filled in with concrete (1 : 2 : 4) and finishing top of tiles with bed of concrete 1½-in. thick including tamping around reinforcement (measured separately)	YS	*17	8
		10	*3*
Ditto, but tiles 8-in. thick	YS	*27	2
		17	*10*
Sundries			
Finishing concrete with trowelled face to receive linoleum	YS	1	4½
Applying horizontal damp-proof membrane of Synthaprufe in three coats to surface of concrete and blinding with sand to form key	YS	5	10
		4	*1*
Supplying floor clips (p.c. 6d. each) and fixing	No.	1	1
Formwork			
Formwork including strutting easing and striking:			
Vertical faces of foundation	YS	18	8
		9	*6*
Vertical faces of wall	YS	19	3
		6	*10*
Soffite of floors not over 12-ft. high	YS	19	1
		8	*6*
Sloping soffite of stairs	YS	23	1
		9	*3*
Sides of columns	FS	2	6
			10½
Sides and soffites of lintols and beams	FS	2	8
		1	*0*
Add to the above for wrot formwork including rubbing down concrete	YS	2	7
Reinforcement			
⅜-in. diameter mild steel rods, hooked, bent and tied and fixing	C	68	11
		52	*3*
½-in.	C	74	4
		54	*2*
⅝-in.	C	81	1
		55	*11*

technical section

Concretor continued		s	d
½-in.	C	94	11
		60	*8*
Steel wire mesh fabric weighing 4·32 lb. per yd. super and laying in concrete	YS	4	1
		3	*5*
Ditto weighing 6·57 lb. per yd. super	YS	6	0
		5	3
Ditto weighing 9·32 lb. per yd. super	YS	8	5
		7	4
Precast concrete			
Precast concrete (1 : 2 : 4) finished fair on exposed faces and hoisting setting and jointing:			
4½-in. × 6-in. lintols reinforced with one ½-in. rod	FR	2	10½
		2	4½
4½-in. × 9-in. ditto with two ½-in. rods	FR	4	4
		3	7
Piling			
Reinforced pre-cast concrete piles, approximate prices for supplying, unloading, pitching and driving			
12-in. × 12-in. up to 30 ft. long	FR	35	0
14-in. × 14-in. up to 50 ft. long	FR	41	0
Sheet steel piling, ditto	T	1165	0
		to	
		1230	0

BRICKLAYER

Market prices

Soft sand	YC	18	0
Hydrated lime	T	110	0
Plain Flettons	M	118	0
Second hard stocks	M	320	0
Lingfield Engineering wire cuts Grade B	M	260	0
Hessian base damp-course to BS·743	YS	5	8
Damp course slates, 14"x 9"	100	76	3
Wall ties, galvanised	100	14	9
Partitions			
Clinker concrete, solid	YS		
2½-in.		*5	0
3-in.		*6	5
4½-in.		*8	5
Thermalite	YS		
2½-in.		7	0
3-in.		8	5
4-in.		11	3
Hollow clay	YS		
2½-in.		4	5
(6 cavity) 3-in.		5	5
(ditto) 4-in.		6	10
Normal quality wood wool slabs	YS		
2-in.		8	10
2½-in.		10	2
3-in.		11	5

		s	d
Measured rates			
Reduced brickwork in cement lime mortar, Lingfields in cement mortar	YS		
Flettons		33	7
		17	*4*
Second stocks		55	5
		39	*1*
Lingfield Grade B		51	11
		33	*3*
Half brick wall ditto	YS		
Flettons		18	7
		8	*3*
Second stocks		29	5
		19	*2*
Lingfield Grade B		28	3
		16	*1*
11-in. hollow wall with 2-in. cavity and wall ties	YS		
Flettons		38	2
		16	*10*
Second stocks		59	11
		38	*7*
One brick wall built fair and pointed both sides.	YS		
Flettons		40	4
		17	*4*
Second stocks		62	2
		39	*1*
Lingfield Grade B		57	7
		33	*3*
Sundries			
Extra over common brickwork for internal fair face and flush pointing	YS	1	5
Horizontal damp proof course of two courses of slates and bedding and pointing	FS	4	2
		2	*4*
Horizontal damp proof course of hessian base bitumen	FS		11
			9
Facings			
Extra over ordinary brickwork with bricks P.C. 118s. per 1,000 for facings as described			
To solid wall in Flemish bond	YS		
Facings P.C. 250s per M		15	11
		9	*7*
Facings P.C. 350s per M		23	3
		16	*11*
Facings P.C. 450s per M		30	6
		24	*2*
To cavity wall in stretcher bond	YS		
Facings P.C. 250s per M		13	2
		7	*4*
Facings P.C. 350s per M		18	8
		12	*11*
Facings P.C. 450s per M		24	3
		18	*5*
Half brick wall in facings built fair and pointed on one side	YS		
Facings P.C. 250s per M		30	6
		16	*0*
Facings P.C. 350s per M		36	1
		21	*6*
Facings P.C. 450s per M		41	7
		27	1

		s	d
Partitions			
Clinker concrete solid partition blocks and setting in cement lime mortar	YS		
2½-in.		*11	5
		6	*2*
3-in.		*14	0
		7	*11*
4½-in.		*17	8
		10	*4*
Thermalite ditto	YS		
2½-in.		12	9
		8	*6*
3-in.		15	1
		10	*3*
4-in.		19	2
		13	*4*
Hollow clay ditto	YS		
2½-in.		10	9
		5	*6*
(6 cavity) 3-in.		12	10
		6	*9*
(ditto) 4-in.		15	10
		8	*6*
Wood wool slabs ditto	YS		
2-in.		14	1
		10	*6*
2½-in.		16	4
		12	*2*
3-in.		18	6
		13	*9*

DRAINLAYER

Market prices

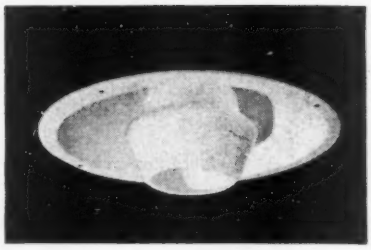
Salt glazed stoneware pipes and fittings. " Best " quality:			
Ordinary pipes	FR		
4-in.		*1	5
6-in.		*2	1½
9-in.		*3	10
Bends	No.		
4-in.		*4	3
6-in.		*6	4½
9-in.		*17	2½
Pitch fibre pipe	FR		
3-in.		1	10¾
4-in.		2	6
6-in.		5	0¾
Cast iron s. and s. pipe to BS 437	YR		
4-in.		28	2
6-in.		41	3
9-in.		77	3
Spun iron s. and s. pipe to BS 1211, Class B	YR		
4-in.		13	3
6-in.		21	4
9-in.		35	10

Measured rates

Trenches and beds

Excavate trenches by hand in heavy soil, including planking and strutting, part returning, filling and ramming and wheeling and spreading surplus, for pipes 4-in., 6-in. and 9-in. dia.	YR		
Average depth of trench 3-ft.		17	0
4-ft.		22	9
6-ft.		39	4
Excavate trench as last but by mechanical trencher	YR		
Average depth of trench 3-ft.		13	2
4-ft.		18	1
6-ft.		32	9
9-ft.		54	2

RHEA



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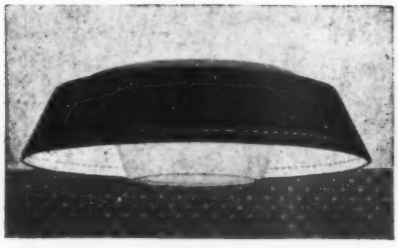

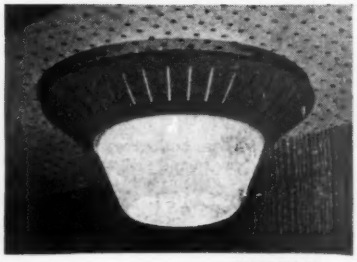

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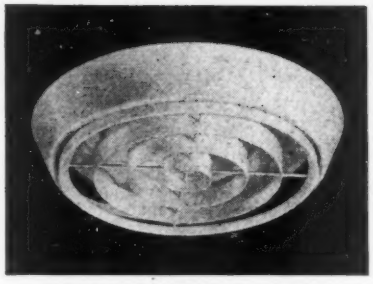

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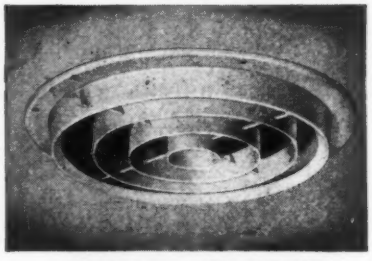

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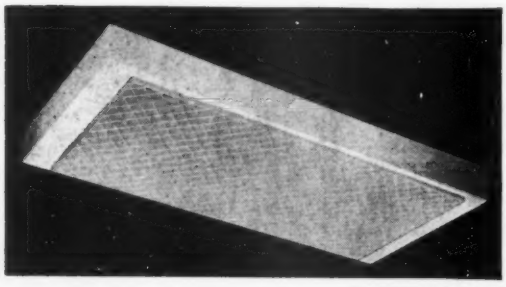

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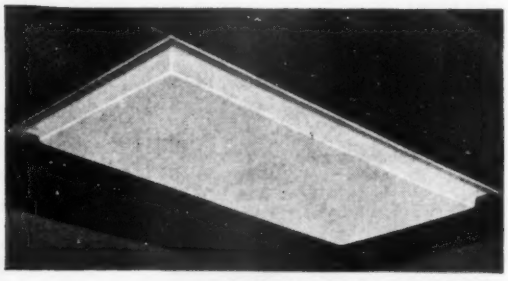

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AP 112

technical section

Drainlayer continued

		s	d
6-in. concrete bed and benching for 4-in. pipes	YR	*9	4
		5	6
As above, for 6-in. pipes	YR	*10	10
		6	5
6-in. concrete bed and surround for 4-in. pipes	YR	*15	2
		9	0
As above, for 6-in. pipes	YR	*18	3
		10	10

Stoneware drains

"Seconds" quality salt glazed stoneware drain pipes and laying and jointing in trench

	FR		
4-in.		*2	3
		1	6
6-in.		*3	2
		2	2
9-in.		*5	2
		4	0

"Best" quality salt glazed stoneware drain pipes and laying and jointing in trench

	FR		
4-in.		*2	6
		1	9
6-in.		*3	7
		2	7
9-in.		*5	10
		4	8

Extra over "Seconds" quality pipes for:

Bend	No.		
4-in.		*3	4
		2	10
6-in.		*4	10
		4	3
9-in.		*14	1
		13	5
Single junction	No.		
4-in.		*5	10
		4	4
6-in.		*8	5
		6	7
9-in.		*17	11
		15	9
Double junction	No.		
4-in.		*9	10
		7	3
6-in.		*14	1
		11	0
9-in.		*27	3
		23	8

Stoneware gullies

Salt glazed trapped gully with galvanized grating including setting gully on and surrounding with concrete and jointing to drain No.

6 in. × 6 in. grating 4 in. outlet	*23	11
	19	7
9 in. × 9 in. grating 6 in. outlet	*43	9
	38	3

Grease and mud gully 9-in. diameter with 4-in. outlet galvanized bucket and grating and setting gully on and surrounding with concrete and jointing to drain No. *82 5

71 2

Road gully with 6-in. outlet including setting on and surrounding with concrete and jointing to drain No.

15-in. dia. 30-in. deep	*112	7
	89	8
18-in. dia. 48-in. deep	*225	0
	187	1

		s	d
Pitch fibre drains			
Pitch fibre drain pipes and laying and jointing in trench	FR		
3-in.		2	3
		2	1½
4-in.		2	11½
		2	9½
6-in.		5	10
		5	8
Extra over pitch fibre pipe for 45° bend	No		
3-in.		16	3
		15	4
4-in.		22	8
		21	10
6-in.		44	3
		43	3
Cast iron drains			
Cast iron spigot and socket drain pipes and laying and jointing in trench	FR		
4-in.		13	0
		10	11
6-in.		19	0
		16	3
9-in.		36	3
		30	4
Extra over cast iron pipes for bend	No.		
4-in.		30	10
		24	7
6-in.		72	2
		62	10
9-in.		184	7
		168	6
Spun cast iron spigot and socket drain pipes and laying and jointing in trench	FR		
4-in.		7	4
		5	3
6-in.		11	3
		8	7
9-in.		20	2
		14	6
Cast iron gullies			
Cast iron gully trap with high invert and setting on and surrounding with concrete and jointing to drain	No.		
4-in.		*45	4
		36	6
6 in.		*110	8
		97	8
9 in.		*245	8
		228	3

ASPHALTER

Measured rates

Damp proof course and tanking

½-in. vertical damp proof course in two thicknesses on brick or concrete	YS		
	BS1097	*17	4
	BS1418	22	0
½-in. horizontal damp proof course in one thickness on brick or concrete	YS		
	BS1097	*10	6
	BS1418	14	2
Vertical tanking in three thicknesses	YS		
	BS1097	*24	8
	BS1418	30	5
Horizontal tanking in three thicknesses	YS		
	BS1097	*17	4
	BS1418	26	3

Roofing

½-in. flat laid to falls in two thicknesses on and including felt underlay	YS		
	BS988	*12	1
	BS1162	*18	8
6-in. skirting with angle fillet at bottom and rounded edge at top turned into groove	FR		
	BS988	2	1
	BS1162	2	7
6-in. fascia with solid water check roll at top and undercut drip at bottom	FR		
	BS988	4	2
	BS1162	4	9

PAVIOR

Market prices

Granite chippings, ¼ in. to dust	T	45	1
Red quarry tiles, 6 in. × 6 in. × ¾ in.	YS	13	8
2-in. Noelite paving	YS	13	11

Measured rates

Cement and sand floated screed to receive pavings	YS		
¼-in.		*4	1
		2	3
1-in.		*5	0
		3	0
1¼-in.		*5	7
		3	5
Cement and sand paving trowelled hard and smooth	YS		
¼-in.		*4	7
		2	3
1-in.		*5	6
		3	0
1¼-in.		*6	1
		3	5
Granolithic paving laid on concrete	YS		
1-in.		7	2
		5	1
1¼-in.		9	3
		6	8
¼-in. red composition paving laid on prepared screed	YS	16	6
⅜-in. terrazzo paving laid on prepared screed	YS	38	4
⅛-in. rubber flooring and laying in rolls	YS	39	5
¼-in. rubber flooring and laying in rolls	YS	63	0
⅜-in. cork tile flooring, 12 in. × 12 in. and fixing with mastic and including polishing	YS	39	5
⅛-in. thermoplastic tile flooring and laying-on screed	YS	12	0
		to	
		21	0
⅛-in. coloured linoleum and fixing with mastic to cement screed or boards	YS	24	11

technical section

Pavior continued		s	d
½-in. coloured linoleum and fixing with mastic to cement screed or boards	YS	19	11
⅜-in. red quarry tiles laid on prepared screed	YS	24	8
½-in. red quarry tiles laid on prepared screed	YS	27	10
2-in. Noelite paving laid on prepared bed, in random sizes and mixed colours	YS	20	3
		16	*1*
12 in. × 12 in. anchor steel plates laid complete	YS	59	6

MASON

Market prices

Stone in blocks in truckloads at stations in the London area:

Beer	FC	9	0
Portland	FC	9	2
Woodkirk Blue building quality	FC	18	7
Broughton Moor slate in blocks at stations in the London area	FC	*55	0
Marble in blocks at works: Dove	FC	70	0
Roman stone	FC	65	0

Measured rates

Stone and all labours in pilasters and quoins	FC		
Portland		*53	10
Beer		*51	3
Jambs	FC		
Portland		*56	2
Beer		*53	6
Lintels	FC		
Portland		*57	3
Beer		*54	6
Arches	FC		
Portland		*70	0
Beer		*66	9
Ashlar average 7-in. on bed with plain dressed face	FS		
Portland		*31	9
Beer		*30	3
Extra for each additional 1-in. thickness	FS		
Portland		*4	1
Beer		*3	11
4½ in. × 4 in. sill sunk, weathered, throated and grooved for water bar, set and jointed in cement mortar	FR		
Portland		*11	5
Beer		*10	10
Artificial		4	11
4 in. × 12 in. coping, weathered and twice throated	FR		
Portland		*22	1
Beer		*21	0
Artificial		11	11

Marble and slate

¾-in. Dove marble lining and fixing on brick backings	FS	37	10
¾-in. Roman stone lining	FS	35	9
¾-in. Broughton Moor slate lining	FS	23	1

SLATER, TILER AND ROOFER

Market prices

Welsh slates, best quality	M		
16-in. × 10-in.		*1116	0
20-in. × 10-in.		*2050	0
Best hand made sand faced plain tiles, 10½-in. × 6½-in.	M	*337	0
Grey corrugated asbestos cement sheets	YS	7	0

Measured rates

16-in. × 10-in. best Welsh slates laid 3-in. lap	Sq.	*300	0
20-in. × 10-in. best Welsh slates, 3-in. lap	Sq.	*400	0
Westmorland green slates in random sizes laid 3-in. lap	Sq.	*550	0
Best hand made sand faced plain tiles, 10½ in. × 6½ in. laid to a 4-in. gauge	Sq.	*215	0
Best hand made sand faced plain tiles, 10½ in. × 6½ in. hung vertically to 4½-in gauge	Sq.	*240	0
Berkshire hand made sand faced red pantiles, 14½ in. × 10 in. laid 2½-in. head and 1½-in. side lap	Sq.	*206	0
Grey corrugated asbestos cement sheets fixed to wood roofs	Sq.	123	0
Grey corrugated asbestos cement sheets fixed vertically	Sq.	133	0
Cedarwood shingles laid 5-in. gauge	Sq.	*240	0
Metal roof decking and fixing with hook bolts, finished with ½-in. insulation board and three layers self finish felt roofing	YS		
18 gauge for spans up to 10 ft.		*62	0
20 gauge for spans up to 8 ft. 6 in.		*54	6
Two layer one ply bitumen felt and fixing with bitumen to concrete or boarding	YS	9	6
Three layer bitumen felt	YS	12	7
Patent ribbed aluminium roofing and fixing to purlins	Sq.	297	6

CARPENTER

Market prices

Softwood, carcassing quality	Std.	1640	0
Softwood, joinery quality	Std.	2100	0
½-in. fibre board	Sq.	46	6
¼-in. standard hardboard	Sq.	40	0
⅜-in. insulating gypsum wallboard	YS	3	0

Measured rates

Softwood and fixing in plates, sleeper joists and lintels	FC	13	10
		11	*11*
In floor and ceiling joists	FC	16	3
		11	*11*
In stud partitions, purlins and struts	FC	18	5
		11	*11*
In hip and valley rafters	FC	21	1
		11	*11*

Battening and boarding

Slate or tile battens 1½ in. × ¾ in. and nailing to fixing for	Sq.		
16-in. × 10-in. slating to 6½-in. gauge		*38	3
20-in. × 10-in. slating to 8½-in. gauge		*32	0
10½-in. × 6½-in. plain tiling to 4-in. gauge		*58	9
14½-in. × 10-in. pantiles to 12-in. gauge		*22	0
S.E. boarding in batten widths close jointed and fixing to flat or sloping roofs	Sq.		
¾-in.		109	9
		75	*9*
1-in.		133	9
		99	*9*
T. & g. boarding in batten widths close jointed and fixing to flat or sloping roofs	Sq.		
¾-in.		143	3
		100	*9*
1-in.		175	3
		132	*9*
¾-in. wrot and cross tongued eaves soffit	FS	2	2
		1	*11*
¾-in. × 6-in. wrot and grooved eaves fascia p.o.	FS		9
			5

Wall and ceiling boards fixed to softwood

	YS		
¼-in. fibre board		6	9
		5	*0*
⅛-in. hardboard		5	9
		4	*4*
⅜-in. insulating gypsum wallboard		5	6
		3	*9*
7/16-in. asbestos cement flat sheeting		8	8
		4	*11*
¼-in. asbestos cement flat sheeting		10	5
		6	*8*
2-in. Stramit, showerproof quality fixed to joists with butt joints		15	9
		11	*6*

JOINER

Measured rates

Floors and skirtings

Tongued and grooved soft wood flooring and nailing to joists	Sq.		
⅞-in.		161	0
		121	*6*
1-in.		177	6
		137	*9*
1-in. nominal double grooved t. and g. Swedish softwood			

technical section

Joiner continued		s	d
block flooring set in mastic and polished	YS	29	5
European beech	YS	31	6
African Muhuhu	YS	*34	8
Burma teak	YS	36	9
Moulded skirtings, 3-in. to 6-in. sectional area planted on (per inch in sectional area)	FR		
Softwood			3
			2½
Oak			9
			8
Extra for grounds plugged to brickwork	FR		
Softwood			9½
			2
Windows			
2-in. rebated and moulded sashes divided into squares	FS		
Softwood		3	10
Oak		11	7
Extra for side hanging	Each		
Softwood		2	10½
Oak		4	4
Doors			
2-in. framed, ledged and braced doors, filled in with 1-in. t. and g. and V jointed boarding and hanging	FS		
Softwood		6	5
		5	8
Four panelled door square both sides and hanging	FS		
Softwood		7	0
		6	3
Oak		20	7
		19	6
1¼-in. Standard flush door, hardboard faced size 2 ft. 6 in. × 6 ft. 6 in. and hanging	No.	43	11
		32	5
Linings and frames			
Window and door linings, 6-in. to 12-in. sectional area (per inch sectional area)	FR		
Softwood			4
			3
Oak			10
			9
Frames wrot all round and framed (per inch sectional area)	FR		
Softwood			3½
Oak			9
Mullions, transomes and sills (per inch sectional area)	FR		
Softwood			4
Oak			10
Mouldings, architraves, etc. 4-in. to 6-in. sectional area (per inch sectional area)	FR		
Softwood			4
			3
Oak			11
			10
6-in. window boards, 1-in. thick with rounded nosing tongued at back and including bearers	FR		
Softwood		3	2
		1	9
Oak		5	8
		3	8
Shelving and fittings			
¾-in. shelving of 2-in. slats spaced 1-in. apart on bearers (measured separately)	FS		
Softwood		2	7
		2	0
¾-in. solid shelving on bearers	FS		
Softwood		2	5
		2	0
Oak		4	10
		4	3
2-in. shelf bearers plugged to wall	FR		
Softwood			7½
			5½
Oak		1	3
		1	1
Staircases			
1-in. treads and ¾-in. risers tongued together on and including framed carriages	FS		
Softwood		4	10
		3	9
Oak		14	5
		12	10
1½-in. × 11-in. wall string plugged to brickwork	FR		
Softwood		4	8
		3	8
Oak		12	2
		10	9
1½-in. × 9-in. outer string	FR		
Softwood		3	7
		3	0
Oak		7	7
		6	9
Ends of treads and risers housed to strings	No.		
Softwood		1	4½
Oak		6	9
2½-in. × 3-in. moulded handrail	FR		
Softwood		3	3
		2	8
Oak		6	10
		5	11
1½-in. × 1½-in. square balusters	FR		
Softwood			8½
			6½
Oak		1	5
		1	2
Framed ends to balusters	No.		
Softwood			7
Oak			9½

IRONMONGER

Market prices

As prices for ironmongery vary so greatly depending upon the type and quality required, no prices are quoted here

Measured rates

The rates which follow are for fixing only and are inclusive of profit

		s	d
3-in. steel butts	Pr.		
to softwood		4	7
to hardwood		6	1
Double action floor springs	No.		
to softwood		23	0
to hardwood		30	7
6-in. barrel bolts			
to softwood		2	1
to hardwood		2	9
Cupboard locks			
to softwood		4	4
to hardwood		5	9
Cylinder night latch			
to softwood		7	2
to hardwood		9	7
Mortice latch			
to softwood		5	9
to hardwood		7	8
Mortice lock			
to softwood		7	2
to hardwood		9	7
Casement fastener			
to softwood		1	9
to hardwood		2	4
Casement stays			
to softwood		1	9
to hardwood		2	4

STEEL & IRONWORKER

Market prices

Structural steel joist sections, basis sizes, ex mills	T	812	6
Extras for other than basis sizes vary between 10s. and 70s. per ton			

Measured rates

Rsj in steel framed structures hoisted and fixed complete	T	1625	0
Riveted compound girders including plates and rivets	T	1915	0
Rs stanchions including caps, bases, cleats etc.	T	1885	0
Metal windows including cutting and pinning lugs to brickwork and bedding frames in cement mortar	No.		
Domestic type 4 ft. high to BS 990			
Type ND2F 3 ft. 3½ in. wide		94	6
		78	1
Type HD2F 3 ft. 3½ in. wide		101	9
		85	5
Type ND11F 6 ft. 6½ in. wide		162	0
		133	1
"Z" range, 4 ft. high			
Type ZND1 2 ft. 0¾ in. wide		64	1
		53	2
Type ZND4F 6 ft. 0¾ in. wide		163	6
		134	7

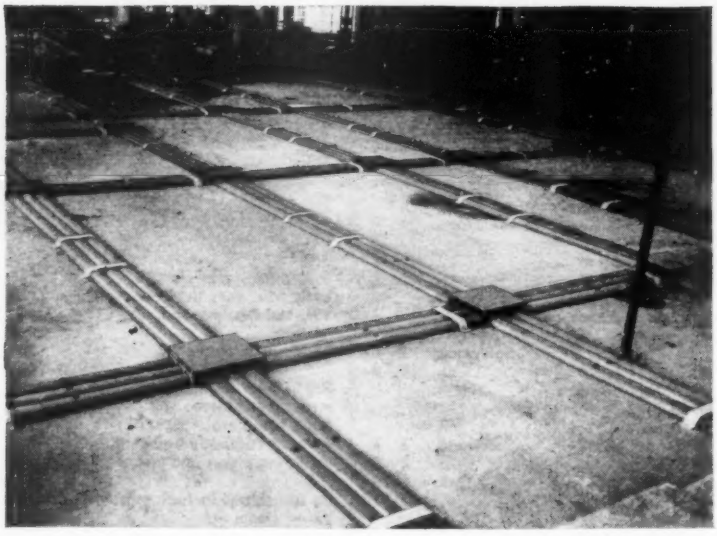
PLASTERER

Market prices

Plastering sand	YC	*20	0
Plaster to BS 1191			

13,600 feet

of new KEY triple unit fibre UNDERFLOOR DUCT for the new Daily Mirror building



SOLVES ALL PRESENT AND FUTURE ELECTRICAL DISTRIBUTION PROBLEMS

Now and for the future, this immense Key Underfloor Duct installation will solve electrical distribution problems in the 'Daily Mirror' building. The system provides unique flexibility because once the duct is laid, outlets for power and telephones can be added anywhere to suit individual needs. These outlets can later be increased and extended as needs in the building change, without disturbing floors or existing wiring.

LOW COST — EASY TO INSTALL

Here closed-bottomed 'dee'-shaped duct is used, but an open-based duct is also available. Both can be economically and speedily installed. The ducts are light in weight, and easy to cut and work with normal wood-working tools. They are cheaper than any other system.

For new or existing buildings

NEW SKIRTING DUCT can be used where the installation of underfloor ducting alone would be impracticable, extending still further its convenience and flexibility.

NEW DADO DUCT is similar to skirting duct and is designed for use at desk height. These two systems and underfloor ducting itself can be used alone or in conjunction with one another in both new and existing buildings.

KEY
REED TRADE MARK

First and foremost in Underfloor Duct Systems

Reed

'PHONE OR WRITE TO:

THE KEY ENGINEERING COMPANY LTD

BLACKFRIARS HOUSE, NEW BRIDGE STREET, E.C.4. TELEPHONE: FLEET STREET 4150

TGA UD5

technical section

Plasterer continued

		s	d
Class B in loads of 2 tons to 3 tons 19 cwt.	T		
Browning		168	9
Fibred browning		171	9
Board finish		168	9
⅜ in. plaster lath, over 600 yds.	YS	2	3½
¼ in. × 6 in. × 6 in. cream glazed wall tiles	YS	19	6

Measured rates

Metal lathing

No. 24 gauge expanded metal lathing and fixing	YS		
To softwood soffits		6	10
		4	*3*
To metal		7	7
		4	*3*

Lime plaster

Render float and set on brick walls and partitions	YS	*7	3
		2	*3*
R.F. and S. on concrete including hacking	YS	*8	11
		2	*3*
R.F. and S. on expanded metal lathing	YS	*7	4
		2	*4*

Gypsum plaster

Render in cement-lime-sand (1 : 1 : 6) and set in gypsum plaster on brick walls and partitions	YS	*5	9
		1	*11*
Render in gypsum fibred browning-sand (1 : 1½) and set in gypsum on concrete soffits including bonding coat	YS	*9	4
		3	*7*
Render and set on expanded metal lathing including pricking up coat	YS	*8	11
		3	*11*

Plaster board

⅜-in. gypsum plaster lath fixed to softwood soffits finished to receive plaster	YS	4	9
		2	*10*
Gypsum board finish setting coat on last	YS	4	4
		1	*2*

Plain face

½-in. Portland cement and sand (1 : 3) plain face trowelled smooth on brick walls	YS	*6	7
		1	*10*

Tyrolean rendering

Render in cement, lime sand (1 : 1 : 6) and finishing with three coats patent coloured mix preparations applied with hand operated machine	YS	*10	1
		2	*5*

		s	d
Sprayed "Limpet" asbestos Approximate prices for sprayed "Limpet" asbestos on the following surfaces to the thickness shown for quantities of 1,000 yds. super. Normal pressed finish.			
New concrete soffits and beams	YS		
½-in.		14	5
¾-in.		19	8
1-in.		21	9
New structural steelwork	YS		
½-in.		16	6
¾-in.		21	9
1-in.		23	10
Extra over the above prices for coloured texture finish	YS	3	5

Wall tiling

6 in. × 6 in. × ¼ in. standard quality white glazed wall tiles set and jointed on prepared screed	YS	41	9
Egg shell matt or glossy glazed enamelled tiles	YS	59	1

EXTERNAL PLUMBER

Market prices

Sheet lead, 3½ lb. and upwards, in quantities of 5 cwt. to 1 ton	C	*114	6
Copper sheeting, 23 gauge, in 1-ton lots	C	320	0
Zinc sheeting, 14 gauge, in 1-ton lots	C	110	0
Aluminium sheeting 20 SWG C			
Super purity		513	4
Commercial quality		326	8
Cast iron rainwater and soil goods			
Medium weight pipe to BS 416 and BS 460 in 6 ft. lengths	No.		
2½-in.		18	10
3-in.		21	0
4-in.		26	10
Half round gutter in 6 ft. lengths	No.		
3½-in.		7	11½
4-in.		10	4
6-in.		16	11
The above are Standard-List prices plus 22½%.			

Measured rates

Milled sheet lead	C		
Flat roofs		*198	0
Gutters and flashings		*198	0
24 SWG copper sheet	FS		
Flat roofs		5	8
Gutters and flashings		5	8
23 SWG copper sheet	FS		
Flat roofs		6	6
Gutters and flashings		6	6
14 gauge zinc	FS		
Flat roofs		3	5
Gutters and flashings		3	5
20 SWG super purity aluminium	FS		
Flat roofs		5	3
Gutters and flashings		5	3
20 SWG commercial quality aluminium	FS		
Flat roofs		4	0
Gutters and flashings		4	0

Rainwater gutters and pipes

½-in. cast iron half round eaves gutter jointed and fixed to fascia with brackets	FR		
4-in.		3	6
		2	*3*
6-in.		5	2
		3	*7*
18 gauge pressed steel half round eaves gutter	FR		
4-in.		3	2
		1	*11*
6-in.		4	3
		2	*8*
Asbestos cement half round eaves gutter	FR		
4-in.		2	11
		1	*7*
6-in.		4	2
		2	*7*
Aluminium half round eaves gutter	FR		
4-in.		3	11
		2	*8*
Cast iron medium section rain water pipes jointed and fixed to walls with pipe nails	FR		
3-in.		5	10
		4	*5*
4-in.		7	4
		5	*7*
Pressed steel	FR		
3-in.		4	6
		3	*0*
4-in.		6	4
		4	*7*
Asbestos cement	FR		
3-in.		3	9
		2	*3*
4-in.		4	10
		3	*1*
Aluminium	FR		
3-in.		5	4
		3	*10*
4-in.		7	2
		5	*5*

Soil and ventilating pipes

Lead soil, waste and ventilating pipes (15 lb. per yd. for 3-in. and 19 lb. per yd. for 4-in. diameter) fixed to walls with lead tacks	FR		
3-in.		*11	6
		8	*5*
4-in.		*15	4
		10	*3*
Cast iron soil, waste and ventilating pipes with caulked joints fixed to walls with pipe nails	FR		
3-in. heavy		7	2
		5	*2*
4-in. heavy		8	9
		6	*5*
Asbestos cement soil and ventilating pipe fixed to walls with holder bats	FR		
3-in.		3	10
		2	*4*
4-in.		4	11
		3	*2*

technical section

INTERNAL PLUMBER

Market prices

Lead pipe in quantities of 5 cwt. to 1 ton

	C	s	d
BS 602	*116	9	
BS 1085	*123	9	

Polythene tubing, heavy gauge, in quantities of 500 to 999 ft.

	per 100 ft.	s	d
½-in.		118	6
¾-in.		160	0
1-in.		203	0

Steel tubes to BS 1387 medium weight galvanised

	FR	s	d
½-in.		0	9
1-in.		1	1
1¼-in.		1	5
1½-in.		1	8

The above are Standard List prices less 37½%.

Galvanised malleable fittings.

Bend	No.	s	d
1-in.		2	10
1¼-in.		4	3
1½-in.		6	1

Tee	No.	s	d
½-in.		1	0
¾-in.		1	5
1-in.		2	0½
1¼-in.		2	10
1½-in.		4	0½

The above are Standard List prices less 23%, less 6½% plus 40%.

Copper tubes to BS 659

	FR	s	d
½-in.		*0	11¾
¾-in.		*1	4¾
1-in.		*2	1
1¼-in.		*2	6

The above are calculated on a basic price of 2s. 4d. per lb. plus C.T.A. extras.

Measured rates

Lead pipe to BS 602

Main supply and laying in trench (measured separately) at the following sizes and weights in lbs.

	FR	s	d
½-in.	7	*3	10
		2	10
¾-in.	11	*5	8
		4	5
1-in.	16	*7	11
		6	6
1¼-in.	28	*13	6
		11	3
1½-in.	35	*17	3
		14	0

Main supply fixed to walls and ceilings

	FR	s	d
½-in.	7	*4	5
		2	11
¾-in.	11	*6	4
		4	6
1-in.	16	*8	8
		6	7
1¼-in.	28	*14	3
		11	4
1½-in.	35	*18	7
		14	1

Distributing pipes fixed to walls and ceilings

	FR	s	d
½-in.	4	3	2
		1	9
¾-in.	5	3	8
		2	2
1-in.	7	*4	10
		3	1
1¼-in.	9	*5	8
		3	11
1½-in.	12	*7	5
		5	3

Flushing and warning pipes fixed to softwood

	FR	s	d
¾-in.	4	*3	7
		1	8
1-in.	5	*4	6
		2	0
1¼-in.	6	*5	7
		2	6
1½-in.	7	*6	1
		2	10

Waste pipes and fixings to softwood

	FR	s	d
1¼-in.	6	*5	7
		2	7
1½-in.	7	*6	1
		3	0

Joints to fittings

	No.	s	d
½-in.		6	3
		1	5
¾-in.		7	1
		2	2
1-in.		7	6
		2	10
1¼-in.		8	3
		3	7
1½-in.		9	0
		4	3

Extra for:

	Bend No.	s	d
1¼-in.		2	9
1½-in.		3	10

Branch joints	No.	s	d
½-in.		7	11
		1	5
¾-in.		9	1
		2	2
1-in.		9	6
		2	10
1¼-in.		11	2
		3	7
1½-in.		12	9
		4	3

Polythene tubing to BS 1972

Heavy gauge as supply pipe laid in trench (measured separately)

	FR	s	d
½-in.		1	9
		1	5
¾-in.		2	2
		1	10
1-in.		2	9½
		2	4

Heavy gauge as supply or distributing pipe fixed to walls

	FR	s	d
½-in.		2	7
		1	5
¾-in.		3	1
		1	11
1-in.		3	7
		2	5

Galvanised steel tubing to BS 1387

Heavy weight with screwed red lead joints as supply pipe laid in trench (measured separately)

	FR	s	d
½-in.		2	9
			10
¾-in.		3	2
		1	0
1-in.		3	4
		1	5
1¼-in.		3	10
		1	10
1½-in.		5	0
		2	2

Medium weight tubing fixed to walls

	FR	s	d
½-in.		2	8
			10
¾-in.		3	1
		1	0
1-in.		3	3
		1	3
1¼-in.		3	9
		1	8
1½-in.		4	11
		2	0

Extra for malleable iron:

	Bend No.	s	d
1-in.		5	2
		3	1
1¼-in.		7	4
		4	6
1½-in.		9	6
		6	7

	Tee No.	s	d
½-in.		3	2
		1	1
¾-in.		3	6
		1	6½
1-in.		4	1
		2	2
1¼-in.		5	7
		3	1
1½-in.		7	0
		4	5

Copper tube

Copper tube to BS 1386 as supply pipe laid in trench (measured separately) to the following size and gauges

	FR	s	d
½-in.	18	*2	2
		1	4
¾-in.	17	*3	1
		2	2
1-in.	16	*4	2
		3	2
1¼-in.	16	*5	6
		4	3
1½-in.	15	*7	1
		5	6

Copper tube to BS 659 as distributing pipe fixed to walls

	FR	s	d
½-in.	19	*2	3
		1	2
¾-in.	19	*2	9
		1	8
1-in.	18	*3	8
		2	6
1¼-in.	18	*4	7
		3	0
1½-in.	18	*5	4
		3	7

Extra for brass compression fittings joining copper to copper

	No.	s	d
Coupling ½-in.		5	1
		3	3
¾-in.		6	4
		4	0
1-in.		8	11
		5	10
1¼-in.		11	2
		7	7
1½-in.		15	3
		11	0
Bend ½-in.		6	4
		4	6
¾-in.		7	11
		5	6

technical section

Internal plumber continued

	s	d
1-in.	11	4
	8	3
1¼-in.	14	2
	10	6
1½-in.	23	1
	18	11
Tee ½-in.	9	4
	6	1
¾-in.	10	10
	7	0
1-in.	15	10
	11	4
1¼-in.	21	6
	16	5
1½-in.	32	1
	26	5

GLAZIER

Market prices

Sheet glass cut to size	FS		
24 oz.		0	10⅞
32 oz.		1	5½
¼-in. Polished plate glass, glazing quality in plates not exceeding:	FS		
2 ft. super		4	7
5 ft. super		5	7
45 ft. super		6	9
100 ft. super		7	4
Rolled plate glass	FS		
⅛-in. rolled plate		1	1⅛
¼-in. Georgian wired		6	2

Attention is drawn to reduction in certain glass prices offered by manufacturers for acceptance of specified minimum quantities of one size and substance delivered to one address at one time

Measured rates

Glazing to wood

		s	d
Ordinary quality sheet glass and glazing with putty in squares	FS		
24 oz. O.Q.		1	6
32 oz. O.Q.		2	1
⅛-in. rolled plate glass		1	8
¼-in. rough cast glass		2	1
Prismatic glass		2	9
¼-in. wired glass		2	3
¼-in. Georgian wired plate glass		8	4
¼-in. Polished plate glass (glazing quality) in plates 5 to 45 ft. super		8	7

Glazing to metal

Add to above rates 1d. per ft. super			

Sundries

Hacking out broken sheet glass	FS	1	3
Black ribbon velvet and bedding to edge of glass	FR		8

Double glazing

Insulight units of two skins of glass with lead spacers and glazing with mastic for beads (supplied). In panels 16 to 40 ft. super	FS		
32 oz. sheet		10	11
¼-in. polished plate		22	3

Patent glazing

Patent glazing with rolled steel lead capped bars for 8-ft. spans and glazing with ¼-in. Georgian wired cast	FS	*4	10
Aluminium alloy patent glazing	FS	*4	10

PAINTER

Market prices

Washable distemper	C	120	0
Emulsion paint	Gal.	45	0
Hard gloss paint:	Gal.		
Undercoat		45	0
Finishing		46	0

Measured rates

On walls and ceilings

Twice whiten plastered ceilings	YS	1	5
		3	
Two coats distemper on plastered walls or ceilings		2	2
		1	0
Two coats distemper on fair-faced brick or concrete walls		2	8
		1	3
Two coats emulsion paint on walls or ceilings		2	10
		1	8
Prepare, prime and apply one coat oil colour on plastered walls		3	10
		1	9
Add for each additional coat		1	8
		10	

On metal

Prepare, prime and apply one coat oil colour on general surfaces	YS		
Basis price		3	7
		1	6
Add for each additional coat		1	8
		10	
On metal casements	YS		
Basis price		5	9
		1	6
Add for each additional coat		2	6
		10	
On bars, angles etc., not exceeding 6-in. girth	YR		
Basis price		11¼	
		3	
Add for each additional coat		5	
		2	
On small pipes	YR		
Basis price		11¼	
		3	
Add for each additional coat		5	
		2	
On large pipes	YR		
Basis price		1	11
		6	

		s	d
Add for each additional coat		10	
		3½	
Prepare, prime and apply one coat heat-resisting paint on heating surfaces of radiators	YS		
Basis price		4	2
		1	4
Add for each additional coat		1	10
		8	

On wood

Knot, prime, stop and apply one coat oil colour on general surfaces	YS		
Basis price		4	0
		1	7½
Add for each additional coat		1	8
		10	
On work not exceeding 3-in. girth	YR		
Basis price		6	
		1½	
Add for each additional coat		2½	
		1	
For each additional 3-in. girth	YR		
Basis price		5½	
		1½	
Add for each additional coat		2½	
		1	

Stain and varnish

Prepare, size, stain and twice varnish on general surfaces of woodwork	YS	4	5
		1	9
On work not exceeding 3-in. girth	YR		7
			1½
For each additional 3-in. girth	YR		6
			1½

Oiling and polishing

Twice oiling general surfaces of hardwood with linseed oil	YS	2	7
		1	1
On work not exceeding 3-in. girth	YR		3
			1
For each additional 3-in. girth	YR		3
			1
Staining and wax polishing general surfaces of hardwood	FS	1	1
Staining bodying-in and fully French polishing on general surfaces of hardwood	FS	2	8

Papering

Preparing and sizing walls and hanging plain lining paper	Piece	10	10
		3	3
Hanging wall paper, p.c. 10s. per piece	Piece	20	9
		12	9
Hanging border p.c. 1s. per yd.	YR	1	9
		1	3

s	d
	10
	3½
4	2
1	4
1	10
	8
4	0
1	7½
1	8
	10
	6
	1½
	2½
	1
	5½
	1½
	2½
	1
4	5
1	9
	7
	1½
	6
	1½
2	7
1	1
	3
	1
	3
	1
1	1
2	8
10	10
3	3
20	9
12	9
1	9
1	3

46.Z2 ALPHABETICAL INDEX TO DEC. 10, 1959 (E-L)

46.Z3 ALPHABETICAL INDEX TO DEC. 10, 1959 (M-R)

working detail

CLOAKROOM FITTINGS: SCHOOL IN LONDON, W.C.1

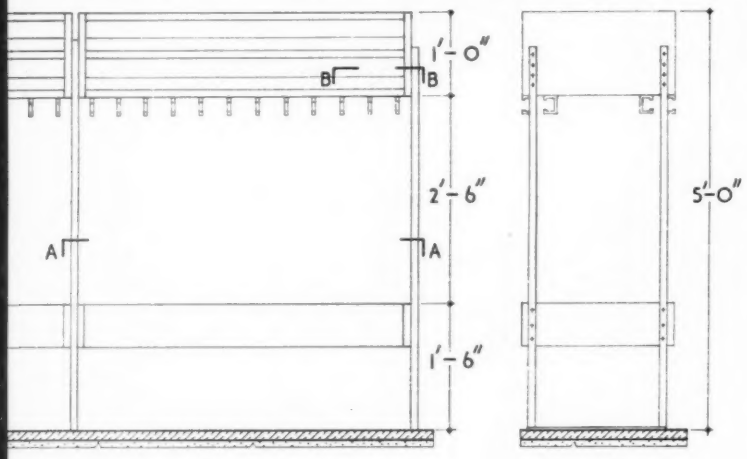
Hubert Bennett, Architect to the London County Council

These cloakroom fittings show the analytical approach to detailed design: the desire to keep each separate piece of a design visually separate and to show the planes on which fixing takes place, but not the mode of fixing. Note the architect's coat hangers. Do they offer a functional improvement on the traditional hook? Use alone can tell.

working detail

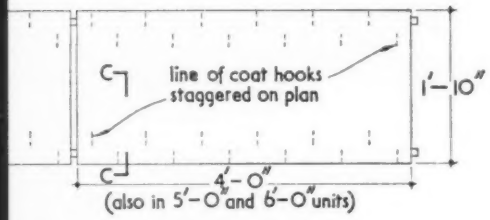
CLOAKROOM FITTINGS: SCHOOL IN LONDON, W.C.1

Hubert Bennett, Architect to the London County Council

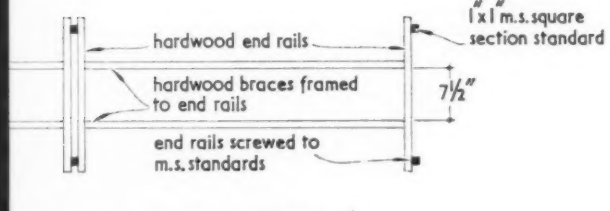


ELEVATION. scale ½" = 1'-0"

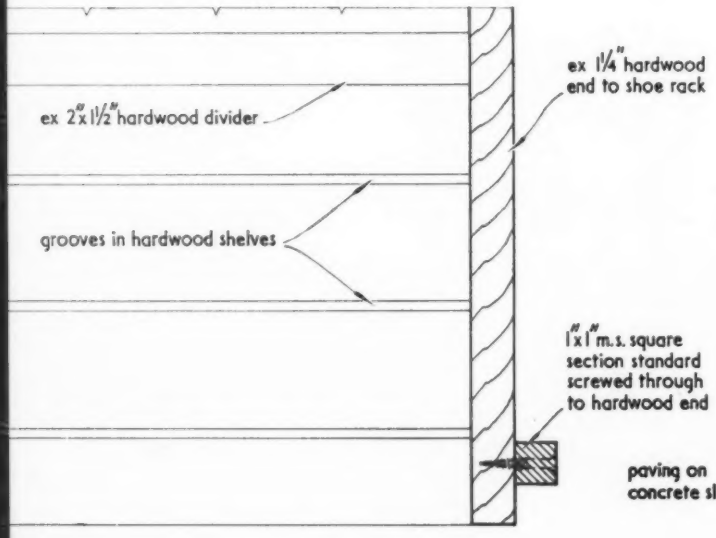
END ELEVATION.



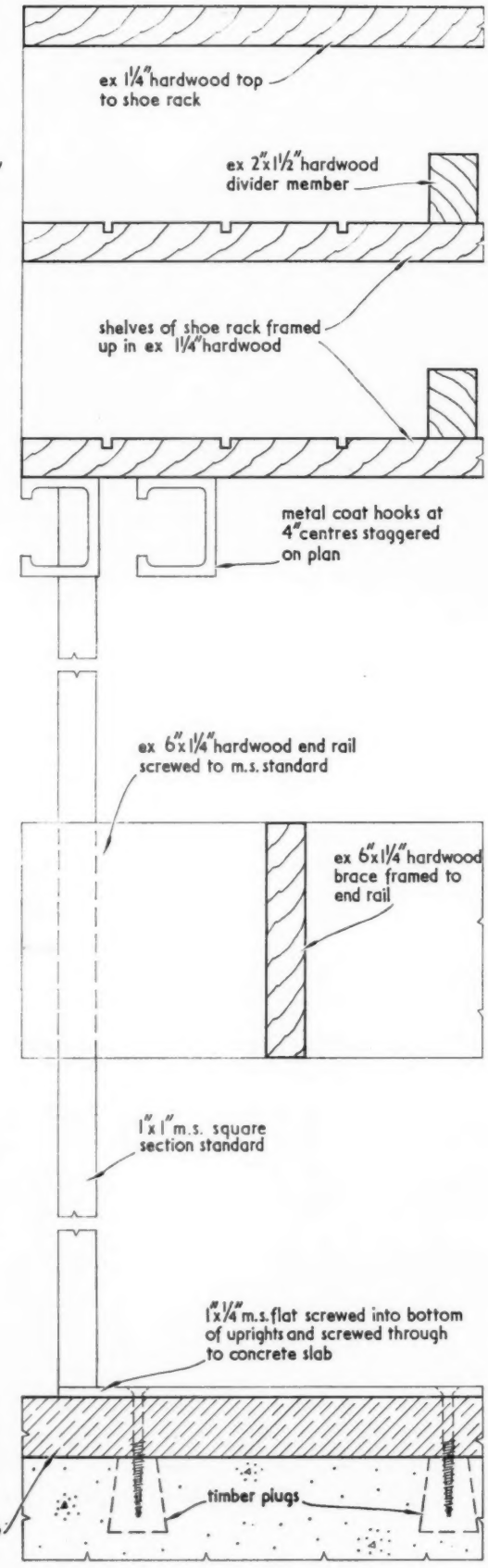
PLAN. scale ½" = 1'-0"



PLAN AT A – A. scale ½" = 1'-0"



DETAIL AT B – B. scale ¼ full size



SECTION C – C. scale ¼ full size

TWO OFFICE BUILDINGS NEAR KEW BRIDGE, LONDON

The trend for large companies to move their offices out of central London continues. Quite recently the completion of two more office blocks was announced. This time in Chiswick, quite close to the new flyover. The more recently finished one, **Reed House** *(above), designed by Clive Pascall and Peter Watson and built by Haymills (Contractors) Ltd. in under a year, occupies a site on the north bank of the Thames just west of Kew Bridge. The site was developed by an independent developer and let to the Reed Paper Group. The con-*

OFFICE BUILDINGS NEAR KEW BRIDGE continued

struction is partly by means of a concrete frame but mostly load-bearing brickwork. The other block is Kew Bridge House (above), which was opened in November by the Minister of Housing and Local Government. The structure of these 50,000 sq. ft. of offices, in contrast to Reed House, is a reinforced concrete frame with curtain walling of exposed aggregate panels. The architects in this instance were Duncan and Partners, and Tersons built it. The building is let to Bowmakers Ltd. by the firm that developed the site, the Rodwell Group.

Announcements

PROFESSIONAL

C. H. Elsom & Partners of 10, Lower Grosvenor Place, London, S.W.1, have appointed R. L. Nicholls, A.R.I.B.A., an Associate of the firm. The practice will be continued under the same name.

John V. McKenna, B.Arch., recently appointed Company Architect of Smiths (Holdings) Ltd., 69, Lower Leeson Street, Dublin, would be pleased to receive trade catalogues, samples, etc., especially those dealing with the construction and equipment of garage buildings.

Sergei Kadleigh, A.A.Dipl., A.R.I.B.A., has changed his address to 15a, Constant Spring Road, Half Way Tree PO, St. Andrew, Jamaica, British West Indies.

TRADE

Associated Electrical Industries Ltd. have appointed Stanley White as their Chief Press Officer.

Tricity Cookers Ltd. have moved their head office to Thorn House, Upper St. Martin's Lane, London, W.C.2.

Allied Ironfounders Ltd. have moved their Electrical Appliance Division to 30, Orchard Street, London, W.1 (telephone Mayfair 8454). Sales Manager of the Division is A. L. Bass.

CORRECTION

We regret that in our issue of December 3, on page 648, we gave an incorrect name and address to the manufacturers of the Economatic and Aristomatic gas-fired boilers. The correct name and address is International Boilers and Radiators, Bucklersbury House, 83, Cannon Street, London, E.C.4.

CLASSIFIED ADVERTISEMENTS

The charges for classified advertisements will be increased as from 1st January, 1960.

The new rates will be as follows:

Public and Official Announcements, 36s. per inch, each additional line 3s.

All other advertisements, 3s. per line; minimum 12s. Box number, including forwarding replies, 2s. extra.

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1. Normal printing arrangements have been altered to allow for the Christmas holiday. The latest dates for receiving advertisements for the December issues are as follows:—

December 31 issue—Tuesday, December 22.

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

AIR-MAIL SERVICE available on request.

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

Public and Official Announcements

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

BUILDING SURVEYORS

Architect's Department, L.C.C., has vacancies in Building Regulation Division and District Surveyors' Service for work in connection with applications under London Building Acts and bye-laws. District Surveyors' offices are located in Metropolitan Boroughs and work involves negotiations with developers and supervision of works in progress.

Up to £1,135, commencing according to qualifications and experience. Application form and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, EK/111/59, County Hall, S.E.1. (2628.) 7132

MIDDLESEX COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

The County Council has decided to enlarge substantially the staff of this department with offices in Westminster and it is proposed to make a number of appointments in each of the following grades:—

ASSISTANT ARCHITECT, A.P.T. V (£1,250—£1,405 p.a.).

ASSISTANT ARCHITECT, A.P.T. IV (£1,095—£1,250 p.a.).

ASSISTANT ARCHITECT, Special Grade (£815—£1,100 p.a.).

JUNIOR ASSISTANT, A.P.T. I (£640—£795 p.a.).

The department has in hand a large and interesting programme of works for School Buildings, Technical Colleges, Old People's Homes, Fire Stations and other County Buildings which will be designed under the direction of Mr. Whitfield Lewis, F.R.I.B.A., the County Architect. Organisation is on a group basis and full scope will be given to Architects who show design ability.

Applications are also invited for a post of ASSISTANT ARCHITECT, A.P.T. IV, to set up and take charge of a Technical Information Group and for a QUANTITY SURVEYOR, A.P.T. V, to undertake elemental analysis of estimates and preparation of costings for current building techniques.

Appropriate professional qualifications are required for all posts and commencing salaries will be assessed according to qualifications and experience. Appointments will be to the established staff subject to medical fitness and prescribed conditions.

Application forms from The County Architect, 1, Queen Anne's Gate Buildings, Dartmouth Street, S.W.1, must be returned within 10 days. (Quote B.470 S.O.) 7045

LONDON TRANSPORT urgently require ARCHITECTURAL ASSISTANTS for a varied programme of work. Candidates should be qualified to R.I.B.A. Intermediate standard and have had office experience.

Salary ranges:—

Architectural Assistant, Class 1, £942 p.a.—£979 p.a.

Architectural Assistant, Class 2, £814 p.a.—£906 p.a.

Medical examination; contributory superannuation scheme after probation; free travel. Please apply within 14 days to Staff and Welfare Officer (F/EV 766/1), London Transport, 55, Broadway, S.W.1. 7294

ISLE OF WIGHT COUNTY COUNCIL
PLANNING ASSISTANT required. A.P.T. Special Grade (£785—£1,070). Permanent post. Candidates should be suitably qualified. General planning duties mainly in connection with the preparation of Town Maps. Applications, on forms obtainable from the Clerk of the County Council, County Hall, Newport, I.W. Closing date 6th January, 1960. 7295

BOROUGH OF LEYTON
(Municipal Borough in the County of Essex. Population approx. 100,000)
BOROUGH ENGINEER'S DEPT.

Applications invited for appointment of ASSISTANT ARCHITECT at a salary within the scale of £785 per annum rising to £1,070 per annum (plus London weighting) in accordance with the provisions of the National Scheme of Conditions of Service for Local Authority Staffs (Special Classes).

Housing accommodation will be made available to successful applicant if required. Five-day week is operated.

Apply by letter to Borough Engineer, Town Hall, Leyton, E.10 (giving names of two referees), not later than Monday, 4th January, 1960.

D. J. OSBORNE,
Town Clerk.

Town Hall,
Leyton, E.10. 7311

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT
VOLUNTARY SCHOOLS SECTION

ARCHITECTS, Grade III (£850—£1,135). Work includes assessment of sites and site extensions, examination of plans submitted by private architects for development of voluntary aided schools and preparation of contract particulars for works of Council liability (*e.g.*, schoolkeepers' houses, meals kitchens, pavilions).

Starting salary according to experience and qualifications. Application form, returnable by 31st December, from Hubert Bennett, F.R.I.B.A., Architect to Council, EK/114/59, County Hall, S.E.1. (2745.) 7266

SURREY COUNTY COUNCIL

Applications invited for the following appointments:—

GRADE IV (£1,065—£1,220 p.a. plus £30 p.a. London allowance).

ARCHITECTS. Must be Assoc. Mem. R.I.B.A. and have had experience in preparation of drawings and specifications, and be capable of assuming responsibility for medium to large scale contracts.

GRADE II (£765—£880 p.a. plus up to £30 p.a. London allowance, according to age).

ARCHITECTURAL ASSISTANTS. Must be of good general training, preference given those who have passed Intermediate R.I.B.A.

BUILDING SURVEYING ASSISTANTS. Preference given those who have passed Intermediate R.I.C.S. (Bldg. Sub-Div.). Capable drafting specifications in all trades, preparation schedules of dilapidations, detailed estimates for general maintenance works and surveys of properties.

Candidates will be appointed at the appropriate point within the scale according to age and ability.

Full details, present salary and three copy testimonials to County Architect, County Hall, Kingston, as soon as possible. 7303

SOUTH EASTERN ELECTRICITY BOARD
SENIOR ARCHITECTURAL & SURVEYING ASSISTANT
MID-SUSSEX SUB-AREA

Salary £885—£960 p.a. in accordance with Grade V of the Electricity Supply Industry N.J.C. Agreement. Superannuable. Applicants should be suitably qualified and have had experience in the surveying of land and property, the design and specification of buildings and the construction and maintenance of buildings by contract and direct labour. The person appointed will be required for work in connection with the Board's showrooms, offices, depots, operational and other buildings.

Applications, quoting AJ and naming two referees, to Mid-Sussex Manager, Seeboard, Mid-Sussex House, North Road, Brighton, by 6th January, 1960.

GEORGE WRAY,
Secretary.
7399

BOROUGH OF WEMBLEY
APPOINTMENT OF SENIOR TOWN PLANNING ASSISTANT
A.P.T. IV (£1,065—£1,220 plus weighting)

Applications are invited from persons who are members of one of the following bodies:—

I.C.E., R.I.C.S., I.M.E., R.I.B.A., and T.P.I.

The appointment is subject to the Council's Conditions of Service and to the passing of a medical examination. A five-day week is in operation.

Form of application, returnable by 31st December, 1959, obtainable from Borough Engineer & Surveyor, Town Hall, Wembley. Quote Ref. "C."

KENNETH TANSLEY,
Town Clerk.

Town Hall,
Wembley.
10th December, 1959. 7355

COUNTY BOROUGH OF EAST HAM
BOROUGH ENGINEER'S DEPARTMENT

Applications are invited for the following temporary appointments:—

SENIOR ASSISTANT ARCHITECT, Grade IV, £1,065—£1,220.

ARCHITECTURAL ASSISTANT, Grade II, £765—£880.

London weighting is paid in addition, and salaries in excess of the minima may be paid according to qualifications and experience. The appointments are for work on a new Technical College and are expected to be for a period of not less than 3 years.

Further details and application forms returnable by 15th January, 1960 from the Town Clerk, Town Hall, East Ham, E.6. 7390

FIFE COUNTY COUNCIL
COUNTY ARCHITECT'S DEPARTMENT

ARCHITECTURAL DRAUGHTSMEN required. Salary scale: Executive Division II and III, *i.e.* £675—£795 per annum. Superannuation Scheme. Applicants must be skilled and accurate draughtsmen with experience in Architect's and Drawing Office routine. Housing may be available. Applications stating age, qualifications, post held and previous experience with details of present salary and copies of recent testimonials by 4th January, 1960 to the County Clerk, County Buildings, Cupar. No canvassing. 7402

CARSHALTON URBAN DISTRICT COUNCIL
TWO ASSISTANT ARCHITECTS

Applications are invited from qualified architects, or those in course of qualifying, for the above appointments in the Engineer and Surveyor's Department.

Salary will be within the range £775—£1,100, the commencing salary being fixed according to qualifications and experience.

Carshalton is a large urban district within the Greater London area with a population of 62,000 and has a development programme including multi-storey flats.

Application forms, obtainable from the undersigned, to be returned with names of three referees not later than Monday, 4th January, 1960.

C. H. DURRANT,
Clerk of the Council.

District Council Offices,
The Grove,
Carshalton,
Surrey. 7382

ARCHITECTS
required by
NATIONAL COAL BOARD
EAST MIDLANDS DIVISION

Applications are invited for the following superannuable posts on the staff of the Divisional Chief Architect at 69, Lower Parliament Street, Nottingham.

(*a*) ARCHITECTS: Grade II, £815 × £30—£1,125.

(*b*) ARCHITECTURAL ASSISTANTS: Grade I, £715 × £25—£850 (exceptionally £1,000). Grade II, £595 × £25—£710.

Applicants for (*a*) must be qualified Architects whilst those for (*b*) should preferably have passed the Intermediate R.I.B.A. or have had considerable practical experience.

The programme of work is very varied and provides practical experience of Industrial, Welfare and Domestic Projects.

Applications giving details of age, qualifications and experience to: Divisional Chief Staff Officer, National Coal Board, East Midlands Division, Sherwood Lodge, Arnold, Nr. Nottingham. 7393

BOROUGH OF BEXLEY
ARCHITECTURAL ASSISTANTS

Applications are invited for two appointments in the Borough Engineer & Surveyor's Department. The salary for each of these posts is within Grade A.P.T. II (£765—£880 per annum) plus London weighting. Preference will be given to suitably qualified candidates with experience of housing and school projects.

Form of application and conditions of appointment are obtainable from the Borough Engineer, West Lodge, Broadway, Bexleyheath, Kent, to whom completed applications must be returned by Friday, 8th January, 1960.

The Council may be prepared to assist in the provision of housing accommodation. Canvassing will disqualify.

ARTHUR GOLDFINCH,
Town Clerk.
7350

MONMOUTHSHIRE COUNTY COUNCIL
APPOINTMENT OF ARCHITECTURAL STAFF

Applications are invited for appointments in the County Architect's Department under N.J.C. Conditions for ASSISTANT ARCHITECTS on Grade A.P.T. IV, salary £1,065—£1,220 per annum; the Special Grade, salary £785—£1,070 per annum, and Grade A.P.T. II, salary £765—£880 per annum.

Forms of applications, particulars of post and conditions of service can be obtained from the undersigned.

Applications, together with two testimonials, must be forwarded to S. Levshon, A.R.I.B.A., County Architect, Queen's Hill, Newport, Mon., not later than Wednesday, 6th January, 1960.

VERNON LAWRENCE,
Clerk of the Council.

County Hall,
Newport,
Mon. 7391

ARCHITECT'S DEPARTMENT
QUANTITIES DIVISION

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

Junior taking-off/working-up.

Approximate estimating and assisting in cost planning.

Pricing bills of quantities for estimates comparable with tenders.

Preparation and settlement of final accounts for major building contracts including interim valuations.

Measurement of minor works, schedule accounts, etc.

General technical duties and working-up.

Salaries up to £1,135. Application form and further particulars from Hubert Bennett, F.R.I.B.A., Architect, London County Council, County Hall. (2286) 6383

BIRMINGHAM TAME AND REA DISTRICT DRAINAGE BOARD
ENGINEER'S STAFF
ARCHITECTURAL POSTS

Applications are invited for the undermentioned appointments on the staff of the Engineer to the Board, Rookery Park, Erdington, Birmingham, 24, and in each case the post is subject to one month's notice on either side, the passing of a medical examination and the provisions of the Local Government Superannuation Acts. There is a possibility of housing being made available. Previous local authority experience is not necessary.

ARCHITECTURAL ASSISTANT

Permanent post at a commencing salary within A.P.T. Grade I (£610 × £30 (4) × £35—£765). Intermediate R.I.B.A. examination diploma as a minimum qualification and applicants must be capable architectural draughtsmen with a sound knowledge of building construction. Ability to prepare working drawings is essential. Some knowledge of specifications and bills of quantities is desirable.

ARCHITECTURAL DRAUGHTSMAN

Temporary post at a commencing salary within A.P.T. Grade I (£610 × £30 (4) × £35 × £765), plus a temporary excess rate of £20 per annum. National Certificate minimum qualification and applicants must be capable and accurate draughtsmen with some knowledge of building construction and land surveying and levelling, and experience of building alteration work would be an advantage.

Applications, accompanied by the names of three referees, specifying the post applied for and giving particulars of age, qualifications and experience, should reach the undersigned not later than Friday, 8th January, 1960.

ARTHUR J. WRIGHT,
Clerk to the Board.

Clerk's Office,
Lombard House,
Great Charles Street,
Birmingham, 3.
30th November, 1959. 7365

HAMPSHIRE COUNTY COUNCIL

PLANNING ASSISTANT required for pensionable post in Area Planning Office at BASINGSTOKE. A.P.T. II (£765—£880). Candidates should have passed the Intermediate Examination of the T.P.I. or other appropriate professional body and have had experience in the Planning Department of a Local Authority. In approved cases, the County Council assist with removal and other expenses.

Applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names of two referees, should reach the Clerk of the County Council, The Castle, Winchester, by 1st January. 7357

CITY OF BELFAST

Applications are invited for the following position in the Education Architect's Department:—

ARCHITECT, CLASS I

Applicants must be registered and qualified by examination, and should be capable of supervising architectural staff. Preference given to those with experience in modern school designing and construction.

Salary: £1,010 × 6/£40 × £50—£1,300.

Commencing remuneration will be determined according to ability and experience.

Superannuation contribution of approximately 6 per cent. of remuneration payable.

Canvassing will disqualify.

Application forms are obtainable from the Education Offices, 40, Academy Street, Belfast, 1. Completed applications must reach the undersigned by Friday, 8th January, 1960.

JOHN DUNLOP,
Town Clerk.

City Hall,
P.O. Box 234,
Belfast, 1. 7367

LONDON COUNTY COUNCIL
ARCHITECT'S DEPARTMENT

ARCHITECTS or SURVEYORS required in Building Regulation Division as:—

(1) Grade I (£1,295—£1,535) to take charge of Factories Section, dealing with issue of certificates of fire safety for factory premises and formulation of requirements to ensure satisfactory standard of means of escape.

(2) Grade II (£1,080—£1,355) in area groups, each to take charge of building regulation work including means of escape in a group of boroughs.

Application form, returnable by 15th January, 1960, and particulars from Hubert Bennett, F.R.I.B.A., Architect to Council, EK/116/59, County Hall, S.E.1. (2816). 7359

BOROUGH OF PRESTWICH
BOROUGH ENGINEER'S DEPARTMENT
APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the position of Architectural Assistant at a salary in accordance with grade A.P.T. I (£610—£765).

The commencing salary will be fixed at a point within the scale commensurate with qualifications and experience.

Applications stating age, qualifications, experience, etc., together with the names and addresses of two referees, should be received by the undersigned not later than 31st December, 1959.

C. A. CROSS,
Town Clerk.

Town Hall,
Prestwich,
Lancs. 7381

BUCKS COUNTY COUNCIL

Applications are invited for the following appointments in the County Architect's Department:—

3 ASSISTANT ARCHITECTS, A.P.T. Grade V, £1,220—£1,375 p.a.

2 ASSISTANT ARCHITECTS, A.P.T. Grade IV, £1,065—£1,220 p.a.

2 ASSISTANT ARCHITECTS, Architects' Special Scale, £785—£1,070 p.a.

The appointments are superannuable and subject to medical examination.

A weekly allowance of 25s. and return fare home once every two months may be paid for six months to newly appointed married officers of the Council unable to find accommodation.

Applications, on forms provided, must be returned by the 1st January, 1960.

F. B. POOLEY,
County Architect.

County Offices,
Aylesbury. 7346

ST. THOMAS' HOSPITAL
BOARD OF GOVERNORS
REBUILDING OF HOSPITAL AND ENVIRONS

Design and Working Drawings for the first stage of this major scheme are likely to commence immediately and planning studies for the second stage will be starting next year.

Applications are invited for the following appointments on the staff of the Board's Architect. All salary scales are at present under review.

(*a*) SENIOR ASSISTANT ARCHITECTS (salary scale £1,050—£1,245 plus London weighting). Applicants must be registered architects with experience in preparing and supervising work on medium sized projects and will be expected to lead a group of architects on a section of the job.

(*b*) ASSISTANT ARCHITECTS (salary scale £730—£1,055 plus London weighting). Must be registered architects with initiative and ability as designers and a sound knowledge of constructions.

(*c*) ARCHITECTURAL ASSISTANTS (salary scale £545—£765 plus London weighting). Must have reached Intermediate R.I.B.A. or equivalent standard and be good draughtsmen.

Previous hospital experience not essential.

Applications giving full particulars of qualifications and experience to W. F. Howitt, A.R.I.B.A., Architect, St. Thomas' Hospital, London, S.E.1. 7374

HARLOW DEVELOPMENT CORPORATION

DRAUGHTSMAN required in Executive Architect's Department with experience in working up of architectural details. Salary £595—£670. Dwelling accommodation in suitable cases. Applications within 10 days to General Manager, Terlings, Harlow, Essex. 7344

LAGOS EXECUTIVE DEVELOPMENT BOARD
ARCHITECT APPOINTMENT

Applications are invited for the undermentioned appointment and the attention of interested persons is drawn to the fact that a review of salaries is at present being considered. An interim cost of living award of 10 per cent. on basic salary has already been given to Officers in receipt of salaries within the grade mentioned in this advertisement. It is hoped that a final award will shortly be made and whilst this information and the value of the ultimate award is not available at the time of advertising, it is expected that an announcement will have been made before interviews are undertaken in London.

1 ARCHITECT (Grade VI) (including 10 per cent. interim C.O.L.A.).

Annual salary according to experience and qualifications within the grade £1,320 rising, subject to satisfactory service, by annual increments of £55 to £1,540, together with £300 per year inducement allowance for expatriate officers.

Duties: The officer will be required to undertake the design and supervision of large building projects in connection with new development schemes, including a wide variety of residential, commercial and community proposals.

Qualifications: Candidates must be A.R.I.B.A. with a minimum of two years' professional experience.

The appointment will be on contract for tours of approximately 18 months renewable by mutual agreement and the secondment of the officer by his present employer in the United Kingdom will be favourably considered. Leave will be granted at the end of each tour on the basis of one week for each completed month of residential service. The Board will provide basically furnished housing accommodation at a low rental. The officer appointed will be required to contribute 10 per cent. of his basic salary to the Board's Provident Fund and to this the Board will themselves add 15 per cent. Free first-class passages are provided for the officer together with his wife and children, and facilities exist for children to visit parents during school holidays. Special children's allowances are, in addition, payable at the rate of £75 a year whilst the children are maintained in England. Full details of conditions of service and application forms for the above appointment may be obtained from the Commissioner for Nigeria, Nigeria House, 9, Northumberland Avenue, London, W.C.2 (envelopes to be clearly marked "Attention of L.E.D.B. Representative"). Applications are to be completed in duplicate and despatched as follows:—

1 copy to the undersigned by air mail.
1 copy to Nigeria House (address as above).

The closing date for the receipt of applications is 23rd January, 1960.

J. W. HENDERSON,
Chief Executive Officer.

L.E.D.B.,
Reclamation Road,
P.O. Box 907,
Lagos, Nigeria. 7386

APPOINTMENT OF TEMPORARY ASSISTANT ARCHITECT
GRADE A.P.T. IV

An Architect (Degree, Diploma or A.R.I.B.A.) is required to join a small, but enthusiastic, young group in the Architect's Department, working on the new Civic Centre at Ebbw Vale. The project includes Municipal Offices with Council Chamber and a covered Swimming Pool for immediate construction, with a large Public Hall to follow. Other interesting schemes include a small Public Hall, Community Centre and an extensive Housing Programme.

The salary will be in accordance with Grade A.P.T. IV, the appointment being subject to one month's notice on either side, and the passing of a medical examination.

Ebbw Vale is in close proximity to the beautiful Usk Valley and Beacon National Park.

The Council will provide housing accommodation if required.

Forms of application may be obtained from the undersigned, and applications are to reach him not later than 16th January, 1960.

HOWARD J. WILLIAMS,
Clerk of the Council.

Ebbw Vale Urban District Council,
Council Offices,
Ebbw Vale,
Mon. 7392

BOROUGH OF WATFORD

Applications are invited for the appointment of ASSISTANT ARCHITECT at a salary in accordance with Grade A.P.T. I (£610—£765 per annum); commencing salary according to qualifications and experience.

Housing accommodation available.

Applications to the undersigned by 1st January, 1960.

F. C. SAGE,
Borough Engineer.

Town Hall,
Watford. 7347

SOUTHAMPTON COUNTY BOROUGH COUNCIL requires under N.J.C. conditions of service:

(*a*) ASSISTANT QUANTITY SURVEYOR, salary within the Special Grade, £785—£1,070. Applicants must be chartered quantity surveyors, preferably with experience in municipal housing including multi-storey flats and shopping centres. Consideration will be given, if necessary, to the provision of housing accommodation.

(*b*) QUANTITY SURVEYING ASSISTANT, A.P.T. Grade I, £610—£765, with good experience in abstracting and billing.

Apply on application forms, obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, by Monday, 11th January, 1960. 7378

COUNTY BOROUGH OF SOUTHAMPTON requires under N.J.C. conditions of service:

(*a*) ASSISTANT ARCHITECT, Special Scale £785—£1,070. Applicants must have passed Parts I and II of the R.I.B.A. Final examination and have had experience in housing design and construction and estate layout, preferably with a municipal authority.

(*b*) ARCHITECTURAL ASSISTANT, A.P.T. Grade II £765—£880. Applicants are required to have passed the Intermediate R.I.B.A. examination or its equivalent at one of the recognised schools of architecture, and preferably have had experience in local government housing.

Consideration will be given, if necessary, to the provision of housing accommodation.

Apply on application forms obtainable from the Borough Engineer and Surveyor, Civic Centre, Southampton, by Monday 4th January, 1960. 7343

BRACKNELL DEVELOPMENT CORPORATION

Applications are invited for the post of ARCHITECT, salary range £1,163—£1,390. Applicants must be Corporate Members of the R.I.B.A.

Superannuation schemes, medical examination. Housing available.

Apply by 6th January, 1960, giving age, education and qualifications, experience and appointments held (with dates and salaries), and names of two referees, to General Manager (A), Bracknell Development Corporation, Farley Hall, Bracknell, Berks. 7348

PORTSMOUTH COLLEGE OF ART
Principal: W. J. L. GAYDON, A.R.C.A.

Applications are invited for the post of STUDIO MASTER and LECTURER in the School of Architecture. Preference will be given to applicants who have been trained in a recognised School of Architecture, are Associates of the Royal Institute of British Architects and have at least three-years post-academic practical experience.

The salary will be in accordance with the Burnham Technical Scale for Lecturers, *viz.* £1,370 × £35—£1,550.

Further particulars and forms of application, which should be returned as soon as possible, may be obtained from the Registrar, College of Art, Guildhall Square, Portsmouth. 7379

ST. THOMAS' HOSPITAL
BOARD OF GOVERNORS
OFFICE DEVELOPMENT, STAGE 1
APPOINTMENT OF CLERK OF WORKS

Applications are invited for this temporary appointment from men who have had considerable general experience in the building trade and as Clerks of Works. It is expected that construction of this building to contain offices, shops and a public house will commence in February-March, 1960 and will take between 18 and 24 months to complete.

The Clerk of Works appointed may, if he proves in every way suitable, expect favourable consideration for transfer to the main hospital rebuilding project which should commence in 18 months' time. Salary of not less than £1,000 to be determined by experience and ability.

Applications to the Architect, St. Thomas' Hospital, London, S.E.1. 7373

WANTED, CLERK-OF-WORKS for the District Estate Office, British Railways, Leeds. Experienced in all trades, able to supervise maintenance work, make surveys, prepare plans, specifications and estimates for small alterations to Estate properties and conduct correspondence in connection therewith. Salary at scale rate, maximum £753 per annum. Permanent post after probationary period. Superannuation scheme. Certain free and reduced travel facilities. Apply Estate and Rating Surveyor, British Railways, North Eastern Region, York. 7400

LONDON COUNTY COUNCIL

Vacancies in Maintenance and Improvements Division of Architect's Department for:—

ARCHITECTS AND BUILDING SURVEYORS required for improvements, alterations and extensions. Jobs up to £20,000. Selected candidates will be responsible for surveys, schemes, working drawings, specifications and supervising contracts. Salary up to £1,135. Ref. EK/117.

Application form returnable by 12th January, 1960, from Architect, County Hall, S.E.1, quoting Reference No. 2826. 7401

Tenders Invited

6 lines or under, 15s.; each additional line, 2s. 6d. Box Number, including forwarding replies, 2s. extra

CITY COUNCIL OF NAIROBI
TENDER
FOR THE CONSTRUCTION OF A COMPLETE ESTATE OF 3,002 DWELLING UNITS
CONTRACT N.8/59

Persons or firms tendering are hereby informed that the closing date for the receipt of the above tender has been extended by six weeks to 11.30 a.m. on Monday, 15th February, 1960.

HAROLD AVERY,
Town Clerk.

City Hall,
Nairobi.
December, 1959. 7368

Architectural Appointments Vacant

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

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

RONALD WARD & PARTNERS have immediate vacancies for ASSISTANT ARCHITECTS with initiative and some experience, for interesting, commercial, industrial and civic projects. Salaries commensurate with ability. Apply, 29, Chesham Place, S.W.1. BELgravia 3361. 6638

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

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

ARCHITECTURAL ASSISTANTS, Senior and Junior, required by firm in High Wycombe for commercial and industrial schemes. Scope for responsibility and experience. Five-day week. Write Box 6636.

SENIOR ARCHITECTURAL ASSISTANT capable of making site surveys, preparing sketch plans, working drawings and specifications, and supervising work in progress. Applications stating age, experience, qualifications and salary required to R. E. Akerman, F.R.I.B.A., Chief Architect, United Dairies Ltd., 31 St. Petersburgh Place, W.2. 6760

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

SENIOR ASSISTANT required of Intermediate/Final standard in Croydon office. Varied practice of interesting work. Good draughtsman and sound knowledge of construction essential, together with ability to manage jobs. Five-day week. Salary according to experience. Apply, giving all particulars, to George Lowe & Partner, 4, High Street, Croydon 3608/9. 6444

THREE qualified ARCHITECTURAL ASSISTANTS with office experience required for (*a*) Industrial Work, (*b*) School Contracts, (*c*) large housing scheme abroad. Assistants will be expected to take the responsibility of running and supervising these contracts. Salary according to age (limit 35) and experience. Apply to J. M. Austin-Smith & Partners, 29 Sackville Street, London, W.1. 6565

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

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

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

MOBBS DE METZ, F.R.I.B.A., requires an experienced ARCHITECTURAL ASSISTANT for a large interesting office building in London; drawing office on site. Salary up to £950. Tele.: HUNter 2581. 6935

SMALL congenial office in Grays Inn requires SENIOR ASSISTANT, Final standard, with office experience preferably with pubs. Capable of running own jobs from start to finish. £1,000 p.a. or more according to experience, plus overtime if required. Five-day week. Phone HOLborn 9687. 6947

YORKE, ROSENBERG & MARDALL require ASSISTANTS. Apply in writing to 2 Hyde Park Place, London, W.2. 7034

EXPERIENCED
ARCHITECTS ASSISTANTS

ARE required immediately to work under the direction of the Chief Architect and also the four District Architects of

F. W. WOOLWORTH
& CO. LIMITED

Applicants should be capable of preparing working drawings, details, etc., with the minimum of supervision.

Five-day week, Canteen facilities, Superannuation Scheme.

Apply, giving details of age, experience and salary required, to any of the following offices:—

Chief Architect, Woolworth House, 242/246, Marylebone Road, London, W.1.
District Architect, F. W. Woolworth & Co., Ltd., 311, Oxford Street, London, W.1.
District Architect, F. W. Woolworth & Co., Ltd., Armour House, Lord Street, Liverpool, 2.
District Architect, F. W. Woolworth & Co., Ltd., Crown Site Building, 26/40, Kensington High Street, London, W.8.
District Architect, F. W. Woolworth & Co., Ltd., 47/49, King Street, Dudley, Worcs. 6801

PROPERTY Group requires ARCHITECTS and all grades of ARCHITECTURAL STAFF for West London Development Office. Permanent and progressive appointments. Subject to Company's pension scheme. Full particulars of previous experience, and salary required, to Box 7203.

EDWARD D. MILLS & PARTNERS require additional ASSISTANTS for a variety of interesting contemporary work. Knowledge of modern construction essential. Write with full details for appointment to 9-11, Richmond Buildings, Dean Street, Soho, London, W.1. 7065

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

ARCHITECTURAL ASSISTANT required for interesting general practice. Intermediate to Final standard. Must be capable of working with minimum of supervision. Apply stating age, experience and salary required to Malcolm Peck, Roberts & Associates, A./A.R.I.B.A., 15, Friary Street, Guildford, Surrey. Telephone Guildford 66363. 7125

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

EXPERIENCED ASSISTANTS required for work on Schools, Churches, Civic Centres, etc. Salary by arrangement. Applicants interviewed, with samples of work, Monday to Friday, between 12 and 2 p.m., at Hastie, Winch and Kelly, 1, Bentinck Street, London, W.1. 7111

NORTH AND PARTNERS, Chartered Architects, Maidenhead, have several vacancies for Intermediate and Senior ARCHITECTURAL ASSISTANTS. Salary range £750 to £1,250 according to experience. Apply in writing: 40, The Broadway, Maidenhead. 7117

INTERMEDIATE standard ASSISTANT required for a contemporary practice in Bromley, Kent. Salary range £400—£600. Apply: Robert J. Wood, A.R.I.B.A., Lewes Road, Bromley. Tel. RAVensbourne 1083. 7078

ASSISTANTS of Intermediate and Final standard required immediately. Salary range between £800 and £1,000 a year. Please reply in writing to Clive H. H. Durham, 32, Putney Hill, S.W.15. 7167

INTERMEDIATE standard ASSISTANTS required, minimum two years' office experience. Minimum salary £750 according to ability. Theo. H. Birks, 8, Portland Place, W.1. LAN. 7236. 7127

ARCHITECTURAL ASSISTANTS.—Beard, Bennett, Wilkins & Partners require several SENIOR ASSISTANTS competent in contemporary design to take charge of interesting contracts. Apply in writing, with full particulars, to 101/3, Baker Street, W.1. 7141

ROBERT MATTHEW & JOHNSON-MARSHALL have vacancies in their Edinburgh and Dundee offices for ASSISTANTS at salaries from £800 upwards; wide variety of University, Hospital and Housing projects. Applications should be marked "Confidential" and addressed to 31, Regent Terrace, Edinburgh, 7. 7143

JUNIOR or INTERMEDIATE ASSISTANT required in Architect's South-West London Office where a varied experience of large and small contracts can be obtained. Apply, stating salary required, to Box 7149.

ARCHITECTURAL ASSISTANTS required, salary £450—£900 according to experience. M. R. Hesketh, 8, Acresfield, Bolton, Lancs. Tel.: Bolton 10221. 7150

ARCHITECTURAL ASSISTANTS required in West End. Should be capable of preparing ¼" scale drawings and details from sketch plans. Box 6980.

ARCHITECTURAL ASSISTANTS required, salary £450—£1,000 according to experience. D. J. Jones, A.R.I.B.A., 241a, High Street, Poole, Dorset. Tel.: Poole 2238. 7151

GOTCH AND PARTNERS, Architects, of London and Brighton, require ASSISTANTS, both Senior and Junior. Salary according to ability and experience. Five-day week. Write or telephone for appointment. 8, City Road, London, E.C.2. MONarch 3235. 7183

POWELL AND MOYA require ASSISTANTS for work on Hospitals. Hospital experience desirable, office experience essential. Salary range, £500 to £900. Apply, in writing, to 36, Great Smith Street, London, S.W.1. 7165

FARMER AND DARK require experienced ARCHITECTS, all levels, Offices, Laboratories, Factories, Schools, etc. Apply in writing stating salary required. Romney House, Tufton Street, S.W.1. 7315

SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS required for an expanding organisation to develop the Company's commitments in the Liverpool area. Assistants will be based in Liverpool to carry out varied work on shop development, attractive salaries are offered and incentive schemes are in operation. Applications in writing, stating age, experience, qualifications and salary should be forwarded to The Building Manager, Lowton Construction Co. Ltd., Lowton St. Mary's, Nr. Warrington. 7328

SENIOR ARCHITECTURAL ASSISTANTS, and JUNIORS up to about Intermediate standard, required for varied industrial and commercial work in West End Office. Scope for initiative and advancement. Salary from £500 to £1,000 according to age and experience. Five-day week. Write, giving full details, to Box 7220.

ARCHITECTURAL ASSISTANT of about Intermediate standard required in the office of the Staff Architect of a well known London Company. Salary £500. Apply, giving particulars of age, training and experience, if any, to Box 7212.

ARCHITECTURAL ASSISTANT with good knowledge of building construction and drawing required in the Architect's Department of a London Property Company. Mainly domestic development. Luncheon vouchers. Five-day week. Write age, experience, and salary required. Box 7316.

J. DOUGLASS MATHEWS & PARTNERS, Chartered Architects, 3, Ebury Street, London, S.W.1, require medium grade ASSISTANTS. Please write, giving full details of education and experience. 7318

QUALIFIED ASSISTANT wanted, with two/three years' experience, for hectic branch office. We have work scattered over most of the country, and the job offers invaluable experience and considerable responsibility. Suitable salary and travelling allowances, own car an advantage. Please ring Luton 3207. 7321

RONALD FIELDING, A.R.I.B.A., requires Senior and Junior ASSISTANTS immediately. Write or telephone for appointment, Aldwych House, W.C.2. Chancery 8201. 7299

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

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

ARCHITECTURAL ASSISTANTS required. Starting salary £915 per annum, Glasgow Office, 5-day week. Schools, Offices, etc. State experience. D. Harvey & A. Scott, 2, Lynedoch Place, Glasgow, C.3. 7272

SURVEYING ASSISTANTS required for Architect's office. Should be proficient in chain surveying and levelling, a good draughtsman and of Intermediate R.I.C.S. standard. Good salary offered in accordance with ability. Applications to John H. D. Madin, 85, Hagley Road, Birmingham 16. 7208

ASSISTANT ARCHITECTS. Required in Birmingham Architect's office, ASSISTANTS with experience and initiative, to be associated with the development of large scale interesting industrial and commercial projects. Salaries commensurate with ability, within the salary range £750—£1,200 per annum. Apply in confidence giving details of qualifications, experience, age and salary expected to Box 7269.

COLLINS, MELVIN, WARD & PARTNERS, require two ARCHITECTURAL ASSISTANTS, one Senior and one Junior, for their Sheffield Office. Write 281, Glossop Road, Sheffield 10, or telephone Sheffield 29922 for an appointment. 7271

NEWCASTLE UPON TYNE. ASSISTANT ARCHITECTS (Intermediate and Final standards) required on new College, large multiple store, etc. Reply with particulars and salary required to Waring & Netts, 36 Jesmond Road, Newcastle upon Tyne, 2. 7273

ASSISTANT to Architect required. Experienced on the maintenance of industrial buildings. Apply for further information to the General Manager, Lancashire United Transport Ltd., Atherton, Lancs. 7274

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

LOUIS DE SOISSONS, PEACOCK, HODGES & ROBERTSON have immediate vacancies in their London office for Senior and Junior ASSISTANTS. Write stating age, salary and experience to the above at: 3, Park Square Mews, Upper Harley Street, N.W.1. 7280

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

APPLICATIONS are invited for recently qualified or near qualified ARCHITECTS to work on contemporary projects in young, rapidly expanding offices in North West of England. Salaries up to £850 according to qualifications and experience. Apply Moir & Bateman, F./A.R.I.B.A., Prudential Buildings, Rochdale. 7285

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

QUALIFIED and Unqualified ARCHITECTURAL ASSISTANTS required for interesting range of contemporary work. Please write stating age, experience and salary required to Michael Lyell, A.R.I.B.A., A.A.(Hons.)Dipl., 16, Yeoman's Row, Brompton Road, London, S.W.3. 7300

ASSISTANT ARCHITECTS required immediately. Work includes schools, research laboratories, industrial buildings and hospital alterations. Salaries £800—£1,200 per annum. Architectural draughtsmen with good practical experience would be considered. Apply Fairbrother Hall & Hedges, 27, Rutland Square, Edinburgh, 1. Telephone FOUntainbridge 1251. 7293

PROGRESSIVE Architects' office in E.C.1 area has vacancies for all grades. Very interesting work, luncheon vouchers, and excellent working conditions. Box 7338.

KEEN, energetic ASSISTANT ARCHITECTS required to receive good salaries in progressive and contemporary-minded Architects' offices. The appointments offer considerable scope and a superannuation scheme is available. Apply in writing to Chippindale & Edmondson, Chartered Architects, Empire House, Piccadilly, Bradford, 1. 7398

ARCHITECT for Libya required immediately to take charge of office in Benghazi. Must be first class administrator with previous experience of office management. Knowledge of Italian and/or Arabic an advantage and successful applicant should be prepared to learn one of these languages. Apply, giving qualifications and experience, to Norman & Dawbarn, 7, Portland Place, W.1. 7397

REQUIRED—Qualified ARCHITECTURAL ASSISTANT for medium sized office, W.C.1, preferably with two/three years' experience in a varied practice. Preference for sound constructional knowledge and the ability to detail interior finishes and prepare colour schemes. Box 7380.

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

YOUNG ARCHITECT, recently qualified, required urgently to understudy senior partner. Salary according to ability. Apply Moir & Bateman, South Parade, Rochdale. 7384

MOIR & BATEMAN (Manchester) urgently require ASSISTANT ARCHITECTS, all grades, in their new branch office. Apply 180, Oxford Road, Manchester. 7385

ARCHITECTURAL ASSISTANTS required for industrial practice in Victoria, S.W.1, area. Intermediate R.I.B.A. standard. Salary £600—£900 according to qualifications and experience. Reply, giving details of age, experience and salary required, to Box 7395.

ARCHITECTS' CO-PARTNERSHIP require qualified and nearly qualified ASSISTANTS with some experience for houses, university work, teachers' training college. Write to 44, Charlotte Street, W.1, or phone LANgham 5791. 7394

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