

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

AA	Architectural Association, 34/6, Bedford Square W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. Department of Architecture, School of Building, Ferndale Road, Brixton, S.W.4.	Brixton 7048
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Welbeck 9738
ASB	Architectural Science Board of the Royal Institute of British Architects. 66, Portland Place, W.1.	Langham 5721
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 9, Conduit Street, W.1.	Mayfair 8641/6
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons S.W.10.	Flaxman 7766
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BGF	British Gas Federation. 1, Grosvenor Place, S.W.1.	Sloane 8266
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRs	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3313
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects' Society. C/o Johnson Blackett, F.R.I.B.A., Borough Architect, Town Hall, Newport, Mon.	Newport 3111
CAS	County Architects Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderhof, 7, Zurich, Switzerland.	
CID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Whitehall 6322
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W. Sloane 4280	
CUJC	Coal Utilization Joint Council. 13, Grosvenor Gardens, London, S.W.1.	Victoria 1534
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House S.E.1	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DOT	Department of Overseas Trade. 35, Old Queen Street, S.W.1.	Victoria 9040
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns., S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub-Contractors. 21, Tothill Street, S.W.1.	Whitehall 9696
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FOB 1951	Festival of Britain 1951. 2, Savoy Court, Strand, W.C.2.	Waterloo 1951
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. Buckingham Palace Gdns., S.W.1.	Sloane 2837
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts, 17-18, Dover Street, Piccadilly, W.1	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

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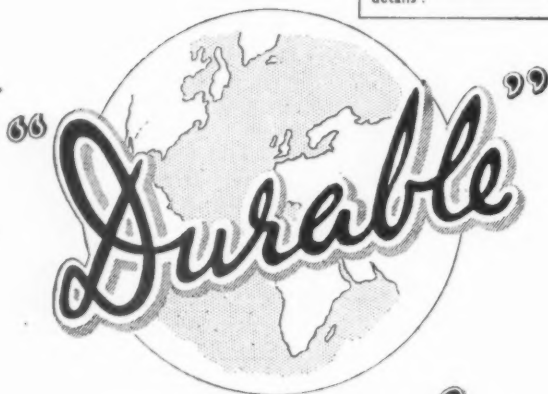
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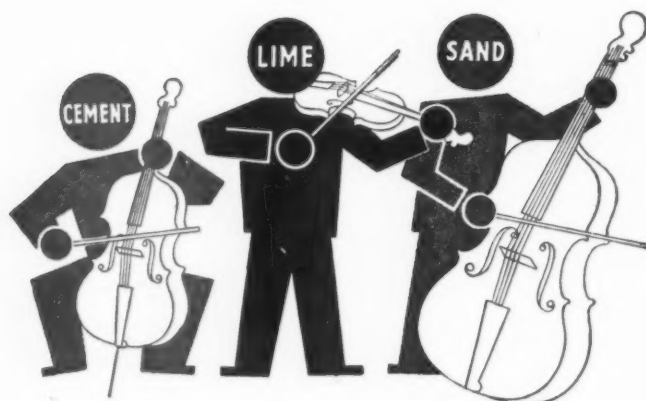
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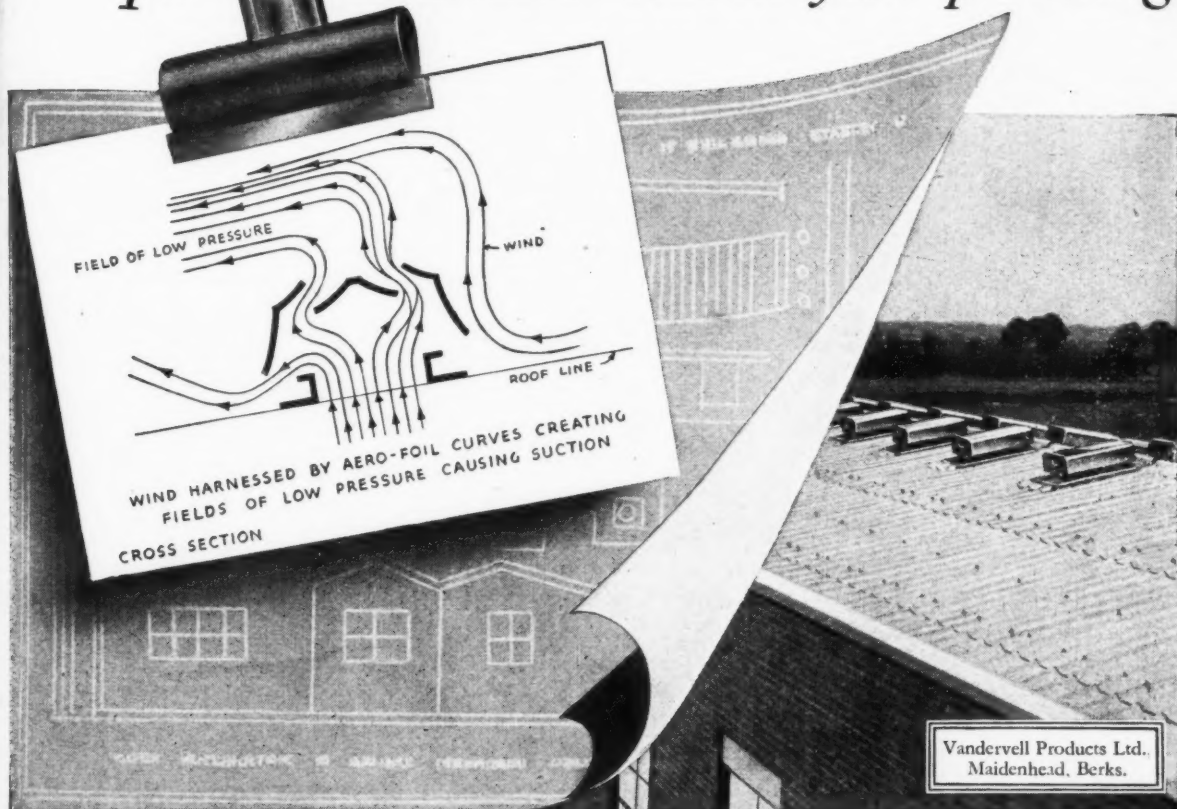
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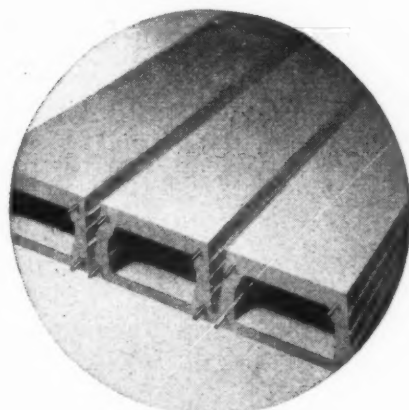
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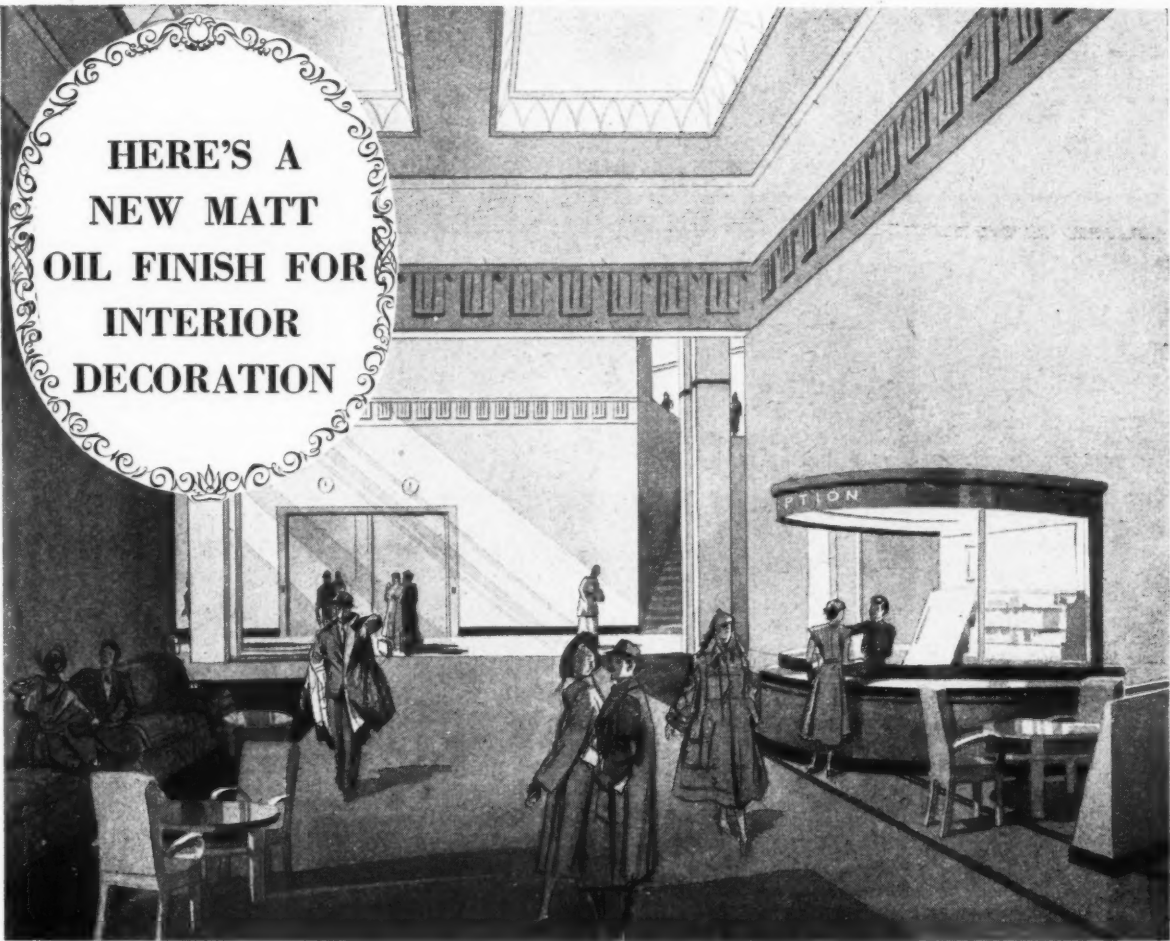
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518 535 567 568 588 606 705 114	5 $\frac{1}{2}$ " 5 $\frac{1}{2}$ " 5 $\frac{1}{2}$ " 5 $\frac{1}{2}$ " 5 $\frac{1}{2}$ " 6" 7" 11"	84" 84" 120" 120" 120" 84" 84" 60" & 72" only	Eternit No. 5 asbestos cement Robertson Protected Metal 'V Beam' 'BIGSIX' style asbestos cement New 'BIGSIX' style asbestos cement 'SUPER-SIX' asbestos cement 6" (actual pitch) asbestos cement Eternit No. 7 asbestos cement 'TURNALL' combined sheet
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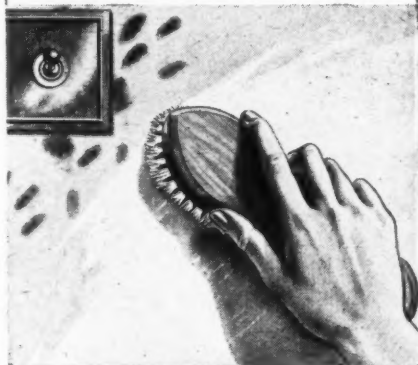


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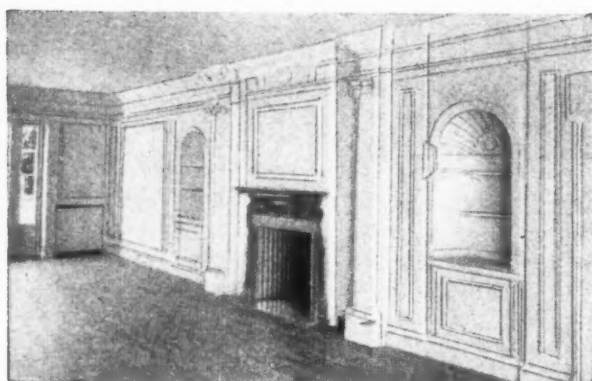
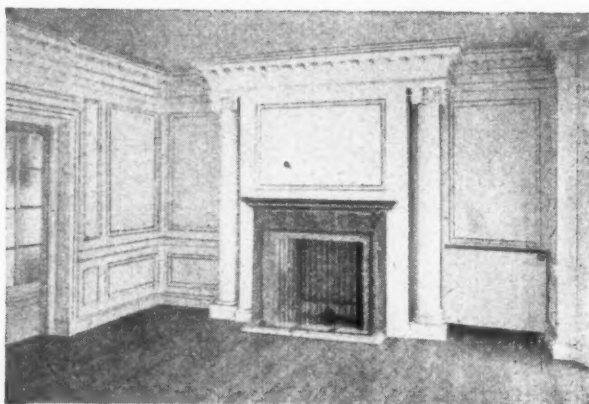
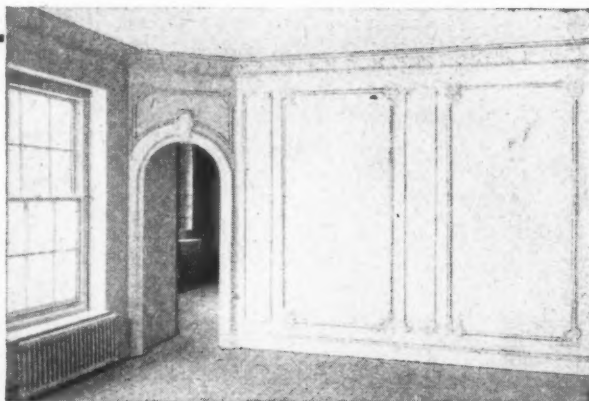
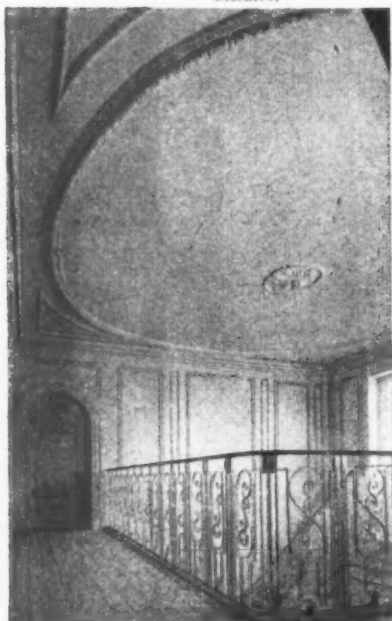
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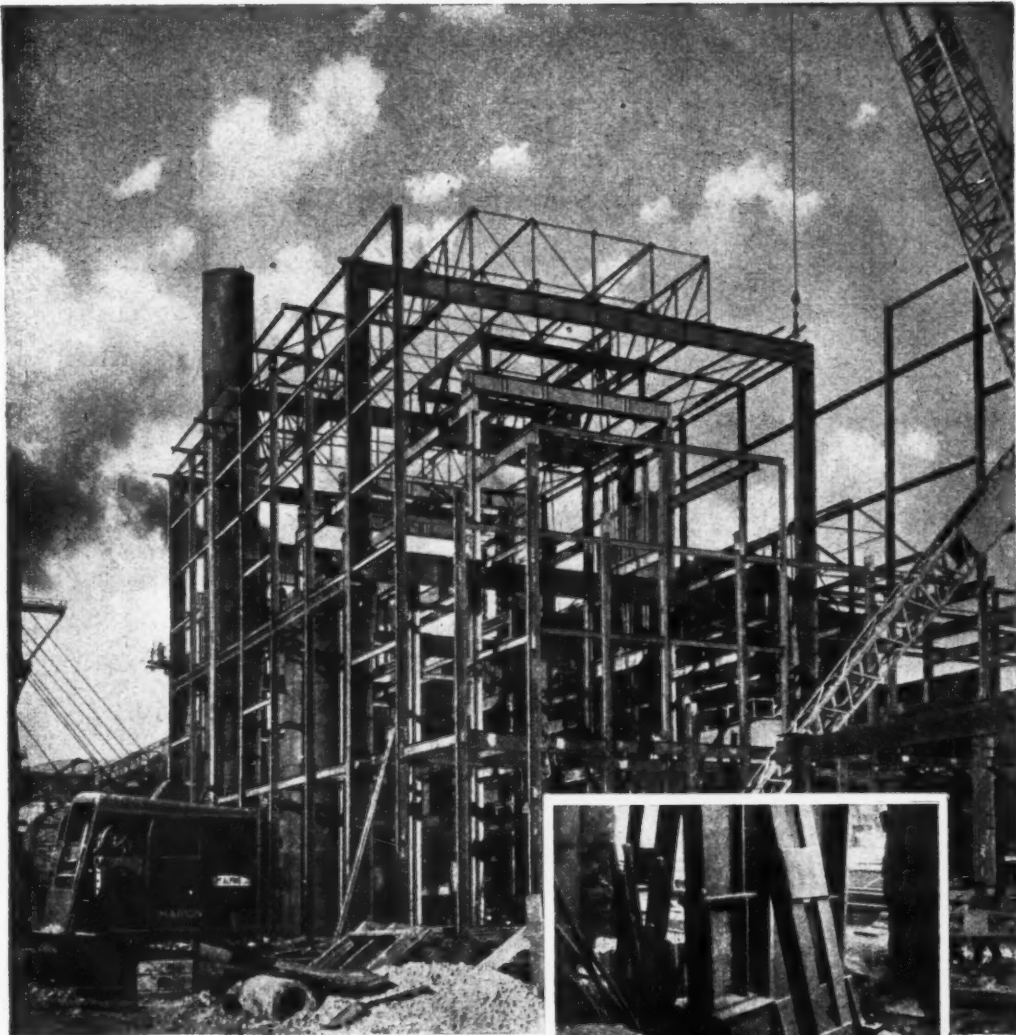


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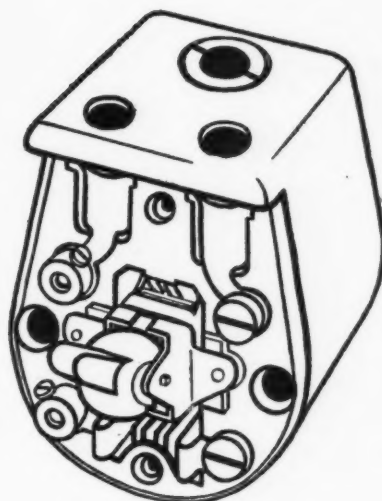
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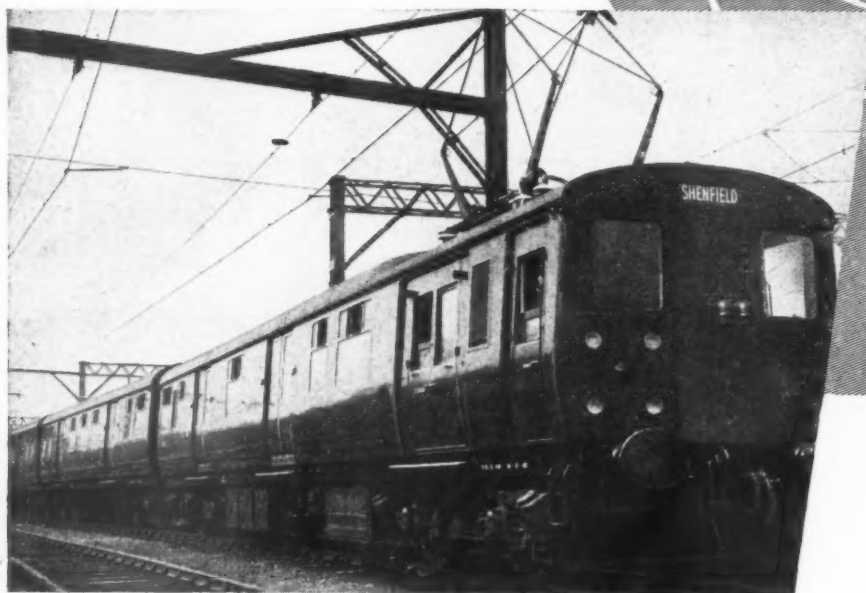
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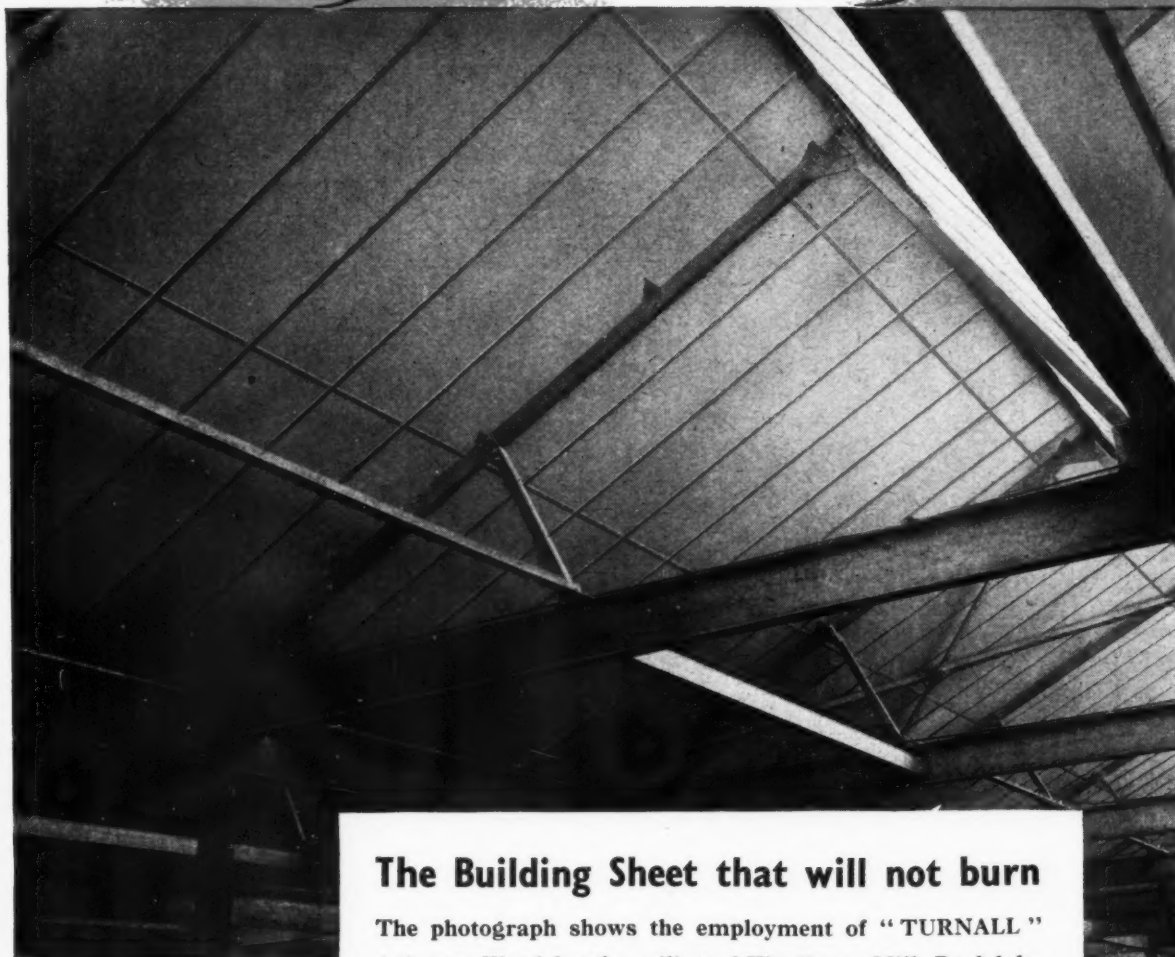
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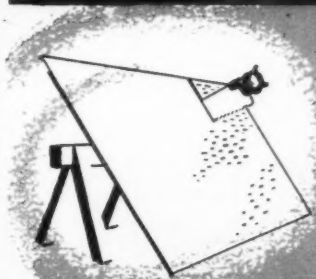


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The photograph shows the employment of "TURNALL" Asbestos Wood for the ceiling of The Ensor Mill, Rochdale. It provides very essential fire protection and at the same time is ideally suitable for the high humidity inseparable from conditions in Textile Factories.

Architects :
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"TURNALL"
REGD TRADE MARK
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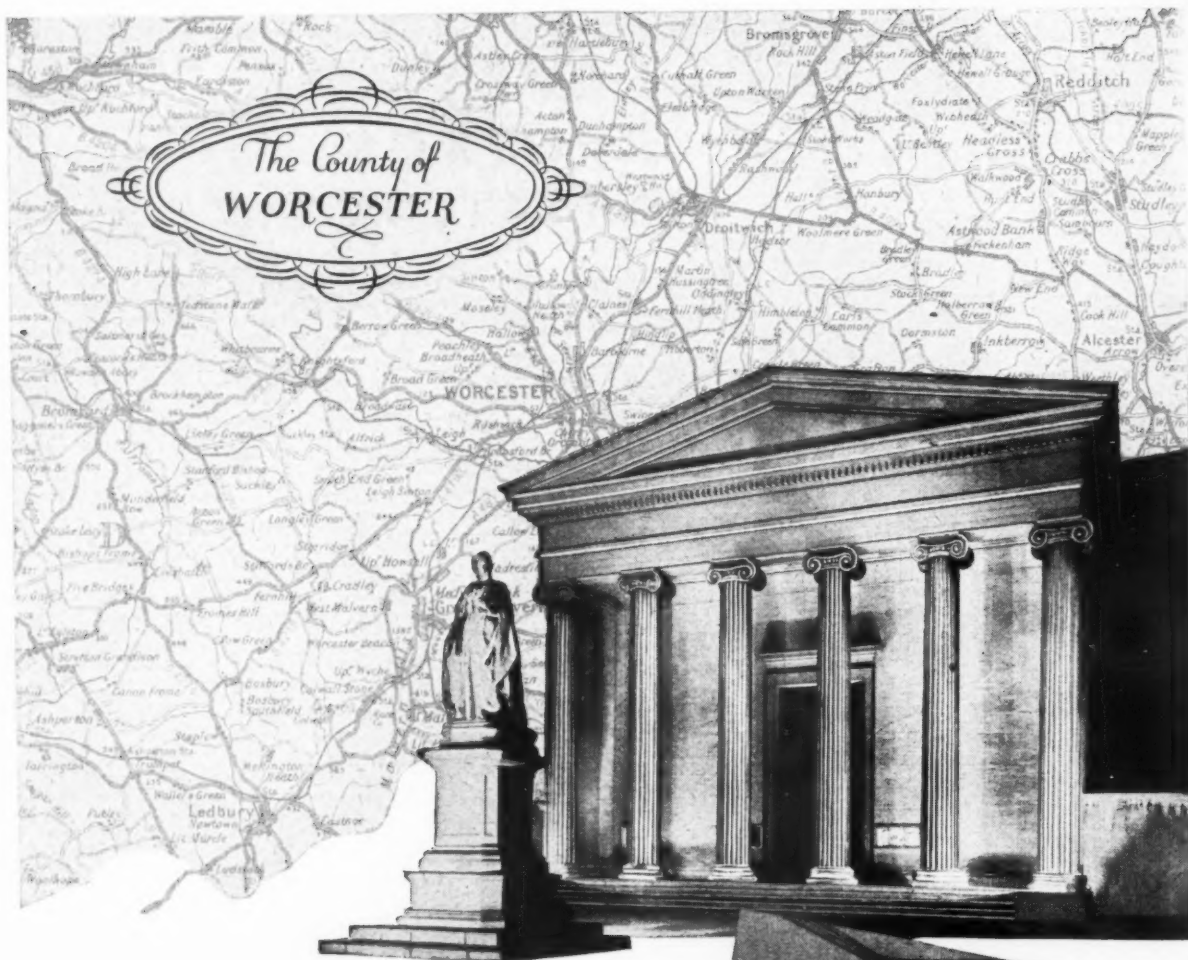
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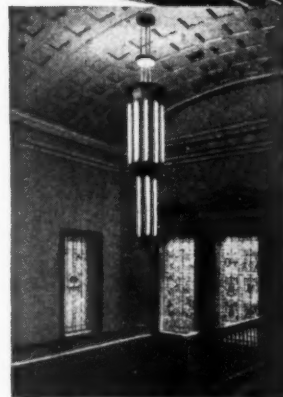


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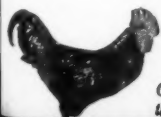




From an original drawing by GORDON CULLEN of the Wheatsheaf Hotel, Thornton Heath Pond.

Floor Tiles for Pubs

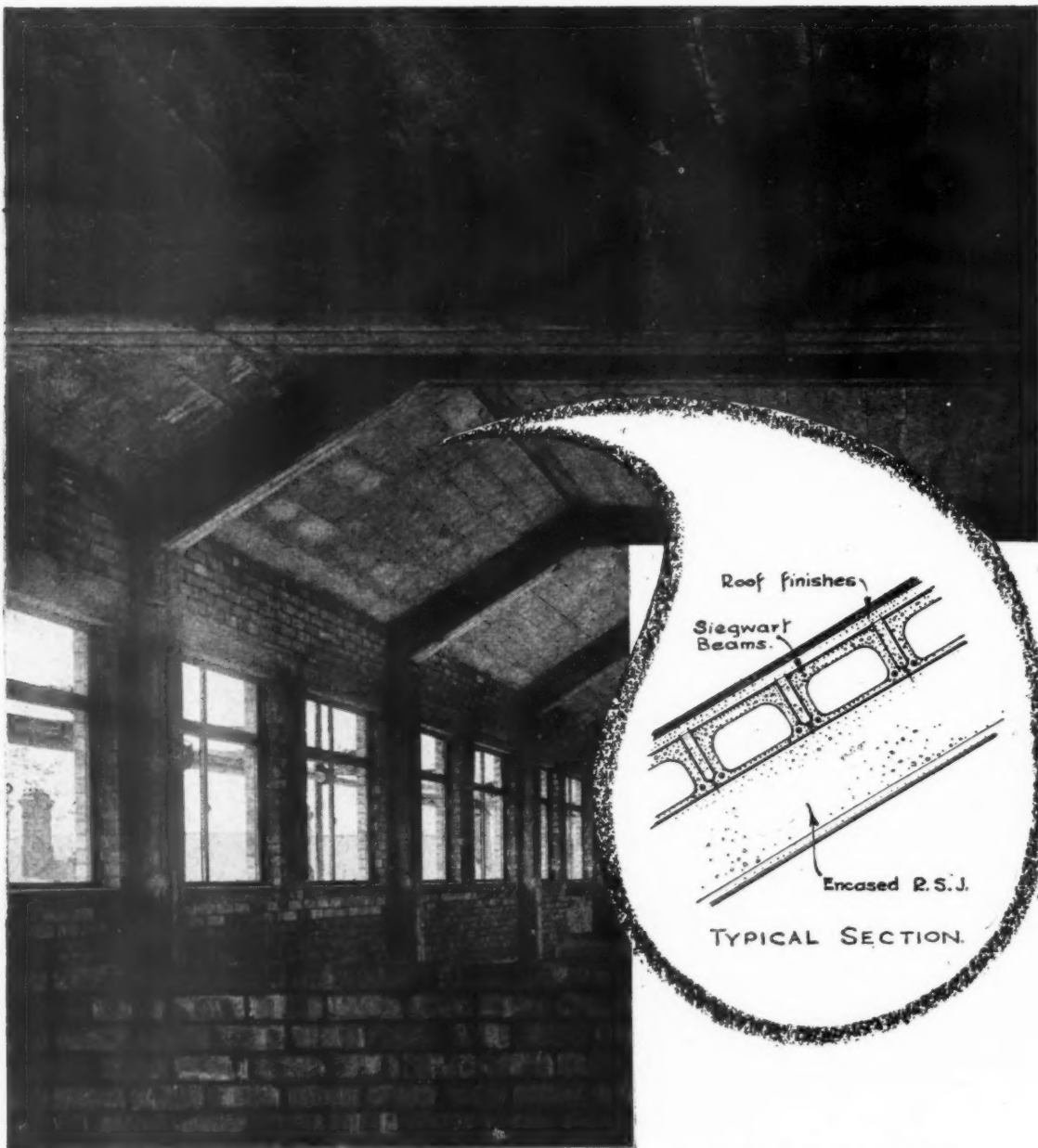
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Architects: Pick, Everard, Keay & Gimson

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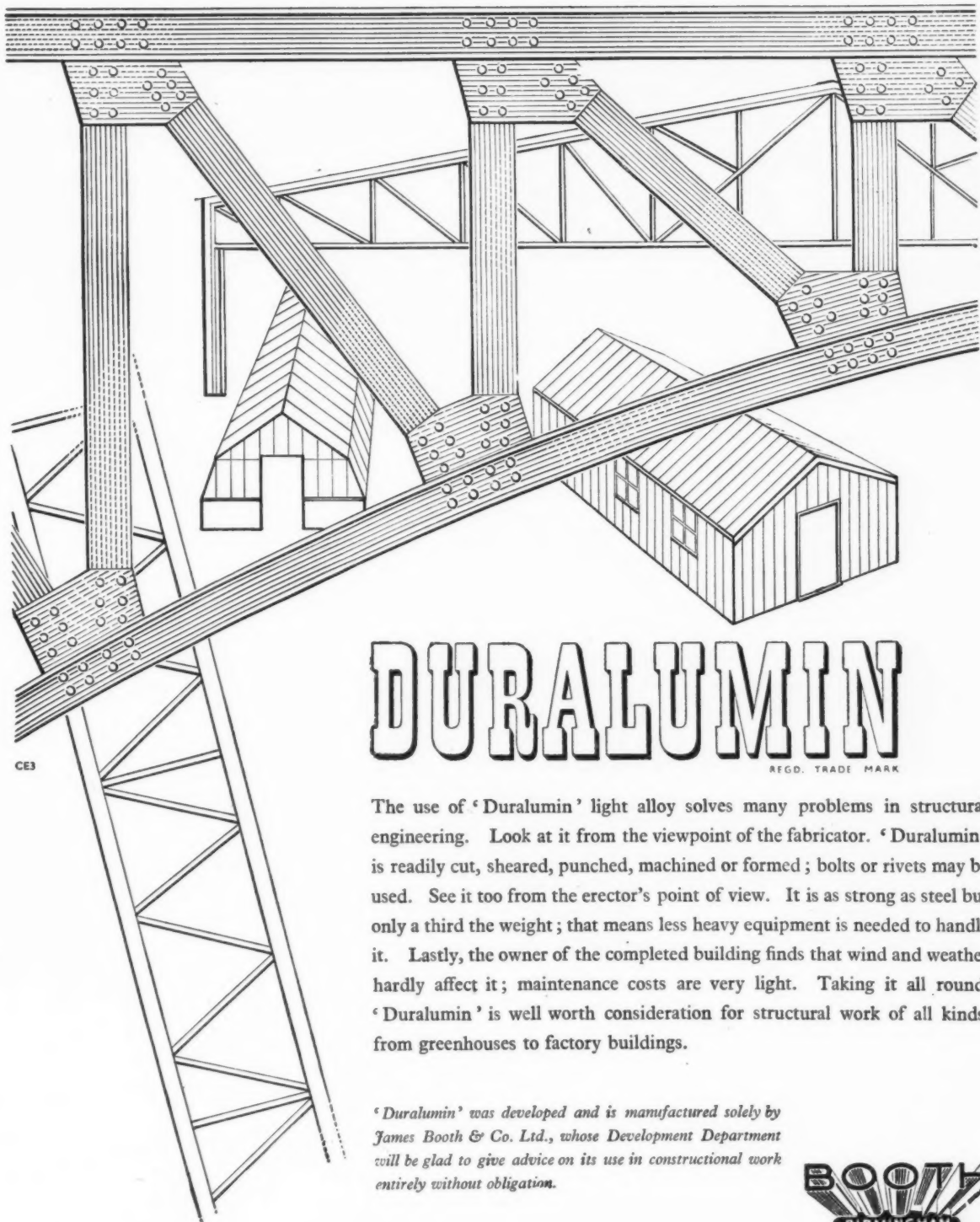
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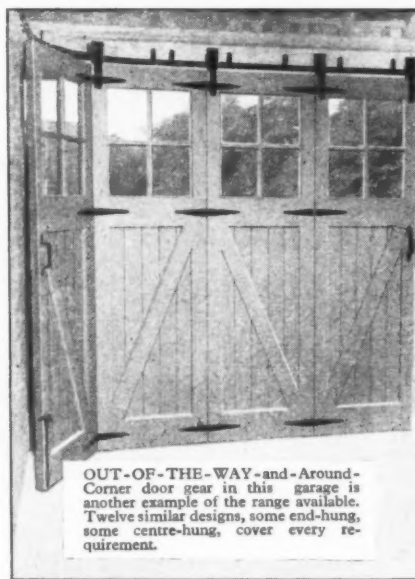
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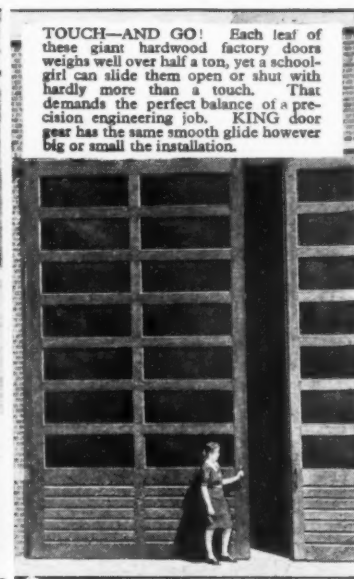
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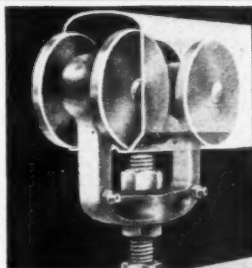
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PRESTRESSED
CONCRETE
FACTS

THE CONCRETE STRENGTH

Concrete used by Dow-Mac for prestressing must attain a minimum compressive strength of 4500 lb. per sq. in. before the tensioned wires are released and the prestressing forces applied. Seven days after casting this strength will increase to more than 6000 lb. per sq. in.

The wire used is high tensile steel, having an ultimate strength of 100-110 tons per sq. in. and a 0.1 per cent. proof stress of at least 70 tons per sq. in. The initial tension applied to each 0.2 in. diameter wire is 2.2 tons, while the elongation in stretching is approximately 1 ft. per 200 feet length.

PROCESS CONTROL

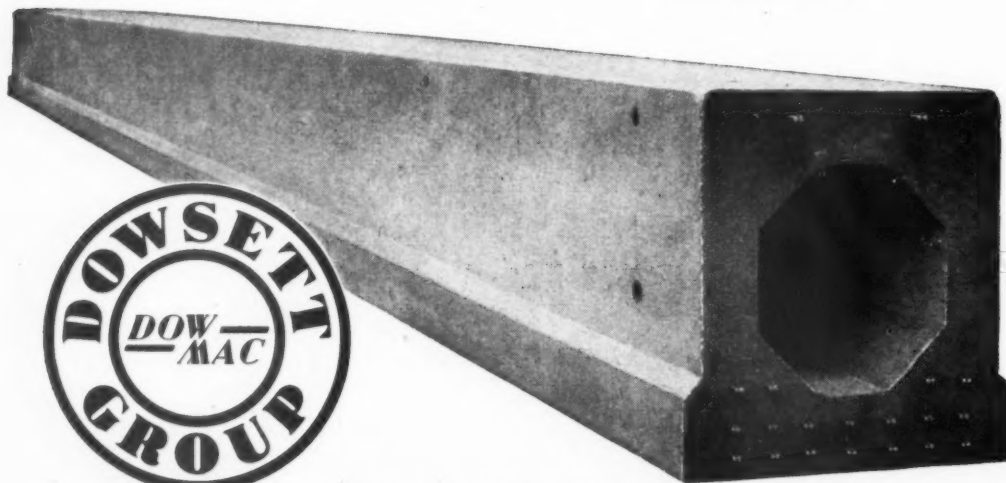
Close control is exercised during each stage of manufacture. Sand and gravel are carefully graded. Cement complies with the relevant B.S.S. All materials are proportioned by weight and the water content in the mix is most carefully controlled.

ROUTINE TESTS

Compression test cubes are made from each mix and no wires are detensioned until the tests show that the concrete has attained the requisite strength. Tests are also made on the finished products to conform with the requirements of their ultimate use.

APPLICATIONS

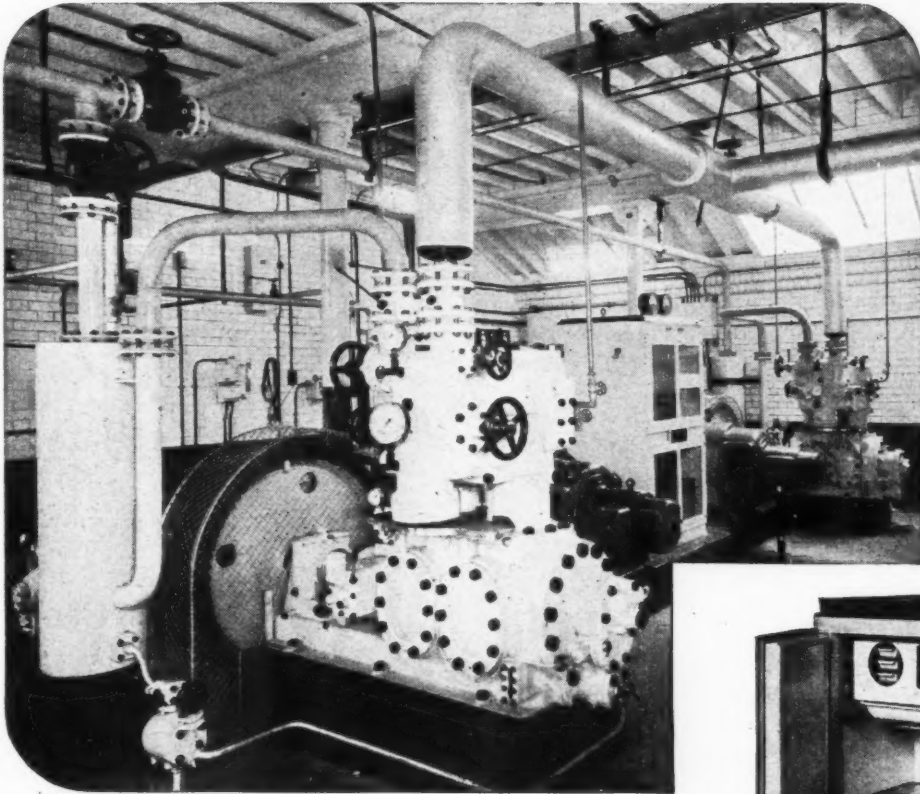
Prestressed concrete in pre-cast form is now used for railway sleepers, roof and floor beams, bridge beams, piles and walings, electric transmission poles and for many other purposes. Dow-Mac, who made their first railway sleeper nearly 10 years ago are now utilising their experience in these fields.



Typical road bridge beam as manufactured for the Holland C. C.

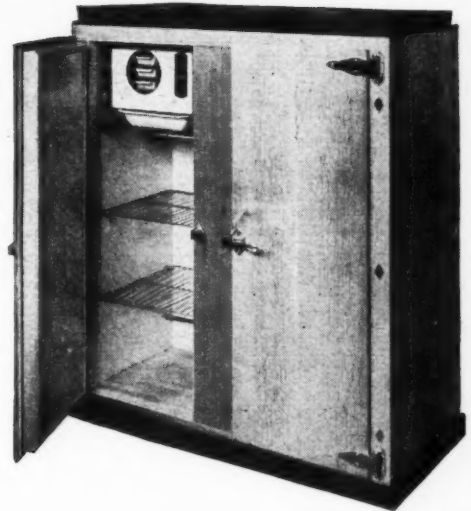


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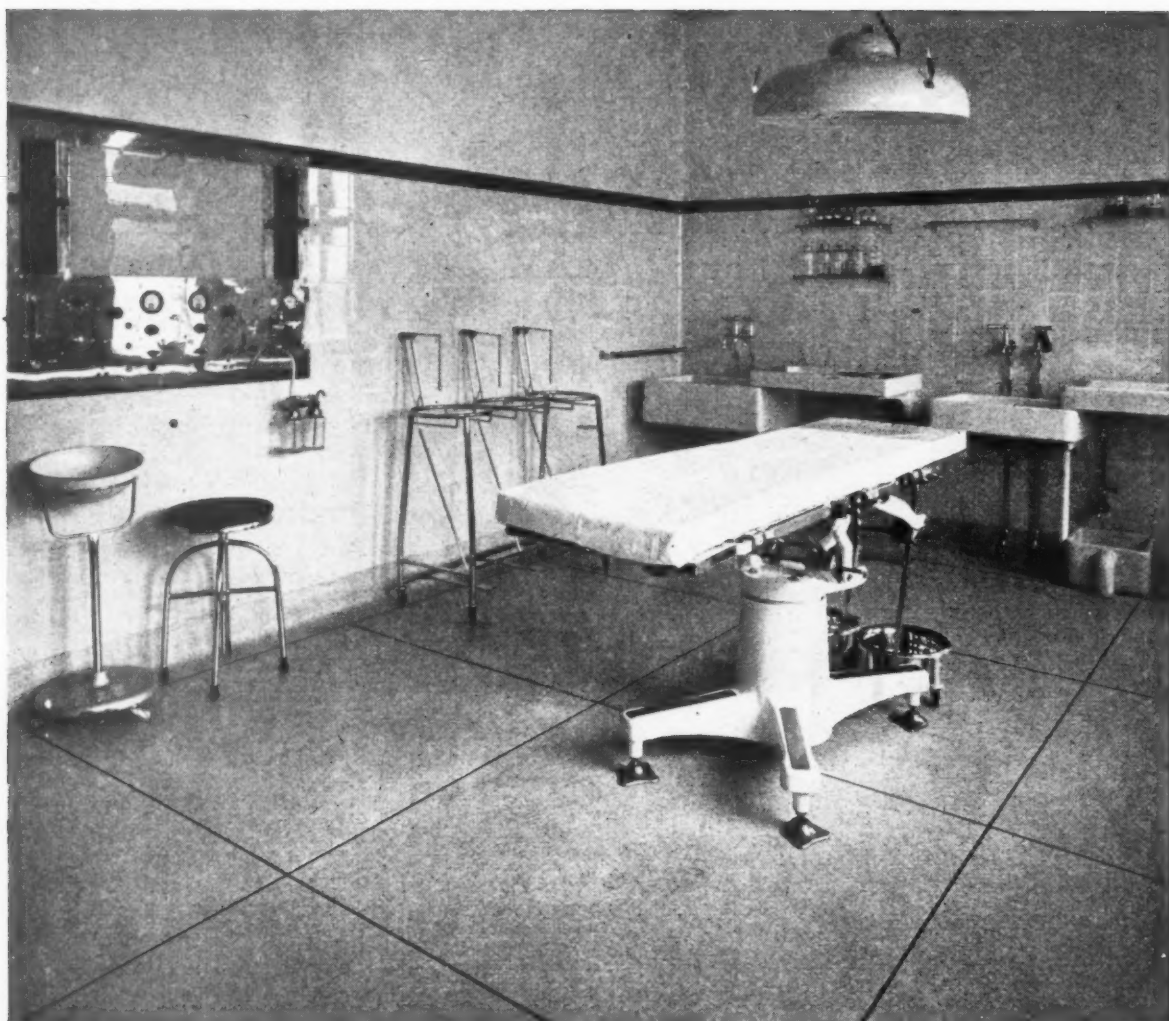
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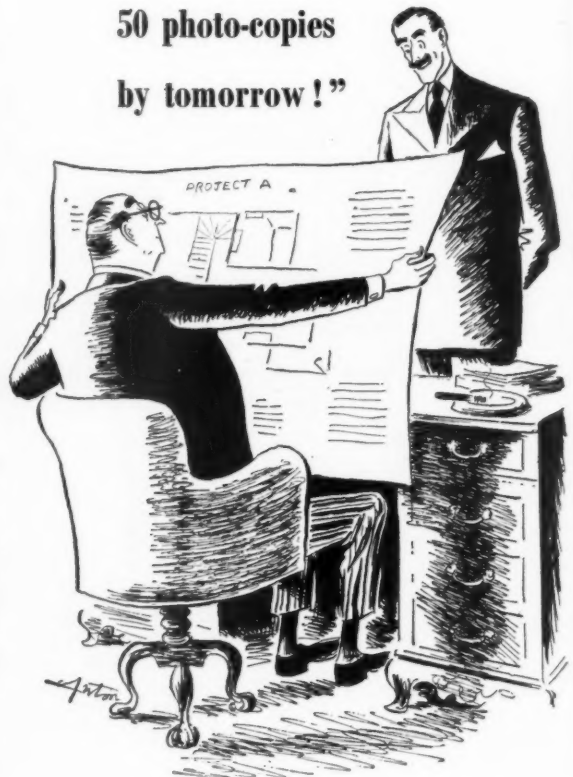
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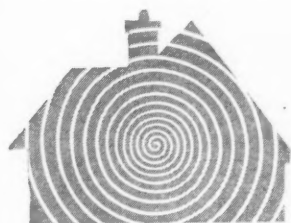
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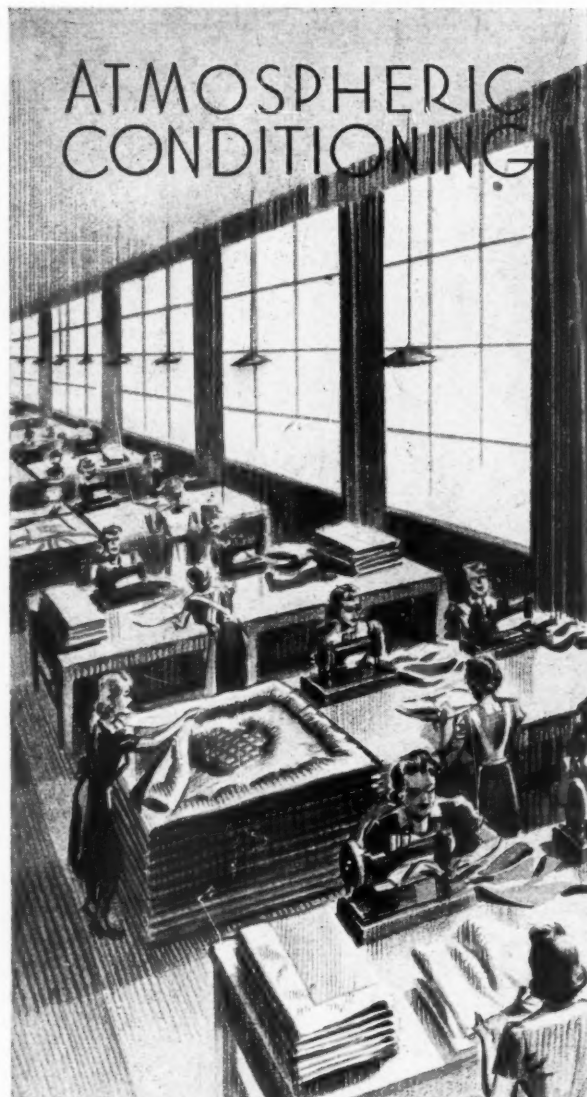


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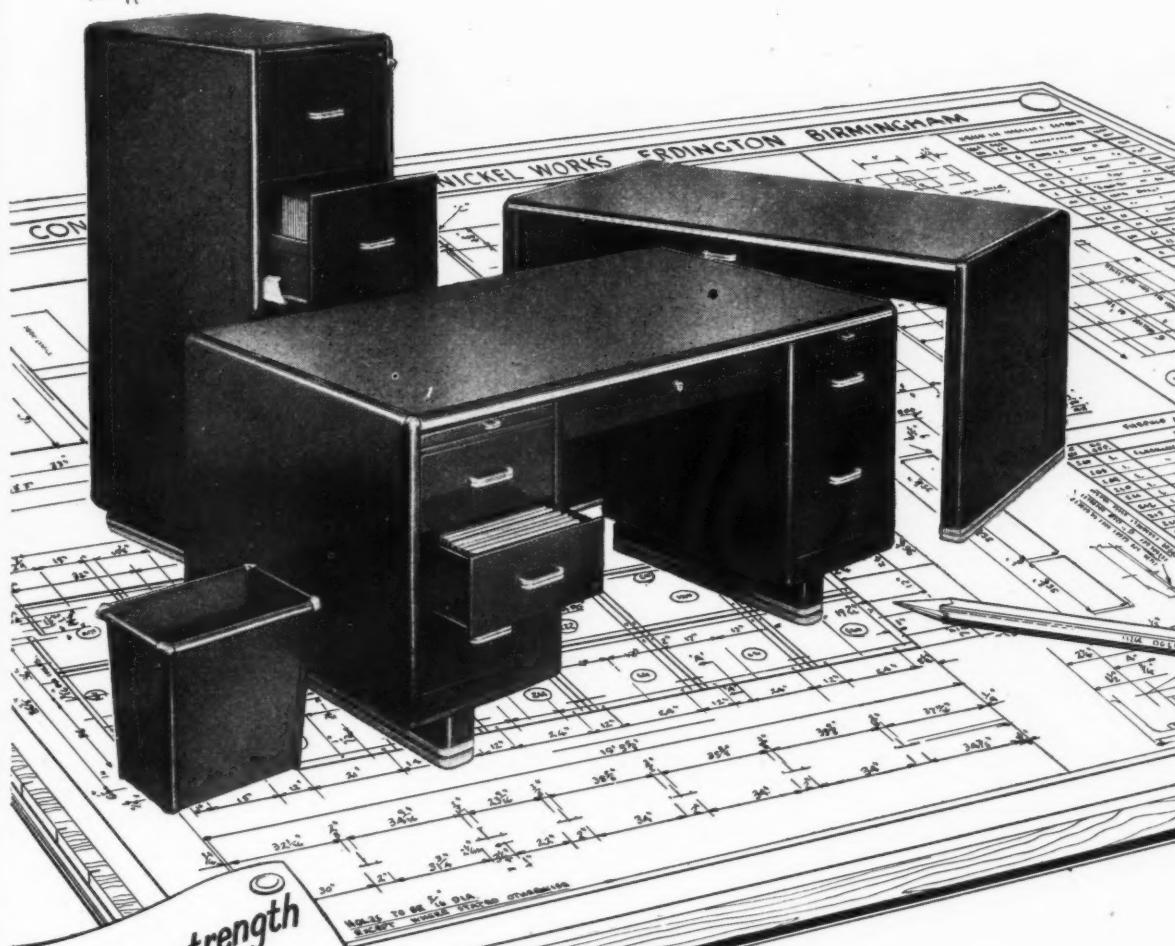
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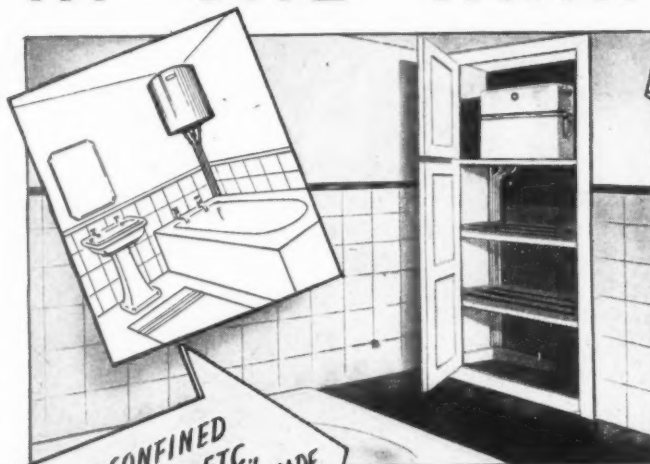
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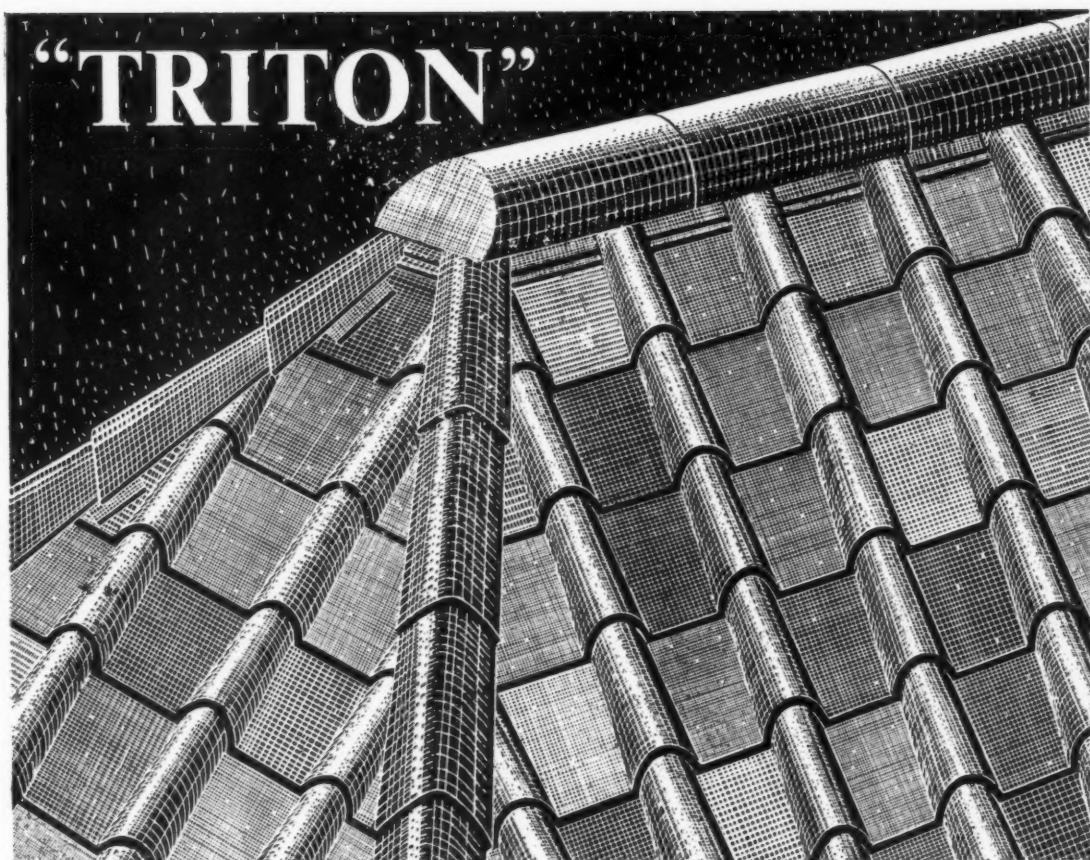
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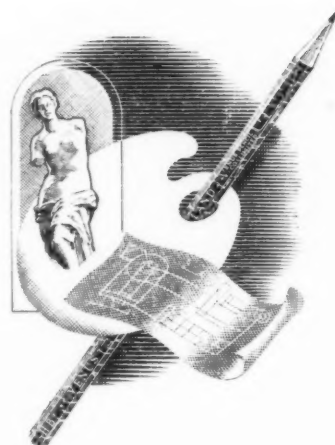
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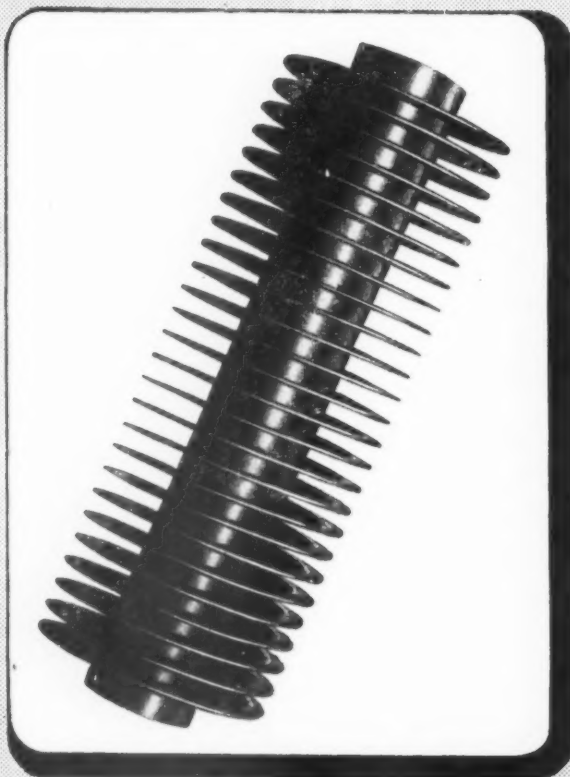
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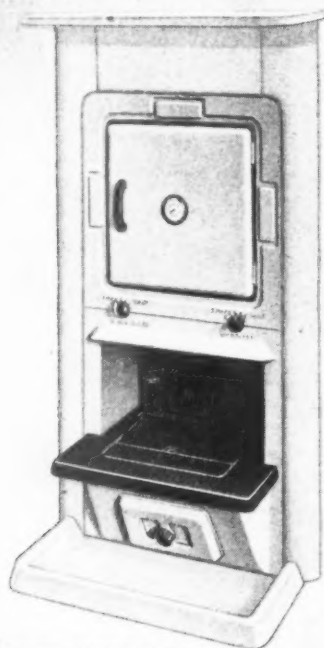
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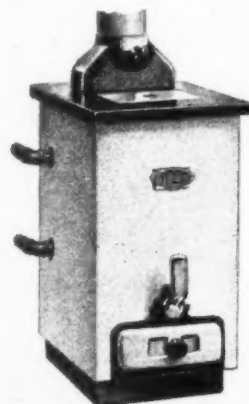
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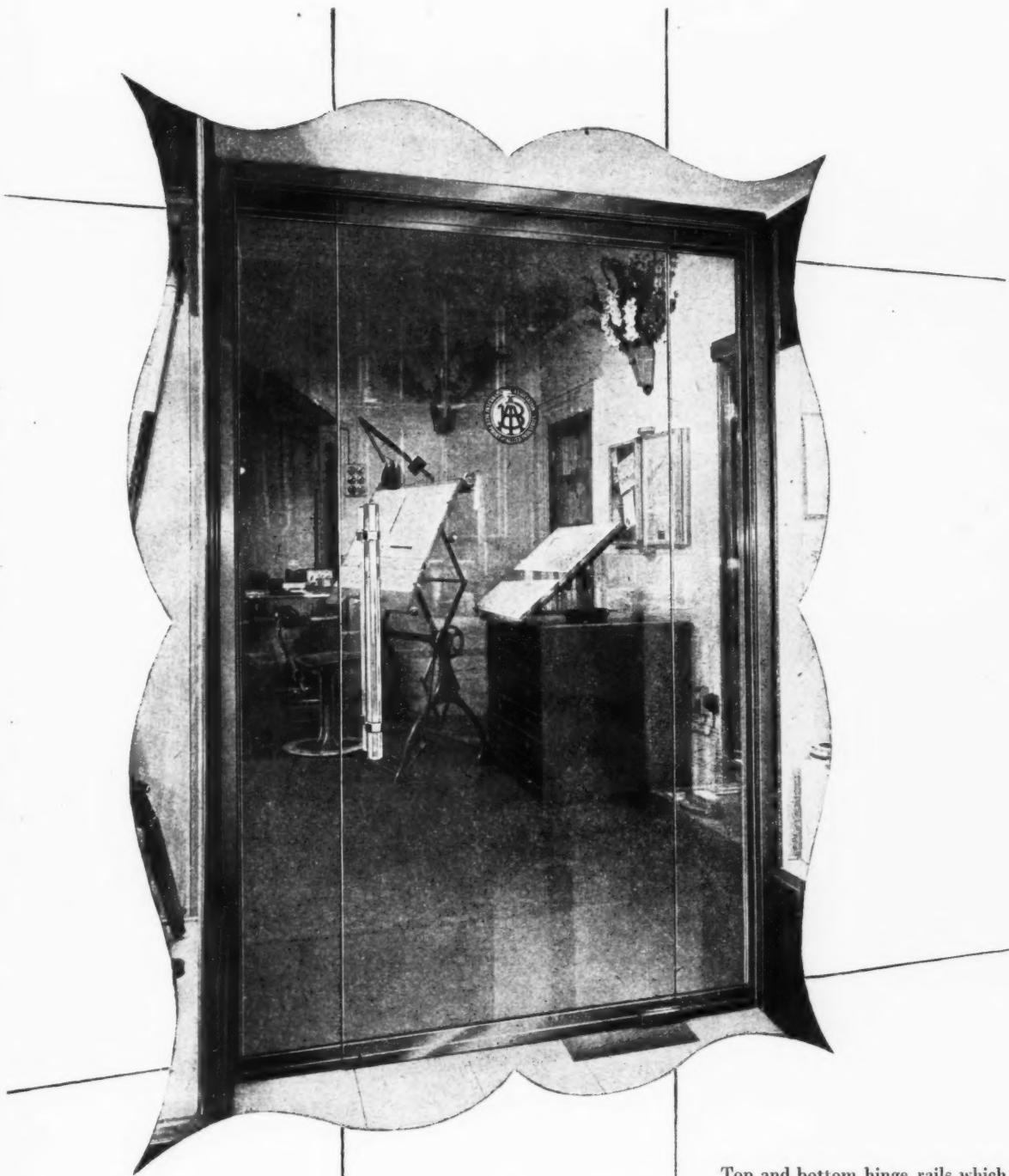
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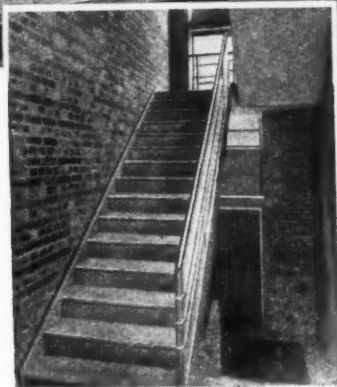
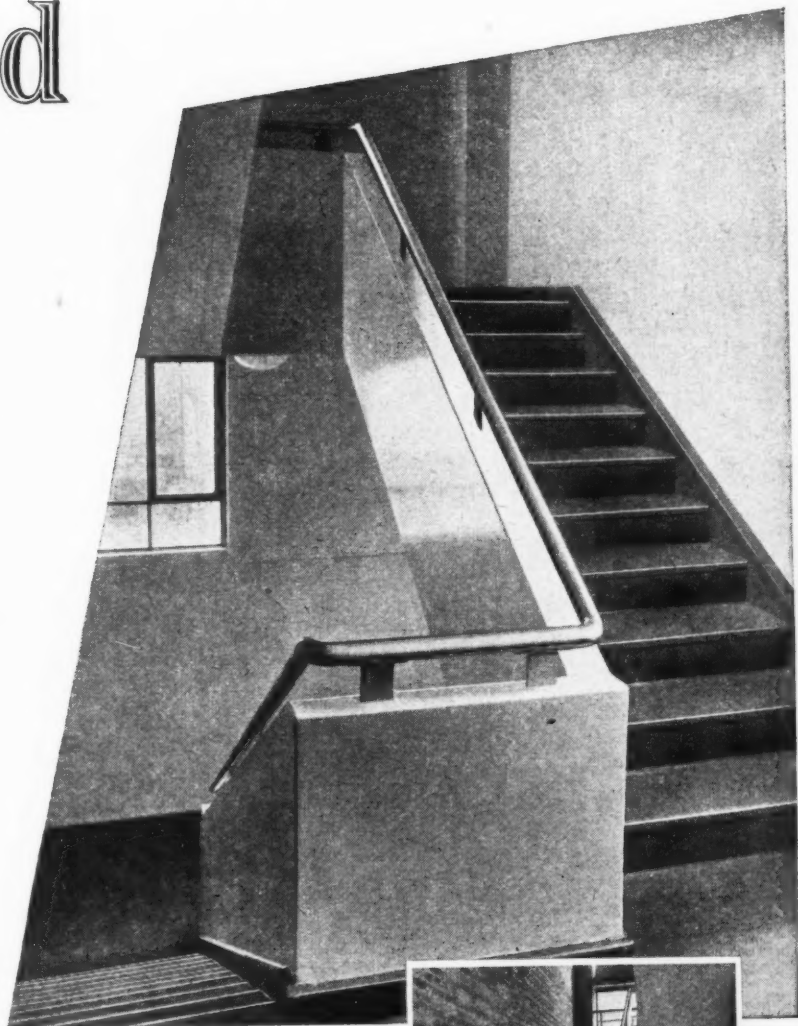
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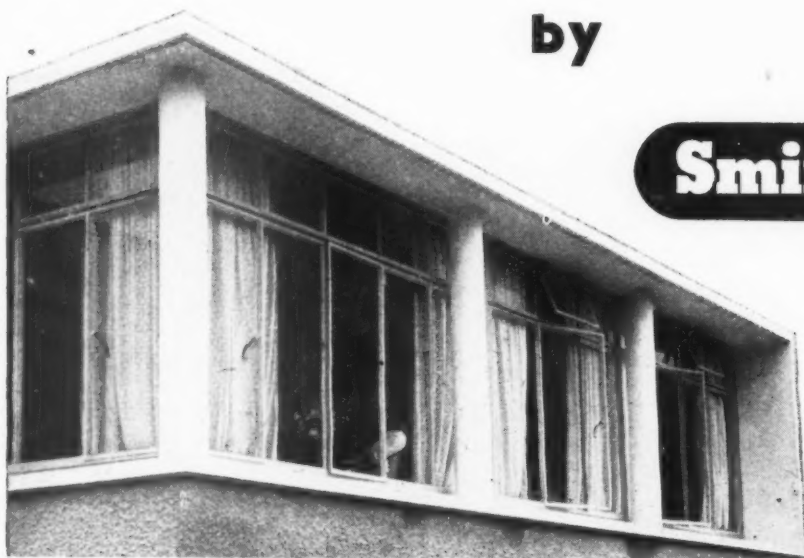
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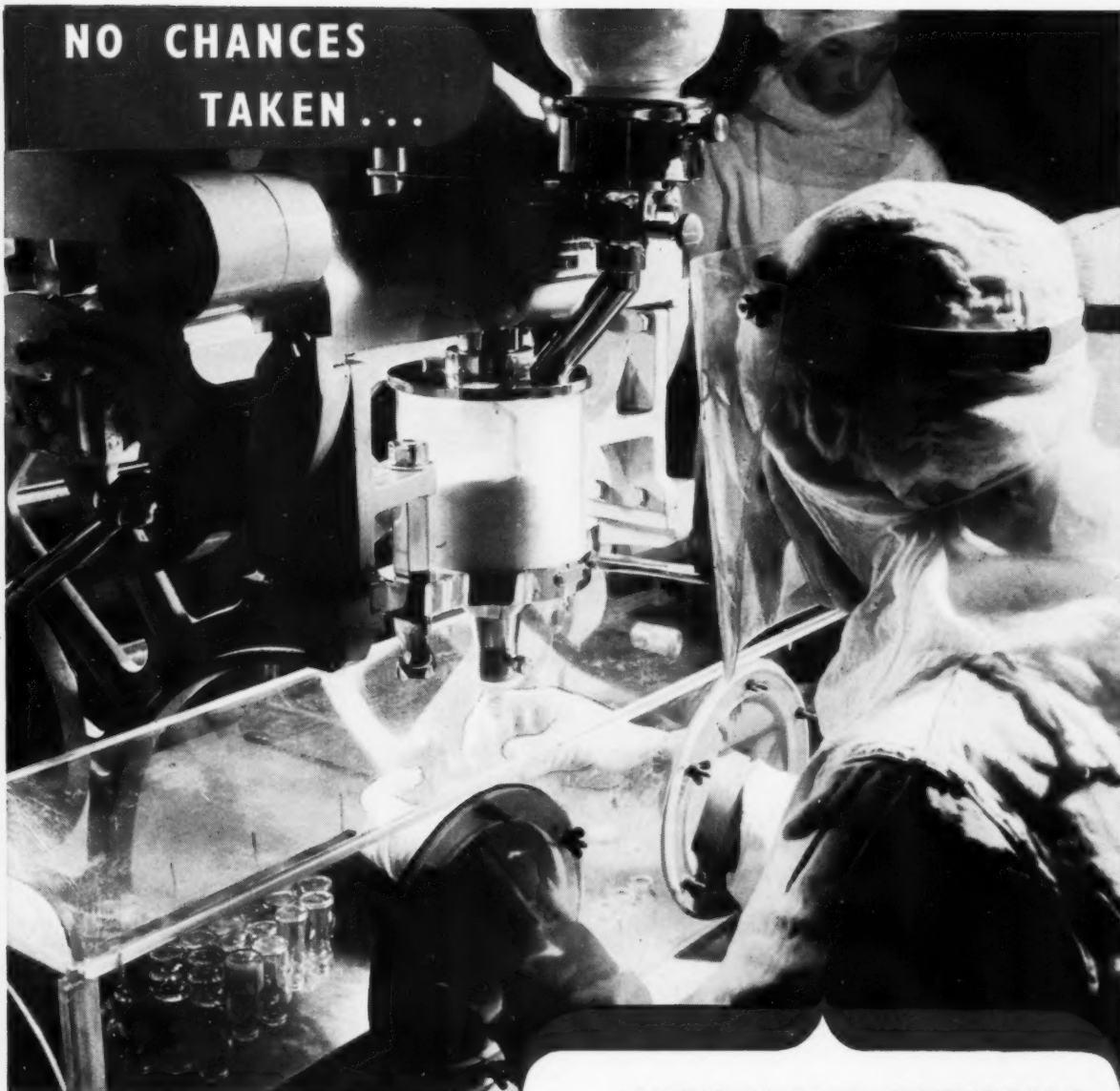
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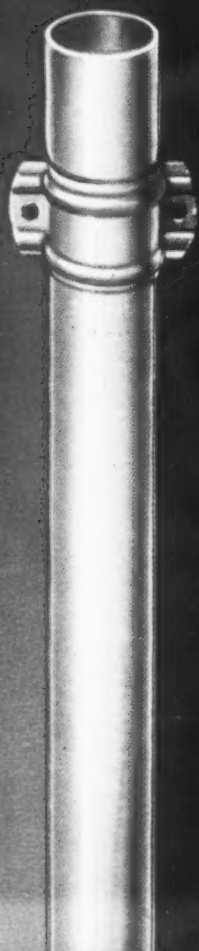
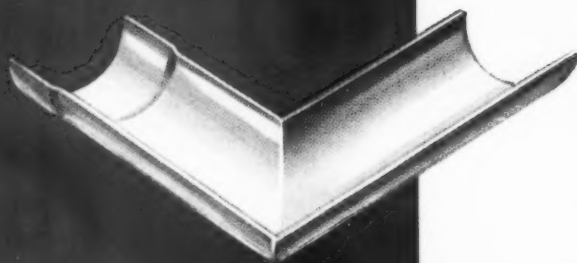
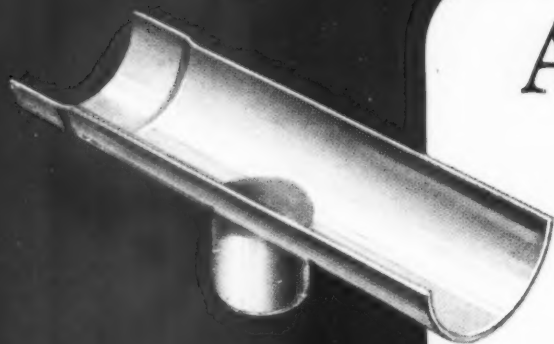
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No 2922 1 MARCH 1951 VOL 113



THE COLONIAL OFFICE

I suppose we must regard the Government's promise to set the façade of the new Colonial Office back another 30 feet as a victory. It would be churlish not to do so, as it represents a real concession and the Minister of Works is clearly trying to satisfy the public's wishes. But I cannot help making two comments. One is that a tall building set back so far, though it may be less of a threat to the Abbey, is no contribution to the ultimate ideal of completely restoring the collegiate character of the Westminster precinct. What is required for this purpose is a modest building designed to close—visually speaking—the vista down Victoria Street from Parliament Square.

My other comment is that the new plan coincides, roughly speaking, with what the Royal Fine Art Commission

thought desirable when they considered the project a long time ago. But all the public knew was they had approved it. Their real views, accompanied by their regrets that these had not been accepted, were only made known when their annual report was published much later. If they had spoken out in the first place, they would have plenty of public support and the change could have been made before the plans had gone so far, saving everyone a lot of inconvenience.

I hope the experience of this case will encourage the Commission to speak out more bravely in future.

SWEDEN: BY KIDDER SMITH

Stiff art paper and an intriguing, opulent, intangible smell (is it the ink or the paper?) greet the person who opens *Sweden Builds*,* the second survey, by the American architect, G. E. Kidder Smith, of European architecture. The first book, also published by the Architectural Press, was on Switzerland. This companion volume is every bit its match as an all-embracing survey of Sweden's past and present architectural achievements, and it is illustrated by the same brilliant photography, an example of which, I am told, is on page 264.

It is refreshing to find, despite the repeated strong doses of Swedish design which have been fiercely injected into our muddled aesthetic bloodstream by illustrated lectures, magazines and professional plagiarists, that there remains a considerable amount of material which has not been illustrated before over here. I have, however, one complaint, which I also made about the Swiss book: the colour plates might have been more

carefully chosen to illustrate the deliberate use of colour in buildings. In this instance, too, the colours are rather harsh.

Kidder Smith has adopted the same successful method of exposition as before. He starts with a study of the traditional and simple functional types of early native building as a basis for his full and careful study of contemporary designs. The result is as stimulating and provocative to dreary slum-ridden Englishmen as was once a 1945 election promise.

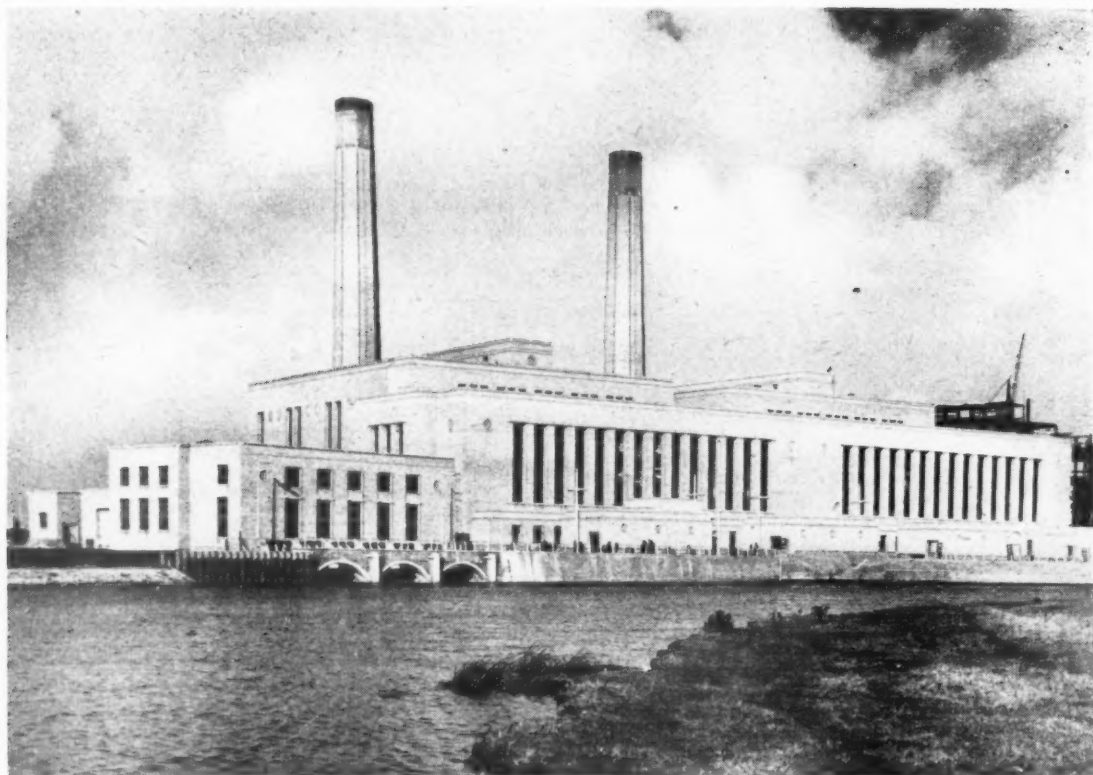
THE FUNCTIONAL TRADITION REGAINED

Two feathers adorn the RIBA's cap this week. The first; their *Architecture of Transport* exhibition, now open, which should go far to educating the general public in the quality of design they should expect to find in public transport. The standard of presentation is of the neatness and clarity which one almost automatically expects from the RIBA Exhibition Group.

It seems a pity that no exact record in miniature is kept of the RIBA exhibitions. It would be fascinating, for instance, to be able to compare the *Architecture of Transport* exhibition held at Conduit Street twenty-five years ago with the current show on the same subject. If we could do so, we would be impressed, I believe, not only by the remarkable advance in structural technique during the last quarter of a century but by the evidence that an unequivocal style is at last emerging from a century's confusion.

Foreign work is, of course, predominant, and I thought that the barrel of good design in this field had been fairly well scraped. Indeed, the exhi-

* *Sweden Builds*, by G. E. Kidder Smith. The Architectural Press. 45s.



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bition committee has been forced, perhaps, to be slightly more catholic than usual in its choice.

*

As far as British design is concerned, the good work will all be fairly familiar to readers. Two projects, however, caught my eye as being well up to, if not above, the comparatively high standard of foreign work in the same subject. I refer to designs by H. E. B. Cavanagh, the chief architect to the Western Region of British Railways, for stations at Plymouth and Banbury, which are illustrated on the right. The simple, precise planning, with a clear separation of functions, is made, in each instance aesthetically delightful by the interesting relationships of rooms, concourses, and platforms. I wish Mr. Cavanagh and his assistants a speedy completion of the two buildings.

*

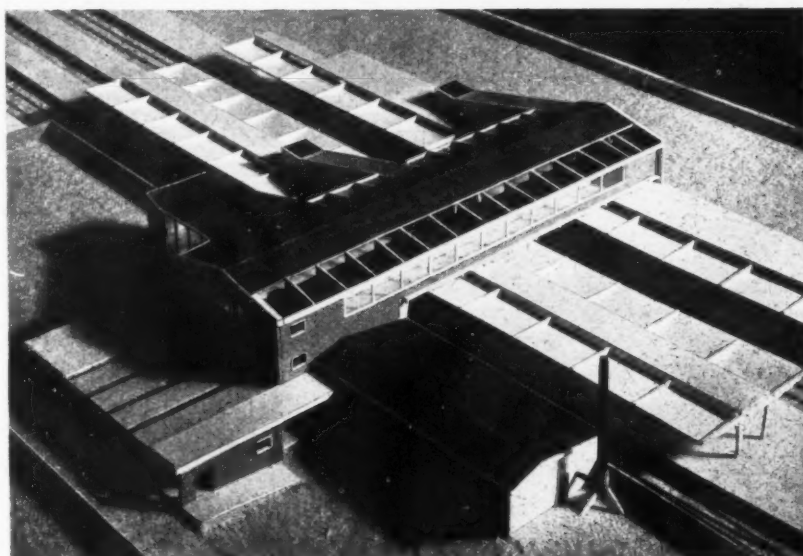
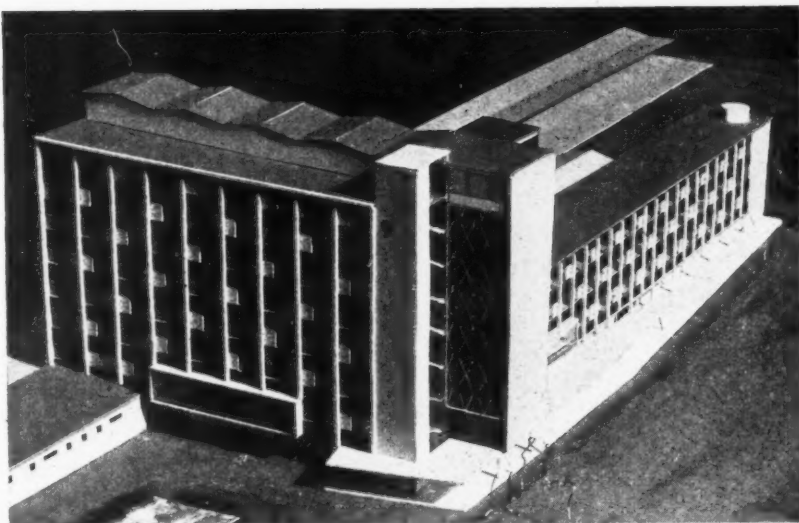
The moral of the promising new railway architecture seems to be: if you want character in the new bureaucratic building, decentralize design control and give the utmost possible freedom of expression to the man on the job. Only thus will you regain that fine functional tradition founded by the early canal and railway engineers, which has unity without boredom.

*

The second feather in the RIBA cap is for their enterprise in getting Wallace K. Harrison, the chief architect for the United Nations building, to come over here and give a talk on this building at Portland Place. As prophesied, the hall was packed to overflowing—as I am sure it will always be so long as the RIBA pursues the policy of getting foreign architects to talk publicly and freely on current architectural problems.

*

As regards Mr. Harrison's paper, I was, I reluctantly confess, somewhat disappointed. He said a little about how the design of the secretariat was arrived at, but very little on the problem of how architects and engineers from fourteen different countries, speaking at least ten languages, managed to combine as a group, and whether such methods of group designing really



These projects for stations at Plymouth (top) and Banbury (bottom), designed by H. E. B. Cavanagh, the chief architect to the Western Region for British Railways, are on view at the exhibition of "Architecture of Transport" at the RIBA, 66, Portland Place, W.1, which will be open until March 22.

work out in practice. And he told me nothing at all of what, to us, is one of the most important and fascinating aspects of American building: the high speed of erection and the mechanical and structural factors involved. Perhaps Mr. Harrison can be persuaded to give a further talk soon.

believe that they will be able to work right up to the moment they step into their coffins and leave their widows and dependants with some security. The experience of the Architects' Benevolent Society shows this to be a very mistaken idea.

*

THIS WEEK'S GOOD CAUSE

Those interested in geriatrics will have realized that not only is the population of the British Isles becoming a more aged one, but on the average architects are apt to live longer than those following many other professions. In spite of this there are apparently thousands of architects who appear to

The ABS recently celebrated its centenary by appealing for a sum of £50,000 to enable it to build and endow homes for its beneficiaries. The RIBA feels this is a suitable time to put on a small exhibition designed to show the progress that has been made in providing accommodation for old people. It will be held at the RIBA



Civilized Architecture

This illustration of a block of flats by Backström and Reinius, in Elfvinggården, Stockholm, appears in the book *Sweden Builds*, by G. E. Kidder Smith, recently published by the Architectural Press, London, and Bonniers, New York, at 45s. This book, like its companion volume, *Switzerland Builds*, published last year, deals with a country which came a few years late to the development of modern architecture, but which has completely surpassed its early inspirers. Swedish buildings, writes the author, may be

"well built," beautifully detailed, colourful, and even playful, but *civilized* is the generic term for most modern work. Mr. Kidder Smith not only supports his statement with nearly 250 pages of photographs and descriptions of buildings, but gives a brief survey of the country and shows the part that climate, national temperament and architectural inheritance has played in making the Swedish architect concentrate on producing the highest general level of architecture in the world.

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headquarters from April 13 to 28. There will also be a discussion on the subject of "Housing Needs for the Old" on the first day of the exhibition.

It is a commendable move on the part of the RIBA to call attention to this accommodation problem at a time when we are faced with a possible reduction in the building programme—a reduction which might well restrict the building of old peoples' dwellings. Incidentally, my readers may be able to help the ABS in this matter. If you know of any interesting schemes or conversions for old peoples' homes of special interest, which have been undertaken recently, please get in touch with the Exhibitions Officer at 66, Portland Place, W.1.

One more point. In spite of your generosity the ABS is still a long way from its £50,000 mark. Those of you who subscribe annually may like to be reminded that you can nearly double your contributions at no extra cost to yourself if you covenant to make your contributions for seven years.

OH! I SAY; LOOK HERE!

Not many of my readers will take the trouble to get hold of a copy of FG/Press/4/50—a hand-out about the Battersea Festival Gardens—before visiting this amusement area. If they did so they would read the following about the main Vista (designed by Osbert Lancaster and John Piper):—"Although all the buildings are only temporary structures, they will be exciting and gay in appearance."

Well, that's all right; there's nothing there we need be ashamed of telling our Festival visitors from overseas. But this leaflet is prepared only for circulation to the Press. The Festival powers-that-be have something rather different up their sleeves for distribution to the public. In their prettily produced yellow and blue leaflet, containing similar information, they make the following statement about the main Vista:—"Though only temporary structures, the buildings will be attractive and entirely original, in striking contrast to present-day architecture."

There's a difference, I feel, between honest humility and such a blatant piece of self-denigration.

ASTRAGAL

The Editors

THE PROFESSION'S GAMBLE (2)

AT first glance, the statement made on this page the week before last that architectural competitions are not attracting enough entries would appear to be refuted by the three-hundred-odd entries for *The Builder's* low-cost housing competition. This figure certainly compares favourably with the thirty-nine entries for the Edinburgh University competition and fifty-nine designs submitted for the Nairobi city hall competition. However, it must be remembered that the subject for the competition is perhaps the most challenging and provocative one which could be presented. Probably more architects have been concerned with designing houses, during the last few years than ever before. What is more, house planning, despite its infinite variations and complexities, is, perhaps wrongly, considered a relatively easy subject. It is the deceptively simple puzzle which rests permanently in the back of the architect's minds until a challenge or irritant brings his full mental powers to bear and one more perfect solution is brought to light on the back of an envelope.

Considering, then, the energies which have been devoted to the subject, the number of entries (about 2 per cent. of the profession) does not suggest the enthusiastic response to be expected from a profession which is really satisfied with the competition system.

There are too few competitions, and there are too few entrants for them. That is a major problem for the profession to solve. The alternative, and signs of it can already be seen, is that the competition system will become the method of selecting only those works which are primarily sculptural, or of artistic content only, such as war-memorials, with the minimum of functional and structural complexities possible. The complex structures, with intricate planning and servicing problems, as things stand at present, will prove more and more unpopular as subjects for competitions. The competition system started when structural systems were comparatively simple and when, as H. S. Goodhart-Rendel pointed out in his recent talk at the RIBA, the average builder could build a house soundly guided by little more than eighth scale plans and elevations. Such days are over, but their influence remains, as can be seen in the average set of competition drawings. At a time when building and design problems have never been more complicated, when considerable research has often to be undertaken, and when close co-operation is called for between designer and builder, it becomes obvious that an architect cannot lightly enter for a competition unless he has great confidence in himself or in his ability to satisfy the assessors.

The problem of maintaining a satisfactory competition system hangs on three inter-related factors. First, ensuring a supply of buildings whose design can be satisfactorily solved by competitive methods. Second, as we said the other week, the elimination, as far as possible, of the "human factor" in

assessing. Third, the evolution of the method most economical in effort of presenting the competitors' knowledge and ideas. A possible first step towards solving the last problem may be the holding of two-stage competitions. The pros and cons of this system will be discussed at a later date.

No. 4: Technical Editor

REDUCING COSTS—ON PAPER

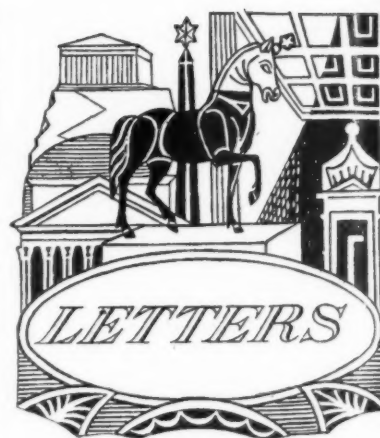
On pages 284 and 285, we review *The Builder* Low-Cost Housing Competition. The 322 schemes entered for this competition, which have been exhibited at County Hall, provide a measure by which can be judged the contribution which architects can make towards reducing the cost of houses and alleviating the housing shortage. On the whole, the designs confirm the contention, made by Grenfell Baines (*JOURNAL*, Dec. 7, 1950) that, by skilful planning, it is possible to reduce the floor area of a house by 20 to 25 per cent. and yet design a comfortable home for the average family of four or five. But it must be realized that this does not represent anything like a proportional saving in cost.

Few of the entrants tried to reduce cost by using unconventional building materials or methods, for the building industry in this country is not organized in such a way as to make non-traditional building economical. In order to keep within the £1,000 limit most competitors, besides cutting floor area, cut thermal and sound insulation standards, cupboard space and equipment generally. It has been emphasized time and again that to cut cupboard space is false economy, for wardrobes cost more than built-in cupboards, and that to cut thermal insulation raises fuel bills and wastes fuel.

In fact, most of the designs exhibited at County Hall were smaller, draughtier, noisier and more difficult to furnish than the houses most local authorities are building. On the whole the plans were better and, if the standard of insulation and equipment were improved, many of these designs would be better than the average council house, but they would then, doubtless, cost as much.

If this competition has proved anything, it has proved that academic exercises on paper cannot reduce the cost of building or solve the housing problem. The solution, unfortunately, depends on many factors which are not entirely under the architect's control—factors such as the general level of efficiency amongst building contractors, the supply of materials and the proportion of building labour allocated to housing (at present under 25 per cent.).

It was, however, interesting to note that nearly all the competitors specified the use of highly efficient heating and hot water appliances. This is very significant, for it is in the field of heating that research has been carried out most persistently and most successfully. It is encouraging to know that in this field, at least, architects are beginning to take advantage of the findings of their research workers.



{ Ian M. Leslie, Hon. A.R.I.B.A.
J. L. Womersley and G. Hopkinson,
A.R.I.B.A.
G. L. Taylor

The £950 House

SIR.—So generous was the space devoted in your last issue to our Low-Cost Housing Competition results that you will not expect me to comment upon a matter of opinion raised in your leading article—that the assessors should have published reasons for their choice, other than to say that while MARS has made this suggestion, the RIBA Competitions Committee, so far as I know, has not accepted it.

I must, however, challenge the suggestion made in the same article that the prices given for the cost of building the houses shown in the competition designs "cannot be considered as more than approximate." In fact, the winners' full Bill of Quantities (for a house estimated to cost £950 at prices ruling at January 1 last) was checked by Mr. Edward Palmer, F.R.I.C.S., of Gardiner and Theobald, and accepted without fault; in addition, reference to the winners' report in your possession will show that they hold a signed undertaking by a builder of repute to the effect that, subject to Ministry approval, he will erect 50 houses to the winning plans at £950 each.

Unless checked quantities and firm estimates are held to be meaningless, and a new genus of builder has been discovered, the estimate of cost must, I suggest, be accepted as correct.

IAN M. LESLIE,
Editor, *The Builder*.

London.

SIR.—Whilst expressing our appreciation of your admirable reproduction of our design for the above we must, so far as our scheme at any rate is concerned, cross swords with you over the first of the two points you raise in your leading article on this Competition—"it must be realised that the designs are largely theoretical architectural exercises on paper"

We can assure you, gentlemen, that at our age, regrettable though it may be, we have neither the time nor the inclination for this sort of exercise. Our main object in entering this Competition was to take advantage of the inducement it afforded to prove to our Housing Committee that we could provide pleasant and healthy living conditions in a three-bedroom type house for £1,000 if we were freed from certain Government restrictions. We therefore produced two schemes—one was unplaced—which we felt we could wholeheartedly recommend our Committee

to build irrespective of the results of the Competition.

These schemes were fully priced by the same independent Quantity Surveyor who carries out similar work on our housing programme of some 300 houses a year and his pricing was, in turn, checked by the Surveyor appointed by "The Builder." Further than this, however, as allowed by the Conditions, we discussed the schemes in detail with a local builder of standing, whose business is highly organized for repetitive house-building. This Contractor worked out his costs entirely from his own standpoint and after completing his calculations gave us a written undertaking to build houses of this type, in contracts comprising at least 50 houses, at £950 per house, based on rates obtaining at 31st December, 1950. Thus there still remains a not inconsiderable margin of £50 per house in hand.

We admit that the houses are still to be built and the contractor's solvency at their completion to be proved, but short of this, we should be glad to know what further steps, gentlemen, you would have had us take to prove the realism of our case. Or, since you say the Assessors have not stated why we won the Competition, may we be so bold as to suggest that our essentially realistic approach to this vital problem possibly had something to do with it.

J. L. WOMERSLEY.
G. HOPKINSON.

Northampton.

[With regard to Mr. Leslie's point on the Assessors' report, while agreeing that the assessors are under no obligation to give their reasons, the RIBA does not specifically prohibit them from doing so, and we feel that it is precisely this absence of detailed criticism which competitors find discouraging. With regard to the other points made in both the above letters, on the cost of building the houses, surely it is common knowledge in the profession that an estimate based on preliminary drawings and an outline specification, without full size details or a knowledge of the site, must include a number of provisional sums and cannot with certainty be considered a "firm estimate." As regards pricing by quantity surveyors, it is no criticism of them to say that their estimating cannot but exclude a number of factors known only to the builder.—ED.]

Edinburgh Competition

SIR.—As one of the unsuccessful I am interested in your report and editorial comment on the competition for Edinburgh University Medical School's extension (February 8 and 15) with which I heartily agree. I cannot venture to be democratic but I think as architects we take account of the obvious fact that only one can win and cheerfully accept the possibility of having an outside chance. However, when the winning scheme is published it is comforting to the also rans to find that they have been outmatched by ingenuity and talent. In this case my reaction was one of astonishment which seems to be shared to some degree by others.

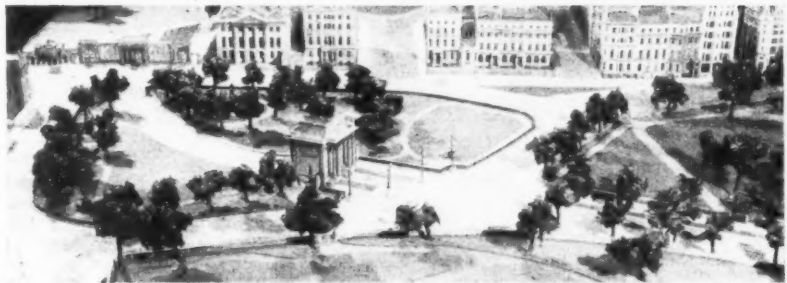
Knowing that the accommodation could only be fitted on the site with difficulty, one would suppose that the main concern of competitors and the assessor should have been the planning of a medical school. The winner's scheme does not solve this problem. In the fog of discussion about elevations this important point seems to have been overlooked.

I cannot agree with the assessor that the winning scheme is flexible. Its many difficulties can be overcome only by radical alterations to the design.

G. L. TAYLOR.

Rotherham.

HYDE PARK CORNER RE-PLANNED



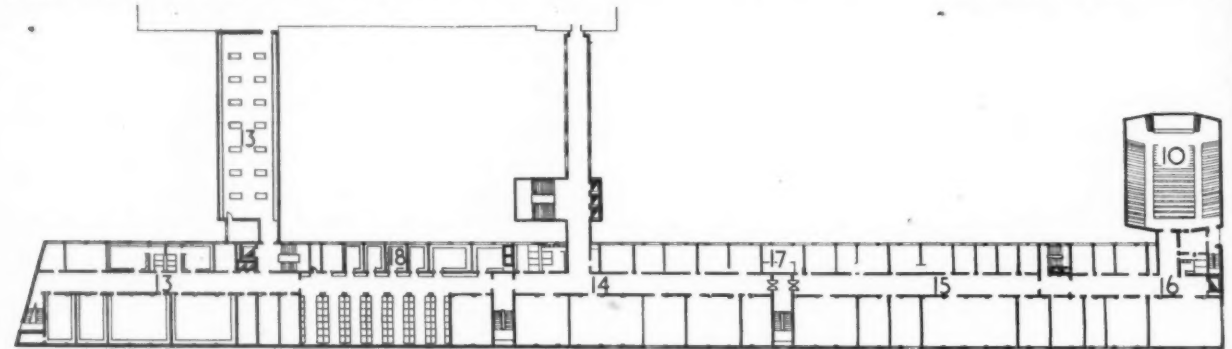
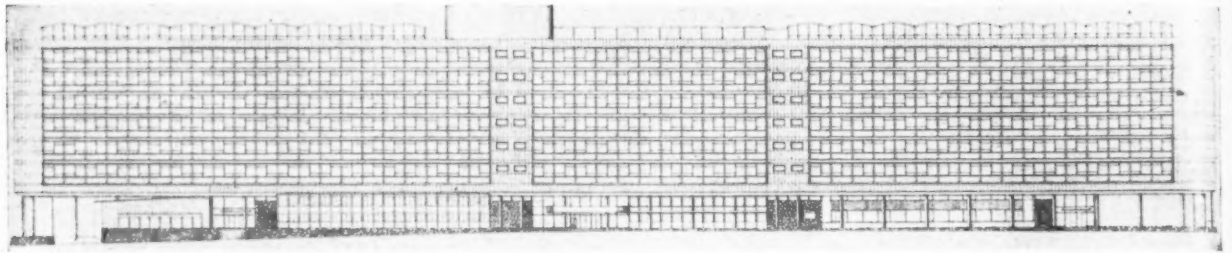
The models above show Hyde Park Corner (top) as it is now, and (bottom) as it will be when the Ministry of Transport's long-term scheme for replanning has been completed. (See news note on page 269.)

SHOWROOM IN SAVILLE ROW, W.1.

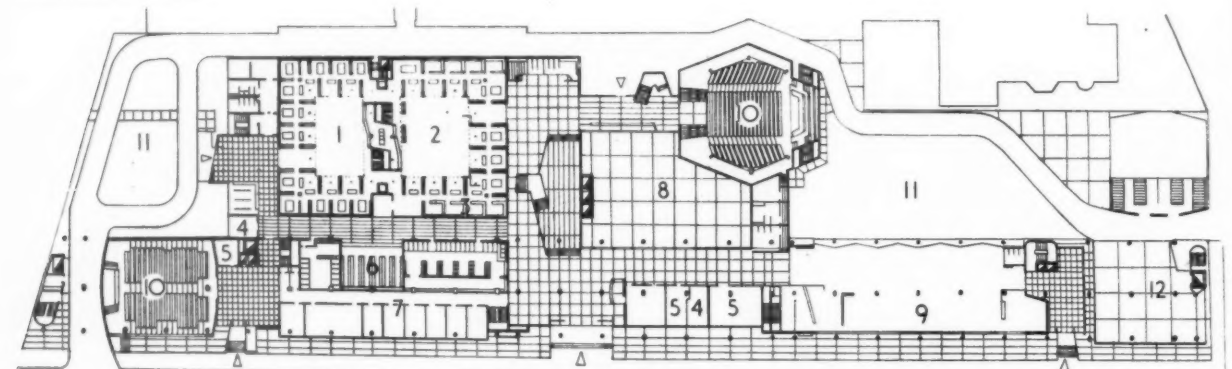


The new showroom of Partos (Brassieres), Ltd., 11, Saville Row, W.1, designed by Dennis Lennon. Furniture is by Scottish Furniture Manufacturers' Association. Colour scheme: ceiling, pale blue; window walls, white; other walls, grass paper and white paper with pink dots. Upholstery in various colours, defining groups of furniture. Wall lights, in metal, reproduce Partos Trade Mark, as do handles of drawers in table.

EDINBURGH MEDICAL SCHOOL COMPETITION: "A SANE AND



Design by R. Maxwell, D. Stephen, A. Colquhoun, M. Dent and M. Nesbitt: top, elevation to George Square; above, third floor plan; below, ground floor plan



Key to plan below
1. Reading room
2. Library
3. Stores
4. Laboratory
5. Refrigerator room

6. Visitors' research room
7. Lecture theatre
8. Preparation
9. Offices
10. Junior common room
11. Demonstration room

Key to plan above
1. Main reading room
2. Students' reading room
3. Studies
4. Night watchman

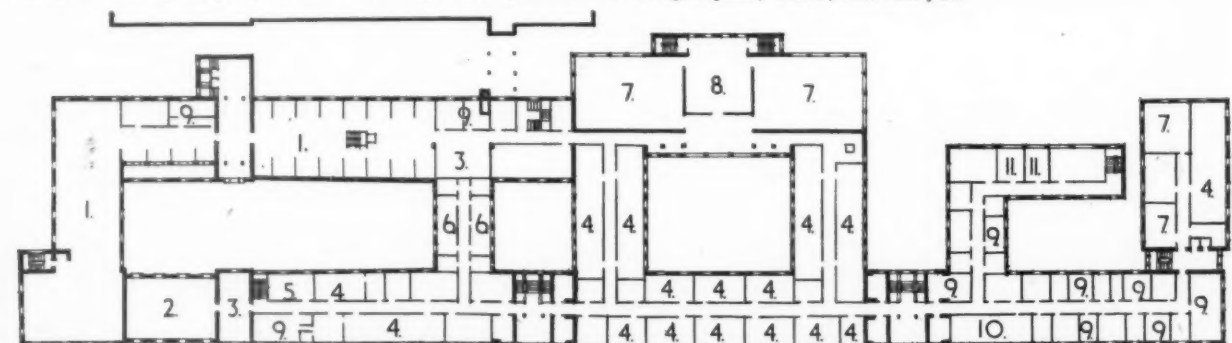
5. Warden
6. Lockers
7. Administrative
8. Courtyard
9. Students' Common room

10. Lecture hall
11. Garden
12. Car park
13. Anatomy
14. Obstetrics and gynecology

15. Anthropology
16. Bacteriology
17. Photographic room
18. Stores



First prize-winning design by W. N. W. Ramsay: above, elevation to George Square; below, first floor plan



HONEST SOLUTION''

The design on the opposite page, top, was submitted in the recent competition for a medical school for Edinburgh University by R. Maxwell, D. Stephen, A. Colquhoun, M. Dent and M. Nesbitt. It was selected, as reported by ASTRAGAL last week, by the Edinburgh Students Architectural Group as a "sane and honest solution . . . pleasant to work in," in preference to the design awarded the first premium, illustrated on the opposite page, bottom. These two designs show with startling clarity the wide divergence of viewpoint which still exists today on the relative emphasis to be given to the two essentials of architecture: functional efficiency and the æsthetic content. In the winning design, the functional aspect tends to be subordinated to the æsthetic standards demanded by its author. This is best illustrated by comparing the standards of daylighting. In the top design, the attempt to obtain as high a daylight standard as possible is a dominating factor which immediately precludes any attempt to group the buildings round a courtyard. In the winning design the standard of daylighting must be considerably inferior, particularly in those rooms, in the lower corners of the courtyards. Similarly in providing services, the top design, with vertical service ducts running alongside the central columns provides an economical and flexible solution considerably simpler than in the other design, where the services are carried in ducts behind false ceilings in the corridors. The policy for those drawing up conditions for competitions, as advocated by the JOURNAL, is that where possible the physical measurable standards of performance required should be clearly stated and that failure to conform to them should disqualify the design. The reduction of the "unknown factor" in conditions will ease the competitors problem, and increase the popularity of competitions.



RIBA

ABS Exhibition

The Architects' Benevolent Society has just celebrated its centenary and hopes, when funds permit, to build and endow houses for its beneficiaries. The RIBA feels this is, therefore, a suitable time to have on view an exhibition designed to show the progress made in providing accommodation for old people. The exhibition will be on view at the RIBA, 66, Portland Place, W.1. from April 13 to 28.

On the first day of the exhibition a discussion meeting on "Housing Needs of the Old" will be held at the RIBA under the chairmanship of H. S. Goodhart-Rendel. The speakers will include Sir Edward Bligh, chief officer of the welfare department of the LCC; Mrs. M. M. Hill, chairman of Hornsey Housing Trust and of Hill Homes; and A. Llewellyn Smith.

The Institute hopes that the meeting will be well supported by architects as it hears that representatives from many of the bodies concerned with housing old people are intending to be present. Those wishing to attend may obtain tickets and programmes free on application to the secretary, RIBA, 66, Portland Place, W.1. Envelopes should be marked "Housing Needs of the Old." See also ASTRAGAL'S note on page 263.

MOT

The Re-planning of Hyde Park Corner

The photographs on page 267 show models of Hyde Park Corner as it is today and as it will be when proposed reconstruction has taken place. MOT call this a long-term policy.

Before reaching Wellington Arch at the top of Constitution Hill the road will be diverted to the left to join Grosvenor Gardens, taking in a narrow strip on the edge of Buckingham Palace grounds. The archway will no longer be passed by traffic—except on State occasions—and will stand in an area of lawns and trees.

The existing carriageways through Apsley Gate will be closed and a new two-way road will appear in the gap made by bombing between the houses at the top of Piccadilly. This road will lead to a large grass-covered roundabout in Hyde Park.

Beyond the new road at Hyde Park Corner the carriageway will curve to the right, leaving a green triangle on the left in front of Hamilton Place, the houses facing Hyde Park Corner at this point having a service road which will be a cul-de-sac.

Park Lane will become a one-way street from north to south and the new road from

Hyde Park Corner will lead to the present ring road through the park, which will become one-way from south to north. Between these carriageways will be a wide strip planted with trees and flowers. These alterations will be made at the expense of Hyde Park itself, the boundary of which will be set back behind the ring road.

LESSOR SCHEME

No New Plans Authorized

The position regarding the building-lessor scheme (a scheme which, as readers will remember, was severely criticized by J. M. Richards in the JOURNAL last March) is under review at the moment according to Richard Stokes. In a written answer to H. Hynd, who asked if the Minister of Works was aware of the disadvantages associated with the building-lessor scheme, Mr. Stokes stated that nearly all these schemes were planned in order to release requisitioned accommodation as quickly as possible. He was aware that they had certain disadvantages and no new schemes were being authorized. The position was under review, having regard to the needs and effect of the defence programme.

NATIONAL PARKS

Snowdonia Designation Order

The Chairman of the National Parks Commission, Sir Patrick Duff, has signed the Snowdonia National Park (Designation) Order. In the last six weeks two other Orders, one relating to the Peak District and the other to the Lake District, have been signed.

The effect of the Order is to constitute the land to which it relates a National Park. The Order is about to be submitted to the Minister of Local Government and Planning for confirmation.

The area, the boundaries of which are substantially those proposed in 1947 by the Hobhouse Committee on National Parks, comprises approximately 837 square miles situated in the Counties of Caernarvon, Denbigh and Merioneth.

DIARY

The Architecture of Transport. Exhibition at the RIBA, 66, Portland Place, W.1, showing projects in this country and a selection of material from abroad. Weekdays 10 a.m. to 7 p.m. Saturdays 10 a.m. to 5 p.m.

MARCH 22

Structural Use of Timber in Building. A course of six lectures by D. H. Moss. At S.E. London Technical College, S.E.4. March 2 and five following Fridays. 7 p.m. to 9 p.m.

MARCH 2

The Festival of Britain Exhibition and the South Bank Scheme. J. C. Ratcliff. At Royal Society of Arts, John Adam Street, W.C.2. (Sponsor, IRA.) 6.30 p.m.

MARCH 2

Special Treatment for Portland Cement Concrete. C. L. a'Court. At 11, Upper Belgrave Street, S.W.1. (Sponsor, ISE.) 6 p.m.

MARCH 8

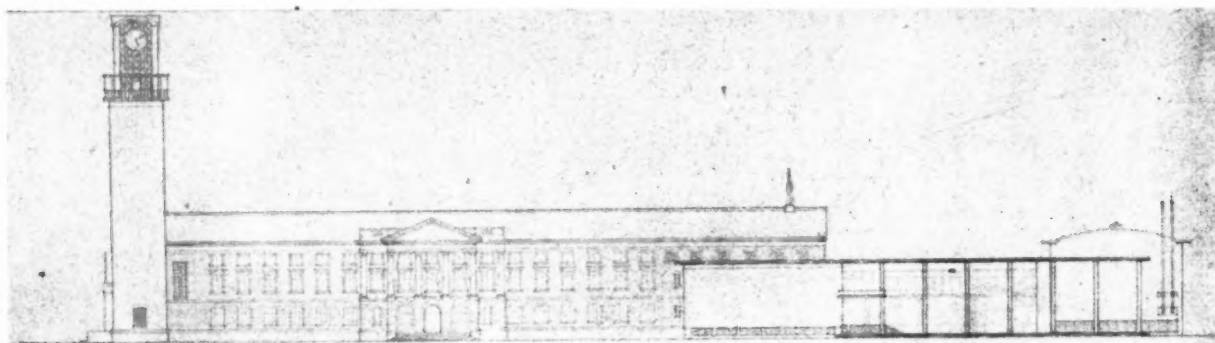
The Engineer and the Public. Discussion opened by H. Nimmo. At Caxton Hall, Caxton Street, S.W.1. (Sponsor, The Engineers Guild.) 6 p.m.

MARCH 8

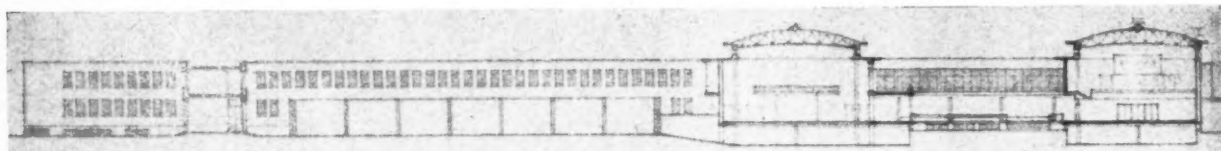
"The Builder" Competition for a £1,000 house. Talk by A. W. Kenyon. Chairman, J. H. Forshaw. At the Housing Centre, 13, Suffolk Street, S.W.1. 5.30 p.m.

MARCH 6

WINNING DESIGNS IN COMPETITION FOR CITY HALLS



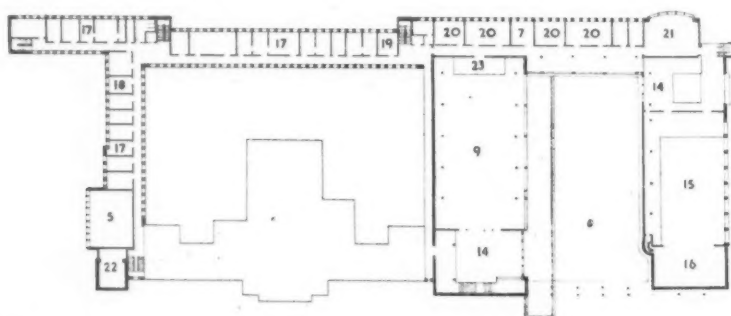
First winning design: south-east elevation



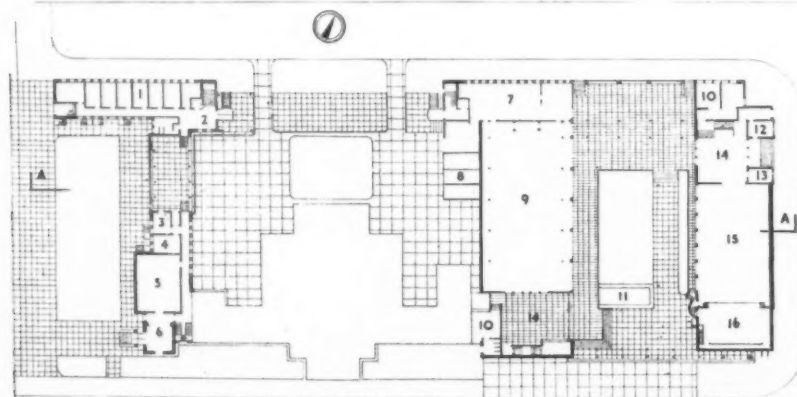
Section A-A

KEY

- | | |
|------------------------------|-------------------------|
| 1. Municipal offices | 13. Speakers |
| 2. Staff entrance | 14. Foyer |
| 3. Magistrate | 15. Assembly hall |
| 4. Clerk | 16. Stage |
| 5. Courtroom | 17. Offices |
| 6. Entrance and waiting hall | 18. Clinic |
| 7. Kitchen | 19. Laboratory |
| 8. Vehicle ramps | 20. Committee rooms |
| 9. Banqueting hall | 21. Main committee room |
| 10. Cloakrooms | 22. Tower |
| 11. Post | 23. Musicians' gallery |
| 12. Press room | 24. Gallery |



First floor plan



First winning design: ground floor plan

On February 15, a site plan and elevations of the first (£550) prize-winning design (by C. A. Levick, P. H. Connell and L. T. Croft, of Durban, South Africa) in the competition for a civic hall at Nairobi, appeared in the JOURNAL. This week plans and elevations of the three winning designs (which have been specially re-

drawn) are published. The assessor, L. W. Thornton White, who was assisted by H. R. Bridger and H. Thornley Dyer—and later by S. C. Lock, who took the place of Mr. Dyer when he resigned—made the following report:—"In addition to the problems involved in providing a satisfactory disposition of the accommodation required, all competitors, as is clear both from their designs and reports, considered very seriously (a) how best to relate the existing town hall to the new work (either by isolating it in contrast to, or linking it in harmony with, the new work); (b) how best to give the scheme a distinctive character taking full account of the temperate tropical climate of Nairobi, and (c) how best to dispose the several entrances to the site, both for pedestrians and cars, taking full account of the effect of the new East African Highway upon the future movement of traffic in the vicinity. I have no hesitation in awarding the first premium. This design is a distinguished piece of work. It not only solves all the problems involved in a simple, straightforward and imaginative manner, but it takes pains to integrate the present town hall and the new work, and in doing so corrects some of the aesthetic

KEY

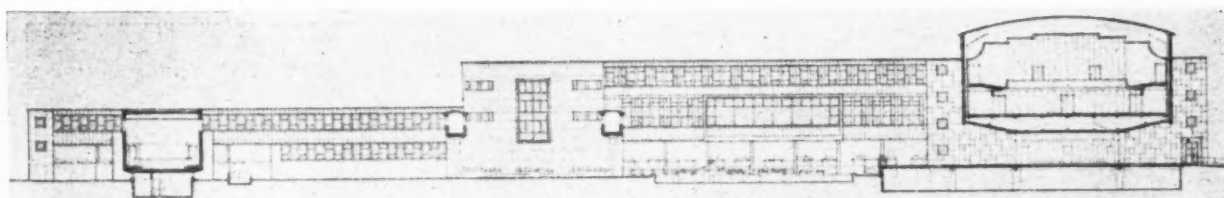
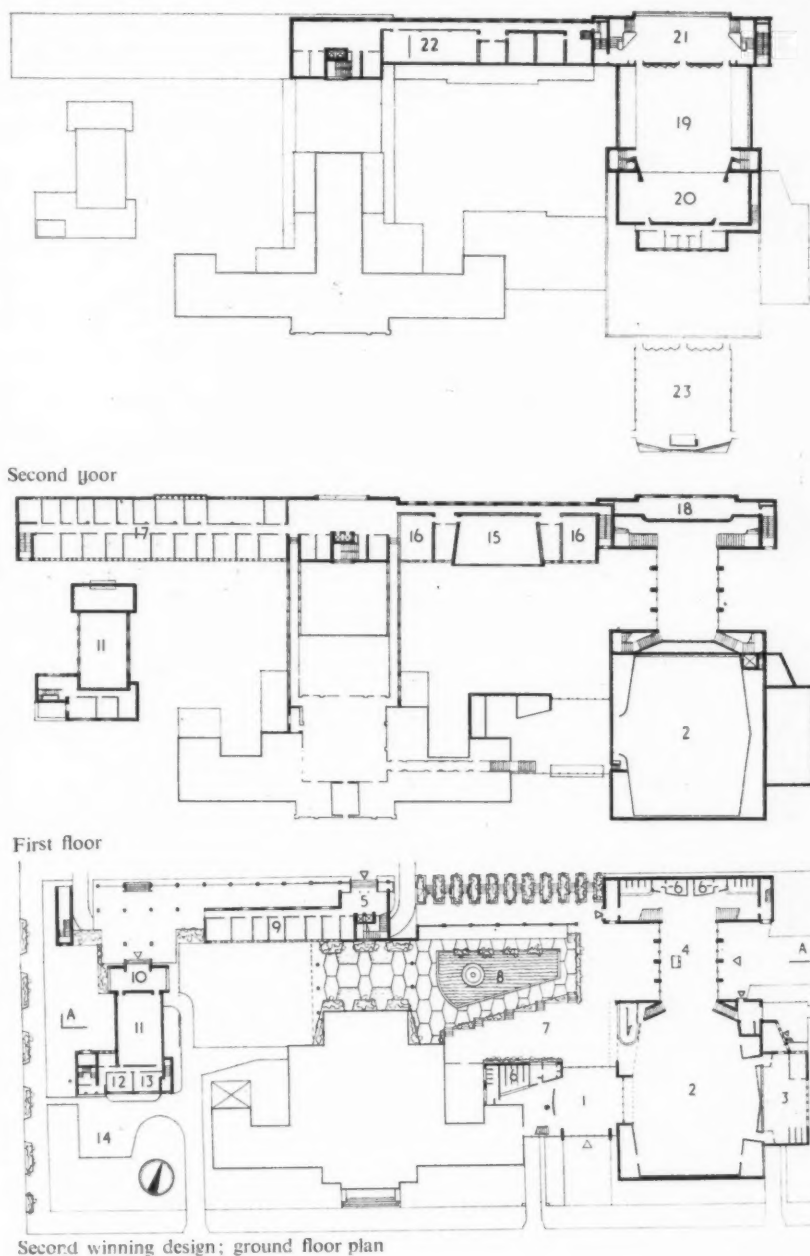
1. F
2. A
3. K
4. E
5. S
6. C
7. T
8. P
9. M
10. E
11. C

Section

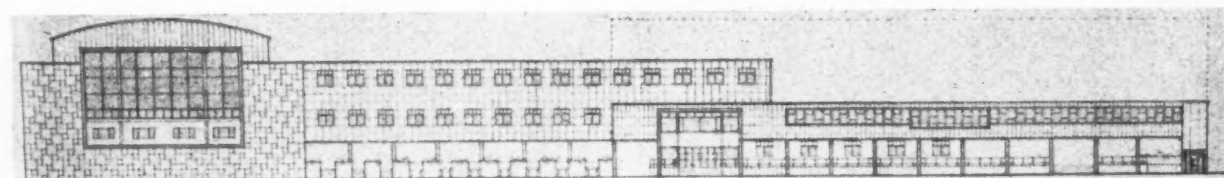
Seco

AND OFFICES AT NAIROBI, SPONSORED BY CITY COUNCIL

faults of the present building, without adding a single room having the present unsatisfactory fenestration or proportion. The scheme places the banquet hall immediately to the east of the present building, with the assembly hall on the Eliot Street frontage. Between these two main halls is a garden and system of partly covered terraces open both to Queensway and Fourth Avenue, controlled at both ends or left open as a public amenity at will. The covered terrace forms a spacious and 'tropical' setting for the congregation of diners for refreshment before a formal banquet—an essential preliminary to a successful banquet which some competitors ignored. The two halls are well proportioned and though similar in bulk, through subtle contrasts in window systems, balconies and supporting columns, they are quite different in character. Both are well designed acoustically, and well disconnected structurally to avoid noise

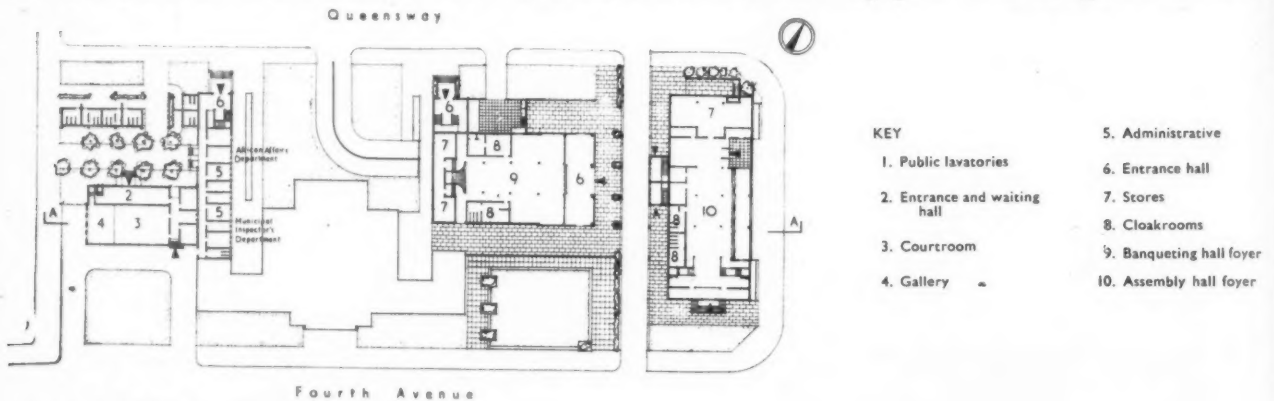


Section A-A

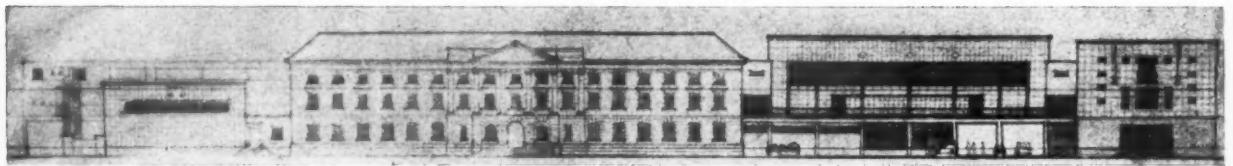


Second winning design; elevation to Queensway

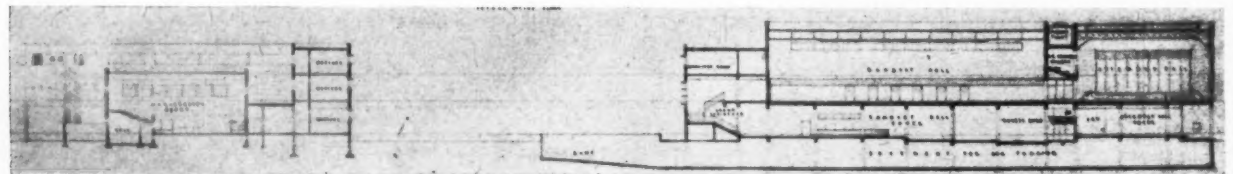
WINNING DESIGNS IN NAIROBI CITY HALL COMPETITION



Third winning design; ground floor plan



Elevation to Fourth Avenue



Section A-A

nuisance from one to the other. The new municipal offices are efficiently arranged on two floors, and those rooms which are to be temporarily used by the legislative council are so placed that they form a natural extension to the offices, the committee rooms being at the same level as, and convenient to, the present council chamber and committee room. The large committee room is well placed so that it need not be altered in converting the suite to council use. The magistrate's court is ideally placed at the west end of the site, with a large garden reasonably private for visitors, and moreover with a covered area for waiting in inclement weather. The public lavatories are conveniently placed. The court garden is linked through a colonnade to a formal garden at the back of the present building and is in turn connected through an open colonnade to Queensway. The author arranges for future offices to be built in two floors over the new offices. A third floor of future extensions, though not shown on the design, could readily be added within the limits of height. I am satisfied that the scheme can be built within the stipulated 10 per cent. of the cost limit, on the basis of prices at the time of publication of conditions. Of the second winning design (£450) by A. Ball, of London, the assessor wrote: "This, too, is an excellent scheme, compact and highly imaginative. The general disposition is similar to that of the

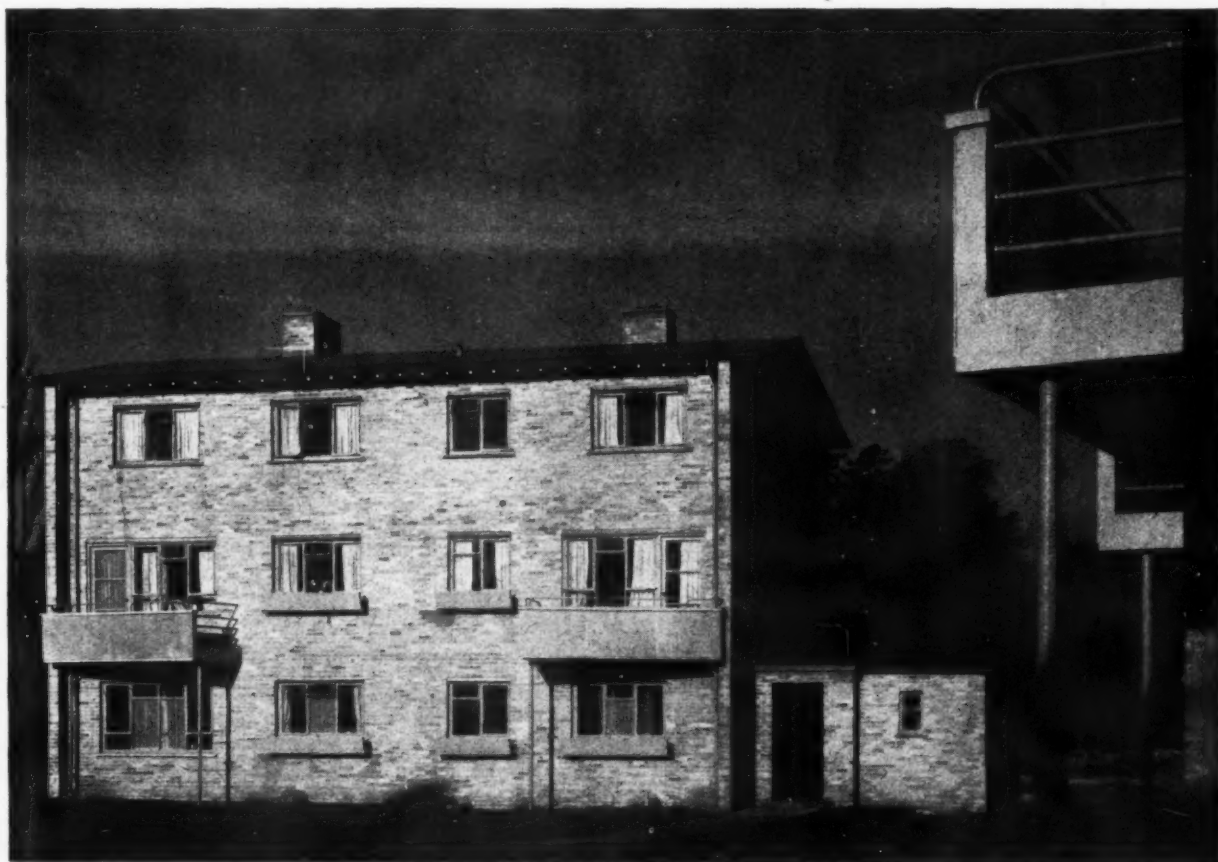
first design, except that the assembly hall is very cleverly placed partly over the low banquet hall. In some details however it does not show the same maturity as the first award scheme; the kitchen and service entrance are exposed to the Eliot Street frontage, the pavement on Fourth Avenue is interrupted by two ramps to the basement, and the offices section is not so flexible in use or in extension. The scheme, none the less, has very great merits, particularly in its open character and in the architectural quality of its sections and elevations. It has all the quality of a winner and in a less hotly contested or less successful competition it might well have gained a first premium." Of the third winning design (£250) by R. S. Cobb, H. D. Archer and A. G. Scammell, of Nairobi, the assessor wrote: "In this scheme, too, the general disposition agrees with the two previous designs. The banquet and assembly halls are placed at the first floor level, with generous foyers below and with car access to the banquet hall within the site itself. The advantages of this arrangement are offset to some extent by a multiplicity of staircases, committee rooms on a second floor and by suites of offices which though conveniently situated will not develop their full convenience until one floor of the future extensions is built. While the scheme has an excellent terrace, it lacks the garden court amenities of the first and second premiated designs."

FLATS

on the HARTSHOLME ESTATE, LINCOLN
designed by P. F. BURRIDGE, CITY ARCHITECT
Deputy (Housing) Architect B. WOODIWISS

The five blocks of flats illustrated here form part of a housing estate of 700 dwellings just within the City boundary. Dwellings on this estate were required for aged couples and adult families of up to four persons who did not want their own private garden, and this also gave the opportunity to relieve the monotony of too many two-storey houses in the scheme. There are trees around the perimeter of the site, except to the south, and the area has been left unfenced.

South facade of one of the blocks:

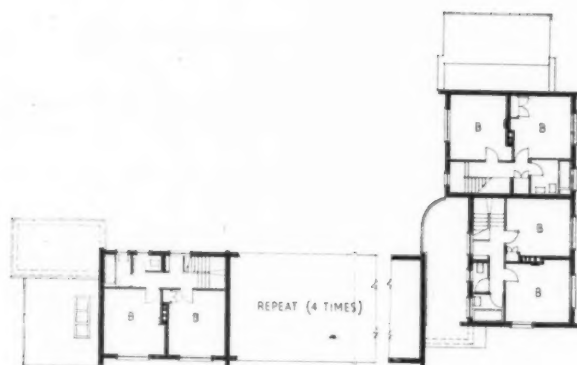


SITE.—The site is quite flat and occupies the north-west corner of the large Hartsholme estate. Behind the fine belt of trees on the western boundary there is extensive permanent parkland with a lake. Around the flats the ground is being laid out with paths and grass and left entirely open.

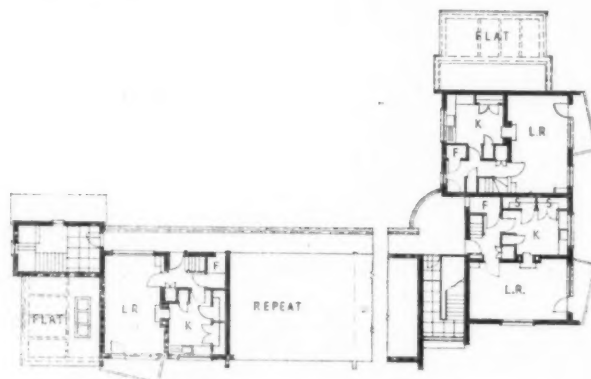
PLAN.—The five blocks are set to give a south-west aspect to the majority of the rooms, overlooking the best view, and the balconies, each of which is large enough to accommodate two deck chairs, are designed to take advantage of this view. The L-plan for each block was chosen mainly to reduce the common circulation space to a minimum. Maisonnettes over flats were adopted so as to bring all living rooms and kitchens within one storey of ground level. It is said that a greater degree of privacy than usual has been achieved, here; the only windows overlooking the access balcony are built at a fairly high level and glazed with obscured glass. With the exception of the ground floor kitchens, all living rooms, bedrooms and kitchens face south-east or south-west. Each maisonnette has, in one or other of the ground floor outbuildings, a store capable of housing a bicycle, small bench, etc.

FLATS

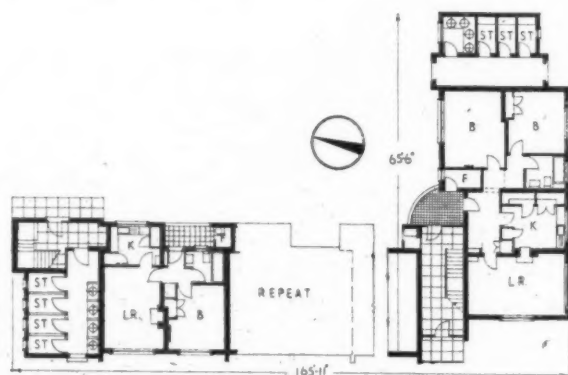
on the HARTSHOLME ESTATE, LINCOLN
designed by P. F. BURRIDGE, CITY ARCHITECT



Second floor plan



Maisonette first floor plan



Typical ground floor plan [Scale: $\frac{1}{4}$ " = 1' 0"]

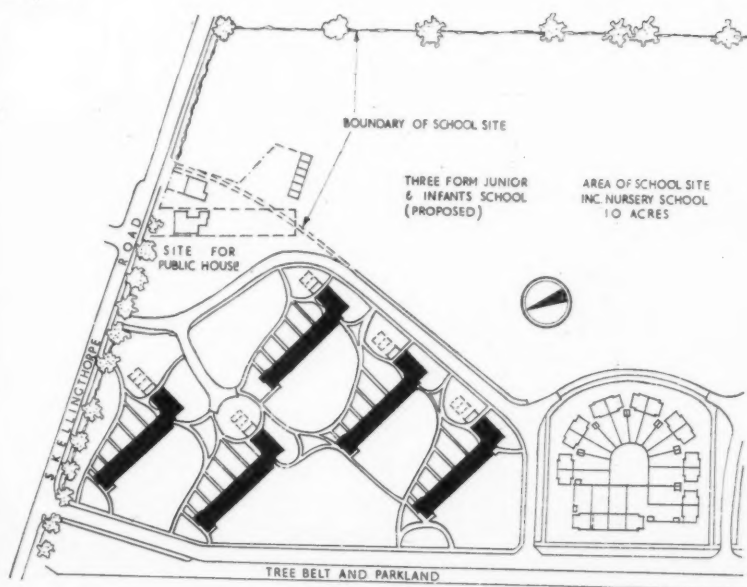


West facade of typical block from the northern edge of the site.

Looking north at the junction of the long and short wings, with the west facade of the long wing on the left.



Site plan

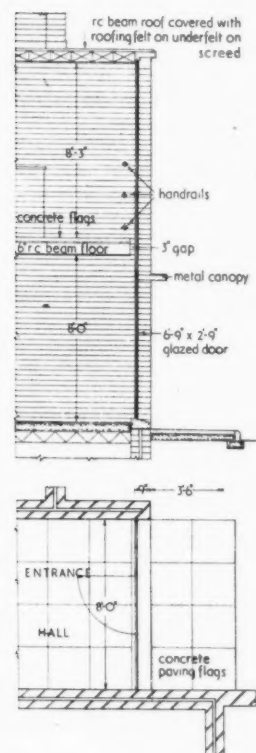


CONSTRUCTION.—External walls and party walls between flats are of 11-in. cavity brickwork. There are load-bearing internal walls and partitions of hollow blocks. Roofs are of 7-in. by 2-in. purlins carried on cross and party walls. Ground floors are of concrete, first floors of precast concrete beams, and second floors of normal joist and board construction.

FINISHES.—The ground floors have "asbestic" floor tiles in living rooms and halls, boards on battens in the bedrooms and quarry tiles in kitchens. First floors are finished with battens and boards and a glass silk blanket. Balconies have asbestos tiles on built-up bitumen roofing. On the roofs, wood wool slabs are nailed direct to the purlins and finished with built-up bitumen felt with a green mineral finish. Windows are standard and special



Section - [Scale: 1/4" = 1' 0"]



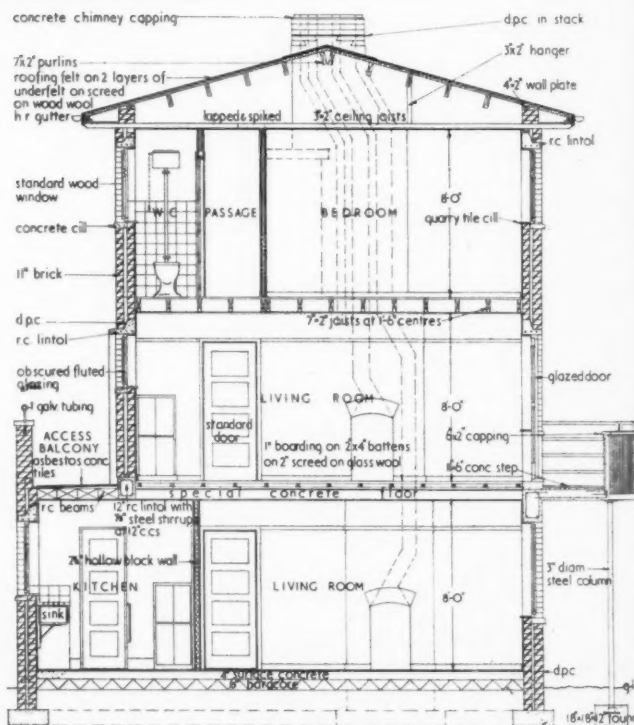
Plan of glazed front to communal stair

Left, the glazed staircase window, which forms the link between the long and short wings.

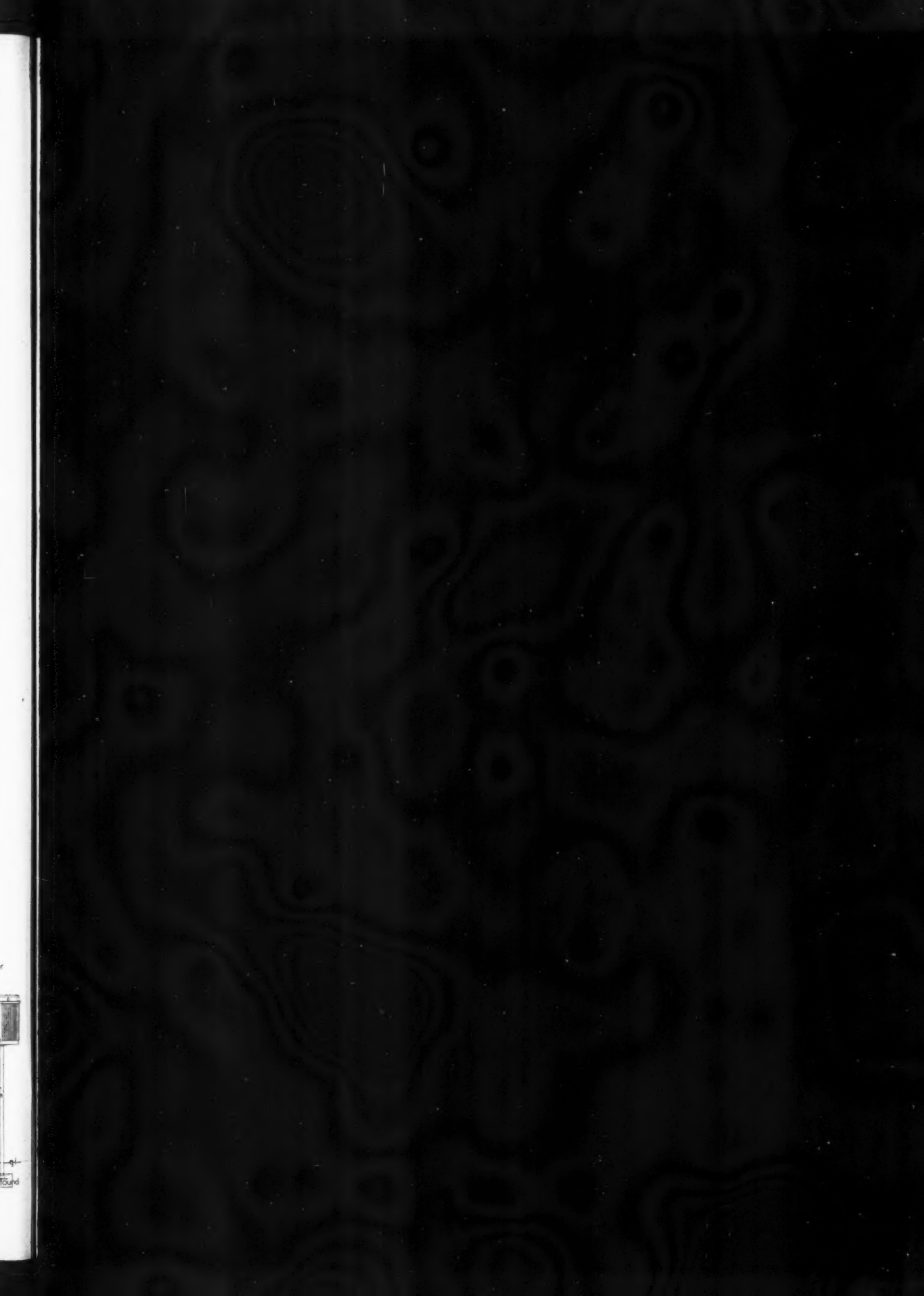
FLATS

on the HARTSHOLME ESTATE, LINCOLN
designed by P. F. BURRIDGE, CITY ARCHITECT

EJMA casements with precast concrete heads and cills. Flower boxes are of precast concrete treated with cement paint. Facing bricks are 2 1/2-in. mixed golden brown rustic wirecuts. Windows are painted eau-de-nil; railings, downpipes and asbestos balcony facings, light battleship grey; soffits and entrance doors, pale cream. Internally all halls, living rooms and bedrooms are plastered and finished with washable distemper in pastel shades. All kitchens and bathrooms have been decorated with oil paint and washable distemper. Walls of communal entrance halls are of fair-faced brickwork and concrete stairs have a granolithic finish sprinkled with carborundum. One bedroom in each flat and maisonette has a built-in cupboard. Kitchens have built-in cupboards and gas drying cabinets.



Typical cross-section through long wing [Scale: 1/4" = 1' 0"]



WORKING DETAIL

FURNITURE AND FITTINGS: 1

WALL FITMENT: HOUSE AT HANOVER, NEW HAMPSHIRE

E. H. and M. K. Hunter, architects



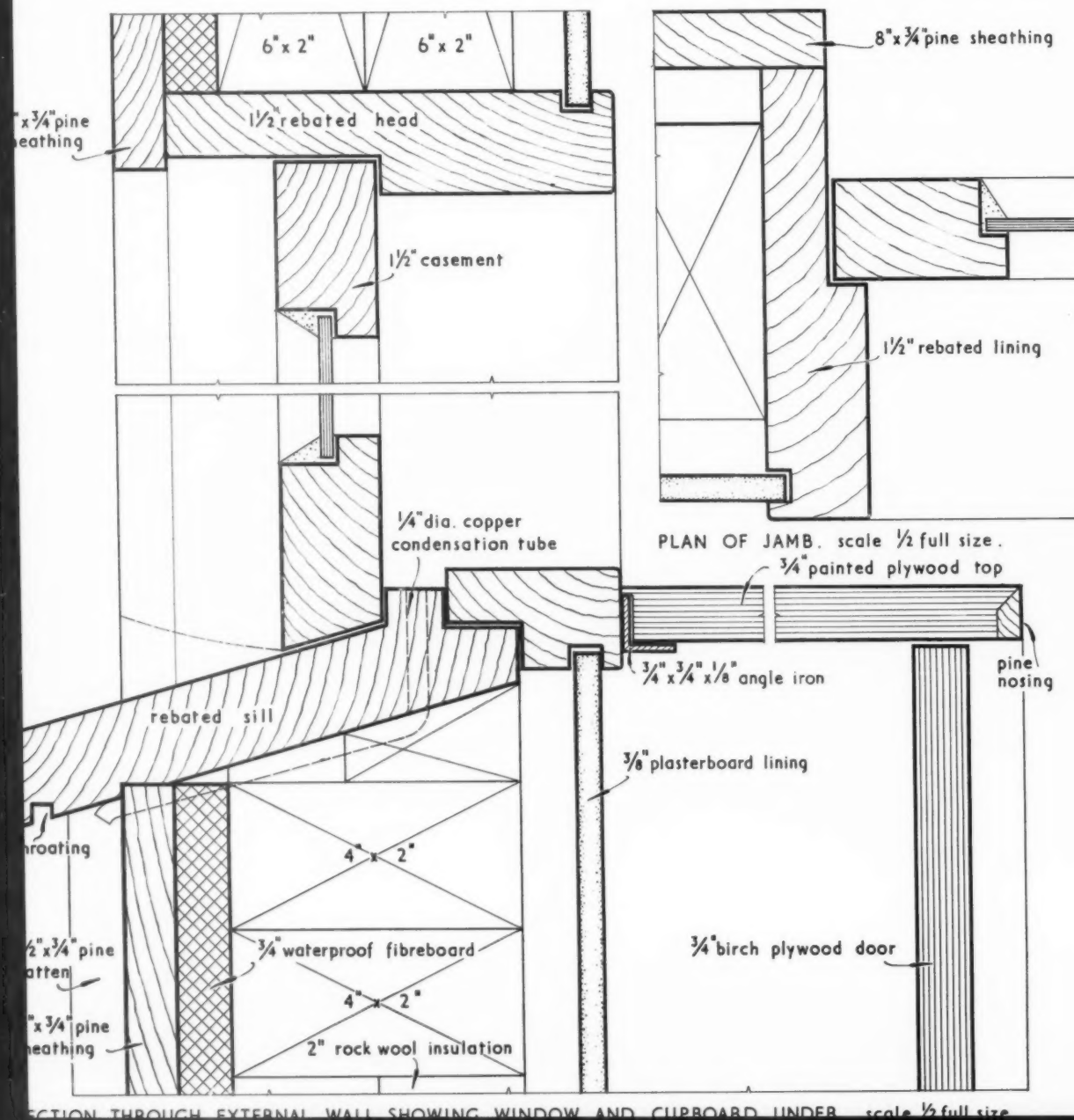
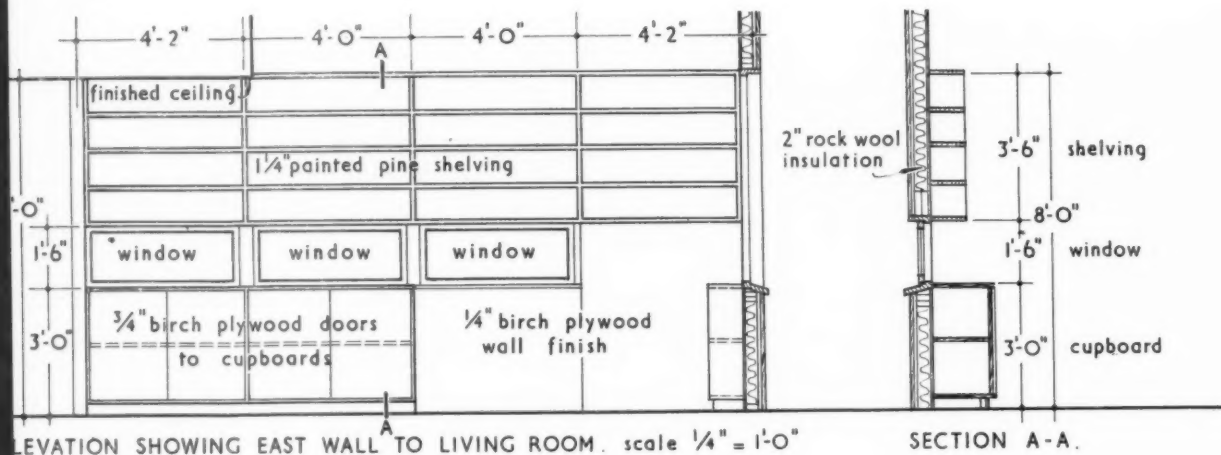
The lighting from the main window wall of the living room is supplemented by strip windows under the book shelves.

WORKING DETAIL

FURNITURE AND FITTINGS : 1

WALL FITMENT: HOUSE AT HANOVER, NEW HAMPSHIRE

E. H. and M. K. Hunter, architects



WORKING DETAIL

STAIRCASES : 2

BALUSTRADE: AIRCRAFT BUILDINGS AT FILTON

Eric Ross, architect



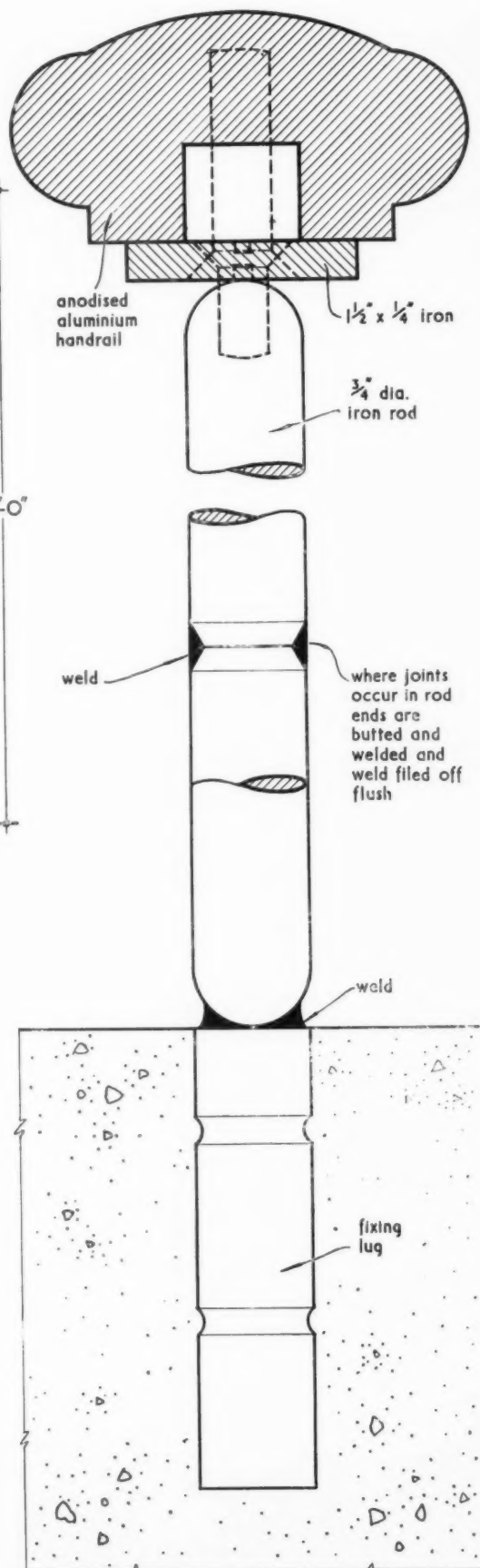
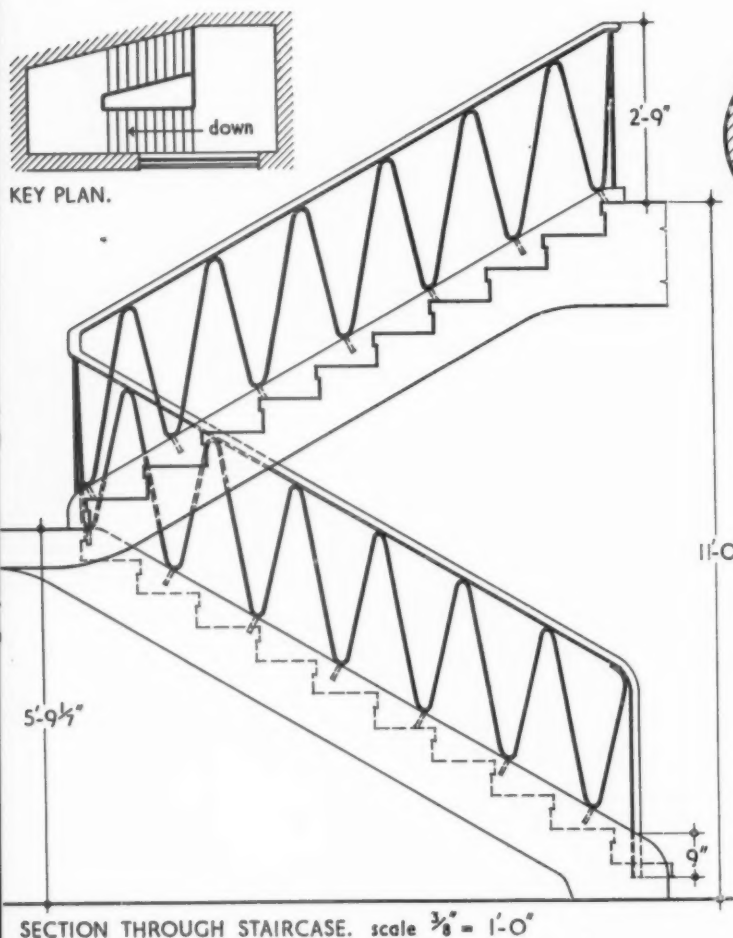
Any joints in the iron baluster are welded so that it appears as one length supporting the anodised aluminium handrail.

WORKING DETAIL

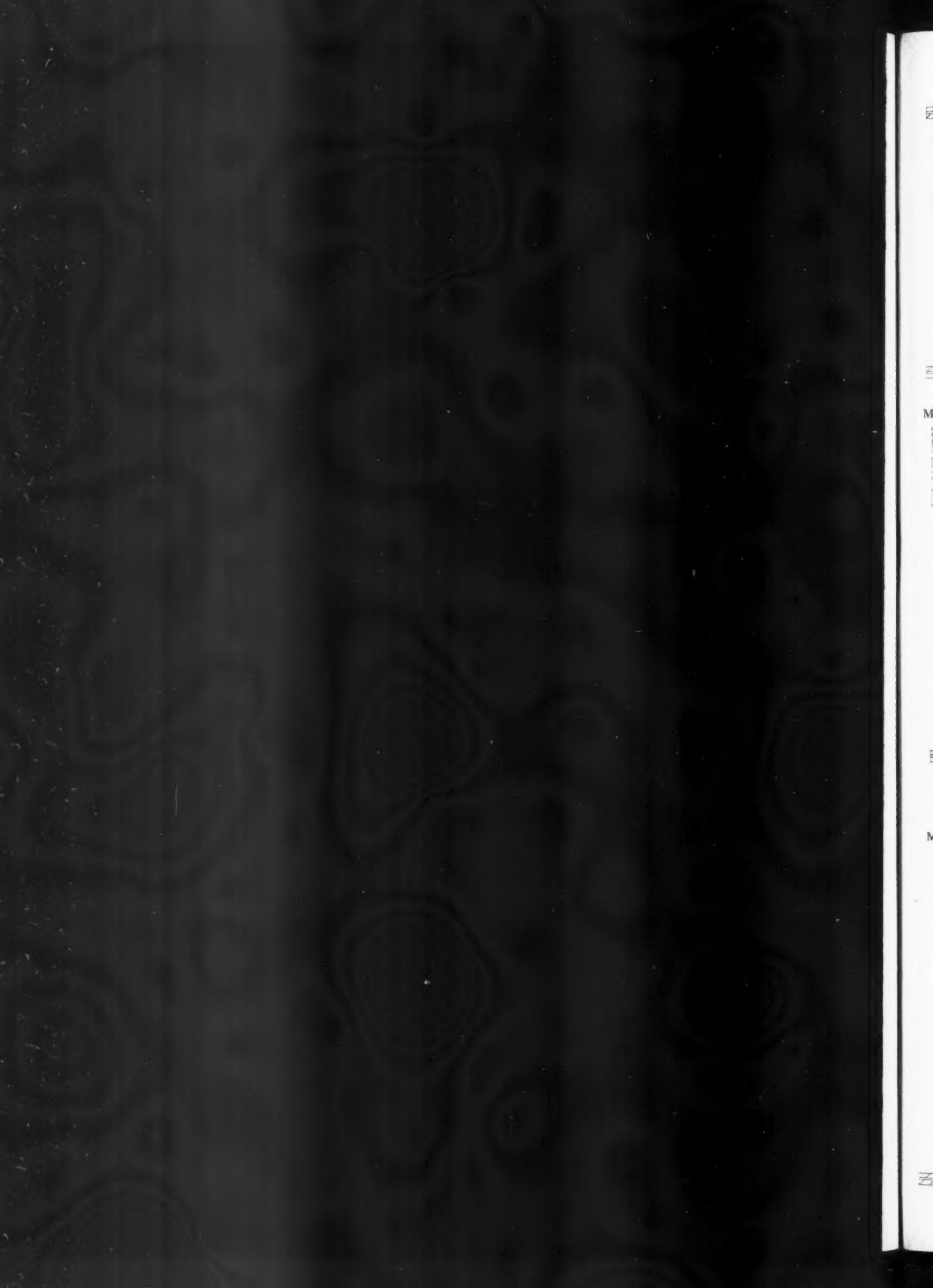
BALUSTRADE: AIRCRAFT BUILDINGS AT FILTON

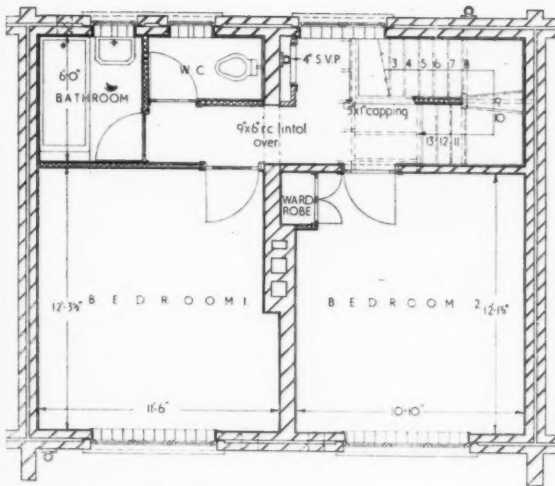
Eric Ross, architect

STAIRCASES : 2

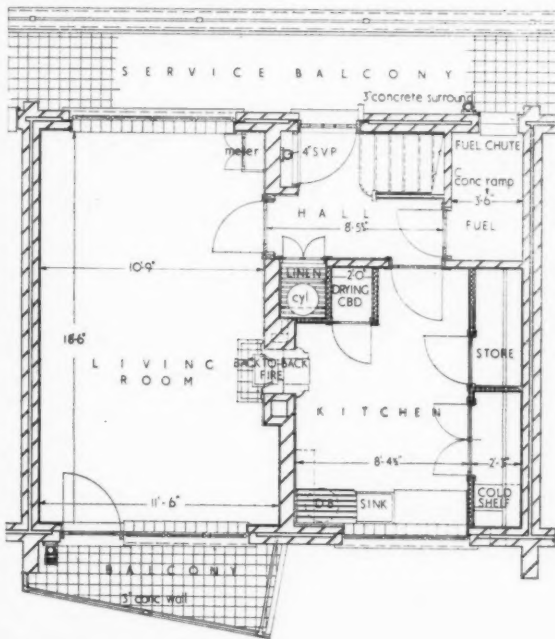


FULL SIZE DETAIL OF BALUSTRADE





Maisonette second floor plan



Maisonette first floor plan



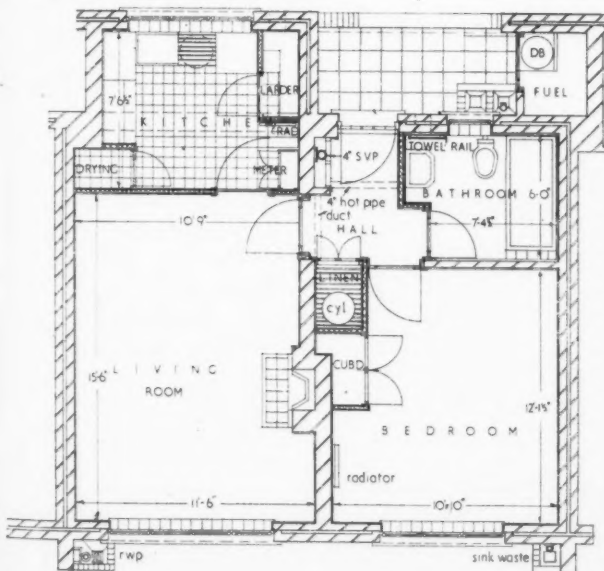
General view looking west.

SERVICES.—Ground floor flats have an open fire with back boiler in each living room for hot water and for heating radiators in the bedrooms and kitchens and for towel rails in the bathrooms. In the maisonettes, back-to-back fires are provided. Refuse chutes were considered neither necessary nor advisable, and domestic refuse bins are provided under cover adjacent to the stores. Vertical ducts with removable panels take all service and soil pipes internally.

The contract price (excluding only seeding and planting) was £82,756, or 2s. 3d. per cub. ft.

The general contractors were M. J. Gleeson, Ltd. For list of sub-contractors, see page 290.

Typical ground floor flat plan [Scale 1"=1'0"]



Looking north, with the access balcony to the first floor maisonettes on extreme left.



For the fifth of our series of discussions we have chosen, for the first time, a scheme designed by a City Architect of a provincial county town. Many architects are engaged on relatively small jobs of this nature, and the following discussion shows that many controversial points can arise in work of this kind. The A.J. editors can be identified by reference to the front page of the JOURNAL.

FLATS AT LINCOLN

Discussion between the Architects and the Editors

TWENTY: What family composition do the maisonettes cater for? Surely for any family larger than husband, wife and one child it does not provide wholly satisfactory accommodation. What do parents do if they have a second baby? It should not sleep with the other child, or with the parents, or in the living room.

ARCHITECTS: You are raising the whole question of the need for two-bedroom dwellings. The Ministry of Health has, we believe, supported the view expressed in the Second Girdwood Report that a preponderance of three-bedroom houses is not necessary and that a much greater proportion of the two-bedroom type should be erected. Local Housing Authorities, in our experience, support this view, particularly as the greater proportion of their applicants are childless couples or families of three. The problems created by the growing family and the segregation of the sexes are not new and when a family outgrows its home it can be transferred.

TWENTY: Don't you think that 820 square feet is rather extravagant accommodation for three people? Some of the three-bedroom flats recently built in London provide adequate accommodation for five people with a floor area under 900 sq. ft.

ARCHITECTS: You should remember that these are two-storey maisonettes not flats. The floor area, taking into account storage, is in accordance with Housing Manual Standards and is no different in this respect to other family dwellings being erected in Lincoln.

TWENTY-THREE: Surely the thermal insulation value of the external walls is rather low. Why did you not use light-weight concrete blocks for the inner skin? This is becoming quite common practice.

ARCHITECTS: We estimated that alternative materials for the inner skin, such as foamed slag, would have put about one shilling per square yard on the cost of the external walls. An unventilated cavity brick wall does, of course, achieve the minimum insulation standard laid down in the Housing Manual.

TWENTY-THREE: That isn't a particularly ambitious standard. In some parts of the country, light-weight concrete works out cheaper than brick—breeze certainly does.

ARCHITECTS: All the external walls are load-bearing and, in any case, there is a great deal of prejudice against breeze in Lincoln.

TWENTY-THREE: That is a pity. There are now available some very good breeze blocks which have overcome the old snags which gave breeze a bad name.

ELEVEN: Why did you use precast concrete beams for the first floor and timber joists for the second floor?

Which do you find cheaper?

ARCHITECTS: We find timber floors cheaper, but the bye-laws require a fire-resisting floor between the ground floor flats and the maisonettes, as they are two independently occupied dwellings.

ELEVEN: And why did you use boards on battens for the first floor finish instead of the "asbestic" tiles you used on the ground floor?

ARCHITECTS: When we designed the buildings, there was a strong local demand for wood floor finish wherever possible. Recently, the advantages of alternative materials have been appreciated by the tenants and "asbestic" tiles are now being used on most solid floors.

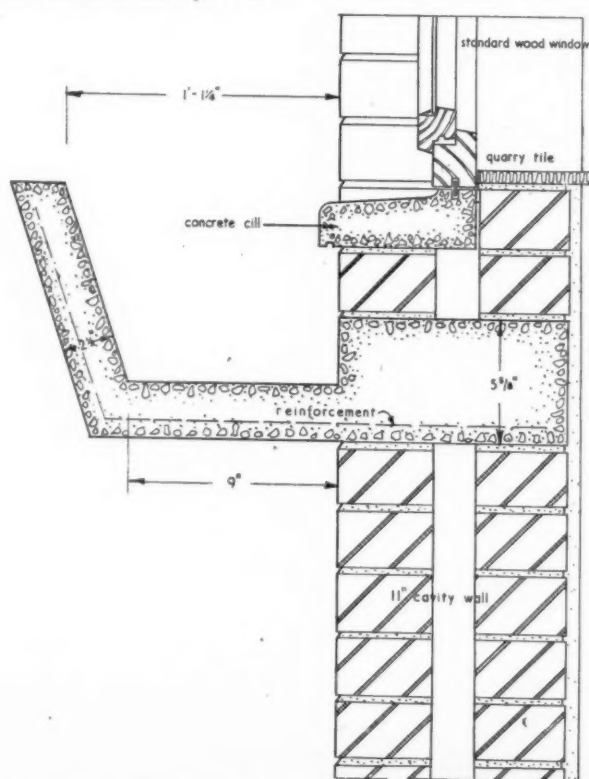
FOURTEEN: How is the second bedroom of the maisonette to be warmed?

ARCHITECTS: It is standard practice in Lincoln, and, I think, usual in most municipal housing projects, except where central heating is used, to provide the main bedroom with a space heating appliance but to leave the tenant to provide a portable electric fire for the other bedrooms.

EIGHTEEN: Surely it is no saving if the Council omits something and the tenant has to put it in.



Concrete window boxes outside ground and first floor windows.



Section through concrete window box [Scale: 1 1/2" = 1' 0"]

ARCHITECTS: "From the national point of view that is true, but we try to keep the rents down to a reasonable figure and to do that we have to draw the line somewhere—in this case, at the electric fire for the second bedroom."

FIFTEEN: All the bedrooms in the long wing face west. Do you advocate this?

ARCHITECTS: We do in this particular case since we considered the view rather important. From all the windows facing south-west can be seen the tree belt to the adjoining park.

EIGHTEEN: It seems logical that the private balconies on the west facade should widen out towards the south and it is also pleasant in appearance, but on the south facades it seems unfortunate that the wide, open ends should face each other.

ARCHITECTS: We agree—you have picked on one of our own criticisms—we regard this as a fault we would adjust.

TWENTY: Why do the brick cross walls protrude on the west facades? Is this done for constructional reasons, or to act as a light baffle, or for purely decorative reasons?

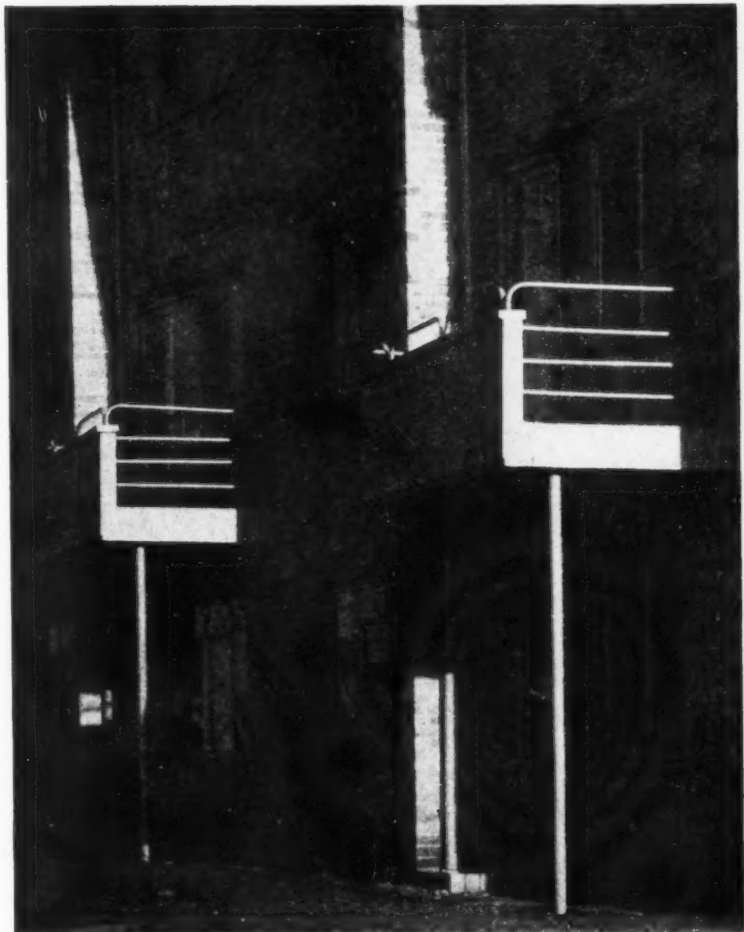
ARCHITECTS: "It is introduced primarily to give privacy to the living rooms from the balconies of the adjacent maisonettes. It also has some structural value. The outer skin of the brickwork is not restrained (except by the wall ties) for a clear length of 120 feet. The projections greatly increase its rigidity."

TWENTY-THREE: Would your local by-laws have permitted such a long wall without this additional restraint?

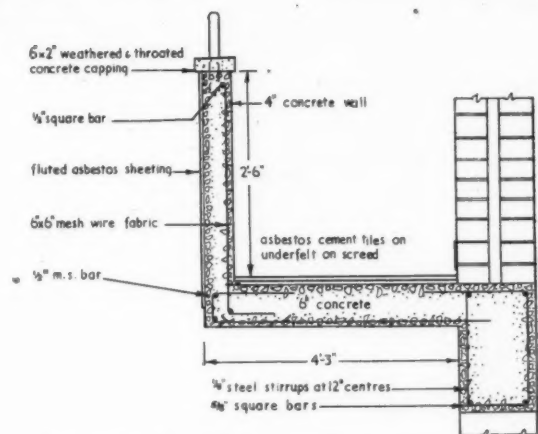
ARCHITECTS: Yes, but we would not have felt very happy about it.

TWENTY: Although it is not apparent from the photographs, when we were on the site we noticed that the colour and tone of the bricks varied, not only from one block to the next, but even within a single block. Why was this?

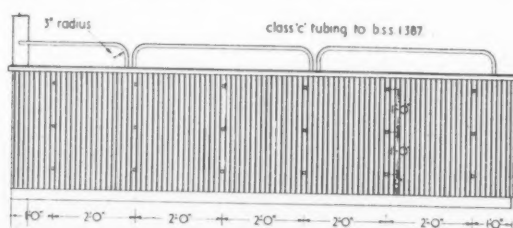
ARCHITECTS: We had very bad luck with brick deliveries. The manufacturer of the bricks selected was unable to maintain deliveries to schedule after the work had started and two blocks had to be built in a different facing brick. Furthermore, there were never sufficient bricks on the job to permit stacks being mixed or for reserves to be put to one side for completing the access balcony parapets which were built at a later stage. It would help if bricklayers and their labourers were a little more co-operative; we think that they can do a lot to make or mar a building's finish.



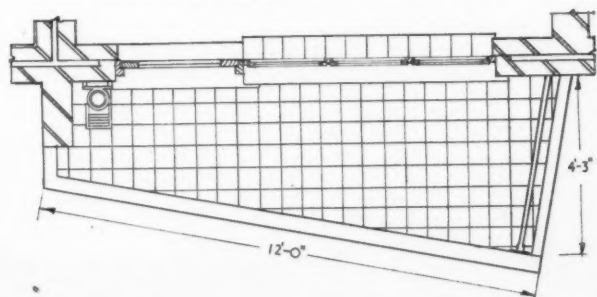
Private balconies outside maisonette living rooms on west facade.



Cross-section through balcony [Scale: $\frac{1}{2}$ " = 1'0"]



Elevation of balcony [Scale: $\frac{1}{2}$ " = 1'0"]



Plan of private balcony [Scale: $\frac{1}{2}$ " = 1'0"]

PRIMARY SCHOOL

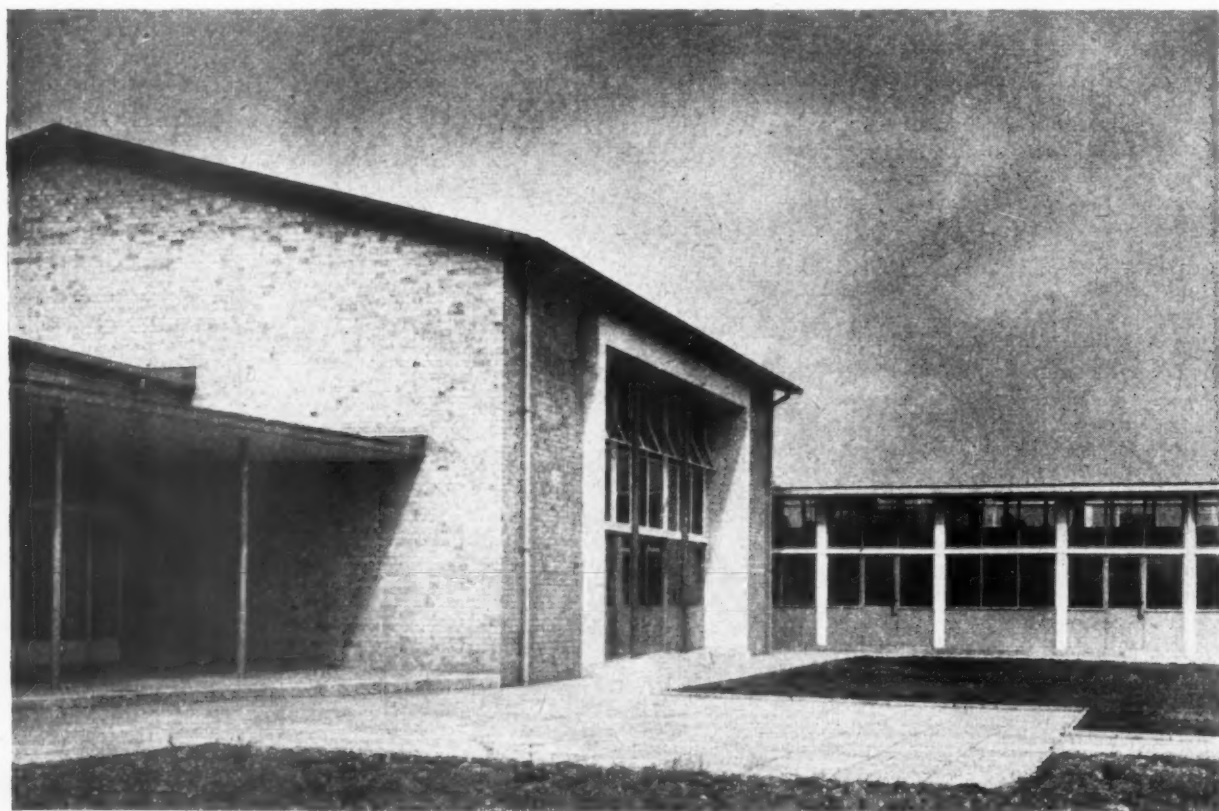
at DAGENHAM, ESSEX

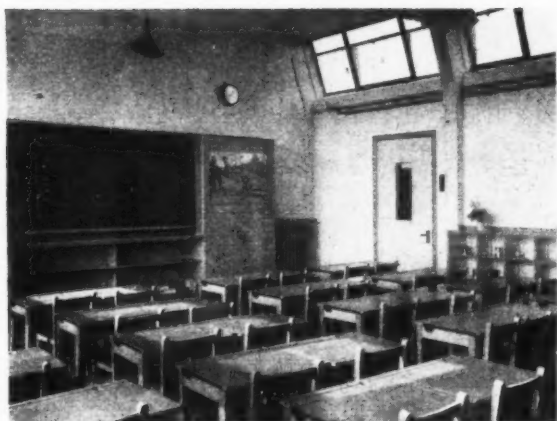
designed by H. CONOLLY, COUNTY ARCHITECT

Assistant Architect, J. T. BELL

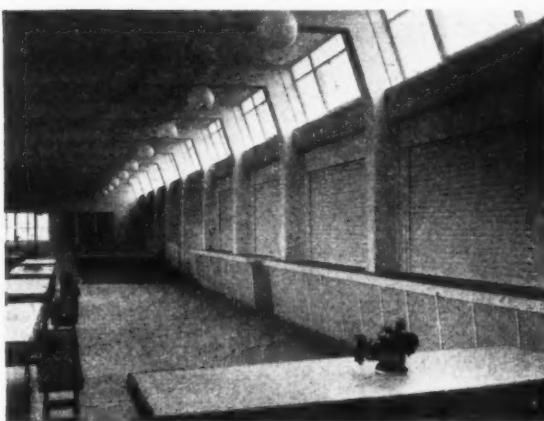
The primary school at Becontree Heath, Dagenham, near the Civic Centre, was designed for 240 infants and 320 juniors of both sexes, with dining accommodation for 500. The site is level and covers an area of $7\frac{1}{2}$ acres, bounded on the south and west by a new housing estate and on the north by cottages, which will eventually be replaced by further civic buildings. A position in the north-west corner of the site has been allocated for a future nursery school.

Assembly hall, on the left, and dining hall looking northwest.





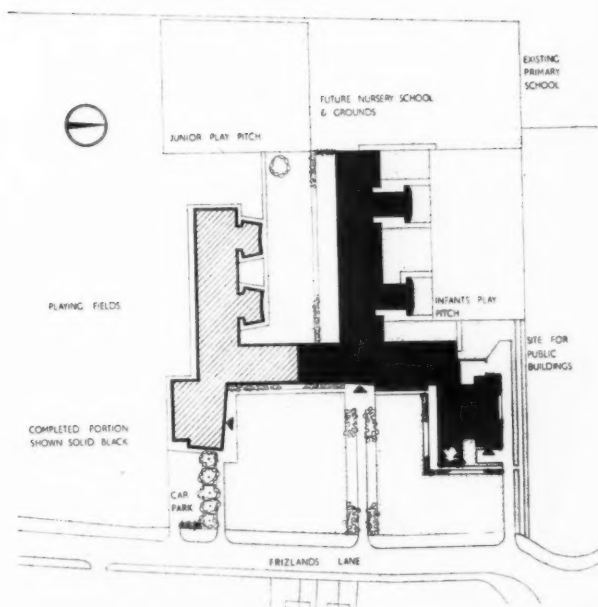
Above, typical infants' classroom. Above right, the dining hall and servery. Below right, terrace and south facade of infants' classroom wing, showing windows to general purpose room.



PLAN.—The completed school will have an irregular H-shaped plan, with a south aspect for classrooms and dining hall. At the time building began, only part of the site was available; consequently the infants' wing had to be built to the north of the two-storey junior classrooms. The staff accommodation and assembly hall join the junior and infant departments and face east.

CONSTRUCTION.—The building has a pre-cast concrete frame with brick panels faced with primrose facing bricks. Roofs are of pre-cast concrete.

FINISHES.—There is a white artificial stone trim and roofs are covered with wood wool insulation and bituminous felt. Metal window casements are fixed direct to concrete roofs and frames. Internal walls of classrooms and staff rooms are finished with hard plaster and elsewhere with a cement glaze. The concrete frames are unrendered and finished with lightly stippled off-white plastic paint. Walls are coloured grey, blue or cream. Externally, the colour scheme is willow green and white, with the concrete frame rendered white to match the artificial stone trim. Paths and terraces are of multi-coloured concrete paving to reduce glare. Flower beds are to be laid beside paths and on the edge of the terraces, with lawns between the teaching blocks.



Site plan





Infants' classroom wing and terrace, looking north-east.

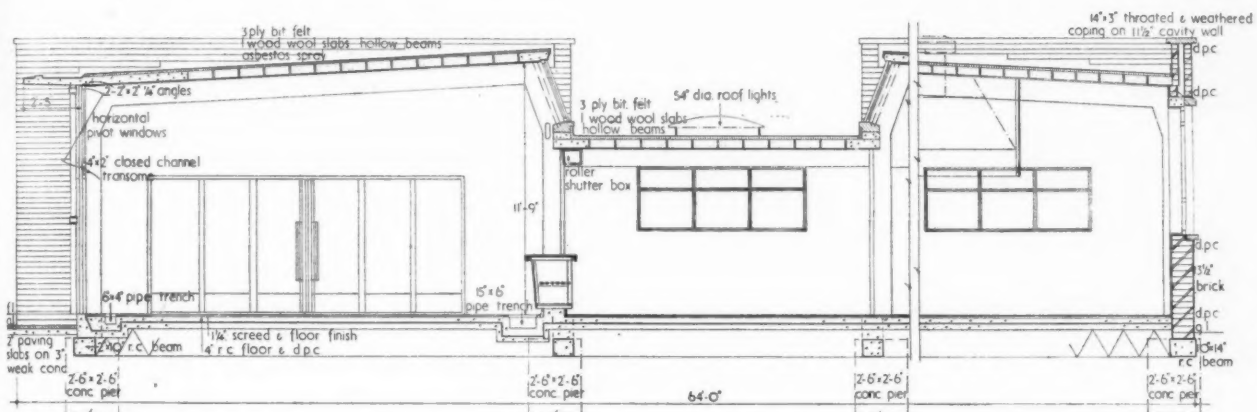
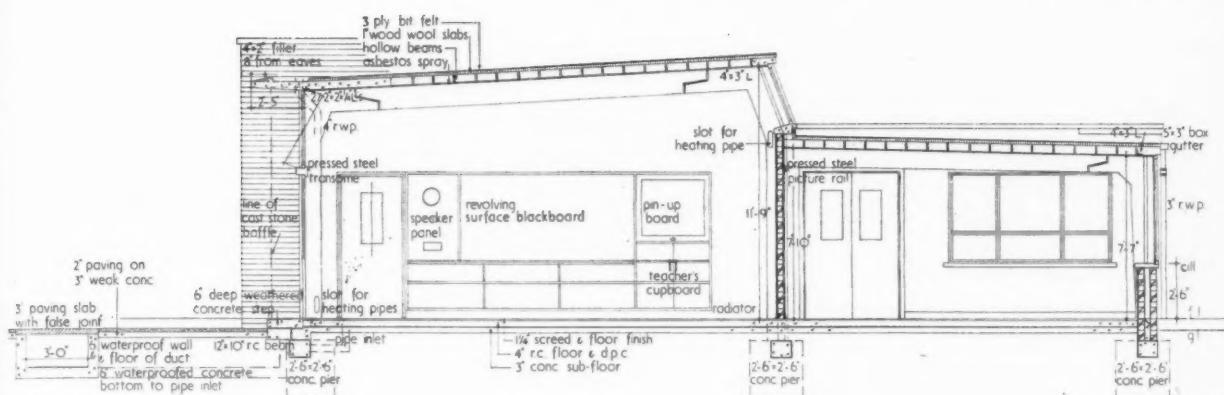
PRIMARY SCHOOL

at DAGENHAM, ESSEX

designed by H. CONOLLY, COUNTY ARCHITECT

Ground and first floor plans [Scale: $\frac{1}{4}$ " = 1'0"]





SERVICES.—Hot water supply and heating are provided from the district heating scheme which serves the adjoining housing estate.

The general contractors are Edward W. Smith (Romford), Ltd. For list of sub-contractors, see page 290.

*Entrance hall to
the infants' wing.*



INFORMATION CENTRE • INFORMATION SHEETS
QUESTIONS AND ANSWERS • CURRENT TECHNIQUE
THE INDUSTRY • PRICES • TECHNICAL ARTICLES

TECHNICAL SECTION

The 322 entries for "The Builder" Low-cost Housing Competition were on view last week at County Hall, Westminster. (The prize-winning designs were illustrated in last week's JOURNAL.) No revolutionary developments have been revealed, but the plans indicate that many architects are now giving serious thought to what is probably the most difficult building to design—the small house. Following is a report on the designs exhibited.

"THE BUILDER" LOW-COST HOUSING COMPETITION

There was nothing outstanding to be seen at this exhibition with regard to economy in materials; the majority of the designs are on traditional lines, but it was noticed that the clinker concrete block is used in many cases as an inner lining. This was recommended in the first edition of the Housing Manual and represents an obvious economy which architects have taken a long time to recognize.

CONSTRUCTIONAL DESIGN

The walls in these designs are not on the whole very interesting. It was sad to see in how many cases the cavity party wall has been sacrificed in the interests of economy, and rather interesting to note that the three winners have abandoned the cavity party wall.

Most entrants used traditional roofs, though a few introduced innovations. The flat roof can, of course, be a cheap method of construction for the architect who will brave its unpopularity. But it must be realized that the cheaper flat roof coverings require periodical maintenance, which is not always an acceptable condition. There is a curious compromise in a number of entries; these feature a low pitched roof with bitumen felt or similar coverings. This seems to be an attempt to take advantage of the economy of a flat roof while retaining something of the appearance of a pitched roof. Like most hybrids, it does not achieve either of these objects. A curious form of construction, which appears in several schemes, is a low pitched roof with the ridge running from the back to the front of the terrace, with gutters over the party walls (see Fig. 6). This is an extraordinarily bad form of construction from the point of view of maintenance and there seems to be no justification for it on the grounds of economy.

A few architects used a steeply-pitched roof

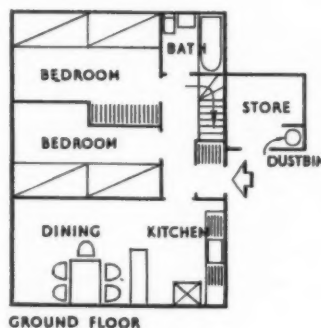
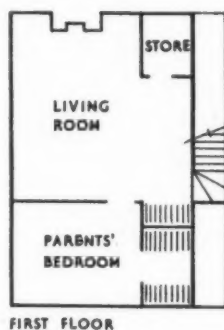
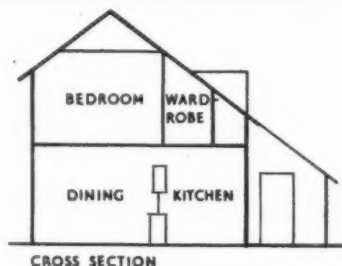


Fig. 1.

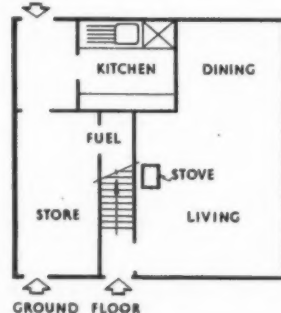
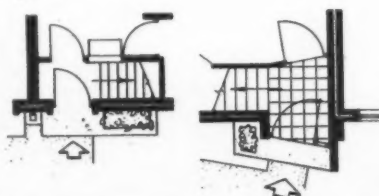


Fig. 2.



Figs. 3a.

3b.

and tried to fit the first-floor rooms into it. Few were successful; most of these designs were ugly. However, one design of this type (see Fig. 1) was rather ingenious. It avoids the use of dormers, except for one over the staircase, and the roof is carried down over a small outhouse. The plan, too, is unusual and is described below.

The total labour content in the normal house represents only about $\frac{1}{3}$ of the total cost, so there is not much room for economy in this direction. Perhaps that is why there were very few schemes submitted which suggest any appreciable economy.

The constructional design of the winning entry is entirely conventional, the only innovation being the use of precast eaves blocks. The winner of the second prize uses concrete blocks throughout, except for the external skin of the cavity wall. His drawings show a raft foundation; the use of this may be a risk with most building contractors. He uses a flat roof of 2-in. wood-wool slabs covered with bituminous felt, but it is difficult to understand why such a light roof needs RC beams at 2-ft. centres for its support. The design placed third is constructed of 6-in. hollow clay blocks. This is an economical form of walling and the architect proposes to increase its insulation value by using what he calls "vermiculite loaded plaster." In order "not to overload these hollow blocks," once again quoting the architect, "the floor loading (is) carried by spanning the floor joists from party walls to a 4-in. block partition half way between them." Not only is this bad on the grounds of sound insulation, but reference to the drawings shows that the partition is only 6 ft. 9 in. long and some sort of beam would be required over the remaining 7 ft. 6 in., bearing, after all, on the hollow block external wall!

PLANNING

One of the most interesting features, found on many of the plans, is a large store or utility room situated at the front of the house. This is intended for the storage of bicycles, pram, fuel and dustbin and to serve as a small workshop. It eliminates the need for an outhouse or the gloomy tunnels, commonly associated with terraced houses, without involving the expense of an access road being constructed at the rear of the sites.

In many of the designs the kitchen is placed at the rear of this store and in some cases is only partially separated from it (see Fig. 8). In these cases the living room (few designs have two) runs from front to rear; the rear portion, adjacent to the kitchen, being the dining area (see Fig. 2). In some designs the entrance opens directly on to the living room, and the staircase rises from this room. This type of scheme would, of course, necessitate the use of some form of draught excluder around the front door, but the main snag would be that the housewife, when in the kitchen, would have a long walk through the living room to the front door (the design placed third is of this type).

An alternative, chosen by a number of architects, is to put the kitchen at the front too, and to have the living room running across the rear of the house. Such a living room does not, of course, have cross ventilation. Most architects who chose this type of plan found it difficult to compose an attractive front elevation in their placing of the doors and the windows to the kitchen and store.

A third alternative is the use of a small internal passage to a utility room at the rear of the house.

THE WINNING DESIGN

The first winning design has the utility room at the rear, but no access passage. Although this house has four entrances, all sources of draught and heat loss,

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Adams, Holden & Pearson, FF.R.I.B.A., Architects

John Laing & Son, Ltd., Contractors

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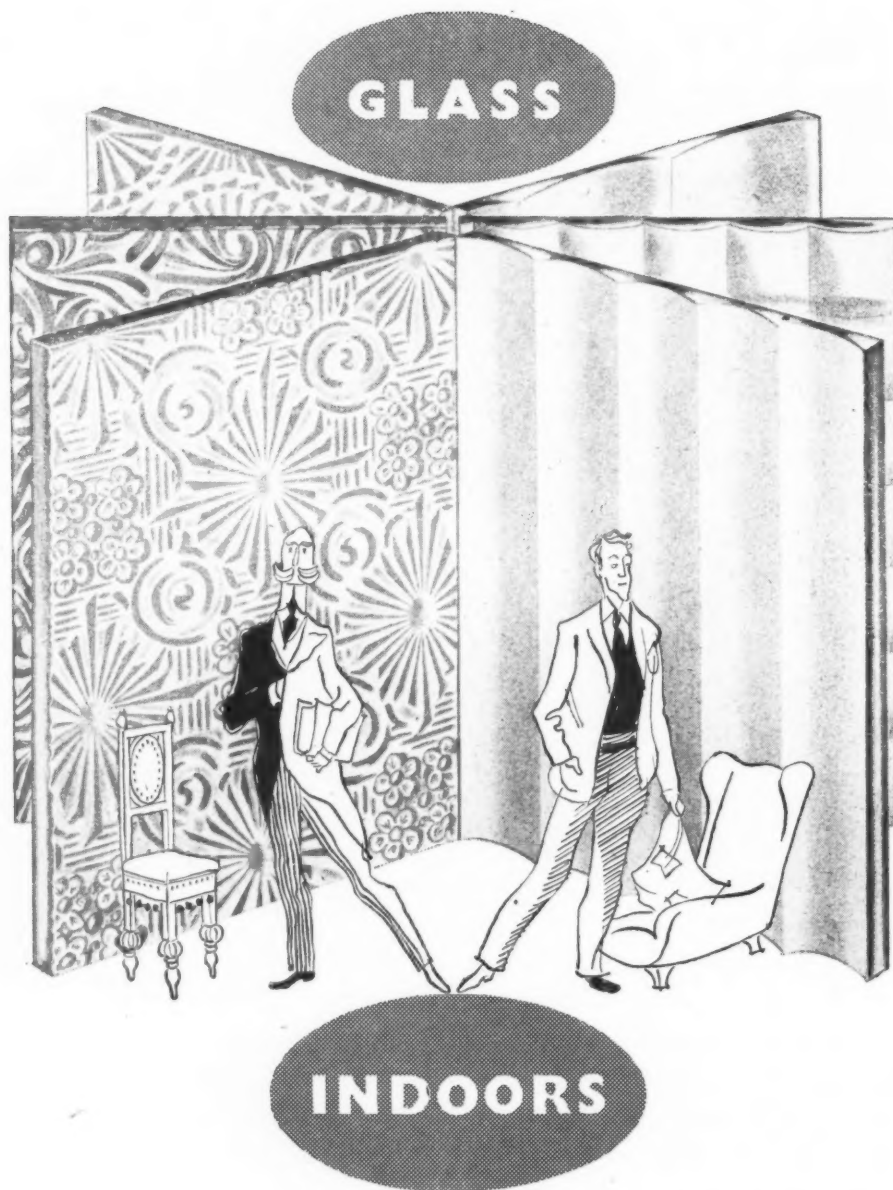
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dustbins are kept in a little brick box at the front of the house and coal deliveries must pass through the kitchen! Another fault which this design has, in common with several others, is that the entrance "lobby" is too small (see Fig. 3a), even for a draught lobby. On one of the "Mentioned" designs this difficulty is overcome by placing both doors on the splay (see Fig. 3b).

The design awarded second prize has no way through from front to rear; the site plan shows a service road. An interesting feature of this design is the "children's den" on the ground floor. Mother, at the kitchen sink, can watch the children through the "parents' peep hole." But when she sees little Tommy about to strangle little Mary, she must dash through the kitchen, the living room and the entrance hall before she can interfere!

PLANNING FOR THE CHILDREN

Other designs cater for the children's needs by giving them the largest bedroom and equipping it with two-tiered bunks or folding beds, so as to leave plenty of space for playing. One architect has separated the children from their parents by elevating the living room to the first floor and planning the children's bedrooms on the ground floor (see Fig. 1). A few others have omitted the parents' bedroom altogether, providing them with a bedroom recess off the living room, in order to give the children the maximum of play space in their bedrooms.

Some architects have either failed to appreciate the economics of land values or have assumed a revolution in land ownership. One design has a frontage of 31 ft. (see Fig. 4). Although the depth of this design is only 13 ft., its author has failed to take advantage of this fact structurally, for his floor joists do not span from front to rear. Other architects, realising that land is usually bought by the frontage, have attempted to reduce the width of their houses (see Fig. 5). The smallest example was only 13 ft. from centre to centre of the party walls (the amusing cross-section of this house is shown in Fig. 6), but the planning of entries of this type was hardly up to the standard of Le Corbusier's flats at Marseilles (clear width, 11 ft.).

Only one competitor designed a 3-storey house (see Fig. 7). It seems doubtful whether the third storey is justified; but there is no reason why the house should be more expensive than one of two storeys. The first floor, which contains nothing but a living room, is an attractive feature. And the architect, having placed the bathroom on the second floor, has remembered the bedroom on the ground floor—there is another w.c. and a lavatory basin on this floor.

SANITARY ACCOMMODATION

Most of the entrants omitted the second w.c. as they considered it an extravagance. Some compromised by having the only w.c. on the ground floor, together with a lavatory basin, the bathroom containing the bath and a second lavatory basin. Some obviously considered it economical to put the bathroom on the ground floor, but most of those who did this failed to see the advantage of placing the bathroom adjacent to the kitchen. Others were satisfied to put the bathroom directly over the kitchen; few made any attempt to economize on plumbing, although one-pipe systems were very popular amongst the competitors. The scheme illustrated in Fig. 8 has the bathroom on the ground floor (not adjacent to the kitchen) and the result, as in several schemes, is a very simple first floor plan.

Most of the schemes have too few cupboards. This is a false economy, for a built-in cupboard has two sides and a top, whilst a wardrobe has four sides, top and bottom. To make matters worse, many of the bed-

rooms are so small that there is no room for a wardrobe. It is a stupid compromise to provide tiny cupboards which are too shallow to hang clothes in.

CONCLUSION

Since the competition was for urban housing (quantity surveyors were asked to calculate the cost on grade "A" labour rates), living room/kitchens, provided by some architects, are out of place, for this is a rural preference.

To sum up, none of the entries show any significant developments in building technique; most of the competitors chose to reduce the cost by simpler, but less desirable, means—by cutting standards of insulation, omitting cupboards, etc., and reducing floor areas.

Although, many plans were, obviously, the result of imaginative thinking, there appeared to be a wide divergence of opinion as to what the housewife (or her family) actually want. Social surveys should, by now, have settled this question.

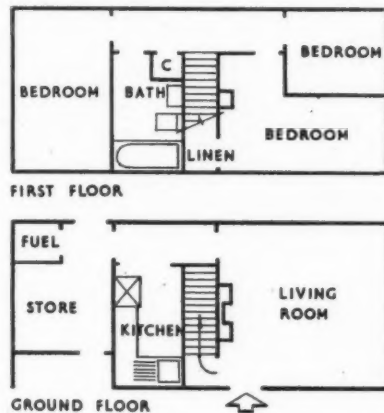


Fig. 4.

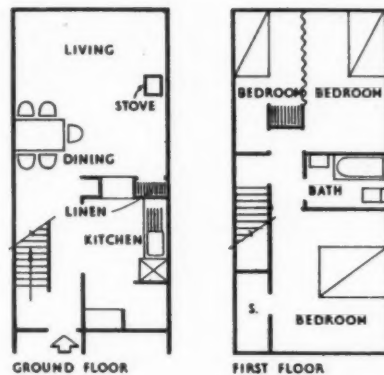


Fig. 5.

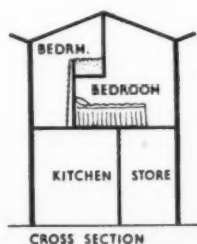


Fig. 6.

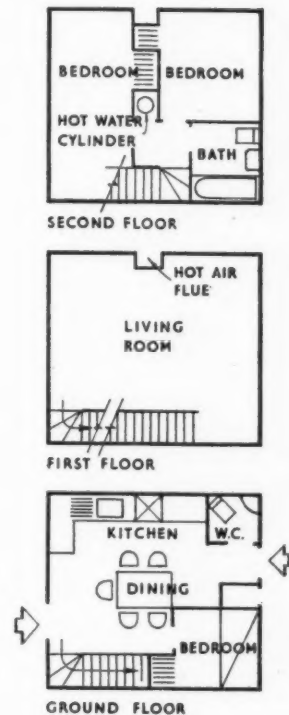


Fig. 7.

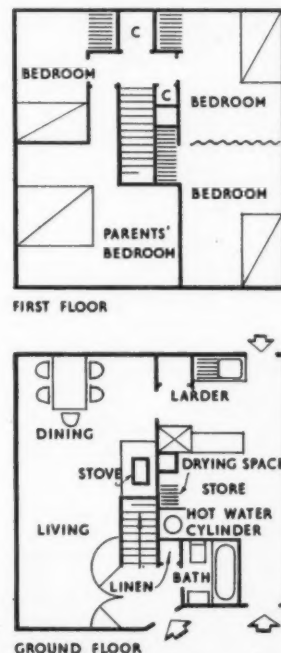


Fig. 8.



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INFORMATION CENTRE

5.40 planning: public utilities ROAD DESIGN

Design of Safer Roads. E. Ogden (The Surveyor, Dec. 22, 1950, pp. 665-666; Dec. 29, 1950, 678-679.)

Paper by member of Lancashire County Surveyor's Office relating accident rates to road design and traffic volume.

Before the war about 8,000 road casualties, including 300 deaths, occurred annually on the roads of Lancashire. It has been calculated that the cost to the community of these accidents was about £3½ millions per year. The recent Lancashire road plan was, in part, based upon an inquiry into the cost of different types of road improvements relative to the likely improvements in road safety. The basic investigation carried out comprised an analysis of accidents, which occurred, from April, 1946, to March, 1947, on 212 miles of classified roads.

The result of the investigation showed that, apart from segregation, the most fruitful remedy for the prevention of road accidents lies in the improvement of intersections. For example: it was shown that the incidence of accidents was about 13 times as great near junctions as it was at places remote from them. This paper goes into the subject very thoroughly and is worth reading in full.

13.64 materials: timber FOREST PRODUCTS RESEARCH LABORATORY REPORT

Forest Products Research. 1948. Department of Scientific and Industrial Research. (HMSO, 1950, 2s.)

General report on work of 1948, with list of publications.

13.65 materials: timber BEETLES AND FUNGI

The Identification and Treatment of Defects in Timber. E. H. Brooke Boulton (Journal of Royal Institute of Chartered Surveyors, Dec., 1950.)

Brief outline describing recognition, type of attack and how to discover and treat damage from beetle and dry rot.

Mr. Boulton is an authority on the subject and has given a brief but clear summary of essential points. He describes the death watch, the furniture beetle (common woodworms), the lyctus or powder post beetle and the less known, and rather localized, longhorn beetle. In addition to a clear description of the type of damage and methods of treatment, there are useful notes on where to look for damage. Dry rot is dealt with in a similar way.

15.83 materials: applied finishes and treatments GRANOLITHIC FLOORS

Granolithic Concrete Floors. BRS Digest No. 24. Nov., 1950. (HMSO, 1950, 2d.)

Describes suitable sub-floors, their prepara-

tion, thickness and mix, methods of laying, surface hardening treatments, and causes of slipperiness.

This Digest commences with a timely reminder that far too many failures occur with this, very commonly used, type of finish, and it is pointed out that, in the case of factories, the result of poor specification or workmanship may hold up production thereby causing expense far in excess of the actual cost of repairs.

Sub-flooring is considered for both solid ground floors and suspended floors. The essentials are: good quality concrete (without the addition of waterproofers which reduce the adhesion of the finish); positioning of joints to coincide with joints in the finish; the very important question of cleanliness; and the application of a slurry immediately before the laying of the granolithic finish.

Materials and mix for the finish are specified, and the possible value of adding calcium chloride is discussed. This not only assists setting in cold weather but may also give a better wearing surface.

However good the base concrete, the preparation of its surface and the specification for granolithic surface, success will still only be achieved if the actual laying is well done. This requires both skill and hard work, and should only be done by specialists. The thickness required depends on whether the finish is laid on green concrete, when $\frac{1}{2}$ in. is enough, or on set concrete, which may mean using a minimum of $1\frac{1}{2}$ in. Proper trowelling of the finish is vital. All too often the trowelling is done incorrectly and the mix is too wet.

On all the above points the Digest gives clear and direct advice. There are also some notes on surface hardening treatments, using either sodium silicate, or magnesium or zinc silico fluoride. Finally there is a brief mention of possible causes of slipperiness; the two most common being the use of rounded aggregates and the spreading of wax from adjacent areas of polished floors.

15.84 materials: applied finishes and treatments PLASTERING

Blowing, Popping or Pitting of Internal Plaster. BRS Digest No. 26. (HMSO, Jan., 1951, 2d.)

Describes how and why defects occur, and how to avoid popping, etc.

Most of the text of this Digest is given up to describing how and why popping, etc., occurs in plaster finishes. Primarily, the cause is the expansion of unslaked particles of quicklime. The recommendations for avoidance of this type of trouble, given in a single paragraph at the end of the Digest, are: Specification of materials in accordance with British Standards; when there is site slaking of quicklime it should be done in accordance with the recommendations in C of P 211 (Internal Plastering); the bottom layer of quicklime, which runs to putty, should not be used, as this is where most unsound material will be found; dry-hydrated lime should be soaked overnight.

16.69 materials: miscellaneous WINDOW DESIGN

A Guide to the Design of Windows. Neville Woodbury. (Neville Woodbury, Ltd. 1950, 6s.)

Small book treating design in the aesthetic sense. Deals with effect on elevations of shape, size and placing of windows.

This is a curious little book. It is extremely elementary and full of platitudes and dogmatic statements, yet one feels nevertheless, that the author has set down in simple form many of the points

about the design of windows which really determine the success or otherwise of elevations. It is unfortunate that the very small section headed "Practical" does not really contain any information about how to design for either good lighting or good ventilation. In fact there is scarcely any reference to the effect of windows on interiors.

Simple sketches explain clearly the author's arguments on proportion and the design of façades. This is really what the book is about and it might have been advantageous had the title indicated the fact more clearly.

18.71 construction: theory ATMOSPHERIC POLLUTION

Cities Without Smoke. Albert Parker. (Journal Royal Society of Arts, Dec. 15, 1950.)

Extent of pollution and its nature. Detrimental effects. Methods of reduction. Coal cleaning. Efficiency of utilization. General paper by an authority. Gives interesting, data and sober picture of future programme for improvements.

18.72 construction: theory PROTECTION AGAINST TERMITES

White Ants. Termite-proofing of Buildings in Australia. (Commonwealth Experimental Building Station, Dept. of Works and Housing, Australia, 1950.)

Specialist interest but useful. Recommendations for fitting of termite shields. Sketch illustrations.

18.73 construction: theory SMOKE ABATEMENT

Proceedings of the Margate Conference 1950. (National Smoke Abatement Society, 1950, 6s.)

107-page report of papers. Some of considerable general interest.

The profession ought to be very interested in this subject and the report of the proceedings of the 1950 conference include a number of papers of general interest. Two papers on the effect of atmospheric pollution on health are important but, to architects, the most interesting part of the proceedings will be the papers dealing with smoke prevention as applied to new housing. Of these, a brief, but important and hopeful, report of action by the LCC is given by Cyril H. Walker, the LCC Valuer, while a paper by J. Robinson, an alderman of the Stretford Borough Council, reports on the effective measure of making the use of smokeless fuels a condition of tenancy.

While most people are probably in general agreement with the aims of the NSAS, architects and builders can greatly influence the effectiveness of the Council's efforts by installing appropriate appliances in their buildings. There appear, therefore, to be good reasons why every member of the building industry should study this publication.

19.112 construction: details FOOTINGS AND FOUNDATIONS

The Design of Footings for Small Masonry Buildings on Plastic Soil. Footings and Foundations. III. (Commonwealth Experimental Building Station, NSW, Australia, 1950.)

Loads on foundations. Strip footings. Beam footings. Pier and beam footings. 4-page leaflet, illustrated.

This leaflet, which is one of a series issued by the Department of Works and Housing of the Commonwealth Experimental Build-



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all that keen on
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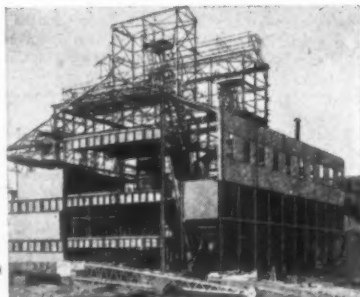
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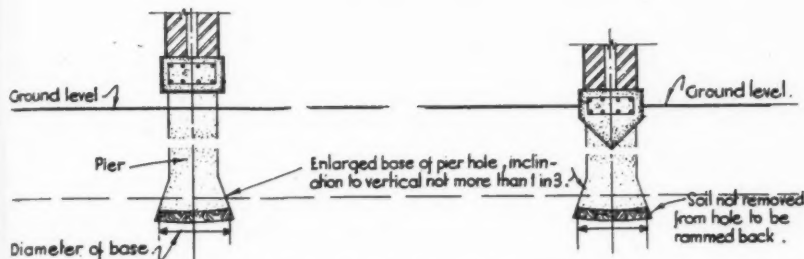
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Pier and beam foundations. Precautions to prevent heaving; left, beams placed above ground; right, beams have knife-edge on underside. See 19.112.

ing Station, is a sensible examination of the subject of foundations for small buildings.

First, comes a simple statement of the heaviest loadings likely to reach the base of footings for typical brick dwellings of one or two storeys, with either concrete or timber floors. The normal type of strip footing is then examined, especially in relation to sites with plastic soils, and a number of common fallacies are exposed. Footings of the deep beam and inverted T-beam type are also discussed and recommendations on size and reinforcement given. Lastly, pier and beam foundations are examined. A warning is given that, with this type, precautions should be taken to prevent heaving of the ground lifting beams off their piers. This may be done, either by placing the beams above ground, or by forming a knife edge on the underside of the beams (see illustration). Tables give suggested spacing and sizes for piers and beams.

23.143 heating and ventilation

SKIRTING HEATING INSTALLATIONS

Residential Baseboard Heating. William J. McGuinness. (Progressive Architecture [USA]. Dec. 12, 1950.)

Article on skirting heating equipment, installation and performance.

The number of articles on this subject now appearing in American magazines is a measure of the interest being taken in this type of heating in that country.

This article gives much useful information on the subject. In it, the author describes typical heating units, which may be of the cast iron or steel radiant type; similar types with convection fins and space at the back; and the fully convective type, consisting of gilled tubes with a cover. Typical profiles, sizes and outputs are shown (see illustration).

The cover plate of convective types is detachable for cleaning. In general, steam is unsuitable for such systems owing to condensate drainage difficulties, and staining of walls due to high temperatures. Hot water at not more than 200° F. avoids this trouble. Baseboard heating is applicable to existing as well as to new buildings. The importance of insulating the back of the heaters is stressed (4-in. mineral wool is suggested) and the desirability of using weatherstripping and insulation to reduce heat losses generally. Otherwise, it may be necessary to use heaters on inner walls as well as outer with increased difficulty of installation. The system shares with radiant panel heating and perimeter heating (by warm air in ducts round the perimeters of rooms) the advantage of overcoming low temperatures at the outer edges of floor slabs, due to rapid heat loss at these points.

Simplified installation is possible by using "series loop" connections.

Pipe connections between units can be run in hollow steel baseboards, to match the heating units. Individual control of the units is not possible, but some control may be achieved with the convective type by using a damper to open or close the louvres. To compensate for the lower water temperatures in the units farther from the boiler flow, it is usual to add 7½ per cent. area to the middle section and 15 per cent. to the last section. Alternatively, an ordinary piping layout may be used, as with standard radiators. Individual control is then possible and balancing can be carried out in the ordinary way. Proper venting of units is necessary; ordinarily, air valves are used but, by making the water velocity sufficiently high and using suitably small pipe sizes, the air may be entrained with the water, and thus discharged. A suitable boiler installation is described; this is of the typical American pattern, operating under pressure, with relief valve

and air vessel. Provision must be made for ¼-in. expansion for each 10-ft. run of heater, by expansion loop or other means. A loop under a door may serve this purpose.

Advantages claimed for this type of installation are: Lower parts of walls are warmer, and losses at edge of slab are offset; output is largely radiant, and convection is well distributed; downdraughts from windows are avoided, and temperature gradients small; it can be installed and used before plastering is completed, and need not be removed for decoration.

An experimental installation of this type has been made in houses in Ipswich. In view of the undoubted advantages, it may be expected that others will follow in this country when equipment becomes available. The use of the series-loop layout demands the use of a circulating pump. These are not available here in the very small sizes suitable for domestic installations, and unnecessarily large and costly pumps would have, at the moment, to be used. As such small pumps would also be of value for small radiant panel systems, there seems to be scope here for an enterprising manufacturer.

One of the particular points claimed for installations in this country is the absence of staining of walls. This is no doubt due to the comparatively low temperatures (seldom higher than 180° F.) at which hot water heater apparatus is operated here.



THE LIBRARY OF INFORMATION SHEETS

14.L4 REFERENCE BACK

Readers are asked to note the following revision and to amend their copy of the Information Sheet in question:

Reverse of Sheet—At the end of the paragraph headed "Construction" the last line should read "ceiling without an aluminium head rail" and not with as printed.

INFORMATION CENTRE INDEX, 1950

An alphabetical index covering items published during the twelve months ended December 31, 1950, is being prepared. Readers who wish to have a copy—it is free of charge—should complete the form below and post it to the Technical Editor, THE ARCHITECTS' JOURNAL, not later than March 9, 1951.

Please send me the Information Centre Index for 1950:—

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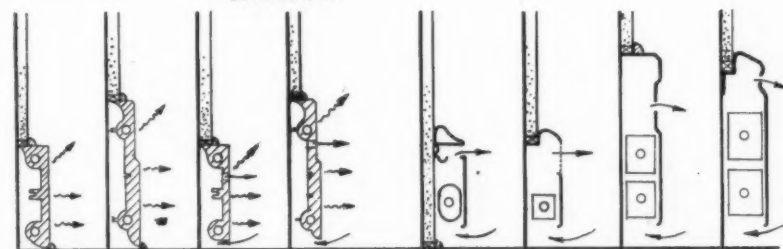
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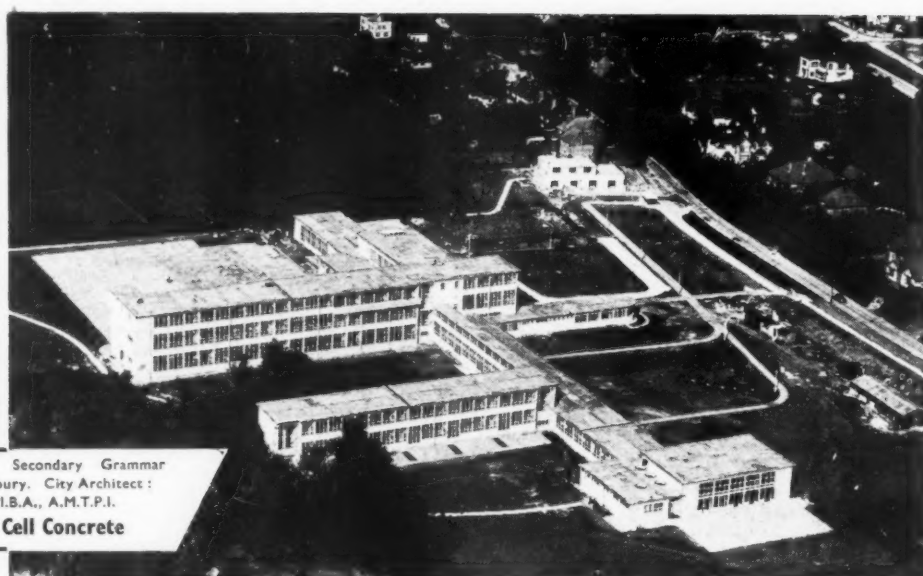
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Various types of baseboard (skirting) heating units. See 23.143.



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THE INDUSTRY

By Brian Grant

SLAG WOOL

In these days when insulating materials are made of so many unusual substances, it is easy to forget such a long-established material as slag wool, which has been used for nearly 100 years for both heat and sound insulation. For the last 20 years the majority of the slag wool in this country has been produced by F. Jones & Co. of London and J. C. Broadbent of Redcar. These two firms have now combined and thus have a network of well-placed depots up and down the country. (Jones and Broadbent Ltd., Perren Street, London, N.W.5.)

VALLEY TILES

The Marley Tile Company have recently evolved a trough valley tile. This can be used, as an alternative to metal, for making open valleys. The appearance of the roof is thereby improved because the exposed portion of the valley tile matches the other tiles of the roof and the cement used for bedding, which may have a harmful effect on certain types of flashing, does not harm tiles.

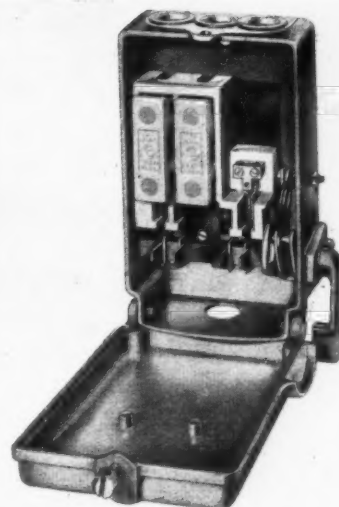
The tile has trough-shaped sides sloping upwards from the centre. The outer edge has a raised rim, which acts in the same way as the welt, or tilting fillet, of a metal valley and prevents the entry of any water that may percolate through the bedding. These tiles can be used with any form of tiling or slating, provided that the groundwork, on which the roofing is laid, is properly prepared.

The rib on the valley tile plus the thickness of the tile itself brings the top of the

tile $1\frac{1}{2}$ in. above the level of the rafters of a roof with a 35° pitch. If the pitch is less than 35° the tile projects a little farther. The upper face of the groundwork, to which the tiles are fixed, should be in the same plane as the top of the rib on the valley tile, or even higher. If the roof is counterbattened, fixing is simpler, but, as a result of the present day timber shortage, this solution is not always possible. The manufacturers have, therefore, produced a booklet which describes methods of using these tiles for different types of roofs. The valley tile should lie in the centre of the valley and must be supported at three points; the centre of the valley tile resting on the valley rafter. If the pitch of the roof is very steep, the valley tile may bridge from rafter to rafter without touching the valley rafter. In this case, the latter must be battened to support the base of the valley tile. If, on the other hand, the pitch is low and the valley tile lies on the valley rafter so that it is free to rock from side to side, then battens must be fixed in the valley, parallel to the rafter, to support the edges of the valley tiles. Although careful attention must be paid to detailing, there is no reason why the use of these tiles should cause any difficulties on the site. (Marley Tile Co., Ltd., London Road, Riverhead, Sevenoaks, Kent.)

LIFTS FOR HOUSES

Even in a large house, the problem of installing a passenger lift can be complicated by the amount of space needed for the lifting gear and the enclosure for the cage. By using the Shepard lift this difficulty can be overcome. This lift requires an enclosure on the upper floor only; the lift cage being carried on four wheels which run in guides on the wall of the ground floor room. The wheels are made of Bakelite and require no lubrication, so that the wall guides are not greasy and can be painted to match the wall decoration. The winding gear and control equipment are mounted above the enclosures, at first floor level, so that the only builders' work required consists of building the sides of the enclosure, cutting a hole $42\frac{1}{2} \times 40\frac{1}{2}$ in. in the floor and fixing the wall guides. The lift motor is rated at 1 kW, and the lift is suitable for carrying two people. These lifts are also available with modified gates which enable the lift to take a wheel chair. They are designed by the Shepard Elevator



"Sandalite" metal-clad S. P. & N. splitter. List price: 14/9.

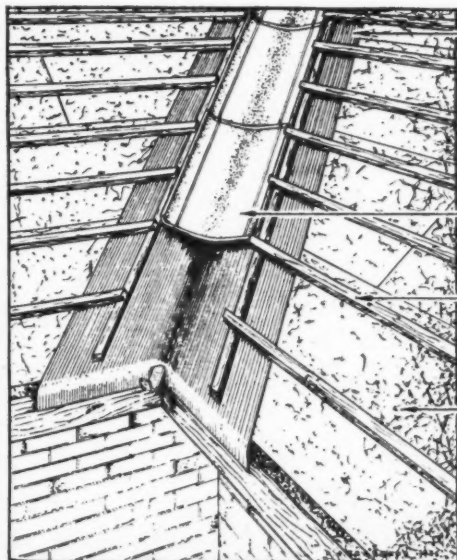
Company of Cincinnati, and the manufacturing rights, in this country, are held by Hammond and Champness, Ltd., Gnome House, Blackhorse Lane, London, E.15.

SWITCHGEAR AND FUSES

There has been, since 1939, a growing tendency *not* to put any fuse in the neutral conductor of current supplies but, instead, to use a simple fuse on the live side. There is no need to explain the reasons for this, but the relevant clauses can be found in the IEE wiring regulations. However, only a few manufacturers have been producing main switches and splitters with single pole fuses, mainly because there is still a good demand for double pole gear. Sanders of Wednesbury have now standardized a large range of switches and splitters, one of which, a 21-amp. main switch with two 15-amp. outgoing fuses and two neutral ways, is illustrated here. The entire range is fitted with the Sanders Duplex fuse, consisting of a standard base which can be used in conjunction with the cartridge fuse carrier or one of the re-wireable types; either is available at the same price. (Wm. Sanders & Co., (Wednesbury) Ltd., Falcon Electrical Works, Wednesbury, Staffs.)

A FILM ABOUT CONCRETE

A number of readers may have seen the films, *Moving Earth* and *Building Homes* which were produced for Laings some time ago. These dealt with open cast coal mining and the production of the Easiform house. The latest "production" deals with concrete, showing the effect of using incorrect mixes and unsuitable aggregates, and it also demonstrates, very clearly, the high degree of organization and the accurate timing required on a major concreting job. After a series of shots showing common faults and methods of overcoming them, the film turns to the layout of a large-scale batching plant and shows the method employed for constructing the Brabazon runway. The concrete for this runway at Filton was laid in bays 25 to 30 ft. wide and in lengths of 1,500 ft. each working day. Altogether 12 miles of road, 20 ft. wide, was completed in 58 days by a team of 36 men. The film is in colour, it runs for 30 minutes and can be borrowed free of charge. I can recommend it for schools and for architects, and I was pleased to note that the firm which sponsored the film is hardly mentioned. (John Laing & Son, Ltd., Mill Hill, London, N.W.7.)



Marley valley tiles, method of using on a boarded, felted and battened roof.

Roofing felt laid along complete length of valley before valley tiles are placed in position.

Trough valley.

Tiling batten.

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Buildings Illustrated

Flats and maisonettes at Hartsholme Estate, Lincoln. (Pages 273-279.) Architect: P. F. Burrage, F.R.I.B.A., City Architect. Deputy (Housing) Architect: B. Woodiwiss, L.R.I.B.A. Assistant in charge: J. Holden. Quantity surveyors: F. Thornout-Firkin & Partners. General Contractor: M. J. Gleeson Ltd. Sub-contractors: Excavation, foundations, gasfitting, plumbing, plaster, M. J. Gleeson Ltd.; reinforced concrete, P.C. beams and stairs, Trent Concrete Ltd.; reinforcement to balconies, Twistee Reinforcement Ltd.; bricks, facings, Procter & Lavender Ltd., National Coal Board, commons, Lincoln Brick Co. Ltd., London Brick Co. Ltd.; fireproof construction, wood wool slabs to roof, patent flooring, Marley Tile Co.; special roofings, mineral finished bitumen, balcony asbestos paving tiles, D. Anderson & Son Ltd.; glass, Pilkington Bros. Ltd.; grates, Ideal Boilers & Radiators Ltd., (back-to-back) to maisonettes, Alan Ure; gas fixtures, drying cabinet fittings, Ranalah Ltd.; electric wiring, electric light fixtures, built-in fires, East Midlands Electricity Board; sanitary fittings, W. Emery & Co. Ltd.; door furniture, Lockerbie & Wilkinson Ltd.; casements, joinery, Hollis Bros. Ltd. (special steel) Haywards Ltd.; shrubs and trees, water supply, Lincoln Corporation Parks Department; signs, lettering, A. J. Binns Ltd.

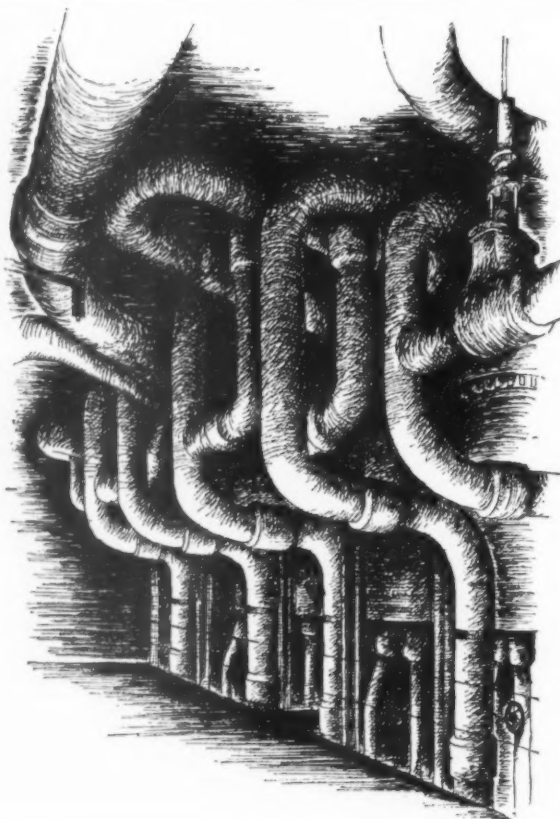
Primary School at Becontree Heath, Dagenham. (Pages 280-283.) Architect: H. Conolly, F.R.I.B.A., County Architect, Essex. Deputy County Architect: Denis Senior, F.R.I.B.A. Assistant County Architect: E. T. Ashley Smith, A.R.I.B.A. Architect in charge: J. T. Bell, A.R.I.B.A. General Contractor:

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Announcements

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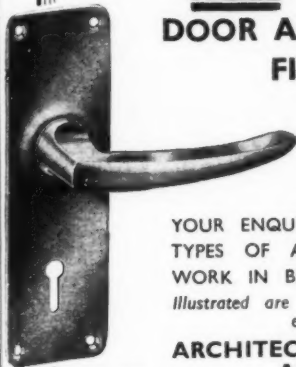
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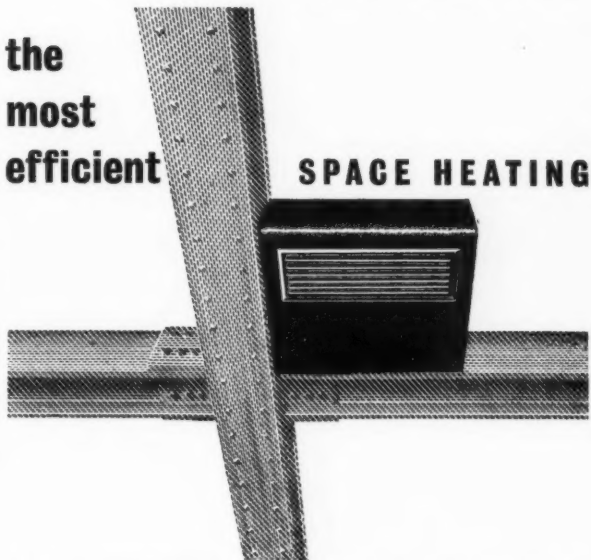


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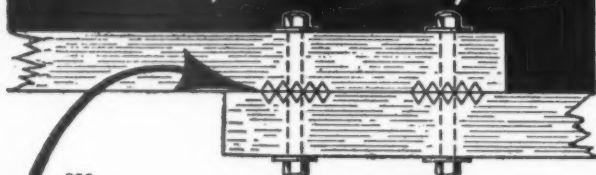
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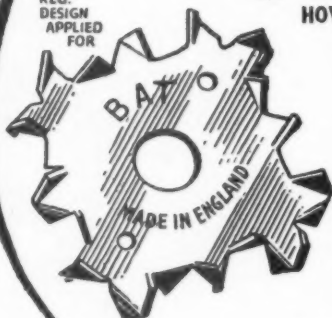
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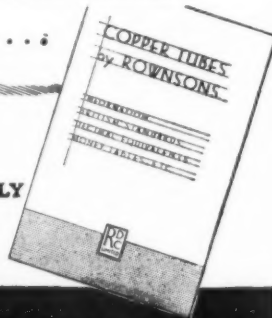
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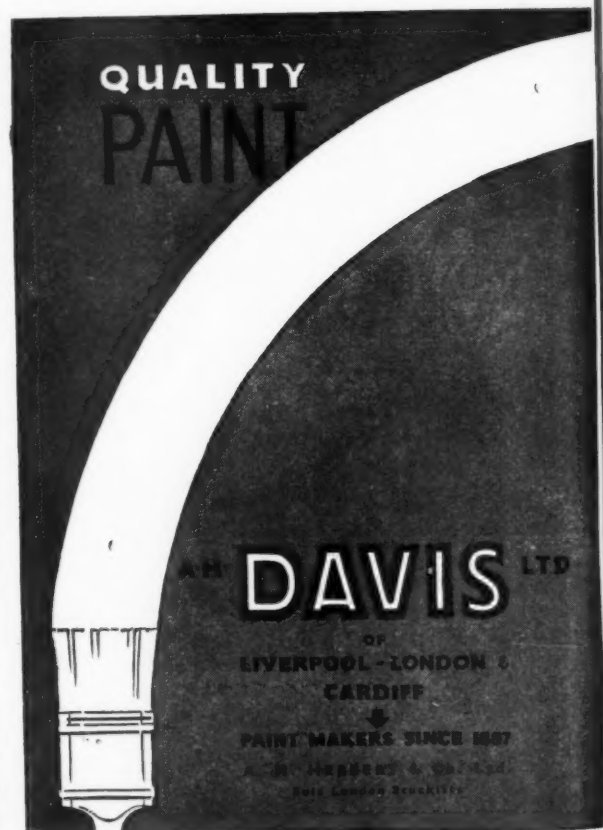
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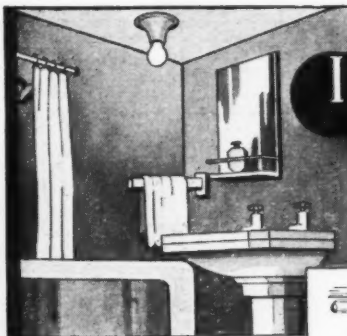


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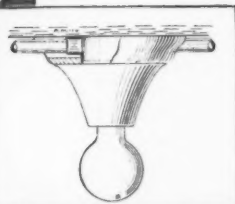
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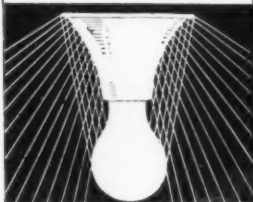


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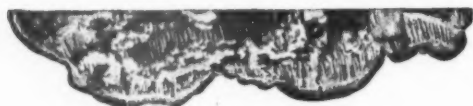
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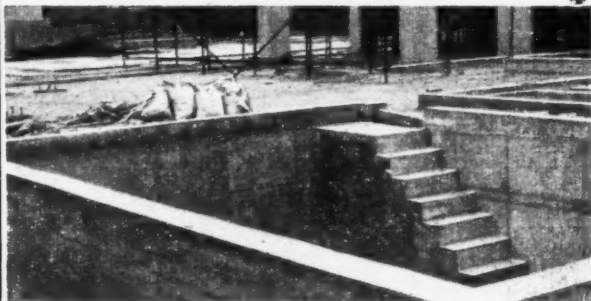


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Replies to Box Numbers should be addressed care of "The Architects' Journal," at the address given above.

Public and Official Announcements

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NORTH THAMES GAS BOARD.

Applications are invited for the following appointment in the Architects' Section of the Chief Engineer's Department of Westminster: SENIOR ARCHITECTURAL ASSISTANT, minimum starting salary £650 per annum.

Applicants, who must be Registered Architects and should be studying for or have passed the Final Examination of the R.I.B.A., should be capable of preparing working and detailed drawings and specifications, and supervising and controlling the work on contracts. Experience in design and planning of industrial buildings would be an advantage.

The appointment is of a permanent nature, and pension arrangements will be discussed with short list candidates.

Applications, stating age, qualifications, and particulars of previous appointments held, must be submitted to the Staff Controller, North Thames Gas Board, 30, Kensington Church Street, London, W.8, quoting reference 9757 4341

LONDON COUNTY COUNCIL.

Applications are invited for positions of ARCHITECTURAL ASSISTANT (salaries up to £650 a year) in the Housing and Valuation Department. Commencing salaries will be determined according to qualifications and experience. Engagement will be subject to the Local Government Superannuation Acts, and successful candidates will be eligible for consideration for appointment to the permanent staff on the occurrence of vacancies.

Successful candidates will be required to assist in the design, layout and preparation of working drawings for housing schemes (cottages and multi-storey flats), and will be employed in the Housing Architect's Division.

Forms of application may be obtained from the Director of Housing, The County Hall, Westminster Bridge, S.E.1 (stamped addressed envelope required and quote reference A.A.1). Canvassing disqualifies. (624) 4558

CITY OF OXFORD.
CITY ARCHITECT AND PLANNING
OFFICER'S DEPARTMENT.
ASSISTANT ARCHITECTS.

Applications are invited from fully qualified Architects for posts on the permanent staff of the City Architect and Planning Officer's Department.

The salary scale will be £320+£15(2)+£20(1)—£370 per annum.

Applicants must be Registered Architects, capable of preparing sketch designs, full working drawings, specifications, etc., and competent to undertake educational, housing, and general architectural work.

Housing accommodation, if required, will be provided by the Council.

The appointments will be subject to the National Conditions of Service, the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

Further details of the duties of the posts and Application Forms, which must be used in applying for the posts, may be obtained from E. G. Chandler, A.R.I.B.A., A.M.T.P.I., City Architect and Planning Officer, Town Hall, Oxford, and these forms must be returned not later than Saturday, 10th March, 1951.

HARRY PLOWMAN,

Town Hall, Oxford. Town Clerk. 1893

WESTMORLAND COUNTY COUNCIL.

COUNTY PLANNING DEPARTMENT.

Applications are invited for the appointment of ASSISTANT PLANNING OFFICER, Grade A.P.T. III (salary £450-£495). It would be an advantage for applicants to have had previous experience in Planning and/or Architecture, but this is not essential; the important requirement of the appointment is keenness and an intelligent approach to the planning problems of an area of high amenity value.

The appointment will be subject to the terms and conditions of service of the National Joint Council, the Local Government Superannuation Act, 1937, and to one month's notice on either side expiring at the end of a calendar month. The successful candidate must pass a medical examination.

Applicants should state whether they are married or single, and should give particulars of age, education, technical training, qualifications, present salary, present and previous appointments, and details of experience, in that order. Applications should be forwarded, together with a copy of one recent testimonial and the names of two referees, to R. H. Crompton, A.R.I.B.A., A.M.T.P.I., County Planning Officer, County Hall, Kendal, to reach him not later than 17th March, 1951.

K. S. HIMSWORTH,

Clerk of the County Council.
County Hall, Kendal.
24th February, 1951. 1989

MINISTRY OF WORKS.

There are vacancies in the Chief Architect's Division for ARCHITECTURAL ASSISTANTS and LEADING ARCHITECTURAL ASSISTANTS with recognised training and fair experience. Successful candidates will be employed in London and elsewhere on a wide variety of Public Buildings, including Atomic energy and other Research Establishments, Telephone Exchanges, and Housing.

Salary: Architectural Assistants, £300-£325 per annum; Leading Architectural Assistants, £500-£525 per annum. Starting pay will be assessed according to age, qualifications and experience. These rates are for London; a small deduction is made in the Provinces.

Although these are not established posts, some of them have long term possibilities, and competitions are held periodically to fill established vacancies.

Apply in writing, stating age, nationality, full details of experience and locality preferred, to Chief Architect, W.G.10/BC, Ministry of Works, Abell House, London, S.W.1, quoting reference W.G. 10/BC. 4926

BOROUGH OF WILLESDEN.
APPOINTMENT OF ARCHITECTURAL
ASSISTANT.

The Council invite applications for the appointment of an Architectural Assistant on the Permanent Staff of the Borough Engineer and Surveyor's Department.

The salary attaching to the post will be Administrative, Professional and Technical, Grade VI, of the National Whitley Council's Scale for the London Area, namely £595 per annum, rising by two annual increments of £20 per annum and one of £25 per annum to £660 per annum, plus London weighting of £30 per annum.

Candidates must be Associates of the Royal Institute of British Architects or hold an equivalent qualification, and preferably have general knowledge and experience of architectural work in the service of a local authority.

The appointment will be terminable by one month's notice on either side, is subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidate will be required to pass a medical examination.

Applications, giving age, experience, etc., accompanied by copies of not more than three testimonials, should be addressed to the undersigned, endorsed "Architectural Assistant," not later than 10 a.m. on Monday, the 19th March, 1951.

It will be necessary for the successful candidate to provide his own housing accommodation as the Council is not in a position to assist.

Canvassing, either directly or indirectly, will be deemed a disqualification.

(Sgd.) R. S. FORSTER.

Town Clerk.
Town Hall, Dyne Road, Kilburn, N.W.6. 1959
7th February, 1951.

PROFESSIONAL POSTS IN GOVERNMENT
DEPARTMENTS.

The Civil Service Commissioners invite applications for permanent appointments to the basic (Assistant) grade of Architect, Maintenance Surveyor, Quantity Surveyor, Estate Surveyor, Civil Engineer, Sanitary Engineer, Structural Engineer, Lands Officer in a number of Departments in England and Scotland. Applications will be accepted at any time up to and including 31st December, 1951. Selected candidates will be interviewed as soon as possible after the receipt of their application forms. Successful candidates may expect early appointments. Candidates are advised to apply as early as possible.

All candidates must be at least 25 and under 35 years of age on 1st January, 1951, with extension for regular service in H.M. Forces, and up to two years for permanent Civil Servants. All candidates must have the appropriate professional qualifications and experience.

The London salary scale for men aged 30 and over is £600+£25-£750. Lower starting salary for younger entrants (from £475 at age 25). (The next higher grades are:—Main Grade, £750+£25-£1,000, Senior Grade £1,050+£35-£1,270.)

Salaries for women and for officers appointed to the provinces will be somewhat lower.

Forms of application and copies of the regulations with full details of qualifications required from the Civil Service Commission, Scientific Branch, Trinidad House, Old Burlington Street, London, W.1, quoting No. 3406TA.

Completed application forms should be returned as soon as possible. 1971

HORNCHURCH URBAN DISTRICT COUNCIL.
ENGINEER AND SURVEYOR'S
DEPARTMENT.

Applications are invited for the under-mentioned appointments:—

(a) ARCHITECTURAL ASSISTANT, Grade A.P.T. IV (£480+£15 to £525 per annum).

(b) TOWN PLANNING ASSISTANT, Grade A.P.T. II (£420+£15 to £465 per annum).

Particulars of the appointments and forms of application can be obtained from the undersigned, by whom applications in envelopes endorsed "Architectural Assistant" or "Town Planning Assistant" must be received not later than Monday, the 12th March, 1951.

The Council are not prepared to assist in the provision of housing accommodation.

P. L. COX,

Clerk of the Council.
Council Offices, Hornchurch.
February, 1951. 1972

BOROUGH OF WIMBLEDON.

ARCHITECTURAL ASSISTANT.

Applications are invited for the appointment of a Junior Architectural Assistant, on Grade A.P.T. II, on the established staff of the Borough Engineer and Surveyor's Department. Commencing salary is £420 per annum, rising by three annual increments of £15 to a maximum of £465. London weighting is paid in addition to the salary. Applicants should have passed the R.I.B.A. Intermediate Examination or its equivalent at one of the recognised Schools of Architecture.

The appointment is in accordance with the National Scheme of Conditions of Service and is subject to the provisions of the Local Government Superannuation Acts and to satisfactory medical examination. Applications, endorsed "Junior Architectural Assistant, II," stating age, qualifications, former local government service, present and previous appointments and experience, length of notice required to terminate present appointment, and the names and addresses of three persons as referees, must be forwarded to the Borough Engineer and Surveyor by 12th March, 1951.

Candidates must disclose in writing to the undersigned if to their knowledge they are related to any member or senior officer of the Council.

Canvassing, directly or indirectly, will disqualify.

EDWIN M. NEAVE.

Town Clerk.
Town Hall, Wimbledon, S.W.19. 1957

NATIONAL COAL BOARD (SCOTTISH
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Vacancies exist in Edinburgh for qualified and unqualified Architectural Staff. There are exceptional opportunities for gaining experience in a wide field of contemporary design and construction, as well as building administration. Details of the vacancies are given hereunder. The point of entry into the relevant salary scales will depend on the qualifications and experience of the successful applicants.

Applications, giving full details of age, qualifications, experience (in chronological order), present post and salary, should be forwarded to the Establishments Officer, 1, Eglinton Crescent, Edinburgh, within 7 days.

ARCHITECT, Grade I. Salary scale, £700+£25 to £875. Required qualification: A.R.I.B.A.

ARCHITECT, Grade II. Salary scale, £450+£25 to £700. Required qualification: A.R.I.B.A.

ARCHITECTURAL ASSISTANT, Grade I. Salary scale, £410+£20 to £550.

ARCHITECTURAL ASSISTANT, Grade II. Salary scale, £300+£20-£440.

Candidates for the Assistants' posts should have passed, or be working, for the Inter. R.I.B.A. Examination, and have some office experience. 1936

METROPOLITAN BOROUGH OF DEPTFORD.
BOROUGH ENGINEER AND SURVEYOR'S
DEPARTMENT.APPOINTMENT OF ARCHITECTURAL
ASSISTANT.

Applications are invited for the permanent appointment of Architectural Assistant in Grade VI of the A.P.T. Division of the National Scales of salary, viz., £595+£20/£25-£660 per annum, plus £20 London "weighting" under 26 years of age, and £30 at 26 years and over.

Candidates should be Associates of the R.I.B.A. or of the R.I.C.S., or hold an equivalent qualification. Previous experience in Municipal work and in design and construction is desirable.

The appointment will be subject to the Council's Superannuation Acts, the National Scheme of Conditions of Service, and the passing of a satisfactory medical examination; and candidates must state in writing whether to their knowledge they are related to any member of the Council or other holder of any senior office under the Council. Applications, giving age, experience and qualifications, accompanied by not more than three recent testimonials, must be received by me not later than Monday, 5th March, 1951.

Canvassing, either directly or indirectly, will be a disqualification.

ERNEST FIELD.

Town Clerk.
Deptford Town Hall, New Cross, S.E.14. 1960

BRITISH ELECTRICITY AUTHORITY.

EASTERN DIVISION.

Applications are invited for the following posts in the Generation Construction Department at Divisional Headquarters in North London:—

(a) ASSISTANT ARCHITECT.

Salary within the range of £630-£735 per annum (which includes London allowance).

(b) ARCHITECTURAL ASSISTANT.

Salary within the range of £525-£630 per annum (which includes London allowance).

The initial salaries for these posts will depend upon experience and qualifications. The salaries are provisional and will be subject to negotiation through the medium of the appropriate negotiating body.

Applicants should have had experience in the design and alteration of industrial buildings.

The appointments will be Superannuable in accordance with the British Electricity Authority and Area Board Superannuation Scheme.

Applications, stating age, experience, present position, and salary required, and endorsed with the appointment sought, should be submitted to arrive not later than 10th March, 1951, to the Divisional Controller, British Electricity Authority, Eastern Division, Northmet House, Southgate, N.14.

W. N. C. CLINCH,

Controller.
Northmet House, Southgate, N.14. 1964

CITY OF NOTTINGHAM. HOUSING ARCHITECT'S DEPARTMENT. ASSISTANT ARCHITECT.

Applications are invited from Registered Architects, preferably with experience of large-scale housing work, for the appointment of Assistant Architect, in A.P.T. Division, Grade VI (£595 to £620).

The appointment is in accordance with the National Joint Council's Scheme of Conditions of Service, and subject to the Local Government Superannuation Act, 1937.

The successful candidate will be required to pass a medical examination.

Applications, giving details of age, training, qualifications, experience and present appointment, together with the names and addresses of two persons to whom reference can be made, should be forwarded to C. A. Pilkington, L.R.I.B.A., City Housing Architect, The Guildhall, Nottingham, not later than Friday, 16th March, 1951.

T. J. OWEN,
Town Clerk.

The Guildhall, Nottingham. 1952

METROPOLITAN BOROUGH OF PADDINGTON. HOUSING DEPARTMENT, ARCHITECTURAL SECTION. APPOINTMENT OF SURVEYING ASSISTANT (ESTIMATING).

(A.P.T., III and IV, £450-£525 p.a., plus London weighting.)

Applications are invited for this appointment, which is subject to the National Joint Council's Service Conditions, the Council's Superannuation Acts, and to one month's notice on either side; commencing salary within grades according to experience and qualifications of successful candidate.

Candidates should have experience in all branches of building work, particularly the preparation of estimates and specifications for alterations to and maintenance of housing property and public buildings, the supervision of contract work, and the preparation of final accounts. Preference will be given to candidates who have passed or are in an advanced stage of preparation for the Intermediate Examination of the Royal Institution of Chartered Surveyors (Building or Quantities Sub-Division).

Candidates must state age, qualifications, present and past appointments, with dates and salaries, experience, and names of three referees. Applications must be received not later than noon on Wednesday, 14th March, 1951.

W. H. BENTLEY,
Town Clerk.

Town Hall, Paddington, W.2. 1950
23rd February, 1951.

CITY OF COVENTRY. ARCHITECTURAL AND PLANNING DEPARTMENT.

Applications are invited for the following appointments:—

- (a) ONE HEATING AND VENTILATING ENGINEER, Grade A.P.T. VII.
- (b) ONE HEATING AND VENTILATING ENGINEER, A.P.T. VI.

Applicants should be Graduate Members of the Institute of Heating and Ventilating Engineers, and be experienced in the design, preparation of drawings and specifications for all classes of heating, hot and cold water supplies, and ventilation equipment of buildings.

All employees are expected to belong to an appropriate organisation as referred to in Paragraph 44 of the "Charter."

Forms of application may be obtained from the undersigned and should be returned by 22nd March, 1951.

DONALD GIBSON,
City Architect and Planning Officer.

1a, Warwick Row, Coventry. 1934
14th February, 1951.

HARROW URBAN DISTRICT COUNCIL. ENGINEER AND SURVEYOR'S DEPARTMENT.

ARCHITECTURAL STAFF.

Applications are invited for the under-mentioned appointments in the Department of the Engineer and Surveyor:—

- (1) ARCHITECTURAL ASSISTANT, Grade A.P.T., IV. Salary, scale £480 to £525, plus London weighting.

Applicants should have office experience, and preference will be given to those holding recognised professional qualifications. Duties will include the preparation of sketch designs, working drawings, and specifications and supervision of work under construction.

- (2) ARCHITECTURAL ASSISTANTS (TWO). Grades A.P.T., I/II. Salary scale £390 to £465, plus London weighting.

Applicants should be students of the Royal Institute of British Architects or equivalent standard, and must be neat and expeditious draughtsmen.

The Council is unable to offer any assistance in obtaining housing accommodation.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937; to the passing of a medical examination, and to the National Joint Council's Scheme of Conditions of Service.

Forms of application may be obtained from the undersigned, to whom they should be returned not later than 10 a.m. Wednesday, 21st March, 1951.

Canvassing will be a disqualification.

H. WELLS,
Clerk of the Council.

Council Offices,
Harrow Weald Lodge, Harrow. 1956

COUNTY BOROUGH OF BURTON-UPON- TRENT.

Applications are invited for the appointment in the Architectural Office of the Borough Surveyor of an ARCHITECTURAL ASSISTANT, in Grade VI of the A.P.T. Division (£595-£660).

Preference will be given to candidates who have passed the Final Examination or part of the Final Examination of the Royal Institute of British Architects.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937, to determination by one month's written notice on either side, and to the successful candidate passing a medical examination by the Medical Officer of Health.

A Corporation house will be made available if required.

Applications in sealed envelopes, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, must be delivered to the Borough Surveyor, Town Hall, Burton-upon-Trent, not later than 10 a.m. on Wednesday, 21st March, 1951.

H. BAILEY CHAPMAN,
Town Clerk.

Town Hall, Burton-upon-Trent. 1968
20th February, 1951.

NIGERIAN COLLEGE OF ARTS, SCIENCE AND TECHNOLOGY.

A vacancy exists for a LECTURER IN ARCHITECTURE, required in the early stages to design College buildings and assist in the supervision of building contractors. Teaching duties, developing as buildings are completed, will include instruction of Architectural Assistants, and of students in the Civil Engineering Department proceeding to A.M.I.C.E. examinations.

Candidates should have A.R.I.B.A. or comparable qualification. Experience as design architect, resident architect or clerk of works desirable. Teaching experience in a Technical College or University Department would be valuable.

Salary in scale £660-£1,300 per annum (including expatriation pay of £150-£300 per annum), point of entry according to relevant experience. A temporary non-pensionable cost-of-living allowance of 10 per cent. of basic salary is also payable. Appointment will be pensionable if confirmed after probationary period of three years. Alternatively contract appointment (non-pensionable but gratuity-earning) at higher emoluments could be made. Quarters at low rental. Free first-class passages for person appointed and wife on first appointment and on leave. Either allowance or passage allowance for children under 15 up to two in number. Income tax at local rates much lower than those in the United Kingdom. Generous home leave on full pay.

Applications should be made by letter, stating age, whether married, full particulars of education, qualifications and experience, and the names of three referees, to the Secretary, Advisory Committee on Colonial Colleges of Arts, Science and Technology, 15, Victoria Street, S.W.1, from whom further information may be obtained if required. Testimonials (not more than three) may be enclosed. Applications must be submitted by 15th March, 1951.

CUMBERLAND COUNTY COUNCIL.

Applications are invited for the following appointments on the permanent establishment of the Architects' Department:—

- (a) ARCHITECTURAL ASSISTANTS, Grade IV, A.P.T. Division (£480-£525).

(b) JUNIOR ARCHITECTURAL ASSISTANTS, Grade III, A.P.T. Division (£450-£495). Applicants for post (a) should have passed or attained the equivalent standard of the R.I.B.A. Final Examination and applicants for post (b) should have passed or be preparing to take the R.I.B.A. Intermediate Examination.

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

Applications on forms obtainable from John H. Haughan, F.R.I.B.A., County Architect, 15, Portland Square, Carlisle, should be received by him not later than Thursday, 22nd March, 1951, together with copies of three recent testimonials.

G. N. C. SWIFT,
Clerk of the County Council.

February, 1951. 1965

BRITISH ELECTRICITY AUTHORITY. MIDLANDS DIVISION.

Applications are invited for positions as ARCHITECTURAL and BUILDING DRAUGHTSMEN in the Drawing Office of the Chief Generation Engineer (Construction) at Wolverhampton.

Candidates should have wide experience in the preparation of working drawings relating to power stations and other buildings. The possession of an architectural degree or recognised qualification will be considered an advantage. The salary range, which is provisional and subject to negotiation with the appropriate organisation, will be £500-£600 per annum.

Conditions of service and superannuation will be as approved by the British Electricity Authority.

Applications should be made on forms which may be obtained from the Establishments Officer, 53, Wake Green Road, Moseley, Birmingham, 13, and should be returned not later than 10th March, 1951.

F. W. LAWTON,
Divisional Controller.

1974

BUCKS COUNTY COUNCIL.

Applications are invited from QUALIFIED ARCHITECTS for vacancies in the under-mentioned grades on the staff of the County Architect:—

- Grade X (£850-£1,000 p.a.).
- Grade IX (£750-£900 p.a.).
- Grade VIII (£685-£760 p.a.).
- Grade VII (£635-£710 p.a.).
- Grade VI (£595-£660 p.a.).

The posts offer scope for initiative and enthusiasm. Applicants should preferably have been trained at a recognised School of Architecture, and for the two Grade X appointments must have considerable experience and be able to administer a section of the department as Principal Assistant.

The appointments are superannuable and subject to medical examination.

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

Further particulars and form of application may be obtained from the County Architect, County Offices, Aylesbury, to whom applications must be delivered by 15th March, 1951.

GUY R. CROUCH,
Clerk of the Council.

County Hall, Aylesbury. 1964
February, 1951.

CITY OF NORWICH.

CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the appointment on the permanent staff of an ARCHITECTURAL ASSISTANT in Grade IV of A.P.T. Division (£480 × 215 to £525 per annum). Candidates to have good general architectural training and experience, and should have passed the Intermediate Examination or its equivalent.

The appointment will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination.

Housing accommodation can, in certain circumstances, be made available.

Candidates who, to their knowledge, are related to any member or officer of the Council shall, when making application for the appointment, disclose the relationship in writing to the Town Clerk. A candidate who fails to do so shall be disqualified for the appointment and, if appointed, shall be liable to dismissal without notice.

Canvassing of members of the Council or of any Committee, directly or indirectly, shall disqualify a candidate for the appointment.

Applications, stating age, training, experience, qualifications and other relative information, together with copies of three recent testimonials, must be received by the City Architect, City Hall, Norwich, not later than 5 p.m. on Wednesday, 14th March, 1951.

MUNICIPAL COUNCIL OF DAR-ES-SALAAM. APPOINTMENT OF ARCHITECTURAL AND PLANNING ASSISTANT.

Applications are invited for the following appointment in the Municipal Engineer's Department:—

Architectural and Planning Assistant, within the salary grade £240, rising by annual increments of £30 to a maximum of £1,020 per annum.

The commencing salary will be determined according to experience and qualification of the successful applicant.

Applicants should have Architectural and Planning qualifications.

Conditions of service include Provident Fund, six months' home leave on full salary after three years' service, free passage for officer and wife with assistance towards the cost of children's passages, and free medical treatment. The Council will assist the successful applicant to obtain housing accommodation. When accommodation is provided a rent deduction of 10 per cent. of gross salary is made.

Applications, stating age, whether married or single, full particulars of qualifications and experience, and giving the names and addresses of two referees, should be forwarded by air mail to the undersigned, from whom further details regarding local conditions, etc., may be obtained.

C. W. BAXTER,
Town Clerk.

Town Hall, Dar-es-Salaam, Tanganyika. 1973
10th February, 1951.

WIGAN EDUCATION COMMITTEE. SECONDARY TECHNICAL SCHOOL. CLERK OF WORKS.

Applications are invited for the post of Clerk of Works for the Secondary Technical School and Branch College of Further Education to be erected on the Rectory Glebe site, Wigan.

Salary will be £12 per week. Applicants should be experienced in the erection of large public buildings of modern construction, and should have a knowledge of precast and prestressed concrete work and piling. Applicants should also have a knowledge of the installation of engineering services and be able to keep records of foundation work, drainage, and other work below ground.

Further details regarding this appointment and conditions of service can be obtained from the undersigned. Completed applications should be returned as quickly as possible, and in any case not later than 14 days after the appearance of this advertisement in this journal.

REESE EDWARDS,
Director of Education.

Education Offices, Town Hall, Wigan. 1949
13th February, 1951.

**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 A.P.T. Grade IV (£480-£525) per annum. Applicants should hold suitable qualifications and have had some experience in housing.

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

Applications, stating age, qualifications, experience, etc., together with copies of two recent testimonials, should be sent to the undersigned in envelopes endorsed "Architectural Assistant," so as to be received not later than Saturday, 17th March, 1951.

Canvassing, disqualifies, and applicants must state whether to their knowledge they are related to any member or senior officer of the Council.

C. A. CROSS,
Town Clerk.

Town Hall, Prestwich, Lancs.
February, 1951.

**EASTERN REGIONAL HOSPITAL BOARD,
SCOTLAND.**

ARCHITECT'S DEPARTMENT.
Applications are invited for the following permanent superannuable appointments:—

(a) ARCHITECTURAL ASSISTANT. A.P.T., Grade VI, £595-£660.

(b) ARCHITECTURAL ASSISTANT. A.P.T., Grade III, £450-£495.

(c) QUANTITY SURVEYOR. A.P.T., Grade V, £520-£570.

Applications, stating age, qualifications, experience, past and present appointments and the names and addresses of three referees, should be sent not later than Monday, 12th March, 1951, to the Secretary, Eastern Regional Hospital Board, 430, Blackness Road, Dundee, from whom further particulars may be obtained.
19th February, 1951.

**EAST SUFFOLK COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.**

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

Grade "A" ASSISTANT ARCHITECT. A.P.T., Grade VII. Consolidated salary £635-£710 per annum.

The commencing salary in this grade will be fixed according to the qualifications and experience.

Applicants must be Members of the R.I.B.A., quick and accurate draughtsmen capable of carrying a job through in all its stages, including sketch plans, working drawings, supervision of work in progress, as well as the administration work in connection therewith. They should have a sound knowledge of design and building construction, and should be capable of writing specifications. Office experience after school training or articles is essential. The work to be dealt with is that normally carried out by a Local Authority.

The appointment will be subject to one month's notice on either side and to the provisions of the Local Government Superannuation Act, 1937. The successful applicant will be required to pass a medical examination.

Applications, stating age, qualifications, and full details of previous experience, accompanied by copies of three recent testimonials, should be sent to E. J. Symcox, F.R.I.B.A., County Architect, County Hall, Ipswich, not later than 16th March, 1951.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration.

G. C. LIGHTFOOT,
Clerk of the Council.

**COUNTY BOROUGH OF GREAT YARMOUTH
EDUCATION COMMITTEE.**

**APPOINTMENT OF TWO CLERKS OF
WORKS.**

Applications are invited for the appointment of Two Clerks of Works, to supervise the erection of the new Secondary Technical School and the erection of the "Beccles Road" Secondary Modern Girls' School.

The appointments will be temporary for approximately 2½ years in the case of the first and 2 years in the case of the second, and subject to one month's notice on either side.

The salary will be £12 per week. Applicants must have a thorough knowledge of the building trade, including experience in connection with steel framed buildings, they must be conversant with plans, specifications, bills of quantities, and competent to set out work, give levels, and keep all necessary records and progress reports.

Applications, stating age, qualifications, present employment and previous experience, accompanied by copies of three testimonials, should be enclosed in an envelope endorsed "Clerk of Works, Schools," and must be received by me not later than Monday, 26th March.

Canvassing, directly or indirectly, will be deemed a disqualification, and candidates must disclose in writing whether, to their knowledge, they are related to any member or holder of any senior office under the Council. Candidates who fail to do so will be disqualified and if appointed will be liable to dismissal without notice.

D. G. FARROW,
Fellow Education Officer.

22nd February, 1951.

**COUNTY COUNCIL OF THE WEST RIDING
OR YORKSHIRE.**

COUNTY PLANNING DEPARTMENT.

Applications are invited for the following appointments to the permanent staff of the County Planning Department, in each case at a commencing salary within the scale applicable to the post according to the experience and qualifications of the successful candidates:—

(a) ASSISTANT AREA PLANNING OFFICER, at the Doncaster Area Office of the Department. (Salary scale, £760-£850-£910.)

(b) CHIEF PLANNING ASSISTANT, at the Head Office of the Department at Wakefield. (Salary scale, £685-£725-£760.)

(c) SENIOR PLANNING ASSISTANTS, at the Huddersfield and Harrogate Area Offices of the Department. (Salary scale, £595-£625-£710.)

Candidates for post (a) must be Corporate Members of the Town Planning Institute or possess a recognised qualification in Civil Engineering, Surveying or Architecture. They must have an extensive knowledge of current planning practice and legislation, and have had considerable experience in a responsible position of the working and administration of a planning office.

Candidates for post (b) should be Corporate Members of the Town Planning Institute or possess a recognised qualification in Civil Engineering, Surveying or Architecture, and should have had considerable experience in an executive position in town and country planning, and particularly in the preparation of Development Plans, and should possess a thorough knowledge of the 1947 Act and associated Regulations.

Candidates for posts (c) should be Corporate Members of the Town Planning Institute or possess a recognised qualification in Civil Engineering, Surveying or Architecture, and should have had considerable experience in planning and have held, in a planning office, a position carrying responsibility.

The appointments will be subject to the provisions of the Local Government Superannuation Act, 1937, as amended by the West Riding County Council (General Powers) Act, 1948, and the successful applicants will be required to pass a medical examination.

Applications, stating age, qualifications and experience, should be accompanied by copies of two recent testimonials, or should give the names and addresses of two referees, and must reach the undersigned not later than 17th March, 1951.

ARTHUR BATES,
County Planning Officer.

County Planning Department,
7, Bond Street, Wakefield. 1950

**COUNTY BOROUGH OF CARLISLE.
CITY ENGINEER'S DEPARTMENT.**

Applications are invited for the appointment of an ASSISTANT QUANTITY SURVEYOR, Grade A.P.T. VI (£595-£660).

Applicants for the appointment should be Corporate Members of the Royal Institution of Chartered Surveyors (Quantities Division), and should have experience in the preparation of Bills of Quantities, Estimates, measuring up and settlement of Final Accounts.

Housing accommodation will be provided for the successful applicant, if required.

Forms of application and conditions of employment may be obtained from the City Engineer, 19, Fisher Street, Carlisle, to whom all applications should be returned not later than Saturday, 17th March, 1951.

H. D. A. ROBERTSON,
Town Clerk.

The Town Clerk's Office,
15, Fisher Street, Carlisle. 1970

COUNTY BOROUGH OF BURNLEY.

Applications are invited for the under-mentioned appointments in the office of the Borough Engineer and Surveyor:—

(a) SENIOR ARCHITECTURAL ASSISTANT. Grade V (£520-£570 per annum).

(b) ARCHITECTURAL ASSISTANT. Grade III (£450-£495 per annum).

(c) TEMPORARY CLERK OF WORKS (Building Works). Miscellaneous Division, Grade V (£405-£465 per annum).

Applicants should have had experience in a similar capacity, and preference will be given to candidates holding recognised qualifications.

Forms of application may be obtained from the Borough Engineer and Surveyor, 22-24, Nicholas Street, Burnley, to whom applications should be returned not later than Friday, the 16th March, 1951.

C. V. THORNEY,
Town Clerk.

ARCHITECTURAL ASSISTANTS.

Applications are invited for posts of Architectural Assistants in the Housing Department of a Local Authority in the West of Scotland on the following salary scales:—

A.P.T., Grade V(a), £550-£610.

A.P.T., Grade VI, £595-£660.

Applicants should have experience in the preparation of designs and working drawings for housing schemes. Administrative experience desirable but not essential.

The appointments will be subject to the provisions of the Local Government Superannuation (Scotland) Act, 1937, and successful applicants will require to pass a medical examination.

Applications, stating age, particulars of appointments, experience and qualifications, together with names and addresses of three referees, to Box 1952, Architects' Journal, not later than 8th March, 1951.

**HEREFORDSHIRE COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.**

Applications are invited for the appointment of a PLANNING ASSISTANT, Grade A.P.T. III, salary £450-£495 per annum, for work on the Development Plan and Survey.

The appointment will be subject to the provisions of the Local Government Superannuation Act, 1937. The successful candidate will be required to pass a medical examination.

Applications, stating age, qualifications and experience, should be submitted to the undersigned as soon as possible, together with the names and addresses of two referees.

A. R. DUNCAN,
County Planning Officer.

Chandos House, St. Owen Street, Hereford. 1948

COUNTY OF CORNWALL.

APPOINTMENT OF DRAUGHTSMEN.

Applications are invited for the under-mentioned appointments in the Headquarters Office of the County Planning Department of the above-named Authority:—

TWO DRAUGHTSMEN. Salary according to the Miscellaneous Division, Grade III-IV (£315-£420).

Candidates should be not less than 20 years of age. The successful candidates will be engaged one on the preparation of the Survey and the Development Plan and the other on work under the National Parks and Access to the Countryside Act, 1949. Applicants should be expert colourists and draughtsmen, with ability to prepare maps in colour and lettering to a high standard of presentation. These vacancies are of particular interest to those persons intending to make a career in Town and Country Planning, and every encouragement will be given by the County Council, including financial assistance, to candidates preparing for appropriate examination qualifications. The usual service conditions of the Local Government will apply.

Applications, together with the names of three persons to whom reference may be made, should be addressed to the County Planning Officer, County Hall, Truro, not later than the 17th March, 1951. No application forms are issued.

E. T. VERGER,
Clerk of the County Council.

County Hall, Truro. 1950

WILTSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the following superannuable appointments:—

(a) CHARTERED ARCHITECTURAL ASSISTANT. Salary £685, rising to £760 per annum.

(b) THREE ARCHITECTURAL ASSISTANTS (inter. R.I.B.A.). Salary £450, rising to £495 per annum.

Canvassing disqualifies. Forms of application obtainable from the undersigned, returnable by 15th March, 1951.

P. A. SELBORNE STRINGER,
Clerk of the Council.

County Hall, Trowbridge. 1954

WARWICKSHIRE COUNTY COUNCIL.

ARCHITECT'S DEPARTMENT.

Applications are invited for the under-mentioned appointments on the established staff:—

ASSISTANT ARCHITECTS: A.P.T. VI (£595-£660); A.P.T. V (£520-£570); A.P.T. IV (£480-£525).

QUANTITY SURVEYING ASSISTANT: A.P.T. V (£520-£570).

The appointments are subject to the provisions of the Local Government Superannuation Act, 1937, and the successful candidates will be required to pass a medical examination.

Application forms can be obtained from C. H. Elkins, F.R.I.B.A., A.R.I.C.S., Shire Hall, Warwick.

L. EDGAR STEPHENS,
Clerk of the Council.

Warwick. 1950

**GOVERNMENT OF NORTHERN IRELAND
MINISTRY OF EDUCATION.**

Applications are invited for an unestablished appointment in the Ministry of Education as QUANTITY SURVEYING ASSISTANT Grade A on the salary range £400-£600 per annum. The commencing salaries of selected candidates will be fixed according to experience within the range quoted.

QUALIFICATIONS. Candidates must possess either:—

(i) the National Building Certificate; or
(ii) The Licentiate Diploma of the Institute of Builders;

or proof of professional study to an equivalent standard. In addition they must have a wide experience of quantity surveying in a Quantity Surveyor's or Contractor's Office, Government Department or Local Authority.

Experience in the preparation of Bills of Quantities will be an advantage.

Preference will be given to suitably qualified persons who have served with H.M. Forces during the 1914-1918 or 1939-1945 Wars, provided the Ministry is satisfied that such candidates can or within a reasonable time will be able to discharge the duties efficiently.

CLOSING DATE:

Applications giving date of birth, full particulars of education, qualifications and experience and accompanied by copies of two recent testimonials should be sent to the Director of Establishments, Ministry of Finance, Stormont, so as to reach him not later than 20th March, 1951.

B.B.C. invites applications from Registered Architects for TWO ARCHITECTURAL POSTS IN BUILDING DEPARTMENT, London. Applicants should have sound knowledge of building construction and at least three years' experience in an office. Preference given to applicants trained in an architectural school. Salary in a scale with a maximum of £620 p.a. Applications, stating age, qualifications and experience, to reach Engineering Establishment Office, Broadcasting House, London, W.1. within 7 days. 1935

HAMPSHIRE COUNTY COUNCIL
COUNTY PLANNING DEPARTMENT
Applications are invited for the appointment of a TECHNICAL ASSISTANT on Grade III-IV of the National Scales (£450-£525) to work in the South-West Area Office of the County Planning Department at Lyndhurst. Candidates should have passed the Intermediate examination of the Town Planning Institute, and have had experience in the Planning Department of a Local Planning Authority. The appointment is pensionable and will be subject to a satisfactory medical report.

Officers using their own cars when travelling on County Council duties will receive travelling allowance on the County Scale for the time being in force.

No form of application is issued, but applications, stating age, education, qualifications and experience, together with a copy of one testimonial and the names and addresses of two persons to whom reference may be made should be sent to the County Planning Officer, Litton Lodge, Clifton Road, Winchester, not later than the 16th March, 1951.

G. A. WHEATLEY,
Clerk of the County Council.
The Castle, Winchester. 1998
February, 1951.

BOROUGH OF ILFORD
BOROUGH ENGINEER & SURVEYOR'S
DEPARTMENT
APPOINTMENT OF TWO TEMPORARY
CLERKS OF WORKS.

(a) NEW SCHOOLS

(b) ROAD AND DRAINAGE WORKS

Applications are invited for two positions as temporary Clerk of Works at a wage of £9 11s. 6d. per week inclusive.

Candidates for appointment (a) must have had considerable experience as clerk of works and have a sound knowledge of building construction. Experience of reinforced concrete steel framed and aluminium school buildings is essential.

Applicants for position (b) must have had considerable experience in the supervision of roads and sewer construction and be capable of measuring up for interim and final accounts.

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

Forms of application obtainable from the Borough Engineer and Surveyor, Town Hall, Ilford, should be returned to the undersigned not later than 10th March, 1951.

K. F. B. NICHOLLS,
Town Clerk. 1997
Town Hall, Ilford.
February, 1951.

Tenders for Contracts

6 lines or under, 12s. 6d.; each additional line, 2s.

PEMBROKESHIRE EDUCATION

COMMITTEE.

Building Contractors desirous of TENDERING for the ERECTION of both or either of the following Schools are requested to submit their applications to Walter Barrett, M.B.E., A.R.I.B.A., County Architect, County Offices, Haverfordwest, Pembrokeshire.

(a) PEMBROKE DOCK NEW GRAMMAR TECHNICAL SCHOOL (3 Form Entry). Applications by 14th March, 1951. Tenders due in 12th April, 1951.

(b) TAVERNSPITE NEW COUNTY PRIMARY SCHOOL (3 Class). Applications by 26th February, 1951. Tenders due in 12th March, 1951.

General Conditions of Contract and Bills of Quantities will be supplied on receipt of £5 ss. deposit, returnable upon receipt of a bona fide Tender or the return of all documents. Drawings, etc., can be inspected at the office of the County Architect during the usual working hours.

No Tender will be considered unless submitted in the endorsed envelope provided for the purpose, and the Committee does not bind itself to accept the lowest or any Tender received.

Contractors will be required to provide proof that they are in a position to provide the necessary labour to carry out the work.

D. T. JONES,
Chief Education Officer.
County Offices, Haverfordwest.
15th February, 1951. 1953

Partnership

6 lines or under, 12s. 6d.; each additional line, 2s.

CHARTERED ARCHITECT, with medium sized office in Midlands, industrial and school work, etc., in hand, requires ASSOCIATE, preferably A.M.T.P.I., for position leading to Partnership. Having contemporary ideas, able to introduce work. Box 1852.

YOUNG CHARTERED ARCHITECT, at present in private practice on own account, wishes to purchase Partnership in well-established Architect's practice in London with contemporary outlook. Box 1957.

CONSULTING ENGINEER (Heating, Mechanical, Electrical), small capital, own office, wishes Partnership or similar arrangement with Established Architects planning Engineering Installations Large Buildings, Factories, Schools, Hospitals, Laundries. Box 1988.

Architectural Appointments Vacant

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

FULLY qualified ARCHITECTURAL ASSISTANT required for West End office. Capable of handling contracts. State qualifications, experience, and salary required. Box 1506.

BRILLIANT CONTEMPORARY ARCHITECT, preferably A.R.I.B.A. and Competition winner, required by practising Architect, A.R.I.B.A., in Warwickshire, to help in competition work, evenings or daytime, by arrangement. Mutual financial agreement to full details. Box 1853.

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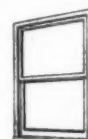


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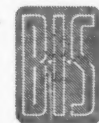
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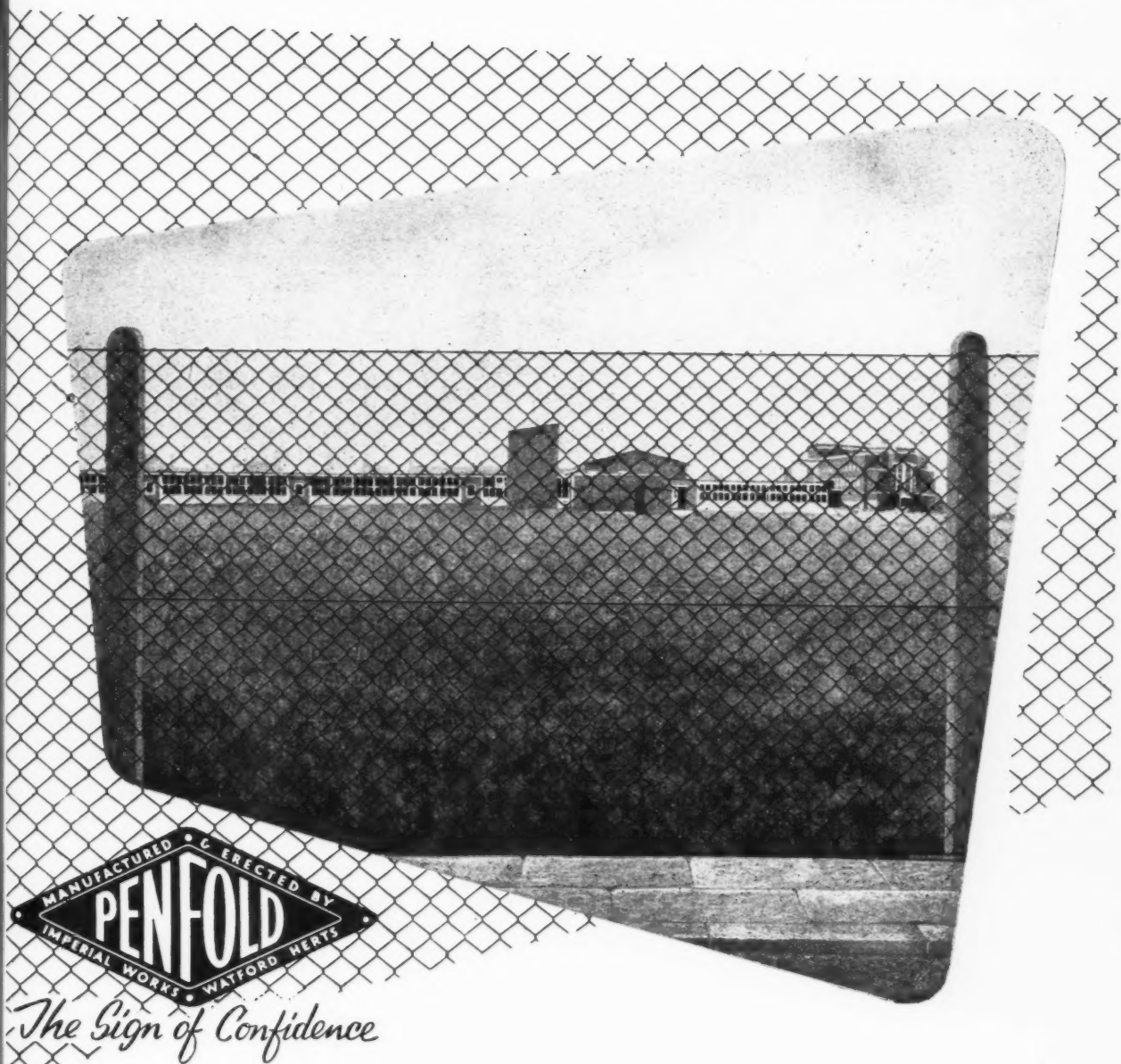
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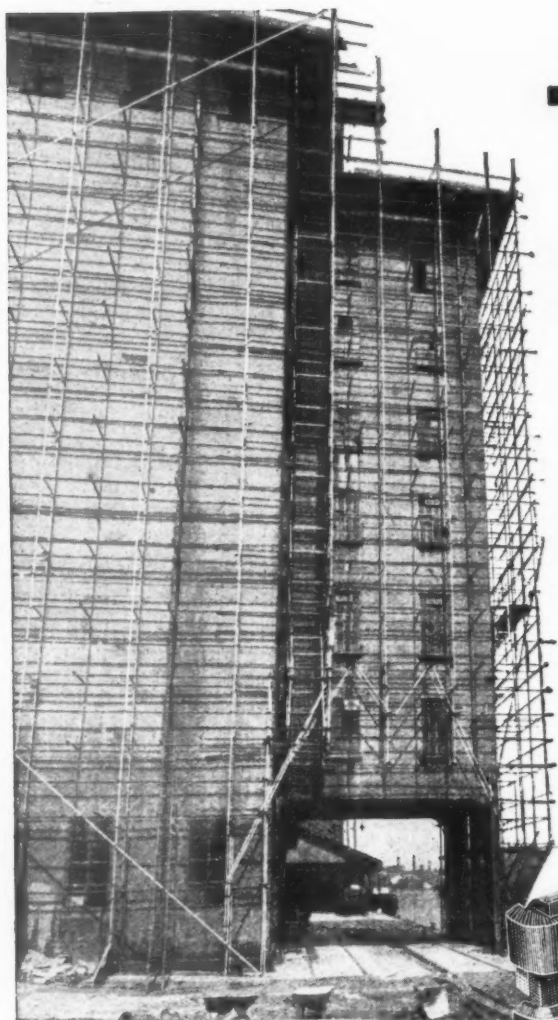
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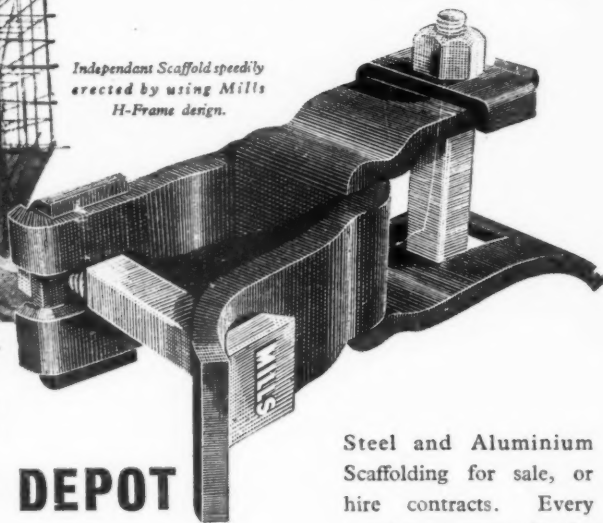


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