

# 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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Architectural Appointments  
Wanted and Vacant

No. 3021]

[VOL. 117

THE ARCHITECTURAL PRESS

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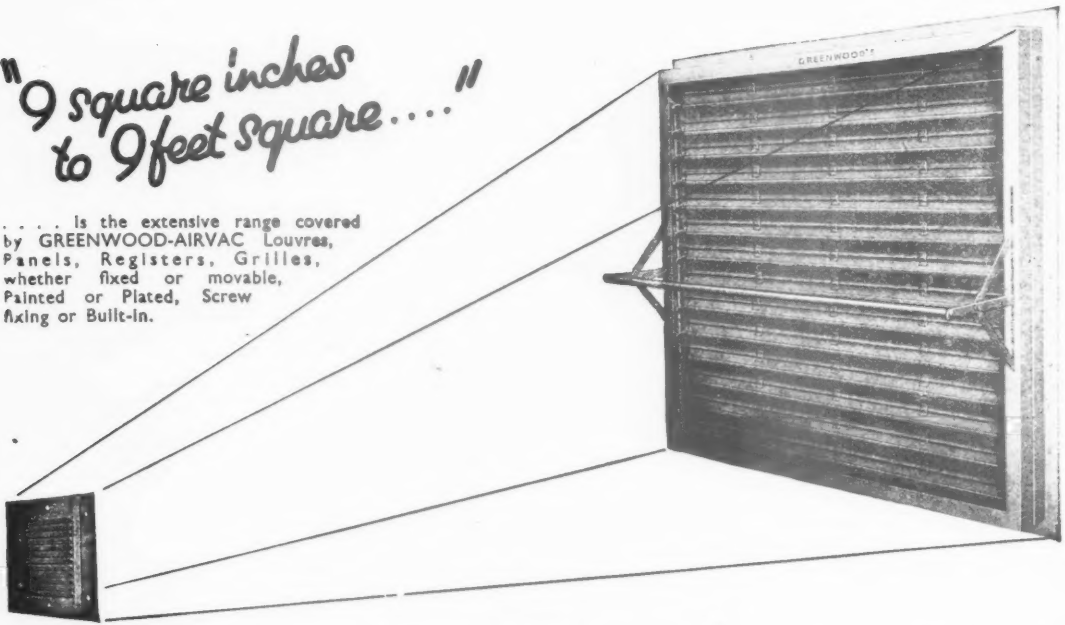
Registered as a Newspaper.

★ 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.

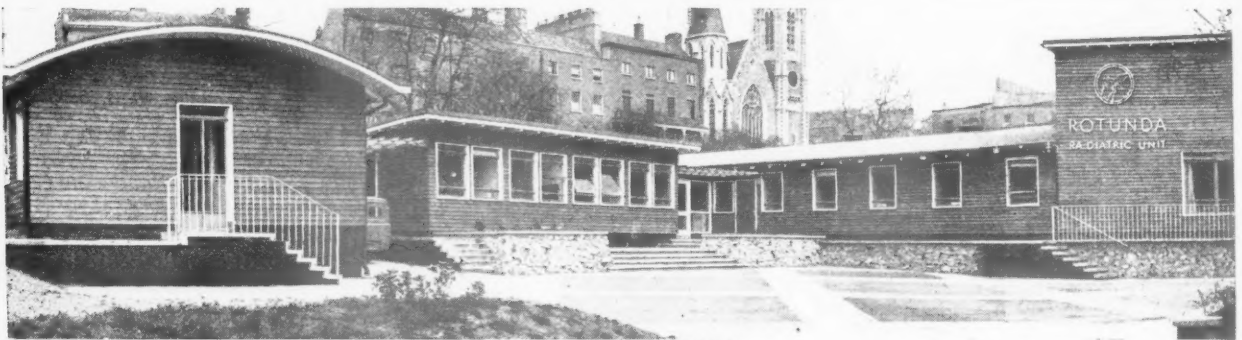
AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhamstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 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. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
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. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
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.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
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
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3. Mansion House 9383	
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 3333
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., Civic Centre, Newport, Mon. Newport 5491	
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. Kendalls Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
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
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1 Trafalgar 8855	
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, 5, Arundel Street, Strand. Temple Bar 6633	
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	
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	
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
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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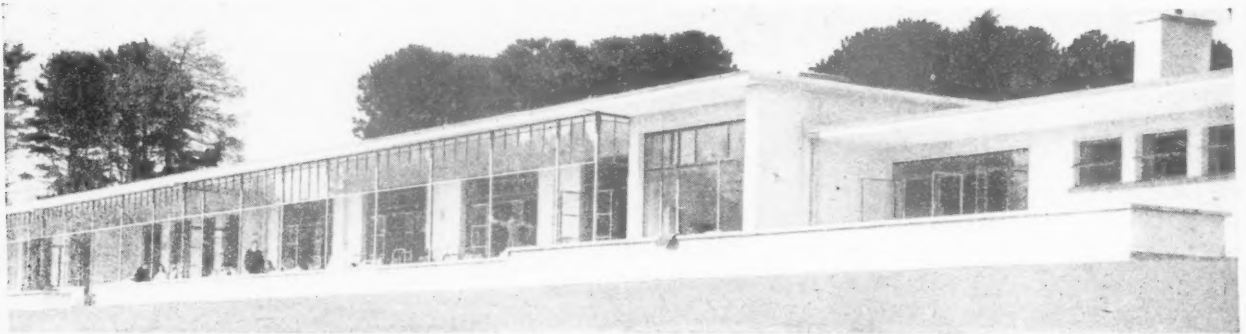
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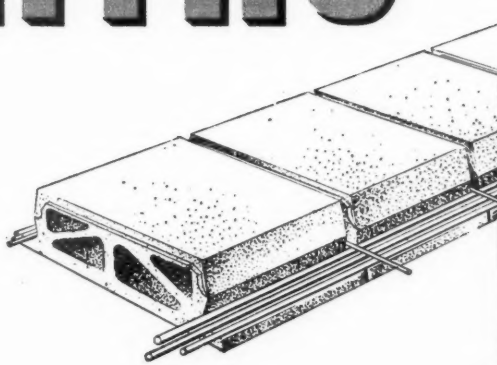


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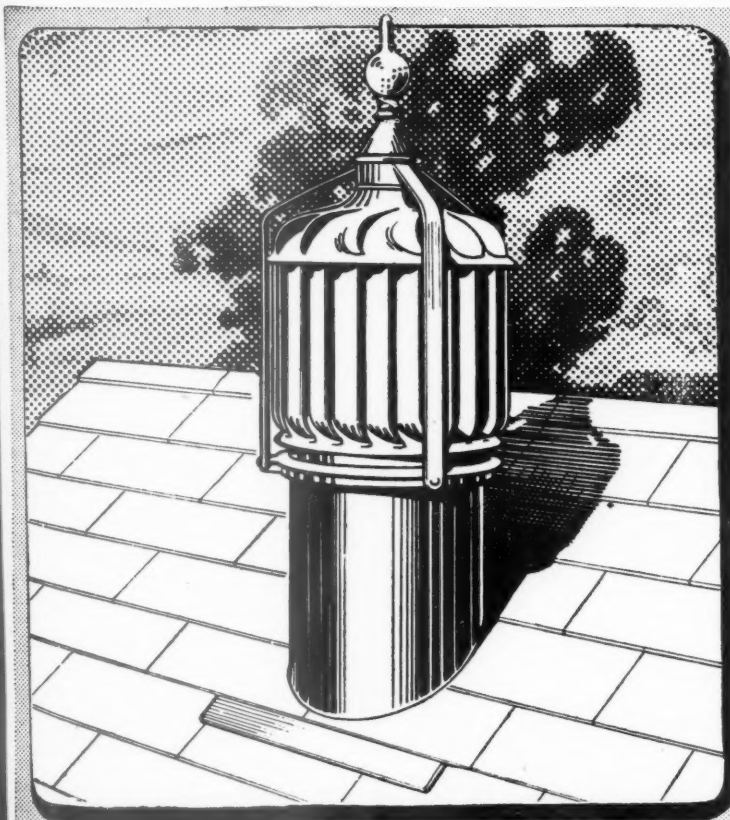
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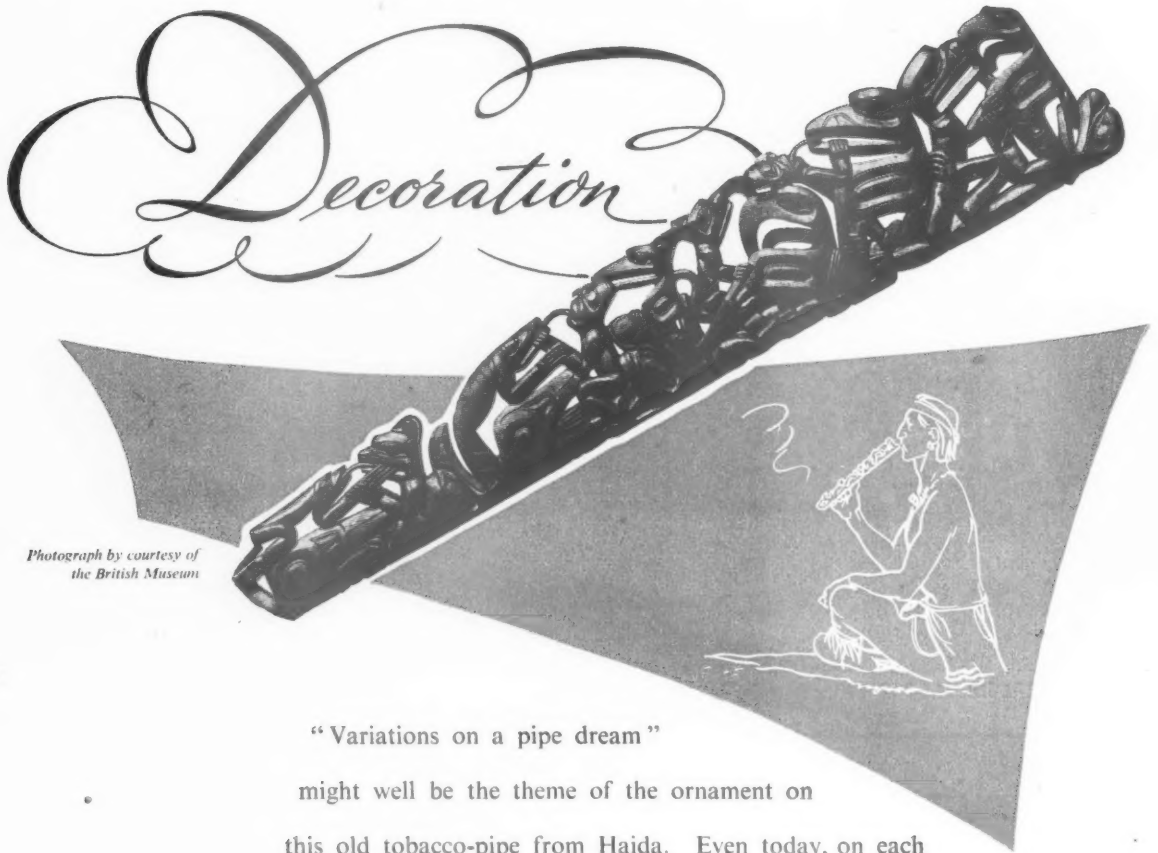
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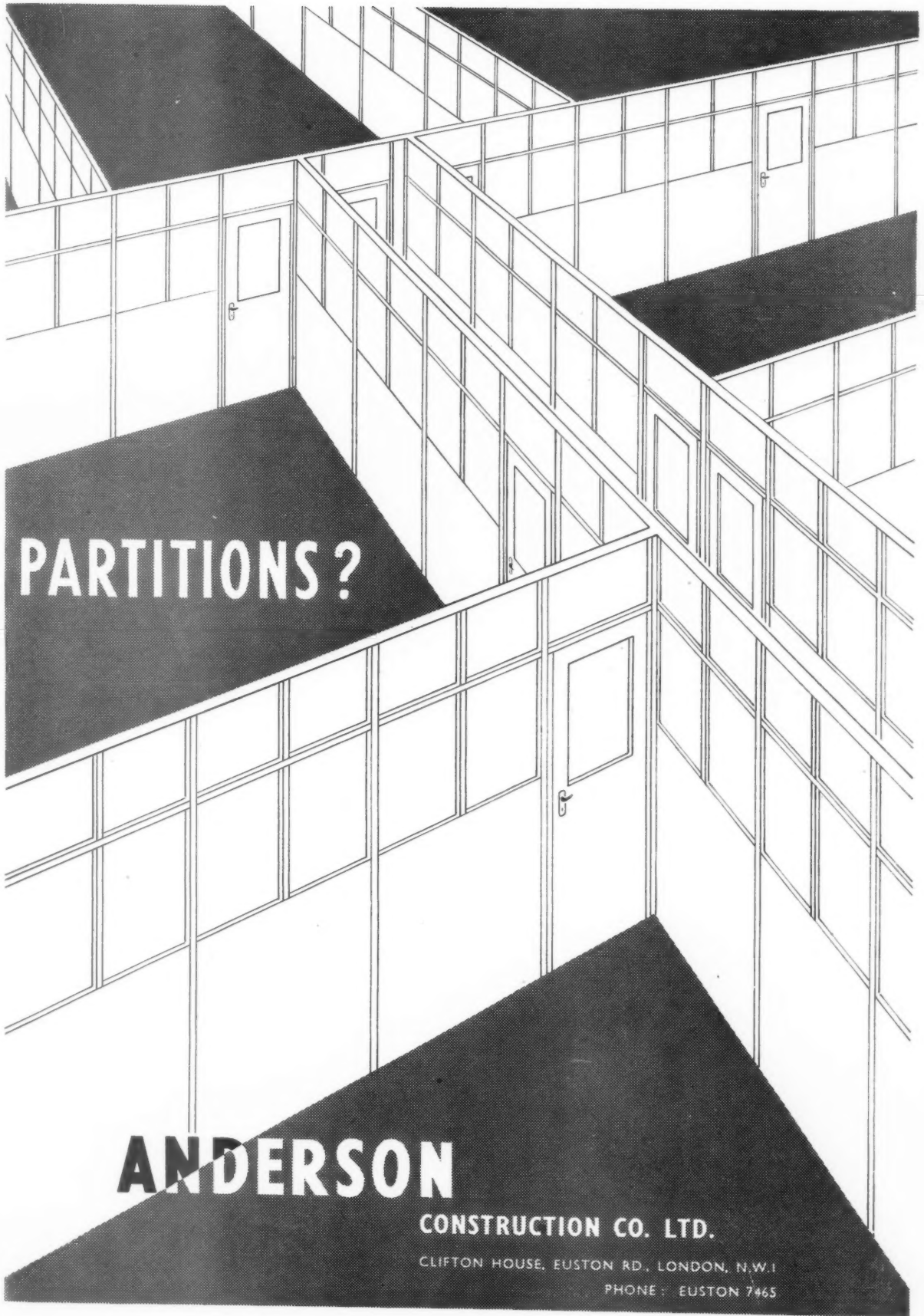
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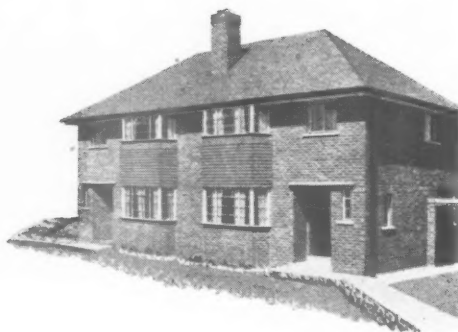
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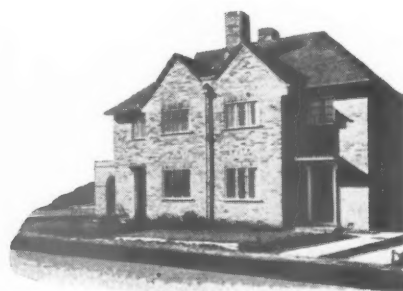
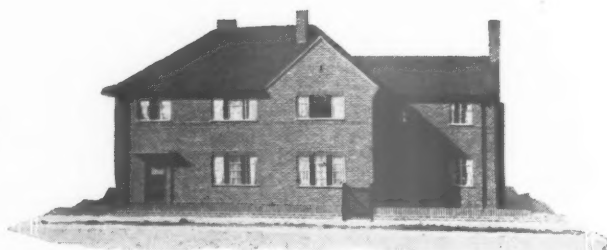
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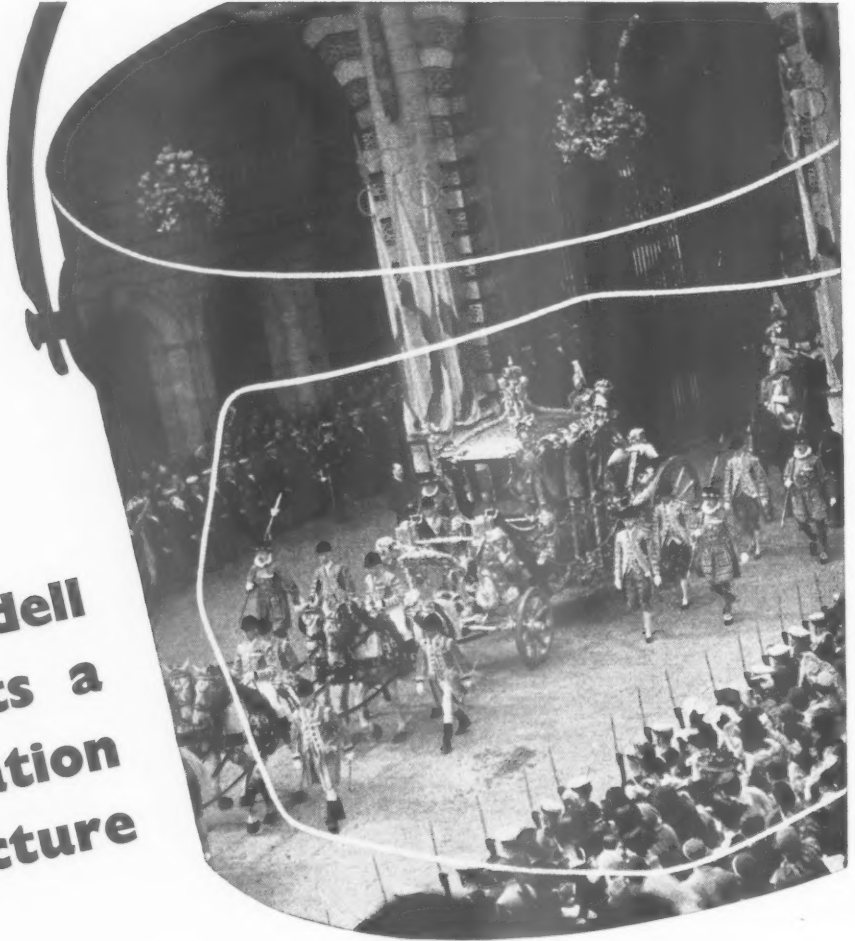
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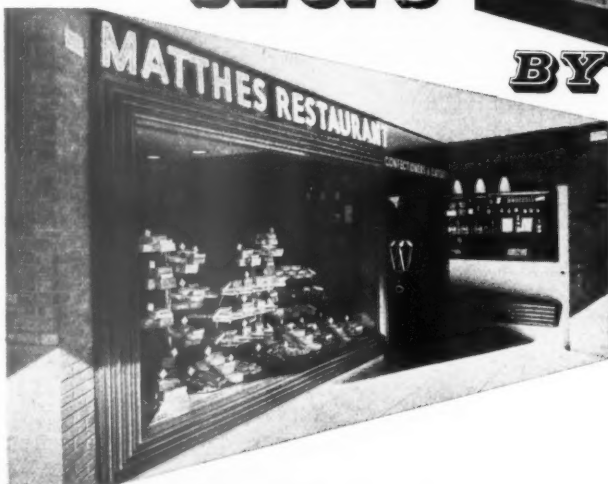


Architect:  
A. D. Cooke,  
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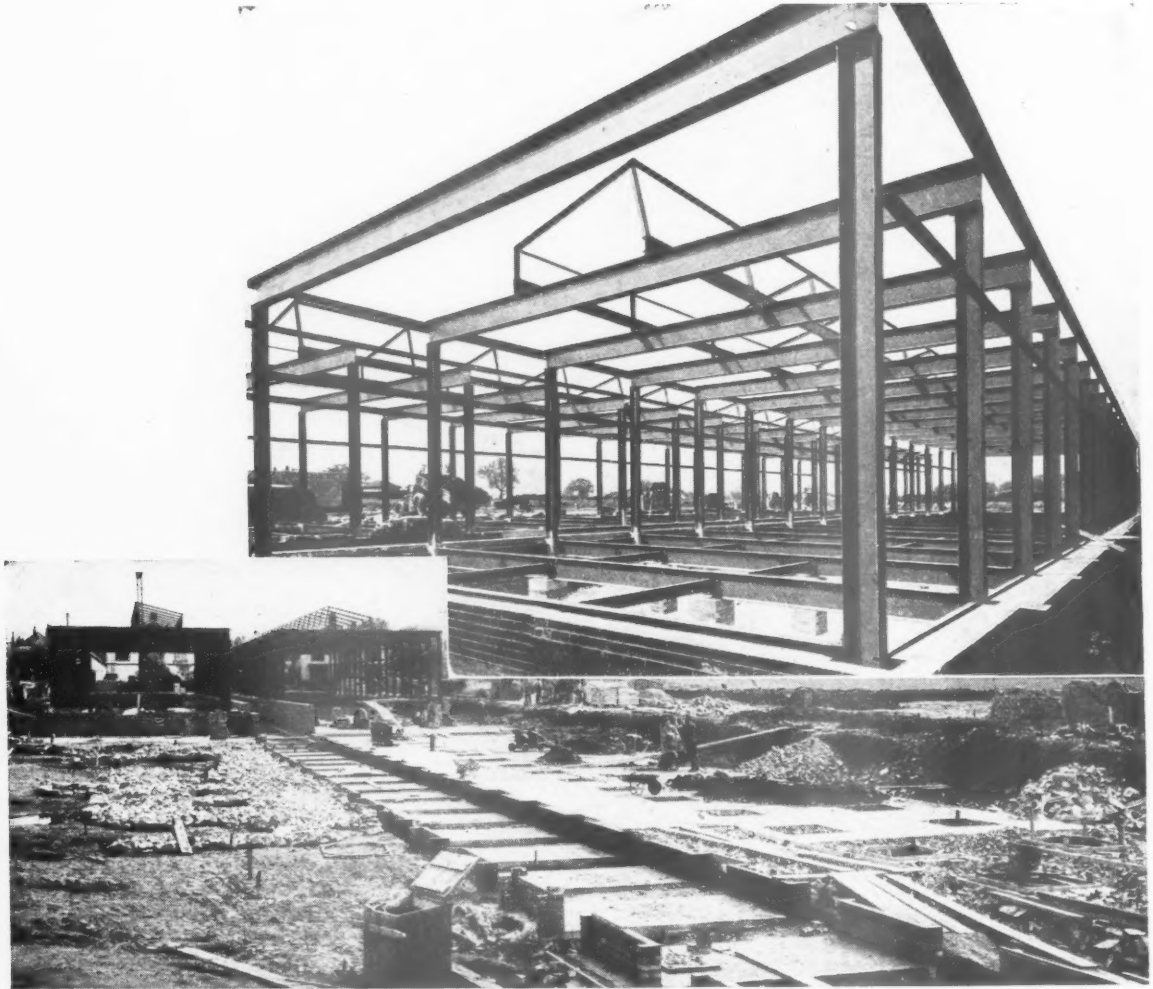


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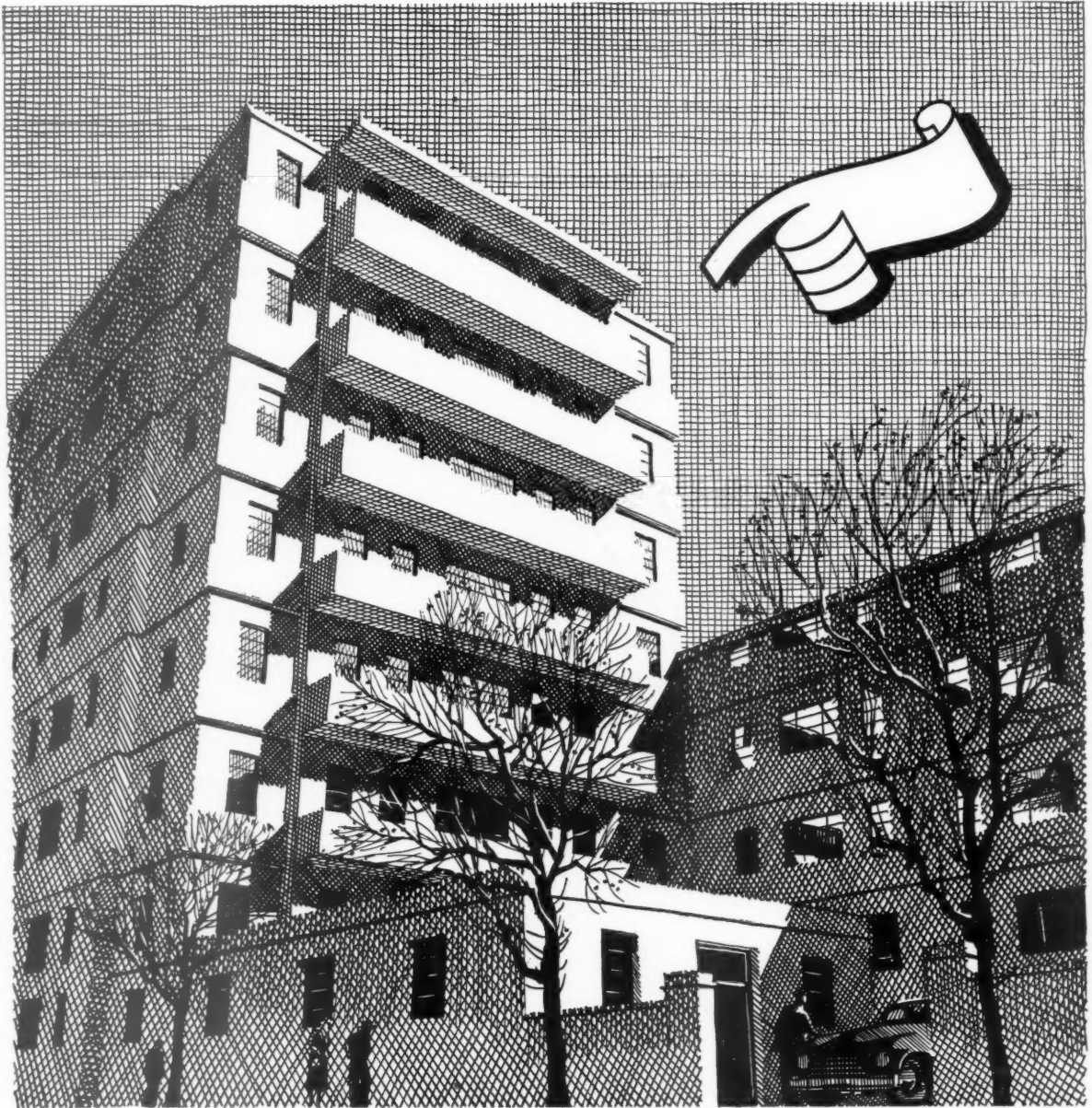
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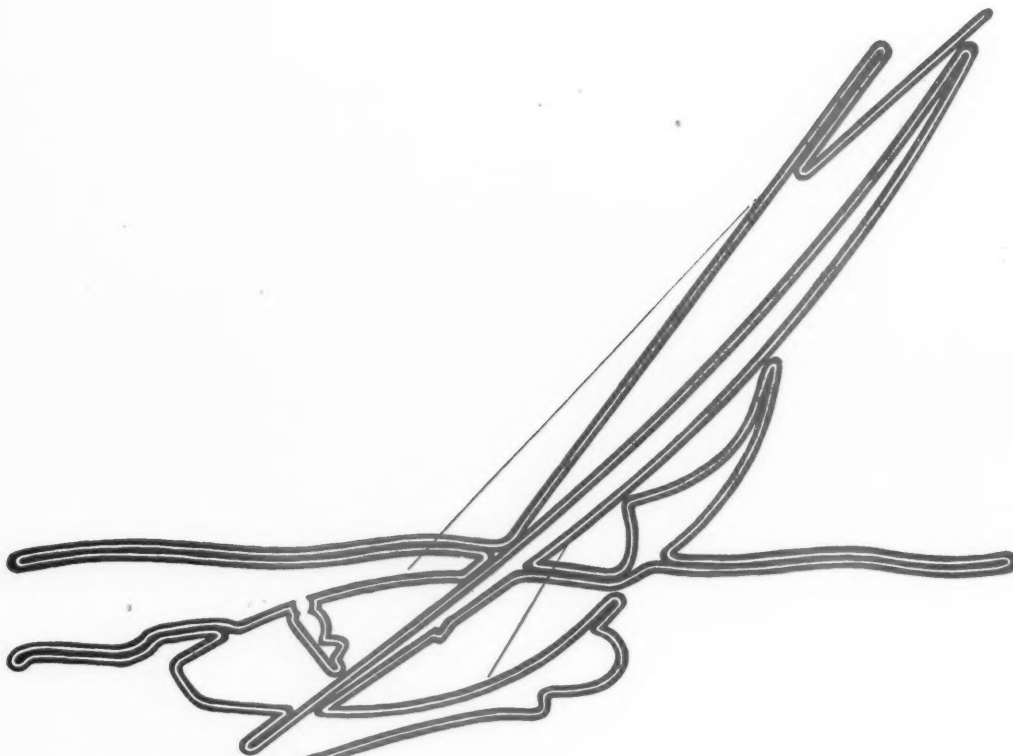
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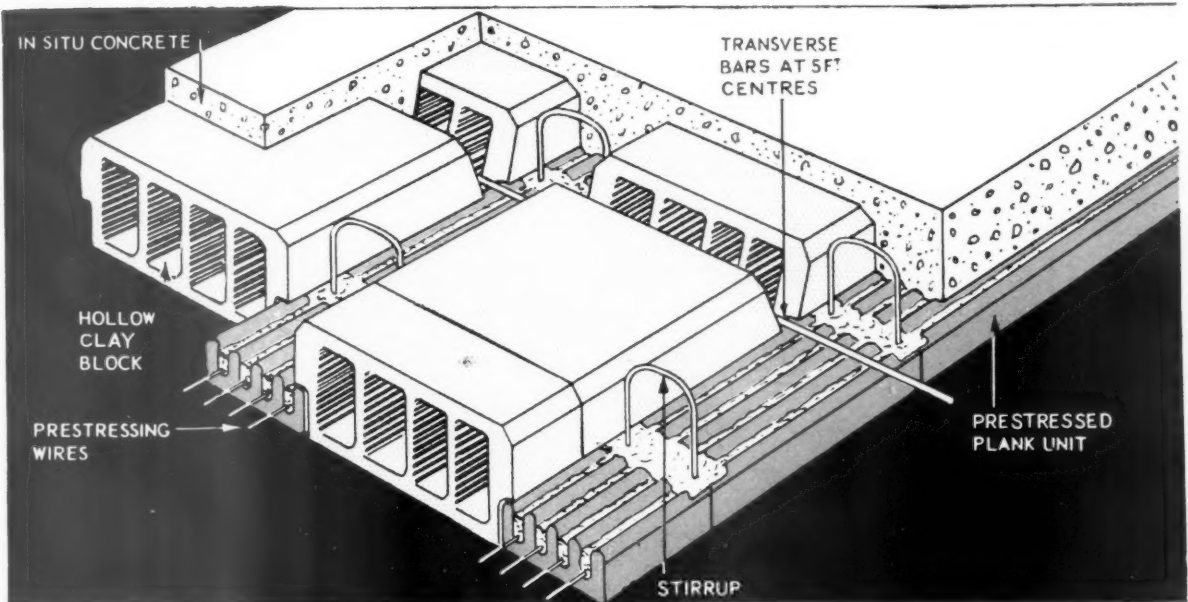
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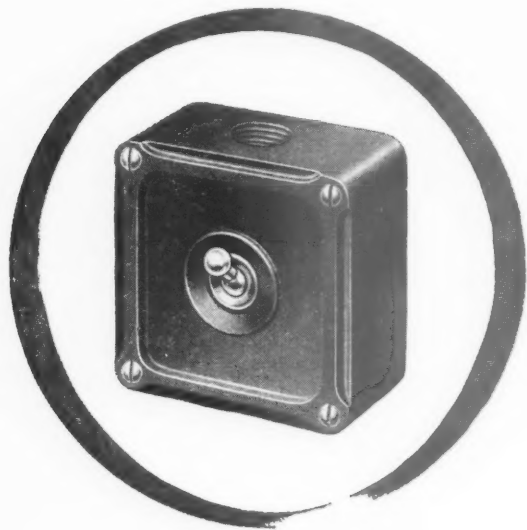
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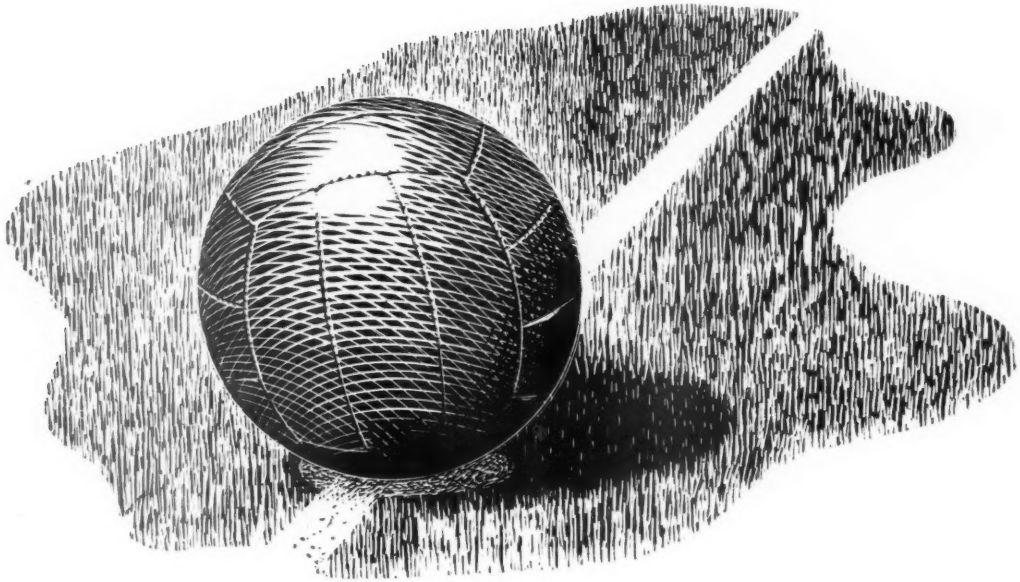
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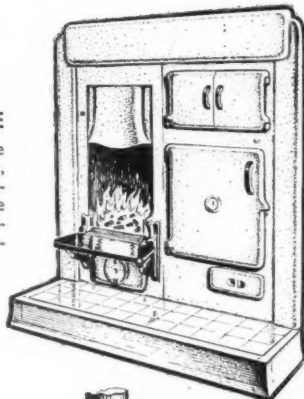


# THE ECONOMICAL

# FOUR

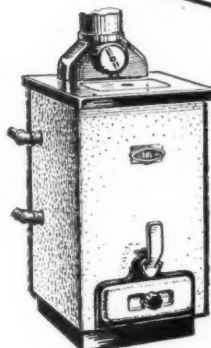
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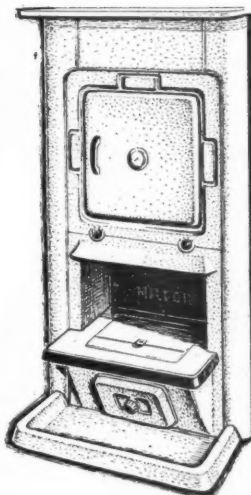
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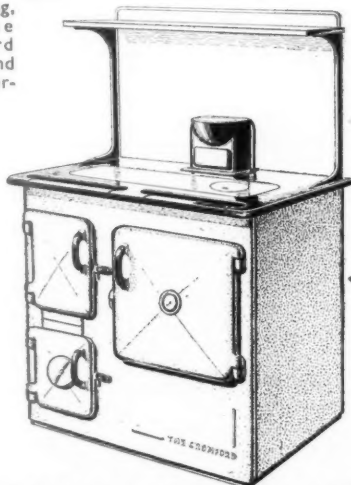
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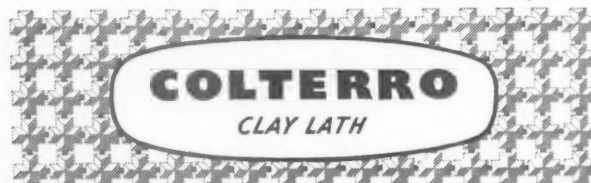
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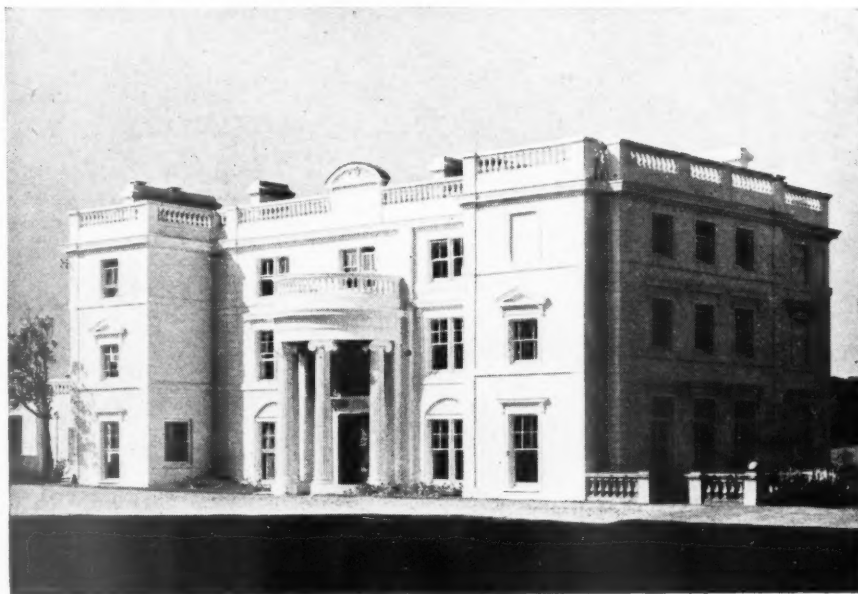
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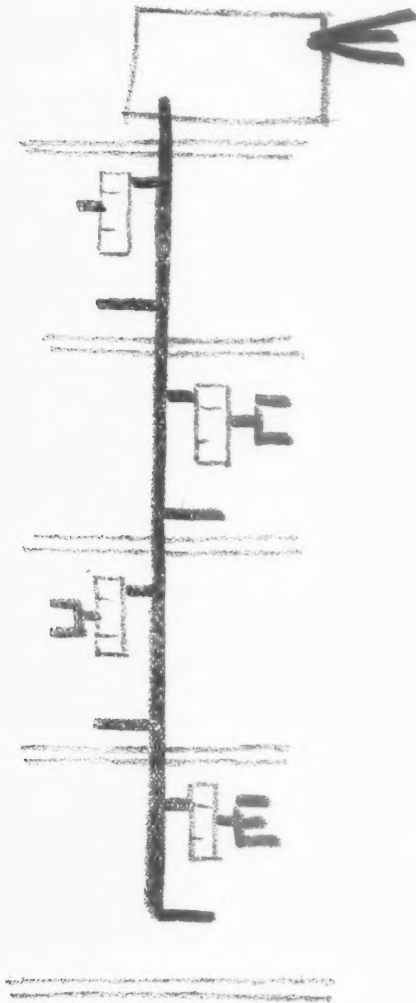
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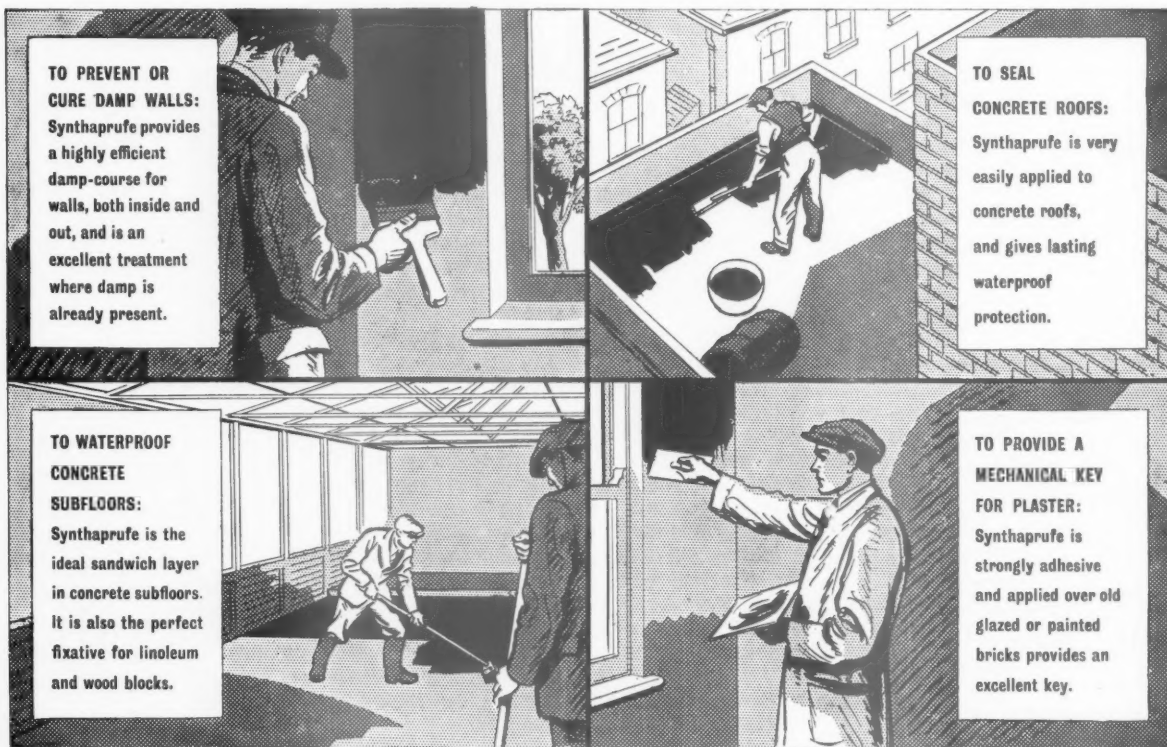
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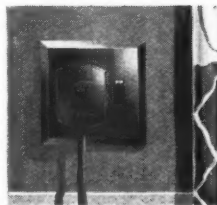
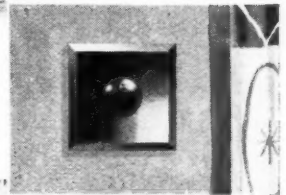
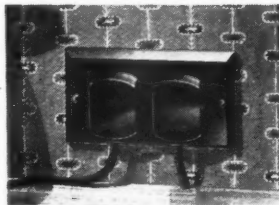




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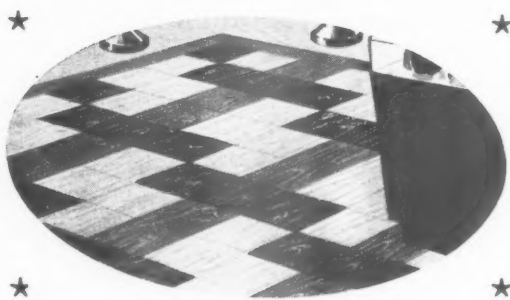
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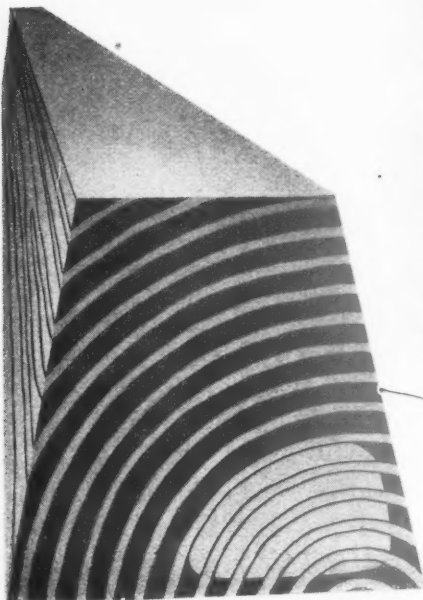
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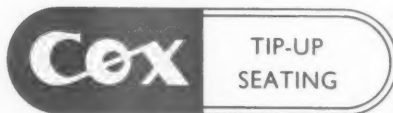


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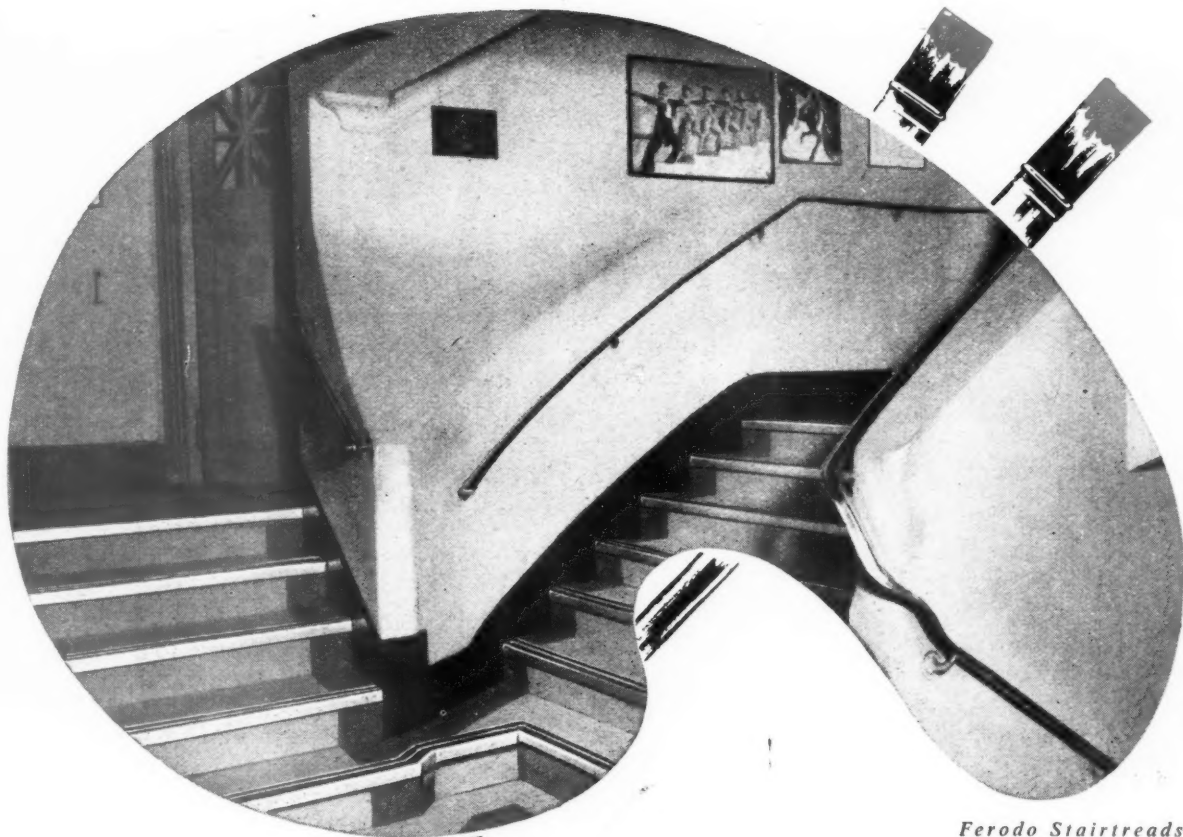


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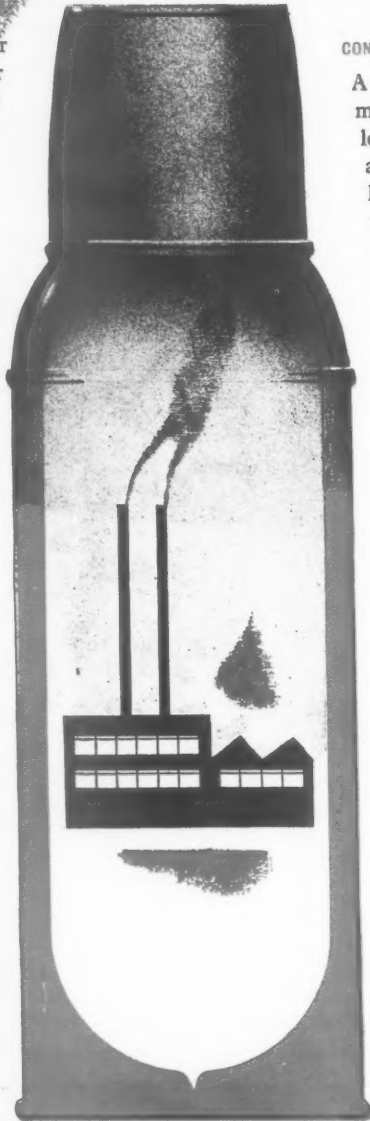
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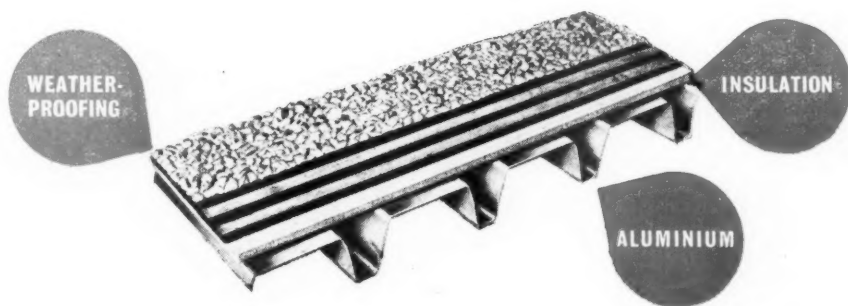
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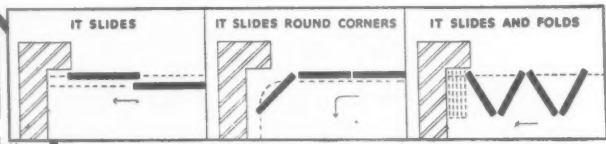
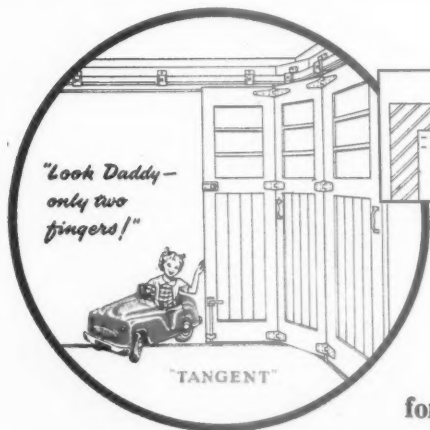
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## CRITIC CRITICISED

Glancing at Reyner Banham's "Books of 1952" in the JOURNAL last week, ASTRAGAL was surprised at the asperity of several of his observations about Howard Robertson's "Modern Architectural Design."\* Those very qualities which are most criticized—the catholicism and enthusiasm which prevent Howard Robertson from taking a narrow or doctrinaire view, and enable him to praise equally Stockholm Town Hall, the UN Secretariat, etc., etc., are those which ASTRAGAL finds most valuable.

Quite apart from personal opinions (and ASTRAGAL frankly admits to being

\* Architectural Press. 25s.

a rather old-fashioned liberal who mistrusts party lines, especially architectural ones) has not the purpose of this book been misunderstood? And, for that matter, isn't this sort of criticism continuing the heresy of putting across a reviewer's opinions rather than those of the author? Much of the charm of Howard Robertson's book lies in its discursiveness. It wanders round the world talking of buildings, often with very acute observation, and it is not intended, surely, as a pronouncement to the profession. In any case, does one really have to understand God to understand the Pazzi chapel any more than one has to understand Greek mythology to enjoy the Parthenon, or the organization of a 19th century household to like Highclere?

## HOUSEWIFE'S CHOICE

Are we all doing our best to win the *News Chronicle's* free house, or—at least—one of the television sets or washing machines? (And don't let us hear that crack again about the programmes on the last two being indistinguishable.) ASTRAGAL has been studying the first competition questionnaire and although he's pretty certain what the answers ought to be the programme does seem a bit confusing.

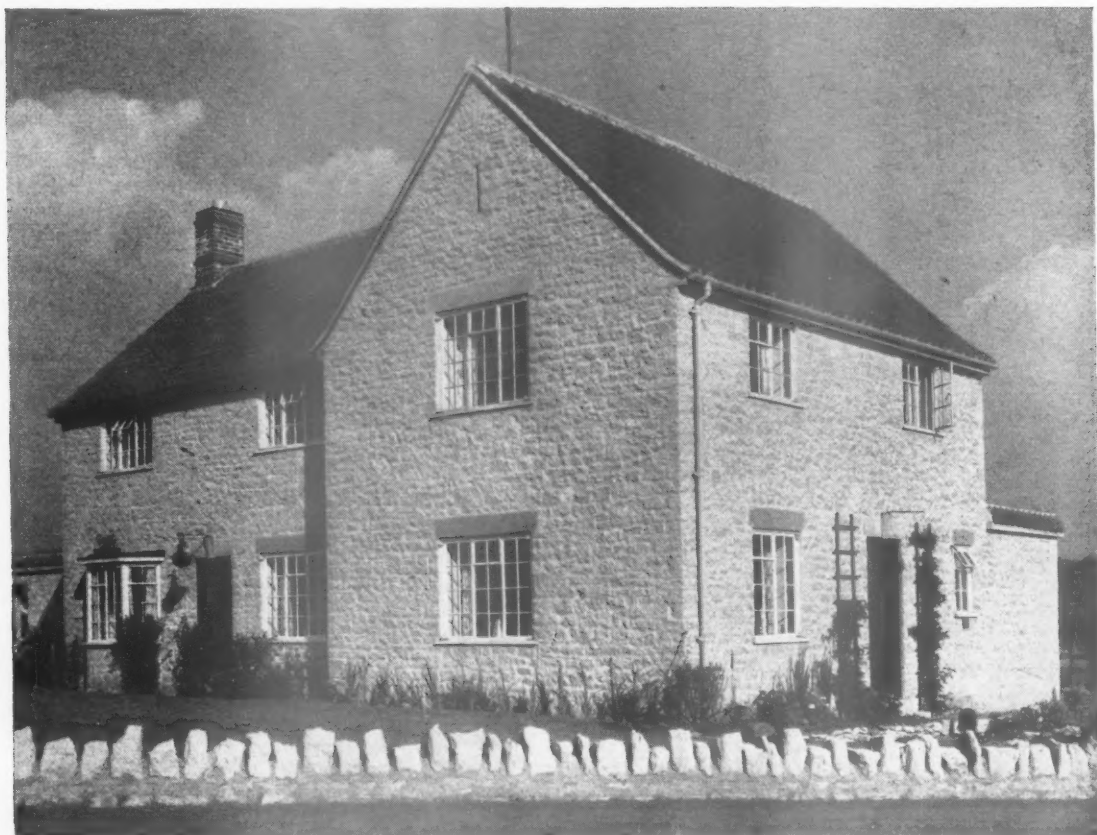
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You're asked to make up your mind about fourteen points "before you consult builder or architect" and yet the list contains items like wiring systems and the aspect of rooms—points which one would have thought better left to the architect after consultation. But perhaps I'm being unnecessarily fussy. What the competition will do is give a great mass of the public an idea of what the architect can do for them.

Recent correspondence in the *Observer* has shown that, even in the presumably intelligent reading public, confusion of mind exists as to exactly what the architect is expected to do, and one of the most frequent bleats you hear at architects' gatherings is: "Why doesn't the RIBA arrange for more publicity in the papers—more articles, etc." A bleat, incidentally, to which the RIBA (Bromley branch) has a perfectly sound reply—that the papers are all gasping for articles about architecture and only insist upon one thing, that they should be readable. And readability in architectural articles, like coherence in architecture, is harder to come by than it should be.

All the more welcome, therefore, is this *News Chronicle* competition, which should get plenty of publicity. Ever since Hon. Associate Gerald Barry's days in the editorial chair, the *News Chronicle* has backed an intelligent interest in architecture with intelligent action—remember the famous Schools competition?—and it's nice to see this tradition being maintained.

Let us hope that our colleagues who enter for the RIBA-recognized section of the competition (details coming soon) will turn in some good ideas. And let us hope that the five architects who are to be commissioned to design houses on lines suggested by readers will not have too tough a time. (The *News Chronicle* seems unduly optimistic in expecting readers to shun old-world or ornamental façades.) It would be unkind of ASTRAGAL to suspect that the five reader-cum-architect designs will stand a better chance than



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the five purely architect-designed houses in the final choice to be made by the team of "home experts." So he won't do so. But who or what are "home experts"? When does a housewife—or for that matter a lonely bachelor in his bed-sitting room, coping simultaneously with baked beans on the ring, socks in the basin and "The Critics" on the radio—become an expert? Not, I hope, just when they are lecturing on Domestic Economy or Sound Insulation, and have never had to cook a dinner or write an article while their young lodgers fill their shoes with gravel and bath teddy-bears in the pressure-cooker. *That* does require expertise if you like.

#### VALE TO HEAL

Congratulations to Sir Ambrose Heal. Having celebrated his 80th birthday last September, he is now to resign his chairmanship of Heal's after an active service of 60 years, but is to remain "Head of the Business." Everyone who has at some time spoken slightly of furniture as being "Tottenham Court Road"—and who hasn't?—has always made a mental reservation in favour of Heal's. If some of their pieces "date" rather more than they should, that only shows how *avant garde* Sir Ambrose was in his day—and what harm anyway in having the gentle ghost of Gimson flitting around? *Avant garde*, too, in its day, was the Smith and Brewer building for which Sir Ambrose must have been such an admirable client.

Heal's is possibly the only commercial name in twentieth-century furniture that will pass into history, unless you count—in another (and more sociological) context—Drage and his plain van. It is unfair to say that Heal's are perhaps just a little too aware of it all. They have, in an extraordinary way, fixed an aura of superiority around themselves—starting with the "receptionists." "Aura" is the word for it, and it must be the only shop in the world where one feels, very nearly, that one is expected to take one's hat off. It is mysterious—for no Mayfair salon could achieve it—and also infuriating, like those turnstiles at the Leicester Galleries. Nevertheless one still goes there, since—for some things—there is really nowhere else to go; and it still has that pleasant country house atmos-

phere—beeswax, gentle voices, pot-pourri, good works, and "I-think-we'll-find-tea-in-the-library"—which is a genuine pleasure for a customer bemused elsewhere by smarty display, escalators and "Impulse Sales." (Imagine "Impulse Sales" at Heal's. What would they be?)

#### JANE'S TALES FROM THE HILLS

ASTRAGAL went along to hear Jane Drew delivering, to the usual overcrowded house at the ICA, another instalment of the saga of Chandigarh, and was duly impressed—both by photographs of the vast and picturesque labour force which is building this city with very little mechanical assistance, and by the very *ad hoc* financial policy which requires building work to be paid for out of land sales. Sales, incidentally, which have been proceeding briskly since Lady Mountbatten and Mr. Nehru set the seal of their approval on the project.

Le Corbusier's governmental precinct is, of course, state-financed, but ASTRAGAL was impressed to learn that the Master of Marseilles rises at six a.m. and paints for two hours before beginning work; was impressed, too, by the stupendous setting (revealed in a short colour film) against its backdrop of the Himalayas; and was impressed, and chastened, to see how the natural colours of the locally produced materials animated architecture which, in black-and-white, looked rather heavy.

But most impressive of all was Jane Drew: her enthusiasm for this extraordinary project of inventing a state capital out of a bare Indian plain; her enthusiasm for working with le Corbusier, whose buildings, she wistfully observed, always look like the original sketches; and her patient acceptance of the local building bye-laws, all of which were devised by herself.

#### THE UNKNOWN REVEALED

The private view of the ICA's sculpture competition *The Unknown Political Prisoner* was another demonstration of that organization's ability to pack too many units of population on too few square feet of floorspace. In order to see the sculptor's projects

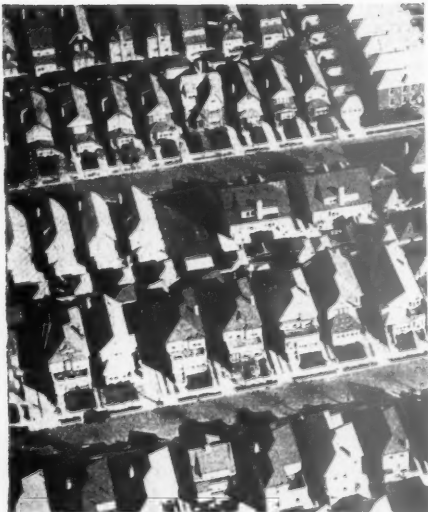
(fashionably referred to as "maquettes") or the sculptors themselves, ASTRAGAL had to battle over and through a throng of sculptors' friends and relatives (many of whom were works of art in their own right), arc-lamps, cameramen, prominent critics and the essential dead-heads who always turn up for cultural bun-fights of this sort.

Having distinguished the works of art from the crowd (not so difficult—the crowd were more alike), ASTRAGAL was disappointed to discover that the jury had not found anything very new to pass on to the international challenge round of the competition, but pleased to find that they had discovered some hitherto unknown political sculptors, and even more pleased to discover that one was not only a woman, but also young and attractive—which goes to show how little appearances may be trusted nowadays.

In spite of the fairly obviously humanistic implications of the competition, none of the figures which could be identified as representing human beings contrived to be both interesting and symbolically appropriate, though several managed to be one or the other. Even so, ASTRAGAL thought that among the qualifiers and non-qualifiers there were too many plaster gentlemen wrestling with things—barbed wire, for instance, chains, thorn-trees, snakes and even an octopus—and not unnaturally preferred the projects which were faintly or explicitly architectural.

Thus, Reg Butler qualified with a construction (page 123) to be built one hundred and twenty feet high, and so slender in its supporting parts as to cause many people to ask whether even Ove Arup could make it stay up. ASTRAGAL, who rather liked it, also asked what it had to do with the subject of the competition, and was informed that it was an iron cage "empty, deliberately, for the corporeal substance of the prisoner is transcended . . ." (so now we shall never know who he was).

Eduardo Paolozzi also qualified with a sort of shrine (page 124) made of large blocks of artificial stone, some of



## *Town Design*

"Many of the local authorities in England dislike, and will not build, terraces because they associate them with the low-standard housing built by speculators in the nineteenth century for industrial workers." So writes Frederick Gibberd in "Town Design," a book to be published on February 2 by the *Architectural Press* (£3 12s. 6d.). These two photographs from the book illustrate the point made by the author that terrace housing is less wasteful of space than clusters of detached houses. On the left is an unimaginative housing scheme in New York. Above is a housing unit at Harlow, designed by the author. This is but one of a number of examples, both foreign and British, of good housing layout that appear in the book. The author, who is concerned here with everything that makes up the urban scene, deals with town planning as an art, but, at the same time, examines the social, scientific and technical problems involved. His book would be of immense value in the offices of local authorities, where it could help both to withstand anti-architect campaigns such as that recently launched by the Institution of Municipal Engineers (see p. 119), and to kill such prejudices as that cited above.

which, to scale, must be twenty feet high, standing on a podium covered with inscribed designs, deep enough, to scale, to provide first-rate ankle-sprainers.

GATESHEAD SPEARHEAD

ASTRAGAL has been shown the leading article (on this page) concerning the Institution of Municipal Engineers and their advice to members on how to prevent the formation of architect's departments by their local authorities. Something of a counterblast has come already from Gateshead. The entire staff of the architect to the Gateshead Corporation have signed a protest against being amalgamated under the Borough Surveyor. The Town Clerk and a couple of aldermen seem upset at the general lack of precedent but it has all been "referred back" to the Establishment Committee. So far, so good.

SUCCESSOR TO GROPIUS

The speculation about who will succeed Walter Gropius as Professor at Harvard is ended at last by an appointment which will please all those who were anxious lest Gropius's work in building up the Harvard school as a centre of progressive architectural thought should not be carried on.

\*

The new professor is to be Jose Luis Sert—his appointment hasn't yet been officially announced, but ASTRAGAL understands that the chair has been offered to him and he has accepted it. It is most welcome news. Sert is the one man available in America of international standing. Spanish originally (designer of the much-discussed Spanish pavilion at the Paris 1937 exhibition for which Picasso's Guernica was painted) he has lived in the USA for fifteen years, but most of his practice has been in South America where he is in command of a number of large-scale town-planning and building projects.

■

As the reigning president of CIAM, Sert can certainly be relied on to see that Harvard's ties with European architectural thought, which were so valuable a feature of the Gropius regime, are maintained. ASTRAGAL sends him all best wishes.

ASTRAGAL

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The Editors

WHY ARCHITECTS ARE NOT NECESSARY

THE Institution of Municipal Engineers considers that the Festival Hall, the Hertfordshire Schools, the New Towns and the plans for the blitzed cities should all have been designed by municipal engineers' assistants. It considers that Dr. Leslie Martin, C. H. Aslin, Professor Sir Patrick Abercrombie, Professor Holford and Dr. Holden—and, indeed, nearly all the more distinguished members of the profession—should have been municipal engineers' assistants. It considers that the form of great cities and the planning of complex technical colleges can all be disposed of in the phrase: "matters of drainage, structural design, planning, etc." Note that "etc."!

That, at least, is the only possible interpretation that can be put upon a document\* circulated by the Institution of Municipal Engineers "for the guidance of members who may be required to report to their authorities on a proposal to create a separate Architectural Department." We have criticised architects when we have thought fit, and have never acted as a trade journal for their "protection." On this issue, however, it is the local authority, the public and architecture itself that need protecting. For their sakes we publish parts of the document referred to, so that local authorities may note that their own municipal engineers—when reporting on this issue—will be doing so not objectively, as professional men,

\* The following observations have been prepared for the guidance of members who may be required to report to their Authorities on a proposal to create a separate Architectural Department.

(1) The creation of a separate architectural department would undoubtedly increase the staffing costs of the Local Authority. Not only would it be necessary to appoint a Chief Officer at a salary which might be little less than that paid to the Surveyor, but further duplications would inevitably follow by the appointment of a Deputy and senior administrative staff, while additional clerks, typists and accountants would be required if a separate organization were set up. Moreover, this increase in staff would obviously entail the provision of extra accommodation and office equipment, while additional depots and outside supervisory staff would also be required.

(2) Municipal engineering and architectural services have no clear cut dividing line. Consequently complications regarding duties and responsibilities are bound to arise where separate departments are established, and some overlapping of work is unavoidable. These could only add further to the costs of the Local Authority concerned.

(3) With the emphasis on economy the creation of additional departments cannot be in the national interest. A sub-division of technical work must necessarily cause a considerable increase in interdepartmental correspondence and negotiations and some confusion to members of the public who have cause to make enquiries relating to matters within the province of either or both separate departments. Many matters of policy which could have been speedily dealt with in a combined department would unavoidably become the subject of communication between the separate chief officers and result in delays, the risk of misunderstanding and consequent increase in costs.

(4) Where architectural staff is contained in the Municipal Surveyor's department, technical problems which constantly arise on matters of drainage, structural design, planning, etc., can be settled simply by discussion in the one office between the sections involved thereby obtaining the fullest flexibility in the use of staff, with resultant increase in output and saving in time and costs.

(5) The Municipal Surveyor is trained and experienced to act as the head of a comprehensive technical department. The best and most logical, and in the end the most economical, practice is therefore to put all technical work under the Municipal Surveyor, thereby enabling him to operate in the most effective way as co-ordinating technical head on matters involving engineering, surveying, structural works, architecture and planning.

(6) It is of course a corollary of (5) above that qualified architects should be employed within the Surveyor's Department.

(7) Any acceptance of an argument that a Chief Officer should only control staff whose professional training is the same as his own would obviously lead to a large multiplicity of departments and consequent inefficiency and waste of manpower.

(8) It is, of course, the practice to employ structural and civil engineers, surveyor, mechanical, electrical and heating engineers, etc., where separate architectural departments have been established. Thus many members of such a department are controlled by a Chief Officer who is not qualified in their particular profession. Duplicating of staffing will arise because men of similar training and experience have of necessity also to be employed in the Surveyor's Department.

but under trade direction. We have sometimes thought the word "profession" rather old fashioned, but we see now precisely where the line runs between professional conduct and trade.

We all know, only too well, that the public architecture of this country might be better. We know, too, that progressive and enlightened local authorities are all too few. But it is obvious that the advances made in school planning, housing, etc., in the last twenty or thirty years are tremendous, and that they have coincided *precisely* with the rising status of the public architect. The same applies—perhaps more forcibly—to town-planning. All this has, in turn, persuaded some of the best of the younger architects to sink their identities in public work. There is, however, a limit to their humility. It will be reached when they are asked to accept the proposition that the building is under the drains instead of the drains under the building. Fortunately, it is unlikely that even the Institution of Municipal Engineers can really put history into reverse; but in trying to do so it might do a certain amount of damage.

## The Guest Editors

### MORE REPLIES TO LETTERS

I WAS most interested in the views expressed by you on the subject of the public architect and town planning in the JOURNAL of December 18. I am not an architect but, in view of the subject, would like the opportunity of making a few comments.

The Guest Editors have made frequent reference to some being called the "architect-planner" and it appears to me that the more frequent use of the term, which has become common of late—and has even appeared in official advertisements—could be looked upon by others just as vitally concerned in the furtherance of town and country planning as a subtle form of propaganda intended to convey to the general public that the architect as a planner is a person specially endowed in the field covered by the latter part of the term largely because of the first part and the relative qualifications for that.

One can readily visualise counter measures involving the more frequent use of terms like "engineer-planner," "surveyor-planner" or even "legal-planner." This sort of thing could do nothing but harm to town and country planning.

I presume that what the architects are trying to do is to emphasise the part which they can take in town and country planning but, as the editors very rightly point out in their conclusions, they are not the only people capable of town planning. In this no mention is made of country planning so one presumes that they are prepared to concede this

field of operations to one of the brother professions. However, modern town and country planners have been trying for some years now to effect a happy marriage between town and country, but no such union can ever be successful on a "hands-off" basis but only on a foundation of team-work and harmony. As a happily married man learns to consider the views and feelings of his mate, so does a true planning officer learn to consider those of other professions. To do this, however, he must forget his original background training as an architect, engineer or surveyor and remember that, as a planning officer, he is not supposed to display any favourable bias towards any particular profession whose work forms only a part of the work of the whole team. On the question of the control of elevations, perhaps the comments of a non-architecturally trained planner may be of interest.

Normally no one wishes to interfere in work which is purely within the field of the architect, but that does not relieve the architect from the duty of satisfying the critics, whether they be professionally qualified to criticise or not, and there have been many occasions, particularly since the war, where non-interference has brought down any amount of criticism—almost invariably on the head of the planning officer for having allowed such inferior architectural work to go on.

It seems to me, therefore, if the planning officer has to avoid making comment on the work of the architect,

the latter, in turn, is entitled to expect some measure of protection from any resulting criticism. Accordingly, it is for the architectural profession to take in hand their own bad boys.

As a bystander it occurs to me that too many architects try to satisfy their clients without due regard to their own responsibility to the community and to their honourable profession. I cannot imagine that many of the architectural indiscretions which have been indulged in of recent years have been committed without the perpetrators being fully aware of their sin. If not, then I can only suggest that this is a grave reflection on methods of training and entrance to the profession.

It is not desirable to have one man's ideas impressed throughout any urban or other district and the individual skills of many architects have gone into the creation of our many beautiful towns and cities.

Primarily, it is for the architectural profession to evolve a satisfactory system whereby individual freedom may be maintained without loss to planning in general and I am sure there are several methods of approach without the necessity of resorting to any form of rigorous control.

To begin with, there may be possibilities in advisory panels of architects, of frank preliminary discussions with the planning officers and in a more general adoption of the physician's outlook to his patients. Our faith in the medical profession would disappear if it became general for practitioners to tell their patients merely what they wished to hear.

In the same way we are entitled, I think, to look to the architect to advise his client in the widest meaning of the word.—C. B. Bain, A.R.I.C.S., M.T.P.I.

#### Reply from Guest Editors

Mr. Bain has raised a number of useful points, and has also given us an opportunity of clarifying some of the statements in our article which, for reasons of space may have been so summary as to cause confusion or misunderstanding.

First, then, the question of responsibility for Town and Country Planning. We would be the last people to try to make of one man or profession an autocratic type or group, and if Mr. Bain reads through our series of articles he will see that the whole stress has been on co-operation, devolution, and the collaboration of different experts. We would like to stress, too, that we were confining our comments to cities and towns. In regional planning, either urban or rural, no profession can as yet claim pre-eminence, and the Chief might come from one of a number of expert backgrounds, but when it comes to the urban area, either as an isolated centre or as part of an urban region, then we consider that the architect-planner should

be the team leader, although the accent is still on the word *team*.

Generally, the type of job determines who should be in charge when it comes to one in which a number of experts are involved. In an earlier article we mentioned the TVA, which was an obvious case for the predominance of engineers, although architects collaborated in the team with considerable success, and in the case of a large park project one would expect a team to be led by a landscape architect, and so on.

As an obviously sympathetic observer of the architectural scene, Mr. Bain's remark that "too many architects try to satisfy their clients without due regard to their own responsibility to the community and to their honourable profession" is one on which we may well ponder.

The methods by which architects and planners jointly work out the best methods of evolving "a satisfactory system whereby individual freedom may be maintained without loss to planning..." can only be evolved by working together with the maximum of goodwill and understanding in a large number of places and over a considerable period of time. At this stage, however, we are most concerned to get the right kind of organization which will enable this to happen.

*From the President of the City and Borough Architects' Society.*

May I be permitted to answer the question asked by your Guest Editors in their reply to my criticisms (AJ: January 1), and make one comment? They ask what I mean by "building engineering." I mean the sphere of those engineers who are associated with the architect in the building team—the structural, heating, ventilation and electrical engineers. I use the qualification "building" to differentiate them from "municipal engineers," whose qualifications and experience are quite different. Your Guest Editors remark that they sincerely hope that no architectural department has a division concerned only with administrative and clerical duties, astonishes me. Surely every local authority architect's department, not excepting the LCC Architect's Department and the Coventry City Architect's Department, includes clerical staff? I cannot believe that your Guest Editors advocate that architects should do such work.

LEONARD C. HOWITT.

Reply from Guest Editors

Mr. Howitt has misunderstood our comment on administrative and clerical duties. In Mr. Howitt's original letter he said that "... A fully developed City Architects' Department might consist of three or four architects' divisions... There might also be divisions concerned with quantity surveying... Direct Works management and general administrative and clerical duties." There is no such division in the LCC Architects'

Department, nor in the Coventry City Architects' Department.

In our view, administration of a building job should be inseparable from the job itself. The administration should be undertaken by the person in charge of the job. In order to do this the architect will want clerical and secretarial assistance. This is quite the reverse of forming a separate division concerned only with administrative and clerical duties.

## Other Letters

{ Ernest D. Kay, A.R.I.B.A.  
John Carter, A.R.I.B.A.

### Local Authority Architects

SIR.—The clarion call which concluded your editorial of January 1 (see also AJ Frontispiece last week.—Eds.) is most commendable but, unfortunately, has a somewhat hollow ring. How splendid it would be, indeed, if we could insist that planning officers should be qualified architects, and if we could demand that builders who do not employ architects should make use of specified house plans. The sorry truth is, however, that as a profession we are not in a position to insist on or demand anything. Such steps cannot be taken by individuals and so long as our Institute remains a learned society it is hardly likely to act as a militant organization on our behalf. The measures you advocate are undoubtedly desirable, but it must be realized that at present our only resource is an approach to the government departments concerned by a committee of the RIBA.

"Let us go even further..." you say. But do you really go far enough in your suggestions? Why not realistically admit that the first concern of most members of the profession is to earn a living, and that many of our younger qualified architects (and some not so young), are finding it difficult to do just that; not entirely because of building restrictions, but because so much work is still pirated by unqualified and unregistered persons operating either privately or under the patronage of some local authority. I have before me a copy of the JOURNAL for January 11, 1933, which contains two pages of "Situations wanted," almost all revealing the desperate circumstances of the advertisers. What could be more degrading to a profession than to have so many of its members in such a predicament? That was twenty years ago, but are we not in honour bound to do all we can to prevent a similar state of affairs occurring again?

I maintain then that we should put as our first purpose in any negotiations, the securing of more work for the profession. Our second object would be achieved partly as a corollary of the first, namely the improving of our professional status. I would then place third our aim to further the interests of architecture in this country.

You, Sir, have suggested that planning control should be returned to the profession which nurtured it. May I enlarge on your suggestions somewhat? Since we now have in the government a Minister of Housing and Local Government who appears not entirely unsympathetic to our cause, would not the present be opportune to make our first approach to him with a view to declaring the post of architect a statutory appointment

to be filled by every local authority intending to design and erect its own buildings? Such legislation would have the effect of diverting into the proper channels an immense amount of architectural work. If an authority were unwilling to establish the new department they could naturally consult an architect in private practice; but the essential stipulation where the appointment is made, is that the architect should be qualified and registered, and should be a departmental chief in his own right and not directly responsible or subservient to another officer of the authority.

It would obviously be naive to expect results overnight but nothing can be accomplished until the argument is put forward by our representative body. The matter is urgent and we should request the Minister, if he regards our case favourably, to consider bringing pressure to bear on local authorities to implement his recommendations in the same way as was done by the Minister of Health in Circular 24/50 in connection with housing. If these measures are not effected before the complete lifting of licence control, an attitude of *laissez-faire* may develop which could retard indefinitely the hopes we cherish for our profession. The RIBA could render a signal service both to our members and to the community by pressing for these reforms, since they would to a large extent free building from the grasp of those misguided municipal engineers and surveyors who have neither the training nor the inclination to understand the spirit of contemporary architecture.

ERNEST D. KAY.

Chorley, Lancs.

### Building Methods

SIR.—The recent exchange of letters between the Minister of Works and the President of the RIBA could, if its implications were taken to heart, become historic.

Very few of us, I think, are wholly content with present-day building technique. The old guard resent a compulsory austerity which seems to be anything but temporary; the *avant-garde* are chastened to discover that "new methods" are not inevitably cheaper, and seem now to regard the contemporary ideal as an alternative aesthetic. No one's conscience is put at rest by blaming high cost on to "low productivity per man hour" or price rings. Only the most brutalized local authority architect is satisfied that reducing areas is the right way to keep rents down. Facts and figures of American practice brought home by Mr. Waterhouse's team were, despite the difficulty of comparison, a shock and an accusation. Results achieved by the Barnet Research team, or by the Hertfordshire schools office are a disquieting reminder.

To say in defence that the building industry should mechanize itself or that architects should spend some part of their training on building sites, although perhaps just, is not enough. To treat the situation as the occasion for a slanging match and the grinding of private axes is enjoyable—but it could go on indefinitely with charge and counter-charge.

Builders could quote endless evidence to prove architects' incompetence. Architects likewise could show unanswerable builders' stupidity; and clients need only flourish final accounts to shame both. The reactionaries can admonish the progressives and the progressives can point accusingly at Portland Place; and still no one need own-up.

Everyone is justified. Meanwhile a great many people need a great number of new buildings in the right places at a reasonable cost—which they don't get.

The study of this inadequacy of architecture is a study in inter-dependence. If you begin with the architects unwillingness to ex-

periment with techniques, you find that the building industry, being largely brought up on traditional methods, cannot adapt itself quickly or easily and so penalizes inherently economic ideas. If you begin with the builder's indifference to job-planning you are confronted by unpredictable fluctuations in the supply of materials and components. Slow and wasteful site-organization may be put down to builder's conservatism but it derives partly from the architect's indifference to modes of assembly which his designs entail, and partly from lack of dimensional co-ordination of components. The architect's inattention to modes of assembly brings into question the teaching of construction in schools of architecture—involving the policy of architectural education as a whole. Site organization and modes of assembly call forth the question of builders' training, so it is unreal to consider architects' training apart from builders' training.

To ponder a particular technique which may be claimed to reduce costs and increase speed—pre-fabrication for example—is to question the present tendering and contracting system, since pre-fabrication requires detailed collaboration between designer, maker and assembler from the start; and long-term orders. Whereas the present system is for the architect to work out all his construction before the builder sees the drawings. Thus, the architect's professional isolation becomes suspect.

And so on and so on . . . . .

It is borne in upon one that to improve the situation it is necessary to modify the whole pattern of inter-dependence, not merely parts of it. If, for example, the contracting system were changed to allow for collaboration between architect and builder, then architectural education would need revision to provide for organized study of manufacturing and assembly methods. Or, if systematic training in job-planning and site-organization is to be given to builders, then among other things the present architect-client relationship will need revision to allow much more time for the working out of the construction, and less scope for variations in mid-contract. More than this it would call for organized and continuous co-operation between architect, builder, and materials' manufacturers—with some system of long term planning to ensure supply.

Contractors can only make a better use of mechanical plant if they re-organize themselves into larger units and have some assurance about the flow of work ahead. This implies long-term planning between all parties to the situation—architect, materials' manufacturer, builder, plant-maker and client—at least, the larger clients,—local authority and government.

In one sense the comprehensiveness of the problem is daunting enough to result in mere isolated tinkering here and there. Collective responsibility on such a scale so easily leads to impotence—because there is no established convention of continued collaboration—between the agencies responsible. This kind of situation is perhaps one of the major problems of our society—the fragmentation of the cultural pattern into separate entities.

Yet the occasion seems ripe for change because all the parties to the situation are dissatisfied. Neither builders, nor architects, nor teachers of architecture, nor materials' manufacturers, nor the government (witness Mr. Eccles's letter) are content that the present system is the best possible. Nor, of course, is the ordinary "private" client.

Mr. Robertson, it would seem, has promised to make the first move, and no doubt in due course we shall hear of a committee being set up. Let its membership be representative! Let its terms of reference be wide! But perhaps the appropriateness and the effectiveness of ultimate changes will depend upon how much we want them and how many of us want them?

Bristol.

JOHN CARTER.



## GLASGOW

### Competition Result

W. N. W. Ramsay has won a competition for the Faculty of Arts' proposed building at Glasgow University.

The new building is to be on a vacant site in University Gardens, near the Observatory. Mr. Ramsay's design, if carried out with ashlar facing and stone dressing to windows and openings, would cost about £100,000, and with a yellow brick facing, similar to that of the University Reading Room, about £91,200. This design is the cheapest but one of the four designs submitted.

The other entrants were Basil Spence, N. Johnston and J. A. Coia.

## IES

### Competition Result

The competition organized by the IES for the layout, artificial lighting and decoration of a provincial shop selling sports goods was won by the following team:—W. D. Tyrrell, Croydon Polytechnic (illum. engr.); T. A. D. Bindon, South East London Technical College (elect. engr.); E. W. Uglov, Regent Street Polytechnic (architect); S. M. Gray (Miss), Regent Street Polytechnic (architect); C. G. Crowfoot, Regent Street Polytechnic (architect); R. G. Smith, Regent Street Polytechnic (architect).

Highly commended by the assessors was an entry from South Africa submitted by R. S. Yates, South African College of Science and Technology (illum. engr.); J. Yorke-Hart, Pretoria University (architect).

The entries by D. S. Bottomley, Huddersfield Technical College (architect), J. D. Vale, Birmingham College of Arts and Crafts (interior decorator), and N. E. Wilkinson, Birmingham College of Arts and Crafts (industrial designer), were commended by the assessors.

The competition, held in memory of John Stewart Dow, was intended to encourage collaboration between engineers and architects. As the competition was an exercise in collaboration between art and science applicants were told that while originality of design, effectiveness of layout and suitability of lighting would all receive consideration special recognition would go to schemes in which all three blended in unity.

Twenty-six entries were received for the competition, nearly all being from teams of engineers and architects. The winners will receive £75.

## ST. PANCRAS

### Playground Equipment

The St. Pancras borough council is proposing to provide a children's playground at Cumberland Market and on other sites in the borough. It invites suggestions for easily constructed equipment suitable for use by children and adolescents, and differing from the usual present-day playground equipment. The question of payment for any design used by the council "will be the subject of mutual discussion."

Suggestions in sketch form should be submitted to the town clerk, St. Pancras Town Hall, N.W.1, not later than Saturday, February 21.

## OBITUARY

### Dr. H. V. Lanchester

We regret to announce the death of Dr. Lanchester, senior partner of Lanchester & Lodge. He was born in 1863 at St. John's Wood, London. After a private education he became a pupil of his architect father, Henry Jones Lanchester. He later served as an assistant in the offices of F. J. Eadle, T. W. Cutler and George Sherrin.

He started in private practice at the age of 24. During his long professional career he had many partners, among whom was E. A. Rickards and his own son, Henry Robert Lanchester, who died in the last war.

Among the buildings designed by Dr. Lanchester, in conjunction with various partners, were the following: Cardiff Town Hall and Law Courts, Deptford Town Hall, Central Hall, Westminster, Third Church of Christ Scientist, London, Leeds University, Sheffield University, Beckenham Town Hall, Birmingham Hospitals Centre, Birmingham Medical School, Hackney Town Hall, and Bolton Technical College.

He took a particular interest in India where buildings for which his firm was responsible included the Palace for HH The Maharajah of Jodhpur; the Secretariat in Lucknow; and the Birkmyre Hostel in Calcutta. He was one of the founders of the Town Planning Institute, of which he later became president, and wrote several books on planning. He was a fellow and past vice-president of the RIBA and received the RIBA gold medal in 1934. He was editor of *The Builder* from 1910-1912 and became the first president of the South Eastern Society of Architects. In 1936 he was honoured by the University of Leeds by the conferment of the honorary degree of Doctor of Letters (LITT.D.).

## LMBA

### New President

Gerald Hill has succeeded D. E. Woodbine Parish as president of the LMBA. The appointment was made on Tuesday.

## DIARY

*The English Contribution to Planning.* Professor Nikolaus Pevsner. Planning Centre, 28, King Street, London, W.C.2. 6.30 p.m. JANUARY 22

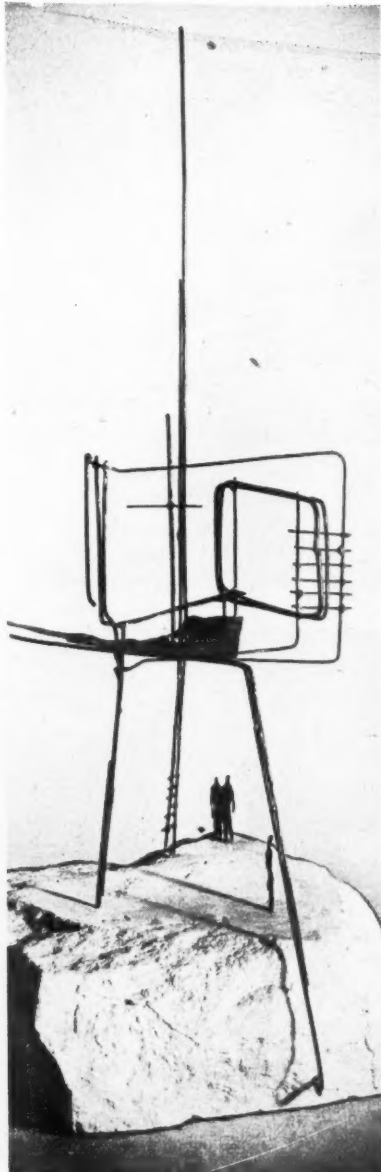
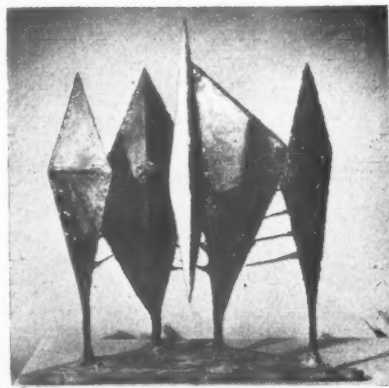
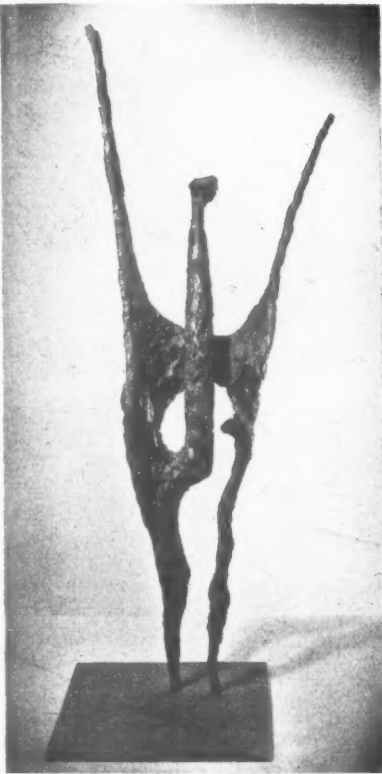
*Inaugural Public Meeting of the Modular Society.* At RSA, John Adam Street, Adelphi, W.C.2. 2.30 p.m. JANUARY 23

*The Work of the National Trust.* C. V. Wallace. At RSA, John Adam Street, W.C.2. 7 p.m. JAN. 27

*The Trend of Education in the Building Industry.* D. E. Woodbine Parish. AA, 34, Bedford Square, W.C.1. 8 p.m. JANUARY 28



"THE UNKNOWN POLITICAL PRISONER": NATIONAL STAGE OF ICA COMPETITION



The twelve maquettes by English sculptors which will be forwarded for consideration by the international jury of this competition may now be seen in an exhibition at the New Burlington Galleries organized by the Institute of Contemporary Arts, the sponsors of the exhibition as a whole. With them, are thirty-three other maquettes which were, presumably, short listed from a total British entry of over three hundred. Illustrated on this page and overleaf are the successful British entries.

(1) By Trevor Bates, (2) by Reg Butler [project for a steel structure 120 ft. high], (3) by Lynn Chadwick, (4) by Elizabeth Frink, (5) by Barbara Hepworth, (6) by Louise Hutchinson, (7) by Stuart Osborne, (8) by Eduardo Paolozzi [project for construction in artificial stone, tallest block 20 ft. high], (9) by Douglas Wain Hobson, (10) By J. L. Waldron, (11) by F. E. McWilliam, (12) by Arthur Wyllie. The English jury comprised (chairman) Sir Philip Henty, Director, National Gallery; Sir Leigh Ashton, Director, Victoria and Albert Museum; Philip James, Art Director, Arts Council; and



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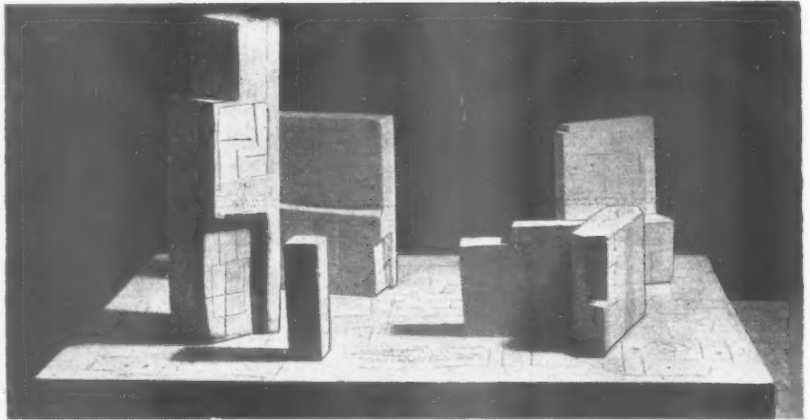
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**ICA COMPETITION (continued)**

*H. D. Molesworth, Keeper of Sculpture, Victoria and Albert Museum. The various groups of national entries will be brought together in England, the final selections will be made, and all the maquettes which have been forwarded for final consideration will be exhibited at the Tate Gallery in March. Over £11,500, payable in any currency, has been donated by an anonymous source for distribution in prizes, and in addition it is intended to erect the winning design, in full size, on some site of international importance such as . . . one of the great capitals of the world." This has been generally understood to mean the UN headquarters in New York, or UNESCO in Paris, but the final site will clearly depend on the nature of the design of the winning project.*

10, 11 and 12



7



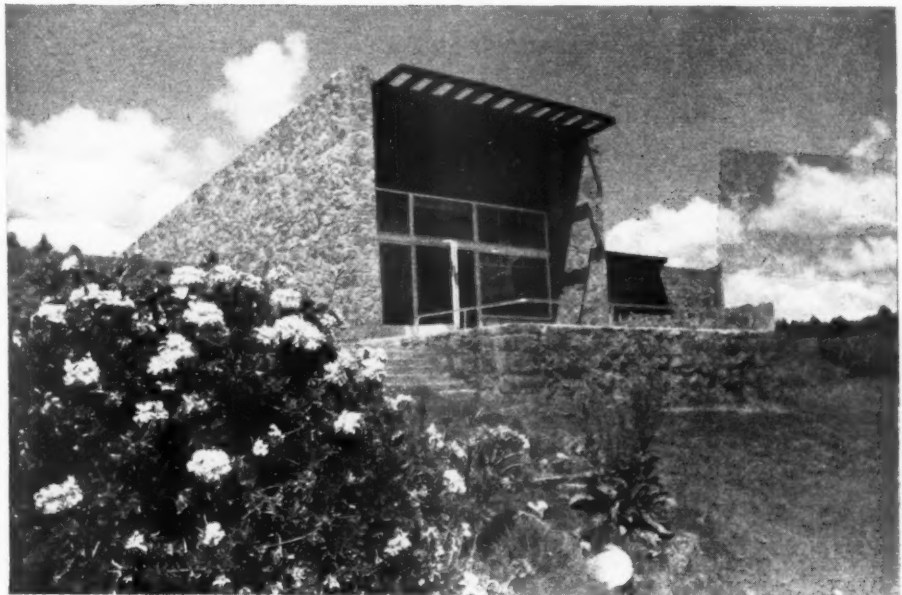
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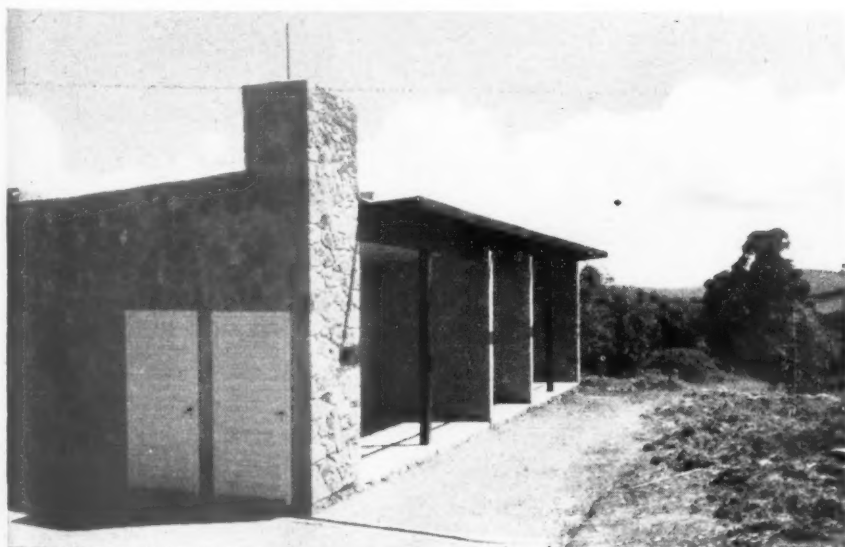
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HOUSE IN KENYA DESIGNED BY DR. ERNST MAY

The house illustrated on this page, at Molo, Kenya, is situated at an altitude of 8,000 ft. on a hill, overlooking a beautiful and fertile part of Kenya. It was designed for a farmer by Dr. Ernst May and Partners. The main axis of the house is approximately east-west and the majority of rooms overlook a great variety of trees and flowers. The entrance on the south side leads straight into the lounge, with the dining room on the left and the bedrooms on the right, reached through a covered way. The large lounge window is seen from the north in the photographs above right and bottom right. Below is the bedroom wing, which faces the morning sun from the east. The walls are constructed of rubble stone found on the client's farm. Internally walls are plastered, with certain features treated with Carrara marble plaster. The north wall of the lounge consists of large sliding folding doors and plate glass windows. A system of fixed louvres and adjustable aluminium blinds controls glare.



Plan (Scale: 1/4" = 1' 0")





*Mr. Watkins reports two recent law cases which are concerned with the duties of employers to men working on buildings.*

ERNEST WATKINS

## The Architect and Current Affairs

The Courts have recently had to consider two cases involving the duties of employers to men working on buildings. In one case, the man was a window cleaner; in the other, a scaffolding erector. In the first, the arguments were based solely on the common law duties of the employers; in the second, the effect of the Building (Safety, Health and Welfare) Regulations, 1948, was considered as well.

### SAFETY BELTS

The first case, *General Cleaning Contractors, Ltd., v. Christmas*, arose out of an accident in December, 1948, at the Caledonian Club in London. The company was a window cleaning concern and Christmas had been twenty years in its employ. On the day of the accident, Christmas was cleaning a window, with two sliding sashes, 29 ft. from the ground and was standing on a sill 6½ in. wide to do so. There were no safety hooks on the building and, therefore, no safety belt was provided by the employers. Christmas gripped the edge of one sash with one hand while he cleaned with the other, as he usually did with windows of that kind. The upper sash closed, the lower sash slid down on to his fingers and he fell to the ground and was injured. He sued both his employers and the owners of the Club and obtained judgment against both. The Court of Appeal reversed the decision against the Club but held the employers liable, and the House of Lords confirmed that decision.

The main reasons for the House of Lords' decision were not that a safety belt or a ladder would have been safer. A safety belt is useless if the building has no hooks to which it can be attached, and there was no evidence that ladders

## GREENGROCER'S SHOP AT 186



*The greengrocer's shop at the junction of Queensway and Bishopsbridge Road, which is illustrated on this page and opposite, was designed by A. V. Pilley. The shop is divided into three sections, for flowers, fruit and vegetables. The photograph above shows, in the background, vegetables displayed in teak boxes projecting forward from a tiled wall. The fruit, seen in the exterior photograph opposite, is laid out in sixteen wooden boxes set at an angle and with adjustable plywood bases. Triangular racks*

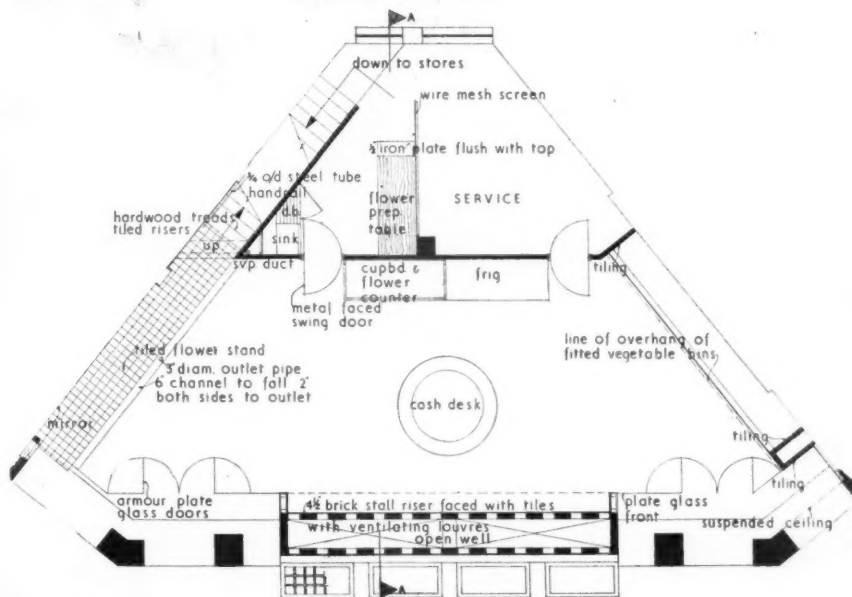
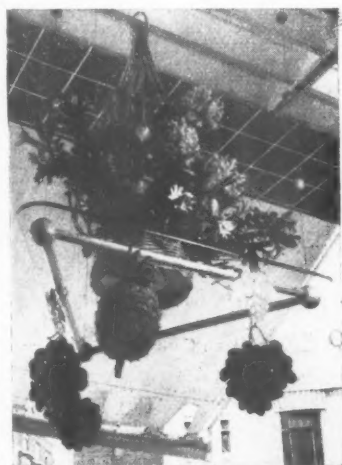


*(centre, on opposite page) of ¾-in. plate glass hung on piano wire, which is attached to 2-in. diameter wooden balls, are used for fruit display. Flowers, seen bottom left, opposite, are displayed on a raised tiled platform against a background of hand-woven straw fabric. There is a suspended ceiling plastered and painted dark blue, below which, suspended from the structural ceiling by picture wire, is a large egg-crate low-wire, seen in the photograph left. In the centre of the shop is a circular cash desk for*

BISHOPSBRIDGE

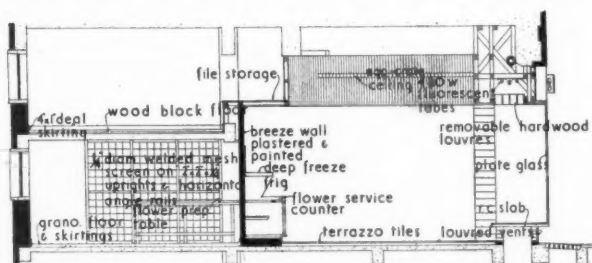
ROAD, LONDON, W.2

two cashiers, which can be seen left. Over this cash desk hangs a canvas awning, mustard yellow in colour, looped over radial rods, which are painted white. The desk contains electric heating panels and concealed strip lights. The back wall of the shop divides off the service space in the narrow part of the site. This wall contains two aluminium-faced doors with glass viewing panels. The flower wrapping counter (bottom, left) is triangular, with a 3-in. thick elm top on tubular steel legs, painted red and white like a barber's pole. The slatted bulkhead, which runs round three sides of the shop, is made of polished African mahogany.



Plan [Scale: 1/32" = 1' 0"]

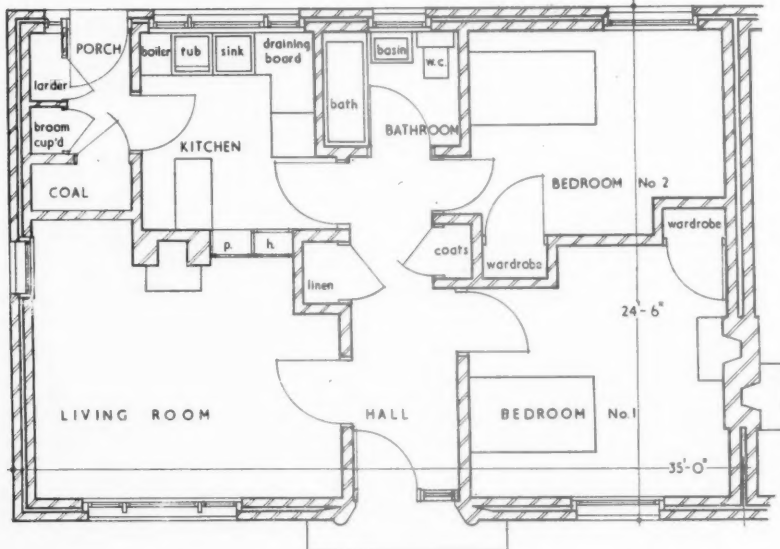
The shop name, in metal letters containing white neon lighting, stands out from a tiled fascia, over which is housed an electrically-operated sunblind. The front of the blind is polished pine, with lettering painted pale blue added. The stairs leading to the mezzanine



Section A-A

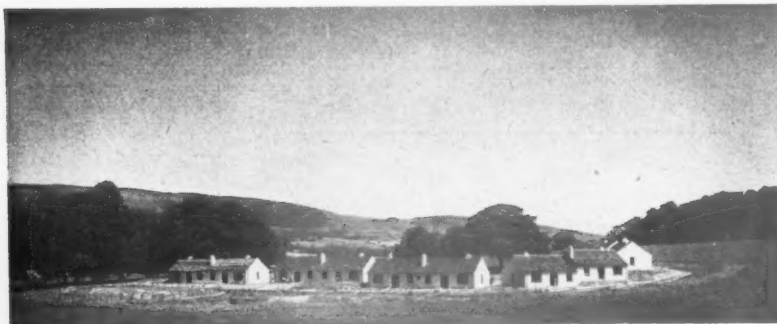
have teak treads and tiled risers. The general contractors were H. Darby & Son (Leyton), Ltd. For sub-contractors, see page 144.

COTTAGES AT ERSKINE, RENFREWSHIRE



Plan of typical cottage. [Scale: 1/4" = 1' 0"]

The group of cottages, seen from the south-west in the photograph below, for the Scottish Veteran's Garden City Association, were designed by A. D. Hislop for disabled men of the Fighting Forces and Merchant Navy. The site is in the grounds of the Princess Louise Scottish Hospital for Disabled Sailors and Soldiers at Erskine, Renfrewshire. The walls are treated with a white cement paint. The general contractors were Messrs. D. Paul. For sub-contractors see page 144.



were necessarily safer. The House of Lords' view was that the practice of standing on a narrow sill with only a sash to hold on to, and where the grip might be lost if the sash closed, was so inherently dangerous that the employers ought to have done something about it. Lord Reid said: "Where a practice of ignoring an obvious danger has grown up I do not think that it is reasonable to expect an individual workman to take the initiative in devising and taking precautions. It is the duty of the employer to consider the situation, to devise a suitable system, to instruct his men what they must do. . . ." These words are of general application. All those who are concerned in building operations that have "obvious dangers" will have to take them to heart. In this case the owners of the building were not held liable, but there was some comment on the possibility that sash windows out of balance might slide unexpectedly and so trap a man who was using them—and who had been invited to use them—as a hold for window cleaning. Owners of buildings could be held responsible for accidents resulting from windows which they knew, or should have known, were defective in this respect.

GUARD RAILS

The other case arose when a tubular metal scaffolding was being dismantled. Regulation 24(1) of the 1948 Building Regulations provides that there must be a guard-rail to every working platform from which a man may fall more than 6 ft. 6 in. In this case the scaffolding, some 15 ft. above the ground, was being dismantled and the guard rail had been removed as part of that operation. After it had gone a workman fell from the platform and was injured. Was there a breach of the statutory regulations?

The Court thought not. "I do not think," Lord Justice Somerville said, "that one can read into the regulations words which say that (the removal) must be done at the first or at the last moment which is physically possible." At some stage, the guard rail at each lift must go, even though there may be people working on that particular lift. The process of dismantling is continuous. Lord Justice Jenkins agreed. In his view, the moment at which it is to go must be left to the practical experience of the man in charge. That disposed of the claim that there had been a breach of statutory regulation, and, in this case, the Court did not think there had been any breach of duty at common law, either.

Both cases make it clear that an employer must anticipate the risks that exist and take steps to devise a drill to meet them. He must not rely wholly upon the experience of his men.

## LABORATORIES

for the DEPARTMENT OF ENGINEERING, CAMBRIDGE UNIVERSITY

designed by EASTON and ROBERTSON

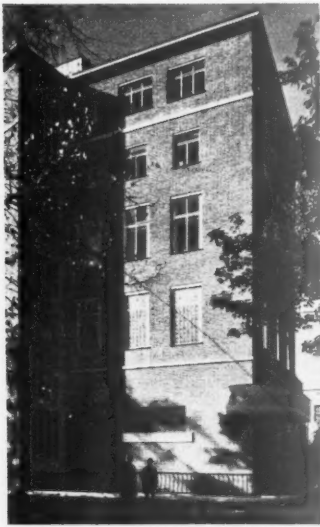
consulting engineers R. T. JAMES and PARTNERS

quantity surveyors HAMILTON H. TURNER and SON

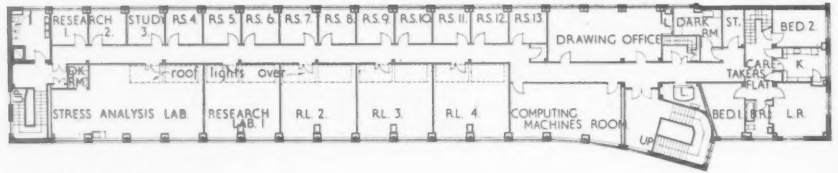
The new Faculty Building for the Department of Engineering at Cambridge is the first stage of a development designed to provide, on a site of only three acres, facilities for 700 students. The department, which is the largest in the university, has four professors, fifty dons and demonstrators, forty research workers and all are served by a permanent staff of 75. Very high site coverage is permitted and no restrictions governed the planning or construction except a height limit of 70 ft. and a building line of 30 ft. back from Fen Causeway.

*The new faculty building from the south-west.*

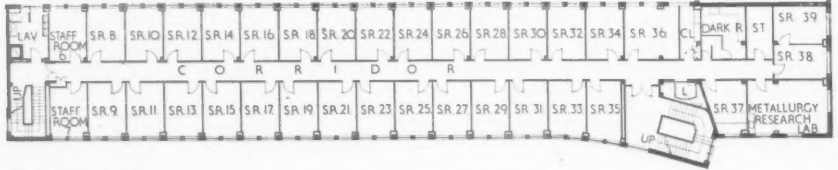




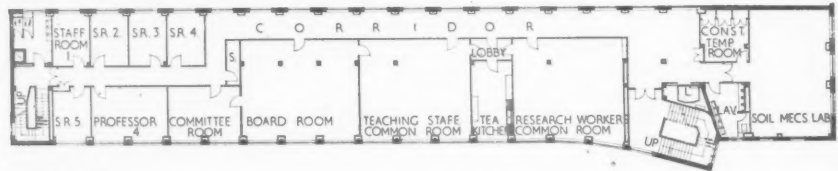
From the north-east looking down the main approach road.



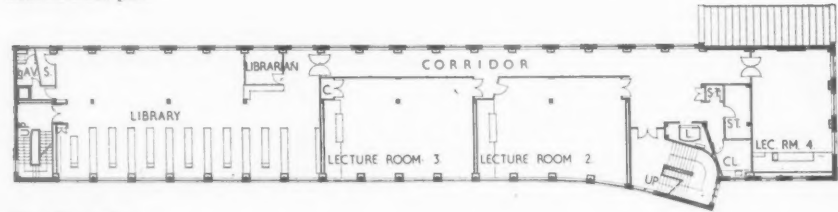
Fourth floor plan



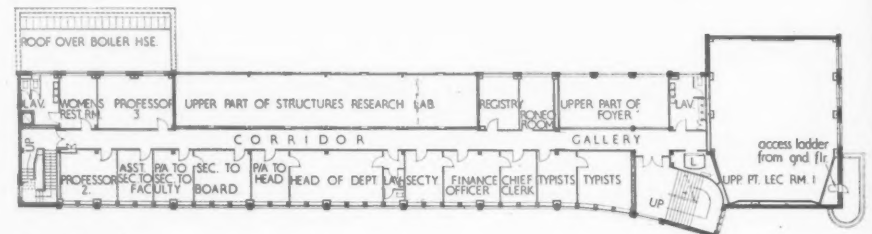
Third floor plan



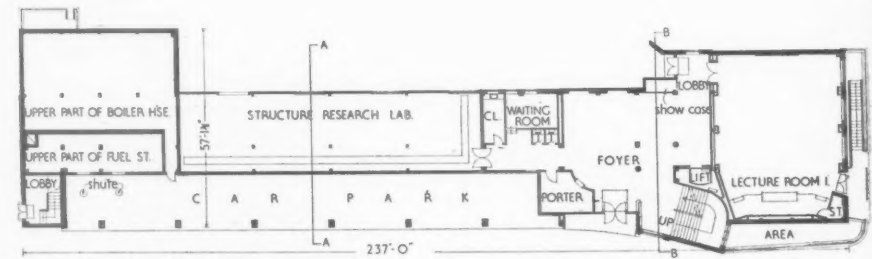
Second floor plan



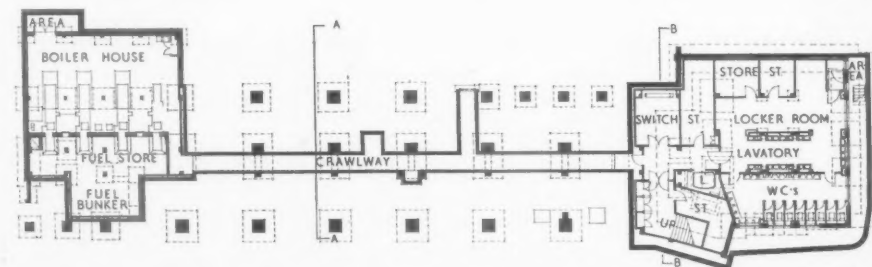
First floor plan



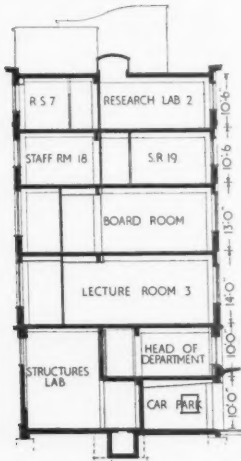
Mezzanine plan



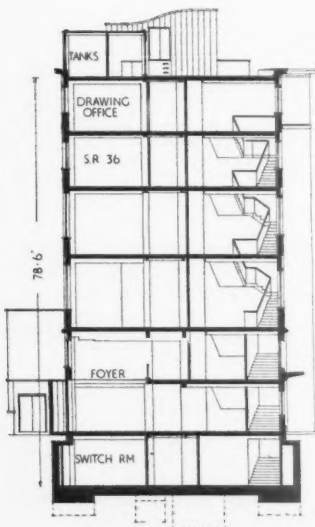
Ground floor plan



Basement plan [Scale: 1/4" = 1' 0"]



Section A-A



Section B-B



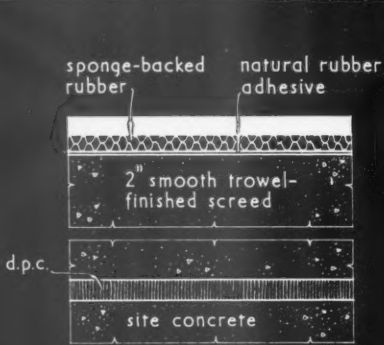


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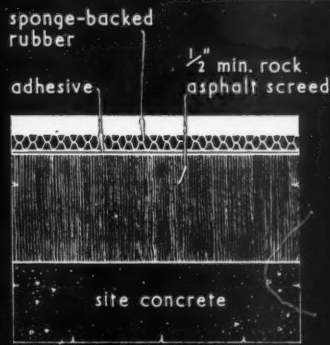
# FLOOR FINISHES | SPONGE-BACKED RUBBER

The Architects' Journal Library of Information Sheets 399. Editor: Cotterell Butler, A.R.I.B.A.

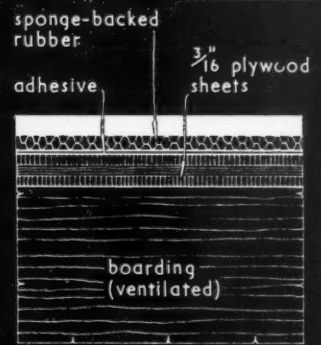


to concrete with sandwich membrane d.p.c. (ground floor)

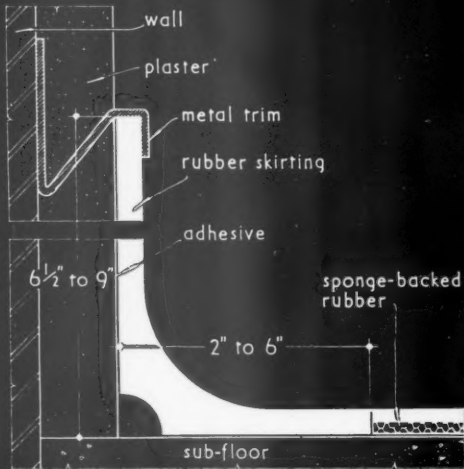
FIXING TO SUB-FLOORS. (scale full size)



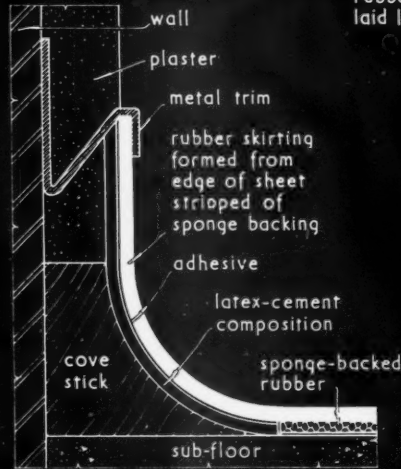
to concrete with damp-proof screed (ground floor)



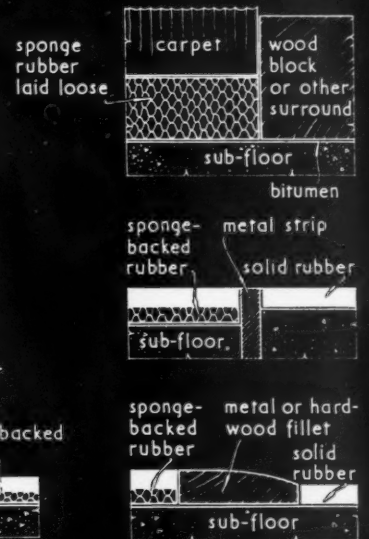
to suspended wood floor



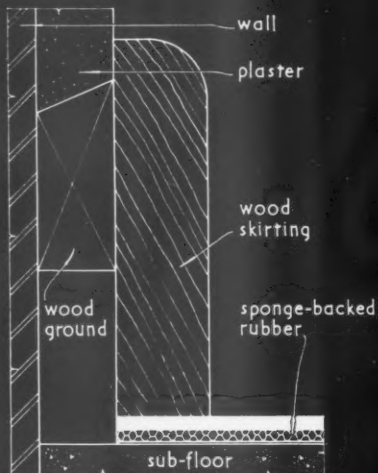
PREFORMED RUBBER SKIRTING.



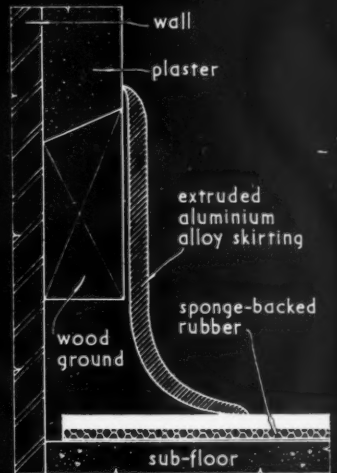
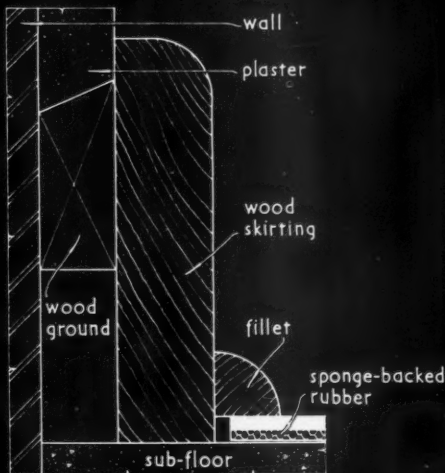
SKIRTING FORMED ON SITE FROM STANDARD SHEET.



EDGE FINISHES. (scale full size)



ALTERNATIVE WOOD SKIRTINGS. (scale 3/4" = 1")



METAL SKIRTING.

## SPONGE-BACKED RUBBER FLOOR FINISHES: LAYING AND FIXING.

Compiled from information supplied by The British Rubber Development Board.

### 19.F3 SPONGE-BACKED RUBBER FLOOR FINISHES: LAYING AND FIXING

**This Sheet**, deals with sponge-backed rubber floor finishes. These are composed of a layer of solid rubber with a backing of sponge rubber.

#### Characteristics and Properties

Sponge-backed rubber absorbs shock and has a cushioning effect to the tread; surface friction is reduced, thereby prolonging the life of the floor. It is comparatively warm to the touch, hygienic, silent and, owing to its resilience, does not show pronounced footmarks. It is easily cleaned and the backing does not harden, nor harbour dust or vermin. It is not recommended where the floor is likely to have considerable contact with oil or grease.

#### Sizes

The thickness of the top layer of solid rubber is usually  $\frac{3}{8}$  in. or  $\frac{1}{2}$  in. The sponge-rubber underlay may be from  $\frac{1}{2}$  in. to  $\frac{3}{4}$  in. The material is available in rolls up to 75 ft. long and 6 ft. wide.

#### Colours and Patterns

Sponge-backed rubber is available in the same wide range of plain or marbled colours as solid sheet rubber or tiles. Motifs and patterns may be executed to individual designs. The pattern is formed either by assembling the pieces of solid rubber on the sponge backing before the floor is laid or, on the site, over the backing previously laid.

#### Types of Sub-Floor

Sponge-backed rubber floors are normally laid on concrete or wood but may be applied to most types of rigid sub-floor provided they are level, smooth and dry. The material should not be placed over wood sub-floors on battens in concrete or on any other form of unventilated wood sub-floor. When a damp-proof screed is required, the rubber should be laid on rock asphalt, never on a bituminous coating.

#### Preparation of Surfaces

**Concrete sub-floors:** It is essential that the surface be even, smooth, dry and damp-proof. On solid ground floors a damp-proof layer of the sandwich membrane type may be incorporated in the body of the sub-floor, or preferably, a layer of rock asphalt should be laid over the surface of the concrete (as shown on the face of this Sheet) and joined to the d.p.c. in the surrounding walls. On ground floors where a damp-proof membrane is included or on suspended concrete floors, the rubber should be stuck to a sand-and-cement screed not less than 1 in. thick or a  $\frac{3}{8}$ -in. latex-cement composition underlay. If the concrete is given a smooth trowel-finish when it is laid, the screed or underlay may be omitted.

**Wood sub-floors:** These should be rigid, even and well ventilated. Where the sponge-backed rubber is to be applied direct to the boards, it is recommended that they be surfaced with a sanding machine. Old uneven sub-floors should be covered with plywood and all nail heads punched below the surface or screw heads countersunk and filled. An underlay of latex-cement composition floated over the sub-floor will give excellent results.

**Metal sub-floors:** A  $\frac{1}{2}$ -in. minimum screed of latex-cement should be applied before laying. In cases where the sub-floor has lapped joints the latex-cement screeding must be sufficiently thick to provide a level surface throughout.

**Other solid sub-floors:** The floor should be rigid and free from cracks or other defects. Slight irregularities, e.g. joints in quarry tiles, will not show through the sponge-backed rubber. Where the material is to be laid on quarry tiles they should be roughened to assist adhesion. Irregular and worn surfaces should be levelled by means of latex-cement composition or rock asphalt.

#### Laying

The sub-floor should be clean and quite dry before laying is commenced. Sometimes the sponge sheet is laid in one direction and the solid rubber transversely, so that the joints do not coincide. Only adhesives based on natural rubber should be used for securing the sponge to the sub-floor and to the solid top layer. The appropriate adhesive should be selected after consultation with the rubber manufacturer or the floor-laying contractor and applied in accordance with his recommendations. The adhesive should be allowed to become substantially dry and tacky before the material is placed in position. Long sheets may be laid loose in corridors where required for occasional use and stored at other times.

#### Skirting and Edge Finishes

Five types of skirting are illustrated. They may be preformed rubber units or the sponge backing may be cut back and the solid rubber continued as a cove on a latex-cement screed. Wood or metal skirtings may also be used.

No edges of the sponge or rubber should be left unprotected. Suitable finishes may be formed by the use of strips or fillets as shown.

#### Maintenance

**Washing:** Sponge-backed rubber floors should be washed regularly but not flooded. Soap and water applied with a cloth is generally sufficient to keep the floor clean, and it must on no account be scrubbed with abrasive cleansing powders.

**Polishing:** A water-emulsion type polish is recommended. Organic solvents, such as turpentine, or polishes containing them should not be used. Mineral oils, e.g. petrol, paraffin or turps substitute must be avoided. Polish should not be applied until about a month after the rubber is laid.

#### Applications

Sponge-backed rubber floor finishes are particularly suitable for all types of public buildings, e.g. banks, theatres, cinemas, hospitals, and on ships. As a general rule, a  $\frac{1}{2}$ -in. minimum thickness top layer on a  $\frac{1}{2}$ -in. backing should be specified. For domestic use,  $\frac{3}{8}$ -in. solid rubber on a  $\frac{1}{2}$ -in. sponge-rubber backing is suitable. The material is usually laid in sheet form. Sponge rubber may be used as an underlay for carpets.

#### Further Information

The British Rubber Development Board maintains a Technical Information Bureau which is available to answer questions and advise on technical problems dealing with this subject generally.

Compiled from information supplied by:

The British Rubber Development Board,

Address: Market Buildings, Mark Lane, London, E.C.3.

Telephone: Mansion House 9383/4.

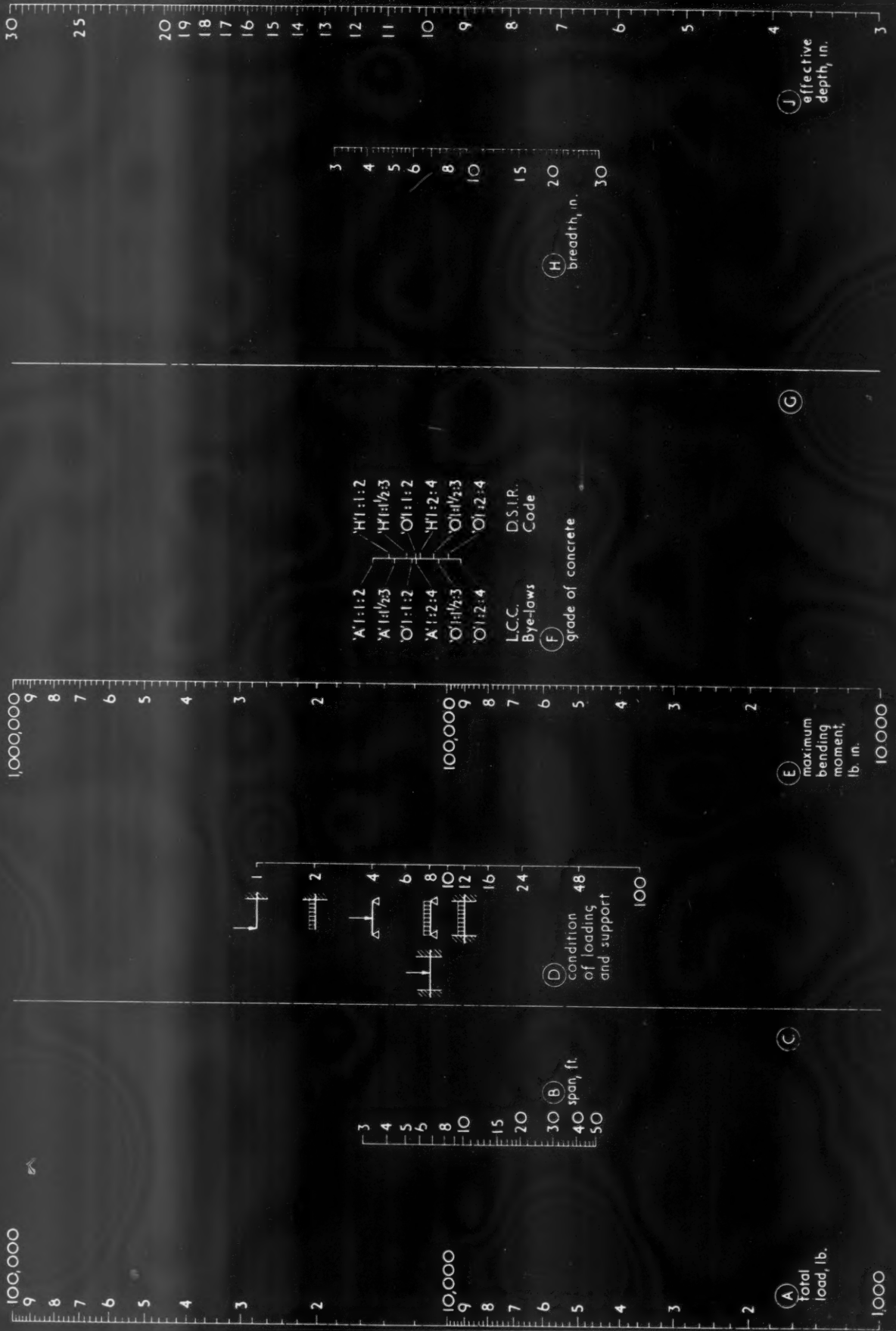




# CONCRETE REINFORCED BEAM AND SLAB DESIGN

6.A10 01A.9

The Architects' Journal Library of Information Sheets 400 Editor: Cotterell Butler, A.R.I.B.A.



NOMOGRAM FOR REINFORCED CONCRETE BEAM AND SLAB DESIGN 1: SIZES.

Compiled by Peter Burberry A.R.I.B.A.

## 6.A10 NOMOGRAM FOR REINFORCED CONCRETE BEAM AND SLAB DESIGN 1: SIZES

This Sheet is the first of two giving nomograms which replace some of the mathematical processes required in the calculation of reinforced concrete beams and slabs. The nomogram is used, as described below, to obtain suitable sizes for beams and slabs of rectangular section in relation to bending. Sheet 6.A11 shows how to obtain the cross-sectional area of reinforcement required for members of given dimensions.

**Method of Use**

**Setting 1.** Select the appropriate values on the load and span scales A and B respectively, and join them by a line or straight edge projected to cut the transfer line C.

**Setting 2.** A new setting is made using the point found on the transfer line C as the first value and a point on scale D as the second value according to the conditions of loading and support. From this setting the reading on scale E gives the maximum bending moment.

**Setting 3.** The third setting is made using the maximum bending moment value (scale E) as the first point and the grade of concrete to be used (scale F) as the second value, giving a point on the transfer line G.

**Setting 4.** Using the point found on line G as a pivot, readings may be made on scales H and J which give a range of appropriate combinations of breadth and effective depth from which a suitable size may be chosen.

When the size of slabs is being found the breadth should be taken as 12 in., representing a 1-ft. run of the slab, and the effective depth value is read off on scale J.

**Various Conditions of Loading and Support**

More than one condition of loading and support may be taken into account by obtaining the maximum bending moments separately, adding them together and then completing the settings in the normal way using the total bending moment.

If the diagrams representing the various conditions of loading and support are not applicable to the example under consideration, the correct reading on scale D is given by the denominator of the bending moment formula :—

$$\text{Maximum bending moment} = \frac{WL}{\text{appropriate value}}$$

(Sheets 2.B2 and 2.B3 give formulæ for the maximum bending moments for various conditions of loading and from these the denominator may be taken for the value to be used on scale D.)

**Self-Weight of Beams**

The estimated self-weight of beams and slabs should be added to the uniformly distributed loads.

**Point Loads**

Separate bending moments for any point loads should be obtained and added to the bending moment for the self-weight of the beam and the distributed loads, giving the total bending moment which is used in the normal way for setting 3.

**Grades of Concrete**

The grades of concrete indicated are those of the L.C.C. Bye-laws and the D.S.I.R. Code. L.C.C. grades are expressed in their volumetric equivalents.

"A" represents Grade A concrete (L.C.C.).

"H" represents High Grade concrete (D.S.I.R.).

"O" represents Ordinary Grade concrete (L.C.C. and D.S.I.R.).

**Overall Depth of Members**

The reading on the effective depth scale J represents the depth from the top of the member to the centre of gravity of the reinforcement. To obtain the overall depth of the member allowance must be made for the reinforcement below its own centre of gravity and for appropriate cover.

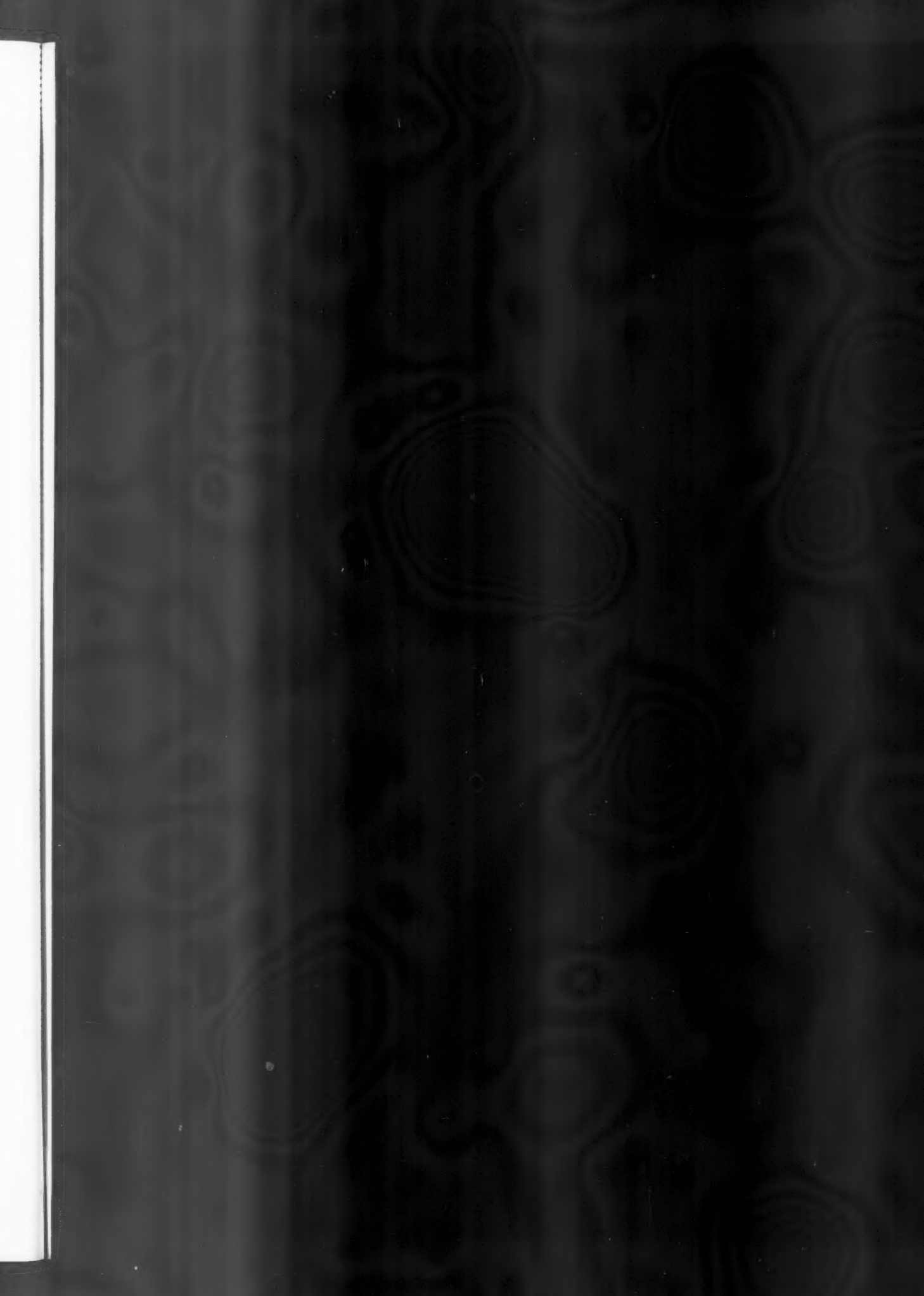
**Area of Reinforcement**

The cross-sectional area of reinforcement required may be found from the nomogram on Sheet 6.A11.

**Further Considerations**

Non-mathematical factors such as cover to, and allowable spacing of, rods, etc., should be borne in mind and reference made to Sheet 6.A11 and the appropriate Code of Practice or Bye-laws if necessary. Shear and deflection may have to be investigated separately.







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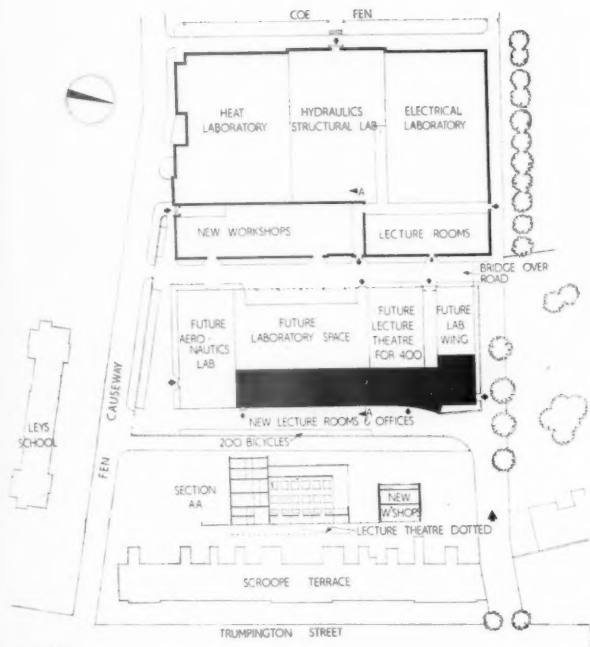
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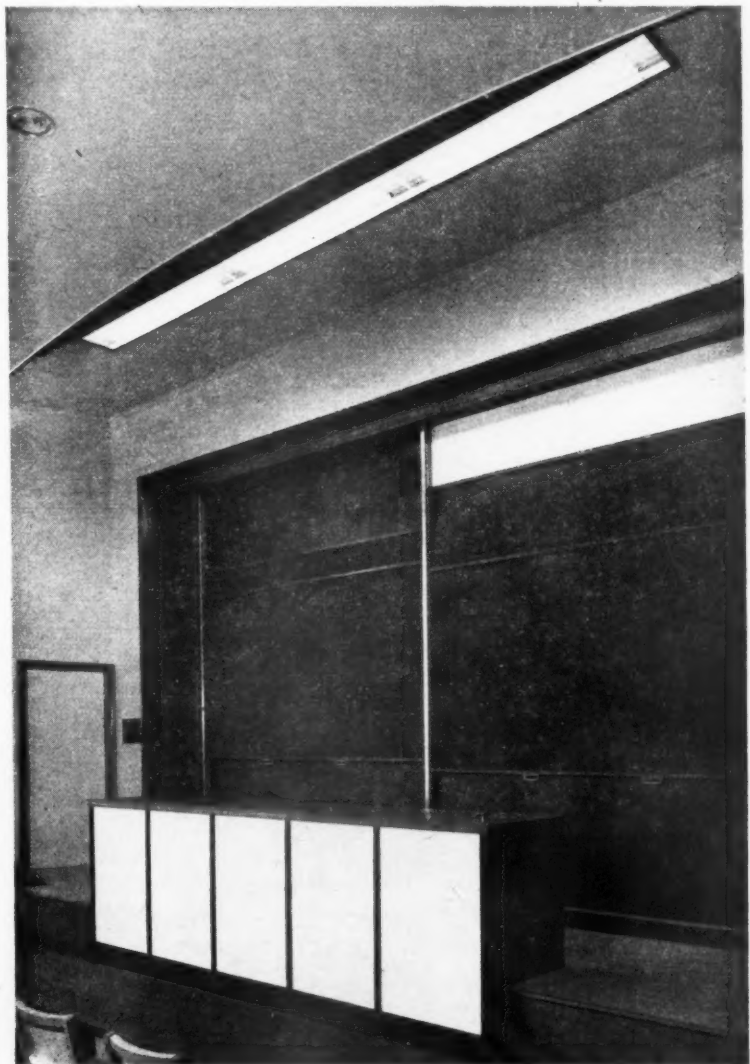


Site plan

**SITE.**—The site was originally the garden of Scroope House, a Regency residence. The original laboratory buildings, which occupy the western end of the site, were built after the first world war. It is important for the department to remain on the site because of the large amount of expensive technical equipment already installed in the old buildings, which it would be too costly to move elsewhere. Lack of parking space necessitated using part of the ground floor area for cars.

**PLAN.**—The height of the ground floor allowed a mezzanine to be planned above the parking area, and this contains the administrative offices. Between the staircases at either end of the block the partitions may be re-arranged on any floor, from the first floor upwards, to meet the changing needs of the department. Lavatories are placed at each end of the building and there is a cloakroom for students in the basement, reached by a separate outside staircase as well as from the main staircase. The large

*Below and right, two views of lecture room 1 on the ground floor.*



ground floor lecture room is also accessible from outside and, with the cloakroom, can be used by other organizations, while the rest of the building is locked up. The flat roof can be used for experiments in connection with radar.

**CONSTRUCTION.**—The building is steel framed on a regular 11-ft. grid between staircases. The first and second floors are of reinforced concrete to carry the potentially heavier loads in the future, elsewhere hollow tile construction is used. The external walls are 13½-in. solid brickwork. The basement, a frequent source of trouble in Cambridge clay, is not tanked, but a skin is built inside the structural concrete box, which allows the free passage of water to a sump. In the floor this inner

## LABORATORIES

for the DEPARTMENT OF ENGINEERING, CAMBRIDGE  
designed by EASTON and ROBERTSON



to sound deadening ; the whole of the first floor, for example, has a floating screed to dull the effect of feet passing over the administrative staff below. All doors have felt-linings for sound deadening.

**SERVICES.**—All services except electricity are provided in stacks at every 22 ft. along the east front, with connections at every floor in ducts, which also serve as stanchion casings. Heating is by low-pressure hot water, with radiators and some floor panels. Local extract fans clear air in lecture rooms. The general contractors were Messrs. William Sindall. For sub-contractors see page 144.

## LABORATORIES

for the DEPARTMENT OF ENGINEERING, CAMBRIDGE  
designed by EASTON and ROBERTSON

skin is formed by special precast concrete tiles resting only on their corners, so leaving a waterway beneath them. The screed and floor finish are laid upon these tiles. Internal partitions are of hollow breeze blocks.

**FINISHES.**—Portland stone is used as a casing for the piers of the car park and elsewhere, while the strip of windows above is divided by panels of quartzite. The blank wall of the large lecture room has been used for a panel, containing the University Arms in colour and an inscription. The general facing is of buff coloured Buckinghamshire bricks and asbestos sheeting is used where future wings will join the new building. Internally, all walls are plastered and painted, and polished hardwood is used for doors, skirtings and finishings. Floors are finished with cork, wood blocks and linoleum in assembly areas, research rooms and offices respectively. All furniture, which is in teak, was specially designed for the building by Professor R. D. Russell. The corridors have acoustic ceilings and particular attention has been paid

*Top left, stress and analysis laboratory on the fourth floor. Above, left, typical upper floor corridor. Above, part of the library on the first floor. Below, the structure research laboratory.*



## PRIMARY SCHOOL

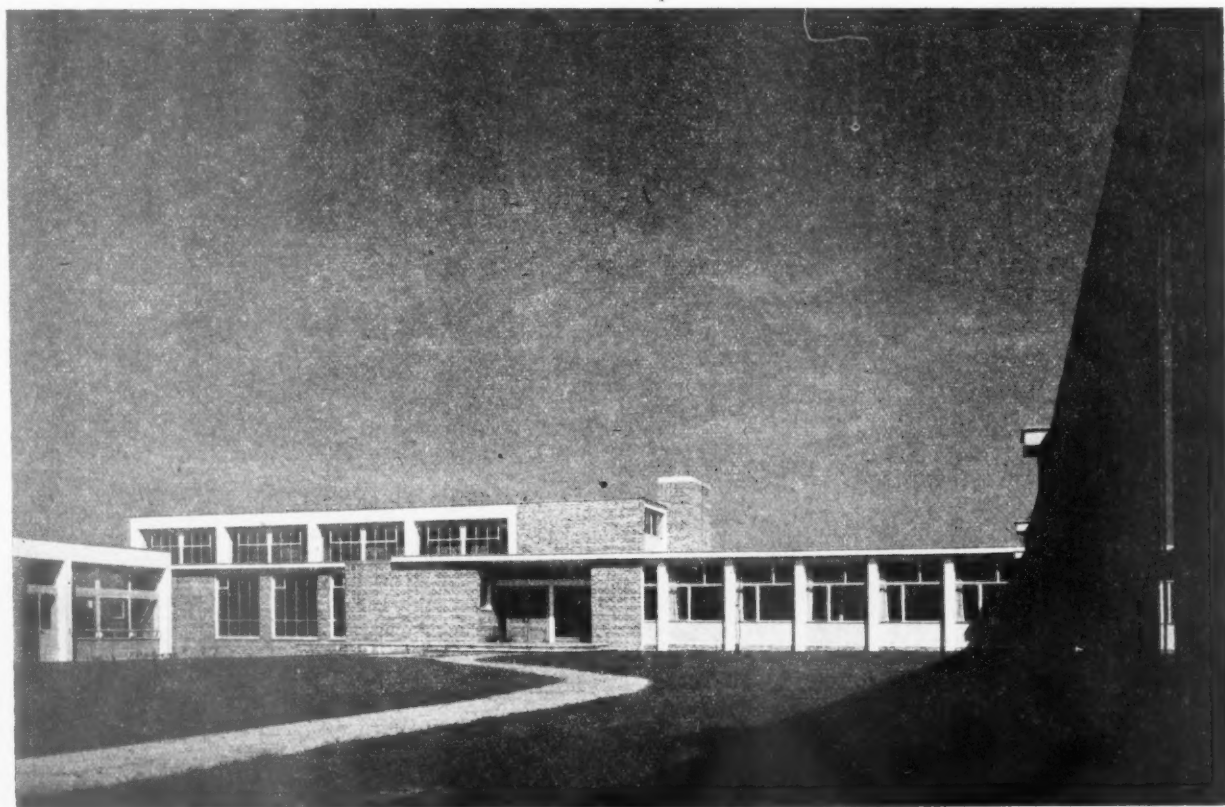
in TOWN COURT LANE, ORPINGTON, KENT  
designed by E. D. LYONS, L. ISRAEL and T. B. H. ELLIS  
in collaboration with S. H. LOWETH, county architect



*The east side of the courtyard.*

The Crofton County Primary School is planned to provide accommodation for 360 infants in nine classrooms, but this number will be reduced eventually to 270 as the school programme for the district progresses. The site, triangular in shape, lies to the east of an open area which is to be developed by the County Council, partly as playing fields and partly for a senior school. A road flanks the site on the east and north and there is an existing junior school to the south-east.

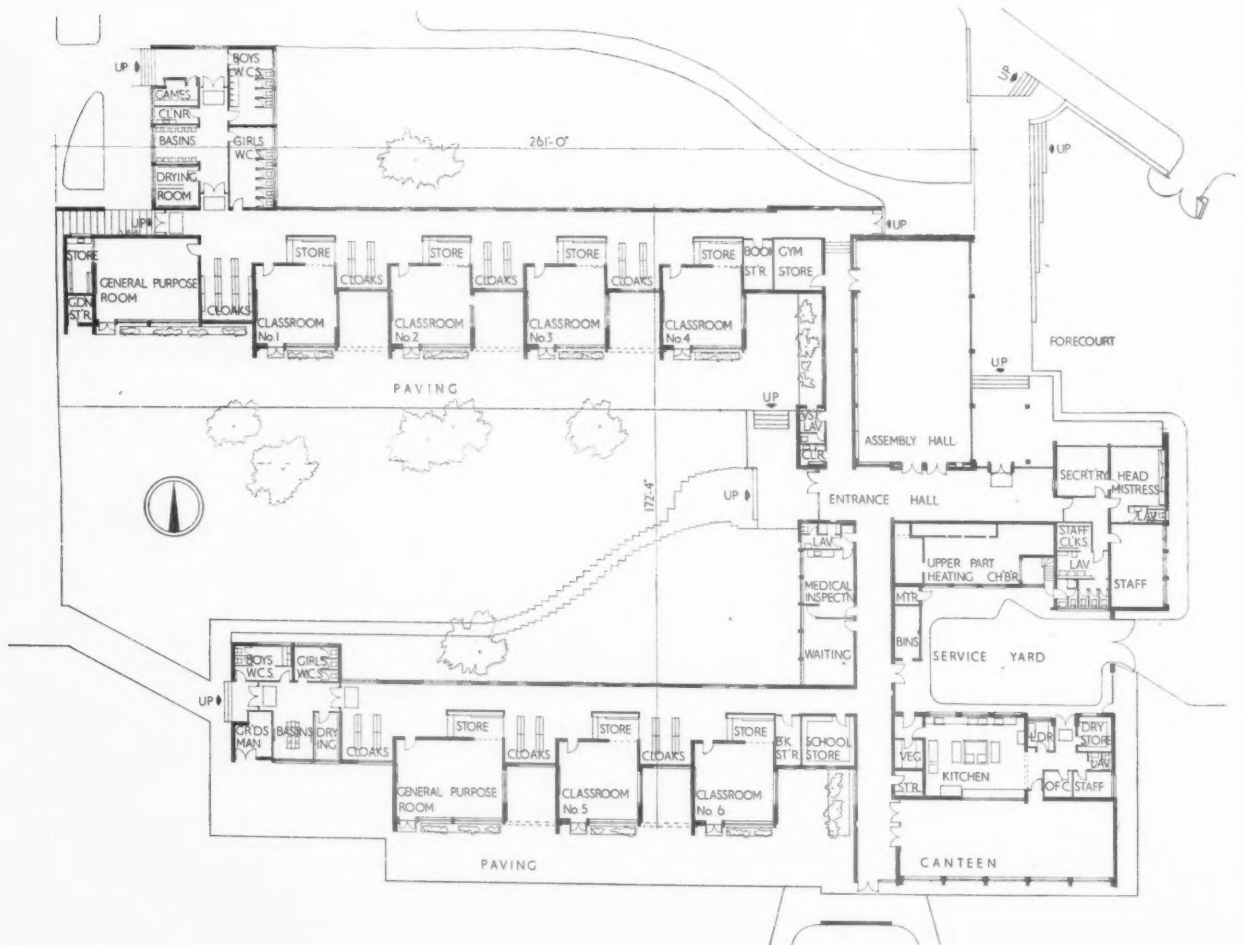
*The internal courtyard from the south-west.*





Above, typical outdoor teaching space between two classrooms. Above right, the south-west classroom wing from the south entrance porch.

SITE.—On the west side are open fields, which have a gentle slope down to a fine sweep of trees. The site itself has a gentle fall from south to north. There are two full-size play pitches and a smaller play area for the youngest children. The external



Plan [Scale:  $\frac{3}{8}'' = 1' 0''$ ]

artificial stone paved areas have panels of tarmacadam to form a panel and relieve monotony.

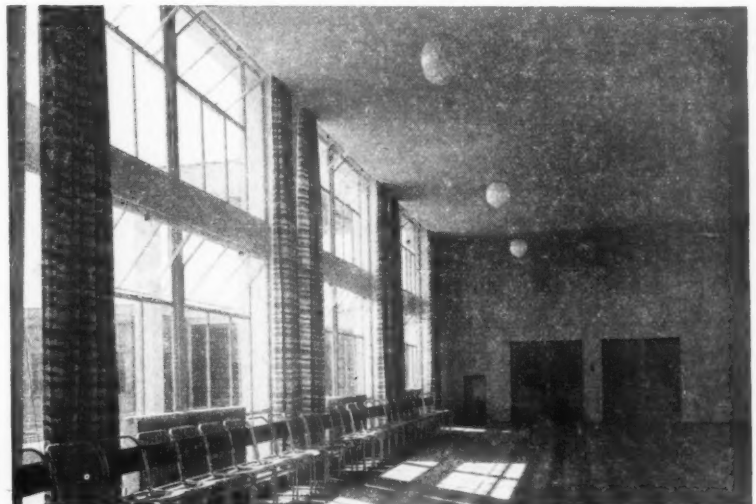
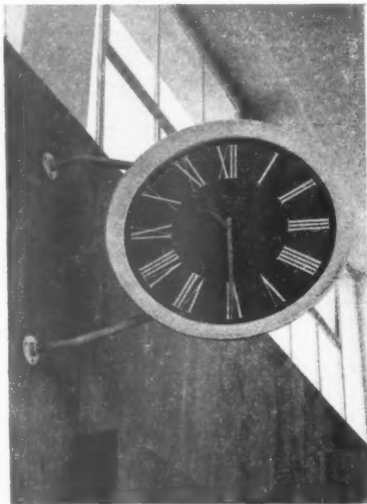
**PLAN.**—The layout of the school was guided by the need to obtain screening from traffic noise and to gain the best possible views of the open fields. The long axes of the building are parallel to the contours and all classrooms face south-east. The classrooms are in two wings, connected by the assembly hall, entrance hall and administrative offices. Classrooms are divided internally by cloak spaces and externally by paved courts directly accessible and easily supervised when in use as

outdoor play areas or teaching spaces. Instead of the orthodox enclosed storerooms, alcoves are provided, equipped with cupboards and shelves. These alcoves, which look on to corridors and are curtained from classrooms, can be used as additional space for small group activities. The assembly hall

## PRIMARY SCHOOL

in TOWN COURT LANE, ORPINGTON, KENT  
designed by E. D. LYONS, L. ISRAEL and T. B. H. ELLIS  
in collaboration with S. H. LOWETH, county architect

*Below left, clock in the assembly hall. Below, the assembly hall looking towards the entrance doors. Bottom, the main entrance on the east facade.*





*Above, two views of the north classroom block, with the assembly hall in the background.*

## PRIMARY SCHOOL

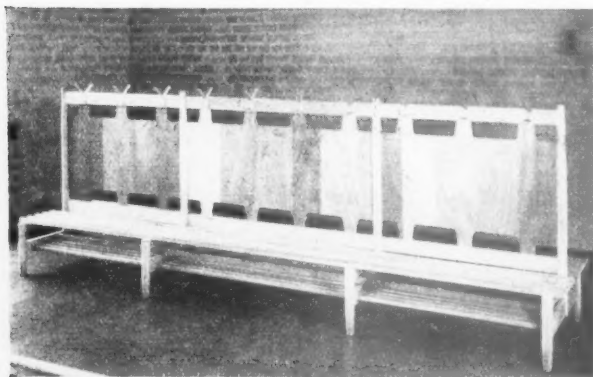
in TOWN COURT LANE, ORPINGTON, KENT  
 designed by E. D. LYONS, L. ISRAEL and T. B. H. ELLIS  
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is intended to be used purely for school assembly purposes and for indoor games. The canteen is designed to provide dining space for 160 children, with a kitchen able to provide meals for 320 children, who take meals in two sittings. At each of the children's entrances there is a covered area for parents waiting to take their children home.

**CONSTRUCTION.**—Partly of load-bearing 11-in. cavity brick walls and partly reinforced concrete framing. On the classroom wings the top member of the RC frame is made continuous, which adds to the enclosed feeling of the outdoor teaching spaces and gives continuity to the south elevations. The assembly hall has a RC portal frame. Internal load-bearing partitions are of 9-in. or 4½-in. brickwork. Roofs, precast lightweight joists with foamed slag infill, carrying a 1½-in. thick RC slab.

**FINISHES.**—Floors are finished with concrete tiles in the entrance hall, with beech blocks in the assembly hall, buff non-slip tiles in the kitchen, coloured granolithic in lavatories and elsewhere thermoplastic tiles. The roof is finished with 3-ply felt. Internally, walls are in Uxbridge cream flint bricks with light cream coloured pointing and with a skirting of Staffordshire blue engineering bricks. Walls are plastered only where conduits occur or where washable surfaces are required, as in the lavatory wings and kitchen.

The general contractors were E. O'Sullivan (Kenley) Ltd. For sub-contractors see page 144.



*Below left, specially designed cloakroom fitting. Below, wall fitting in the headmistress's room.*



## TECHNICAL SECTION

This being the first Technical Section after our New Year Issue, readers may like to have a glimpse of some of the articles and features scheduled for the first half of 1953. These will include: the second part of our anonymous correspondent's analysis of the new Model Byelaws, in which he will deal with the changed fire precaution byelaws and compare them with the requirements of the new LCC byelaws; articles on lifts, school heating and factory lighting and a special article comparing various methods of determining the shadows that are cast on buildings.

"Surveys" already scheduled for the near future include: one on lighting; one on structural steelwork; one on new forms of concrete, which will include a description of the use of vacuum concrete; and one on the new hardwoods. Regular features, such as Professor Bowen's monthly articles, the first of which for 1953 appears below, Brian Grant's "Industry" notes, the Information Centre, Questions and Answers, and Current Prices, will continue as usual. So, too, will our illustrated features covering world-wide developments in constructional techniques; one of these, next week, will show the new aluminium hangars for the *Comet*.

This week's  
special article

### 1 SOCIOLOGY private house-building

The number preceding the week's special article or survey indicates the appropriate subject heading of the Information Centre to which the article or survey belongs. The complete list of these headings is printed from time-to-time. To each survey is appended a list of recently-published and relevant Information Centre items. Further and earlier information can be found by referring to the index published free each year

*Professor Bowen does not expect the easing of licensing on small house-building to bring about an era of mass production of small dwellings. In the article below, he explains why. There is, however, a considerable demand for new houses, even at the present high cost of building, but many potential house-builders may postpone building in the hope that interest rates are reduced, and many potential house purchasers will be more selective than their predecessors in the 1930's.*

Private house - building is now "licensed" automatically. What are the effects of this important change going to be? Can we expect to see more good quality houses being built? Will the change inaugurate a spate of speculative jerry building? Or will there be only a short-lived boom?

#### HOUSING DEMAND

There is, undoubtedly, a large demand for new houses from people who can afford to pay the economic price for them, and a larger demand from people who could afford the economic rent. This demand is, however, far less evenly spread over the whole country than the

demand for local authority (subsidized) houses. It is greatest in the Midlands, the Home Counties, and southern parts of the country generally, and on the outskirts of a few of the large northern cities. It is relatively slight in the north-west and other parts of the country that have suffered a recession in trade.

The most pressing demand is from "suppressed separate households," i.e. young couples sharing houses with "in laws," and from "newly-weds" setting up home for the first time. But only a limited number of these potential house-builders have the cash to pay for a house, or can face with equanimity the high current rates of interest on a, possibly, depreciating asset.

The reduced size of the average family and the increased proportion of small families, together with the shortage of domestic servants, is likely to increase the demand for the small, but well-equipped and labour-saving, type of house. Many elderly couples, at retiring age, might be prepared to invest their savings on a home, if this type of house were on the market.

#### SPECULATIVE BUILDING

Many large firms of building contractors, and some of the smaller firms, own land, which they are now free to build on (at least, 12 houses at a time). It seems probable, however, that speculative builders will plan their programmes most cautiously. The risks of a speculative market at a time when building costs and interest rates are

high, and when the continuation of the present demand is uncertain, affects the speculative builder far more than the owner-occupier, who is, after all, concerned primarily with getting a home. Certainly, speculative builders are most unlikely to expand their output to the extent they did in the 1930's.

#### ECONOMIC FACTORS DISCOURAGING HOUSE-BUILDING

During 1952, industrial production fell heavily, yet the decline in unemployment was far less severe; the Government's deficit rose, yet prices tended to fall; interest rates were increased, yet building activity remained fairly stable. In fact, the economic situation is highly complex and the future outlook decidedly uncertain.

It is clear that, very often, when certain controls are lifted, other official measures, of a less direct nature (such as the organization of "short-time," and the special measures to encourage house- and factory-building), continue to operate, and, thereby, maintain the equilibrium of our apparently unbalanced economy. However, the uncertainty of the situation makes it very difficult to forecast the effects of freeing house-building. Uncertainty is, itself, a discouragement to investment, and this factor alone will, undoubtedly, restrain a number of potential house-builders.

#### INTEREST RATES AND THE COST OF LIVING

The high rate of interest is an important deterrent, but it will become even more

important if people believe that it is shortly to be reduced. The severity of the burden of high interest rates on the Exchequer itself (it has to pay interest on the entire National Debt), certainly indicates that a reduction is probable.

The rising cost of living (on top of rising building costs) may also counteract part of the demand for new houses. The housing boom of the '30's was preceded by an exceptional fall in the cost of living. But, at present, as subsidies are being removed, the cost of living is rising, and many people who postpone building operations, for any reason, may, in fact, never build at all.

#### A MORE SELECTIVE DEMAND

The considerable drop that has already taken place in the price of some second-hand houses indicates that the *effective* demand for houses is weakening. This is bound to affect the demand for new houses, too. Certainly, speculative builders, like the producers of other commodities, will, in future, have to study the exact nature of their market far more carefully. Even if the effective demand for houses does not fall off a great deal, it is bound to become more *selective*. The most popular design and the safest investment will be a small, compact and well-designed house—a house, in fact, that needs an architect to design it. Builders who ignore this factor, will probably do so at their peril.

IAN BOWEN.

This week's  
special feature

## 8 ESTIMATING materials' prices

Current prices for measured work will appear next week. Prices of materials and measured work last appeared in the JOURNAL on Oct. 23 and Nov. 6, 1952, respectively.

*Current rates of wages and market prices of materials prepared by Davis, Belfield and Everest, Chartered Quantity Surveyors. The wage rates quoted below take into account the cost-of-living increase, announced last week, that comes into operation on February 2. The current rates operative until that date will be found in the JOURNAL for October 23, 1952.*

Rates of Wages as from February 2, 1953 will be as follows:—

LONDON DISTRICT		Craftsmen.	Labourers	
Within 12 miles radius .. .. .	3s. 8d.	3s. 2½d.		
From 12-15 ,, ,, .. .. .	3s. 7½d.	3s. 2d.		
LIVERPOOL and DISTRICT		3s. 8d.	3s. 2½d.	
GRADE CLASSIFICATIONS A                    A <sup>1</sup> A <sup>2</sup> A <sup>3</sup>				
Craftsmen ..	3s. 6½d.	3s. 6d.	3s. 5½d.	3s. 5d.
Labourers ..	3s. 1d.	3s. 0½d.	3s. 0d.	2s. 11½d.

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Many architects choose Ibstock facings for the distinction imparted to buildings by the attractive colours and varieties available or specially selected.

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IBSTOCK BRICK & TILE CO. LTD., near LEICESTER

Phone : Ibstock 391 (2 lines)

LONDON : L.M.R. GOODS DEPOT, WRIGHT'S LANE, KENSINGTON, W.8

Phone : Western 1281 (2 lines)

Prices vary according to quality and the quantity ordered.

Those given below are average market prices and include delivery in the London area, except where otherwise stated, but do not include overhead charges and profit for the General Contractor.

**CONCRETOR**

*Cements*

Portland to B.S. 12, 6 tons and over	per ton	91/-
Rapid hardening to B.S. 12, 6 tons and over	"	99/-
Aquacrete water repellent, 6 tons and over	"	123/6
Aluminous to B.S. 915, 1 ton lots	"	251/6
Snowcrete, 1 ton lots	"	280/-

Above prices include for delivery to Charing Cross in non-returnable paper bags or cotton sacks.

*Aggregate and Sands, etc. (Full Loads)*

¾" (Down) Washed, crushed and graded shingle to B.S. 882, Table 2	per yard cube	18/3
1½" Ditto	per yard cube	17/3
¾" Sharp washed sand to B.S. 882, Table 3	per yard cube	20/10
Brick hardcore	per yard cube	9/6

(For Sands for Bricklaying and Plastering, see respective trades)

*Floor Blocks*

Floor blocks, 12" x 12"	per 1,000	673/-	909/-	1,050/-
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*Reinforcement*

Home trade maximum basis price for mild steel rods to B.S. 785, ½" diameter and upwards, ex mills delivered to station or siding

per ton	£31 19 0
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Extras for:—

Under ½" to 7/16" diameter	per ton	£1 7 0
Ditto 7/16" and over 3/8" diameter	"	£1 14 6
¾" and over 11/16" diameter	"	£2 2 0
1 1/8" and over 5/8" diameter	"	£2 9 6
1 1/4" and over 9/16" diameter	"	£2 17 0
1 3/8" and over 1 1/16" diameter	"	£3 4 6
1 1/2" diameter	"	£3 12 0
Under 1 1/4" to 3/8" diameter	"	£5 2 0

*Fabric Reinforcement*

	16.35 lb.	9.32 lb.	4.71 lb.	1.83 lb
Steel wire mesh fabric to B.S. 1221, Part A, per yd. super	7/8	4/5	2/3	1/5

**BRICKLAYER**

*Common Bricks*

Third stocks	per 1,000	121/10
Rough stocks	"	157/10
Mild stocks	"	202/4
Sand limes	"	108/6
Phorpres pressed Flettons	"	108/-

*Facing Bricks*

Hand-selected sand limes	per 1,000	143/9
Phorpres rustic Flettons	"	133/-
Stocks, first hard	"	249/4
Stocks, second hard	"	233/4
Southwater pressed sandfaced reds	"	277/-
Dorking pressed sandfaced multicoloured facings	"	231/6

*Engineering Bricks*

Lingfield engineering wirecuts. Grade 'B'	per 1,000	211/-
Southwater engineering No. 2 (second quality red pressed)	"	274/6
Blue pressed bricks to B.S. 1301	"	486/6

*Glazed Bricks*

White, Ivory or Brown, 9" x 2 7/8" x 4 1/2" delivered London stations.	£ s. d.	
Headers	per 1,000	63 0 0
Stretchers	per 1,000	64 0 0
Seconds quality, above prices less 10%.		

**BRICKLAYER (continued)**

*Limes and Sands*

†Lime, greystone, to B.S. 890	per ton	108/6
†Lime, chalk, ditto	"	108/6
*Lime, hydrated, ditto	"	123/-
Washed pit sand to B.S. 1200	per yard cube	20/10

\* Including paper bags.  
† Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

*Sundries*

10 s.w. gauge galvanized butterfly type wall ties to B.S. 1243	per 1,000	108/-
Wall ties, galvanized, 8" x 3" x 1/8", to B.S. 1243	per cwt.	111/9
Damp proof course slates:		
Size 14" x 9"	per 100	43/-
Size 14" x 4 1/2"	per 100	21/-
Hessian base bitumen damp course to B.S. 743	per yard super	5/6
	9" x 3" 9" x 6" 9" x 9"	
Terra-cotta airbricks	each	1/3
Galvanized cast-iron airbricks	each	3/8
Galvanized cast-iron hit-and-miss ventilators	each	3/7
Wall reinforcement supplied in standard rolls containing 25 yards lineal		
‡ 2" wide black japanned	per roll	3/4
‡ 2 1/2" wide black japanned	"	4/2
‡ Greater widths pro rata 2 1/2" price, carriage paid on orders of £7.		

Discount for quantities.

*Partitions, etc.*

Clinker concrete, solid to B.S. 492	2"	2 1/2"	3"	4"
	per yard super	3/2	3/9	4/4
Hollow clay to B.S. 1190 (keyed)	"	4/2	4/5	4/11
Moler (keyed)	"	13/6	14/-	14/6
Building blocks (keyed):—				4"
6 cavity	per yard super	6/5		
Normal quality woodwool slabs	1"	1 1/2"	2"	2 1/2"
Minimum delivery, square yards,	500	400	325	275
per yd. super	5/2	6/8	8/3	9/8

**PAVIOR**

2" coarse gravel for paths	per yard cube	21/3
¾" fine ditto	"	22/9
Clean granite chippings to B.S. 1201, Table 4 (in 5-ton loads)	per ton	44/9
Red quarry tiles 6" x 6" x 3/8", to B.S. 1286	per yard super	12/9
Ditto 6" x 6" x 1/2", to B.S. 1286	"	10/9
Buff quarry tiles, 6" x 6" x 3/8", to B.S. 1286	"	15/3
Ditto 6" x 6" x 1/2", to B.S. 1286	"	13/-
Hard red paving bricks, 2"	per 1,000	429/-
Ditto 1 1/2"	"	404/6

**DRAINLAYER**

*Clay Land Drain Pipes to B.S. 1196*

Pipes in 12" lengths	per 1,000	195/-	255/6	529/-
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*Salt Glazed Stoneware Pipes and Fittings*

The following percentages to be added to the Standard List prices.

	Orders for 2 tons and over	Orders under 2 tons 100 pieces upwards	Orders under 2 tons less than 100 pieces
Seconds Quality	67 1/2% less 15%	87 1/2% less 15%	97 1/2% less 15%
Best Quality	67 1/2%	87 1/2%	97 1/2%
British Standard Quality	67 1/2% + 10%	87 1/2% + 10%	97 1/2% + 10%
Tested Quality	67 1/2% + 37 1/2%	87 1/2% + 37 1/2%	97 1/2% + 37 1/2%
British Standard Tested	67 1/2% + 47 1/2%	87 1/2% + 47 1/2%	97 1/2% + 47 1/2%

*Cast Iron Drain Pipes and Fittings*

Socket and spigot pipes to B.S. 437:—					
Weight per 9 ft.	Size	9 ft.	6 ft.	4 ft.	3 ft.
		each	each	each	each
1	1	17	4"	56/6	41/4
2	0	1	6"	84/3	65/4
3	3	21	9"	153/6	130/4
				110/6	84/8



# There's nothing like Lansdowne Emulsion Paint

**FOR SAVING TIME, MONEY AND LABOUR**  
**Sealer, Undercoat & Top Coat all in one tin**

Lansdowne Emulsion Paint dries in under three hours. Three coats can be applied in one day if necessary. Less paint is required because of its opacity and extra covering power. The paint can be used straight from the tin (as directed). It is as easy to apply as distemper, and can be sprayed on most effectively. It dries to form a tough, elastic film which resists scratches and does not pick up dirt. Lansdowne Emulsion Paint has been prepared in a complete range of colours (including the dark shades). Two finishes—eggshell and matt—make it suitable for general application.

Whether you've used Emulsion Paints before or not, we invite you to try Lansdowne Emulsion Paint on any clean surface you like—even pitch, creosote or new plaster. The excellent results will speak for themselves.

- HIGH GLOSS PAINTS • UNDERCOATINGS
- FINE ENAMELS • SYNTHETIC ENAMELS
- WASHABLE DISTEMPERS • WALL FINISHES
- ANTI-CORROSION PAINTS • VARNISHES
- IMPLEMENT PAINTS • TRACTOR PAINTS
- RED OXIDE PAINTS • BITUMINOUS PAINTS
- METALLIC PAINTS • ALUMINIUM PAINTS
- STOVING ENAMELS • PRIMING PAINTS
- INDUSTRIAL FINISHES



### Hospital Ward

Ward repainted with minimum disturbance to hospital routine. Patients all back the day after—no paint odour, and a hygienic surface that can be scrubbed.



### New Interior

New plaster painted as soon as dry. No danger of patches; moisture dries out through the paint film. 3-in. or 6-in. brushes can be used, with the minimum of brushing.



### Kitchen

Less condensation on kitchen walls. Lansdowne Emulsion Paint resists oil and fat. Completely painted (two coats) in one morning. Food untainted by paint odour.



### Cinema

'Mass attack' on interior after last house. Working through the night, all completed by midday. No smell, no "wet paint" signs. Programmes uninterrupted.



### Dairy

Hard power-washing doesn't affect Lansdowne Emulsion Paint. Tough surface stands up to rough treatment. Paint is its own sealer.

**WRITE OR PHONE FOR  
 A SAMPLE TIN,  
 SHADE CARD AND PRICES**

**Lansdowne** . . . a good name  
**for service in paint**

LANSDOWNE PAINTS, LANSDOWNE WORKS, BARNET, HERTS. (BARNET 3640 & 2418)



**DRAINLAYER (continued)**

Tonnage Allowances :-

Orders up to 2 tons nett.

	4"	6"	9"
*Bends (short radius) as Fig. No. 4 each	6/3	13/-	40/-
*Single junctions as Fig. No. 18 .....	11/-	22/6	69/-
*Intercepting traps as Fig. No. 33 .....	30/-	50/-	123/-
*Gullies ordinary trapped "P" .....	14/6		
*Extra for 4" vertical back inlet .....	4/3		
*Grease gully trap .....	121/-		

\* These prices are subject to 108½% plusage.

Channels in Brown Glazed Ware.

Standard list + same discounts as "Best" quality salt-glazed Stone-ware pipes.

White Glazed Channels

Orders under 20 pieces. Standard list + 10%.

Manhole covers and frames

	Size of load	Unit price
C.I. coated double triangular manhole cover and frame, 22" dia. clear opening to B.S. 497, Grade A .....	35 tons	154/-
C.I. coated circular manhole cover and frame, 22" dia. clear opening to B.S. 497, Grade B. ....	5 tons	84/-
	Size of load	Single seal Flat type
Coated manhole cover and frame to B.S. 497, Grade C, 24" x 18" each	1 ton	39/10
Galvanised ditto, 24" x 18" each	1 ton	63/-
Coated manhole cover and frame, to B.S. 497, Grade C, 24" x 24" each	1 ton	56/9
Galvanised ditto, 24" x 24" each	1 ton	93/-

**MASON**

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks serapped, random sizes .....	per foot cube	11/4
Add for blocks to dimension sizes .....	"	1/4 (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2' 6" long) .....	"	12/8
Templates with sawn beds, sawn one edge, .....	"	14/8
Price f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 4-ton loads) .....		57/2

Bath stone in random blocks

Monk's Park .....	per foot cube	6/8
St. Aldhelm Box Ground .....	"	7/8
Delivered on rail at South Lambeth station.		

Portland stone in random blocks, average 20 feet

Whitbed .....	per foot cube	7/5
Delivered on rail at Nine Elms Station.		

Artificial Stone to B.S. 1217

4½" x 4" Sill, sunk, weathered, throated and grooved .....	per foot run	3/-
9" x 3" Ditto .....	"	4/6
2" x 12" Coping, weathered and twice throated .....	"	3/9
3" x 12" Ditto .....	"	5/6
5" x 12" Saddleback coping, twice throated .....	"	8/9
6" x 12" Ditto .....	"	11/-

**SLATER, TILER AND ROOFER**

Slates

	£	s.	d.
16" x 10" Best Bangor Slates to B.S. 680 .....	per 1,000 actual	49	14 6
0" x 10" Ditto .....	"	74	0 6

**SLATER, TILER AND ROOFER (continued)**

Tiles

Hand-made sandfaced 10½" x 6½" red roofing tiles	per 1,000	325/9
Machine-made sandfaced best red tiles with continuous nibs, 10½" x 6½" .....	"	204/6
Berkshire hand-made red Pantiles, 14½" x 10" .....	per 100	119/9
Bridgwater hand made red sandfaced pantiles, in 6 ton loads .....	per 1,000	799/6
Bridgwater hand made red sandfaced Double Roman tiles, in 6 ton loads .....	"	1075/5
Concrete plain tiles, 10½" x 6½" .....	"	160/9
Ditto interlocking tiles, 15" x 9" .....	"	490/-
Ditto Double Roman Tiles .....	"	800/-

Asbestos-cement

*6" corrugated sheets, grey .....	per yard super	5/11
*Prices are for minimum two-ton loads, and are subject to 2½% discount.		

Felt

Reinforced roofing felt to B.S. 747 .....	per yard sup.	1/8
Roofing felt (1-ply bitumen) to B.S. 747, Part I .....	"	1/6
Bituminous hair felt to B.S. 747, Part II .....	"	2/10½

**CARPENTER AND JOINER**

Wall boards

½" Imported Fibre board .....	5,000 to 15,000 sq. ft.	
(per 100 sq. ft.) .....		45/-
½" Imported Hardboard (per 100 sq. ft.) .....		46/-
¾" Imported Hardboard (per 100 sq. ft.) .....		66/-
* ¾" Semi compressed asbestos cement flat building sheets, grey .....	per yard super	2/6
* ¾" Ditto .....	"	3/6
*Prices are for orders of 2 tons and over. Subject to 5% trade discount.		

Sundries

" Sisalkraft" standard grade .....	per yard sup.	-/11½
" Sisalkraft" subsoil grade .....	"	-/7½
" Sisalation" single sided .....	"	2/1½
" Sisalation" double sided .....	"	3/1
* Fibre glass Bitumen-bonded .....	"	1/11½
* Price is for orders value £5 and over.		

Timber

Softwood for Carpentry (average price) .....	per std.	£95
Softwood for Joinery (ditto) .....	"	£105
Tongued and Grooved Softwood Flooring (ditto) .....	"	£105
*First Quality European Oak .....	per ft. cube	25/- to 40/-
*Teak .....	"	40/- to 80/-
* Prices vary considerably depending on specification.		

Standard Panelled and Glazed Wood Doors to B.S. 459, Pt. I

Type 4 size 2' 6" x 6' 6" x 1½" .....	each	34/3
Type 2 x G size 2' 6" x 6' 6" x 2" .....	"	41/6
Type 4 x G size 2' 6" x 6' 6" x 2" .....	"	47/6

In lots of from 1 to 11 inclusive.

Wood Windows

N 26 V size 1' 5¼" x 2' 6¼" .....	each	22/8
2 26 V size 4' 0¼" x 2' 6¼" .....	"	45/5
N 40 V size 1' 5¼" x 4' 0¼" .....	"	25/10
3 40 V size 5' 11¼" x 4' 0¼" .....	"	80/4
4 40 V size 7' 10¼" x 4' 0¼" .....	"	101/-
In lots of from 1 to 20 inclusive		

Kitchen Units

No. 1 size 3' 6" x 2' 8" x 1' 7" .....	each	174/6
No. 2 size 3' 6" x 2' 8" x 1' 7" .....	"	121/-
No. 4 size 2' 8" x 1' 9" x 1' 7" .....	"	107/-
No. 5 size 3' 10" x 1' 9" x 1' 7" .....	"	93/-
No. 7 size 6' 6" x 1' 9" x 1' 7" .....	"	140/-

Prices include for tops and plinths.

In lots of from 1 to 15 inclusive.



**I tell you — by switching to  
Finlock Gutters you'll save  
£15 a house** (*says Mr. Fin*)

—and 3 days' construction time (*says Mr. Lock*)

EVERY time FINLOCK pre-cast concrete gutters are used a FINLOCK expert is ready to give advice and assistance. He'll take off his coat if need be, and give practical help as well!

He is a highly qualified technician and an essential member of the FINLOCK team which ensures that we don't just "supply gutters" but see that everybody is really satisfied—right through the job.

That is why the FINLOCK service is so admired by every customer we have—and that number is growing every day as this modern system is adopted by more and more architects and builders.

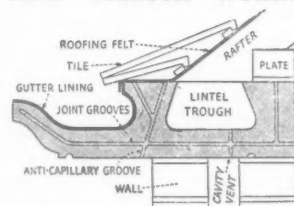
# FINLOCK GUTTERS LIMITED

20 ST. JOHN'S ROAD, TUNBRIDGE WELLS, KENT (Head Office)

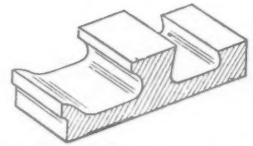
Telephone : Tunbridge Wells 20396/7/8

7 WORKS FOR SPEEDY DELIVERIES TO ANY PART OF GT. BRITAIN. BARNSTAPLE, DEVONSHIRE; LEEDS, YORKSHIRE; EDINBURGH, SCOTLAND; CWMBRAN, S. WALES; ROYSTON, HERTS; TUNBRIDGE WELLS, KENT; BELFAST, NORTHERN IRELAND.

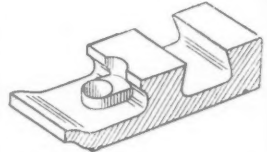
### HOW FINLOCK WORKS



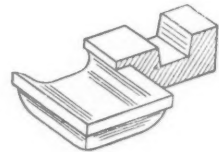
This sectional drawing shows the system in detail and illustrates the ways in which FINLOCK saves approx. 5 yards of brickwork, 80 ft. of rafter, 40 ft. of normal guttering, 40 ft. of fascia, 40 ft. of soffit and 80 ft. super of roof tiling per single house. Painting is eliminated and a reduction in down pipes and drainage is obtained. The complete eaves for a building, with all fittings, can be fixed in one day. Some typical FINLOCK units are shown on the right:—



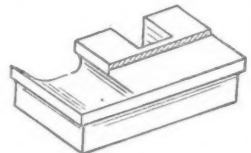
Finlock "N" Type Gutter block enabling lintels to be cast *in situ* if required.



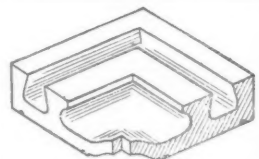
Finlock "G" Type Gutter block enabling lintels to be cast *in situ* if required, but illustrating soil vent.



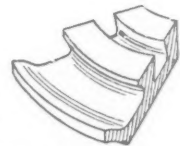
A typical standard stopped end for use on gable end walls, available for all type Gutters.



Illustrating a flush stopped end where this is also made with moulded return, available for all type Gutters.



Illustrates the typical internal angle for use with all Gutters. External angles also available.



Illustrating a special Gutter for quick curves. We manufacture fittings for special purposes to order.

Fully descriptive  
booklet gladly  
supplied on request  
from Head Office

(A.J. Information Sheet No. 33010)

DH8

**STEEL AND IRONWORKER**

Basis price for rolled steel joist sections, in 10 ft. to 50 ft. lengths .... ex mills per ton	£ s. d 28 8 0
Extra for sizes :—	
9" x 7" .....	Add per ton 5 0
3½" x 3½", 5" x 4½", 6" x 4½", 10" x 8", 12" x 8", 14" x 8", 16" x 8", 18" x 6", 18" x 7", 18" x 8", 20" x 6½", 20" x 7½", 10" x 4½", 12" x 5" .....	" " 10 0
4" x 2½", 5" x 3", 22" x 7", 4½" x 4½" .....	" " 1 0 0
3" x 3", 4" x 3", 5" x 2½" .....	" " 1 5 0
4" x 4", 6" x 3" .....	" " 1 10 0
4½" x 1½", 24" x 7½" .....	" " 2 0 0
4" x 1½" .....	" " 3 0 0
3" x 1½" .....	" " 3 10 0
Basis price for angles .....	ex mills per ton 28 7 0
" " " tees .....	" " 28 7 0
" " " solid steel columns .....	" " 30 7 0

All delivered Station or Siding.

**PLASTERER**

<i>Plaster and Cement</i>		1-ton loads	6-ton loads
Thistle (browning) to B.S.1191, Class B	per ton	148/6	125/3
Gypstone to B.S.1191, Class B	"	101/-	} ex Works,
Paristone (haired) to B.S.1191, Class B	"	103/6	
Ditto (unhaired) .....	"	101/-	Kent.
Sirapite (coarse) to B.S.1191, Class C	"	148/-	121/9
Ditto (fine) to B.S.1191, Class C	"	153/-	129/9
Keene's Pink to B.S.1191, Class D	"	194/3	
Keene's White to B.S.1191, Class D	"	199/6	
Cullamix (Tyrolean Finish), 1-ton lots and upwards .....	per ton from	178/9	to 212/3

*Sundries*

Sharp washed sand to B.S.1198	per yard cube	20/10
Cow Hair	per cwt	97/6
Expanded metal lathing, 9' 0" x 2' 0" x 3/8" mesh x 24 gauge .....	per yd. sup.	2/6½
	25 to 149	150-299
	300-599	Over 600
¾" Plasterboard (base board)	yards	yards
per yard super	2/9	2/5
¾" Insulating wallboard,	yards	yards
per yard super	3/9½	3/7½
Galvanized lath nails 14 G	per cwt.	3/5½
Hessian Scrim cloth in 100-yard rolls, 3½" wide .....	per roll	7/9

*Wall Tiles*

The following prices are subject to 17½ per cent. addition :—

Standard quality white glazed 6" x 6" x ¾"	per yard super	18/6
Cream glazed 6" x 6" x ¾"	"	20/6
Eggshell or glossy glazed 6" x 6" x ¾"	"	26/3

**PLUMBER**

*Lead and Copper*

3½ lb. and upwards milled sheet lead in quantities of 5 cwts. to 1 ton in sheets to B.S.1178	per cwt.	149/6
Hot rolled copper sheeting in 1-ton lots (4' x 2' sheets), to B.S.899	23 wire gauge, per ton	£ s. d. 365 10 0
Ditto .....	24 wire gauge, "	368 15 0
Zinc sheeting in 1-ton lots	14 gauge	131 5 0

*Cast Iron Goods*

Percentage Adjustment on List No. 3200 A.B. 1/5/52.

Rainwater Goods (painted or unpainted)	Plus 5%
Soil goods (coated or uncoated)	Plus 5%

*Mild Steel Rainwater Goods*

Gutters	(under 100 lengths)	Standard List
Pipes and Fittings	( " " )	Less 20%
		Less 30%

*Asbestos-Cement Rainwater Goods*

The following prices are subject to 12½% trade discount.  
Orders over £30 are subject to 17½% trade discount.

*Rainwater Pipes.*

	Diameter					
	2"	2½"	3"	4"	6"	
2' 0" lengths	3/2	3/7	4/3	5/10	12/-	each
3' 0" "	4/3	4/10	5/8	7/11	16/2	"
4' 0" "	5/5	5/11	6/10	9/7	19/11	"
6' 0" "	6/3	7/1	8/5	11/8	24/-	"
8' 0" "	8/4	9/5	11/3	15/7	32/-	"
10' 0" "	10/6	11/10	14/-	19/4	40/-	"

**PLUMBER (continued)**

*Gutters.*

Short lengths of gutter up to 2' 0" charged as 1 yard; from 2' 0" to 4' 0" as 1½ yards, and over 4' 0" as 2 yards.

Half round gutters	3"	4"	4½"	5"	6"	8"
per yard run	2/3	2/8	2/9	3/3	4/7	5/8

**INTERNAL PLUMBER**

Lead water pipe in coils 5 cwts. and upwards, to B.S.602	per cwt.	141/9
Light lead pipe	per cwt.	143/3
Drawn lead traps with brass screw eye, to B.S.504	1"-6 lb.	1¼"-6 lb.
	1½"-6 lb.	2"-7 lb.
S. trap 1½" seal	each	6/2 6/10 8/2 13/11
P. trap 1½" seal	"	4/10 5/4 6/8 11/1
Extra for 3" deep seal "S" trap	"	1/4 1/4 1/7 2/-
Extra for 3" deep seal "P" trap	"	-/5 -/5 -/8 -/8

*Screwed and Socketed Steel Tubes and Fittings for Gas, Water and Steam, etc.*

Fittings and tubes ordered in long random lengths are subject to the following trade discounts :—

Tubes :	½" to 4"	Fittings :	
Class B	18¼%	Lightweight	plus 1¼%
" C	6%	Heavyweight	plus 8¾%
Galvanized Class B	plus 4½%	Galvanized :	
" C	plus 20¼%	Lightweight	plus 14¾%
Galvanized malleable fittings	Less 49% plus 40%	Heavyweight	plus 22¼%
Copper tubing to B.S. 659 and 1386.	Basic price per lb.		2/8½

**GLAZIER**

Sheet Glass, cut to size (ordinary glazing quality), to B.S.952, Section A

18 oz.	per foot super	-/5½
24 oz.	per foot super	-/7¼
32 oz.	per foot super	1/-

Polished Plate Glass, ordinary substance, approximately ¼", to B.S.952, Section A.

In plates not exceeding :	Glazing quality	Selected glazing	Silvering quality
2 ft. super	per foot super 3/7	4/3	5/1
5 ft. super	per foot super 4/5	5/2	6/2
*45 ft. super	per foot super 5/1	5/9	6/11
*100 ft. super	per foot super 5/6	6/9	8/10

\* Extra sizes, i.e., plates exceeding 100 ft. super or 160 in. wide, or 96 in. long, at higher prices.

¾" figured rolled and cathedral, to B.S.952, Section B—standard patterns, white	per foot super	-/9
¾" or 1" rolled plate, patterns, white	per foot super	-/11
¾" or 1" rough cast, patterns, white	per foot super	-/11
¾" Georgian wired cast, patterns, white, Section D	per foot super	1/1¼
¾" Georgian wired polished plate, Section D	per foot super	4/10
¾" wired cast	per foot super	1/1

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

**PAINTER**

White ceiling distemper	per cwt.	29/-
Washable distemper	per cwt. from	112/-
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Emulsion paint	"	44/-
Hard gloss paint :		
Undercoat	"	42/-
Finishing	"	46/-
White Portland cement paint	per cwt.	71/-

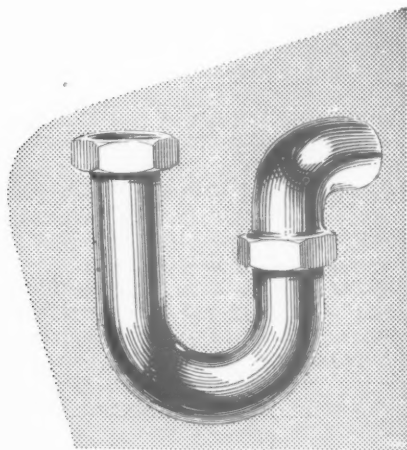
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\* Econa traps now have outlets with the correct gradient to prevent self-siphonage in single and one-pipe plumbing.

## Quality Control



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This simulates in a few hours the most exacting atmospheric conditions which the lamps may encounter.

After this treatment comes the torsion test which consists of twisting the lamps until the adhesion of cap to lamp is broken; the torque necessary to break this adhesion is registered on the spring scale.

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**INFORMATION CENTRE**

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

**6.40** planning: social and recreational  
**SMOKE REDUCTIONS**

*Smokeless Zones, with Special Reference to Coventry.* T. E. Willmott. *Prior Approval.* D. C. Norcliffe. (The Sanitarian, Oct. 1952.)

Two papers dealing with the reduction of atmospheric pollution and describing legal steps taken in Coventry.

**14.57** materials: concrete  
**CONCRETE ROADS**

*The Construction of Concrete Roads.* W. P. Andrews. (The Cement and Concrete Association, 1952.)

53-pp. illustrated booklet dealing with design, materials and methods of construction, including notes on plant, construction in bad weather, special types of roads, kerbs, maintenance and repair. Simple and helpful.

**15.108** materials: applied finishes and treatments  
**PAINTING**

*The Case for Spray-Painting.* D. E. Etheridge. (The Decorator, Oct., 1952.)

Short article discussing the case for spray as against brush application.

The chief point of interest in this article is that spraying uses more paint per yard, apparently because thicker paint films are obtained—a generalization which would not be accepted for universal application. Loss by waste is said to be under 2 per cent. with proper operation. The objection that spraying gives poorer adhesion is conceded in the case of priming coats but not for other coats. There is an interesting discussion on the requirements for adhesion and on the effect of the properties of the modern "easy flowing" types of paint. The writer sees no reason why durability should be less for sprayed painting and points out that, both with brush application and spraying, over-thinning can be harmful. The article also

deals with a number of other more general matters affected by the use of spray instead of brush painting.

**15.109** materials: applied finishes and treatments  
**FLAKING OF DISTEMPER**

*The Flaking of Water Paint.* D. P. Wycherley. (The Decorator, Nov., 1952.)

Flaking of distemper or oil-bound water paints is all too common an occurrence; frequently it is due to poor preparation of the surface to be decorated or to insufficient appreciation of the qualities of this type of finish which, although very useful and satisfactory for many positions, has definite limitations. This 3-page article gives a clear and useful summary of the properties of washable distempers and of the factors which most commonly lead to flaking. Recommendations are given for the preparation of old and new surfaces.

**18.117** construction: theory  
**STRESS ANALYSIS**

*New Business: Slab Analysis by Photograph.* (Engineering News Record [USA], Oct. 16, 1952, p. 44.)

Explanation of the "Presan" method of flat-slab analysis.

The Presan Corporation in America has found its analysis to be more exact than conventional computations, particularly where there is significant irregularity in slab thickness, and its use has resulted in considerable savings when compared with designs employing the empirical rules of structural codes.

The method consists of loading a mirrored model of the slab. The model is made very accurately in "Lucite," a plastic, and the polished surface is mirrored. The model is placed in a testing frame facing a specially lighted grid of nylon filament. Suction lines connected to the model to simulate loading cause deflection of the mirrored surface, and the reflected grid of lines appears distorted when photographed. A data reduction machine transfers these photographed distortions to graphs of surface curvature and these, in turn, can be used to plot bending moment contours.

With further computation, the system can be used to produce shear diagrams, but this is not usually carried out.

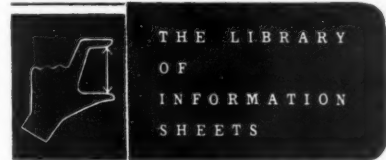
**24.162** lighting  
**INDUSTRIAL LIGHTING**

*Industrial Lighting.* J. G. Holmes. (Electrical Review, Nov., 1952.)

Discussion on translucent glass fittings and "blended" light for industrial lighting.

At the beginning of the article the author states, probably by mistake, that the illumination in the upper parts of a factory should be greater than that in the lower parts. Later he corrects himself, by stating that the ceiling illumination need not normally be greater than one third of that on the work. He estimates that, in any installation, between 10 per cent. and 40 per cent. of the light from the fittings should go up (20 per cent. in a light coloured environment). On this basis, a case is made out for the use of prismatic glass reflectors, as both upward and downward distribution can be controlled. It is pointed out that opal glass or "Perspex" reflectors do not allow for this control; also that the useful light on the working plane is greater from translucent fittings than from opaque shades.

Four of the article's 6 pages are devoted to describing several large factory installations in which high-powered, mercury-vapour discharge lamps have been used, and others in which fittings combining discharge and incandescent lamps have been used to give "blended" light for better colour rendering. A useful practical article with illustrations that reveal the ugliness of this type of fitting in spite of its excellent efficiency.



**29.K1 REFERENCE BACK**

*Some of the sizes given in the table on the face of the sheet are no longer correct and further modifications are being made by the manufacturer. When these have been finalized a further announcement will be made.*

**CANCELLATIONS**

*Sheets 43.E13 and 43.E14 have been cancelled and should be withdrawn from the Library.*

*Readers requiring up-to-date information on building products and services may complete and post this form to the Architects' Journal, 9, 11 and 13, Queen Anne's Gate, S. W. 1*

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## Buildings Illustrated

*Greengrocer's shop at 186, Bishopsbridge Road, London, W.2, for A. Morris (Marylebone) Ltd.* (Pages 126-127.) Architect: A. V. Pilley, F.R.I.B.A., M.S.I.A. Sand blasted monogram in plate glass, David Caplan, M.S.I.A. General contractor: H. Darby & Son (Leyton) Ltd. Sub-contractors: tilers, H. & R. Johnson Ltd.; tiles supplied by Carter & Co. (London) Ltd.; reinforced concrete, Stuarts Granolithic Co. Ltd.; glass, James Clark & Eaton Ltd.; patent flooring, Art Pavements Ltd.; heating, Norris Warming Co. Ltd.; light fittings, Troughton & Young Ltd., Crompton Parkinson Ltd., George Buckingham, Bell Bros. & Co. (egg-crate fittings); electric heating, H. G. Poxton Engineering Co.; ventilation, Stewart & Gray Ltd.; sunblinds, Artistic Blind Co. Ltd.; shop fittings, Grennotts Ltd.; metalwork, Frederick Braby & Co. Ltd.; textiles, Dunn's of Bromley; woven straw, Primavera; furniture, shop fittings, Grennotts Ltd.; signs, Alpha Hand Made Glass Co. Ltd.

*Cottages at the Erskine Hospital, Renfrewshire.* (Page 128.) For the Scottish Veterans' Garden City Association (Inc.). Architect: A. D. Hislop; General contractor: D. Paul. Clerk of works: R. McLaughlan. Sub-contractors: asphalt, Neuchatel Asphalte Co. Ltd.; slates, (Ballachulish Undersize slates), John Struthers & Co.; grates, John Cameron & Co.; electric wiring, R. A. Ure & Co.; plumbing, John Pattison; door furniture & unique window sash balance, Wm. McGeogh & Co.; plaster, John Struthers & Son.

*Engineering Laboratory for Cambridge University.* (Pages 129-132.) Architects: Easton & Robertson, F./P.R.I.B.A. Consulting structural engineers: R. T. James &

Partners. Sculptured shield: Miss M. Spencer Watson. Quantity surveyors: Hamilton H. Turner & Son. General contractors: William Sindall. Sub-contractors: damp-courses, William Briggs & Sons Ltd.; asphalt, Val de Travers Asphalte Paving Co. Ltd.; bricks, Henry J. Greenham Ltd.; stone, Saunders (Ipswich) Ltd.; structural steel, Moreland Hayne & Co. Ltd.; slate cills, Bow Slate & Enamel Co. Ltd.; special roofing, The Ruberoid Co. Ltd.; partitions, Roneo Ltd. (steel), Broad & Co. Ltd. (hollow breeze), Art Pavements & Decorations Ltd. (terrazzo); patent glazing, British Challenge Glazing Co. Ltd., and J. A. King & Co. Ltd.; flooring, Stevens & Adams Ltd. (wood), Korkoid Decorative Floors Ltd., G. Stephenson & Co. Ltd. (cork); central heating, ventilation, J. Wontner-Smith Gray & Co. Ltd.; electric wiring, Troughton & Young Ltd.; electric light fixtures, Troughton & Young Ltd., and Savage & Parsons Ltd.; plumbing, T. S. Knight & Son (Plumbing) Ltd.; sanitary fittings, Shanks & Co. Ltd., and Dent & Hellyer Ltd.; stair treads, Diespeker & Co. Ltd. (terrazzo); door furniture, N. F. Ramsay & Co. Ltd.; casements and window furniture, C. E. Welstead Ltd.; telephones, Standard Telephones & Cables Ltd., and G.P.O.; gates, Kingsmill Metal Co. Ltd., Grundy Arnatt Ltd.; rolling shutters, Haskins; iron staircases, Haywards Ltd.; folding doors, Esavian Ltd.; blinds, J. Avery & Co. Ltd.; plaster and decorative plaster, G. Cook & Son Ltd.; metalwork (grilles), Frederick Sage & Co. Ltd.; joinery, Trollope & Sons (London) Ltd., and D. Burkle & Son Ltd.; tiling, G. Cook & Sons Ltd.; movable furniture, Scottish Furniture Manufacturers Ltd., and North of England School Furnishing Co. (benches); cloakroom fittings, A. J. Binns Ltd.; lifts, Waygood-Otis Ltd.; ash joist, transporter crane, Herbert Morris Ltd.; clocks, Gent & Co. Ltd.; cold water supplies, T. S. Knight & Sons (Plumbing) Ltd.; signs, T. H. Bamford; motor cycle shelters, Alfred A

Odoni & Co. Ltd.; slate fireplace surrounds, Setchell & Sons Ltd.; lettering, The Lettering Centre, and Wm. Pickford Ltd.; filing cabinets, Remington Rand Ltd., and Wagstaff Bros. Ltd.; bronze card frames and grilles, Comyn Ching & Co. Ltd.; lightning protection, J. W. Gray & Son Ltd.; anti-vibration mountings, W. Christie & Grey Ltd.; drafting machine, A. G. Thornton Ltd.; fire equipment, L. & G. Fire Appliance Co. Ltd.; drawing office equipment, Entwistle Thorpe & Co. Ltd.; roller screens, The Perforated Front Projection Screen Co. Ltd.; copper coverings, Frederick Braby & Co. Ltd.; painting of structural steel, Wm. Latimer & Co. Ltd.; chalkboards, J. Starkie Gardner Ltd.; vacuum equipment, W. Edwards & Co. (London) Ltd.; curtains, Furdecor Ltd.

*County Primary School, Town Court Lane, Orpington, Crofton, Kent,* for the Kent Education Committee. (Pages 133-136.) Architects: E. D. Lyons, A.R.I.B.A., L. Israel, A.R.I.B.A., T. B. H. Ellis, A.R.I.B.A., A.R.C.A., in collaboration with S. H. Loweth, F.S.A., F.R.I.B.A., County Architect. General contractor: E. O'Sullivan (Kenley) Ltd. Sub-contractors: fireproof roof construction, Myko Floors and Limpus & Son Ltd.; bricks, Sussex & Dorking United Brick Co. Ltd. (Wealdon stocks) and Uxbridge Flint Brick Co. Ltd. (flint bricks); artificial stone, Liverpool Artificial Stone Co. Ltd.; roofing felt, Ragusa Asphalte Paving Co.; woodblock flooring, Hollis Bros. Ltd.; patent flooring (Semtex), Horsley Smith & Co. (Hayes) Ltd.; central heating, Ozonaire Ltd.; electric wiring, L.S.T. Electrical; electric light fixtures, Finmar Ltd., and Troughton & Young Ltd.; sanitary fittings, Adamez Ltd.; door furniture, N. F. Ramsay & Co. Ltd.; casements, Crittall Manufacturing Co. Ltd.; iron staircases, G. H. Shephard & Co.; wallpapers, John Line & Sons Ltd.; joinery and cloakroom and school fittings, Rippers Ltd.

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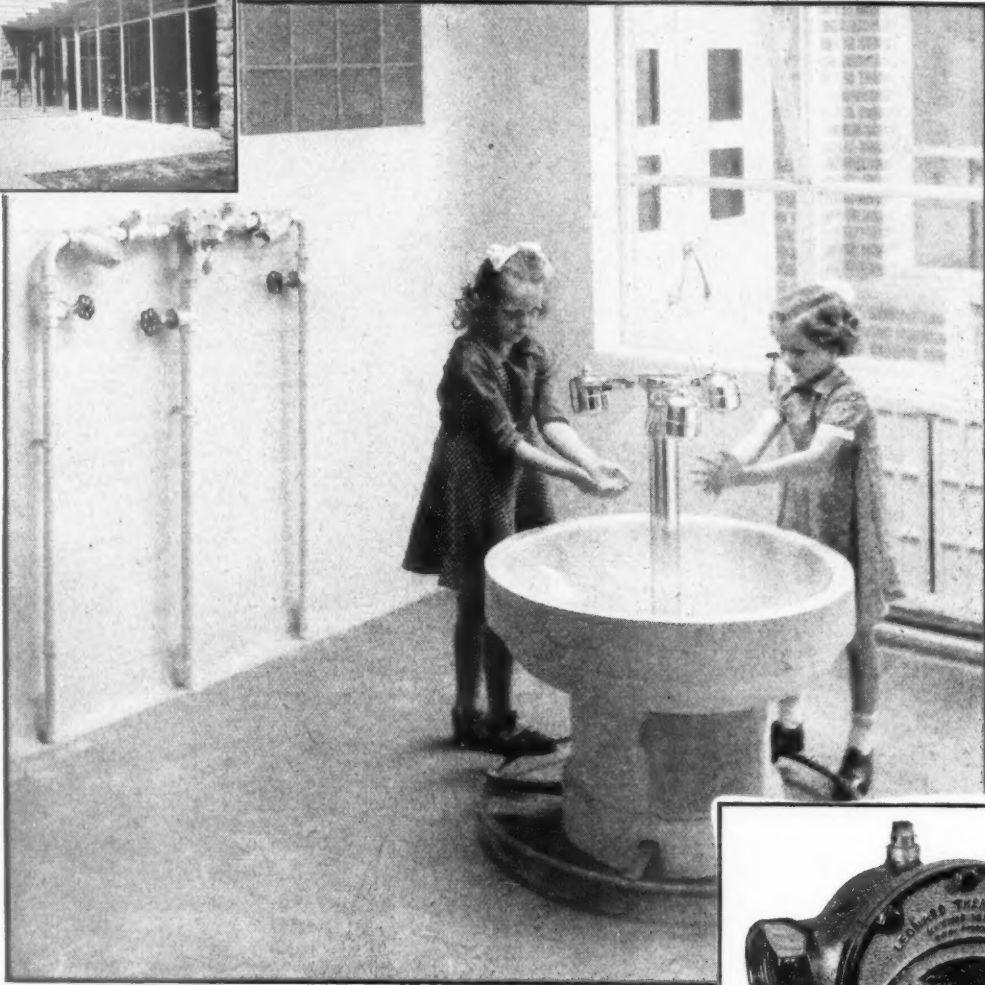
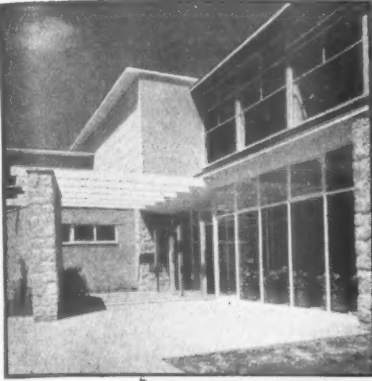
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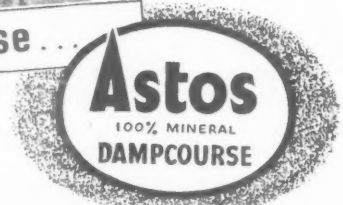
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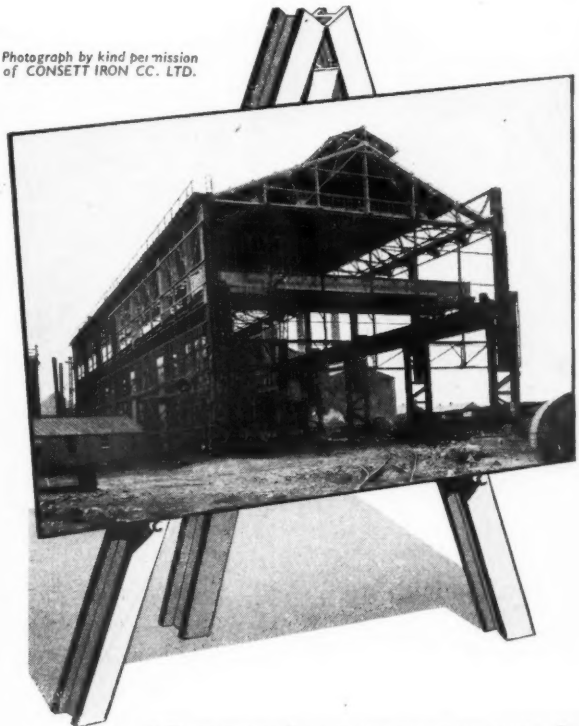
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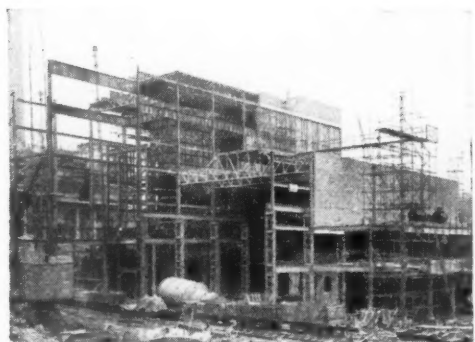


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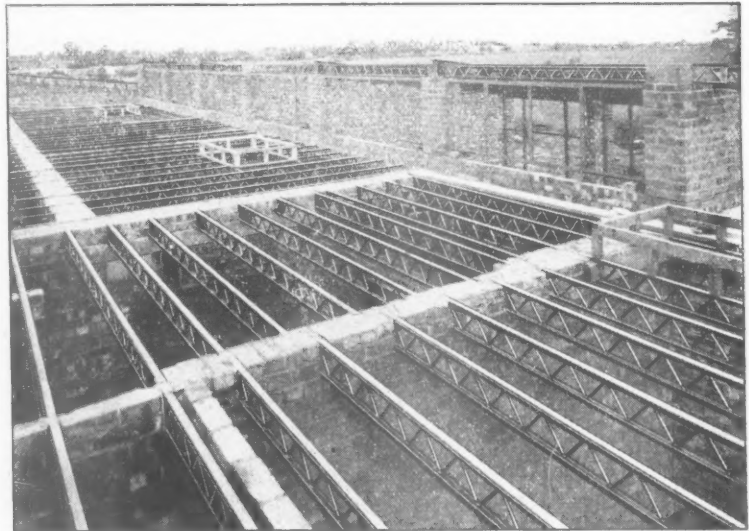


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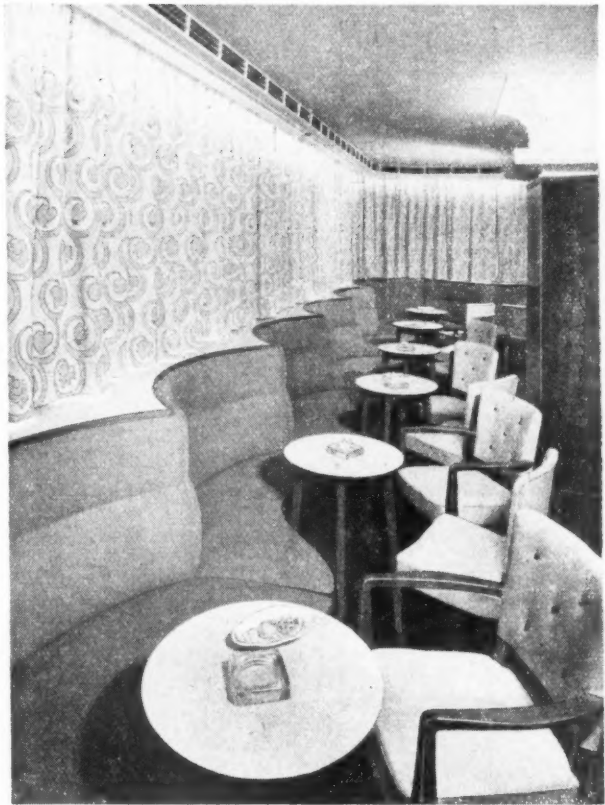
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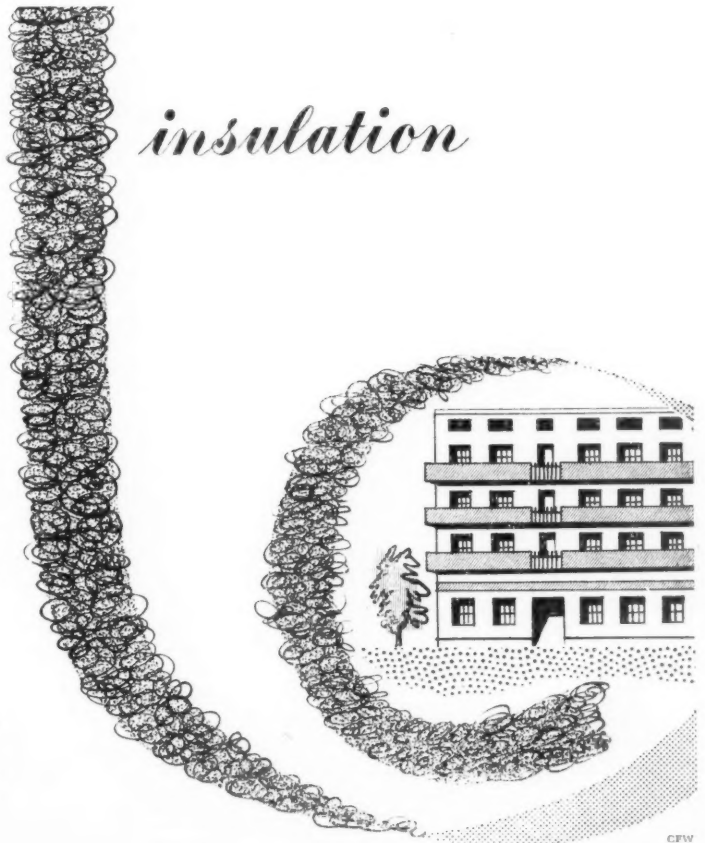
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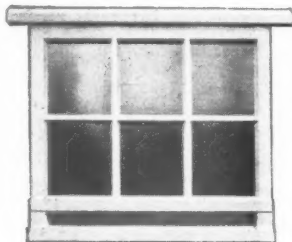
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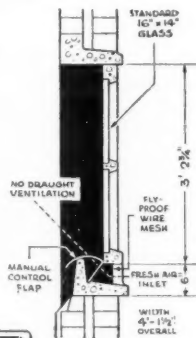


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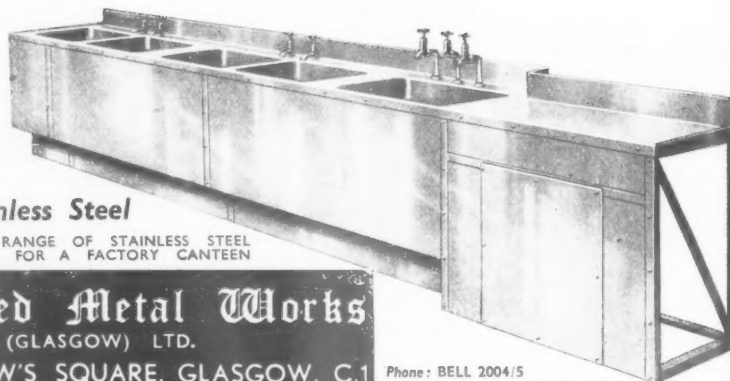
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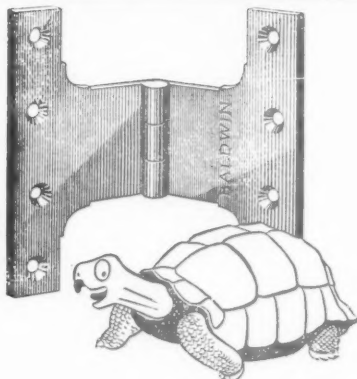


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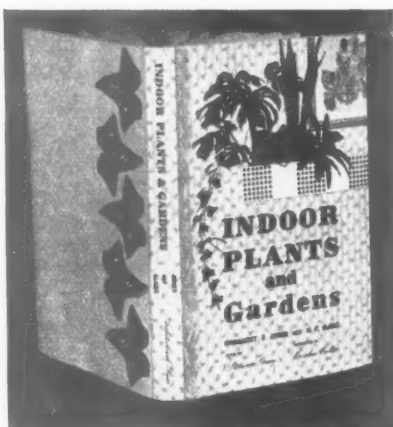
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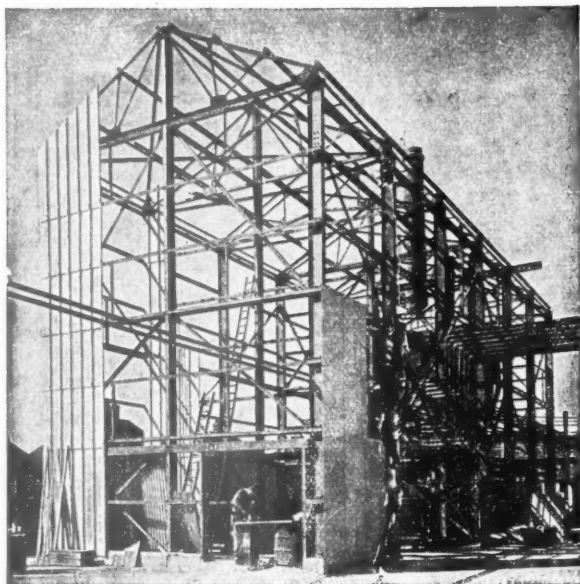


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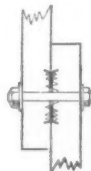
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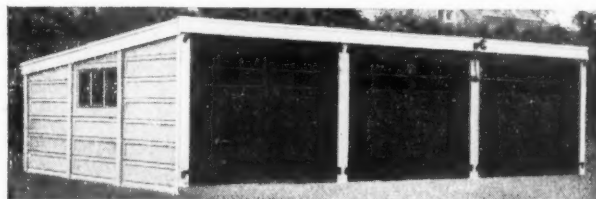
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Applications, stating age, qualifications and experience, and accompanied by copies of three recent testimonials, should be sent to the County Architect, Surrey County Council, County Hall, Kingston-upon-Thames, not later than the 31st January, 1953.

Canvassing, either directly or indirectly, will disqualify a candidate from consideration. The Council will be unable to provide any housing accommodation and the successful applicant will be expected to make his own arrangements in this direction.

W. W. DUFF  
Clerk of the Council. 8042

County Hall, Kingston-upon-Thames. 8042

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## BOROUGH ARCHITECT'S DEPARTMENT.

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JOHN B. HAWORTH,  
Town Clerk.

Barclays Bank Chambers, Stockton-on-Tees,  
12th January, 1953. 8034

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Application forms and conditions of appointment may be obtained from the undersigned and completed forms should be returned to County Education Offices, New Row, Coleraine, not later than Wednesday, 18th February, 1953.

R. B. HUNTER,  
Director of Education. 8059

**GOVERNMENT OF THE UNION OF BURMA.**  
Applications are invited for a post of ARCHITECT for the Architectural Branch, Buildings and Roads Department. Minimum qualifications—Associateship of the Royal Institute of British Architects or its equivalent. Pay £225, fixed per mensem. Contract for 3 years. Free passage. Provident Fund. Gratuity. Full terms and conditions with forms of application obtainable on request from the Embassy of the Union of Burma, 13a, Charles Street, W.1. Applications received up to 15th February, 1953. 8058

**Architectural Appointments Vacant**

4 lines or under, 7s. 6d.; each additional line, 2s.  
The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

**APPOINTMENT AS ARCHITECT** in private practice in established firm in Rhodesia setting up a branch office in Northern Rhodesia. Applicant must be Associate Member of the R.I.B.A., with considerable experience of all classes of architecture, and must be completely familiar with the management of an Architect's office, as he will take charge of the branch office. Further particulars apply P.O. Box 7931.

**JUNIOR ARCHITECTURAL ASSISTANT** (single) required for country office in Norfolk. Experience in surveys and levelling; car driver preferred. Details of experience and salary required to Box 8013.

**QUALIFIED SENIOR ASSISTANT** required in busy medium sized office in Midlands. Experience in design of industrial buildings essential. School training followed by at least six years' office experience desirable. State age, qualifications, salary required. Box 8012.

**ARCHITECTURAL ASSISTANT** required up to R.I.B.A. Final standard with experience in preparing working drawings, details, specifications and supervision for small general practice. Write stating full particulars to Box 8014.

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**VACANCY** for Architectural Assistant in small office in Reading, must be a good draughtsman of intermediate standard. Salary according to experience and ability, £300—£400 per annum. Box 8051.

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- Quantity Surveyors.
- Building Surveyors (Municipal).
- Building Surveyors (Non-Municipal).
- Land Surveyors.

The Final examinations in the above sections have now been sub-divided into two parts, and candidates may elect to take one part only.

Direct Final examinations for candidates who are 35 years of age or over, with ten years' approved professional employment, will also be held in the Surveying Sections only. A Direct Final examination in two parts will also be held in the Fire Surveyors' Section.

The examinations will be held in London, and at selected provincial centres. Applications from candidates for permission to sit, made on the prescribed form, must be received not later than Monday, 16th March, 1953.

Full information on application to the General Secretary, I.A.A.S., 75, Eaton Place, London, S.W.1.

N.B.—It has been found necessary to depart from the usual practice of holding the examinations in May owing to the Whitsun holiday and the Coronation.

Notice is also given that the Association no longer conducts a Preliminary examination. Information as to the requisite standard of education will be supplied on request. 8026

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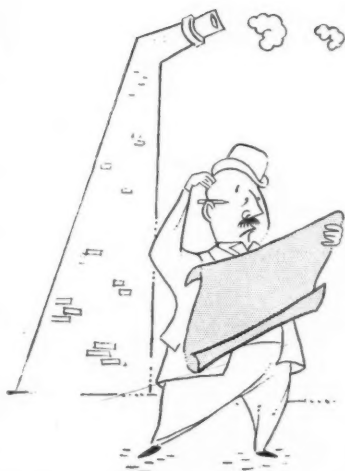
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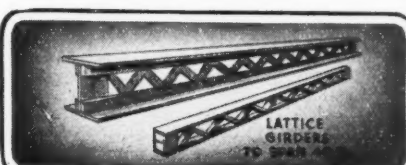
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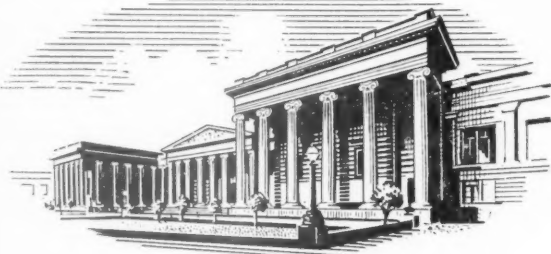
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