

# 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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## CURRENT BUILDING

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Details of Planning, Construction, Finishes and Costs

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Architectural Appointments  
Wanted and Vacant

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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 Ig one week, Ih 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. 1, 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
ARCUK	Architects' Registration Council. 78, Wimpole Street, W.1.	Welbeck 2915
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. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
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, C2.	
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. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 32, Millbank, S.W.1.	Tate Gallery 8134
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon. 1	Port 65491
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 Ext. 1284
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Dolderal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	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.	
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. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organization, Ltd. (Fidor), 47, Princes Gate, Kensington, S.W.7.	Kensington 4577
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
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 4341
GBPA	Gypsum Building Products Association, 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 2, Chester Street, S.W.1.	Belgravia 3081
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 29, Belgrave Square, S.W.1.	Belgravia 3755
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266

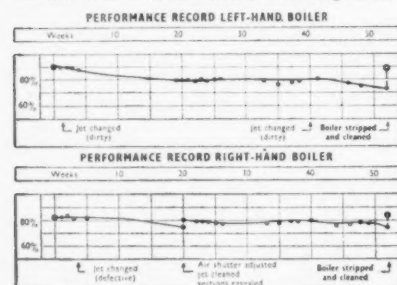
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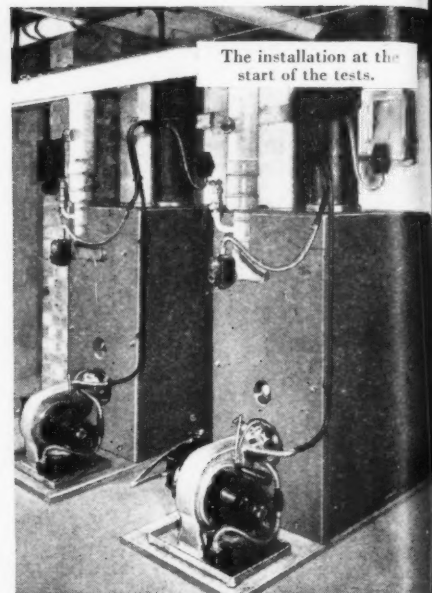


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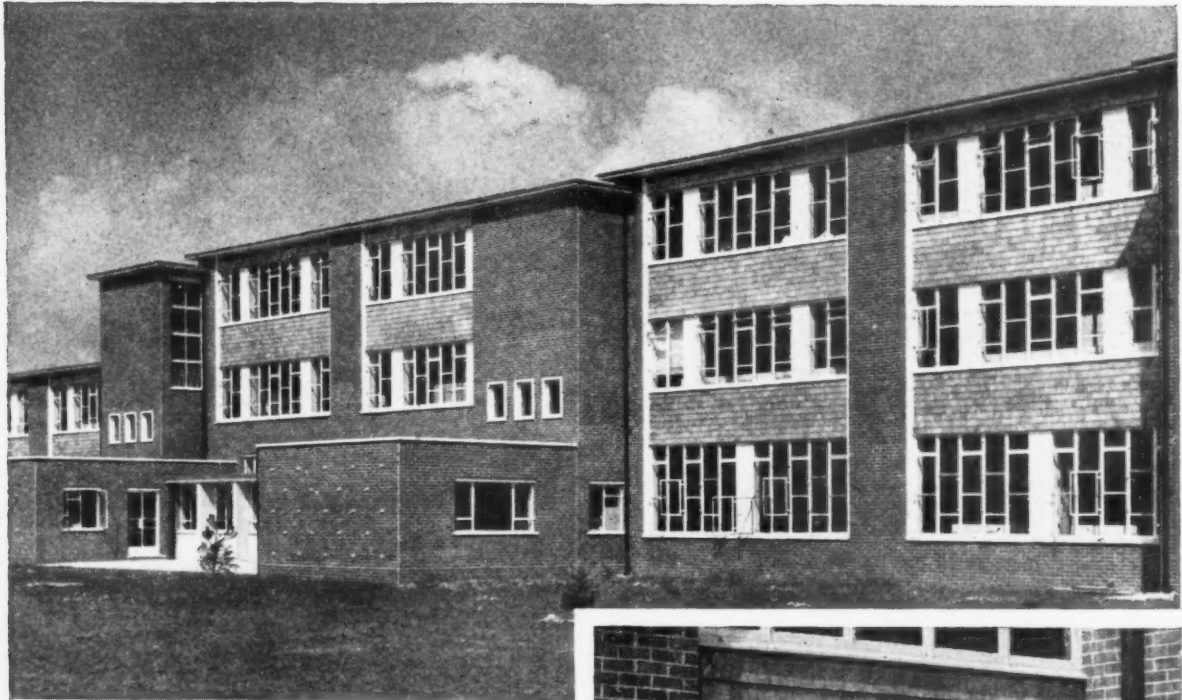
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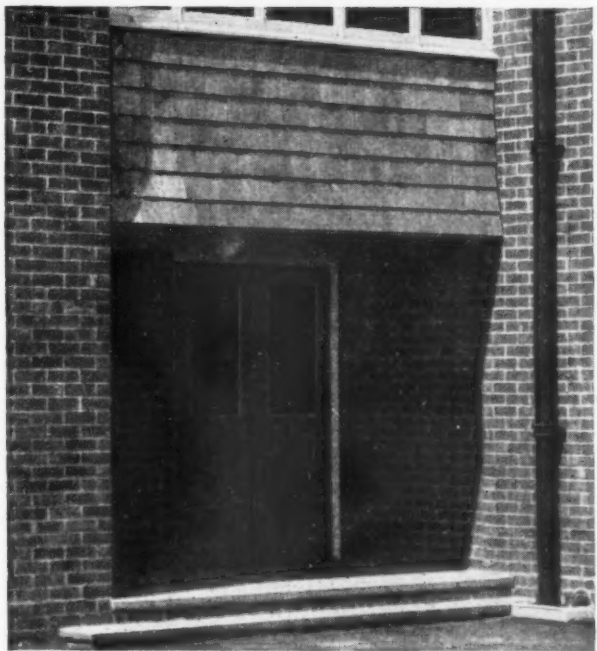
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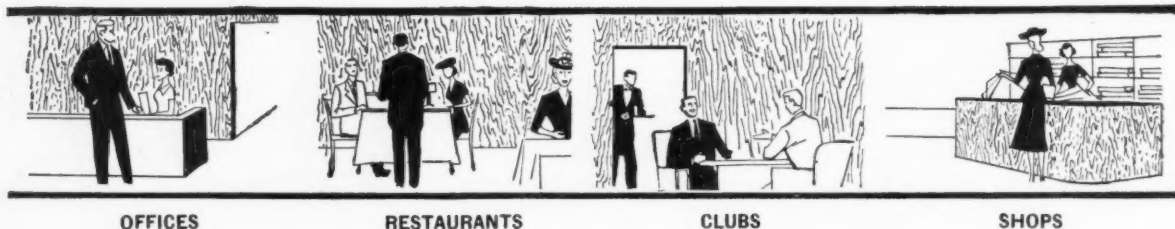


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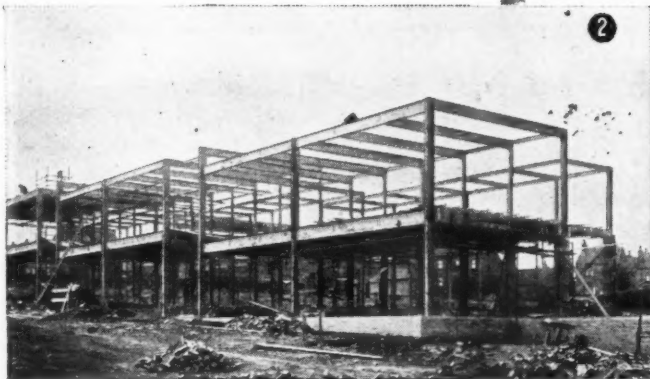
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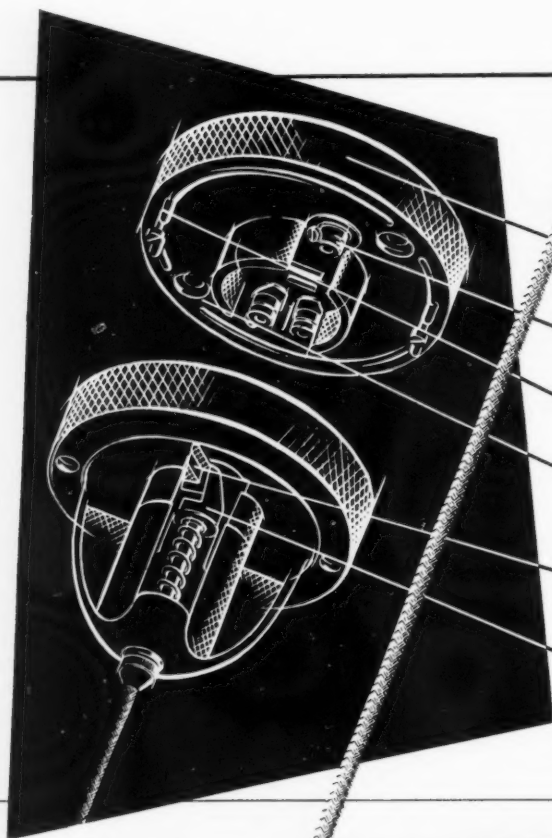
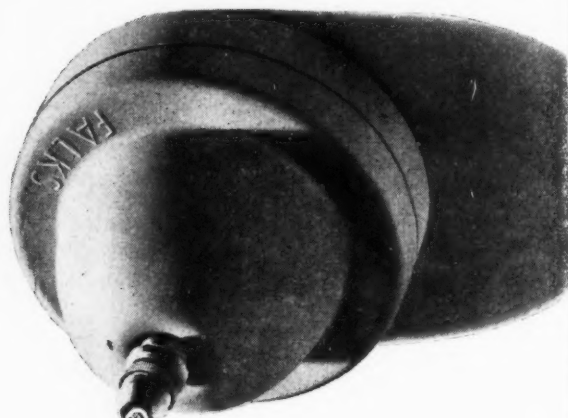
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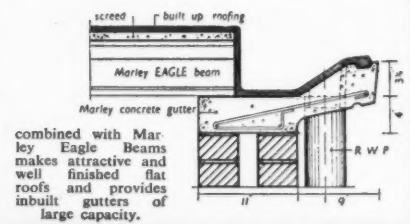
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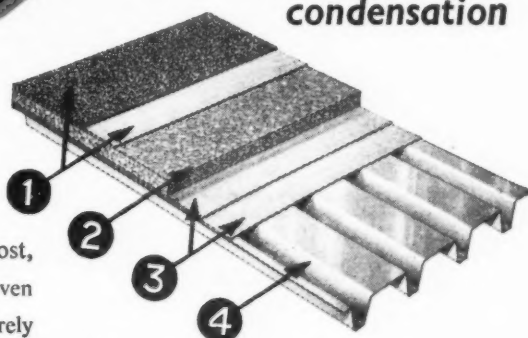
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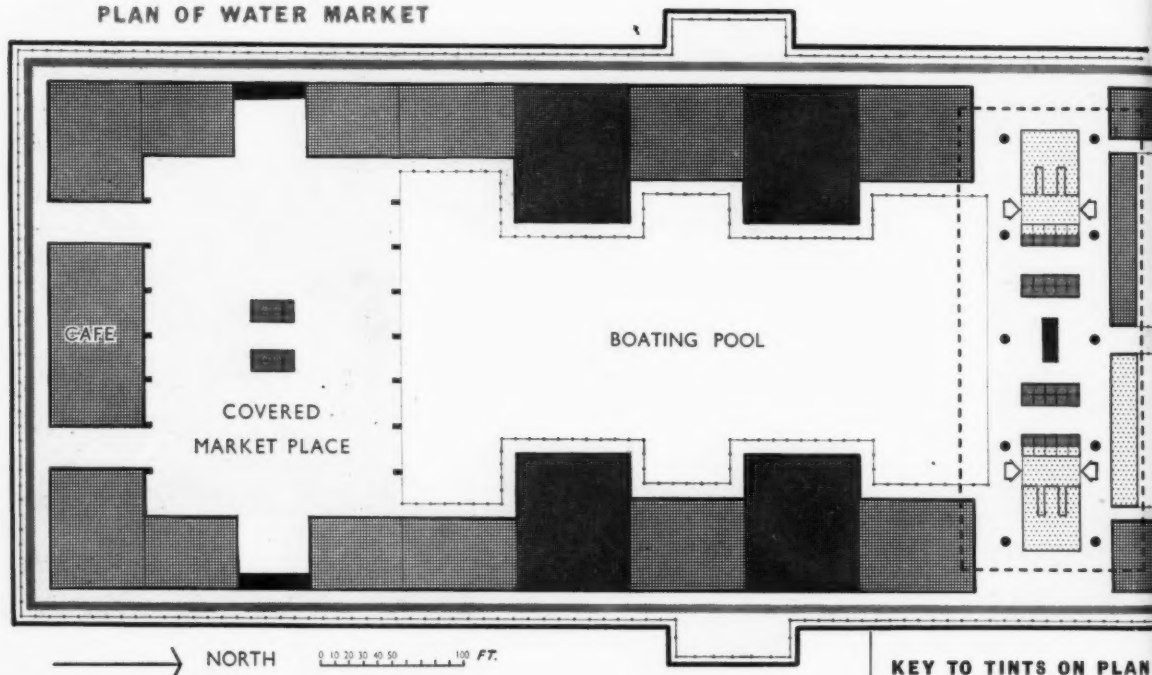
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## The Glass Age Development Committee

A committee of architects and engineers, convened by Pilkington Brothers Limited has made proposals for creating a large scale shopping centre in the Black Country and reports have already been published giving a survey and details of the project. The High Market Project has been designed under the direction of the Glass Age Development Committee, by Gordon and Eleanor Michell, A/A.R.I.B.A.

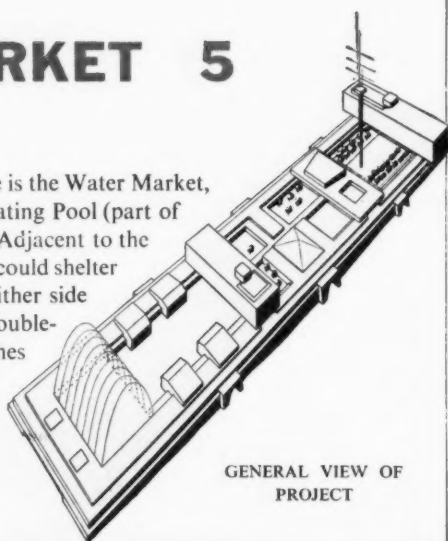
PLAN OF WATER MARKET



## THE HIGH MARKET 5


### THE WATER MARKET

At the south end of "High Market" there is the Water Market, where shopping arcades surround the Boating Pool (part of the pool could be reserved for bathing). Adjacent to the Pool is a high, glazed market place, which could shelter open stalls and barrows. The shops on either side of the pool are alternatively single or double-storeyed and could accommodate branches of popular chain stores. At the north end there is a four-storeyed department store having entrances, lifts, escalators and display space on the general shopping level with the lowest sales floor immediately above.



GENERAL VIEW OF PROJECT

### KEY TO TINTS ON PLAN

-  Covered shopping area
-  Single-storey shops
-  Two-storey shops
-  Shoppers' lifts from car parks
-  Moving articulated platforms
-  Goods lifts
-  Entrance to Department Store with lifts, escalators and display space. Dotted lines represent area of Department Store above



PILKINGTON BROTHERS



**PLAN**

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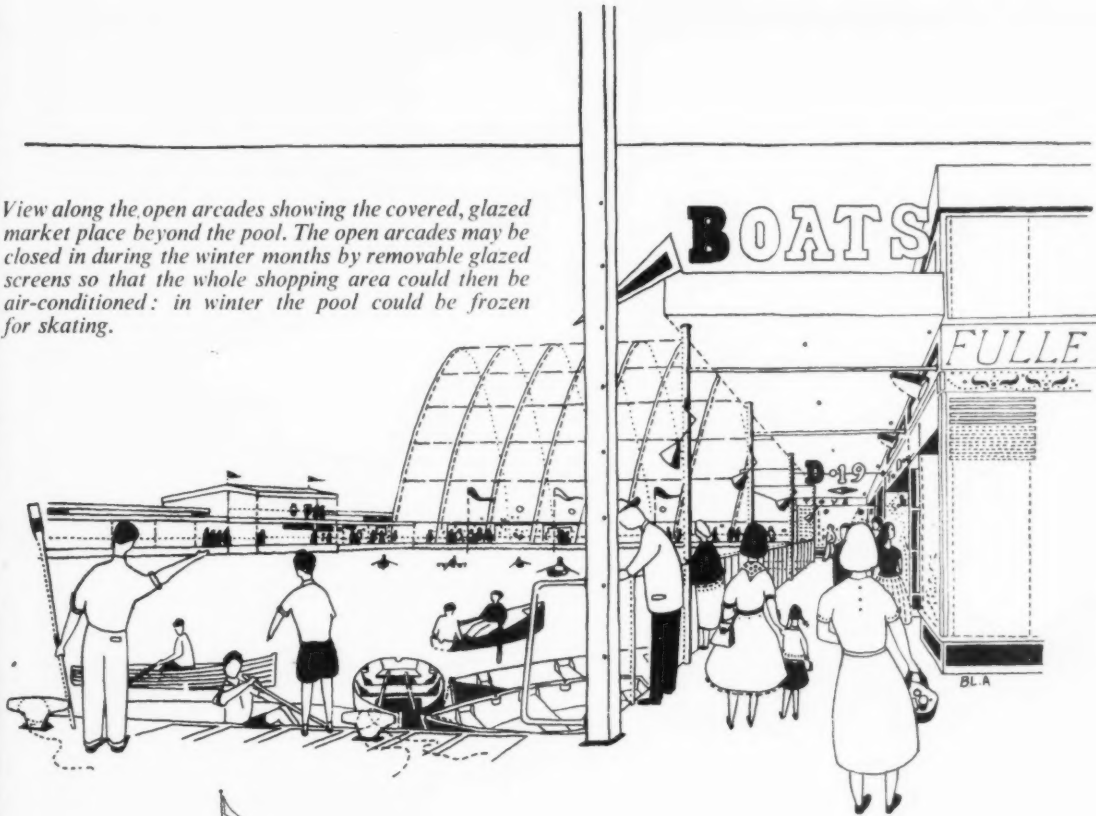
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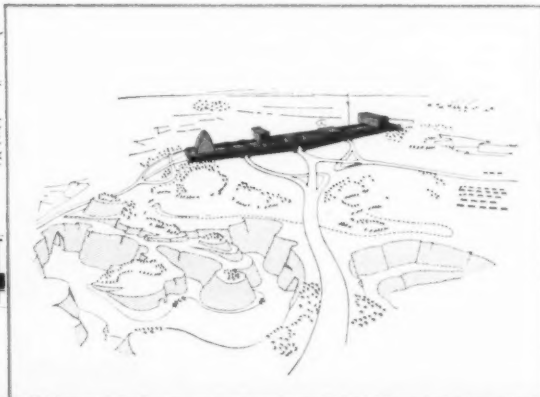


View along the open arcades showing the covered, glazed market place beyond the pool. The open arcades may be closed in during the winter months by removable glazed screens so that the whole shopping area could then be air-conditioned: in winter the pool could be frozen for skating.



View looking towards the Department Store and showing the open shopping arcade as it passes round one of the two-storeyed shops.

A reduced bird's eye view of the area and site of the project.



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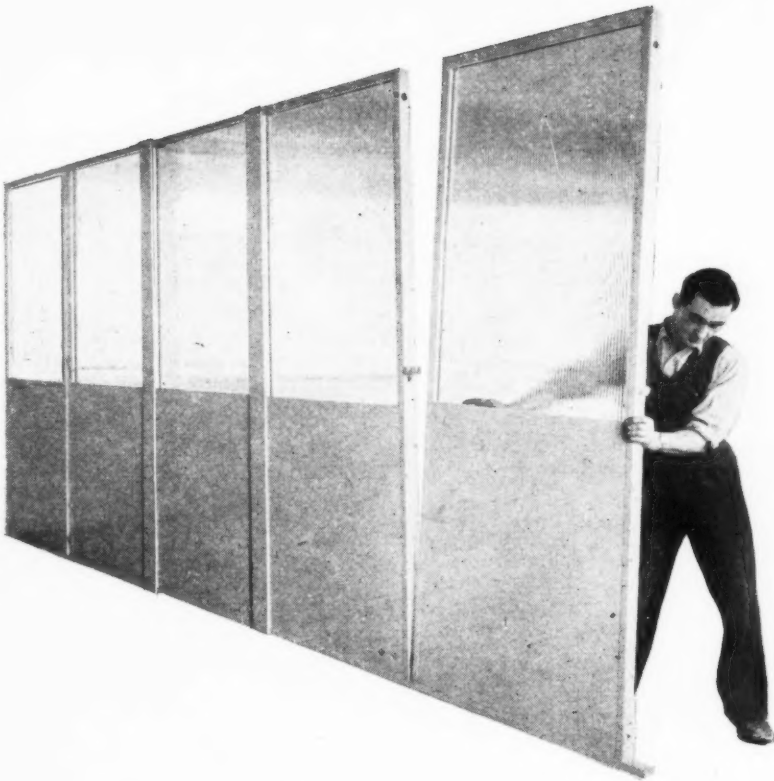


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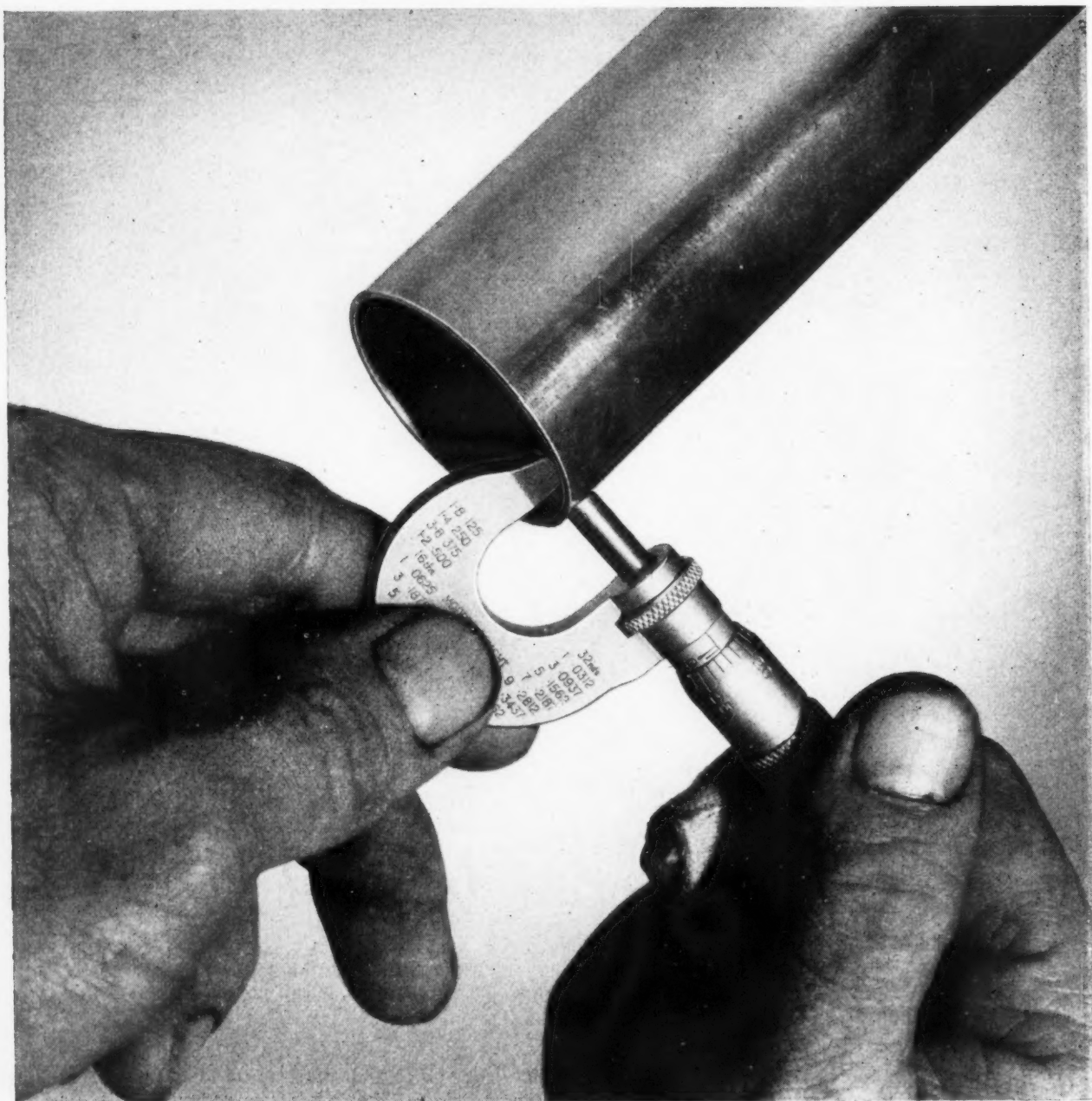
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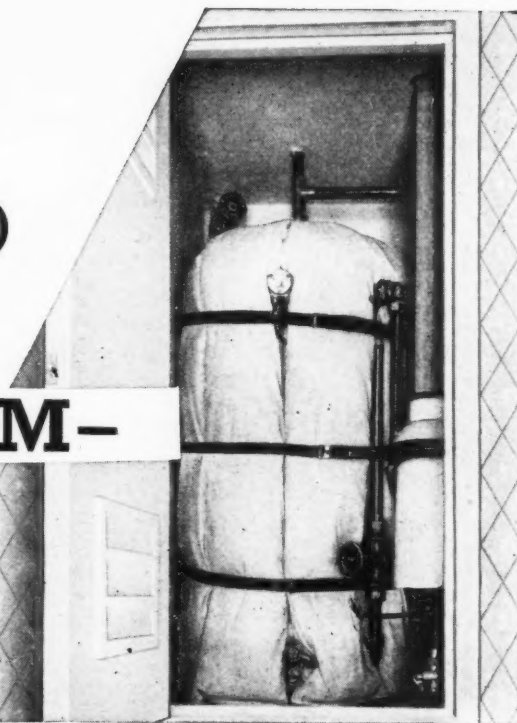
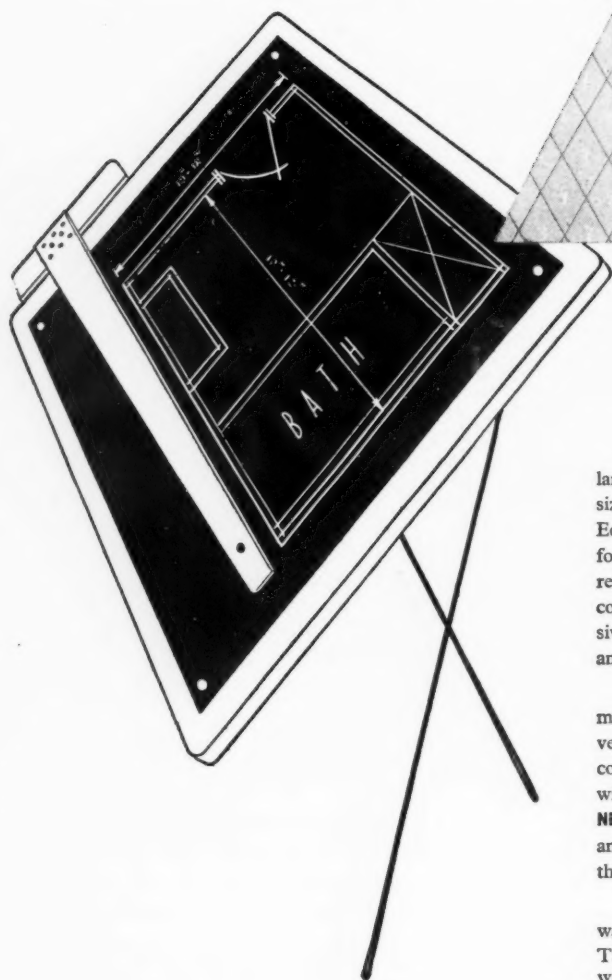
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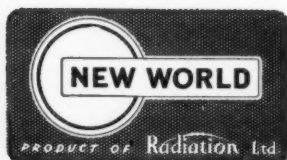
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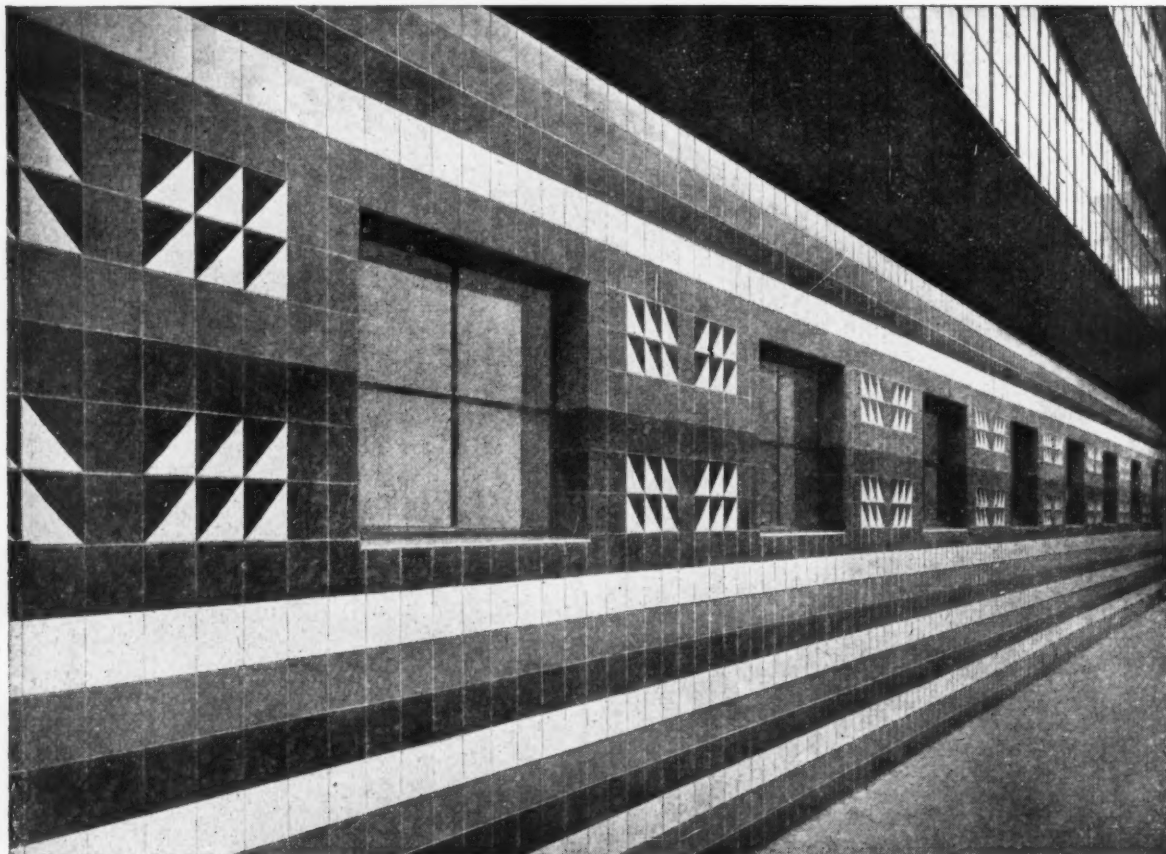
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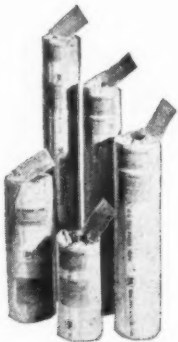
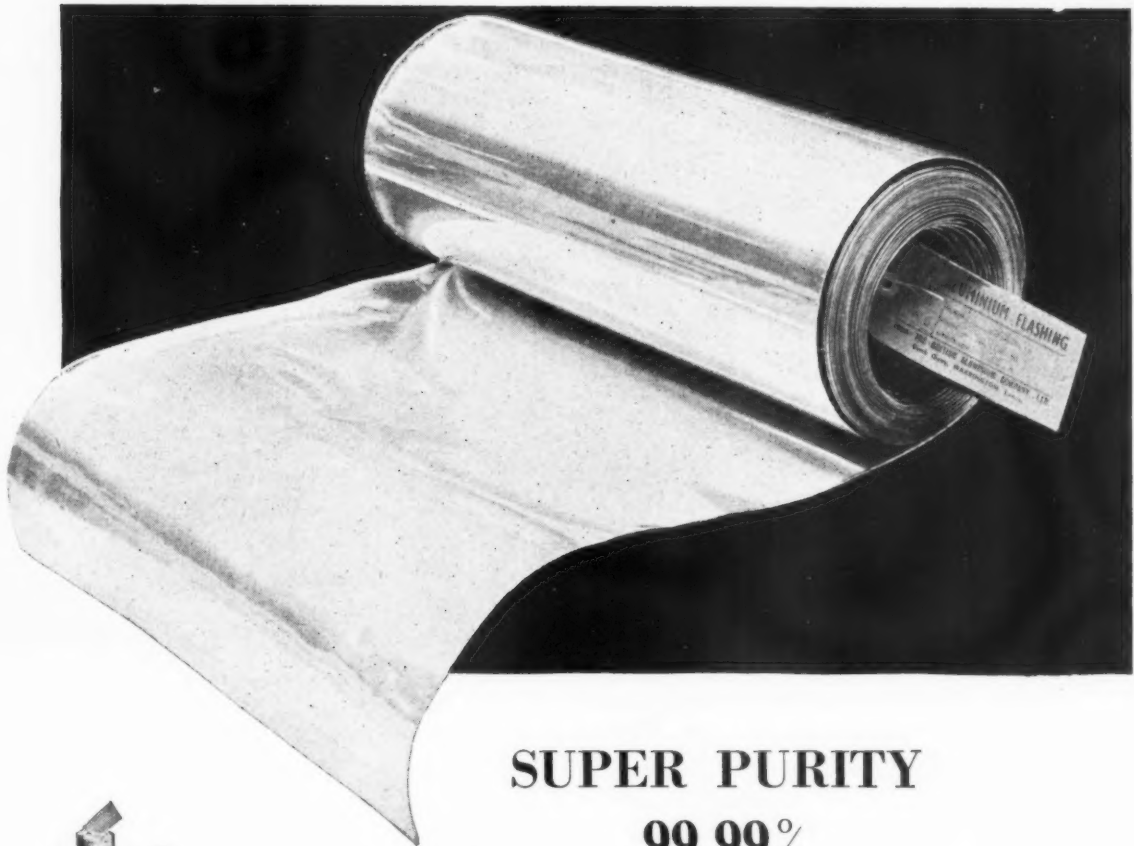


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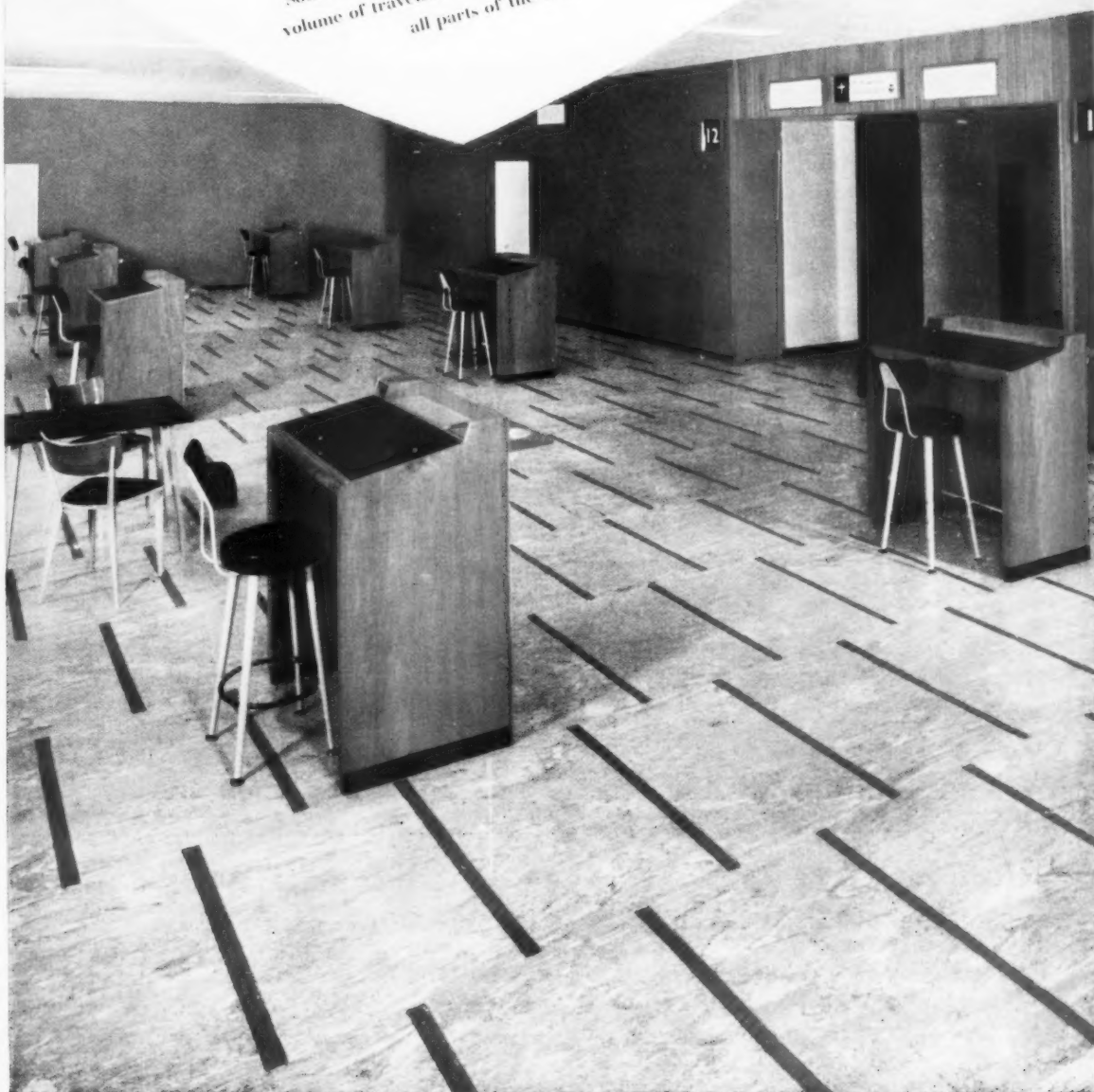
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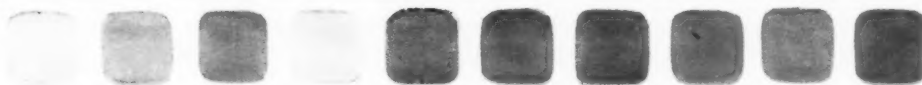
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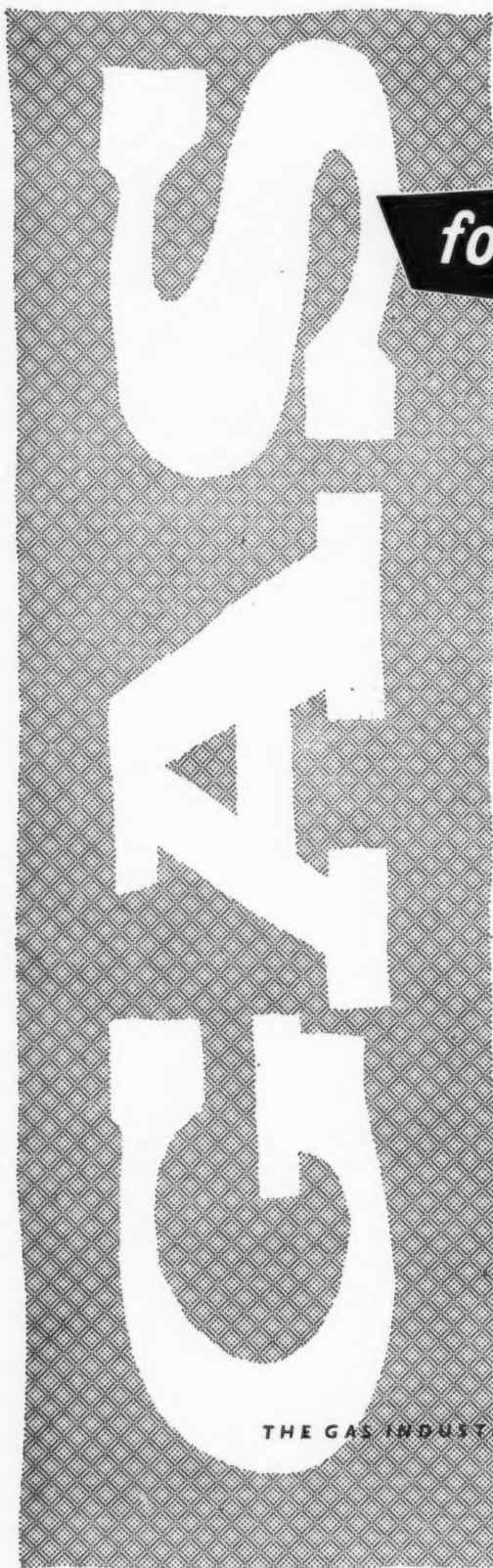


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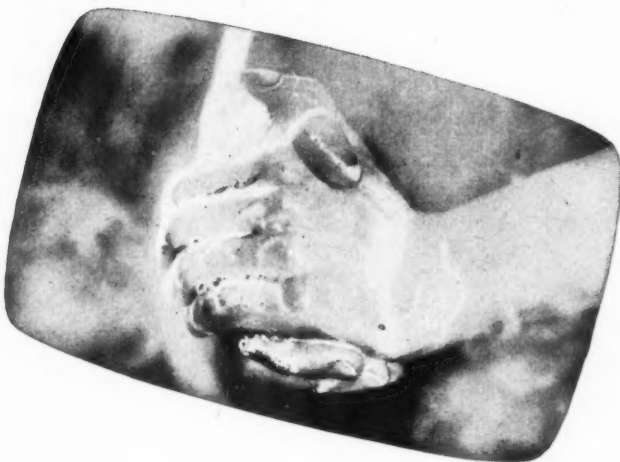
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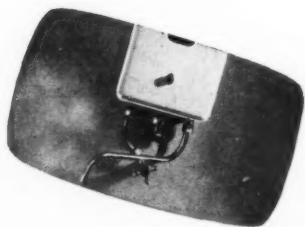
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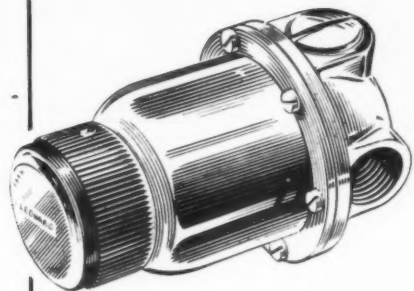


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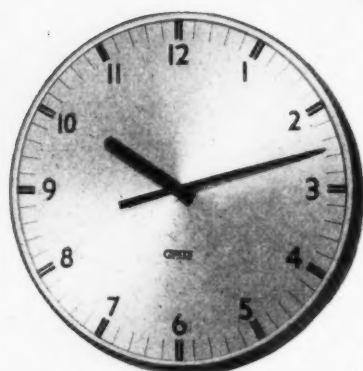
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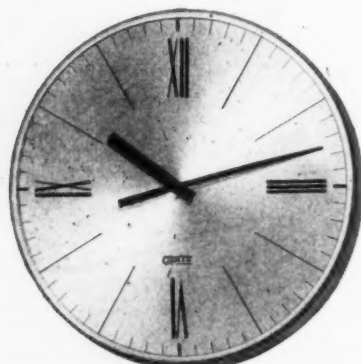


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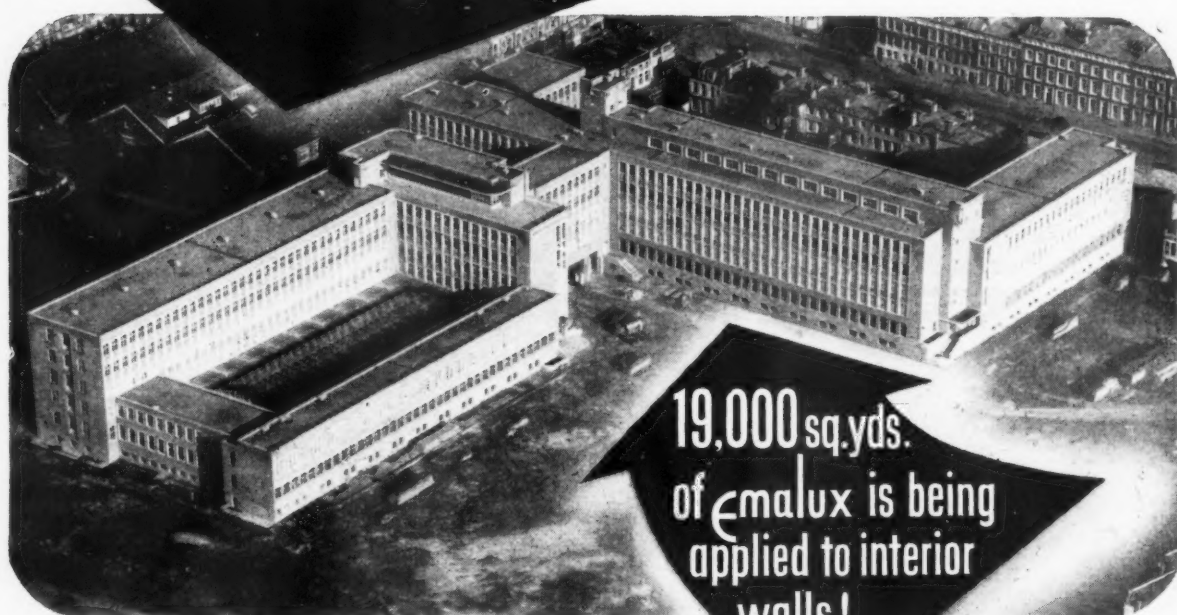
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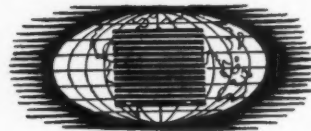
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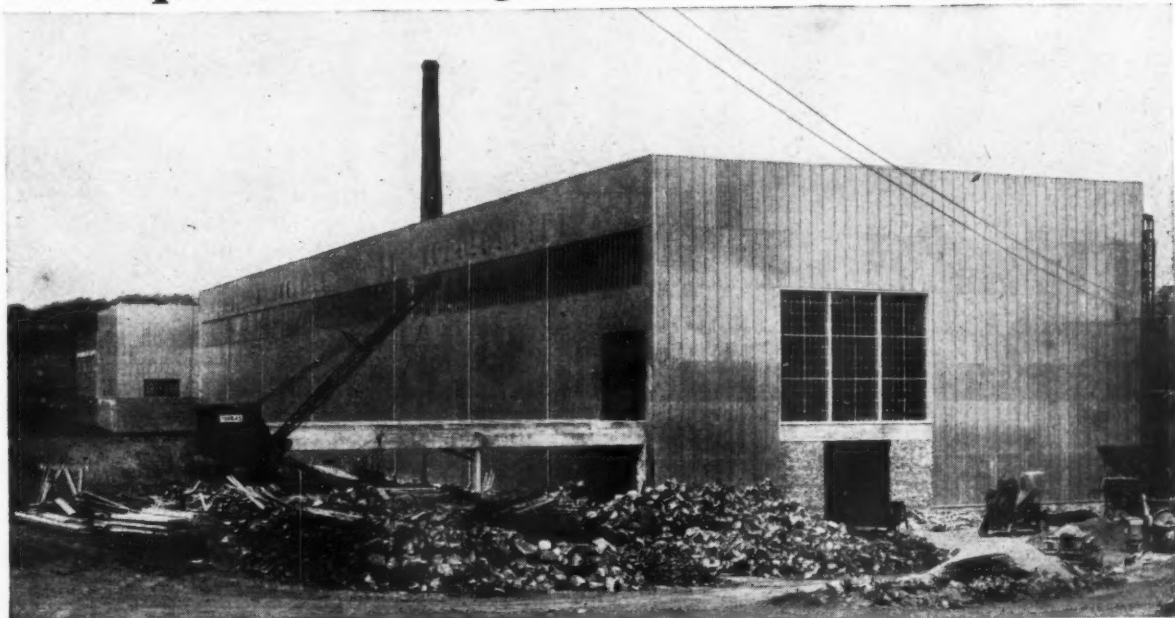


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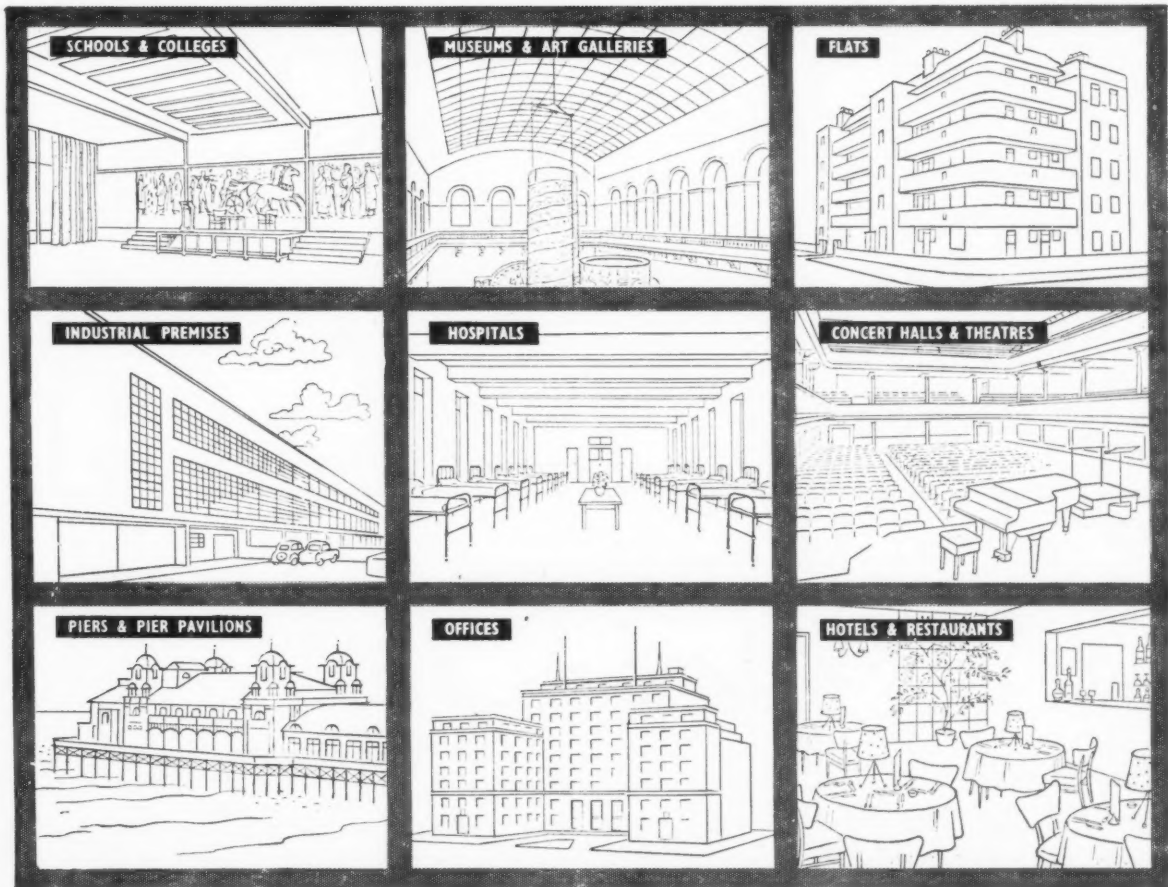
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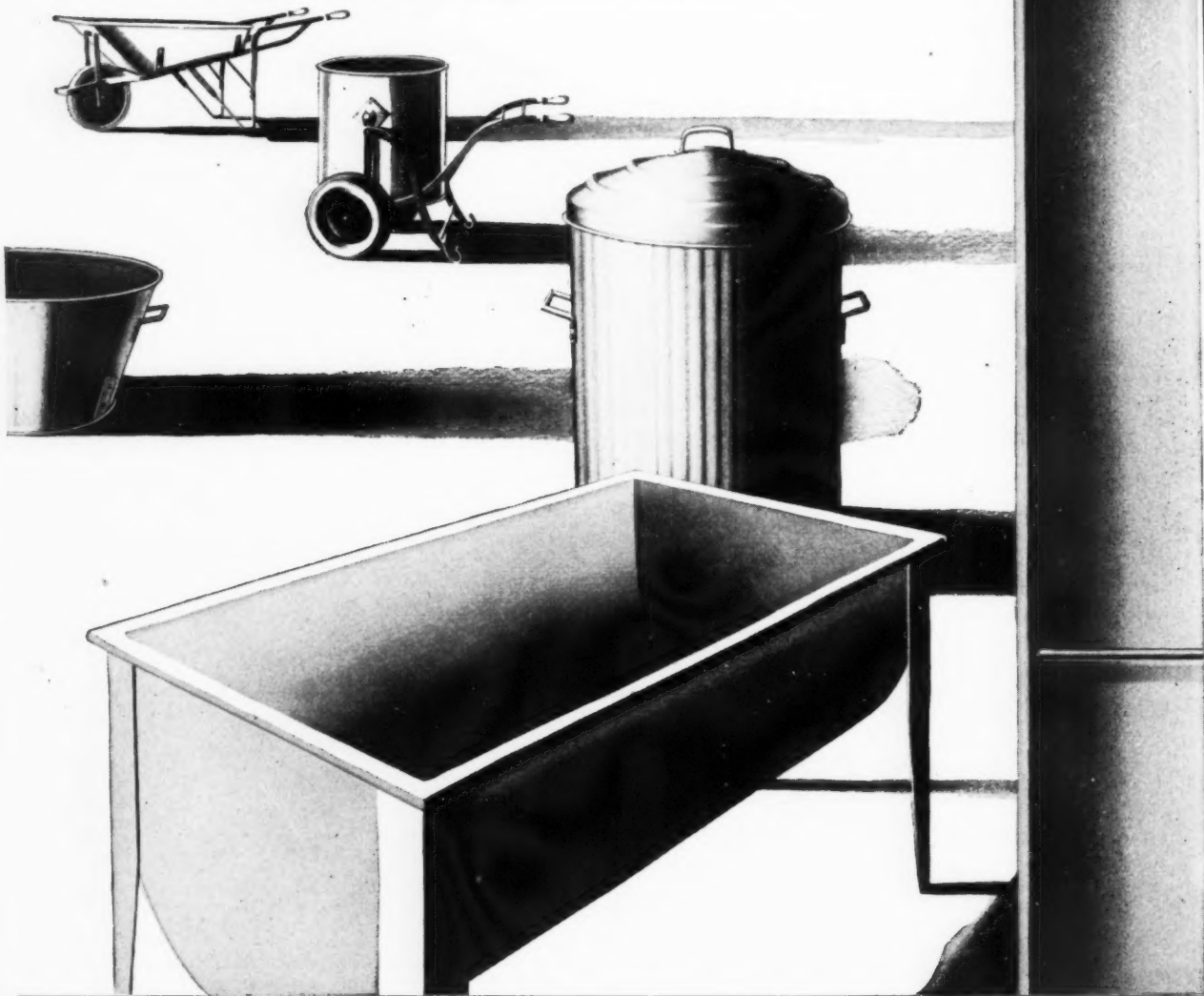
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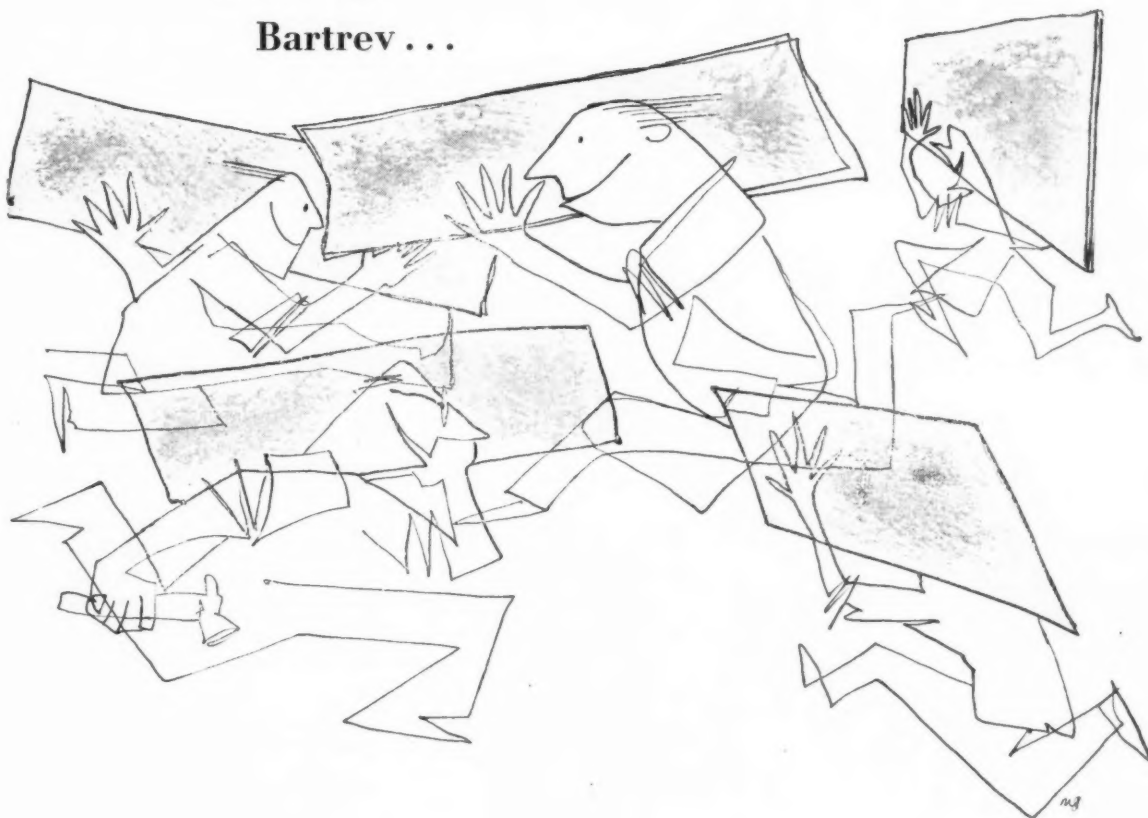
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Stand 48, Building Trades Exhibition, Manchester, Oct. 16-27

# ELLARD

## ESTATE

### SLIDING DOOR GEAR



The illustration on right shows yet another example of the use of ELLARD "Estate" Sliding Door Gear in the modern dwelling house. See how simple it is to convert a spacious room to one of a cosy and intimate atmosphere. The finger-tip smoothness of door action offers immediate reduction of living space when desired with the additional advantage

of fuel economy. Elegant appearance, ease of operation and long service are the main selling features of this attractive ELLARD Door Gear. Excellent design, moderate cost and maximum use of floor space make ELLARD Door Gear the obvious choice for both council estates and private houses.



# RADIAL

### SLIDING DOOR GEAR

Illustration on left shows ELLARD "Radial" Sliding Door Gear fitted to a private garage. Sliding doors are of great advantage in protecting cars against damage caused by accidental swinging of hinged doors. In addition, valuable working space is offered where it is most desired, at the entrance to the garage. Note also how ELLARD Door Gear provides easy access to and from the garage by a personal entry door. ELLARD "Radial" Sliding Door Gear is low in price and gives long service without maintenance. This gear is also suitable for the larger openings of commercial and industrial garages.

# OVERDOR

### GARAGE DOOR GEAR

ELLARD "Overdor" Gear, illustrated on right, represents the best method of operating an overhead type door, and it requires the minimum space, fixing time and maintenance. An entirely clear threshold is achieved, and both side walls are available for windows or shelves. "Overdor" Gear is designed for doors from 6ft. to 7ft. 3in. high and up to 200 lbs. in weight. The door is safely balanced and can be opened and closed with ease. The width of the door is not critical, but the construction should ensure that the door does not sag when in the raised horizontal position, and we suggest a maximum width of 10ft. The balance springs impose a compression force along the jambs, thus relieving the building of all stress until the door is raised, when less than half the weight of the door is supported by the twin top tracks. ELLARD "Overdor" is therefore especially suitable for lightly constructed buildings.



**ANNOUNCEMENT** We wish to advise our friends that the name of this Company has recently been changed from Clarke Ellard Engineering Co. Ltd. to ELLARD SLIDING DOOR GEARS LTD. This change of name implies that our entire production is now devoted solely to the manufacture of "ELLARD" SLIDING DOOR GEARS, resulting in even better service to users of these products.

**ELLARD SLIDING DOOR GEARS LTD., WORKS ROAD, LETCHWORTH, HERTS. • TEL: 613/4**

# CANADIAN HARDWOODS

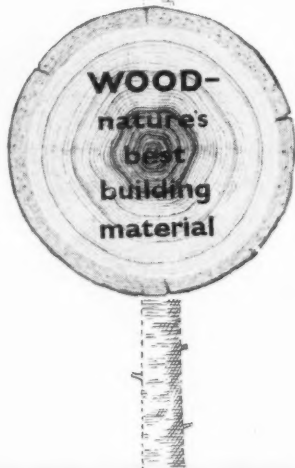
WORK EASILY TAKE SMOOTH FINISH WEAR WELL

There's a grade of Canadian hardwood for almost every need

**CANADIAN MAPLE**—Hard and heavy, creamy-white shade in colour—works easily for a hardwood.

**TYPICAL USES**—Flooring; cutting boards; hammer boards; furniture; dowels; piano actions; handles.

**SPECIAL ADVANTAGES**—Exceptionally hard and smooth-wearing surface; takes high polish; excellent resonance properties; turns exceptionally well; good gluing properties.



**CANADIAN BIRCH**—a hard-wearing, wide-utility hardwood of uniform texture, ranging in colour from light yellow to reddish brown.

**TYPICAL USES**—Flooring; furniture; interior trim; ladder rungs; shuttles, spools and bobbins; dowels, handles.

**SPECIAL ADVANTAGES**—Strong and resistant to impact; hard and smooth-wearing surface; uniform texture; machines easily; easily stained to match other furniture woods.

**CANADIAN BASSWOOD**—shading from creamy-white to very light brown, this softer hardwood works exceptionally well.

**TYPICAL USES**—Furniture; beekeeper supplies; patterns and models; picture frames; piano keys; Venetian blinds; foodstuff containers.

**SPECIAL ADVANTAGES**—Soft-textured hardwood; works exceptionally well under tools; easily dried; takes smooth finish; good gluing and nail-holding properties; takes paints and lacquers well; practically no taste or odour.

FOR FURTHER INFORMATION

concerning Canadian woods contact The Commercial Counsellor (Timber), Canada House, Trafalgar Square, London, S.W.1

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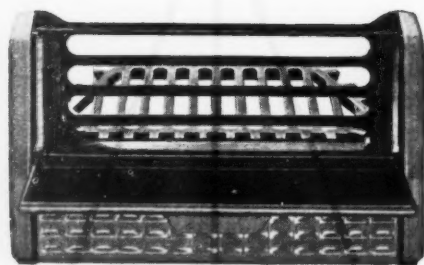
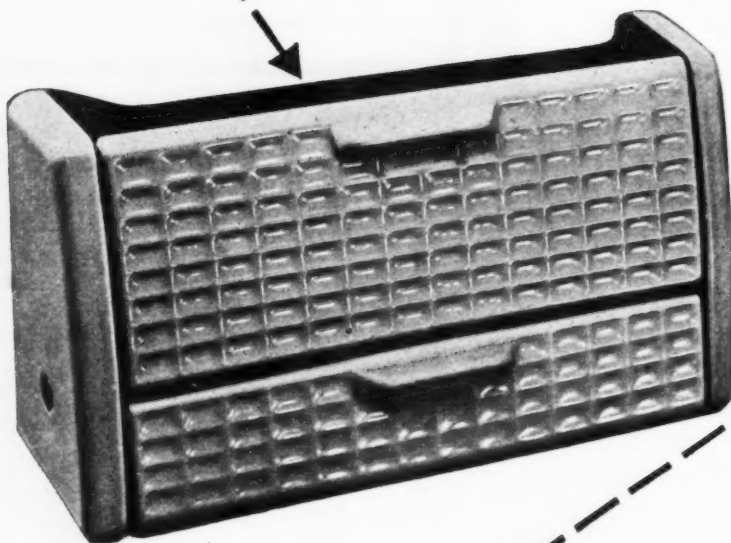
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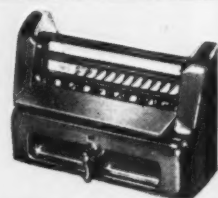
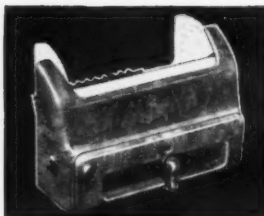
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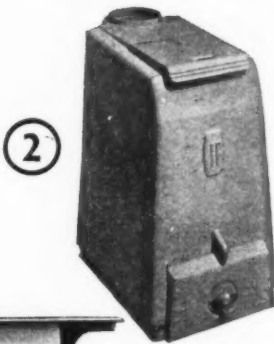
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SOFONO LO-FRONT FIRE

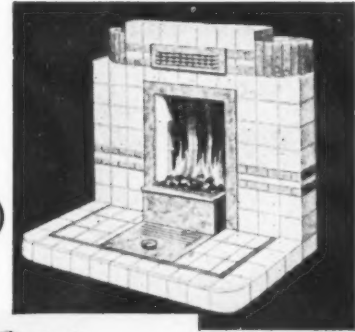
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UNIQUE NEW DESIGN KEEPS **SOFONO** IN THE FOREFRONT

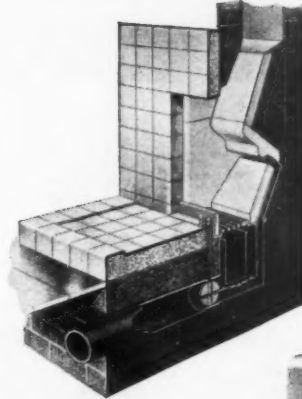
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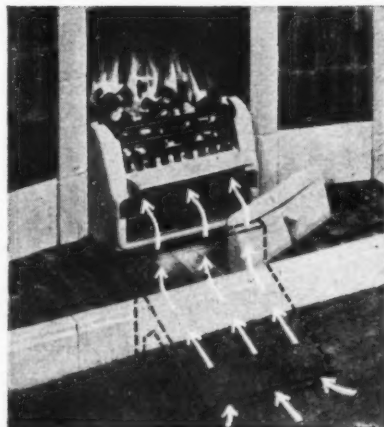
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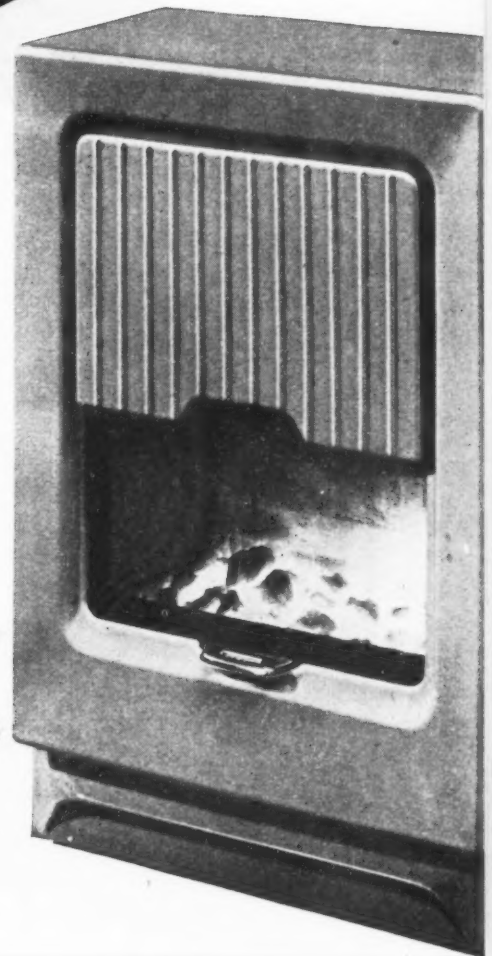
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6



7



SOFONO COOKER

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CAMELON CONVECTOR FIRE

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SOFONO CONVECTOR FIRE

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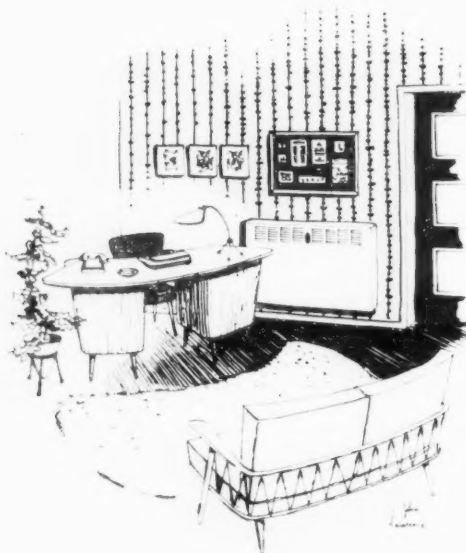
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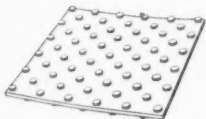
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*Cogwheel and trowel design by Essex County Architect's  
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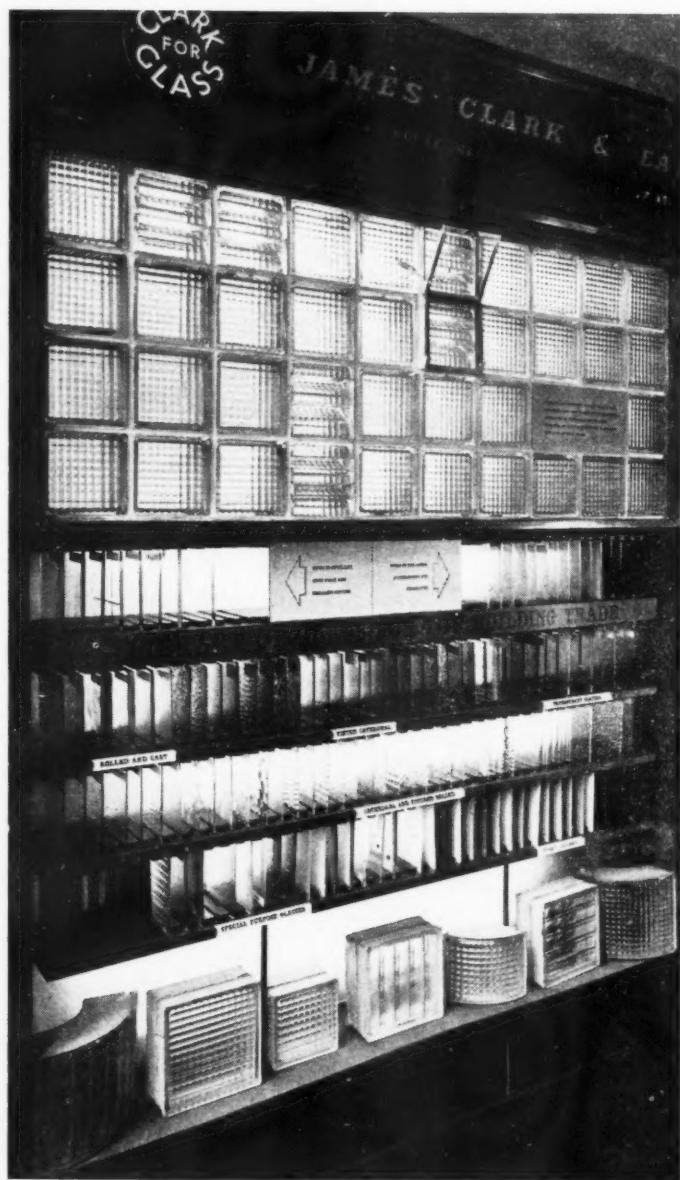
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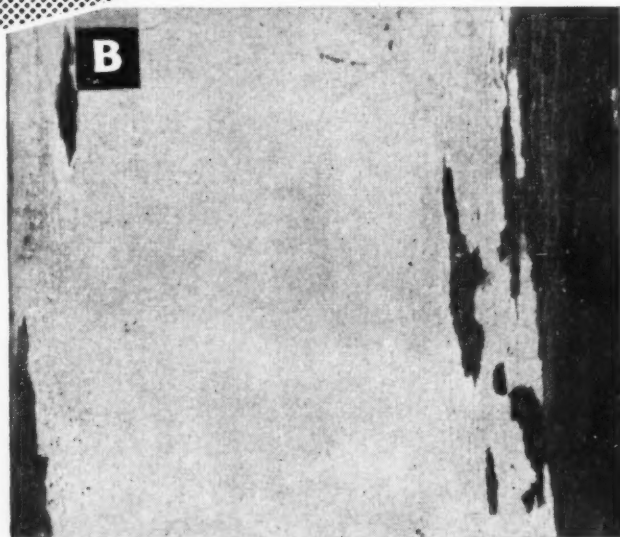
These two identical panels of wood were treated (A) with the Kinslac All-Alkyd System and (B) with the usual oil primer and alkyd undercoat and finish, and both panels were exposed to the elements for a period of 9 years. The photographs (slightly enlarged) speak for themselves.

## A

The surface of the panel treated with the Kinslac All-Alkyd system showed absolutely no sign of breakage or blistering.

## B

Cracks in the finish of the panel treated with the oil primer system have allowed moisture to permeate the undercoat, the primer, and finally the wood itself.

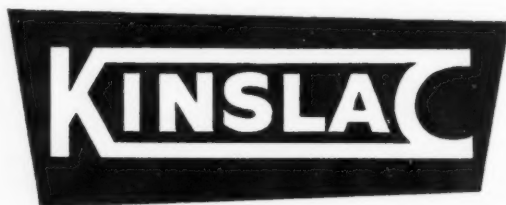


## KINSLAC ALL-ALKYD SYSTEM for woodwork means **GREATER DURABILITY**

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**K I N S L A C**—All-Alkyd Finish, Undercoat and Primer.  
An Information Sheet fully describing the Kinslac All-Alkyd System is available, and you are invited to write for a copy.



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for  
modern  
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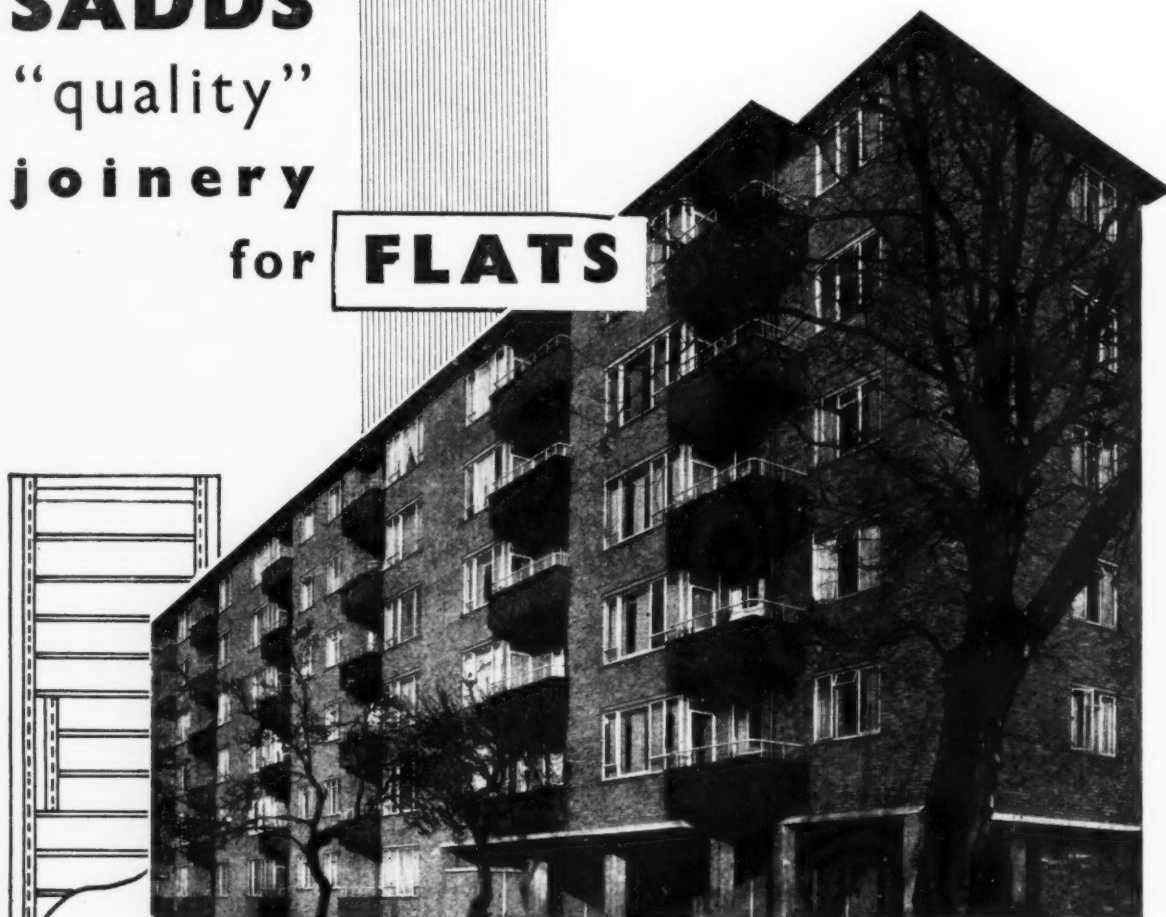
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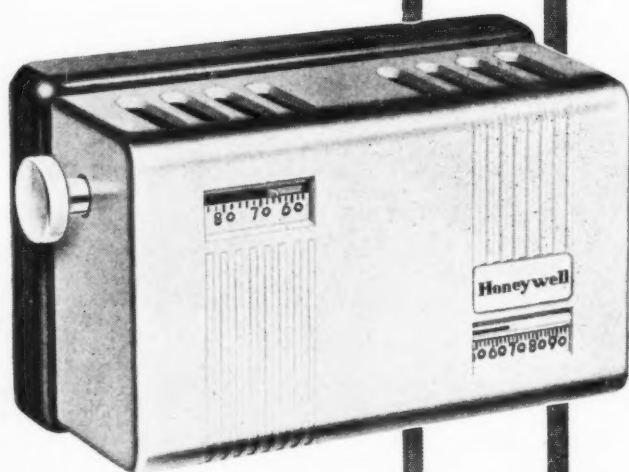
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A bellows-operated switch offers previously unattainable sensitivity. The low thermal mass of the bellows reacts to a temperature differential of 1°F to make or break the heating circuit. Any comfort level within the range 55—84°F (or 42—75°F) can be selected at the thermostat.

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Installation is simple—on a standard conduit box. Once installed, the thermostat needs no further attention; the key used to adjust the set point also locks the cover to prevent tampering. Attractively designed in black and gold, this general purpose thermostat is complementary to any interior design—in homes, offices, factories, and public buildings.

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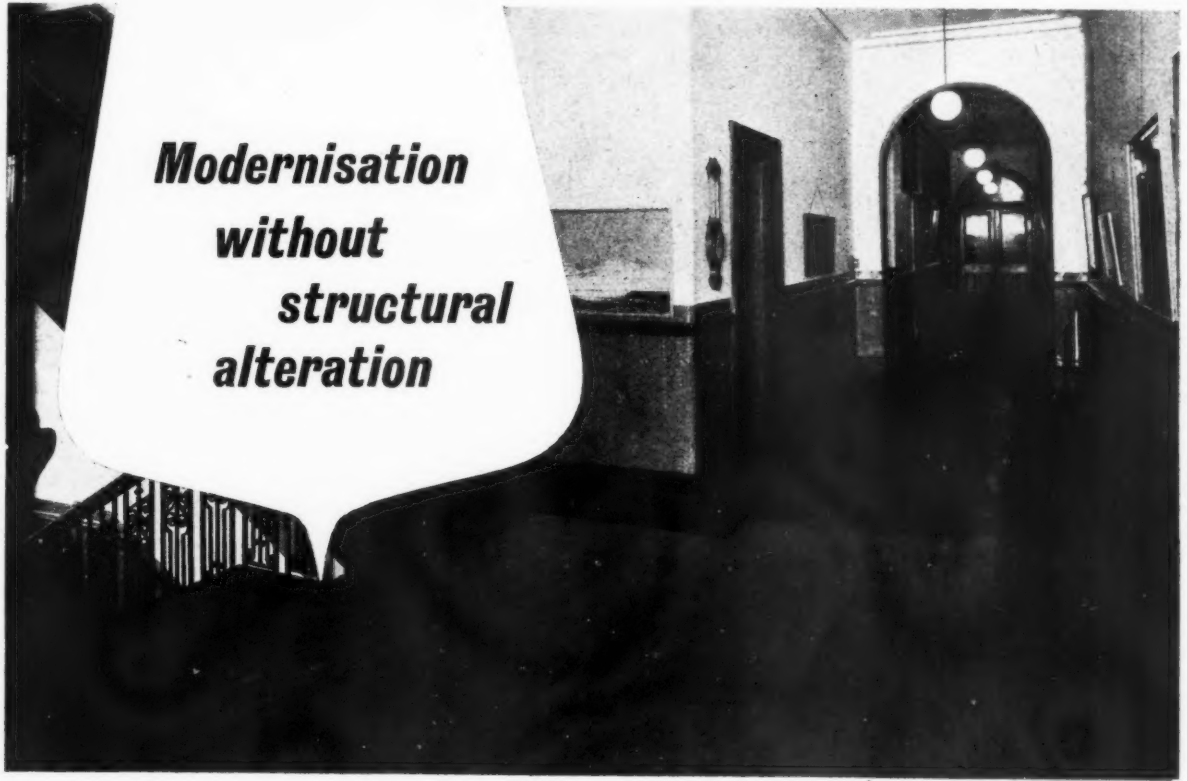
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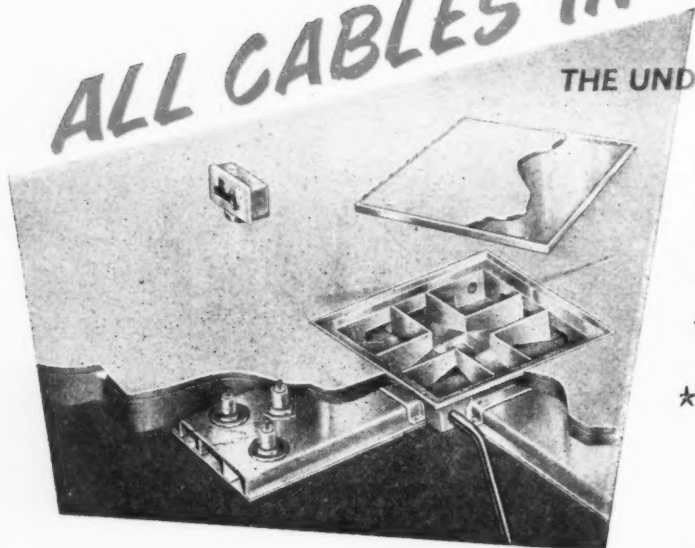
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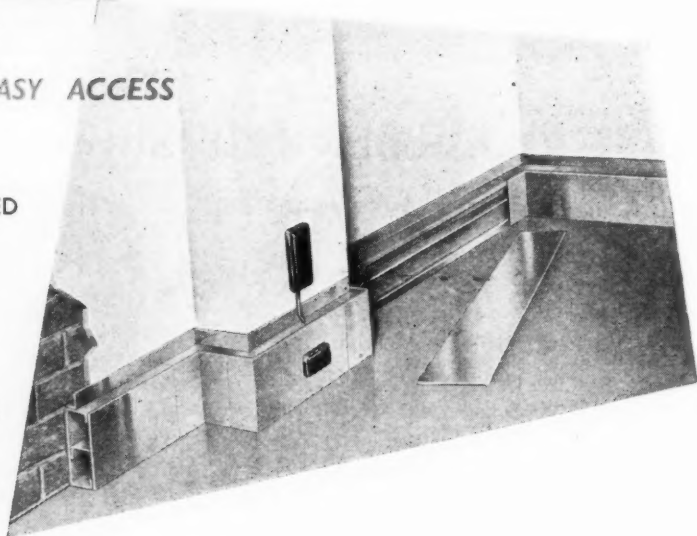
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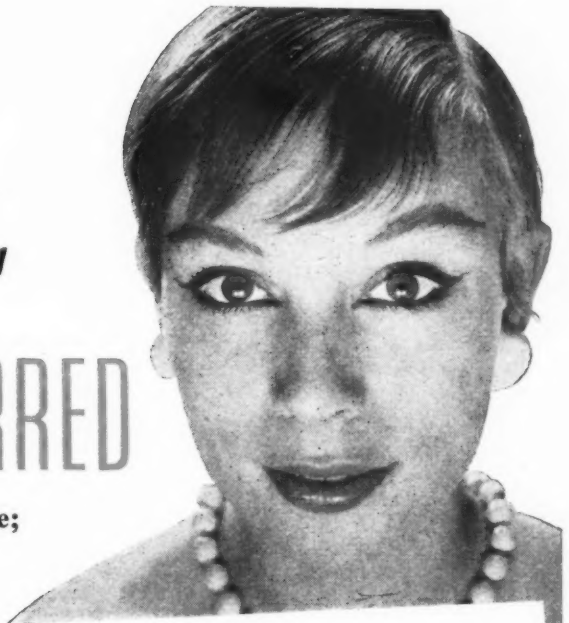
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- Restaurants and Shops



Will not stain



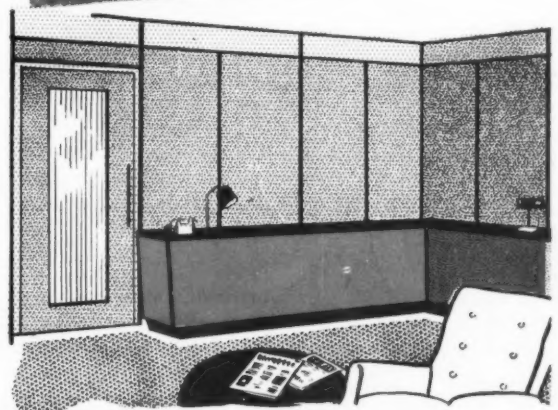
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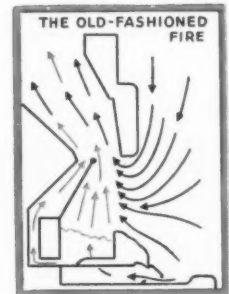
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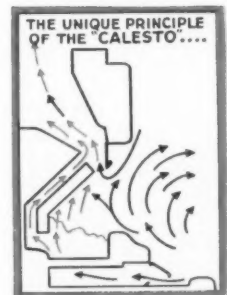
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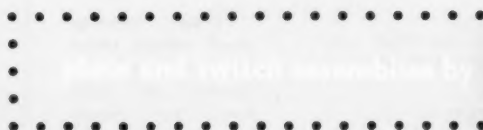


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
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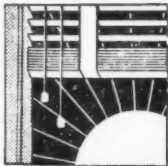
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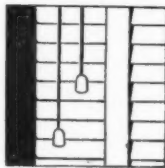


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THE ARCHITECTS' JOURNAL

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## MICHAEL VENTRIS

*The Times* has contained several obituaries of Michael Ventris; the ARCHITECTS' JOURNAL has also paid him tribute, but as he was awarded the first ARCHITECTS' JOURNAL Research Fellowship, the Editor has asked a member of the Fellowship Board to write a note about his work.

Those who did not know Michael Ventris well might wonder why they had not already heard more about a young man who is now so highly praised. This is because his work starts from the assumption that the development of architecture is being pursued mainly in two ways. The first, through emotion, intuition and fashion, and secondly by a deeper understanding of the changing needs and aspirations of human beings and of the ever increasing scientific data which go to make technique.

In the first, spectacular success often comes quickly to men as gifted as Michael Ventris. Success by the second approach is only achieved through emotion which has been preceded by painstaking investigation. Michael Ventris unhesitatingly chose the second approach and his life has been tragically cut short before time had allowed him to apply his knowledge to more than a few buildings. The school at Wokingham, on which he worked with David Medd and Mary Crowley whilst at the Ministry of Education, owes much to him. This, and his own house in Hampstead, show why those of us who knew him had such hopes for his future work.

The ARCHITECTS' JOURNAL was fortunate indeed in the appointment of its first Research Fellow, but Michael Ventris died whilst in the middle of the task he set himself. Perhaps the best method of informing the profession of his contribution in this field is to give his own picture of the scope of the problem.

This is most clearly represented in the concluding section of a report which he presented to the Board on February 13 of this year, exactly one month after he started



## Art Patronage by the Spec. Builder

Most of us, however much we may favour private enterprise, turn pale and shudder when we hear those ugly words "spec. builder." But at Ham Common, near Richmond, Surrey, speculative building has a new meaning. Here the spec. builders—a firm with a director who was once an architect himself—have not only employed an architect, Eric Lyons, to design their blocks of flats (internationally famous since one plan-type was shown at Halsingborg last year); they have also permitted him to be responsible for landscaping, paving, planting, street lighting and so on. The spec. builders at Ham have also become patrons of Art. The piece of sculpture shown here in detail (left) and also in relation to the flats (above) was unveiled this week by Sir Hugh Casson, who had pleasant things to say about Keith Godwin's symbol of home-making (i.e., woman, tree, nest and bird), and also about the building scheme in which it is sited, and the arrangement by which the landlords and the residents share responsibility for the maintenance and improvement of their property. (Residents' interests are looked after by a residents' society, whose committee meets in the building shown in the foreground of the picture above.) Other photographs of buildings recently completed on the site are published on page 437. The flats will be fully described and illustrated in the JOURNAL very soon.

work. In this section he formulated the problem in terms of a series of nine "reasons of complaint" for the present inadequacy of our information handling. These reasons read as follows:

*Reason 1.* The architect does not realise he needs information on a particular problem/does not bother to get it/is not qualified to use it intelligently. (To which Michael Ventris realistically added: "This is not likely to be elicited from the architects themselves.")

*Reason 2.* The architect has a question, but does not know where best to go for the answer.

*Reason 3.* The architect knows where he should go to find the "outside" information but cannot afford it/is prevented from obtaining it by distance/has not got time to absorb it.

*Reason 4.* The architect has reason to believe the information can be found inside his office, but its organisation makes it difficult for him to turn it up.

*Reason 5.* The architect's current information from outside sources is incomplete/inaccurate / incomprehensible / difficult to apply/out-of-date/difficult to file/not in a standard form.

*Reason 6.* The architect has the information, but in the existing set-up there is no call to make effective use of it.

*Reason 7.* The organization of the job and contractual procedure make it difficult to get information from "job" sources (client, contractor, QS, etc.) early enough or in the right form.

*Reason 8.* The architect is presented with inconclusive or contradictory information on problems of building technique, and no independent authority is prepared to give guidance on the relative merits of alternative products and systems.

*Reason 9.* The architect's brief (and the existing buildings known to him) are not enough for him to decide whether a proposed design will be the most satisfactory in use for the user of the building.

It would be difficult to find any simpler, more cogent or more comprehensive statement of the problem which in some form or other occupies all our professional lives and which occupied the last few months of his in a very special way. Using the same scrupulous method which these "reasons" suggest, he began his task by visiting the main producers of information and a number of representative architects' offices known to be interested in the subject, submitting each to a sort of urbane "third degree." The findings were then incorporated into a first (and as it turned out, a last) report which, it is hoped, will be published in the JOURNAL. This report does not (because it could not) "solve" the problem; but as the work of one of the most acute brains in the profession it will be invaluable to anyone who is brave enough to take up his exacting task.

Our profession recruits too few men of the quality of Michael Ventris. His going leaves a gap which we are unlikely to fill.

STIRRAT JOHNSON-MARSHALL.

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

## The Editors

### WANTED, A REVOLUTION

DAME EVELYN SHARP, Permanent Secretary to the MOHLG, attacked the local planning authorities last month in her speech to the Town Planning Institute's Summer School, for their failure to get on with the job of housing the overspill from the big cities. But the fault lies not with the local planning authorities, but with the whole administrative set-up of local government. We have already seen how wholly unsuited this set-up is for providing the answer to the biggest planning problem in Britain today—how to make the Victorian cities fit to live in. The answer lies, as Sir Patrick Abercrombie has pointed out, in abolishing the existing county and county Borough system and replacing it with one that makes sense.

Instead of taking the big stick to the local planning authorities, the Minister should direct his energy towards creating the three-tier administrative system for planning which Sir Patrick called for in his recent broadcast talk. The only practicable means of tackling the problems in our congested great towns is through regional planning authorities armed with executive powers to carry out all stages of the work, capable of building new towns where they are needed, and co-ordinated at the top by a national planning commission. Nothing less than this will achieve results.

Apparently the Minister rejected this idea as being too revolutionary when he drew up his White Paper on local government reform. This is a revolution that is clearly overdue, for the existing system is so far out of date that no amount of tinkering can make it fit for the job it has to do. Why should we not make the change now?



### FILE THIS WEEK

**Information Centre:** A book and three articles from other publications are reviewed this week. The book is a second impression of Y. Guyon's work on prestressed concrete. The articles deal with precast concrete sandwich panels in colour, an aircraft hangar jacked up at one side to give added space and a storage building constructed very quickly in structural timber ... .. page 445

**Contract Procedure:** The troubles caused by the use of old contractual proceedings are discussed in an article by P. E. Bathurst. He proposes a more comprehensive procedure, featuring "sub-bills of quantities" ... .. page 446



## WEST HAM AFTER DICKENS

Elsewhere in this issue you will find a lengthy article by D. Rigby Childs on the post-war achievements, in terms of planning and building, of West Ham. This is a rather forlorn-looking county borough just outside the County of London boundary. As is evident from the article, the borough's architect's department, under the leadership of Thomas North, the chief architect and planner, have done a good deal of sterling work. It is said that they have done more, in terms of central area reconstruction, than anyone else in England, for which they should be congratulated.

\*

No doubt some sophisticated professional lips will curl at the rather unadventurous nature of some of the designs (although their latest schemes are well abreast of the times), but this is as it should be—it is unlikely that any of the staff consider themselves amongst the *avant garde*. But if there are any architects with initiative who, on studying the West Ham buildings, feel that they could do better, then ASTRAGAL's advice—and he hopes they won't find it embarrassing—is to go along and try, because the West Ham office is very short of staff. This is through no fault of their own, but rather because of the unattractiveness of West Ham itself and its geographical

position. Here is an admirable opportunity for the devotees of the cluster, the new urbanity, and so on, to prove their theories and their worth.

## CARS IN THE MEADOWS, PEACE IN THE HIGH

If one could not greet Duncan Sandys' probably sensible decision over the Barbican site with much enthusiasm—for a number of reasons—one can only give whole-hearted praise for his sound judgment over the Oxford road decision. ASTRAGAL, who has humbly trod in countless more eminent footprints in Christ Church meadows and along the High, pondering this perplexing question, congratulates the Minister on not accepting inner relief roads which were hardly inner, and probably wouldn't relieve anything; and earnestly hopes that everyone will co-operate in ensuring that the Meadows road is speedily built and inconspicuously sited—preferably in a tunnel below the Memorial Gardens, as indicated in an article in the May issue of the *Architectural Review*.

\*

With Magdalen bridge closed to cars, the University area will be one step nearer to achieving the status of a pedestrian and bicycle precinct. The danger lies in the proposal to widen Rose Lane and extend it over the Meadows to join the new road. This could undo all the advantages of blocking Magdalen bridge, unless care was taken. The answer, surely, is to build one road at a time.

## STAY IN THE TRAIN

"In the year ended March 31, 1956, work to the value of over £80,000,000 was done by some 50 British building and civil engineering firms in nearly 60 different countries overseas. The value of the work outstanding at the same date was over £107,000,000." So reads the catalogue for the exhibition "Britain Builds For The World" which has been arranged by the NFBTE in collaboration with the MOW, and is currently on view in the booking hall at Charing Cross Underground Station. ASTRAGAL was interested to see how these impressive statistics were put over to the 899,772 passengers who use the station every week. In fact they are not put over at all. The display consists of an entrance screen containing a flag-ridden globe (imaginative touch, this)

and, behind it, 130 pictures of buildings, grouped not under countries but under building types. Each picture has its own caption which states merely what and where the building is. No other information is given.

\*

Although ASTRAGAL prefers an exhibition to tell its own story, he turned to the catalogue confident that he would find a breezy, concise story in terms the layman would lap up. "... the growing volume of constructional work carried out ..." "involving protracted negotiations with a chain of intermediaries. ..." "Notwithstanding these handicaps and difficulties. ..." Ah well, even if the layman doesn't digest the catalogue blurb he will at least be impressed by the sheer number of buildings illustrated. He might not even notice that almost half of the pictures (57 out of 130) are of buildings in Britain. (The catalogue says casually: "There are also several photographs of work carried out at home.") It's just as well, perhaps, that the exhibitors decided to group the pictures under building types; a grouping under countries might have made the exhibition look rather feeble, unless it had been given the new title, "Britain Builds at Home and Abroad."

\*

Incidentally, when the Minister of State for the Board of Trade told the Press about this exhibition at a cocktail party at the Savoy, he said: "I know that the Federation would not wish me to leave it unsaid that their industry is one which depends upon team work with other people ... not least the consulting engineers, the architects. ..." That seems rather presumptuous of the Minister, for this is the most conspicuously unsaid thing in the exhibition. You will not find an architect's name in the whole of the display—apart from that of Kenneth Lindy, who designed it.

\*

No doubt the NFBTE, who published a list of contractors in their catalogue, would reply that architect-sponsored exhibitions rarely include the names of builders. And it is probably pretty mean to spoil their fun by carping. After all, this is the first time they have organized a public exhibition of this kind, and they are to be congratulated

for having the enterprise to do so. But if they intend to spend a lot of money putting themselves before the public eye (that glazed, bloodshot organ), they should show themselves in a less modest light. They have a good story to tell, not only in terms of building, but also in terms of organization and efficiency. ASTRAGAL, for one, would be delighted to see them tell it adequately.

#### SUBTOPIA FOR THE SIXTH

The publishers of *Your England and How to Defend It: A Cautionary Guide\** are strangely shy about the booklet's authorship. Ian Nairn has written a foreword (yes, it is a book about Subtopia) and "gratitude is expressed" to him in the list of acknowledgments. The author tells the Subtopia story with admirable short-windedness and with a simplicity and directness that one might have expected from a pamphlet in a series for schools on "The Use of English." It reads very much like Ian Nairn, but I am sure he could not have chosen some of the so-called "good examples" that are illustrated. And he certainly could not be responsible for the naivete of some of the suggestions made for action to be taken against Subtopia. "Could not the petrol combines," the author asks politely, "make a gentleman's agreement to stop wasteful competition?" And then he becomes dogmatic. "Motorists," he writes, "should buy their petrol from the neater garages in town or village, never by the wayside. Shoppers," he adds, "should avoid goods pushed by offensive advertising."

\*

This glorious idealism should go down very well in the upper sixth, even if it is useless advice for those of us who are old enough to think life is too short anyway. But the author ends with his feet nicely on the ground again. "Everyone responsible for a new building should see that a real architect is engaged. And almost everyone can get a tree planted somewhere."

\*

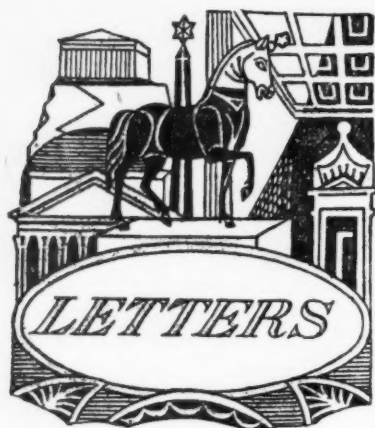
ASTRAGAL's suggestion for anti-Subtopian action: buy as many copies of this excellent pamphlet as you can afford, and leave them lying around in public places.

ASTRAGAL

Chatto and Windus. 3s. 3d.



Readers will remember that we have already illustrated some of the two-storey blocks in the estate of spec-built flats at Ham Common, Richmond. Here are some photographs of more recent parts of the scheme. Top: shops, with flats above, at the entrance to the site. Centre and bottom: front and rear elevations of the three-storey flats which have recently been completed. This estate, in which buildings, landscaping and street formation have all been controlled by the architect, Eric Lyons, is the subject of the frontispiece, on page 434.



Sydney H. Tasker

Alan Turner, A.R.I.B.A.

"A Real City Architect"

"Articled Pupil"

D. L. Medd, A.R.I.B.A.

Ian Nairn, author of "Outrage"

## Letter To A Young Journalist

SIR,—Dear me, another of those "well I don't feel any the wiser after reading it" letters, has appeared in your columns. I don't often write Auntie Evelyn letters but in this case I feel provoked into doing so. This letter is addressed to all the people who think they're "on" to something new, whether it be brutal, whether it rocks or whether it rolls.

Please try to remember that in these matters the majority of us are practically "laymen." Some of us were only at a university for five years and others had to leave at the tender age of five and twenty, to start earnin' "a livin'." It's not that we want to disagree with you, I'm sure a lot more of us would enjoy "having an attitude rather than a plan," (endless possibilities on site) and it would certainly make life much easier. No it's just that we don't always understand what you're driving at. (You boy—yes you Reyner Banham :

put your hand down lad, you're as bad as the others!)

Seriously boys, give the rest of us a chance; after all most of the important writings in history were put fairly simply (and without using a page for each sentence too). I do hope that you will take heed, so that the next time I struggle through one of your articles I will be able to decide (for myself) whether you have something to say or not.

If, after you've simplified it a bit and knocked out one or two of the newly invented words, it doesn't read quite so impressively—well then, why not just forget about it. There's always another day.

SIDNEY H. TASKER.

Preston.

## What Do The Smithsons Want ?

SIR,—The Smithsons' letter is a good collection of CIAM ploy words, but is quite meaningless to anyone who has not read a more detailed account of their beliefs. This tendency to write jargon in note form is almost as confusing as the reports of the town planners they criticise.

Most people now agree that post-war planning has failed to produce an environment materially better than that which existed before. Housing layouts in general have improved very little since before the war.

But the cause of this is not the existence of plans, but the need for more and better plans. A plan produced by incompetent officials and approved by an ignorant town council cannot help but be a bad plan. The remedy is not to do away with the idea of the master plan but to improve the quality of its execution.

Our best planning achievement since the war is Coventry Central Area; granted that Donald Gibson had an Attitude, he also had a very good Plan, without which no amount of "briefing" would have made individual developers produce anything better than a jumble of unrelated buildings. "Cluster" would be replaced by "Clutter."

Incidentally the Smithsons seem a little confused as to the composition of the team which would develop their new technique. In the July issue of *Architectural Design* they stated that the team should include Gropius, Le Corbusier, Mies van der Rohe, Alvar Aalto and J. L. Sert. Now they say "not the All-Stars."

Perhaps they are just being rude.

ALAN TURNER.

Notts.

## Not Quite A City Architect

SIR,—It would appear that all that has been achieved after years of endeavour to persuade the Cardiff City Council to fall into line with the more enlightened authorities at Swansea and Newport (Mon.) is to change the title of the job of chief architectural assistant to city architect.

One is tempted to ask when is a city architect not a city architect? The answer is certainly—when the city is Cardiff. It might be superficially attractive to potential candidates to contemplate the enjoyment of a more exalted title but in fact the job is no more than chief architectural assistant under the city engineer.

The city council are mistaken if they believe that this device will settle the controversy; fundamentally the position is unchanged and the present move is recognised as a manoeuvre by the capital city of Wales to obtain the services of a nominal City Architect at a lower salary than what the joint negotiating committee lays down they should pay for a *real* city architect.

The title of city architect in every other case applies to an architect *chief officer* in control of a separate department and the strongest possible objection is taken to the depreciation of this standard by Cardiff. Candidates of the required sense of responsibility will not be deceived by the misnomer.

A Real CITY ARCHITECT.

England.

## "Outrage" Defended

Last week we published a talk on the misuse of words given by a journalist, Derek Senior, to the TPI Summer School, which contained comments on the Outrage issue of the *Architectural Review*. Mr. Senior criticized Ian Nairn for "his insistence on mixing up his onslaught on aesthetic criminality and negligence with an utterly irrelevant diatribe against dispersal and open development." "The two objects of his invective have," said Mr. Senior, "nothing to do with each other." Mr. Nairn replies in the following letter:—

Of course dispersal and open development have nothing to do with littering the countryside. The photograph below proves it, doesn't it? Does Mr. Senior think we faked all the Outrage photographs for the hell of it, or collected them specially so that we could hang pet theories on them? We could have been good little boys, talked only about good design and got pats on the back all round—but what's the use of that if Southampton to Carlisle really does become one vast mass of sprawl, even if it is well designed.

Los Angeles: "Have dispersal and open development nothing to do with littering the countryside?" See letter, "Outrage" Defended.



I would willingly take Mr. Senior around for a couple of days *beyond* the London green belt to show him what we meant and why dispersal in its present sense is only accelerating it—as long as I didn't have to speak to him. This would serve the purpose of allowing the sites to speak directly without any possibility of being misrepresented in words.

IAN NAIRN.

London.

## Letter From A Young Slave

SIR,—As an article pupil to an architect, I am now finding, after a year and a half, that, although architecture is an extremely attractive and interesting profession, the remuneration for the first three to five years is very discouraging.

The system whereby the person entering the profession is article is surely out-of-date. Until recently, a premium had to be paid; then this was dropped and the pupil received nothing during his articles. Today most employers pay about one pound per week to commence with.

This is acceptable to boys whose parents have the means to let it become pocket money. On working class parents, however, it imposes a very great strain; they still have to keep their sons after they have left school—when they (their sons) should be earning enough to practically keep themselves. The only beneficial effect this system has is to ensure slave labour for the employer for so many years.

The costs of studying to be an architect are high. Consider the following items:—

1. Instruments. 2. Paper for testimonies.
3. Fees incurred in sending testimonies.
4. Fee to become a probationer. 5. Board and T-square at home (if student wishes to progress quickly).
6. Part-time school fees.
7. Architectural periodicals. 8. Test books.
9. Examination fees.

The person taking a full-time course in a school of architecture is under the same handicap. He receives usually a grant of about £5 per year.

To the person with initiative who wishes to progress quickly, this is definitely no inducement.

The other major issue, wherein the RIBA maintain that articles ensure that the pupil receives a good education at the office, is one where some investigation by them would not be amiss.

Most of the first two years entails the taking of prints, office errands, and an extremely small amount of tracing. This is the general opinion of the students I know.

The other "jobs-with-a-future," e.g. electronics, atomic research, plastics, etc., offer, in the main, a far better opportunity to school-leavers. I have read of the schemes which are used in training students, in which a living wage is paid at the start.

Cannot the RIBA establish a system on similar lines to those above. My opinion is that they couldn't care less.

ARTICLED PUPIL.

Notts.

## "How Does A Door Swing?"

SIR,—May I, in support of Erno Goldfinger's plea and suggestion (AJ: September 6), offer my view on the only method of designating and handling for all types of ironmongery on windows, internal and external doors, and cupboard, that I have found simple and practical?

The hand should be specified as that on which the knuckle of the hinge is visible. It is an easy method to remember by comparison with the lengthy drill described on page 307 of the AJ September 9, 1954.

D. L. MEDD.

London.



## MOHLG

### Oxford Road Decision

The Minister of Housing and Local Government, Duncan Sandys, has rejected Oxford City Council's proposals for two inner roads to relieve traffic congestion in the city. He has asked the council to submit proposals for a new inner by-pass road through Christ Church Meadow as soon as possible. ASTRAGAL writes about the Minister's decision on page 436.

## CARLTON SITE

### Modified Scheme

Professor Robert Matthew, Professor of Architecture in the University of Edinburgh, has designed a modified version of his original scheme for New Zealand House, which is to be built on the site of the Carlton Hotel, Haymarket. He is submitting it this week to the New Zealand High Commissioner. The original design was for a three-storey building covering most of the present hotel site, and a nine-storey block rising from it and covering a smaller area. The main block of the modified design will be ten storeys instead of nine.

## EDINBURGH

### Flats near Holyrood House

The city architect of Edinburgh, A. Steele, has designed two 10-storey blocks of flats which are to be erected by Edinburgh Corporation on the borders of Holyrood Park and within half a mile of the Palace of Holyrood House. Each block will contain 40 three-apartment flats, 30 three-apartment maisonettes and 18 two-apartment flats.

## USSR

### Studying Western Methods

The Soviet Academy of Architecture is being reorganized as an Academy of Building and Architecture. This is to study more extensively western and other buildings to see which features could be adopted advantageously by Russian architects in their new building drive.

## BC

### Exhibition Delayed

Owing to unforeseen delay the American exhibition, *Built in USA: Post-War Architecture*, did not open at the Building Centre yesterday. It will probably be on view within a week.

## LONDON'S SKYLINE

### Sir Albert is Pleased

Sir Albert Richardson, president of the Royal Academy, said last week that the skyline of London had not been spoiled by new buildings. These, he said, were fitting themselves in and becoming a part of the City.

## KENT

### House Protected

The Kent CC have made a preservation order to protect Great Maytham, Rolvenden, near Cranbrook. The buildings, which were designed in 1910 by Lutyns, were recently acquired by a firm of demolition contractors.

## LMBA

### Lunch for Lord Mayor

"There is probably more building going on in the City than in any comparable area in the world," said the LMBA President, Kenneth C. F. Foster, at a luncheon given in honour of the Lord Mayor of London last Friday. Mr. Foster congratulated the Lord Mayor, Alderman Sir Cuthbert Ackroyd, on the charm, ability and distinction he had brought to his high office, and said that the City, and the building industry, had much in common; both strove for higher efficiency while preserving the best of the past. Mr. Foster pointed out that as builders their main concern was that buildings should be of sound construction. He expected that this service would continue to be required in the City in replacing buildings which would be better out of the way. Sir Cuthbert Ackroyd, acknowledging the toast to the Lord Mayor, said that the City had made marked progress this year, much of it due to the LMBA, and that their aim was to build for posterity. He referred to the good work done by the ancient Guilds of London in maintaining technical training for the building industry, and concluded by saying that "we are proud of the 'new look' we are getting in the City." Amongst the guests of the LMBA were 21 representatives of the Guilds. These included Masters and Clerks of the Worshipful Companies of Tylers and Bricklayers; Painter Stainers; Glaziers; Plumbers; Plaisterers; Blacksmiths; Paviers; Turners; Carpenters; Masons and Joiners.

Duncan Sandys, the Minister of Housing and Local Government, who also spoke, said that, as a former Minister of Works, ten years ago, and now, at the MOHLG, he had been greatly struck by the admirable way the LMBA carries out its work and provides leadership.

## DIARY

*Designers at Work.* Display illustrating the work of the COID's record of designers. At the Design Centre, 28, Haymarket, S.W.1. 9.30 a.m.—5.30 p.m.

UNTIL SEPTEMBER 29

*British Town-planning and the Neighbourhood Idea.* Talk by Peter Collison. At the HC, 13, Suffolk Street, S.W.1. 1.15 p.m.

OCTOBER 9

*Britain Builds for the World.* Exhibition sponsored by NFBTE. At Booking Hall, Charing Cross Underground Station, W.C.2.

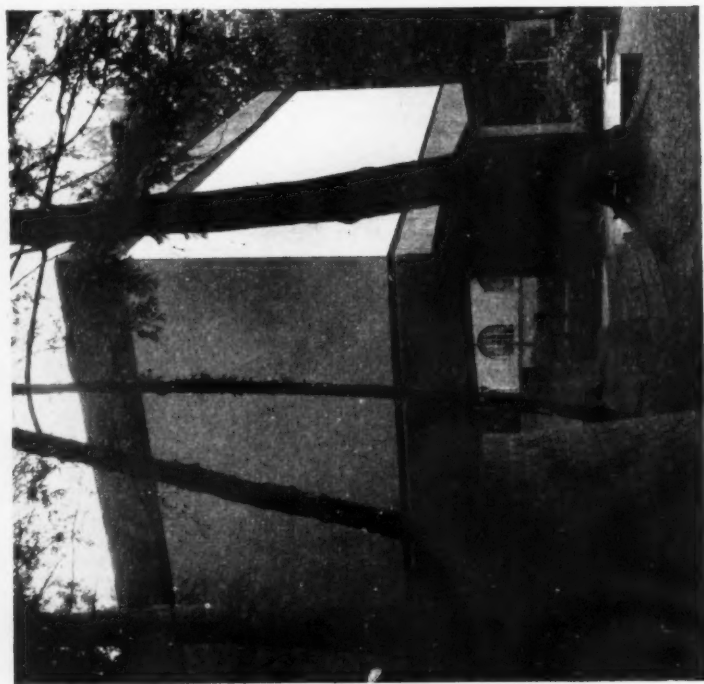
UNTIL OCTOBER 9

*Organisation and Planning for Large Building Contracts.* L. J. Holloway. At RICS, 12, Great George Street, S.W.1. 6 p.m.

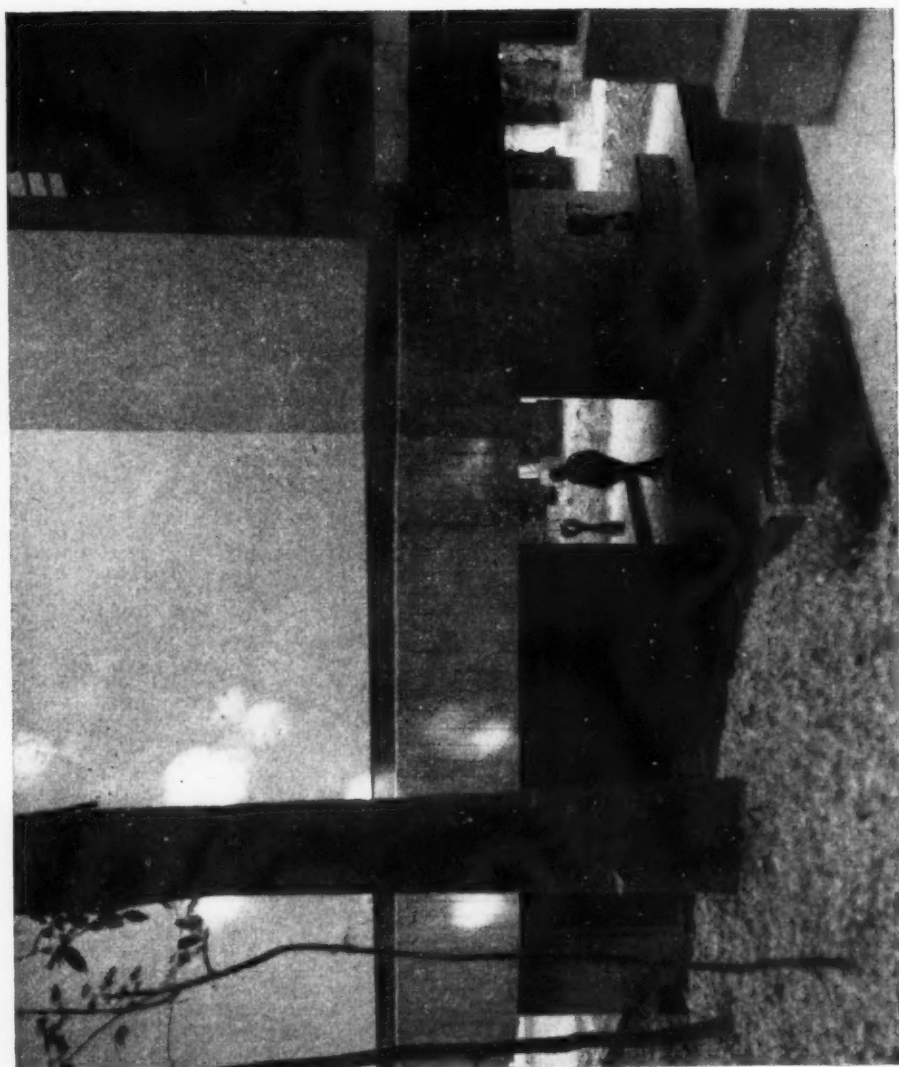
OCTOBER 17

# THE JAPANESE PAVILION AT THE VENICE BIENNALE

below it and to get the impression, in spite of the restricted site, that they are walking through woods. The path is tree-trunk slices set in gravel. Tree shadows play on the stark white wall. The crisply dipping shapes of the ceiling and floor beams are dictated by the bearing function of hole (opposite bottom left) can be closed by four royal-blue



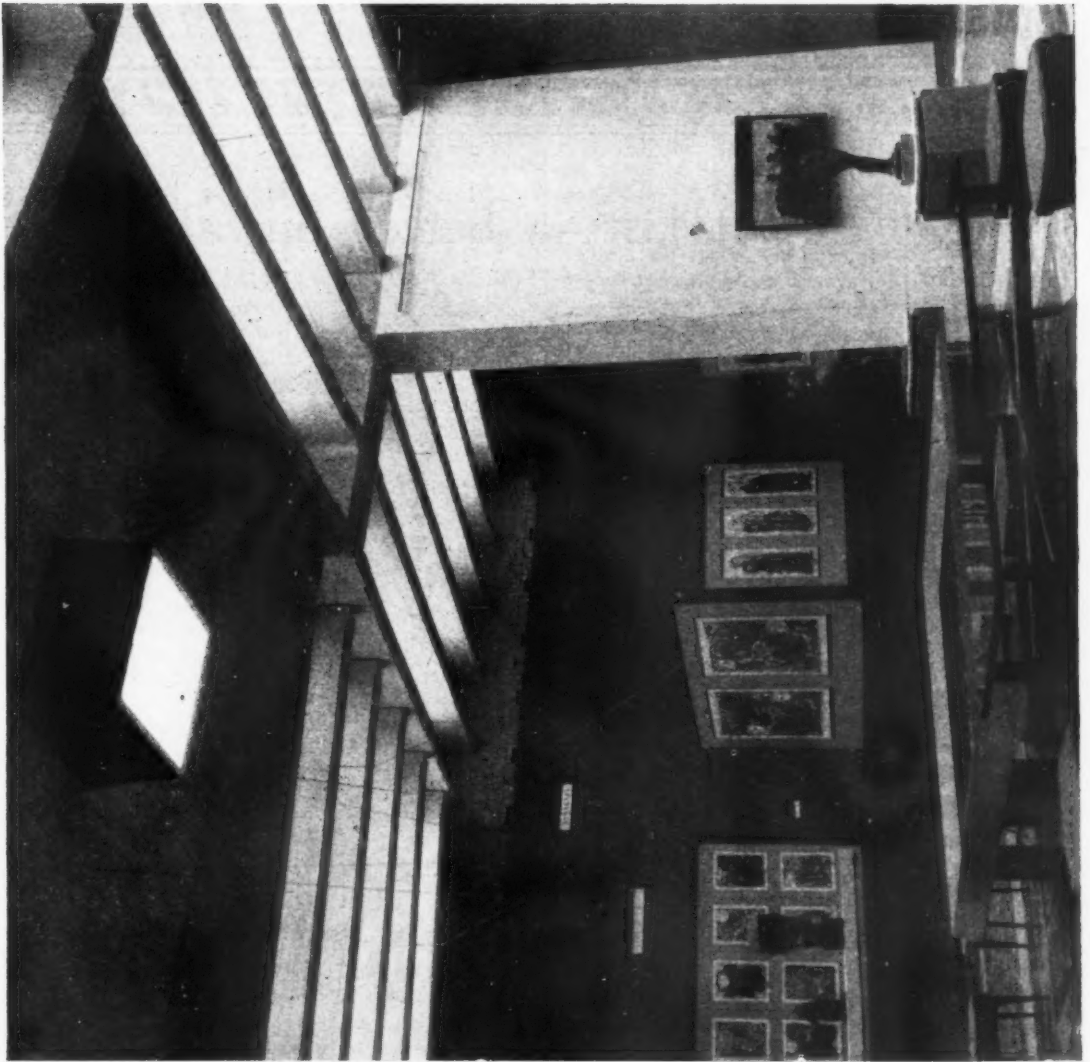
The Japanese pavilion at the Venice Biennale was one of the only two completely new ones (the other was Aalto's small, prefabricated wooden one). The other national pavilions, of assorted styles and periods, date back to the first Biennale before the turn of the century. Japan's clear white concrete block is next to the yellow Second Empire palace of the USSR. The pavilions are ranged along wide gravel walks. The Japanese pavilion site is sloping, surrounded by fir, beech and birch. Against the wooded background the block is lifted on three concrete fins to provide a paved sculpture garden beneath. Visitors are able to walk round the back of it, and



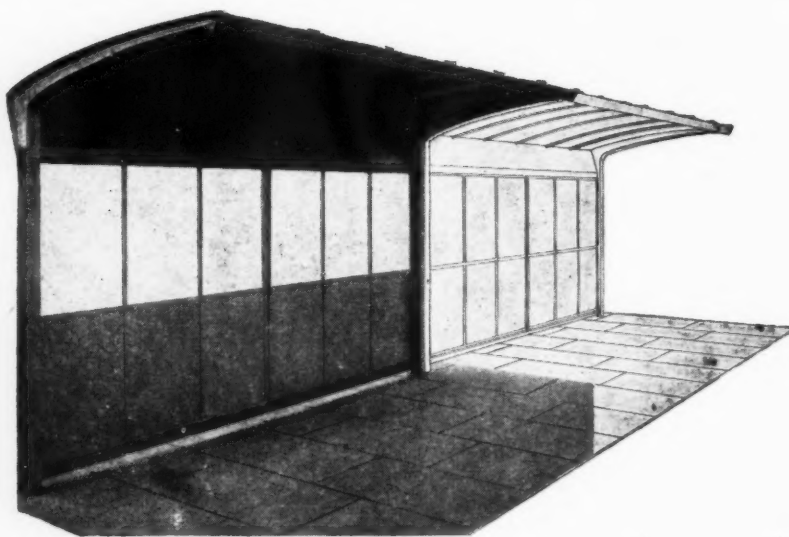
Visitors are able to walk round the back of it, and

hatch doors. The hole, bounded by a rail (see below), with small mullions, repeat the roughness of those permits visitors in the pavilion to see the garden under the building. Walls are dark red. A coffered beneath. The natural concrete ceiling beams, glazed skylight is situated over the square floor opening.

Photographs by Marilyn Silverstone.



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## THE TPI SUMMER SCHOOL

by Paul Brenikov

"The structure of local government is totally unsuited to undertake the work of decentralization on the scale required."

... "The Housing Minister should bear in mind the part private enterprise could play in rehabilitation of old property."

... "Any city centre which fails to adapt itself to new needs will inevitably decay."

... "Town planning should be backed by skilful publicity." These are some of the points made in the following article by Paul Brenikov, who writes about the papers read at the recent Summer School of the TPI.

One of the highlights of the planner's year is the annual summer school sponsored by the Town Planning Institute. At this school a large and miscellaneous group of councillors, planning officials, consultants and other specialists from this country and overseas, come together to discuss current topics, take stock of progress made and exchange information on the methods and techniques they have evolved. At this gathering the papers and discussions show which particular one of the multitude of problems planners have to face is uppermost in their minds. This year the activity of the school centred round the problems of the great city.

This was made plain by the first sessional paper when the crucial and intractable problems of "overspill" were reviewed again, this time by Dame Evelyn Sharp, Permanent Secretary to the MOHLG. Defining overspill as "the movement of people and employment from congested and over-grown cities to places at a distance—perhaps at a great distance" Dame Evelyn described this as the biggest and most far-reaching effort which planning is attempting today. There was, she felt, general agreement that the official policy of decentralisation was sound. Yet in spite of ministerial blessing, progress had been so slow to date that virtually nothing had been done to carry the policy into effect, except round London itself and in a few selected areas. The difficulties, she thought, were not primarily physical. The purely planning problems were, to her at least, relatively simple. It was the financial and above all the administrative obstacles which had brought the whole operation to a standstill.

Dame Evelyn went on to lay the blame squarely on the shoulders of the local authorities. Central government, she maintained, had more than played its part by initiating and maintaining the new towns, putting the Town Development Act on the statute

book, providing special financial assistance to counteract the heavy initial costs of overspill development and supporting the "tough" development control policy associated with the newly-defined green belts round the major cities. Once this lead had been given it was expected that the local authorities would play their part. The Minister, we were told, was "rather disheartened" by the lack of response. The initiative now rests with the local authorities. Exporting and importing authorities must sink their traditional differences and co-operate in seeing the job through. It was evidently the Ministry's view that the responsibility was theirs and that they must face it.

Are Dame Evelyn's strictures justified? Is the failure of the Town Development Act largely the result of the local authorities' failure to face up to their responsibilities? Is a little more tact and firmness, coupled with some discreet propaganda among the reluctant members of the committee, all that is required to put the scheme in motion? Those most concerned with the problem are convinced that the roots of their difficulties lie much deeper. The question of "overspill" is only one of a vast complex of inter-related problems connected with our great towns, none of which can in practice be dissociated from the others and all of which are urgent. Ten years of practical experience has made us realise that no piecemeal solution of these problems can ever be effective. The basic lesson to be learned from the failure of the Town Development Act is that the existing structure of local government is totally unsuited to undertake the work of decentralisation on the scale required, because of the very nature of the task.

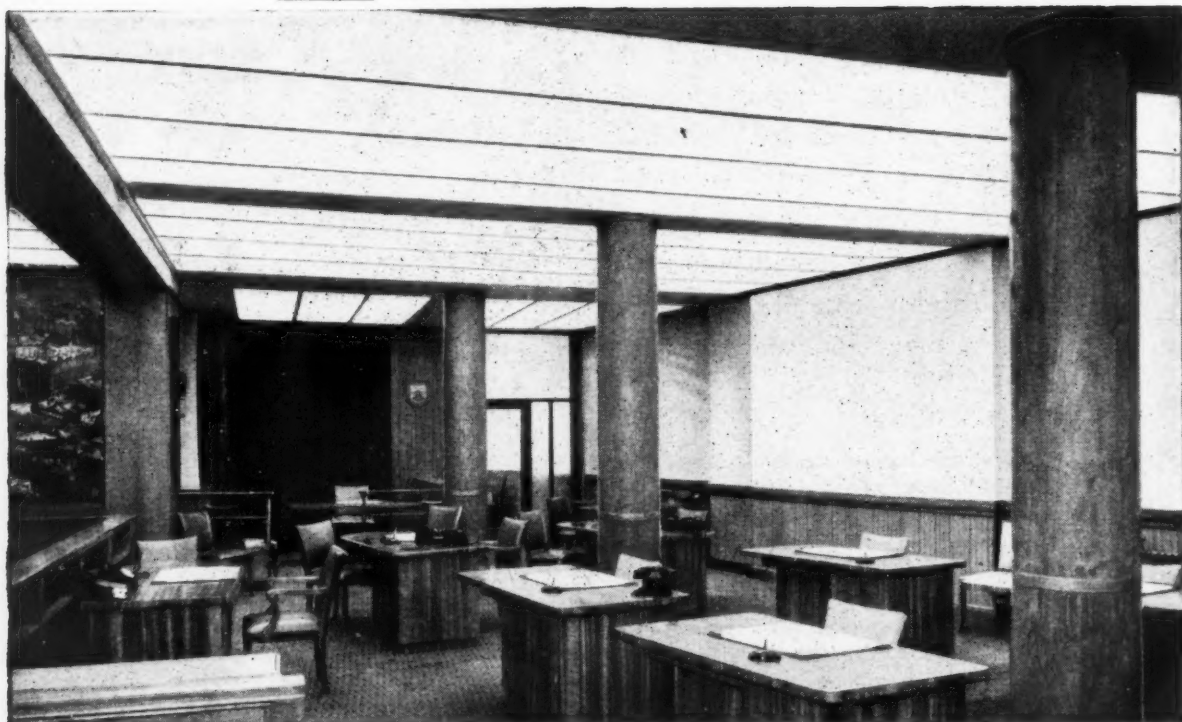
Dame Evelyn is right in saying that, given close co-operation between exporting and importing authorities, some measure of progress could be made. She herself quoted some instances of this in Lancashire and elsewhere. We all hope that these examples will be followed. But she must know too that the time and effort that these schemes have involved is, from any standpoint, completely out of keeping with the results achieved.

It is in fact so disproportionate that by no stretch of the imagination is it possible to envisage a practical programme of decentralisation based on these methods, which would give us the half-million homes that she agrees are needed, within reasonable time. We are still very ignorant of the nature of the forces that must be operated to bring about the planned decentralisation of a big city. But all the knowledge we have gained so far suggests that the whole project must be envisaged as a continuous process, stretching from the core of the city itself to the reception areas deep in its hinterland. To deal with the inevitable economic, social and physical problems of great complexity, some form of overall direction on a regional basis is clearly essential if the job is to be done. Any attempt to operate on this scale by means of a series of guarded agreements between individual authorities, each jealous of its own interests, is wholly impracticable: even if, as was suggested, the effects of the latest proposals for local government reform may reduce the number of authorities involved.

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This notion of an active regional planning authority with executive powers to direct and implement these complex operations is not new. Our current difficulties with "overspill" simply reinforce the arguments in its favour. The Minister, we were informed, has dismissed the idea since it would involve "a revolution in local government." Some planners believe this revolution to be overdue, in the light of the rapid changes that are already taking place in our mode of living in the way we use our towns. Delay can only make matters worse, for forces are now operating that will compel our great cities to decentralise themselves. Even the shock of a fundamental change in the pattern and function of our local authorities seems a small price to pay to avoid the chaos and waste that this will entail. Most of Dame Evelyn's audience would agree that the measures so far initiated by the Minister—particularly in the field of finance and development control—are useful aids, and that the campaign for greater co-operation between local authorities deserves our support. But valuable as these are, the Minister has not gone far enough if he intends to make planned decentralisation a reality. Dame Evelyn should urge him to think again and think quickly.

The papers given by Mr. Fiske and Professor Gardner-Medwin dealt with more detailed aspects of the congested city. Mr. Fiske, Chairman of the LCC's Housing Committee, speaking on "Slum Clearance, Rehabilitation and Redevelopment," focused our attention on what he described as the "twilight zone." This neglected area—the great mass of late Victorian housing which extended in a wide belt between the slums of the central area and the newer suburbs—was a marked feature of all our great towns. It had a vital part to play, said Mr. Fiske, in the "combined operation" of city redevelopment. As slum clearance got under way it would be increasingly difficult to find homes for all those displaced. Nor did the problem end here. Although some of the houses in the "twilight zone" were sub-standard and nearly all of them were frighteningly ugly, they were not yet slums. At the present rate of decay, however, this could only be a matter of time—perhaps twenty years or less. Since nearly one quarter of our national stock of houses were of this type this was an alarming prospect. If we acted now it would be possible to rehabilitate a proportion of this housing, much of which was structurally sound, and extend its useful life by some 30-40 years. Such a policy would have the double advantage of providing a valuable means of re-housing some families cleared from the demolished slums at about one-half the cost of new houses, and reduce the size of the future slum clearance programmes.

Mr. Fiske's policy is certainly a sound one. We cannot expect to master the national housing problem—which includes the replacement of buildings as they decay—by new construction alone. "Rehabilitation" affords a way out. But the process can only be successful if the houses are completely reconstructed, not patched up, and if fairly large areas are dealt with in each scheme. The example quoted by Mr. Fiske, the Brandon Estate in Southwark, provides a picture of

what can be done. Here, in addition to clearance and redevelopment, some existing Victorian properties have been "rehabilitated" by being converted into modern maisonettes and flats. There are, however, some serious difficulties which will prevent the widespread application of these methods. Under existing legislation a local authority can only carry out a rehabilitation scheme at a relatively heavy cost. Very few councils are likely to try even a pilot scheme under these conditions. The Minister could help here by making some financial concessions. He might also bear in mind the part which private enterprise could be persuaded to play in the process. In the United States, where the decaying "twilight zone" presents an even more pressing problem, city governments are working very hard and with some success to interest private developers in what are called "urban renewal" projects. In this country, mainly because of the Rent Acts, their resources remain unused.

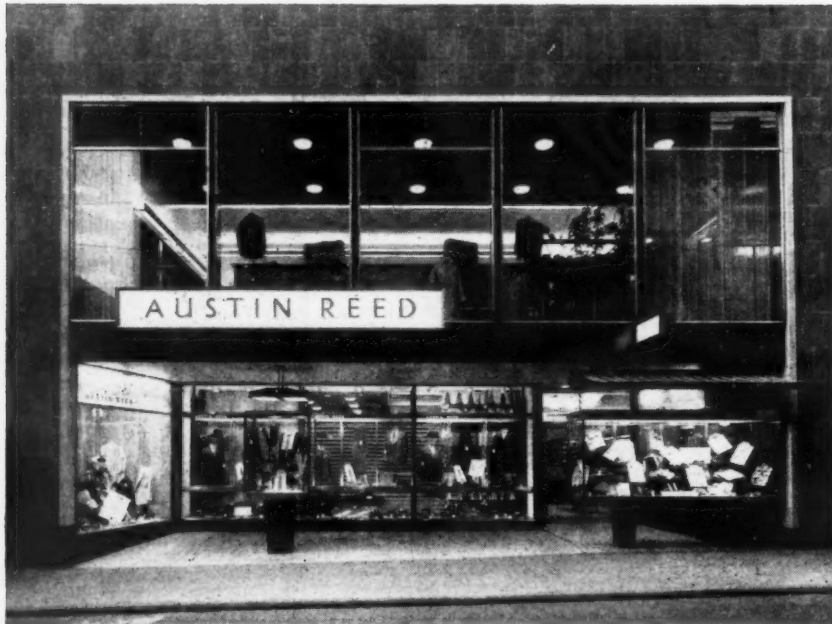
Professor Gardner-Medwin examined the changing form and functions of the town centre and put forward a powerful argument for greater imagination and boldness in the design of the city centre itself. "The heart of the city is the heart of the problem" he declared. "It is little use to expand in suburbs and trading estates if the result is to cause worse congestion and palpitation at the heart." He deplored our failure to bring new life into city centres and condemned the short-sighted attitude that clung to the old road grid, the old sewerage system and the old property line as a basis for the new design whenever reconstruction was possible.

He went on to say that we did not appreciate the function of a city centre, and were unable to convince others of the need for new ideas. Today, the centre was the focus not only of the city itself but of the wider hinterland it served. The increase in motor traffic, the greater height and size of the buildings it contained, the wider range of uses involved and the increasing importance of landscape architecture and street furniture demands a radical change in the way the city centre should be planned.

He suggested that the architectural solution (for he maintained that this problem was predominantly an architectural one) was now very largely worked out and could, in fact, be studied in operation. Except for a few isolated instances we seemed to lack the vision needed to put it into effect. We needed to revive the public and social significance of our city centres and to satisfy our need for dramatic effects. The successful design, was one that sought "to gain the utmost visual pleasure from the most practical solution . . . not by monumental subjugation but by environmental association with the life and movement of the centre."

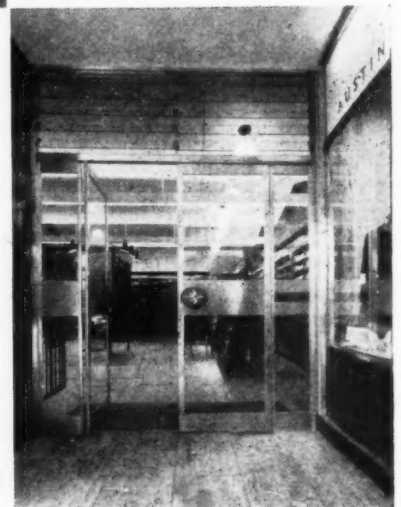
Although most town planners are in broad agreement with the Professor's idea of what a central area should be, many have serious doubts on the possibility of carrying it into effect. For this reason the Summer School's visit to Coventry's reconstructed centre on the following day was a salutary lesson of what skill and determination can achieve, and how worthwhile the results can be. Few, if any, town centres in this country, apart from Coventry and the new towns, even

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approach what is known to be needed. Elsewhere, when reconstruction takes place, the traditional pattern reasserts itself and little real change occurs. It may well be, as the Professor suggested, that planners and architects must accept part of the blame for this, as we have done little or nothing to influence public opinion, which remains for the most part totally unaware of what could be achieved.

There are however other factors which may well prove to be decisive. The functions of a central area are changing so rapidly and so fundamentally that any centre which fails to adapt itself to new needs will inevitably decay. When congestion becomes intolerable, tenants, customers and workers—taking advantage of their increased mobility—will move elsewhere. Land values in the old centres will fall. We can then expect reconstruction to begin on modern lines once investors recognise the value of the car park and the pedestrian precinct as a means of bringing their scattered clients back. There are signs that this cycle has already begun in the United States, where mobility has already reached a far higher level than is known elsewhere. Surely we would be well advised to profit from their experience and start to remodel the form of our central areas now.

Although it was only indirectly concerned with the troubles of the big cities, Derek Senior's essay on "Words" was an impressive *tour de force*, as readers of last week's JOURNAL may have noted. An expert with words himself, he astounded his audience by his demonstration of their use and abuse, and embarrassed us by his skilful exposure of our own fumbling incompetence. But this verbal *bonhomie* was artfully designed to hold our attention while he told us a number of home truths about ourselves and served up a multitude of bright ideas for future reference.

Mr. Senior set out to convince us that planners needed to increase their word power. Words, he claimed, were an essential part of a planner's equipment because he must use them to get his ideas across to the general public, who were, in fact, the final arbiters of how much planning was to be done. In a devastating attack on the planner's "local government" style, he pointed out that because of it he only succeeded in bewildering and antagonizing his readers, when he ought to aim, not merely at explaining what his ideas were, but at convincing them that they must do as he suggested. How far we had failed in this was, he thought, demonstrated by the fact that of the councillors on a planning committee (who, after all, are members of the public specially commissioned to interest themselves in planning affairs) not one in ten even took the trouble to read the reports prepared for them.

The first steps towards the achievement of word power, he continued, were the recognition that words themselves are never neutral but have a life of their own, and that facts, if they are intended to influence decisions, must never be left to speak for themselves. Skilled selection and presentation is essential. Even though a planner might in time be relied upon to use words convincingly on a selected and captive audience, the really vital job of putting it across to the mass of the public ought properly to be entrusted to

the expert. Not, he emphasized, the journalist, but the publicity expert, who alone has the skill to sell planning in the way it deserves.

All of this is good sense and Mr. Senior is to be congratulated on the skill with which he taught us his business. We should take his advice to heart. Planners, in common with most technicians, write very badly. We must be constantly on the watch against unintelligible jargon which is too often a cloak for loose thinking, or, worse still, sheer ignorance of the facts. No county planning officer ought to tolerate the circulation of reports from his department, or for that matter within it, unless they are clearly understandable. But above all we must recognize the value of competent and sustained publicity. Perhaps the most useful suggestion Mr. Senior put forward was his plea for a National Publicity Office, backed by adequate funds, to explain to the public the purpose behind the activities of both central and local government. Planning is an almost perfect example of a field of government activity where an informed and sympathetic public opinion is essential if any real results are to be achieved, yet its aims and objectives remain largely misunderstood by those who stand to gain most from its effects. The public's interest in planning, which was so marked during and immediately after the war has largely evaporated, mainly because of our failure to exploit it. Backed by skilful publicity, the Ministry and local planning authorities could easily recapture their interest. It would be hard to suggest a better investment, for without public support much of their efforts will continue to be wasted.

The remainder of the papers and discussions on special subjects covered a number of topics which ranged in time from the remote past in M. W. Barley's discussion on "The Development and Preservation of Sites of Historic and Archaeological Interest," to the distant future in Mr. Powell's examination of the development of the British coalfields. Other items considered were control of outdoor advertisements, the economics of commercial development, the implications of "motorways" and the first tentative glimpse of the changes in the national land-use pattern as revealed by the submitted development plans. This wide variety is itself impressive proof of the many fields of national activity which are affected by what—to Mr. Senior's disgust—we call "Town and Country Planning." It is hard to reconcile the nation-wide significance of the problems that planning has to resolve with the attitude that refuses to recognise it as more than a parochial activity best dealt with at a local level. It was the evidence of this outlook which made Dame Evelyn's attack on local authorities so disheartening to planners. She should blame, not them, but her own Minister for our failure to come to grips with the problem of the big cities. It is now clear that within the existing administrative framework the job cannot be done. Radical reform is required. Sir Patrick Abercrombie in his three-tier system of National, Regional and Local Planning Authorities has described the kind of organisation we need. It is up to the Minister to bring it into being.

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18.183 construction : theory

### PRESTRESSED CONCRETE DESIGN

*Prestressed Concrete.* Y. Guyon. (Contractors Record, Ltd. 1956. 70s.).

Second impression of Guyon's excellent work on prestressed concrete. In chapter II, three new types of stressing are described: Morandi of Italy, Dywidag of Germany and Udall-Gifford of this country. There is a half-page added on comparisons of cable or bar choice and a paragraph on action of cone anchorage. Chapter V has been revised in the light of further tests which have become available, a half-page is added on the DSIR 1953 report on fire resistance. Chapter XVI has an extra two pages giving another interpretation of increased strength against cracking.

One of our criticisms of the first edition was the lack of an index and this has been dealt with by providing a table of contents at the beginning of the book.

19.197 construction : details

### CONCRETE WALL PANELS

*Precast Concrete Sandwich Panels Turn to Colour.* (Engineering News-Record [USA] June 7, 1956. pp. 68-71).

Precast insulated panels in coloured concrete, of interest to architects and builders. A building under construction at Fort Meade, Maryland, has an external wall treatment of continuous glazing strips above

precast concrete panels. In all 1,100 similar panels are used, each 120 square feet in area. Each panel consists of two  $1\frac{1}{4}$ -in. layers of concrete separated by  $1\frac{1}{2}$  in. of glass fibre insulation giving a U value of 0.14. Structurally the panels can carry their own weight plus the windows and a lateral 100 m.p.h. wind load. The two concrete skins have a series of channel-shaped shear connectors which enable them to work together. The panels are erected by bolting to support angles bolted to the r.c. frame of the building.

For the panel exterior face two shades of

green stone aggregate were chosen. To avoid segregation the first layer of coloured concrete was placed very carefully by hand, then the reinforcement cage was added and the backing concrete followed by normal placing methods  $\frac{1}{2}$  hr. later. Vibration was applied to the underside of the steel forms, again care was required to avoid segregation by over-vibration. After 24 hrs. the panel was removed to the processing area and stripped in the vertical position. It was first sanded to remove the cement film from the aggregate, then wire-brushed to expose the aggregate. Acid wash was used to



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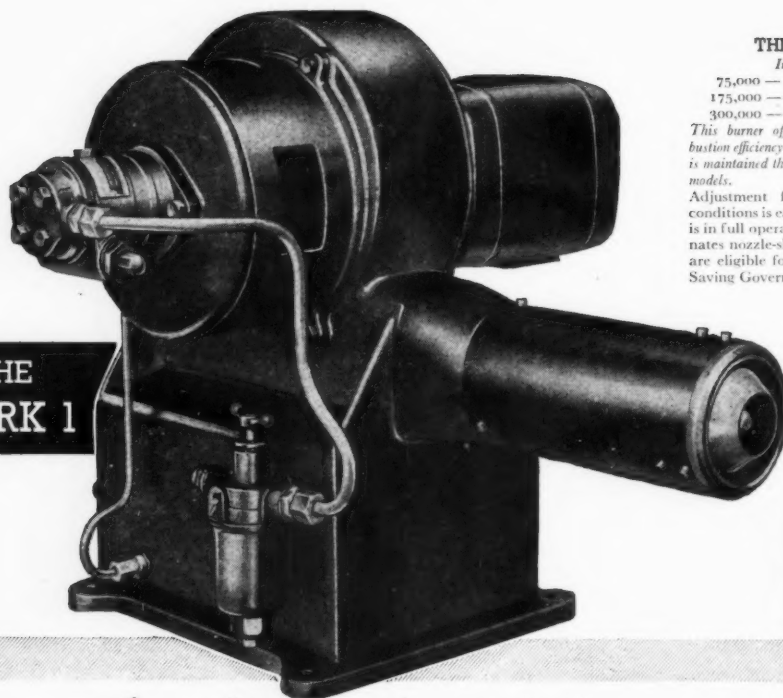
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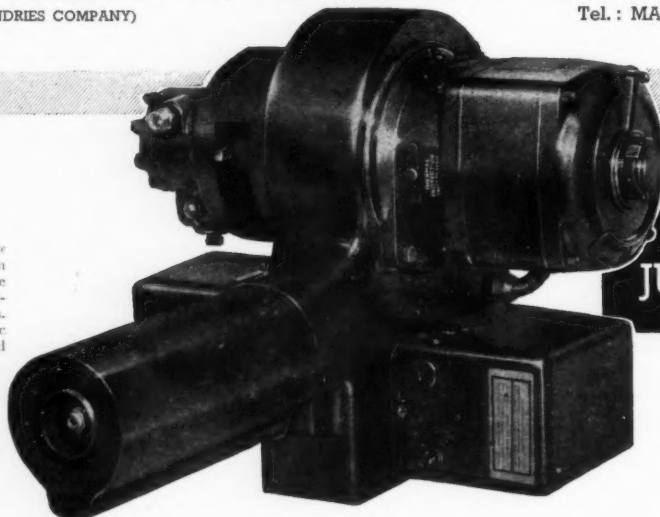
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## technical section

clean and bring out the colour but hosing down was carried out a few minutes later to prevent the acid affecting the matrix. The panels were moved only in the vertical plane after attaining a strength of 1,200 p.s.i.

On a 13-storey Las Vegas hotel, coloured precast panels have been used to producing a striking effect. Each panel is a 12 ft. by 9 ft. L-shape so erected as to provide a series of square windows staggered a half module at alternate floors. Aggregates are used to provide half the wall area in coral, the remainder being in maroon or beige with a purple trim.

#### 20.227 construction: complete structures ENLARGING ARCHED STRUCTURES

*Tilted Hangar Adds Space for New Planes.* (Engineering News-Record [USA] Aug. 12, 1956, p. 23).

With the rapid increase in the size of aeroplanes it has been necessary to modify hangar buildings wherever possible. This article shows how a steel tied-arch framed hangar was jacked 17 ft. at one side only to provide the extra width required to house a plane with a bigger wing span. The arch was provided with steel tie rods to replace the permanent floor ties during the jacking operation. After jacking one side to the height required a concrete-framed workshop was built along that side to carry the vertical load and the arch thrust was taken by connecting a diagonal of the frame to the original floor tie.

This technique could be applied to almost any tied arch or portal structure.

#### 20.228 construction: complete structures TIMBER STORAGE BUILDING

*Timber Truss.* (Architecture & Building, Sept., 1956, pp. 355-356).

Timber storage building constructed very quickly by use of structural timber, of interest to architects and engineers.

The present position of structural steel deliveries is such that the preliminary design has to be about twelve months ahead of the starting date of the building. A reduction can be obtained by using reinforced concrete but only at the expense of reinforcing steel from stock. It is therefore interesting to hear of a 324 ft. by 81 ft. building being constructed in timber in two months. Making allowance for the owner being the contractor and a timber merchant this is still quite an effort. The building has a column grid of 27-ft. centres in the 81-ft. width and 54-ft. in the 324-ft. length. The 54 ft spans are dealt with by "N" girders at 13 ft. 6 in. centres, 3 ft. deep at supports and 5 ft. 6 in. deep at the centre. The "N" girders are carried by 27-ft. span "N" girders of about 3 ft. 6 in. depth. The timber used was Douglas Fir as specified in CP 112-1952 and the joints were made with split ring connectors. The design was prepared by the Timber Development Association.

## CONTRACT PROCEDURE

### Nominated sub-contractors and suppliers

At one time the nominated suppliers and sub-contractors played only a small part in the construction of buildings. Their contractual obligations could safely be left to the builder to agree. The situation has now changed. Suppliers and sub-contractors often receive more than half the contract sum, and they often work closely with architect and consultant on major elements of the work. The trouble caused by the use of old contractual procedures are discussed here by P. E. Bathurst, A.R.I.C.S., who proposes a more comprehensive procedure featuring "sub-bills of quantities." This article should be filed under 8: Surveying and Specification.

Criticism often appears in the technical press of the number of prime cost sums that are included in bills of quantities. No doubt there are occasions when this criticism is justified, the prime cost sums being little more than contingent sums, but in the main, modern building has become so complicated that the services of the specialist sub-contractor are essential to the contract. Our 1955 Guest Editors said that clients must realise the amount of specialist knowledge required in the design of modern buildings and be prepared to sanction the appointment of consultants, either independent or attached to specialist sub-contractors. Further to this there was expressed a need for contractual procedures to facilitate the appointment of sub-contractors, the control of their work and the settlement of their accounts. It is with the second group of suggestions that this article is concerned. There already exist procedures to protect the legal right of all the parties and these are generally understood. However, the fact that legal obligations exist does not necessarily mean that jobs will run smoothly and it is hoped that these suggestions will help in the every day placing and running of contracts.

#### Suggested Procedure

In order to allow the architect to exercise proper supervision over the whole contract and sub-contract work, a contract procedure should:

(a) Allow the architect to co-operate with specialist sub-contractors in the design of the building, and help him in the choice between the competing products and services of specialist firms.

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### technical section

(b) Ensure that the sub-contractor can tender under the terms and conditions of the main contract, and in a form that the quantity surveyor can check and agree.  
(c) Provide the main contractor with full information and the opportunity to calculate the contract period with accuracy and bring the sub-contractors into his building programme.

(d) Assist the quantity surveyor in settling final accounts and preparing interim certificates.

These requirements can be met if the architect and quantity surveyor make use of this procedure:

1. Preliminary enquiries at the design stage to be on a standard form of tender based on the form of contract that will be signed by the main contractor.
2. Bills of quantities for all sub-contractors' work, both suppliers and specialist services, to be prepared concurrently with the main bills of quantities.
3. Tenders obtained on these sub-contract bills to be incorporated as prime cost sums in the main bill. The names of the firms to be stated in the bill of quantities, or where this is not permissible, given to the main contractor when he is told to begin the work.

#### Present Shortcomings

Before describing this procedure in detail it is useful to consider some of the shortcomings of the present system. It is usual for the architect to receive tenders from subcontractors during the initial design stage. These are used to choose the sub-contractors and later form the basis of the prime cost sums in the main bill of quantities. Since these tenders are obtained at an early date they are not based on the working drawings and are often inaccurate in detail, and therefore in value. Furthermore, since they are often lump sum tenders they are in a form which makes it impossible for the quantity surveyor and architect to check. The ordinary lump sum contract on sketch drawings is seldom sufficiently detailed to define accurately the division of work between the sub-contractor and the main contractor and if the main contractor is to programme his work efficiently he must know from the very beginning full details of the builders work in connection with the various sub-contractors. The position of chases, boiler bases, holes etc., should be shown on the working drawings for it invariably causes delays if the main contractor can only find out these details after the sub-contractor arrives on the site. The lack of a proper procedure for appointing sub-contractors also leads to disputes on the site because the spheres of responsibility of the main contractor and the sub-contractor are not clearly defined in such matters as assistance in hoisting and distribution materials, clearing away rubbish and the use of plant or scaffolding. All these facilities have a financial value and disputes arise because the lump sum tender does not show clearly enough the assumptions that the sub-contractor has made about the facilities that will be provided. With present procedure the quantity surveyor cannot give the main contractor sufficient information for him to judge all possible expenses.

#### "Conditions on the Back"

Another factor that can cause difficulty is that on

occasions the main contractor does not bind the nominated sub-contractors under a formal sub-contract such as that agreed by the Federation of Associations of Specialists and Sub-contractors, and the National Federation of Building Trades Employers. In the absence of any contract documents the nominated sub-contractor will ask that the conditions of tender, usually set out in small print on the back of his letter, shall apply to the work. These conditions are often at variance with the main contract in such matters as payment of increased costs, valuation of variations and claims for delay. It is the responsibility of the main contractor to arrange the sub-contracts in accordance with the main contract. If he is instructed by the architect to accept conditions differing from, or more onerous than those in the general conditions it is on his shoulders that these burdens fall. For example, if there are delays on a contract caused by a nominated sub-contractor these must be considered as the responsibility of the main contractor. This fact illustrates how important it is for the architect to nominate only those firms who are capable of fulfilling their obligations within the main contract programme.

#### Preliminary Tenders

During the early stages of a project the architect requires a large amount of information to assist him in his design decisions; this information usually takes the form of preliminary enquiries and tenders. To provide accurate information the enquiry should include the following information:

- (a) Name and address of architect.
- (b) Name of client.
- (c) Location of site.
- (d) The type of contract that will be signed by the main contractor, i.e., RIBA (Adapted for Local Authorities), CCC/Wks. 1, etc.).
- (e) The probable date at which the work will commence and the estimated duration of the contract.
- (f) A statement that the architect or client is placed under no obligation by this inquiry but if successful the sub-contractor may be placed under a sub-contract by the main contractor.
- (g) A statement that only the conditions of contract to be signed by the main contractor will be acceptable.
- (h) The description of the work to be done, together with drawings and a record of the drawing numbers.
- (i) A request for a list of basic prices of labour and materials.
- (j) The discount to be allowed.

#### Discounts

It may be that the sub-contractors are unwilling to tender on anything other than their own conditions; unless these are completely at variance with the main contract the tender may still be considered. Proper allowance must be made for the fact that the contractor will have to agree to these conditions when the main contract is signed. The most usual variation is in the matter of discounts. Certain authorities will not allow any discounts and the contractor must be informed of this in the main bill of quantities. The RIBA contract states that 2½ per cent. discount must

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### technical section

be allowed to the main contractor on the total of account for sub-contractors executing specialist work and 5 per cent. discount allowed on the total accounts for specialist suppliers. If the tender does not allow for discounts it must be adjusted as follows:

It is convenient to consider a sub-contractor's tender of £100 containing the correct discount of  $2\frac{1}{2}$  per cent. When the main contractor settles the account he will deduct  $2\frac{1}{2}$  per cent. of this sum, that is £2 10s. The remaining £97 10s. is the net figure that the sub-contractor expects to receive. If, therefore, he had stated in his tender that his price was £97 10s. *net*, this figure would have to be increased to £100 in the main bill of quantities to include the correct discount. The discount of £2 10s. is exactly  $1/39$ th of the *net* tender of £97 10s. Similarly if a supplier's tender including the correct discount of 5 per cent. had amounted to £100, the discount to the main contractor would amount to £5 representing  $1/19$ th of the *net* tender. Thus:

A net tender for sub-contractors' work that should include  $2\frac{1}{2}$  per cent. discount must be increased by  $1/39$ th.

A *net* tender for suppliers' items that should include 5 per cent. discount must be increased by  $1/19$ th.

A third case may occur where a suppliers' tender contains  $2\frac{1}{2}$  per cent. discount instead of 5 per cent., the addition here is  $1/38$ th of the tender figure.

This question of discount is important since not only must the correct figures be compared for tender purposes, but the main contractor must be informed of the tender sum at a later date and if he accepts in error a tender including an incorrect discount the surveyor has no contractual obligation to correct the mistake at a later date, since the contractor is deemed to have elected to forgo the discount.

#### Sub-contract Bills

Before considering the preparation of bills of quantities for sub-contractors' work it is useful to consider the various types of sub-contractor and the differences that must be taken into consideration.

*Sub-contracts for supply of materials* (a) Proprietary articles (ironmongery, sanitary fittings, etc.).

(b) Standard articles, the suppliers being chosen by competition (metal windows, drainage goods, etc.).

(c) Special articles designed by the architect or consultants (special metal windows, joinery fittings, balustrades, etc.).

*Sub-contracts for supply of labour and materials* (d) Contracts essential to the design of the building and unique to a particular specialist (heating installation, lifts, etc.).

(e) Contracts essential to the design of the building and open to competition (steel frame, piling, etc.).

(f) Contracts open to general competition (floor finishes, asphaltting, etc.).

This wide variety of services provided by sub-contractors make it impossible to lay down hard and fast procedures to be followed in every case, but there are some general remarks that can be made. The preparation of bills of quantities for sub-contractors' work will require detailed drawings and specification.

Where the sub-contract is for specialist work unique to a particular sub-contractor (class *d* above), it is usual for the sub-contractor to prepare the drawings and specifications himself. The sub-contractor is, therefore, encouraged to prepare these details at an early date, and this helps the contractor to plan his work adequately when the sub-contract is placed.

Where the sub-contracts are for standard articles or for work designed by the architect or consultant (classes *a, b, c, e, f* above) it is possible to send out the bills to several firms to tender in competition. In this case the bills will be prepared from the architect's drawings, but it is useful to get in touch with the firms before sending out the documents since they are often in the position to contribute to the design or specification. For example, a joinery firm may have stocks of wood of a quality comparable to that specified, which they can supply at a low price. It is obviously economical for the specification to allow for this. If the bills had already been sent out the information would then have to be circulated to all the tenderers.

When the bills are being sent to one nominated sub-contractor for pricing it might be felt that it is unnecessary to describe the work in full detail, since the firm knows its own goods or form of construction, etc. Any over-simplification should, however, be avoided, since apart from providing information to the main contractor, the advantage of preparing sub-contract bills is that the quantity surveyor can satisfy the client that the tenders are reasonable and build up a file of cost information. If items are condensed or combined the less valuable and accurate does this information become and the more difficult it is to provide a cost check.

While it is necessary always to give the manufacturers' type numbers and references, these should not be used in such a way that the bill becomes no more than a list of catalogue references, since it must be a document in its own right and not need references to catalogues to make it understandable.

The sub-contract bill for suppliers' items must contain the following information:

(a) Name of job.

(b) Name of client.

(c) Name and address of architect and surveyor.

(d) Location of site and access thereto.

(e) Brief description of work.

(f) Schedule of drawings.

(g) Type of contract.

(h) Terms of payment and discount

(i) Facilities to be provided by the main contractor (unloading, returning packings, etc.).

(j) Specification of material.

### technical section

(k) Schedule of quantities.

(l) Basic price list.

The sub-contract bill for sub-contractors' work will contain in addition to the above:

(m) Request that sub-contractor should visit the site.

(n) Conditions of contract applicable to sub-contractor giving details of terms of payment, retention and maintenance, etc.

(o) A comprehensive list of facilities to be provided by the main contractor including such matters as scaffolding, plant, canteens, etc.

A form of tender for the use of nominated suppliers is agreed by the RIBA, RICS and NFBTE, and when completed contains the information set out above. This standard form is intended to be the basis of the sub-contract between the supplier and the main contractor, and thus include provisions for making good defects, reference to arbitration, etc. The form consists of printed articles of agreement, and three schedules. The first schedule is to be filled in by the architect or quantity surveyor, and contains general contract information, the second and third schedules are to be completed by the supplier, and contain the description, quantity and prices of goods, and a basic price list. This procedure has the disadvantage that where firms are tendering in competition there is no guarantee that they will all tender for the same standard of material and workmanship, and it might be considered better if the second schedule were to be filled in by the quantity surveyors.

It is useful to send drawings applying to the sub-contract bills, to the firms tendering. This enables the sub-contractor to agree that the fixing details and builders work are satisfactory, these same drawings are later sent to the main contractor providing a cross check of the information. The method of describing items in the sub-bills must primarily be governed by the methods of pricing used by the sub-contractor, but the quantity surveyor must ensure that where the architect has designed for economy by standardization or prefabrication, the descriptions are framed to bring this to the notice of the sub-contractor. For example, steel works will usually price items by weight, but if the work consists of a large number of standard items it would be better to list items and weight in the description.

#### Purchase Tax

Where purchase tax is applicable to items, this should be shown separately, enabling any adjustment to be made easily. In this connection it should be noted that the Joint Contracts Tribunal in their practice note 15a, give the opinion that profit and cash discount should be allowed on the amounts of purchase tax included in tenders. This appears to be at variance with the principle that no one should make a profit or charge any expense in operating the purchase tax system. There seems no clear answer to this problem but in practice it is usual to follow the Tribunal's opinion. The rules for measurement set out in the Standard Method of Measurement apply to sub-contractors work but in some cases it is necessary to depart from

this document. For example it is directed that electrical work should be measured in detail, but this requires drawings showing the size and position of every wire and conduit. This type of drawing is not usually available and since the electrical sub-contractors are willing to give a price for a complete sub-circuit it is not necessary to break the work down any further. e.g. "No. 6 lighting points in one circuit (reference) with one switch." The actual fittings being measured separately. Since the sub-contract bills and the main bills are prepared concurrently, it is possible for the architect to direct the facilities that should be provided by the main contractor. The usual procedure is for the architect to enquire what assistance the sub-contractor needs, this information is then incorporated in the sub-contract bill and in the attendance clause following the prime cost sum in the main bill.

Before leaving the matter of sub-contract bills, it must be emphasized that they are not contract documents, and although they represent the offer made by the sub-contractor, they are not in themselves binding on the main contractor. It will often happen that the main contractor accepts this offer on the sub-contract bill by letter and an instruction to commence work, but this procedure should be discouraged. The sub-contract bill contains in it the relevant information from the main contract applying to sub-contractors, but it does not include all the articles of agreement necessary to a formal sub-contract. These would have to be covered by some form of sub-contract, such as that issued by the FASS.

#### Procedure on the Site and Final Accounts

The third requirement of the contract procedure set out at the beginning of the article was that full information on sub-contractors work should be available to the main contractor. This requirement is fulfilled in part by the sub-contract bill. The procedure suggested is that when the main contract is settled, the sub-contract bills and drawings are forwarded with the instruction to place the nominated firms under sub-contracts. The main contractor is therefore given full details of the sub-contract work as soon as he starts on the site and it then becomes his responsibility to arrange starting dates and programmes. On the site the sub-contract bill makes it possible to value, with accuracy, the progress of the sub-contracts for certificate purposes. The bills may also be used to value any variations that occur, and the detailed schedule of prices enables variations to be priced on measurement, without recourse to daywork sheets. The preparation of the final account is much simplified when all the sub-contractors work is covered by sub-contract bills. There are usually fewer variations on the sub-contractors work since the initial measurement will often have disclosed any discrepancies or errors. The final account is prepared by adjusting the original sub-contract bill for any variations authorized by architect. This removes the necessity of checking a lot of invoices and delivery tickets.

Last week D. Rigby Childs, with Jack Whittle, surveyed the present problem of slum clearance, outlined the relevant complicated legislation and gave a brief historical review. Having thus, in the first article, set the scene, D. Rigby Childs in this week's article describes the particular endeavours of a highly-urban county borough in post-war

residential redevelopment and slum-clearance. The next article will be on the cause and cure of slums, and will be based on the results of a questionnaire which has been sent to a selected number of people of many different interests. In a final article, D. Rigby Childs and Jack Whittle will attempt to arrive at a basis for future policy.

## SLUM CLEARANCE AND URBAN REDEVELOPMENT: 2

*A study of contemporary slum clearance schemes and redevelopment in practice by D. Rigby Childs*

POST - WAR HOUSING IN

# WEST HAM

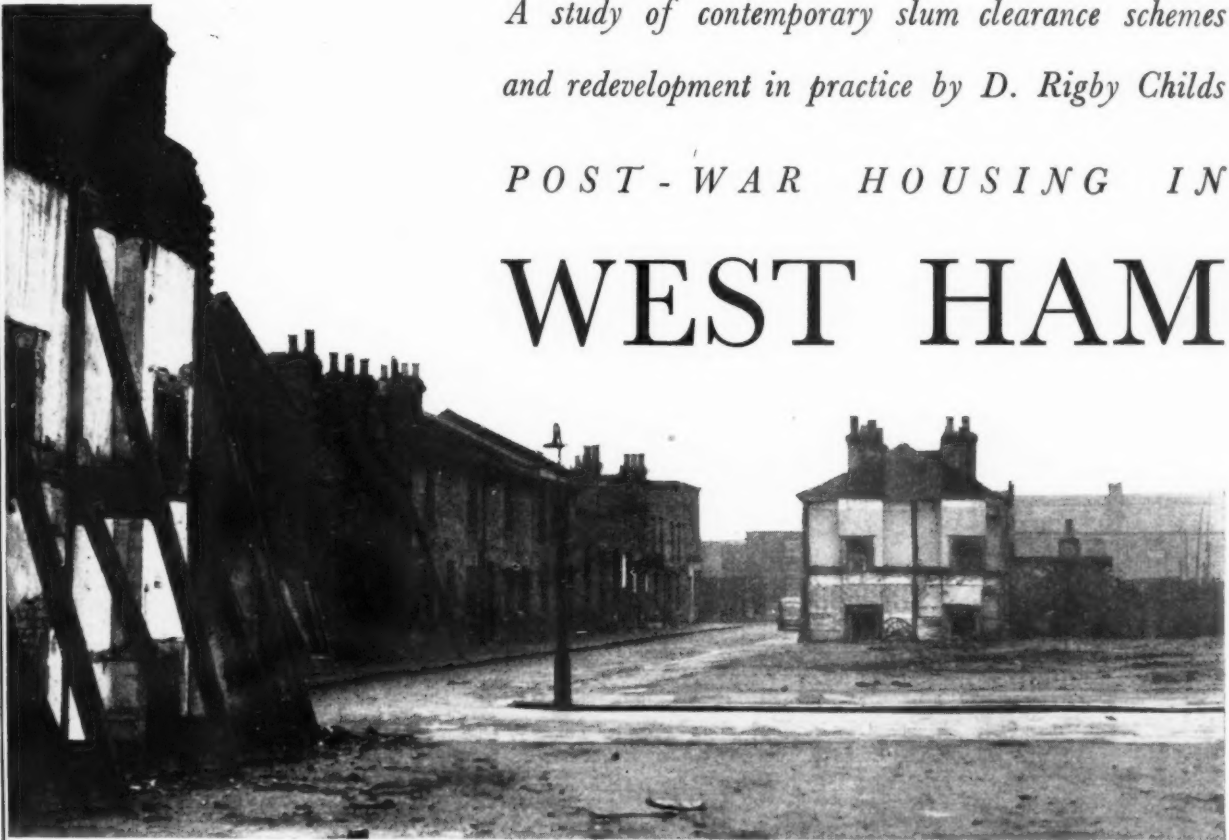


Fig. 1

### ONE HUNDRED YEARS OF TOWN BUILDING

Before dwelling on the relative narrow focus of post-war building, it is salutary to remind ourselves of the pattern house building has followed in West Ham from the time its expansion began about one hundred years ago. This was a time when the modern West Ham, at its best, it would appear, consisted of the humble cottage now so forlorn in its desolation (Fig. 1). The less savoury side of these times has been vividly described by Charles Dickens who visited West Ham and the Tidal Basin area about a hundred years ago. He reported in his weekly journal on the condition of "Londoners over the Border." How bad these conditions were can be gathered from the following extracts:

*"London does not end at the limits assigned to it by those Acts of Parliament which take thought for the health of Londoners. More suburbs shoot up, while official ink is drying. Really, there is no limit*

*to London; but the law must needs assign bounds; and, by the law, there is one suburb on the border of the Essex marshes which is quite cut off from the comforts of the Metropolitan Buildings Act; in fact, it lies just without its boundaries, and therefore is chosen as a place of refuge for offensive trade establishments turned out of town, those of oil-boilers, gut-spinners, varnish makers, printers' ink makers and the like. Being cut off from the support of the Metropolis Local Managing Act, this outskirts is free to possess new streets of houses without drains, roads, gas, or pavement. It forms part of the parish of West Ham, and consists of two new towns; Hallsville, called into existence some ten years since by the Messrs. Mare and Company's ship-building yard, and half depopulated by the recent bankruptcy of that firm; and Canning Town, very recently created by the works in progress at the new Victoria Docks."* (The Tidal Basin.)

Dickens relates how when seen from a distance on a hot summer's day, the district seems more inviting

than repulsive. Apart from the wide plain and valuable pasturage. "There are a good many tall smoking chimneys that mark out the line of the creek, and there is a forest of masts to tell of the adjacent Thames and of the docks; but to the eye, the broad, green Essex plain is the master of the situation.

"But let us go down into either townlet. It does not, in the slightest degree, matter which. The houses are built in rows; but, there being no roads, the ways are so unformed that the parish will not take charge of them. We get, then, upon a narrow path of gravel raised about two feet above the grass—such paths enable men to walk not more than midleg deep about the place in rainy weather—and we come to a row of houses built with their backs to a stagnant ditch. We turn aside to see the ditch, and find that it is a cesspool, so charged with corruption, that not a trace of vegetable matter grows upon its surface—bubbling and seething with the constant rise of foul products of decomposition, that the pool pours up into the air. The filth of each house passes through a short pipe straight into this ditch, and stays there. Upon its surface, to our great wonder, a few consumptive-looking ducks are swimming, very dirty; very much like the human dwellers in foul alleys as to their depressed and haggard physiognomy, and to be weighed by ounces, not by pounds.

"Rows of small houses, which may have cost for their construction eighty pounds apiece, are built designedly and systematically with their backs to the marsh ditches; which, with one exception, are all stopped up at their outlet; and, in many parts of their course also, if there were an outlet, or if it could be said that they had any course at all. Two or three yards of clay pipe 'drain' each house into the open cess-pool under its back windows when it does not happen that the house is so built as to overhang it.

"No wonder that the stench of the marsh in Halls-ville and Canning Town of nights, is horrible. A fetid mist covers the ground. If you are walking out and meet a man, you only see him from the middle upward, the foul ground mist covering his legs.

"Canning Town is the child of the Victoria Docks; the condition of this place and of its neighbour prevents the steadier class of mechanics from residing in it. They go from their work to Stratford or to Plaistow. Many select such a dwelling-place because they are already debased below the point of enmity to filth."

Later came the improved bye-law cottage of the 1870's (Fig. 2)—note the fire-stop wall breaking the roof line. With these cottages, the street front door is almost a symbol as a focus of communal life. After this appeared the villa of the 1890's (Fig. 3), the mass-produced and diminutive version of the Englishman's dream. Although occupied by people socially a step or two higher than those in the cottage, the street is, today, for the villa's occupants, only too evidently the immediate social focus. Finally let us turn to post-war redevelopment and the pedestrian precinct (Fig. 4). Away from vehicles,



Fig. 2



Fig. 3



Fig. 4 (above)



Fig. 5 (below)

this is an area where a sense of friendly domesticity and home prevails. It is quite evident that this formula is one of the outstanding successes of post-war rebuilding in West Ham.

Lastly (5), the cottage again: examples of experimental low-cost houses in largely garden surroundings.

Compared with the dead anonymity typical of the early industrial cottage building of the last century, there is now surely developing a town building sense which imparts a feeling of friendly character and individualness to the different housing groups which are taking shape under the enthusiastic leadership of the Borough Architect and Planner, Thomas North.



*A typical view of old West Ham on a rare fine day: waste land (to be developed as open space), a low skyline, ramshackle fences and ramshackle houses. Everywhere, unrelieved poverty or squalor.*

## SLUM CLEARANCE IN WEST HAM

Last week we gave some basic figures on the distribution of slums. In order to place West Ham in the general picture, and to enable it to be related to other towns, the brief statistics are:

West Ham is in the category of towns having over 1,000 unfit dwellings. The relative figures are:

1 total No. of permanent dwellings in area	2 estimated No. of unfit dwellings	3 percentage of cols. (2) to (1)	4 total No. of houses to be demolished in 5 years	5 percentage of cols. (4) to (1)
42,114	2,854	7%	1,195	3%

Detailed analysis of the unfit dwellings to be demolished in five years shows: 133 as single houses and 1,062 in clearance areas.

West Ham has 3,750 houses which were built before 1875. Of the slum dwellings, about 1,150 belong to the pre-1875 category.

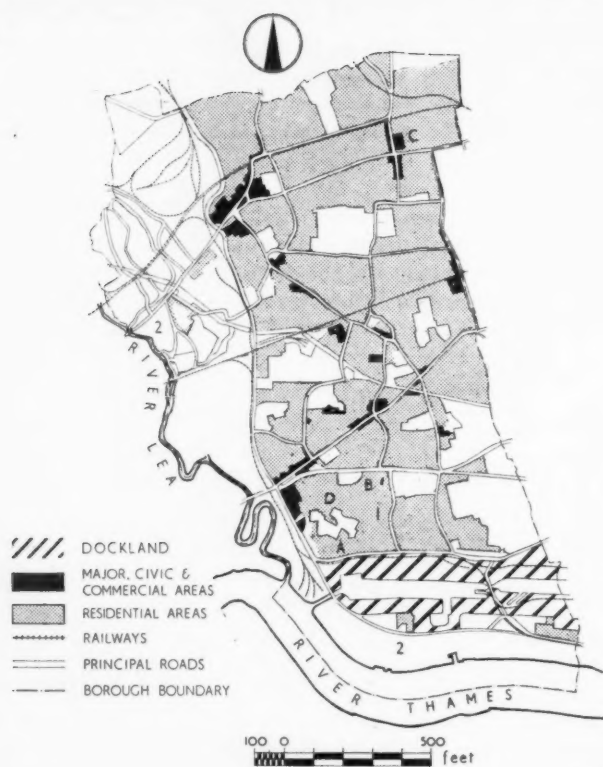
## POST-WAR HOUSING IN WEST HAM

The theme of this study of West Ham is an appraisal of three housing schemes within the Borough, each of which shows a different approach to planning. The three examples illustrated in the article have each been designed to a net density in the range of 100 persons to the acre. More needs to be known

before a definitive assessment can be made but what emerges is that, taking an average net density of 100, the variations which have been made on this permit flexibility and diversity in design, with each scheme having something to contribute. It cannot be said that one design is right or the other is wrong, the differences between them are too small, but in all cases the general density has permitted a form of urban building which avoids both the openness of new towns and the super-scale of the high blocks of some forms of metropolitan building. In so doing it would appear that this density leads to a physical environment which produces compact and neighbourly living. This seems to be the virtue of urban life.

## ABOUT WEST HAM

The story of post-war rebuilding in West Ham is an exciting chapter in the annals of English town building. How exciting it is can only be grasped when one realizes how much has been done in barely more than the life-span of a modern man. To go back only so far, it seems that conditions in West Ham, in terms of housing, paving and drainage, especially in the Tidal Basin area, were scarcely tolerable for animals, let alone humans.



This well-proportioned block of three-storey flats, above, near West Ham church, shows the contemporary housing idiom in this borough. Below, a map of London, showing Poplar on the east boundary. Beyond the boundary, is West Ham. It was from Poplar that many of West Ham's noxious industries came. Left, the town plan of West Ham. It is two miles from east to west, and nearly four miles north to south. The base is the river Thames, and a backbone of industry (2) is formed alongside the river Lea, and its tributary's streams and canals. West Ham is a through way for London's east-bound traffic. The Tidal Basin, (1) is the principal area for current reconstruction. The areas marked A B C D are shown to a larger scale on the layout plans on pages 457, 459, 463 and 464.



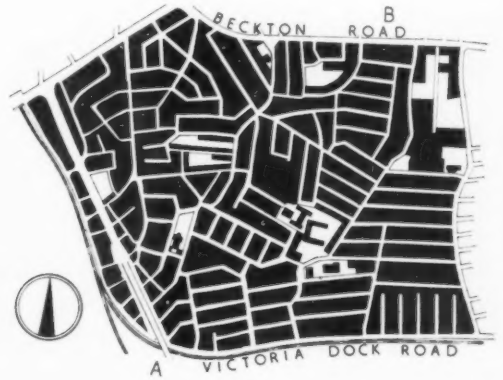


If the three- and four-storey terraces of neighbouring Poplar, left, are indicative of its once thriving business community, the two-storey cottage, below, shows West Ham's humbler origins. Because bomb damage was scattered, slum clearance had to be tackled simultaneously with rebuilding in order to make reconstruction effective. Even so, "pride in one's home" can survive as shown below and centre, cheek by jowl with squalor. Bottom, a not uncommon scene in



West Ham. Worn-out housing and new industry often adjoin in this transitional period.

The pre-war street pattern of the old Tidal Basin, below, was without a redeeming feature. The south-west corner (A on the plan on the previous page) received the worst bombing.



To understand how this happened one needs to know something of the background of this County Borough which, with Croydon and East Ham, ranks as being the only County Borough adjoining the London County Council area.

West Ham is neither a town in the ordinary sense, nor is it a city, nor can it be called an inner urban area, as in planning jargon it is. Really, it is just West Ham, a fragment of the Great Metropolis with its own indefinable character. West Ham's origins might be said to stem from two simple facts: one, a geographical one, the other, a legislative one. If you look at a map of London, you will see that on the east the County Borough of West Ham nestles in the crook of London's East End, that crook which is formed by the course of the river Lea, draining Hertfordshire and Essex Valleys into the Thames Basin. Up to 1850 only one bridge connected West Ham to London proper, as defined by the London County Council area. This simple geographical barrier of the river Lea separated the village of West Ham from the villages east of the City. Whereas, west of the Lea, in Poplar, London business families lived in three- or four-storey houses which were the typical housing of pre-war Poplar: in West Ham life was more humble and the normal dwelling was a two-storey cottage so typical of the London represented by Stein Rasmussen in his book "London the unique City."

The other fact which influenced West Ham is the Metropolitan Improvement Act of 1855. This might almost be described as a forerunner of modern planning legislation, in that it caused the London Boroughs to decant their noxious industries into less-developed areas. The nearest such area to busy and thriving Poplar was over the river Lea: West Ham. Such action was possibly unavoidable at the time,

but such penny-wise relocation has been the cause of many troubles in West Ham. Its atmosphere today, though relieved by the low horizon, is among the worst in the country. The sulphur content of the air from the noxious industries, shipping and railways, is very high.

The war-time bombing of the Tidal Basin area in West Ham was very heavy and it is to the credit of the Borough Architect that plans for reconstruction were among the earliest to be formed. Rebuilding began very soon after the war. In carrying out its post-war rebuilding the local authority has been quietly maintaining a programme the like of which other authorities are only beginning to face. It has been carrying out a dual rebuilding of bomb damage and of slum clearance and, as we shall see, without consciously having aimed at anything really spectacular, a great deal has been accomplished, which by any normal standards, and compared to what was there previously, is producing a revolution in West Ham. One might say that the implicit motto has been revolution by evolution.

### POST-WAR EVOLUTION

Is there a common yardstick by which housing achievements may be assessed? There has been a continual flow of criticism and praise and discussion for and about the English post-war housing record, but when one thinks over this outpour of words, one realizes that all too often discussion has been concerned with only one of several aspects of housing, such as house planning, or layout, density, or appearance, and so forth, and that out of all this there has not yet emerged a clear assessment of the merits of the different methods of housing. The scattered and never large Metropolitan high-density estates of blocks of flats at Paddington and Pimlico, and the low density New Towns have been fairly well discussed, but between the two extremes lies the work at West Ham. Beginning in the early post-war days with housing at about 70 persons to

the acre net (this is about 10 more to the acre than is now usual in the New Towns) the average recent and current development has been to the higher figure of 100 persons to the acre while schemes now building rise to 135 persons. The density of about 100 (net) is thought in West Ham to represent that balance which allows a pleasant variety between all forms of dwelling, and a sense of compactness and neighbourliness which is native to West Ham. In writing on these developments I have viewed them from some twelve aspects which together represent the field over which I suggest any housing scheme should be considered: there are certain points which emerge as common to all schemes whatever the density, in other cases variations occur as the density changes.

### HOUSING ASPECTS

#### 1. Town Design

The essential facts behind the town's plan, and these are common to all three housing areas described, are that:

West Ham forms part of the Greater London conurbation. Over-industrialized if regarded as an entity, it contains a sizable part of the huge London Docks, while industry of every category has been attracted to the area, particularly in the Lea Valley and along Thames-side. Large areas of land are occupied by gas, electricity and railway undertakings.

The Borough is faced with the urgent task of redevelopment of large cleared war-damaged areas and slum property. Much has been accomplished. Approximately 300 acres have already been acquired for redevelopment for residential purposes, open space, new schools and for the relocation of industries disturbed by reconstruction. The Development

*The housing below was among the first to be built after the war and is now nearly ten years old. Beyond the housing can be seen a ship in one of the Royal Docks, the source of much employment for West Ham workers.*



Plan was approved by the Minister in May of this year and in this plan 716 acres are defined in 19 Comprehensive Developments Areas for redevelopment up to 1972. There are three other areas defined as Areas of Comprehensive Development for industrial purposes in the draft Plan for which amended proposals for their redevelopment for housing will be resubmitted to the Minister at his request. The estimated population of the Borough at the end of the plan in 1972 is 168,000, which approximates to the estimated total population envisaged in the Greater London Plan of 1944.

## 2. Density

Apart from the obvious variations in density, the outstanding difference between the areas is how they individually appear to meet the needs of different social groups. For instance, in the South (Bowman Avenue) area (see table below) the large sized family can be housed whereas in the Middle (Fife Road) area a family of nominally over three children or two children plus one in-law cannot hope for accommodation; whereas in the North (Woodgrange area) it is the small family couple or single person whose needs are specially met. How far were such variations an act of policy or accidents arising from the form of dwelling used? The architect, T. E. North, says these three areas were, of course, designed at different periods, and the percentage variations reflect the changing nature of the immediate housing demands.

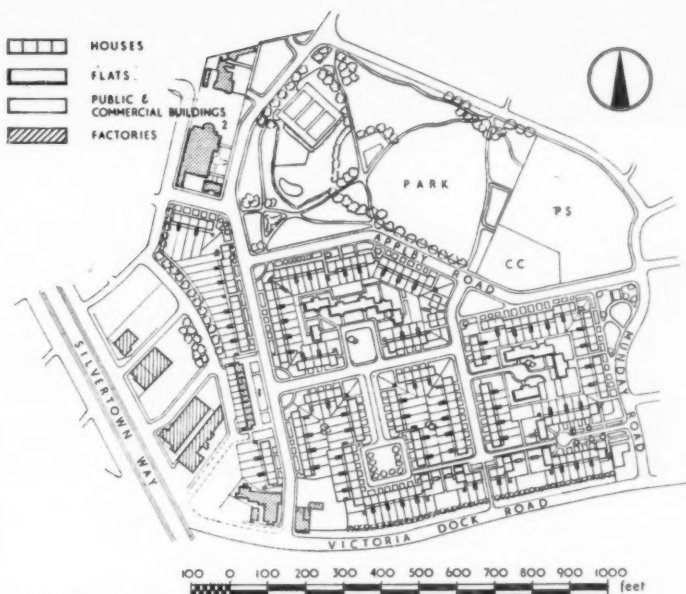
	A South	B Middle	C North
Persons per acre (net residential density)	68	99	135
Rooms per acre	65	90	120
Types of dwellings: houses	70%	35%	
flats	30%	36%	76%
maisonnettes	—	29%	24%
Proportion of dwelling sizes: 2-person	6%	8%	17%
3-person	—	36%	4%
4-person	24%	40%	40%
5-person	40%	16%	13%
6-person	26%	—	6%
7-person	4%	—	

## 3. Plan of Dwelling

South:—The majority of the South, Bowman Avenue, area was developed with standard-type houses slightly varied to different aspects. The standard of accommodation is on the generous side but was in accordance with the housing standards recommended for immediate post-war development. Middle:—These plans are based on a more economic standard as recommended since 1952 to reduce costs. The house plan is a standard type with a through living-room and a frontage of approximately 20 feet, and is suitable for many aspects.

The maisonnette plan is typical of the 4-storey maisonnettes now being erected in West Ham with approximately 18 feet frontage. The construction in this instance is framed but the latest practice is to replace the framed structure by load-bearing brickwork.

North:—This scheme uses a standard flat plan with slight modifications.

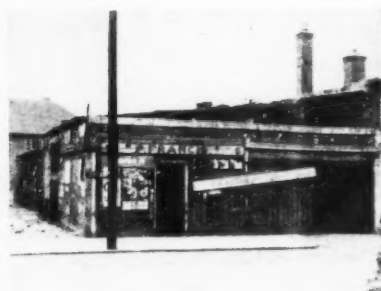


**LAYOUT A, SOUTH.** Density: 68 persons to the acre, net. In this area, close to the docks, some of the first permanent post-war building in the country began. The maximum use was made of the old roads. Key: 1, new shops; 2, existing church; CC, community centre; PS, primary school. Below, plans, elevation and section of typical houses and flats. In this early post-war housing, the first thing was to build, not to experiment. Therefore layout and design followed a conventional pattern.





Top, housing typical of the South estate. Experience has shown that grassed areas as small as this do not stand up to wear and tear. Neither do grass verges, extreme left, which are no longer made. Left, a typical front elevation, note the through-tunnel. Below and bottom, a shop before and after rebuilding. Bottom left, a typical row of shops and maisonnettes.



#### 4. Orientation and Aspect

As opposed to the tradition of much European pre-war housing, orientation in an urban area such as West Ham is not considered to be of vital importance. To say the most, the vicinity possesses no particularly pleasant prospects, contours are slight, or non-existent, and in the present state of air pollution the sun is frequently dimmed. Emphasis has been placed on achieving a pleasant grouping rather than adhering consistently to a southerly aspect. In this respect the three areas scarcely differ.

#### 5. External Design of Dwellings

In the South area, the houses (and in appearance the blocks of flats are only larger versions of the houses) are now already looking weathered so that one has a fair idea of what they will look like in time. Uniformly brick-built, they have attained a dull maturity which is not unpleasant when the site is well maintained, but one wonders what will happen if West Ham's atmospheric grime is allowed to take command.

There is not much in the design of the houses and flats internally which is at fault. But there appears to be a conflict in the design which arises through a resemblance to the "Garden City" pattern of development, only to a different scale. The presence nearby of industrial maritime building and all the accoutrements of ships and dock-side facilities, by their naturally larger scale, tend to make the layout, with its sense of domesticity, seem oddly incongruous. In the Middle area, a far more urban type of design is appearing and this has been further developed in later schemes. One of Mr. North's difficulties has been to attract staff to West Ham, but in spite of this he has developed an office which, as it gains experience in the very intricate problems involved, is scoring distinct successes in design.

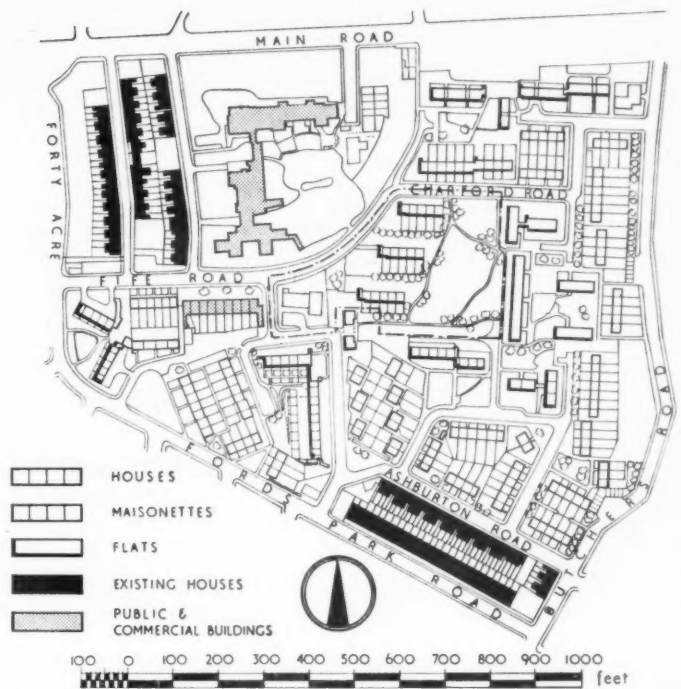
With blocks of maisonettes, staircases are always a problem and this has been solved with varying degrees of success. Maisonette design generally in this country gives the impression in many ways of being unresolved; is it not time a thorough re-appraisal of the design issues was made, particularly as to access?

Whereas in the South area its building is largely monochrome, the Middle area has gone in for colours, especially in the use of coloured rendering. So far the colours are withstanding the atmosphere's onslaught. A brave experiment.

Very likely the colours which will survive best are those which are in sheltered positions—such as balcony recesses.

The North area is now approaching completion, and although the design cannot, therefore, be fully assessed, the scheme promises to be clean, vigorous and interesting, with full use of colour on balconies and rendered panels.

The outstanding design factor which far outweighs in retrospect any faults and good points of detail design is the difference between the *genius loci*

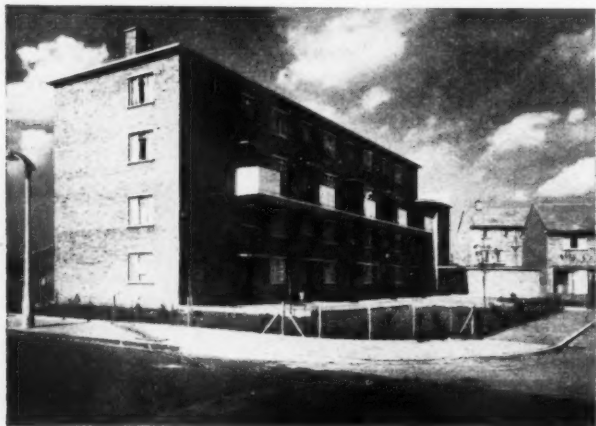


**LAYOUT B, MIDDLE.** Density: 99 persons to the acre, net. A little to the north-east of layout A, this area, now nearly complete, represents a more urban design-approach. For the purposes of the density calculation, the housing within the broken line was excluded. Below, plan, section and elevation of a typical house and maisonette block. The siting of the semi-detached houses, bottom, makes good use of the land (see layout plan above) and creates a foil to a long maisonette block opposite.





*In this estate, Layout B, the roads have been designed without verges and the tunnel access has gone, left. Front gardens, surrounded by neat chainlink fencing, remain. The view above shows a small part of Layout B, where the existing local scene does not help the new environment. Below, a high level view of maisonette blocks. Bottom, left and right, the front and rear elevations of typical blocks of maisonettes in this area.*



emanating from the uniform decency of the Bowman Avenue scheme (dull uniformity has been the bane of West Ham) and the lively, if sometimes complex, arrangements of houses and maisonettes in the Fife Road area. The former may even have the quality of a collegiate precinct but it is the latter which suggests a living and bustling community. In this respect the North area will belong to the same genus but with some of the inhabitants on an elevated plane.

### 6. Space Around Dwellings

Integral with the arrangement and design of dwellings is the treatment of the space around them. As will have been gathered, in the South area all dwellings have a road frontage—some people would say enjoy a road frontage—and small, but reasonably sized, back and front gardens. Where opportunity has permitted, small shrubberies and flower beds have been created in an attempt to introduce a certain amount of colour and greenery into the otherwise drab surroundings. Tree-planting has been carried out in the larger incidental open spaces, while houses which back upon Victoria Dock Road and Victoria Docks are to be screened therefrom by a generous belt of trees, if they survive after planting.

To the west of this group a light industrial factory estate is being developed by the Council and this again is being separated from the residential area by a belt of trees and shrubs.

In the Middle area the character of the layout is slightly different, in that the dwellings are more tightly grouped with larger incidental open spaces suitable for children's playgrounds, etc. Not all the dwellings have a road frontage and some are served by pedestrian access. Emphasis is again placed upon the grouping of buildings to create street pictures.

To the east of this group is situated a colony of existing industries and it is proposed that they should be separated from the housing by a belt of trees and allotments.

The gardens to the houses remain reasonably generous and rear access to all properties has been arranged.

In the North area no houses are included in the group, it being situated in an existing low density area and it is considered that the development of this cleared land at a high density is appropriate. All ground-floor flats and maisonettes will have front and rear gardens, if practicable, which is normal in the Borough, and land is reserved in the near vicinity to the blocks in order to provide separate gardens for as many flats and maisonette dwellers as possible. Drying areas and lines are provided for persons living on the upper floors of the three- and four-storey development. Drying cupboards will be provided for the occupants of an 11-storey block. A children's playground is to be developed in the square close to this high block of flats, incorporating the appropriate equipment and paraphernalia.

### 7. Open Spaces

The South area forms part of a much larger scheme

generally known as the Keir Hardie Estate, or Neighbourhood Unit 15, and it is proposed that several large open spaces shall be introduced into this area where none before existed. Immediately to the north of this group, land has been acquired which is being developed as a public open space of some seven acres in extent, and several smaller open spaces are to be developed throughout the neighbourhood unit. Generally, it is now considered that small areas should be paved as, where density is high, grass and flower gardens are quickly trodden down.

The Middle area is another stage in the development of Neighbourhood Unit 15 and will enjoy the benefits of the open space to be developed close to the South area. This area also includes an area of approximately 1.5 acres which will be developed as a local public open space integrated with the surrounding residential development.

Trees will be planted as generously as practicable, this part of the Borough being so noticeably lacking in them. Children's playgrounds are to be developed on the larger of the incidental open spaces. Small open spaces generally will be paved in preference to being grassed.

The North area is not far from Wanstead Flats, which is an extremely large open space forming part of Epping Forest, and under the jurisdiction of the City of London. This will provide wider recreation facilities for the occupants.

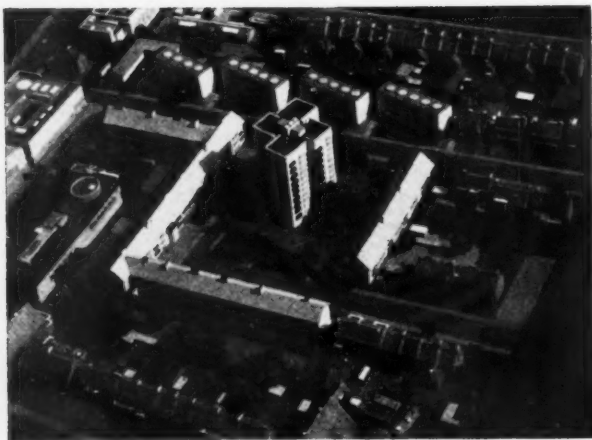
### 8. Engineering and Site Works

Prior to destruction by enemy action, the South area was intensely developed by minimum-sized cottages erected during the industrial revolution and mostly without front gardens. They were served by monotonous bye-law roads of 40 ft. width. This road pattern was extremely wasteful and has been very substantially changed in the new layout. In the redevelopment of an urban area, however, the existing road structure dictates the main outline of development, and comparison between the old and new road pattern can be seen by reference to the plans (pages 455, 457). In the Middle area similar remarks with regard to the monotonous pattern and the waste of land are applicable to the original road pattern as were made in respect of the South area. The layout is more economic in road works than the South area but again the main pattern results from the previous road pattern.

The original development of the North area was on a much more generous pattern than the other areas previously considered and it was not necessary to eliminate much road surface. Only a small amount of one road is to be closed in order to implement the redevelopment.

### 9. Ancillary Services

As mentioned above, the South area forms part of a much wider redevelopment scheme which is planned to include all the ancillary services needed for the community. The group itself includes a terrace of 10 shops which supply the day-to-day needs of the



area. Three new schools have been built north of this group.

Existing churches which were not completely destroyed have been retained and incorporated in the scheme and new and better-located sites have been offered to Church Authorities whose buildings have been destroyed.

West Ham has been declared a Licensing Planning Area and the distribution and allocation of licensed premises is the responsibility of the Licensing Planning Committee. Close co-operation with the brewers in respect of adequately supplying the needs of the area has been maintained and the South area includes in its south-eastern corner a temporary public house which will ultimately be replaced by a permanent building.

The development of a light industrial estate to the east has already been mentioned. This estate is

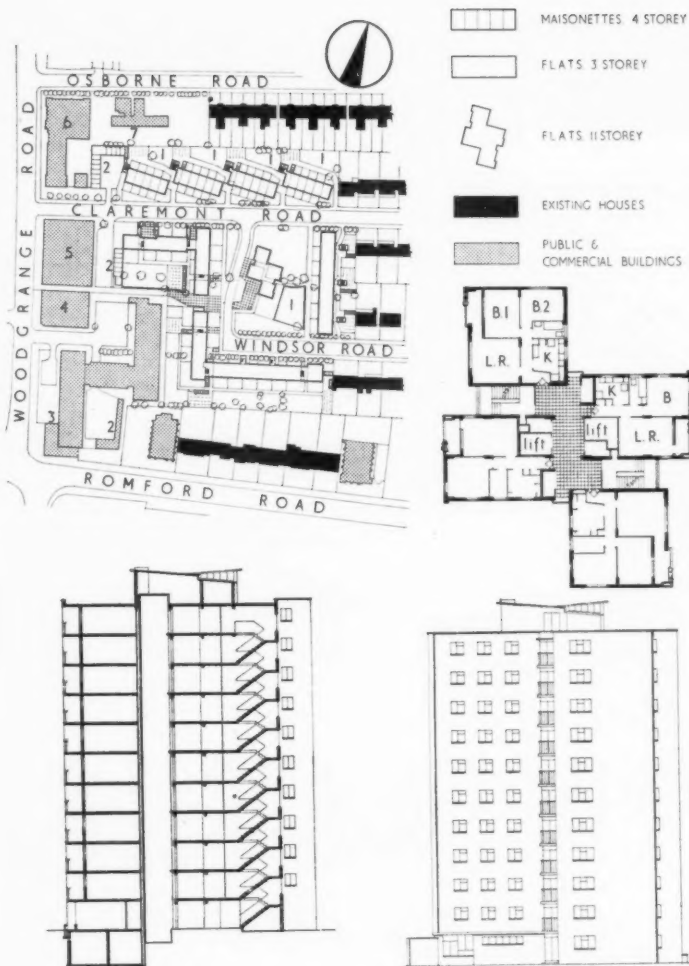
*LAYOUT C, NORTH. Above left, and top: The focus of this high-density scheme (see plan opposite) is the point block. Related to it is the new telephone building, foreground, which is to be one hundred feet high. In this scheme, residential, business and administrative buildings have been planned to have a visual unity. The presence of open green space, above right, within the scheme, eases planning as it reduces the need for further playgrounds and parks.*

mainly for the re-location of industries disturbed by the Council's redevelopment and its location will also assist in providing employment for female labour in the area.

The Middle area includes a terrace of 9 shops for day-to-day shopping. Lock-up garages have been provided in this scheme.

The first stage of a new primary school has been carried out immediately to the north of this area and a site for a church is included in the scheme.

A new public house is about to be built in the north-east corner of the area, and an existing off-licence



**LAYOUT C, NORTH.** Density: 135 persons to the acre, net. This is the forerunner of further schemes in West Ham where the local density is stepped up to above the zoned average of one hundred persons to the acre. This prototype, now under construction, is the Council's experiment with which to gauge the effects of urban reconstruction which breaks away from the routine solution. 1, play areas; 2, garages; 3, GPO block; 4 stores; 5, business area; 6, proposed Methodist church; 7, day nursery.

Below left, the plan, elevation and section of the eleven storey point block shown in the photograph, opposite page. Bottom left, one of the four-storey maisonnettes sited nearby.

has been retained in the south-east corner. A new public house just outside the south-west boundary of the area will shortly be developed.

As noted, the North area is isolated and it will enjoy the facilities already existing. It is in close proximity to a busy shopping centre.

It is intended to provide 18 lock-up garages within the scheme. A day nursery already exists on the northern boundary, and it is intended that this should be extended.

### 10. Cost

In the South area the average cost of a three-bedroom, four-person, house was £1,350 including all fees. An average of £12 per dwelling was also allocated for horticulture and landscaping works.

The average cost in the Middle area of a four-person, three-bedroom flat was £1,950 including all fees. A sum of £12 12s. per dwelling was also allocated for horticulture and landscape works. It is estimated that the overall cost of implementing the North area scheme will be in the region of £400,000. The following comparative table lends perspective to these figures:—

Group	Date	Costs Price Ratio	Subsidies Take datum — 1939 prices			Local Auth.
			Date	Exchequer	£ s.	
A South	1946	200	1946 Act	Houses	16 10	5 10
				Flats	28 10	9 10
B Middle	1951	320	Review in 29.2.52	Houses	26 14	8 18
				Flats	52 16	17 12
C North	1954	330	Review in 1.4.55	Houses	22 1	7 7
				*Flats	45 18	15 6

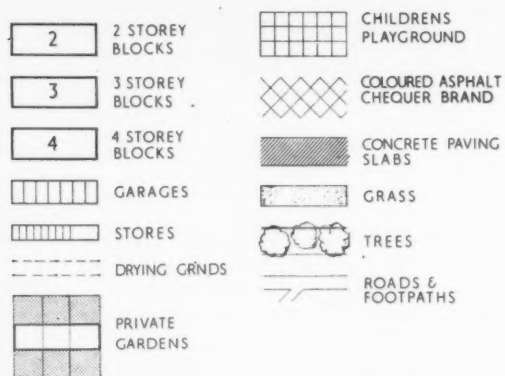
\* Lift subsidy—£10 extra per dwelling

### 11. Tenants' Reaction

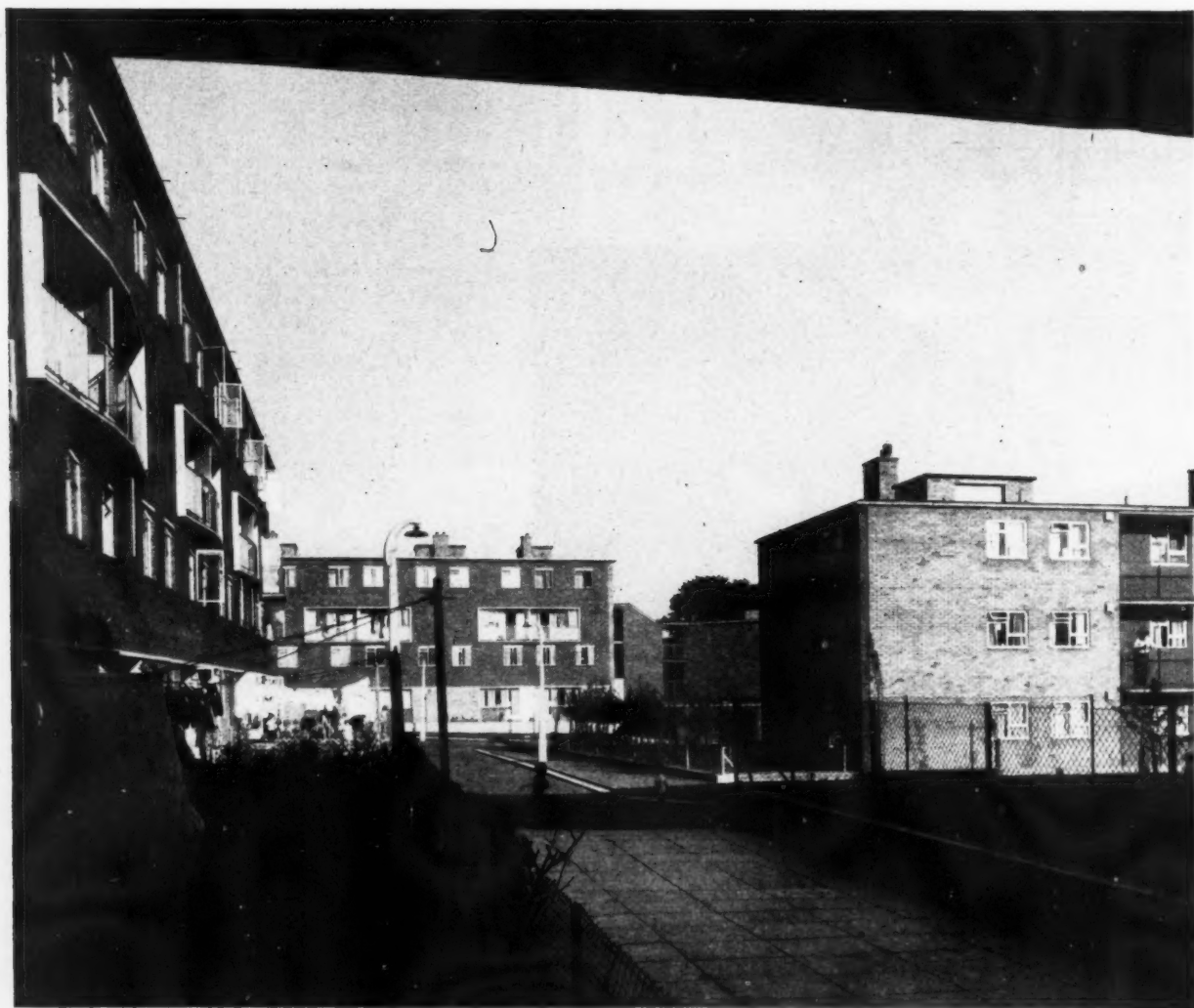
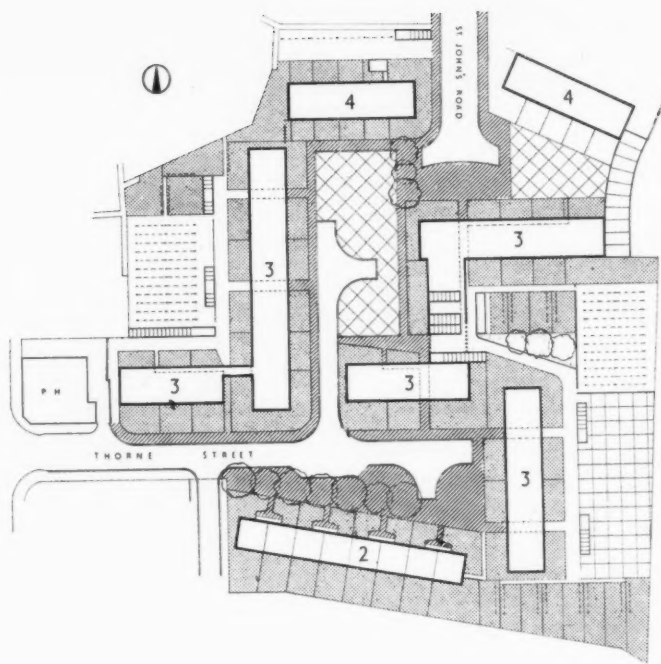
The residential development of West Ham was composed almost entirely of small two-storey cottages, and all the inhabitants of the Borough express a most decided preference for houses with a small garden. Maisonnettes are preferred to flats as they offer greater privacy. No particular preference is noticeable with regard to plan arrangement, but internal decorations of a quiet character are most liked—primary colours or elaborate colour schemes are not appreciated and any experiments of that order tend to be quickly nullified by the tenant's redecoration.

Although both the absence of a good atmosphere and a good top soil militate against gardening, many of the tenants have made the most of their opportunities. The enclosed drying yards appear to be a





Right and above, the layout, and the key to it, of a small housing group. In the plan the numbers on the blocks show the storey heights. It can be seen that great care has been taken in this layout to achieve an urban environment both functionally and visually. The density is about one hundred persons to the acre. The designers have been at pains to try to reconcile the diversity of human needs in such a group with the need to create visual unity. They have gone a long way towards achieving this. Perhaps the most obvious missing element is an area with a workshop, for untidy operations—car cleaning and repair, carpentry, and other manual hobbies. Below, a typical recent estate of maisonette blocks and three-storey flats in West Ham.



great success with the tenants. The most difficult problem under this heading is the subject of rents. The local housing manager finds numerous instances of, say, a relatively wealthy docker's family (perhaps with several wage earners) living next door to a low-paid railway worker, both of whom have to pay the same rent for their subsidized home.

## 12. Maintenance

Persons who carry out daily services dislike three-storey development, especially postmen and coalmen, on account of the stairs to be negotiated. Particular attention has been paid to the convenience of access to, and adequate size of, coal bins. Maintenance costs may rise when the blocks of flats and maisonettes come to be redecorated because of the added height and ensuing difficulties of external work.

The atmosphere of West Ham, by reason of the low-lying nature of the land and the prevailing smoke-laden south-west wind, suffers from fog and atmospheric pollution, causing damage to buildings and sometimes a reduction in daylight. New buildings quickly lose their brightness. Natural materials such as brick, tile and slate weather best.

## Scale of Achievement

If one compares the scale of West Ham's post-war housing achievement with that of, say, a typical New Town, the comparison is only valid if it is remembered that reconstruction after war damage, and rebuilding of slum areas is a vastly more intricate process than building on virgin land. With the latter, once a master plan is approved, the organization of building is a relatively straightforward business. But with the former it remains complicated from start to finish.

The following table outlines the scale of West Ham's achievement in housing post-war: as at June 30, 1956.

Permanent houses completed	1,467
Permanent flats completed	1,268
Permanent maisonettes completed	712
	3,447
Number of dwellings under construction	981
Awaiting Ministry Approval	293
Number of families re-housed since June, 1948	7,137
Families re-housed into New Towns	569

The whole of this has been carried out under the direction of the Borough Architect, T. E. North. He has been assisted in recent years by the present deputy, Jack Whittle, and by a staff, who, because of the size of the work, have scope to reflect their own personalities on the individual schemes. None of this, however, would have been possible without the support of the Council who have had the vision to tackle housing in a disciplined and comprehensive way.

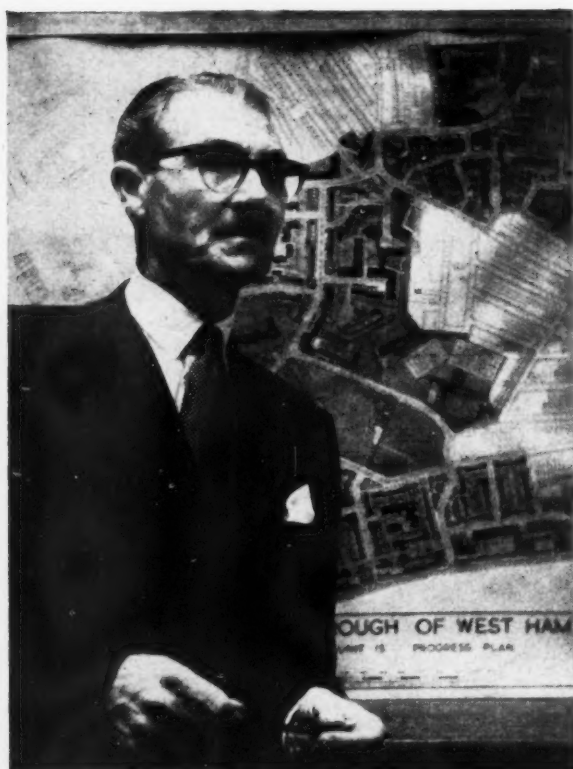
This article has briefly described how the form of housing development in West Ham has developed to a pitch where it has become town building. The importance of building in complete units is recognized

(Continued on page 467)



*The light post and rail of the access galleries of the West Ham flats, above, show a neat way of handling the problem of external access. The rendered panels between the porches emphasise the individual house in this terrace, below. Bottom, two-storey flats.*

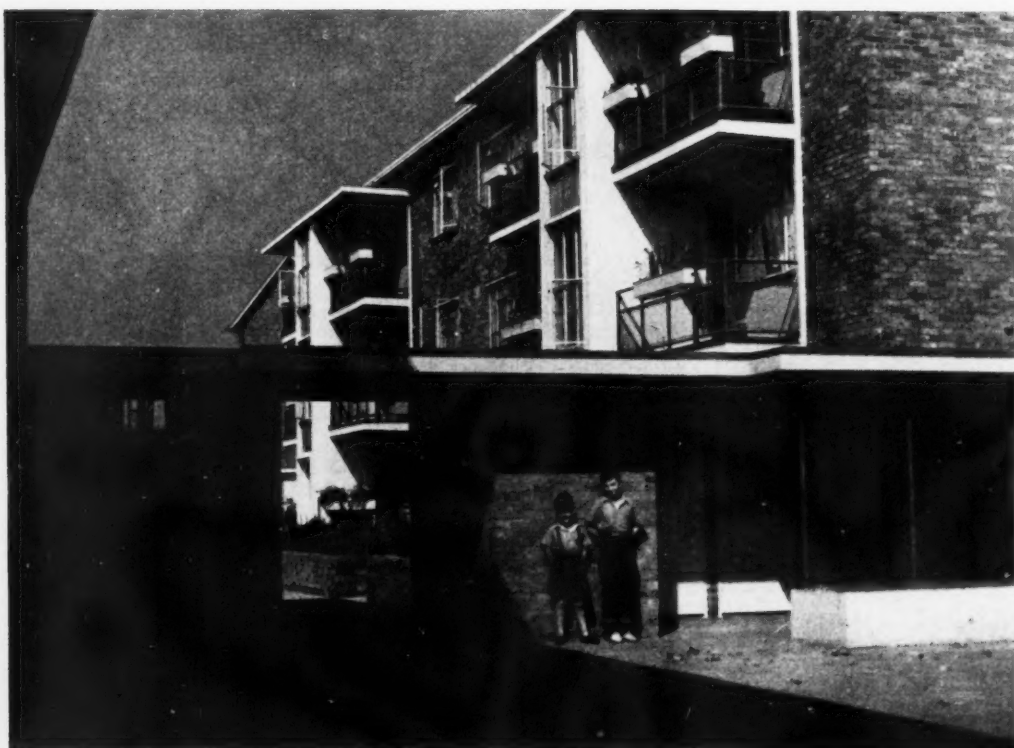
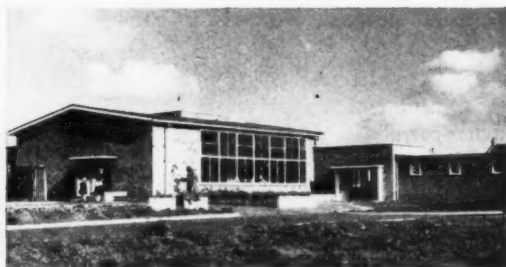




# T. E. NORTH, WEST HAM'S ARCHITECT AND PLANNING OFFICER.

All the buildings and designs illustrated in this article bear witness to the care, enthusiasm and efficiency with which Thomas North, left, the Borough's Chief Architect and Planning Officer leads his professional team. Thomas North received his early training in various private architects' offices. He entered the West Ham office, his first in local government, in 1931. The intense bombing which the area received during the war provided the long needed opportunity for comprehensive plans for reconstruction, an opportunity which North was quick to appreciate and grasp. His early scheme for the redevelopment of one Neighbourhood Unit (illustrated by Sir Patrick Abercrombie in his Greater London Plan) is now well ahead, and probably represents the largest area of reconstruction in the country today. He received an RIBA distinction in Town Planning in 1950, and was awarded an OBE for his town planning work in 1952. He takes a considerable interest in professional affairs. He has served on the Housing and Town Planning, the Official Architects, and the Science Committees of the RIBA, he is vice-president of the City and Borough Architects' Society and Chairman of the Practice Committee of ARCUK.

The senior members of his staff are : Jack Whittle, ARIBA, AMTPI, SP.Dip. Deputy Borough Architect and Planning Officer. Victor G. Bartholomew, ARIBA, ARICS, AMTPI, Principal Assistant Architect/Planner. Kenneth G. Jones, ARIBA, Dip.TP(Lond.), AMTPI, Chief Assistant Architect. John M. Carson, B.Sc.(Econ.), AMTPI, Chief Assistant Planning Officer.



Above, a West Ham primary school. Left, a three-storey block of flats in Abbey Road.

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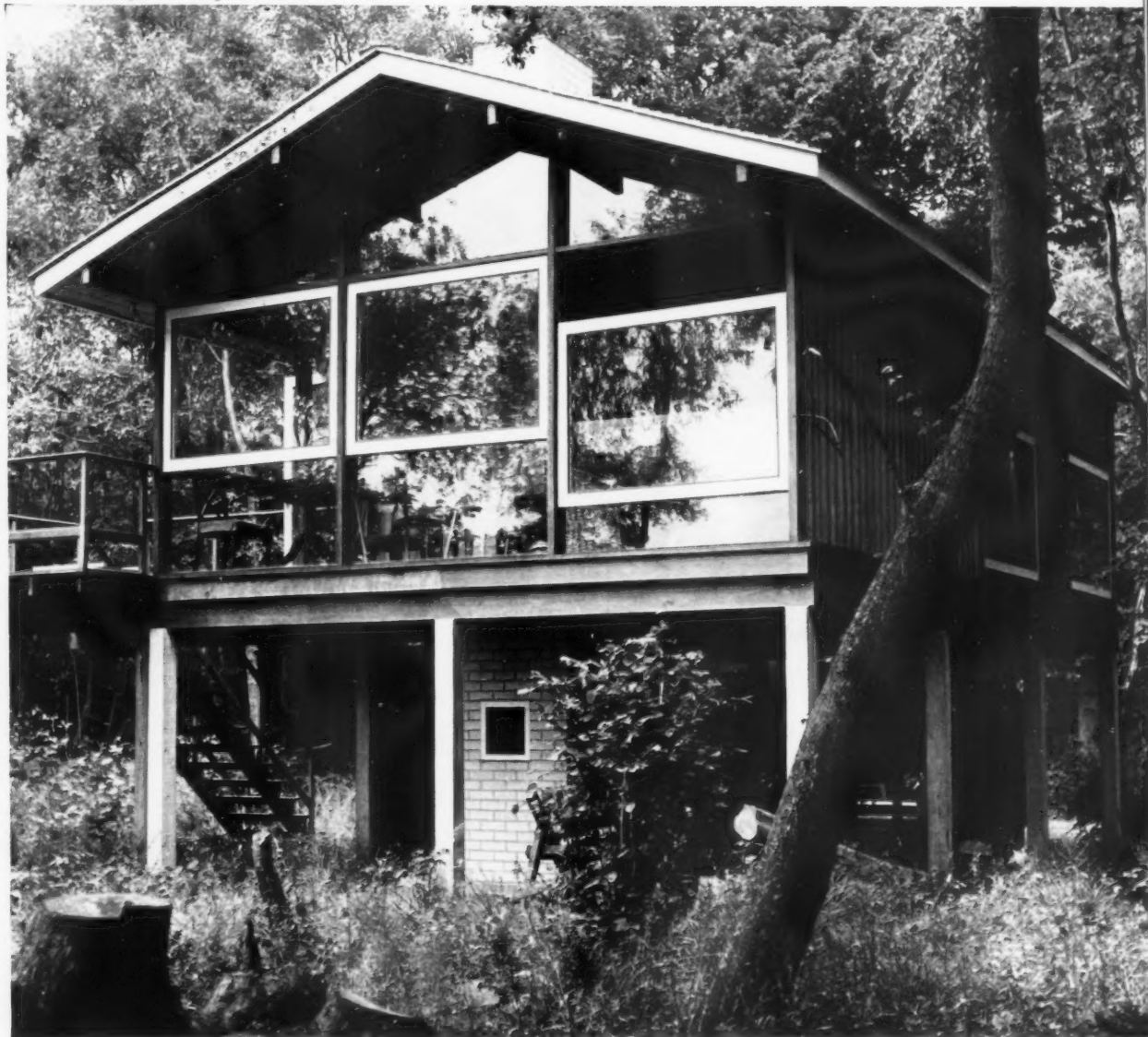
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## GABLE WALL: HOUSE IN BOSHAM

*Architect's Co-partnership, architects*

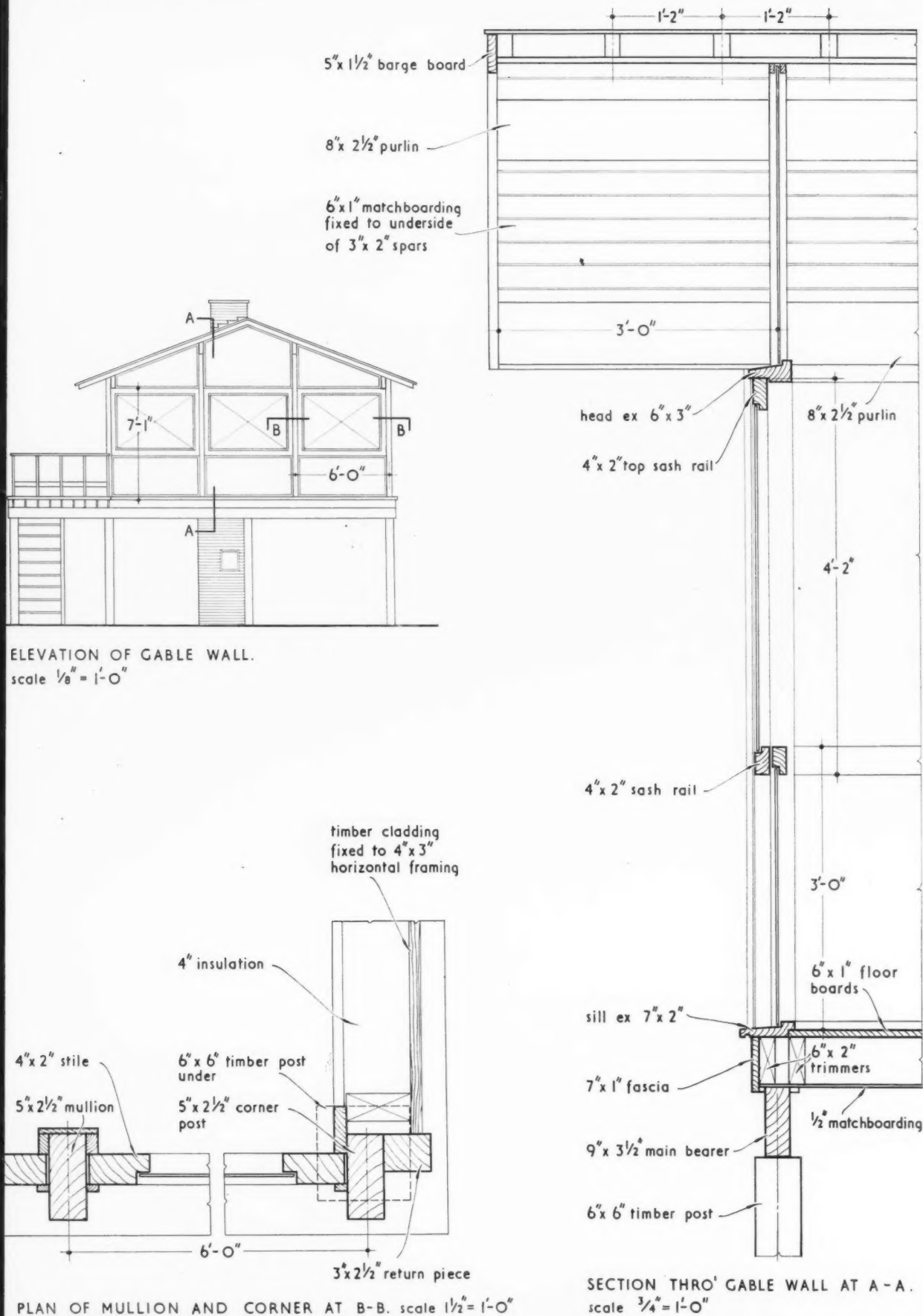
*The gable is completely glazed and has three sliding windows, so that maximum light and ventilation are admitted to the living and dining rooms. The floor is insulated with glass fibres and the underside is in matchboarding similar to the roof lining.*

## working detail

## WINDOWS: 41

GABLE WALL: HOUSE IN BOSHAM

Architect's Co-partnership, architects



ELEVATION OF GABLE WALL.

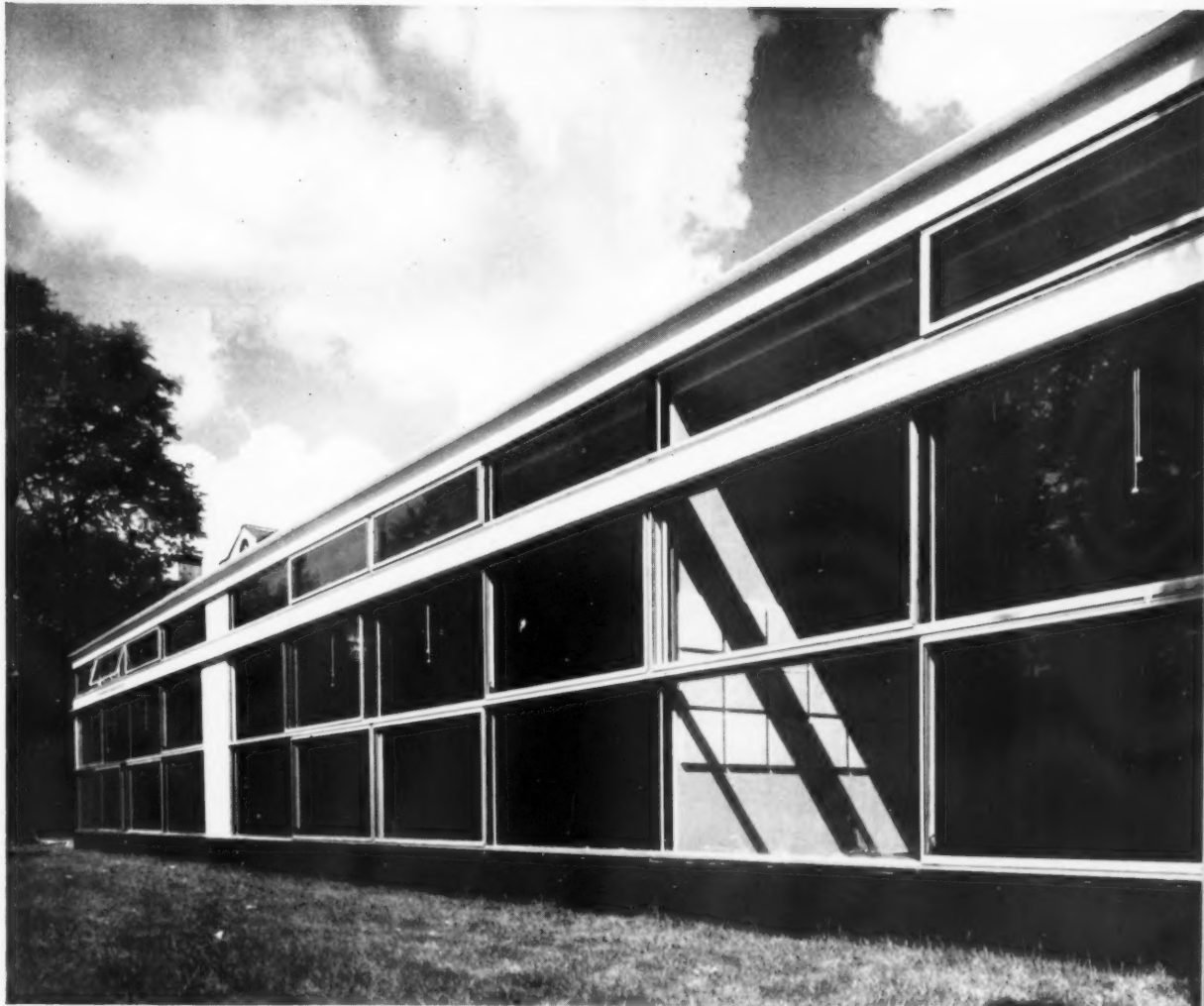
scale  $\frac{1}{8}" = 1'-0"$ PLAN OF MULLION AND CORNER AT B-B. scale  $\frac{1}{2}" = 1'-0"$ 

SECTION THRO' GABLE WALL AT A-A.

scale  $\frac{3}{4}" = 1'-0"$

WINDOW WALL: SCHOOL IN LONDON, S.W.5

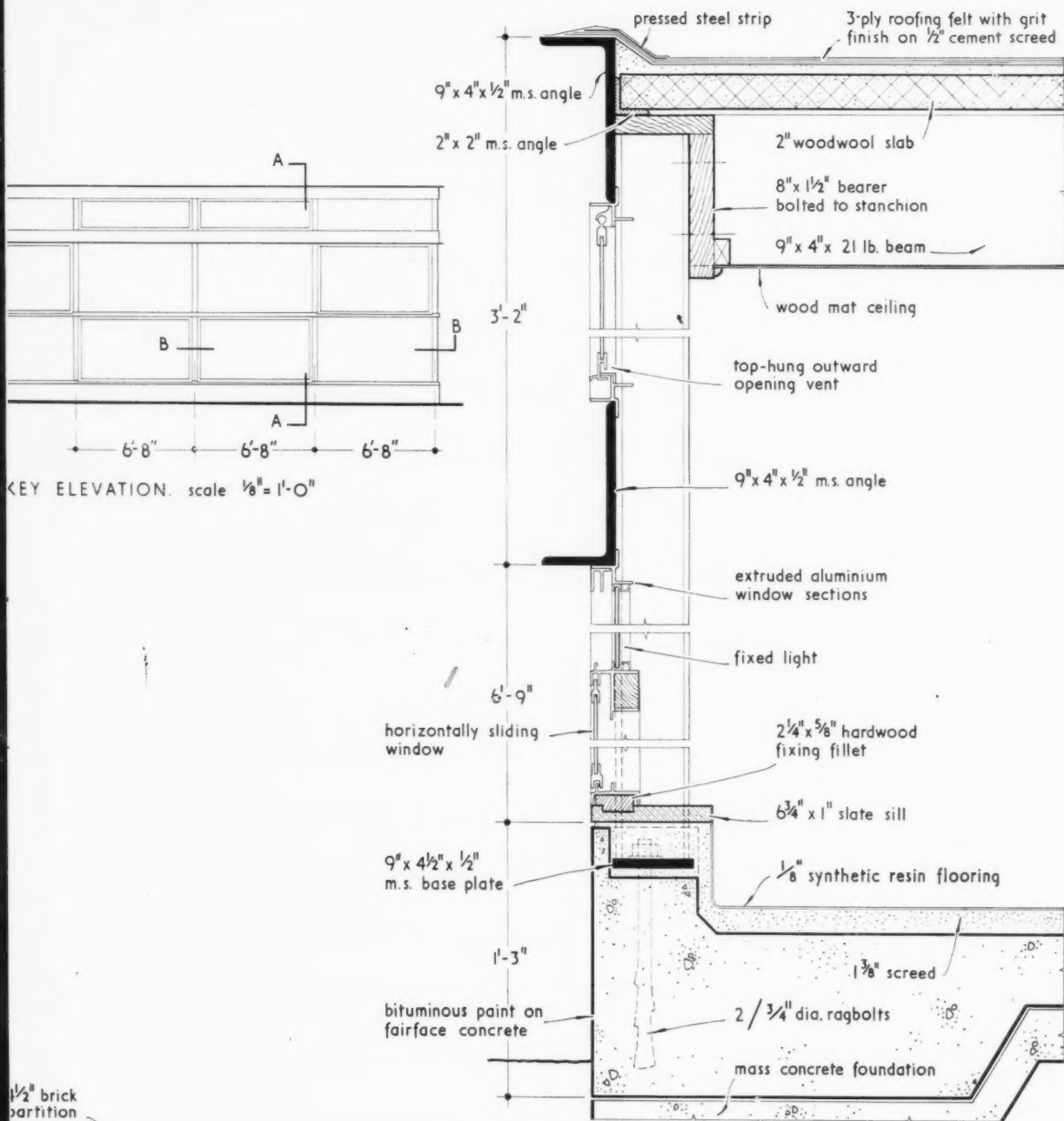
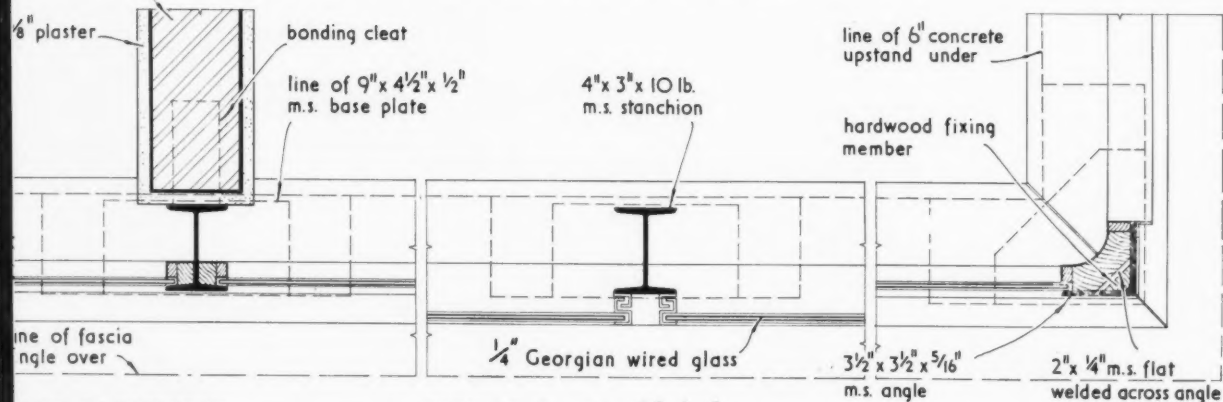
Chamberlin, Powell and Bon, architects



*The horizontally-sliding windows are framed in aluminium; the lower row are in Georgian wired glass and the ventilators over are top-hung, opening outwards. The stanchions to which the mullions are fixed are welded to base plates sunk into pockets provided in the concrete sill and each base plate is secured by two ragbolts.*

WINDOW WALL: SCHOOL IN LONDON, S.W.5

Hammerlin, Powell and Bon, architects

KEY ELEVATION. scale  $\frac{1}{8}$ " = 1'-0"SECTION A - A scale  $1\frac{1}{2}$ " = 1'-0"

PLAN AT PARTITION.

PLAN B - B. scale  $1\frac{1}{2}$ " = 1'-0"





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in West Ham but it is not always within the Council's power to do so. No town or neighbourhood can be complete without open spaces. The folly of leaving waste land, intended to be future open spaces, as a breeding ground for hooliganism is hard to believe. Apart from its social dangers such hooliganism can impair the architects' work for which the community at large has paid.

The most abiding impression a visitor to West Ham may have is a sense of incompleteness. This is true of old work, remorselessly so, and it is even true of the new schemes, which often cannot be divorced from the visible impact of near-by desolated sites lying waste, or perhaps just fragments of old West Ham. The visitor to West Ham in the future should get a very different impression, certainly a fine beginning has been made, under very difficult conditions. Later in this series, with my co-Author, Jack Whittle, I shall consider further aspects of density, using the examples in this study as a datum.

## CONCLUSION

In writing this study of town building, in its residential aspects, the most vivid impression which I have received is the influence of density on layout. To refer back to page 457, it will be seen that for the three areas A, B and C the density rises only from 65 rooms per acre in Area A to 120 rooms per acre in Area C (in terms of persons per acre

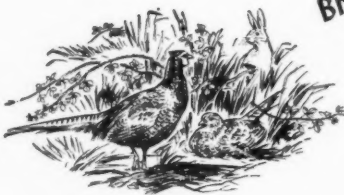
the relative figures are 68 and 135). Houses predominate in Area A, whereas in Area C they can no longer be accommodated, although the density rise is not by any means considerable. Throughout the whole field of housing design and layout, density is the underlying governing element: it affects the type and disposition of dwellings, the nature of the spaces around them, the layout of roads and footways and so on.

Yet, although the influence of density is so basic, our understanding of its rôle remains remarkably confused. The relationship between gross and net density, floor space index, persons per acre, rooms per acre is so commonly left vague.

What form of density really matters? Are we using density as a planning control correctly?

In the long run there is only one form of density which really matters: gross density on the national scale—the number of people per acre or square mile throughout the land, which is an index of the degree of industrial development in relation to size and agriculture potential available. However, this element of density may be refined. It is national gross density within an expanding world population which, it is now recognized, goes to the root of all forms of urban development. Because it is from this that the balance between urban land needs and farming land requirements must be struck.

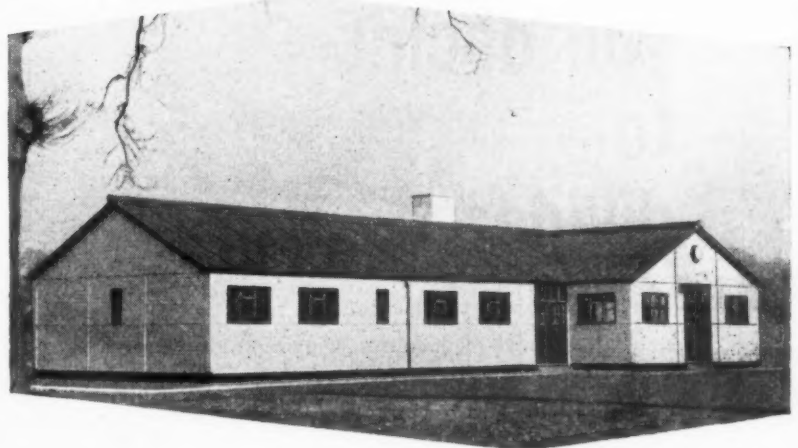
If urban land limits can be fixed, the gross density of our towns can be determined, assuming that there



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This also applies to density applied at an architectural level, *i.e.* net density. That is, people, or rooms per acre, as expressed for housing in this country, or floor space of dwelling accommodation as (perhaps more rationally) expressed in parts of the Continent.

Net density is a basic method of town planning control. A level net density is frequently applied to large areas, *e.g.*, whole new towns, or the outer areas of large cities. Do we realize the implications of this: the stultifying effect it can have on town-building; the inherently monotonous effect it may have if applied over too large an area? Do we yet recognize what is a reasonable density for urban man to live at? Is there really a satisfactory half-way stage between *four or less dwellings per acre* as in the better type of suburb or village and a fully urban density of 25 to 30 dwellings per acre as at West Ham? What is it about the present

formula of 12 to 15 dwellings per acre which arouses distaste? Is it not the awful monotony of the repetition of a unit which is never wholly satisfying in itself?

Thus we come back to not merely density itself, as regards town-building, but also to size or extent. Do we not need today to reconsider the bounds of an acceptable gross density for a town or city, and whether the use of net density control should not be made more flexible? Other means can ensure the proper allowance of light and air, and the avoidance of over-shadowing. If they are permitted greater freedom to exploit architectural forms, within, naturally, the limits of practical economics and social needs, architects are more likely to introduce into town-building the development of individual groups, such as the three I have described in West Ham, which can be recognized immediately, whatever their good or bad points, as separate units each with a definite character. It is such individuality, on the broadest scale, which I suggest is the life of our towns: without it I can foresee nothing but monotony, whatever the merits of individual buildings.

I end with a further question. For all the colossal expenditure of money which is, and will be, expended on town-building (as West Ham has been so courageously tackling since the war and other towns are now only beginning to face) do we really know what our true urban objectives are?

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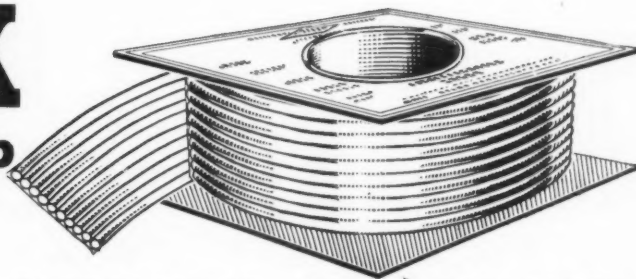
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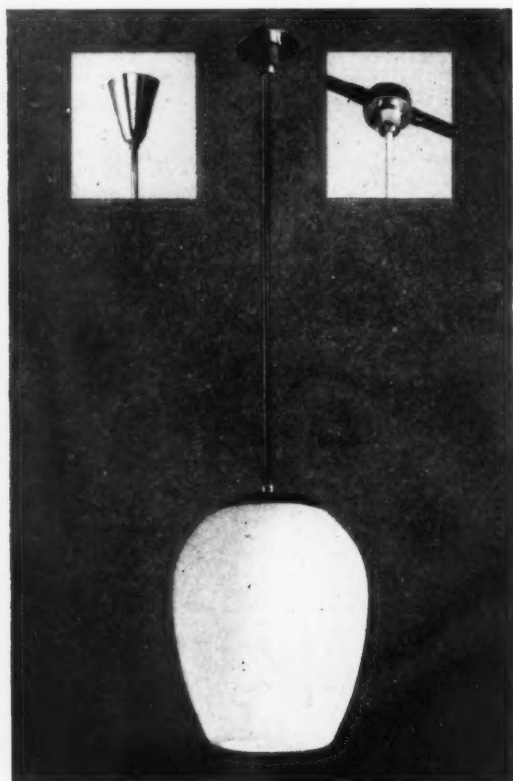
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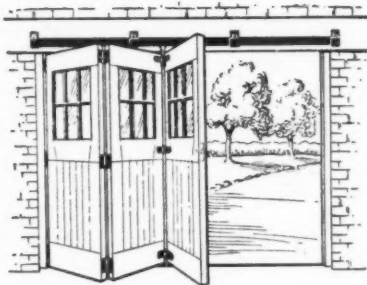
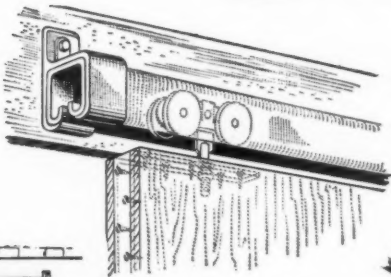
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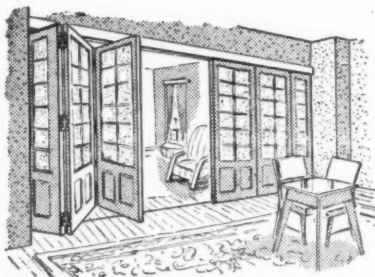
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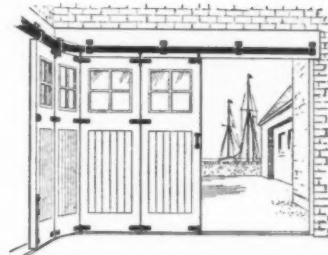
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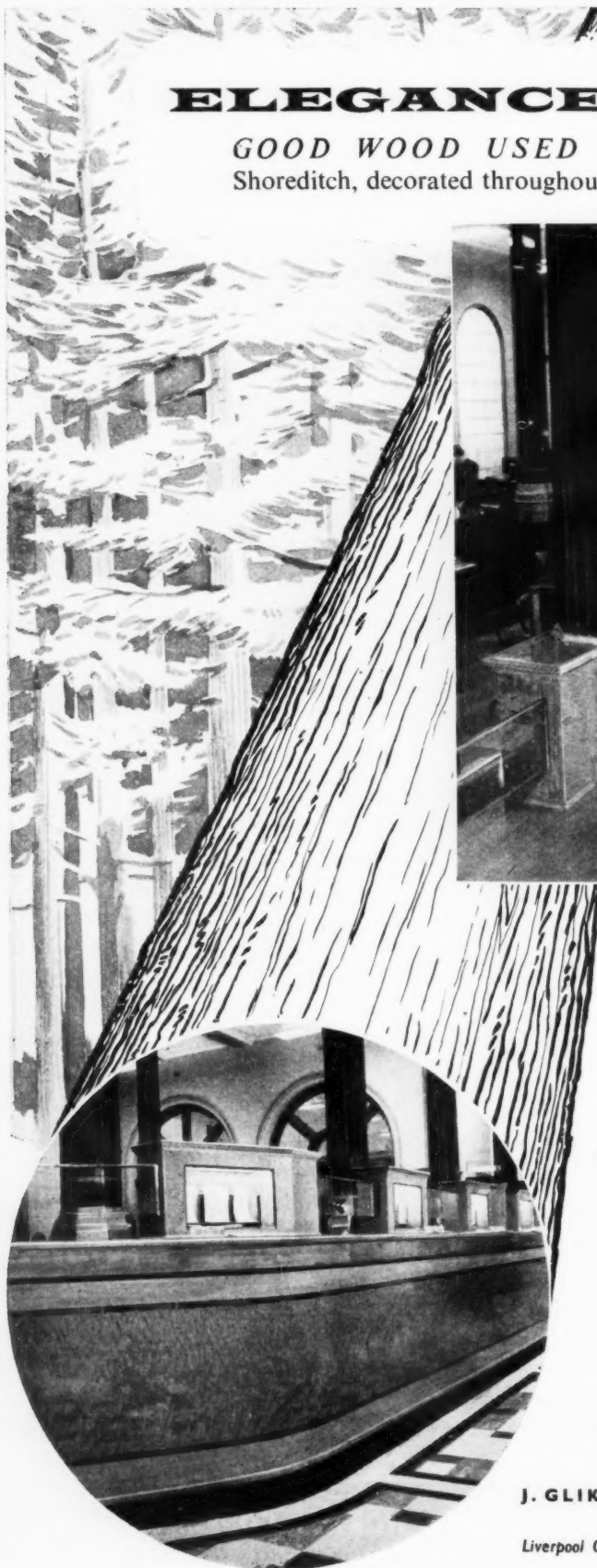
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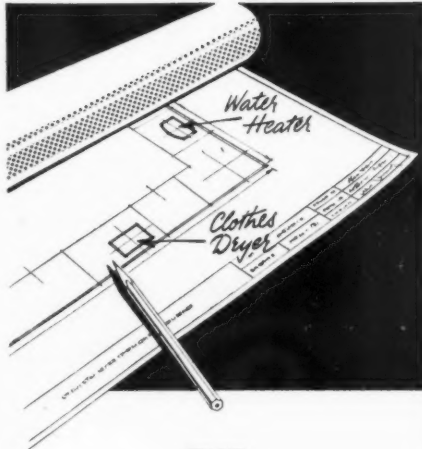
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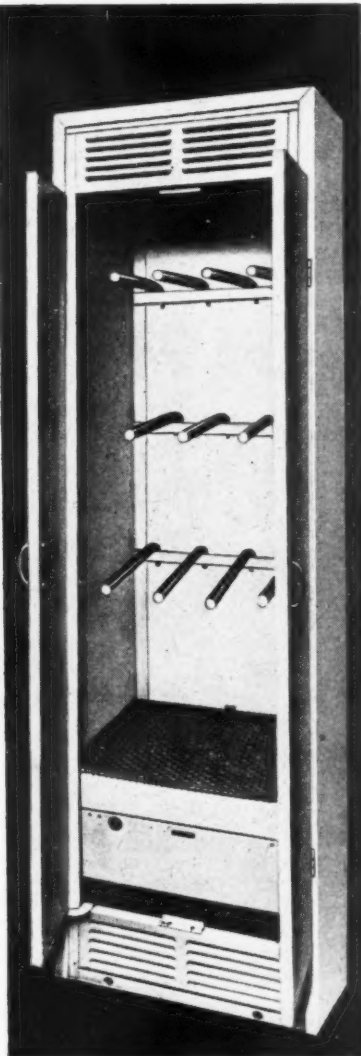
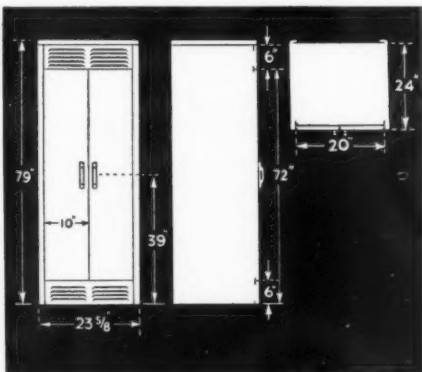
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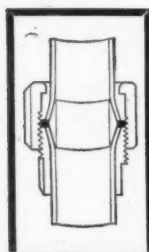
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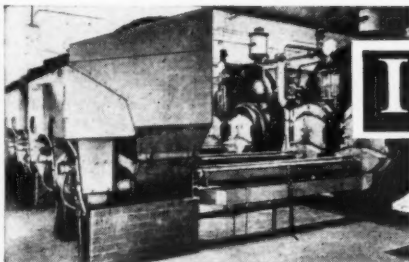


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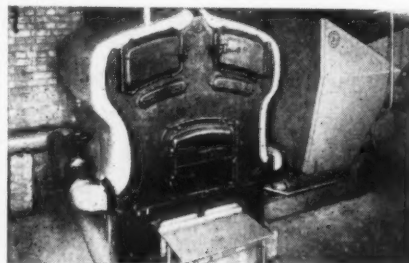
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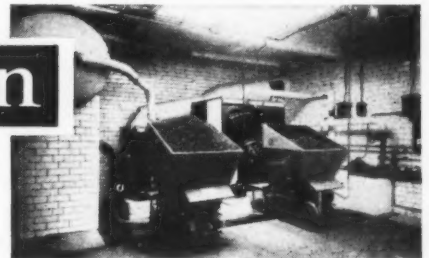
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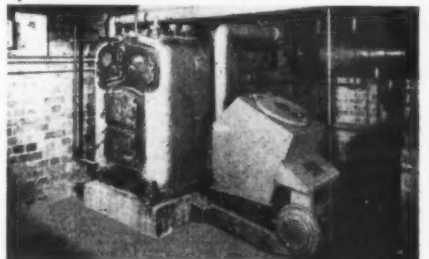
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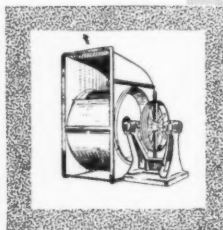
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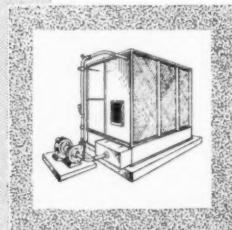
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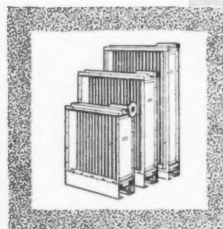
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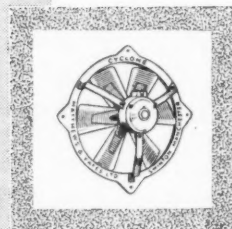
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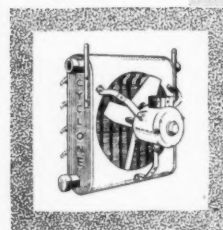
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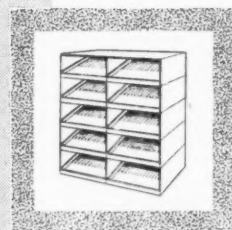
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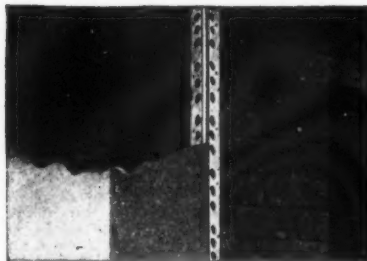
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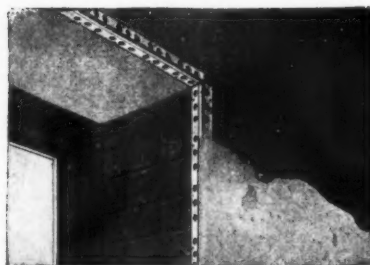
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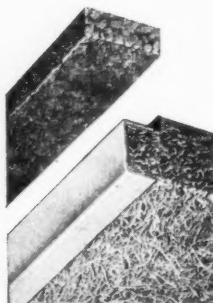
# CORK and the 'COLD BRIDGE'

## in ROOFS

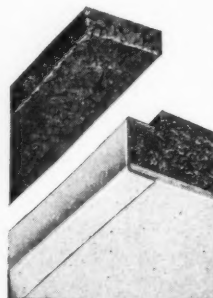
As is well known, structural members of high conductivity, in contact with the upper surface and the soffit of a roof, form in winter a "cold bridge" between the two surfaces.

For example: the channels of woodwool roofing slabs may in winter form such a cold bridge, with the result that in cases of high humidity the temperature of the soffit of the channels may be below dewpoint, when condensation will occur.

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3" REB.



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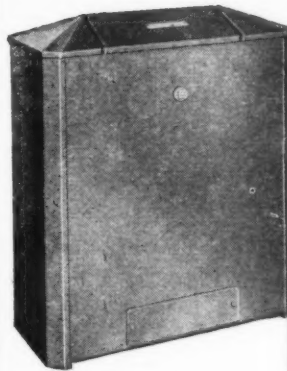
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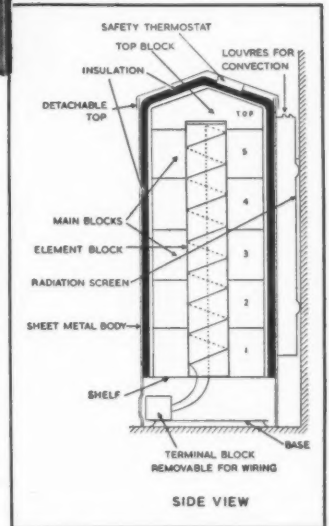


23

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There are two 'Thermistor' models: one a 1½ kW. unit which absorbs 12 kW. hours from 8 hours charging, and the other, with a 2½ kW. element, which absorbs 18 kW. hours during the same time.

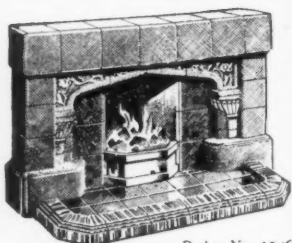
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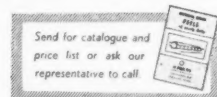
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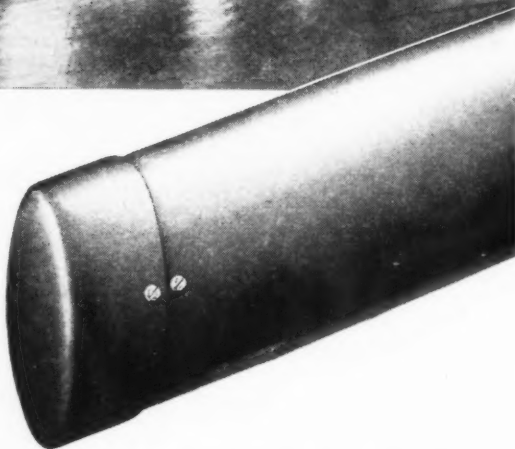
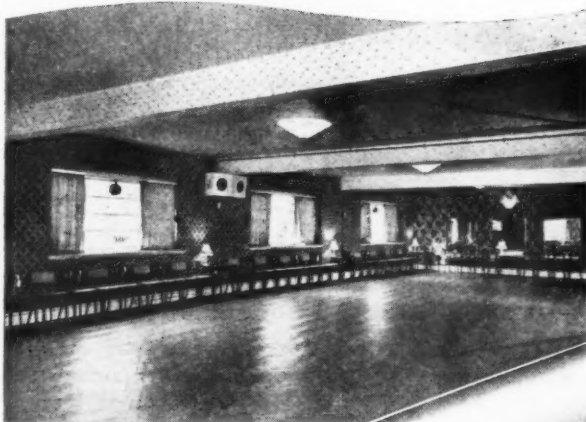


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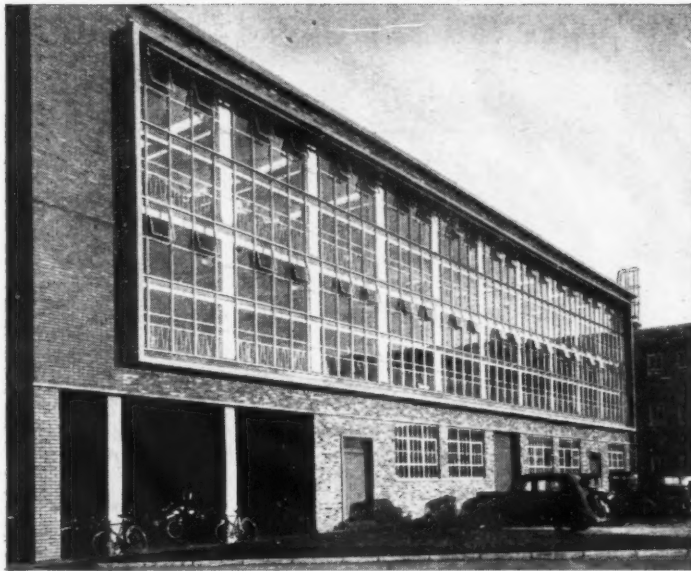
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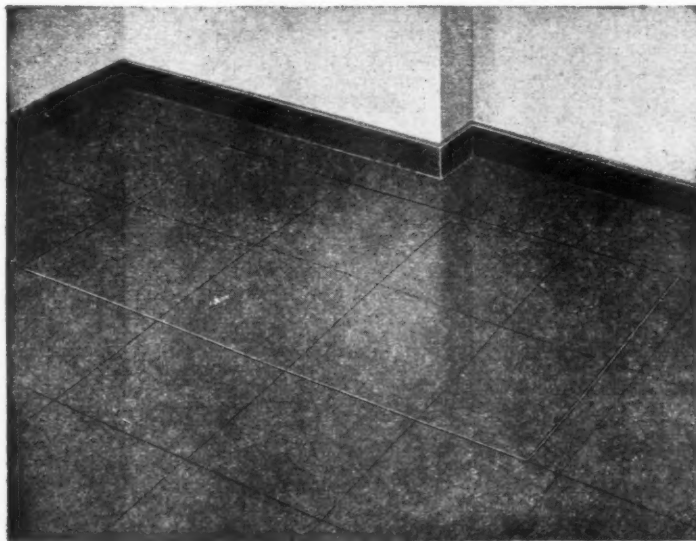
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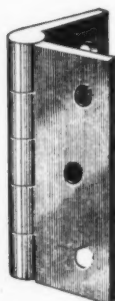
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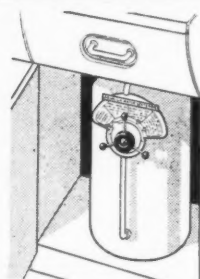
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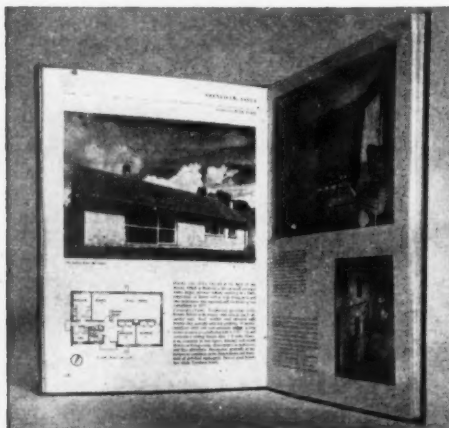
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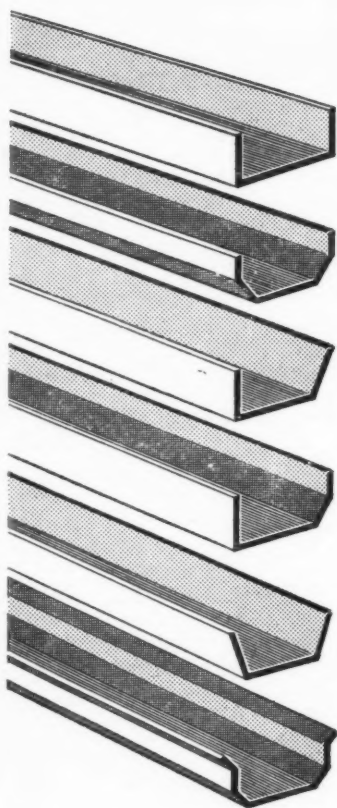
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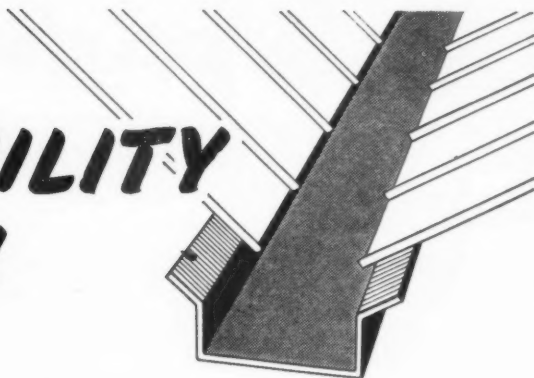
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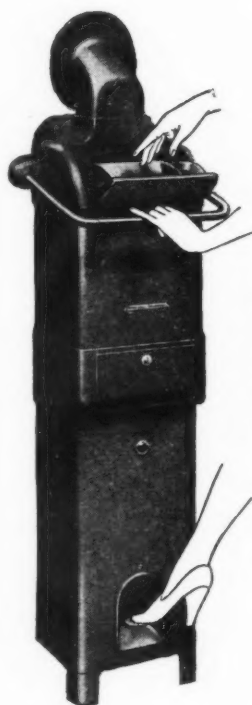
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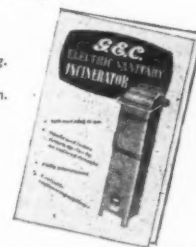
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## building elements

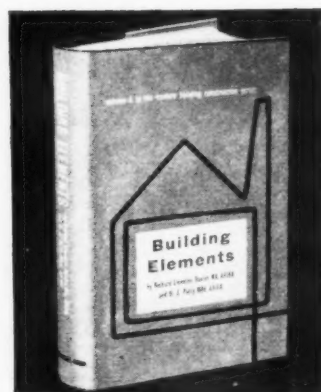
by R. LLEWELYN DAVIES, M.A.,

A.R.I.B.A. and D. J. PETTY, M.B.E., M.A., A.R.I.B.A. Foreword by W. A. ALLEN, B.A.R.C.H., A.R.I.B.A.

*This Book deals with the structural elements of which a building consists, its walls, roofs, floors, windows, etc., and explains the functional requirements a building has to meet. It then describes how these requirements are met in the actual design of the various structural elements.*

*The book is divided into two parts, the first of which contains chapters on the requirements of building elements under the headings of Design and Expression; Weather Exclusion; Thermal Insulation; Sound Insulation; Fire Protection. In Part 2 chapters deal with the principal kinds of External Walls; Internal Walls; Roofs; Floors; Stairs; Flues and Fireplaces; Windows and Doors; which are in current use, and show how far and in what way, each of these elements fulfils the requirements described in Part 1.*

*Size: 8½ in. by 5½ in., containing 384 pages including over 190 diagrams and halftone illustrations. 37s. 6d. net, postage 1s. 4d.*

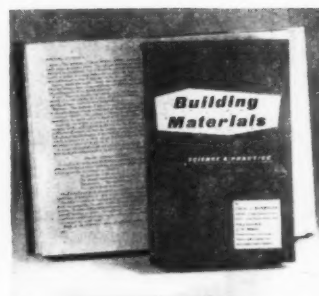


## building materials

by CECIL C. HANDISYDE, A.R.I.B.A. Foreword by A. H. MOBERLY.

*This book provides up-to-date information on building materials in a form most useful to architectural students and practising architects. In addition to traditional materials, Mr. Handisyde deals with the many new materials which have come into use during the last twenty-five years, and takes full account of the very considerable amount of recent scientific research which has been brought to bear on both old and new materials. He examines thoroughly those problems of increasing concern to architects today—to what extent will alternative materials provide comfortable buildings, buildings that are warm and quiet and reasonably secure against fire, as well as being weatherproof and strong enough for their purpose.*

*Size: 8½ in. by 5½ in. Containing 336 pages including 58 diagrams and halftone illustrations. Second edition, 30s. net, postage 1s. 3d.*



## structure in building

by W. FISHER CASSIE, PH.D., M.S., F.R.S.E., M.I.C.E., M.I.STRUCT.E., and J. H. NAPPER, M.A., F.R.I.B.A., A.M.T.P.I. Foreword by W. A. ALLEN, B.A.R.C.H., A.R.I.B.A.

*Steel, concrete, aluminium alloys, etc., have revolutionised structural design, and although this field is largely an engineering one, today it is essential for the architect to understand something about it. No attempt is made in the book to give the formulae and methods of analysis and design used by the structural engineer; rather it provides the architect and student with mental pictures of how structures behave, for without the ability to 'feel' how forces act and react in the support of buildings, the architect cannot hope to put into practice the spatial conceptions of present-day architecture.*

*The book fills a gap in the literature on structural design and provides the architect with all the information he needs about systems of construction, their character, possibilities and limitations, to enable him to produce designs for new buildings with economy and imagination.*

*Size: 8½ in. by 5½ in. Containing 268 pages including over 150 diagrams and halftone illustrations. Second impression, 30s. net, postage 1s. 2d.*



The complete set of three volumes: price 97s. 6d. net. Postage 2s. 3d.

THE ARCHITECTURAL PRESS 9-13 QUEEN ANNE'S GATE WESTMINSTER S.W.1

## CLASSIFIED ADVERTISEMENTS

Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1 and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

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### THE CORPORATION OF GLASGOW ARCHITECTURAL AND PLANNING DEPARTMENT

ASSISTANT ARCHITECTS  
PLANNING ASSISTANTS  
CIVIL ENGINEERS  
QUANTITY SURVEYORS

Vacancies exist for a number of assistants. Minimum qualification, Intermediate Examination of the appropriate professional body. Salary scale £580-£1,100 per annum, with placing according to age, experience and qualifications.

Form of application may be obtained from the Principal Administrative Officer, 20, Trongate, Glasgow, C.1.

A. G. JURY

City Architect and Planning Officer. 3088

### COUNTY BOROUGH OF WEST HAM BOROUGH ARCHITECT AND PLANNING OFFICER'S DEPARTMENT RE-ADVERTISEMENT

Applications are invited from Architects and Planners for the following permanent appointments at salaries shown (including maximum London allowance):—

#### ARCHITECTS

Senior Group Architect, Grade VII, £1,005 × £45

—£1,230.

Group Architect, Grade VI, £910 × £40-£1,110.

Deputy Group Architects (4 posts), Grade V, £825 × £35-£1,000.

Assistant Architect, Grade IV, £740 × £35-£915.

Architectural Assistants (2 posts), Grades I/II, £560 × £20-£705.

#### PLANNERS

Senior Assistant Planning Officer, Grade VI, £910 × £40-£1,110.

Assistant Planning Officer, Grade V, £825 × £35-£1,000.

Planning Assistant, Grade IV, £740 × £35-£915.

Planning Assistant, Grades I/II, £560 × £20-£705.

The County Borough has an extensive reconstruction and slum clearance programme, and offers varied and interesting work.

Application forms and details from the Borough Architect and Planning Officer, Thomas E. North, O.B.E., F.R.I.B.A., Dist. T.P., M.T.P.I., 70, West Ham Lane, Stratford, E.15 (returnable by 9th October, 1956). 3206

### ARCHITECT-WEST AFRICAN BUILDING RESEARCH INSTITUTE, GOLD COAST

To assist in the design of the main buildings for the Institute, the organization and supervision of the Division of Architectural Research including the design of buildings for West African conditions, housing studies, cost studies and the Institute's information services.

Permanent appointment to Research Branch of Her Majesty's Overseas Civil Service or contract for 2 tours of 18 to 24 months. Salary £1,575-£1,829 p.a. Contract gratuity £161-£219 p.a. Quarters at low rental. Free passages for officer, wife and children under 13 years. Generous leave.

Candidates should have a good Honours Degree in Architecture or be A.R.I.B.A. and have had at least 2 years' experience in design and erection of buildings in tropical areas. Research experience desirable. Active interest in application of research to building problems essential.

Write Director of Recruitment, Colonial Office, London, S.W.1, stating age, qualifications and experience quoting BCD 197/487/01. 3253

### COUNTY BOROUGH OF HALIFAX BOROUGH ENGINEER'S DEPARTMENT APPOINTMENT OF TOWN PLANNING ASSISTANT

Applications are invited for the above appointment at a salary of £590-£840. Applications stating age, qualifications, present and past appointments, experience and the names and addresses of three referees should be received by the undersigned not later than 6th October, 1956.

RICHARD DE Z. HALL,

Town Clerk.

Town Hall,

Halifax.

3249

AIR MINISTRY Works Designs Branch requires in London and Provinces ARCHITECTURAL ASSISTANTS, experienced in planning/preparation of working drawings and details for permanent and semi-permanent buildings.

Salaries in London up to £925 p.a. (men) and £831 (women). Lower in Provinces. Starting pay depending on age, quals. and experience. Long-term possibilities, with promotion and pensionable prospects. 5-day week. 3 weeks, 3 days' leave a year. Liability for overseas service. Normally natural born British subjects. Write, stating age, quals., employment details, incl. type of work done, to any Employment Exchange, quoting Order No. Borough 1000. 3029

### CITY AND COUNTY OF BRISTOL APPOINTMENT OF PLANNING ASSISTANTS

Applications in City Engineering and Planning Department invited for:

(a) PLANNING ASSISTANT, A.P.T. V (£795-£970).

Applicants must have passed Final Examination of the Town Planning or other appropriate Institute, and have considerable and wide planning experience, including preparation of plans for redevelopment areas; preparation and administration of a Development Plan and Control of Development.

(b) PLANNING ASSISTANT, A.P.T. IV (£710-£885).

Applicants must have passed Final Examination of the Town Planning or other approved Institute and have good Planning experience, including preparation and administration of a Development Plan.

Applications, stating age, qualifications, experience, present and previous appointments, names of two referees, should reach me by 8th October, 1956.

J. B. BENNETT, M.I.C.E., M.I.M.E.,

City Engineer and Planning Officer.

Arno's Court, 470, Bath Road, Bristol, 4. 4003

### COUNTY BOROUGH OF BURNLEY

Applications are invited for the following appointments in the Borough Engineer and Surveyor's Department:—

SENIOR ARCHITECTURAL ASSISTANT

Grade IV (£710-£885).

and ARCHITECTURAL ASSISTANT

Special Grade (£690-£840).

Applicants for the Senior Post must be Registered Architects and for the other have the appropriate qualifications. Considerable experience in municipal building projects, including educational building, is preferable.

QUANTITY SURVEYING ASSISTANTS

Grade II (£595-£675).

Applicants should have a sound knowledge of building construction and experience in the preparation of quantities and measurement of building work is essential.

Housing accommodation will be made available if required.

Forms of application may be obtained from the Borough Engineer, 22/24, Nicholas Street, Burnley, and should be returned to him not later than Saturday, the 13th October, 1956.

C. V. THORNLEY,

Town Clerk.

3254

### THE GLASGOW SCHOOL OF ARCHITECTURE DEPARTMENT OF TOWN AND COUNTRY PLANNING

#### POST-GRADUATE COURSE

##### DIPLOMA IN TOWN PLANNING

The Diploma may be taken either as a Full-time Day Course of one session (5 terms) or as a Part-time Course of two sessions. The Part-time Course involves a minimum attendance of two afternoons and three evenings per week. Both courses have been approved by the Town Planning Institute.

Only candidates who have qualified for an "approved" Degree or Diploma in Architecture or who have passed a recognised Final Examination in (a) Architecture; (b) Engineering or (c) Surveying; or who are graduates of a British University with an Honours Degree in Geography or a first or second class General Degree with Geography as principal subject, are eligible for admission.

The Course will commence in the College on Monday, 1st October, 1956, at 5.30 p.m., when prospective candidates should attend for enrolment.

Further particulars may be obtained from The Secretary, Royal Technical College, George Street, Glasgow, C.1. 3233

### KUMASI COLLEGE OF TECHNOLOGY

(Principal: W. E. Duncanson.

Ph.D., D.Sc., F.Inst.P., A.M.I.E.E.)

Applications are invited for posts of

(a) ARCHITECT

(b) CIVIL OR STRUCTURAL ENGINEER

(c) BUILDING TECHNOLOGIST

to work in a newly established BUILDING DEVELOPMENT CENTRE at the College. Centre's immediate purpose is to investigate problems of low-cost housing, use of local materials, and more economical construction methods. Long-term purpose will be fundamental study of economic, physical and sociological principles of design for tropics.

Candidates should be corporate members of appropriate professional body.

Appointments will be on contract for 2 tours of 12-18 months. Salary scale (incl. contract addition) £1,030 × £50 - £1,600 × £60 - £2,020, plus 5% temp. addition pending revision of scale, plus gratuity of £37.10s. for each 3 months' satisfactory service. Point of entry acc. to age and experience, e.g., £1,500 at age 25 or over with 5 years' experience after being elected A.R.I.B.A. Free 1st class passages for persons appointed, wives and up to 3 children under 17. Generous home leave on full salary after each tour.

Further information may be obtained from Sec., Advisory Committee on Colonial Colleges, 1, Woburn Square, London, W.C.1, to whom applications (6 copies) giving details of education, qualifications and experience, and naming 3 referees, should be sent by 31st Oct., 1956. 3250

THE SOUTH WALES ELECTRICITY BOARD require an ARCHITECTURAL DRAUGHTSMAN at their Head Office, St. Mellons, Cardiff.

Salary: Schedule D, Grade VI (£560-£680), of the N.J.B. Schedule.

Applications, stating age, present position and salary, qualifications, experience, and three referees, should be addressed to the Secretary (Establishments Section), to arrive not later than 8th October, 1956.

D. G. DODDS,

St. Mellons, Cardiff.

Secretary.

3283

### GOVERNMENT OF CYPRUS (a) TOWN PLANNING OFFICER

and  
(b) ASSISTANT TOWN PLANNING OFFICER

PLANNING AND HOUSING DEPARTMENT  
To be responsible for carrying out Planning Surveys, assisting in Town Planning Schemes, and to advise Local Authorities on planning and Building Bye-Law matters.

Contract appointments. Salary range: (a) £1,650-£2,066; (b) £1,201-£1,620.

Point of entry according to qualifications and experience. Gratuity £25-£37 10s. for each completed three months' satisfactory service. Free passages for officers and families up to five persons in all. Quarters, if available, at low rental. 33 days' leave for each month of resident service.

Candidates must be:—

Post (a): A.M.T.P.I., and preferably with secondary related qualification. Experience in carrying out Planning Surveys and preparation of plans and development contracts.

Post (b): A.M.T.P.I., or recognised University Degree in Town Planning.

Write Director of Recruitment, Colonial Office, London, S.W.1, giving age, qualifications and experience, quoting (a) or (b) BCD 62/17/03. 3286

### CITY OF CANTERBURY APPOINTMENT OF CITY ARCHITECT AND PLANNING OFFICER

Applications are invited for the post of City Architect and Planning Officer, at a salary according to the scale of £1,350 per annum, rising by two annual increments of £50 and one of £55 to £1,525 per annum. A motor car allowance will be paid in accordance with the recognised scale. The appointment is determinable by either party on giving three months' notice in writing.

The recommendation of the Joint Negotiating Committee for Chief Officers of Local Authorities will apply the salary, being based on the range applicable to the present population of 29,800.

Candidates should be Members of the Royal Institute of British Architects and of the Town Planning Institute.

There is an interesting and varied programme of architectural works, including general housing, slum clearance and redevelopment, schools and colleges of further education. The Council is the Local Planning Authority, and the Planning Officer will be responsible for all planning work, including the continuation of the Redevelopment Scheme in the Central Area.

Applications, stating age, qualifications and particulars of experience, together with copies of three recent testimonials, must be delivered to the undersigned by not later than Saturday, 13th October, 1956.

Canvassing will disqualify.

J. BOYLE,

Town Clerk.

Municipal Buildings, Canterbury

3269

### CITY OF WAKEFIELD CITY ENGINEER'S DEPARTMENT APPOINTMENT OF ARCHITECTURAL ASSISTANT

Applications are invited for the above superannuable post on Grade A.P.T. I (£530 × £20 to £610).

Candidates must have had some form of Architectural training, and preference will be given to those with Municipal experience.

Applications, stating age, qualifications and experience, together with the names of two referees, should be received by the City Engineer, Town Hall, Wakefield, not later than the 8th October, 1956.

14th September, 1956.

3284

### CITY OF BIRMINGHAM CITY ARCHITECT'S DEPARTMENT

Applications are invited for the following appointments:—

ASSISTANT ARCHITECTS, Grade A.P.T. V

(£795-£970 per annum).

ASSISTANT ARCHITECTS, Grade A.P.T. IV

(£710-£885 per annum).

Applicants must be Associate Members of the R.I.B.A. or hold equivalent qualifications, and the commencing salary in the grade will be according to capabilities and experience.

The posts are permanent, superannuable, subject to a medical examination, and to one month's notice on either side.

Applications, endorsed with the heading of the post, stating age, present position and salary, qualifications and experience, together with the names of two persons to whom reference can be made, should reach the undersigned by not later than 12th October, 1956.

Canvassing disqualifies.

A. G. SHEPPARD FIDLER,

City Architect.

Civic Centre, Birmingham, 1.

3288

**BOROUGH OF NEATH**  
**APPOINTMENT OF (a) ARCHITECTURAL ASSISTANT, (b) JUNIOR ARCHITECTURAL ASSISTANT**

Applications are invited for the above appointments in the Borough Engineer's Department. Applicants for the position of Architectural Assistant must have passed the Intermediate Examination of the R.I.B.A. and be studying for the Final Examination.

Applicants for the position of Junior Architectural Assistant must have had a sound training in architectural work and should be following a course of study to gain further qualifications. The post offers a wide experience in all branches of Municipal work, including public buildings and housing.

The salary for Architectural Assistant will be Grade A.P.T. II (£595 to £675) and for Junior Architectural Assistant, A.P.T. I (£530 to £610).

The appointments will be subject to one month's notice on either side, to the Local Government Superannuation Acts, 1937 and 1953, and the passing of a medical examination.

Applications, stating age, qualifications and experience, and giving the names of two referees, must be received by the undersigned not later than 13th October, 1956.

D. KING DAVIES,

Town Clerk.

Town Hall, Neath,  
13th September, 1956. 3292

**ARGYL COUNTY COUNCIL**

Applications are invited for the appointment of a QUANTITY SURVEYING ASSISTANT in the County Architect's Department. Salary scale: Grade IV-VI (£655-£870), with placing according to experience and qualifications. The post is superannuable.

Apply, giving details of qualifications and experience, along with copies of two recent testimonials, to County Architect, County Offices, Dunoon, within seven days of publication of this advertisement.

A. D. JACKSON,

County Clerk.

**COVENTRY CORPORATION require ARCHITECTS, A.P.T. V (£795-£970).** Housing accommodation granted in approved cases. Details and application forms from City Architect and Planning Officer, Bull Yard, Coventry, returnable by 8th October. 3998

**COUNTY BOROUGH OF SOUTHPORT**

**SPECIAL GRADE - £690-£840 per annum**

Applications are invited for the above appointment in the Borough Architect and Town Planning Officer's Department. Candidates should have had experience in School Design and Construction and must have passed the Final Examination of the R.I.B.A.

Application Forms may be obtained from the Borough Architect and Town Planning Officer, 99/105, Lord Street. Closing date for the receipt of Applications is Saturday, 13th October, 1956.

R. EDGAR PERRINS,

Town Clerk.

**THE NEW SOUTH WALES UNIVERSITY OF TECHNOLOGY, SYDNEY, AUSTRALIA**

Applications are invited for appointment as ASSOCIATE PROFESSOR, School of Architecture, Kensington, Sydney, New South Wales, Australia.

Salary £42,402 per annum.

Applicants must hold a degree or diploma of a School of Architecture recognized by the R.I.B.A. They should be a member of the R.I.B.A. and/or the R.A.I.A. and should have had several years' practical and professional experience as an architect. Actual experience in the administration and supervision of a fairly large School of Architecture and/or Building is most desirable. Under the general direction of the Dean of the Faculty of Architecture, the Associate Professor will be largely responsible for the day-to-day detailed administration and supervision of the staff of the School, which conducts a degree course in Architecture, Building and Quantity Surveying. In addition it would be an advantage for him to lecture, say once per week, upon some special aspect of Architecture within the fields of Design or Construction or Professional Practice.

Further particulars may be obtained from the Head of the School of Architecture, Kensington, New South Wales, Australia.

Successful applicant will be eligible, subject to medical examination, to contribute to the State Superannuation Fund for a pension of £A1,274 per annum. Professors are eligible for six months' study leave on full salary after three years of service or twelve months after six years of service. Subject to the consent of the University Council, a limited amount of higher consultative practice is permitted. The University reserves the right to fill the position by invitation. Shipping fares to Sydney of appointee and family will be paid.

Five copies of applications (including the names of two referees) should be lodged with the Agent General for New South Wales, 56/57, Strand, London, W.C.2, and a copy forwarded by air-mail to the Bursar, New South Wales University of Technology, Post Office Box 1, Kensington, New South Wales, Australia, in an envelope marked "University Appointment," not later than the 31st October, 1956. 3255

**URBAN DISTRICT COUNCIL OF EAST BARNET**

Applications are invited for the following permanent appointments:—

(a) SENIOR ASSISTANT ENGINEER, Grade A.P.T. IV (£710 to £885 per annum).

(b) ARCHITECTURAL ASSISTANT, Grade A.P.T. II (£595 to £675 per annum).

(c) ENGINEERING ASSISTANT, Grade A.P.T. I (£530 to £610 per annum).

All salaries will be increased by London weighting of £20 or £30 per annum according to age. Housing accommodation will be provided for appointment (a) if necessary.

Conditions of appointment and forms of application, returnable by the 8th October, 1956, may be obtained from the Engineer and Surveyor, Town Hall, Station Road, New Barnet, Hertfordshire. 3227

**BOROUGH OF EALING, TOWN PLANNING ASSISTANT, A.P.T. III (£640-£765 per annum, plus London Weighting),** required for development control. Full particulars and application form from Borough Surveyor, Town Hall, Ealing, W.5. Closing date 8th October, 1956.

E. J. COPE-BROWN,

Town Clerk.

**ANGLESEY COUNTY COUNCIL**  
**COUNTY ARCHITECT'S DEPARTMENT**

Applications are invited for the following post:—

**ASSISTANT ARCHITECT,**

Grade A.P.T. III (£625 to £725).

The post is superannuable, and candidates will be required to undergo a medical examination. Further particulars may be obtained from the County Architect, Shire Hall, Llangefni, Anglesey.

Applications, giving names and addresses of two referees, to be forwarded to the Clerk of the County Council, Shire Hall, Llangefni, by 15th October, 1956. 4001

**CUMBERLAND COUNTY COUNCIL**  
**APPOINTMENT OF PLANNING ASSISTANT**

Applications are invited for the appointment of Planning Assistant, to which the National Conditions of Service will apply. Salary within Grade A.P.T. II of the National Scales (£595-£675 per annum).

Forms of application and further particulars concerning duties can be obtained from Kenneth Steen, M.T.P.I., A.R.I.B.A., M.I.Mun.E., County Planning Officer, 1, Alfred Street North, Carlisle. Closing date for applications: 6th October, 1956.

G. N. C. SWIFT,

Clerk of the County Council.

The Courts, Carlisle. 3271

**CAERNARVONSHIRE COUNTY COUNCIL**

Applications invited for the post of PLANNING ASSISTANT in the County Planning Department. Grades A.P.T. II/III. Preference to candidates with Planning Research and Surveying experience. Further particulars from Clerk of County Council, Caernarvon. Closing date: 16th October. 3270

**CITY OF STOKE-ON-TRENT**

Vacancies for QUANTITY SURVEYORS on the permanent staff on Grades A.P.T. IV (£710-£885) and A.P.T. III (£640-£765), capable of taking off and/or settlement of accounts. Previous Local Government service not essential.

HOUSING ACCOMMODATION can be made available to suitable applicants.

Applications, stating date of birth, details of qualifications, training and experience, present post and salary, to J. R. Pigott, T.D., F.R.I.B.A., City Architect, Kingsway, Stoke-on-Trent, by Friday, 5th October, 1956.

HARRY TAYLOR,

Town Clerk.

**URBAN DISTRICT OF FELTHAM**  
**ARCHITECTURAL ASSISTANT**

Applications are invited for the appointment of an Architectural Assistant on the Council's unestablished staff at a salary within the National Scales, according to qualifications and experience, up to the maximum of Grade A.P.T. IV (£885 per annum), plus London "weighting."

Forms of application, obtainable from the undersigned, must be returned accompanied by copies of two testimonials, not later than 6th October, 1956. Canvassing directly or indirectly will disqualify and applicants must disclose, in writing, whether to their knowledge they are related to any member of or the holder of any senior office under the Council.

M. W. COUPE,

Clerk of the Council.

Council Offices,  
Feltham, Middlesex. 3260

**HERTFORDSHIRE COUNTY COUNCIL,**  
**County Architect's Department.** Applications are invited for the appointment of ASSISTANT ARCHITECTS on salary grades: Special Class (£690-£840), Grade V (£795-£970), and Grade VI (£880-£1,030). Commencing salary to be fixed in accordance with qualifications and experience.

Previous Local Government experience not essential.

Applicants must give detailed particulars of experience, qualifications, etc., and state clearly which Grade they wish to be considered for.

Applications, with names of two referees, to County Architect, County Hall, Hertford, Herts., not later than 8th October, 1956. 3285

**HAMPSHIRE**

Applications are invited for the post of Planning Assistant in the County Planning Department Headquarters Office, Winchester, on Grade II of the National Scales (£595-£675).

Candidates should preferably have passed the Intermediate examination of the Town Planning Institute or of a related professional body, and have had experience in the Planning Department of a Local Planning Authority. The appointment is pensionable, and will be subject to a satisfactory medical report. In approved cases, the County Council assist newly appointed staff to meet removal and other expenses.

Applications, stating age, education, qualifications and experience, with a copy of one testimonial and the names of two referees, should reach the County Planning Officer, Litton Lodge, Clifton Road, Winchester, by the 20th October. 4011

**CITY OF WINCHESTER**

Applications are invited for the post of ARCHITECTURAL ASSISTANT in the City Engineer's office. It is essential that the applicant should be a neat and accurate draughtsman, and should have had previous experience in an Architect's office. Salary will be within Grade II of the National Scales, and the appointment is subject to the Local Government Superannuation Act.

Applications, stating age and details of experience, together with the names and addresses of two referees, should be addressed to the undersigned, and reach this office not later than Monday, 15th October, 1956. Canvassing, either directly or indirectly, will disqualify.

R. H. McCALL,

Town Clerk.

Guildhall, Winchester.  
21st September, 1956. 4010

**EAST RIDING OF YORKSHIRE COUNTY COUNCIL**

Applications are invited for the appointment of a CHIEF QUANTITY SURVEYOR on the permanent staff of the County Architect. The salary to be in accordance with Grade VI of the N.A.C. Scales (£880-£1,080).

Applicants should be Members of the Royal Institute of Chartered Surveyors and have had a wide experience in the preparation of estimates, specifications, bills of quantities, schedules, adjustment of final accounts and other work incidental to such an appointment, including the control of staff.

Applications, giving particulars of age, past and present appointments with salaries, details of experience, together with the names of three referees, should be sent to the County Architect, County Hall, Beverley, not later than Friday, 5th October, 1956.

THOMAS STEPHENSON,

Clerk of the Council.

**COUNTY BOROUGH OF DUDLEY**  
**QUANTITY SURVEYING ASSISTANT**

Applications are invited for the above appointment on salary Grade A.P.T. I (£530-£610).

Applicants should have had some experience in taking-off, abstracting and billing for small works.

Applications, stating age, qualifications and experience, and giving the names and addresses of two referees, to be received by me not later than Wednesday, 10th October, 1956.

P. D. WADSWORTH,

Town Clerk.

Council House, Dudley.  
19th September, 1956. 3997

**CITY OF BELFAST**

Applications are invited for the post of ARCHITECT, Class I, Housing Architect's Department.

Salary: £855-£1,100 per annum. The commencing salary will be fixed in the light of the qualifications, ability and experience of the person appointed. Superannuation contributions of approximately 6 per cent. of remuneration are payable. Reciprocal pension arrangements exist between the Corporation and other Public authorities.

Requirements: A.R.I.B.A. and experience in the design and planning of Housing Estates, particularly flats and ancillary buildings.

Canvassing will disqualify.

Application forms are obtainable from the Housing Architect, 94, Chichester Street, Belfast. Completed applications must reach the undersigned by 18th October.

JOHN DUNLOP,

Town Clerk.

City Hall, Belfast, P.O. Box 234.  
21st September, 1956. 4013

**Tenders Invited**

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

**DENBIGHSHIRE COUNTY COUNCIL**

PROPOSED TWO-FORM ENTRY SECONDARY MODERN SCHOOL AT ROSSETT, NEAR

**WREXHAM**

BUILDING CONTRACTORS, HEATING AND ELECTRICAL ENGINEERS, desirous of submitting a tender for all or any of the following works, viz.:—(a) ERECTION OF NEW TWO-FORM ENTRY SECONDARY MODERN SCHOOL (Traditional, Classrooms, Derwent timber construction), (b) NEW LOW PRESSURE HEATING AND DOMESTIC HOT WATER AND COLD

**WATER INSTALLATIONS, and (c) A COMPLETE NEW ELECTRICAL INSTALLATION** (Tenders to be based on (a) Plans and Bills of Quantities, (b) and (c) Plans and Specifications), are invited to forward their names, together with a deposit of £3 3s. (three guineas) in respect of each contract (returnable on receipt of a bona fide Tender), to the County Architect, Grove Park, Wrexham, not later than the 3rd day of October, 1956. Contractors are to indicate which of the Contracts they wish to tender for, and deposit cheques are to be made payable to the "Denbighshire Education Committee" and crossed "Midland Bank Ltd." The lowest or any tender will not necessarily be accepted nor will any allowance be made for estimates.

W. E. BUFTON,  
Clerk of the County Council.  
County Offices, Ruthin. 3268

### Architectural Appointments Vacant

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

**CROYDON.—ARCHITECTURAL ASSISTANT** required immediately for interesting and varied work. Inter./Final standard; capable of running small contracts.—Write age, experience, and salary required, to George Lowe & Partner, 4, High Street, Croydon, Surrey. 1951

**CLARY SCHREIBER AND ASSOCIATES, 7, Hobart Place, S.W.1**, have a vacancy for a qualified ARCHITECT, with some office experience. Salary £700-£750 p.a. Work includes contemporary shops and industrial buildings. 3246

**QUALIFIED ARCHITECT** for design in London office on interesting West African projects. Prospects of overseas tours. Salary by arrangement.—Apply Box 3240.

**BARTLETT & GRAY** require ASSISTANT ARCHITECTS and JUNIOR ASSISTANTS. Salary up to £650 per annum.—Castle Gate Chambers, Castle Gate, Nottingham. Telephone No. 53214/5. 3235

**ARCHITECTURAL ASSISTANTS** required, of Intermediate R.I.B.A. standard, for work on contemporary industrial buildings. Good salaries and plenty of opportunity for initiative. London office.—Write, giving details of salary, experience, to Box 3210.

**WORCESTER OFFICE.—Llewellyn Smith & Waters** invite applications from ASSISTANTS of R.I.B.A. Inter. standard, with 3 years' office experience. Preferably with experience of job supervision and specifications. Salary according to experience and ability.—Write 105, Brompton Road, London, S.W.7. 3199

**QUALIFIED ARCHITECTURAL ASSISTANT** required.—Write full particulars to T. Mitchell & Partners, 20, Bedford Square, W.C.1. 3219

**S. MORRISON AND PARTNERS** require ASSISTANTS, of ability and initiative, for interesting work in various parts of country. 5-day week. Inter./travel expenses paid.—103, Belper Road, Derby. 3225

**ARCHITECTURAL ASSISTANT** required for London Office. Varied and interesting work in connection with Industrial and Commercial schemes. The vacancy offers good opportunity for the right man. Applicants must be capable of preparing details with minimum supervision. Good draughtsmanship essential. 5-day week. Full particulars of experience to Box 3156.

**ARCHITECTURAL ASSISTANT** required in busy London office with varied practice. Good salary and prospects for suitable applicant. 5-day week. Write, giving particulars of age, qualifications, experience, etc., to Box 775, c/o 7, Copple Street, W.C.1. 3213

**CO-OPERATIVE WHOLESALE SOCIETY LTD. ARCHITECT'S DEPARTMENT, MANCHESTER** SHOPFITTING DRAUGHTSMAN required, experienced in shop equipment and modernisation of interiors.

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

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

Applications giving age, details of previous experience and salary required to G. S. Hay, A.R.I.B.A., Chief Architect, Co-operative Wholesale Society, Ltd., 1, Balloon Street, Manchester 4. 3056

**SMALL** West London office, with varied practice, urgently requires ASSISTANT of 2 years' minimum office experience.—Details and salary required to Pollen & Jebb, 8, Pembroke Square, W.8. Tel. No.: WES. 4974. 3096

**VACANCIES** occur for two ARCHITECTURAL ASSISTANTS (Intermediate R.I.B.A. standard) in Architect's Department of multiple shop Company, with offices in West London. 5-day week, staff dining room and pension scheme. Applicants should state salary required, experience and age. Box 3137.

**POST-INTERMEDIATE ASSISTANT** required, in large London Office with widely varied practice. Lewis Solomon, Son & Joseph, 21, Bloomsbury Way, London, W.C.1. Telephone HO 7082. 3152

**CONSTRUCTION DEPARTMENT** of a large multiple retail concern with offices in London require—

**JUNIOR ESTIMATOR** There is a Pension Scheme and a five-day week in operation. Applicants should write giving full particulars of age, experience and salary required. Box 3135.

**ARCHITECTURAL ASSISTANT** required, Final Standard, for variety of work in connection with exhibition and ancillary buildings. Good salary and working conditions. Write, in first instance, giving details of age, training and experience, if any, to Staff Architect, Olympia Limited, Kensington, W.14. 3150

**ARCHITECTURAL ASSISTANT**, experienced, required for private practice in Dunfermline, salary up to £800 per annum, according to experience. Please state age, experience and when available. Box 6136, Robertson & Scott, 42, Charlotte Square, Edinburgh, 2. 3264

**ASSISTANT** required in West End office. Some 2 previous experience, and able to prepare working drawings from sketches under supervision. Write giving particulars and salary required. Box 3257.

**JUNIOR ARCHITECTURAL ASSISTANTS** required in busy office handling a wide variety of interesting work including commercial, domestic, school and brewery projects. Please apply stating experience and salary required to: Portess & Richardson, Lloyds Bank Chambers, Peterborough. 3258

**SENIOR AND JUNIOR ARCHITECTURAL ASSISTANTS** required immediately. Salaries according to experience. Bertram Butler & Company, Chartered Architects, 6, Tottenhall Road, Wolverhampton. 3252

**ARCHITECTURAL ASSISTANT** of intermediate standard required for London offices. Salary £550/£600. Permanent position with good prospects. Full details to Box 3259.

**SMALL** office just beginning requires ASSISTANT to bring intelligent solutions to old problems. Miller & Tritton, 33, Edith Grove, Chelsea, S.W.10. Tel. FLAXman 4314. 3277

**CITY ARCHITECTS' OFFICE** require experienced ASSISTANT with contemporary outlook. Commencing salary £900 per annum; congenial office conditions. Box 3279.

**ARCHITECTURAL ASSISTANTS** urgently wanted for West Indies office, responsible position for senior appointment. Write details, experience, salary required, etc. Box 3278.

**ARCHITECT'S ASSISTANTS** required of Intermediate to Final standard for work at Chelmsford office. Apply in writing, stating age, experience and salary required, to E. R. Collister & Associates, Springfield Place, Springfield Green, Chelmsford. 3281

**ARCHITECTURAL ASSISTANT** required, Intermediate or Final standard, for office with varied contracts. State particulars, salary required, etc., to Gutteridge & Gutteridge, 45, Westwood Road, Southampton. 3293

**FURTHER** vacancies now exist in the Architectural Section of this Company, and applications are invited for the following posts:—

(a) **ARCHITECTURAL ASSISTANTS**. Full details of training and experience, together with an indication of the salary required, to: Unity Structures Ltd., 35 Tavistock Square, London, W.C.1. 3294

**SENIOR ASSISTANT** (age 39, 16 years comprehensive experience, neat, accurate, quick draughtsman (taking Special Final), seeks engagement with busy firm or company in the London area. Can commence immediately. Salary £1,100 per annum. E. McKeown, 30, Castlenau, Barnes, London, S.W.13. 3996

**ARCHITECTURAL ASSISTANT or QUALIFIED DRAUGHTSMAN** required. Capable of carrying out working and detailed drawings for industrial projects. Applications should be made, giving full particulars & experience, to Messrs. Percy Bilton Ltd., (Ref. Factories), Bilton House, 113, Park Street, W.1. 3290

**ARCHITECTURAL ASSISTANTS** required, approaching or at Intermediate stage. Up to £550 p.a. D. Plaskett Marshall, F.R.I.B.A., 59, Gordon Square, W.C.1. MUS 7176/7. 3289

**RAMSEY, MURRAY, WHITE & WARD** require an ASSISTANT ARCHITECT with minimum two years' experience after qualifying. Apply 32, Wigmore Street, London, W.1, or telephone Welbeck 0681 3282

**TREHEARNE & NORMAN, PRESTON & PARTNERS** have vacancies for SENIOR and JUNIOR ASSISTANTS. Salaries according to experience and qualifications. Apply: 85, Kingsway, W.C.2 (HOL 4071). 3028

**ARCHITECTURAL ASSISTANT.** Excellent prospects in busy department of large engineering firm are offered to a young man of intermediate standard. Salary from £550 per year according to experience. Five-day week, non-contributory pension scheme, bonus, canteen and plenty of sports and welfare facilities. Full particulars to the Personnel Manager, George Ellison Ltd., Perry Barr, Birmingham. 3272

**ARCHITECT or ARCHITECTURAL ASSISTANT** with experience and ability required by busy firm of Architects, Surveyors and Valuers in Manchester area. Apply with full particulars including salary required to Box 3273.

**ARCHITECTURAL ASSISTANT, Intermediate** standard, required in small busy office for varied contemporary work on shops, flats, factories, etc. Salary range £500 to £700. 5-day week and luncheon vouchers. Apply with particulars of age, experience and salary required to Hooper, Belfrage & Gray, F.R.I.B.A., Donington House, Norfolk Street, W.C.2. 3267

**ARCHITECTURAL DRAUGHTSMAN** required by Company specialising in all types of permanent timber buildings and constructional woodwork generally, both for home and overseas. Good salary and excellent prospects for man with planning and designing ability and capable of working on own initiative. Pension Scheme in operation. Write giving full details of age, experience, qualifications, etc., Medway Buildings & Supplies, Ltd., Phoenix Wharf, Rochester, Kent. 3266

**ARCHITECT'S ASSISTANT** of about R.I.B.A. Intermediate Standard required in Architect's Department in City. Should be quick, accurate draughtsman and used to good class work. Write stating age, experience and salary required. Box 4012.

**RONALD FIELDING, A.R.I.B.A.**, requires SENIOR AND JUNIOR ASSISTANTS. Please apply with details of experience, age and salary required to Aldwych House, London, W.C.2. Chancery 3532/3. 4008

**MAJOR Petroleum Company** requires for its London office an ARCHITECTURAL ASSISTANT for work on varied commercial projects. Applicants must be of Intermediate R.I.B.A. standard, with sound knowledge of construction and have had a minimum of five years' private office experience. Salary according to experience. Position will be permanent and pensionable. Excellent working conditions, staff restaurant, sports club, etc.—Apply in writing, giving full details of age, qualifications and experience, to Box 4009. Replies can only be sent to those selected for interview. 4009

### Architectural Appointments Wanted

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

**A.R.I.B.A. (37)**, capable contract control, experienced in running large contracts home and overseas, but appreciative of small general practice, requires Executive or Branch Management post where capacity for work appreciated. Appointment leading to early Partnership for which capital is available particularly desired. Car owner. Available immediately.—Box 3244.

**ARCHITECT AND SURVEYOR** (aged 40), selling own practice, seeks responsible position abroad. Married, two children. 24 years' architectural experience. Preference Government service.—Box 3201.

**SENIOR ASSISTANT (A.R.I.B.A.)** requires position with prospects in London area. Ten years' experience with architects in London area. Capable of running jobs, including drawings, consents, site supervision, and final accounts. Age 36. Salary required £1,100 per annum.—Box 3212.

**ARCHITECTURAL DRAUGHTSMAN** would like spare-time work London. Experienced. 30 years commercial, industrial, hospital, local government work.—Box 4000.

**A.R.I.B.A., A.M.T.P.I.**, 25 years' London experience seeks responsible post or partnership in London area. Write 273, Shirland Road, W.9, or phone Ladbroke 1886. 4008

**LADY ASSISTANT, Final R.I.B.A. standard**, three years' experience in housing and offices, seeks employment in London area. Box 4007.

**IF** any progressive London practice wants a good ASSISTANT with 7 years' Midland and 2 years' South Coast experience, used to handling jobs completely, and are prepared to pay £65-£75 monthly, please write Box 4006.

**THIRD-YEAR Day Student** invites commissions for perspectives, models, tracings, small schemes, etc. Excellent artist and craftsman. Business conducted during normal hours. Box 4005.

**ARCHITECT (F.)** with over 20 years' wide experience, academically trained in both classical and contemporary design (5 years studio lecturer on design), own practice temporarily dormant but willing to merge potential contracts, seeks partnership or position with prospects thereof with London Brighton or S.C. firm of standing. Box 3274.

### Other Appointments Vacant

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**CREATIVE DESIGNER/DRAUGHTSMAN** required, with experience in shop-front, exhibition and decor design work. Unique opportunity and wide scope for artist with original ideas. Apply Decorama Ltd., 10, Byron Road, Wealdstone, Tel.: Harrow 1003. 3256

### Competition

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

#### CITY OF CARLISLE

**A TWO STAGE COMPETITION**  
The Corporation of the City and County Borough of Carlisle invite architects registered under the Architects (Registration) Acts and resident in Great Britain, Northern Ireland or the Republic of Ireland to submit in competition designs for a new Assembly Hall and Municipal Offices to be erected in Carlisle. Assessor: Professor W. B. Edwards, M.A., B.A.R.C.H., M.T.P.I. (P). **PREMIUMS:**—

(a) Preliminary Stage. Six competitors will be selected to proceed to Final Stage. Each will receive the sum of £300. Last day for submitting designs, Friday, 31st January, 1957.

(b) Final Stage. The author of the design placed first will receive £1,000. Last day for submitting designs, 1st July, 1957.

Last day for questions, 27th October, 1956.

Conditions may be obtained from the Town Clerk, 15, Fisher Street, Carlisle, on or after 17th September, 1956. Deposit £2 2s. 6d.  
Applicants for the conditions must state their registration number or the number of the receipt issued to him by the Architects Registration Council in respect of the admission fee.

H. D. A. ROBERTSON.

Town Clerk.  
3112

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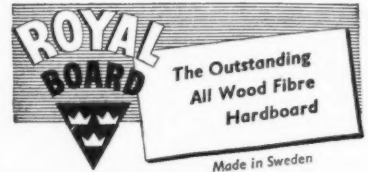
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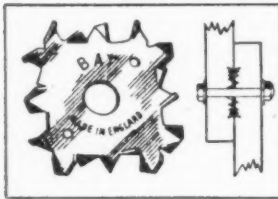
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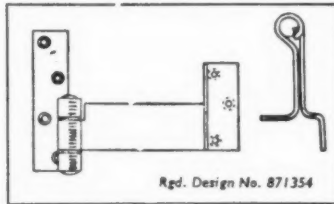
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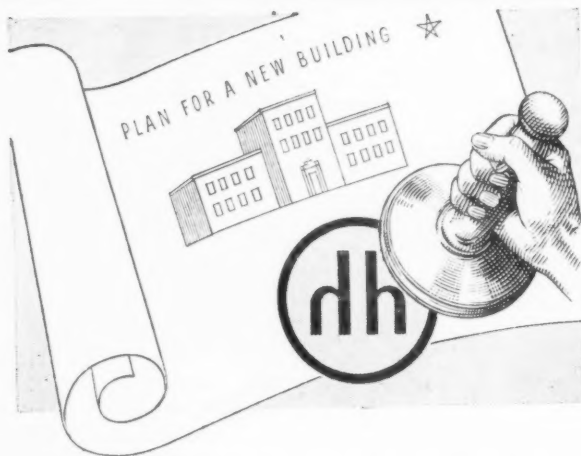
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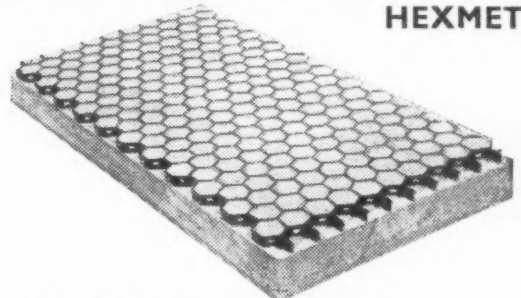
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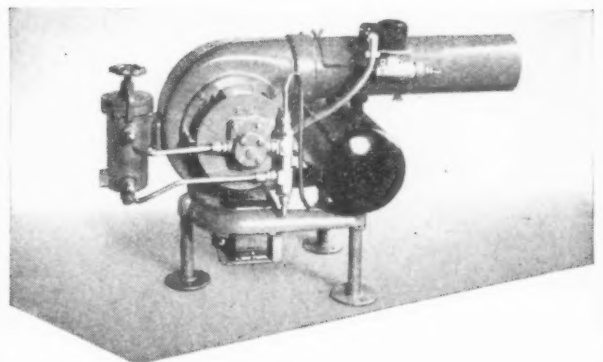
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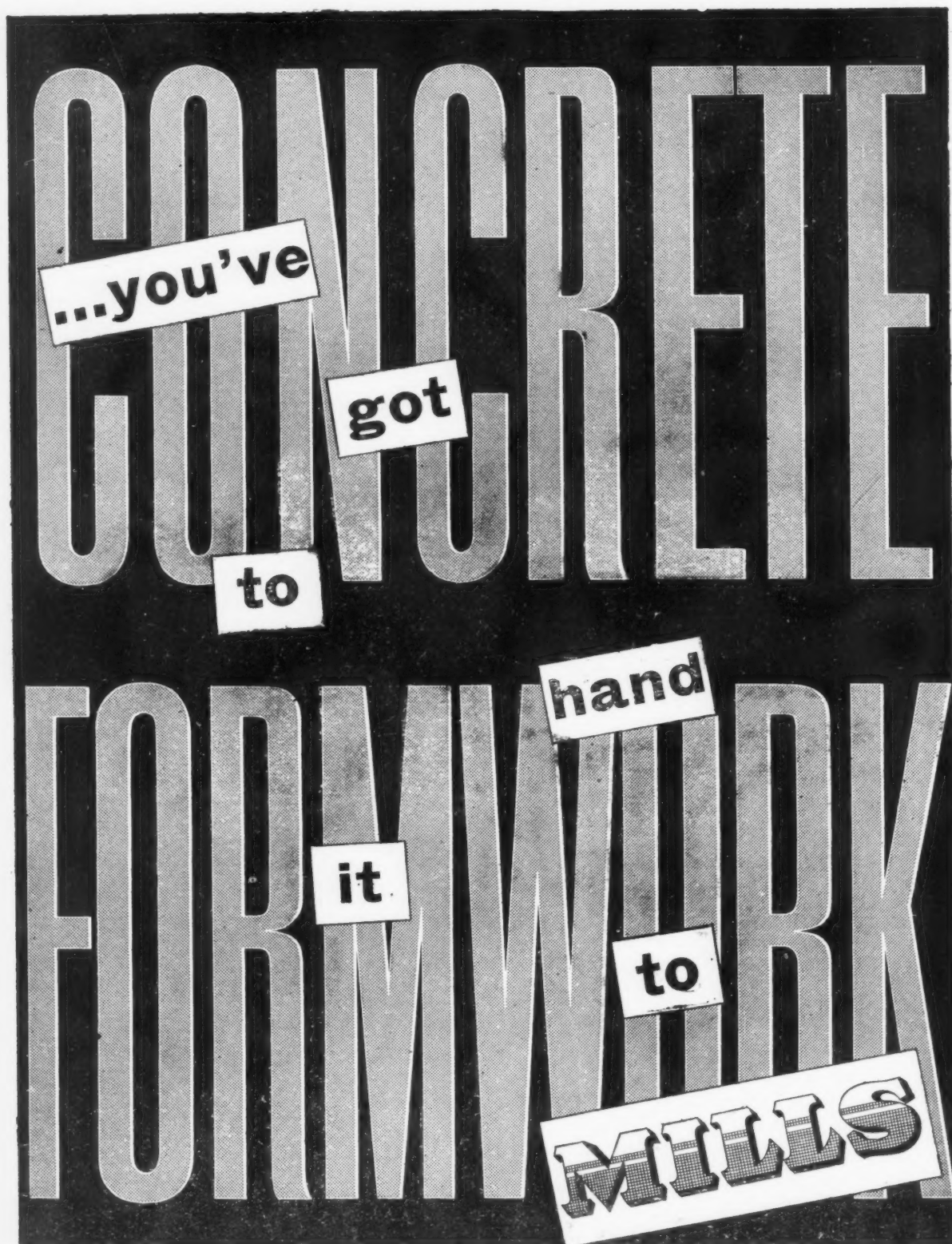
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