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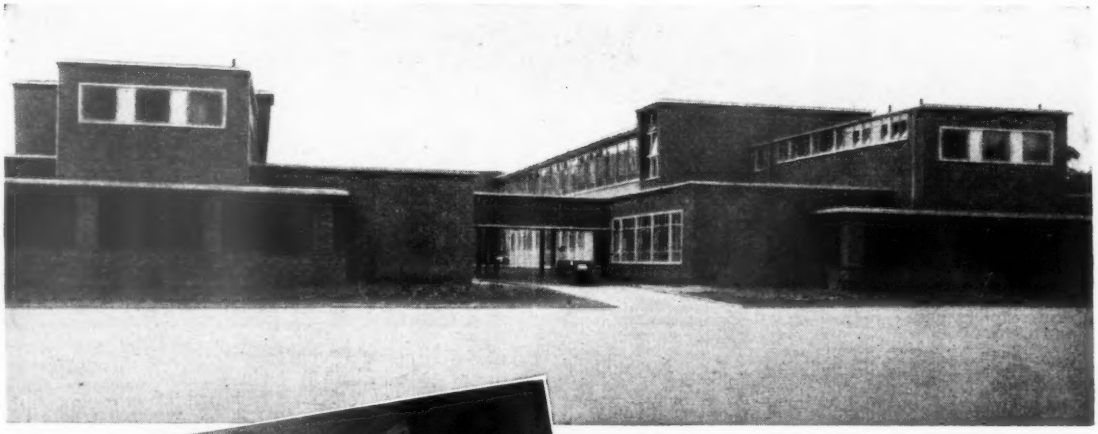
★ A glossary of abbreviations of Government Departments and Societies and Committees of all kinds, together with their full address and telephone numbers. The glossary is published in two parts—A to Ie one week, Ig to Z the next. In all cases where the town is not mentioned the word LONDON is implicit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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 5, Ashley Place, S.W.1.	Victoria 0447-8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
APRR	Association for Planning and Regional Reconstruction. 34, Gordon Square, W.C.1.	Euston 2158-9
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
AScW	Association of Scientific Workers. 15, Half Moon Street, Piccadilly, W.1.	Grosvenor 4761
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 17, Amherst Road, Ealing, W.13.	Perivale 6869
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BIAE	British Institute of Adult Education. 29, Tavistock Square, W.C.1.	Euston 5385
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Millbank, S.W.1.	Whitehall 5140
BRDB	British Rubber Development Board. Market Buildings, Mark Lane, E.C.3.	Mansion House 9383
BRS	Building Research Station. Bucknalls Lane, Watford.	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. 28, Victoria Street, S.W.1.	Abbey 3333
BTE	Building Trades Exhibition. 4, Vernon Place, W.C.1.	Holborn 8146/7
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 5491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. Tilbury House, Petty France, S.W.1.	Abbey 7080
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	Reliance 7611
DIA	Design and Industries Association. 13, Suffolk Street, S.W.1.	Whitehall 0540
DPT	Department of Overseas Trade. Horseguards Avenue, Whitehall, S.W.1	Trafalgar 8855
EJMA	English Joinery Manufacturers' Association (Incorporated). Sackville House, 40, Piccadilly, W.1.	Regent 4448
EPNS	English Place-Name Society. 7, Selwyn Gardens, Cambridge.	
FAS	Faculty of Architects and Surveyors. 8, Buckingham Palace Gdns, S.W.1.	Sloane 2837
FASSC	Federation of Association of Specialists and Sub-Contractors, 5, Arundel Street, Strand.	Temple Bar 6633
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd. Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4041
FS (Eng.)	Faculty of Surveyors of England. Buckingham Palace Gdns., S.W.1.	Sloane 2837
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 27, Grosvenor Place, S.W.1.	Sloane 2844
HC	Housing Centre. 13, Suffolk Street, Pall Mall, S.W.1.	Whitehall 2881
IAAS	Incorporated Association of Architects and Surveyors. 75, Eaton Place, S.W.1.	Sloane 5615
ICA	Institute of Contemporary Arts. 17-18, Dover Street, Piccadilly, W.1.	Grosvenor 6186
ICE	Institution of Civil Engineers. Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215

D



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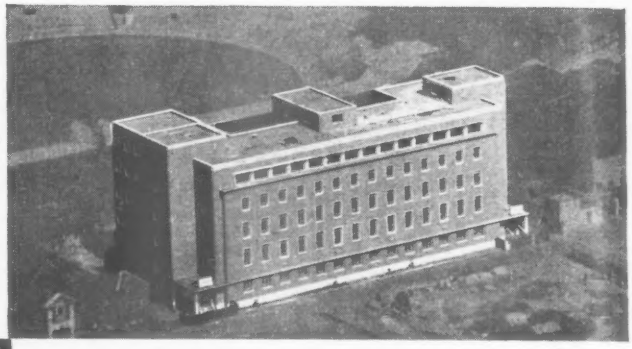

The Telephone Exchange, Cardiff.
Architects : The Ministry of Works.
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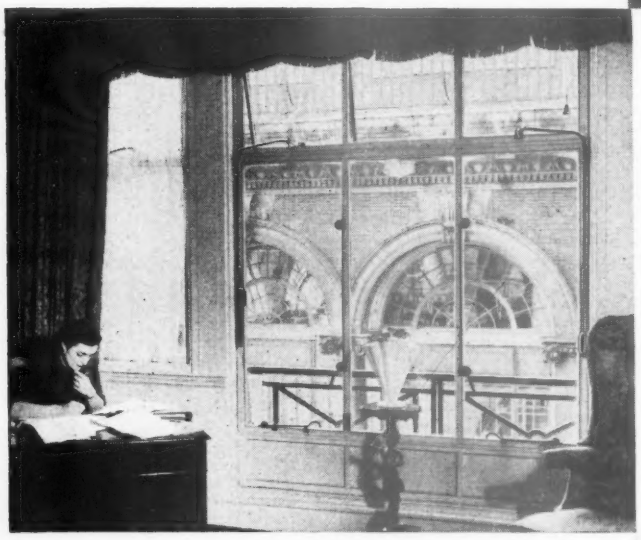

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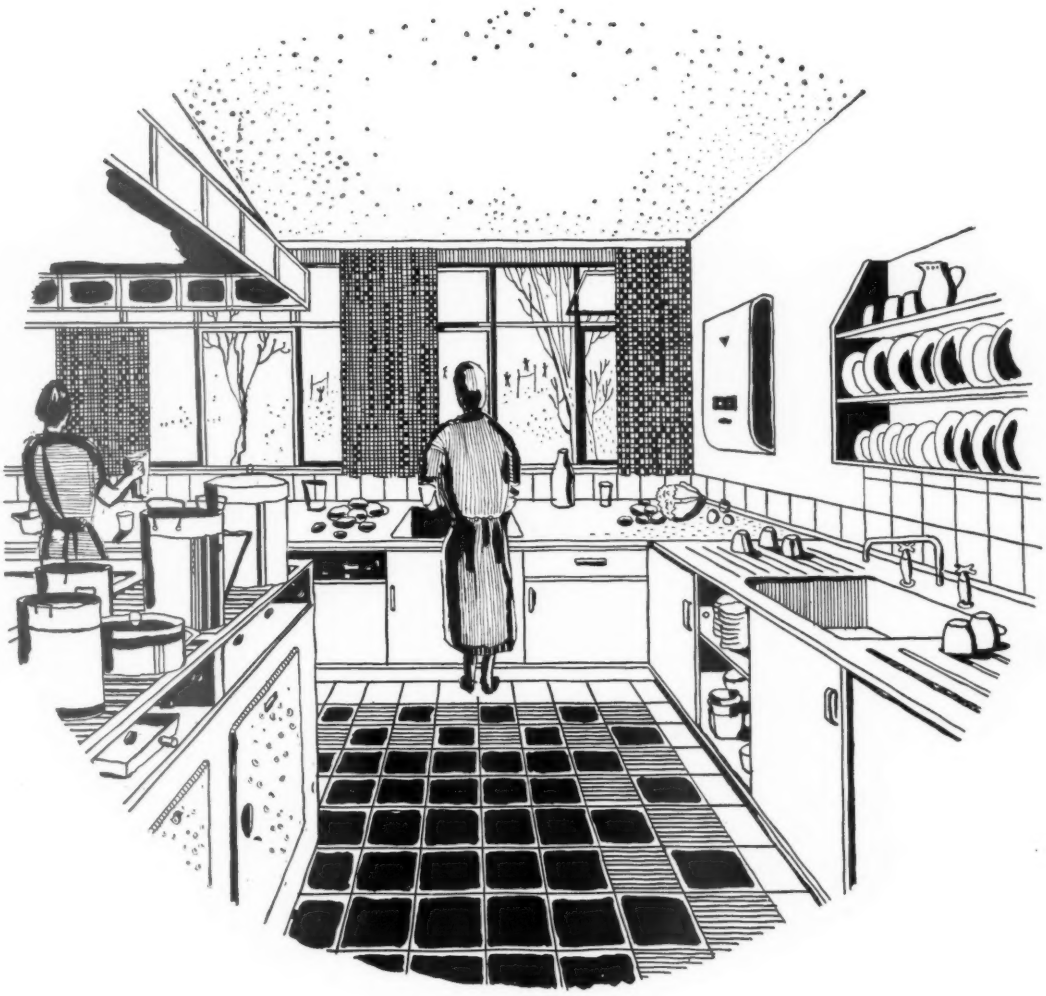

GAS IN THE SCHOOL

The problems involved in providing space heating, hot water and cooking facilities for schools are more complex than is usual in other types of building. The bulk of the rooms may be unoccupied during holidays and out of school hours, yet individual rooms or perhaps an assembly hall may be required to be warmed for a particular occasion. The demands for hot water are so various and variable that sometimes they cannot be met economically by one water heating installation; a number of independent heaters may be necessary. The school meals service has turned cooking into a major operation in almost all new schools, as well as in a great many existing ones. The problem, here, has become one of large-scale kitchen planning. Advice on these and related problems is freely available through your local Gas Undertaking.

Focus on Floors

In selecting floor surfacings for schools — whether for classrooms, corridors, washrooms or elsewhere — it is often difficult to get full information about the various materials. That this should be so is hardly surprising, for the factors affecting the performance of a floor finish are many and variable. It was largely to overcome this difficulty that the Semtex Flooring Service was brought into being. Briefly stated, the Service aims to make available for the solution of a given problem a knowledge of flooring questions more complete than could possibly come within the scope of even the most widely experienced architect or firm: to supply and install any of the floor finishes listed below: and, if desired, to maintain by contract in good condition any floor finish installed by the Company. If you are interested in such a Service, why not discuss your flooring with us? Semtex Floor Surfacings include: SEMASTIC DECORATIVE TILES · VINYL TILES DUNLOP RUBBER FLOORS · DESIGNED LINOLEUM · FLEXIMERS · CORK, CERAMIC AND TERRAZZO TILES.

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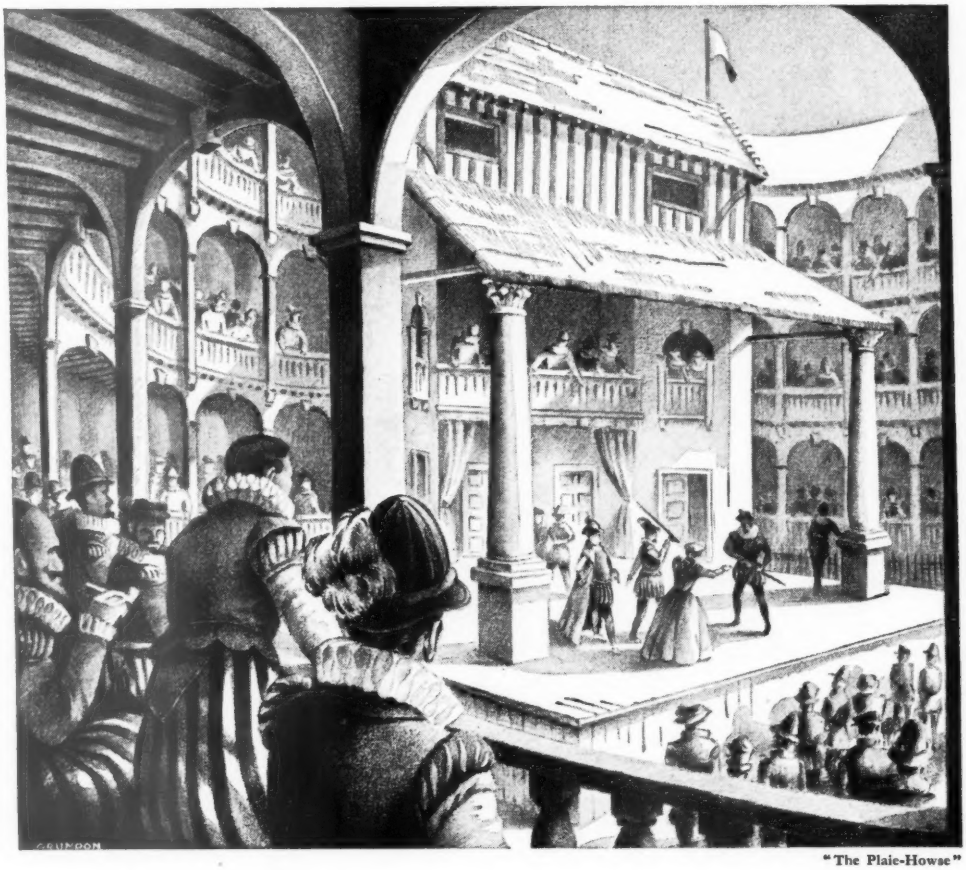

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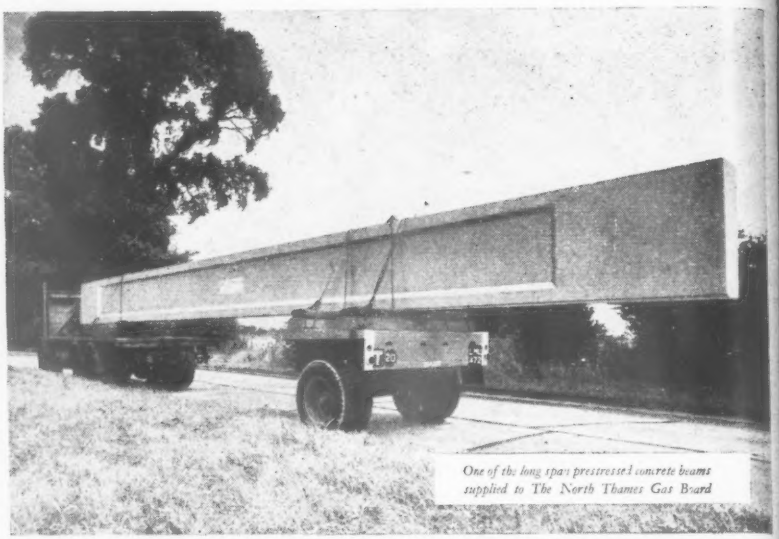

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INS AND OUTS! (No 2)

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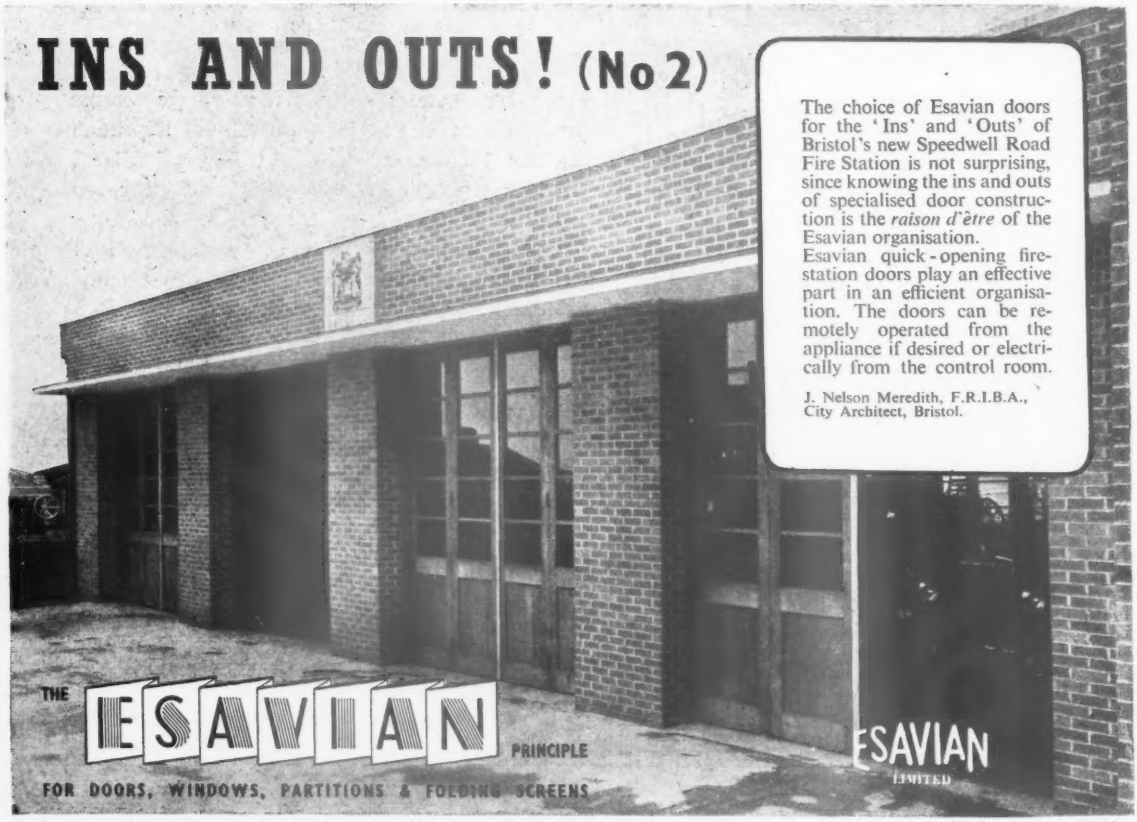

Esavian House, 181 High Holborn, London, W.C.1. Tel: HOL 9116. Esavian Works, Stevenage, Herts. Tel: Stevenage 500. 101 Wellington St., Glasgow, C.2. Tel: CEN 2369

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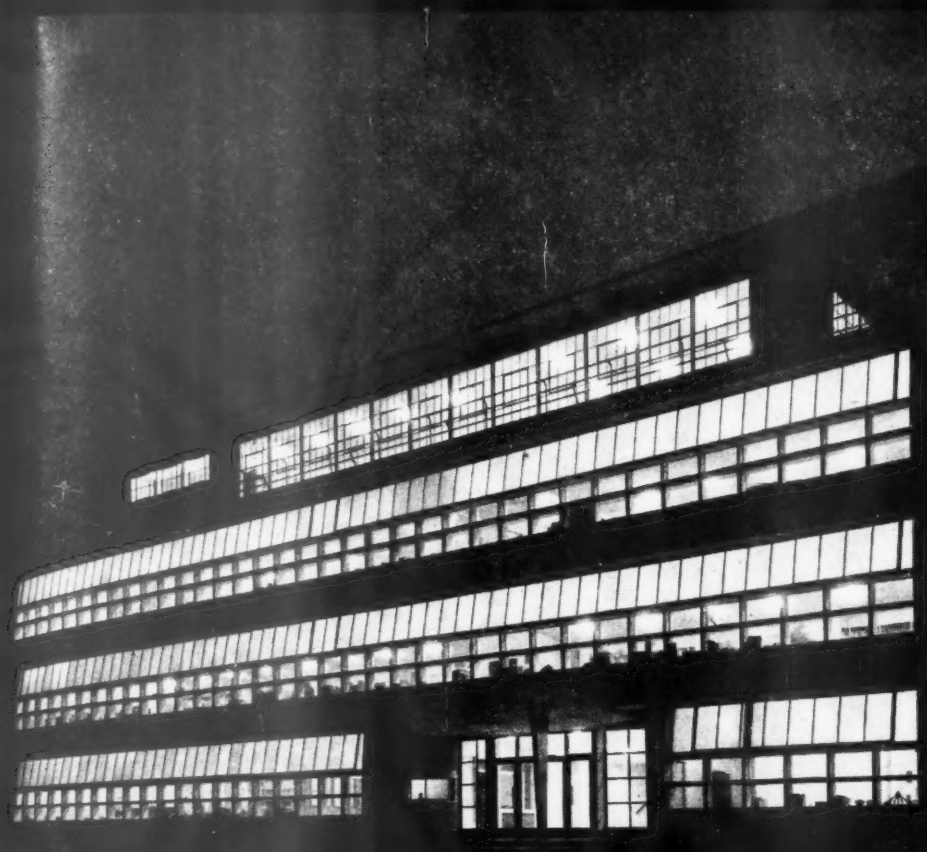

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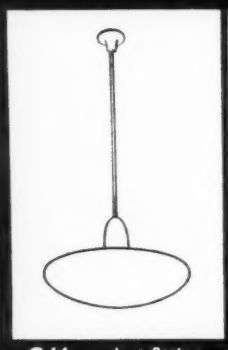
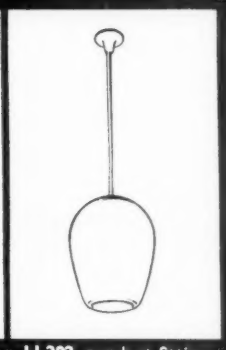
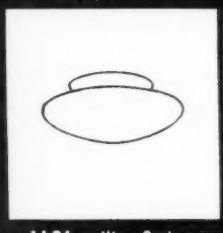


G.14. pendant fitting.
Lamp : 150 watts

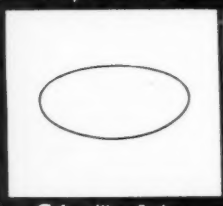


U.202. pendant fitting.
Lamp : 200 watts

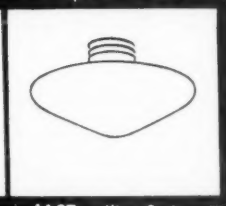


U.26. ceiling fitting.
Lamp : 100 watts

U.211. ceiling fitting.
Lamp : 200 watts



G.4. ceiling fitting.
Lamp : 2 x 75 watts



U.27. ceiling fitting.
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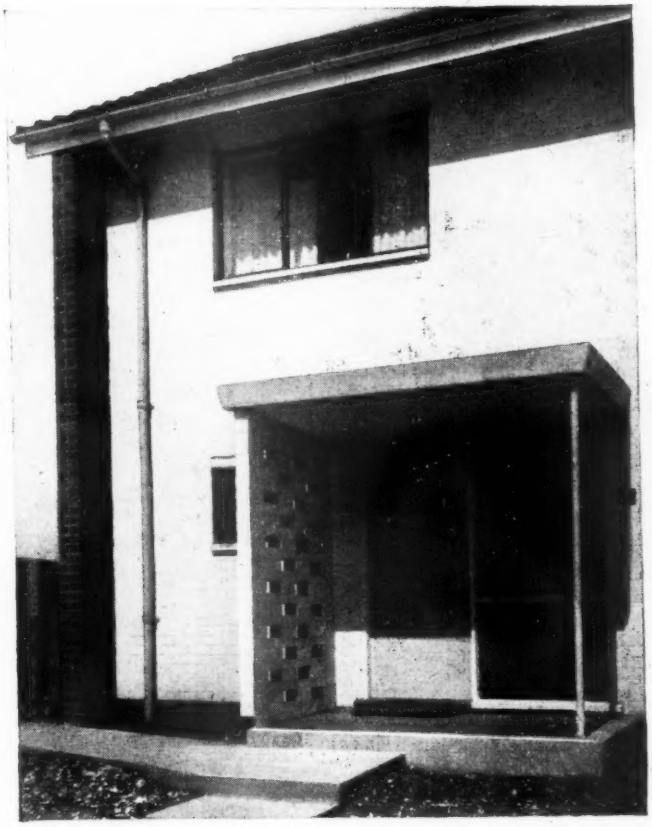
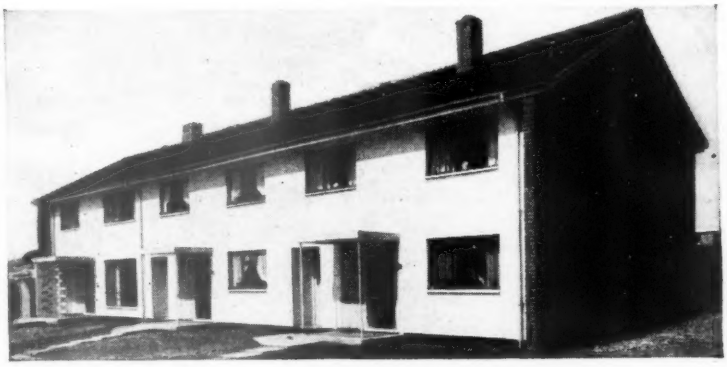


Architect : O. Carey, A.R.I.B.A. Contractors : William Sindall, Cambridge.



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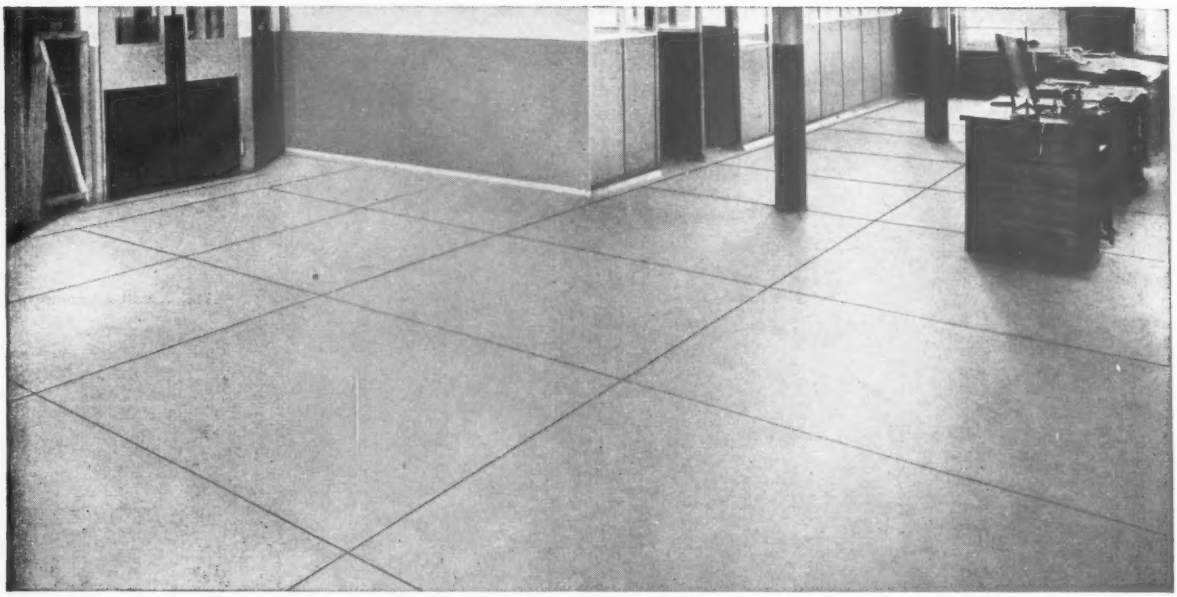

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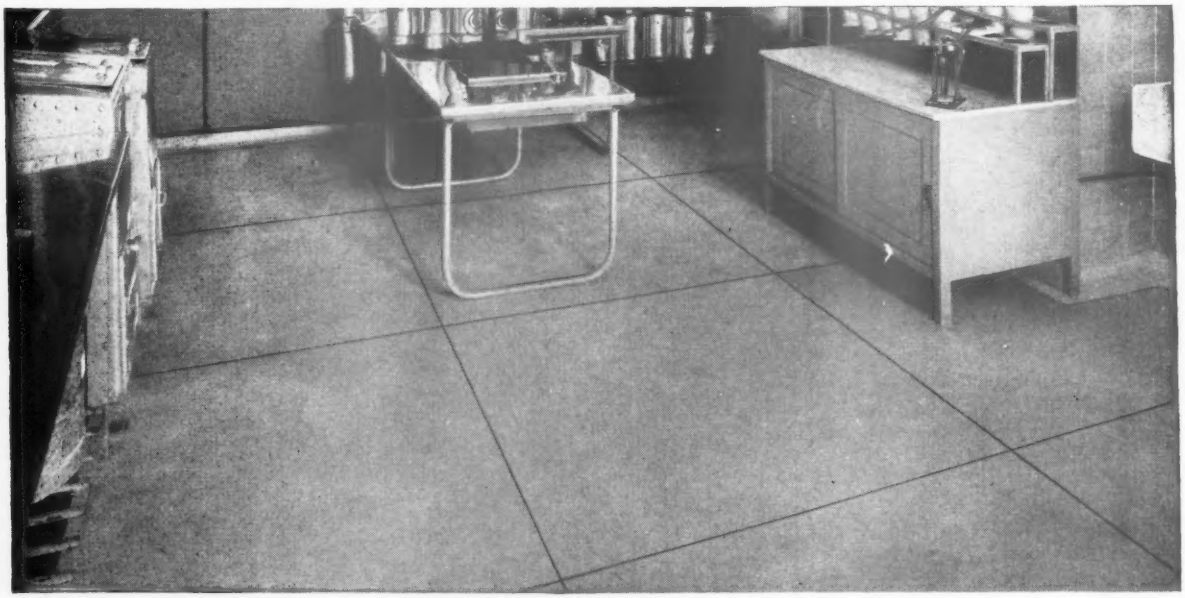

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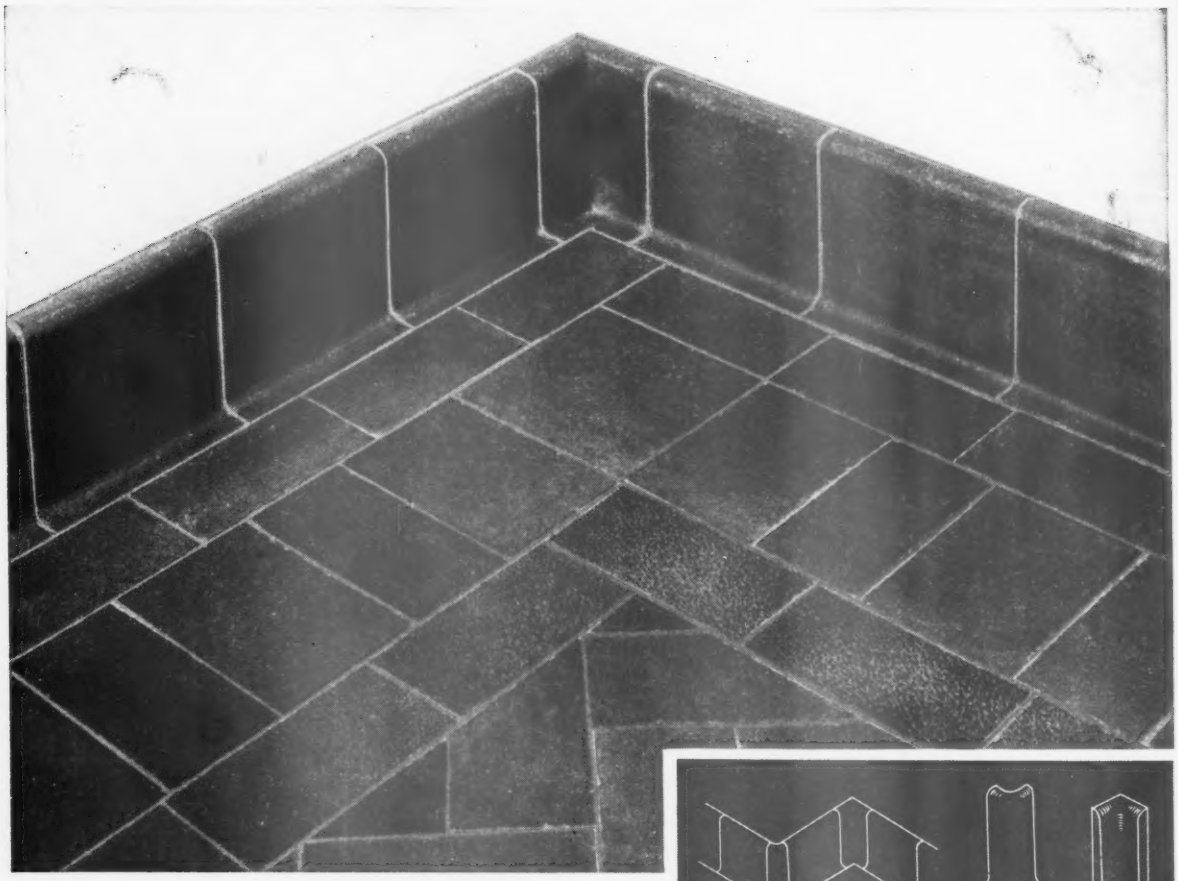

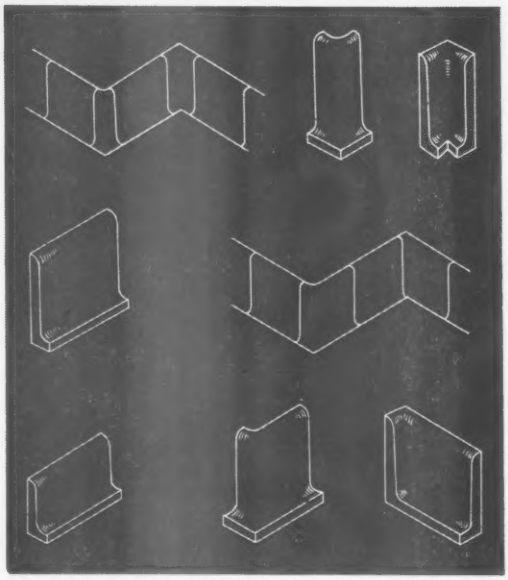

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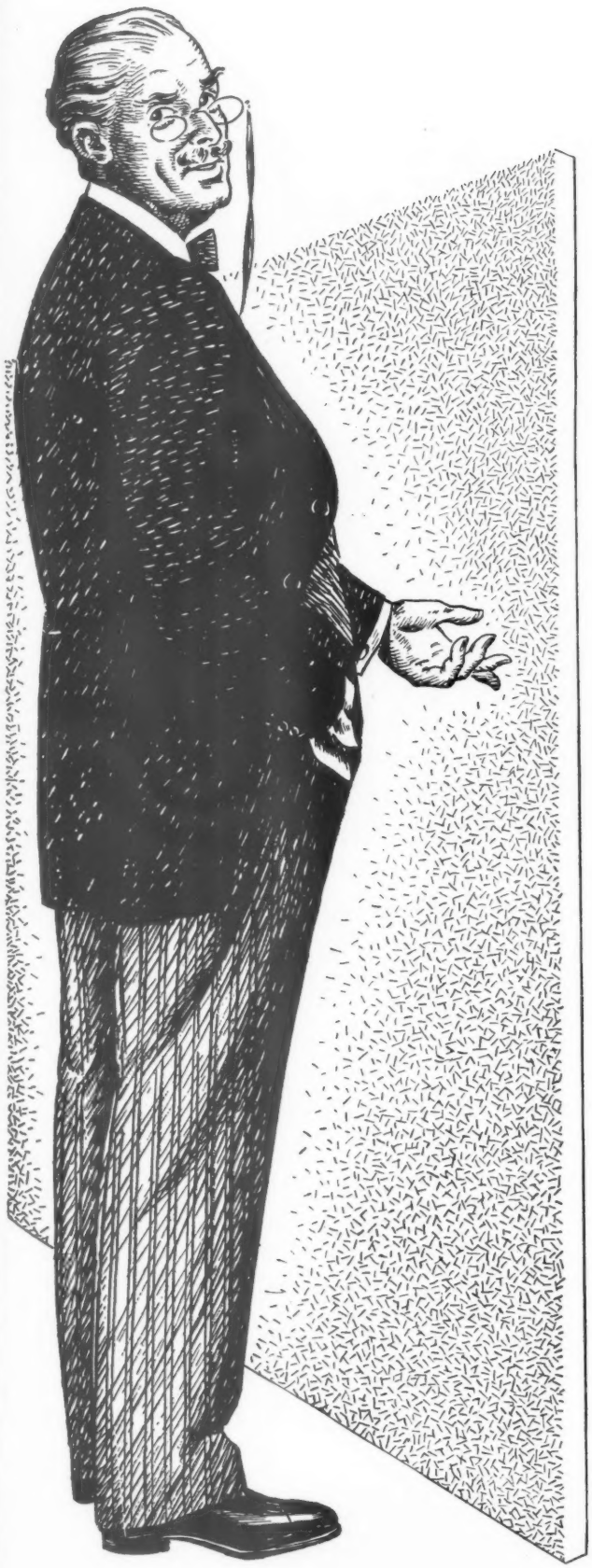

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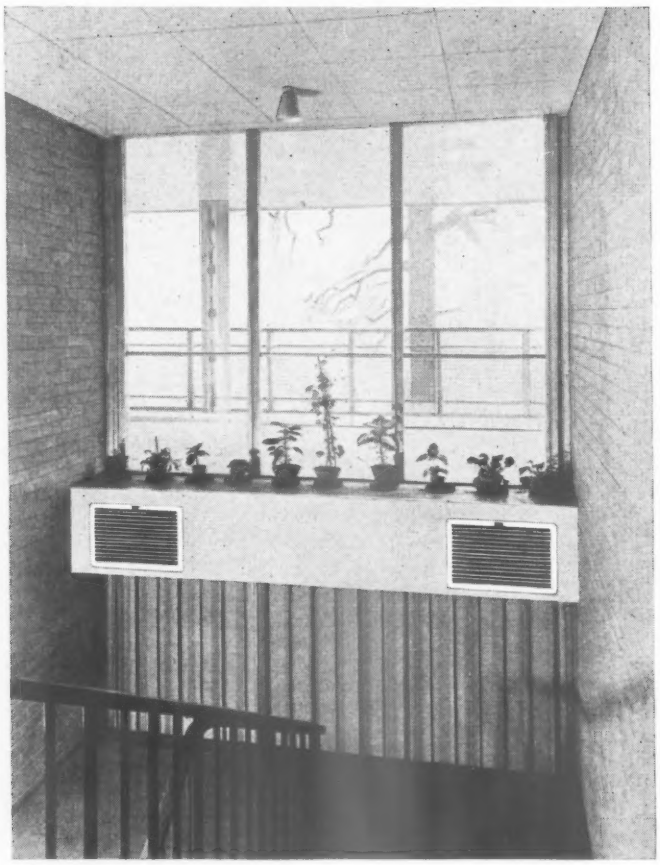

★ *The photograph shows* WEATHERFOIL *heating grilles in a stair unit at The Clarendon School, Oxhey.*
Architect: Mr. C. H. Aslin, F.R.I.B.A., County Architect

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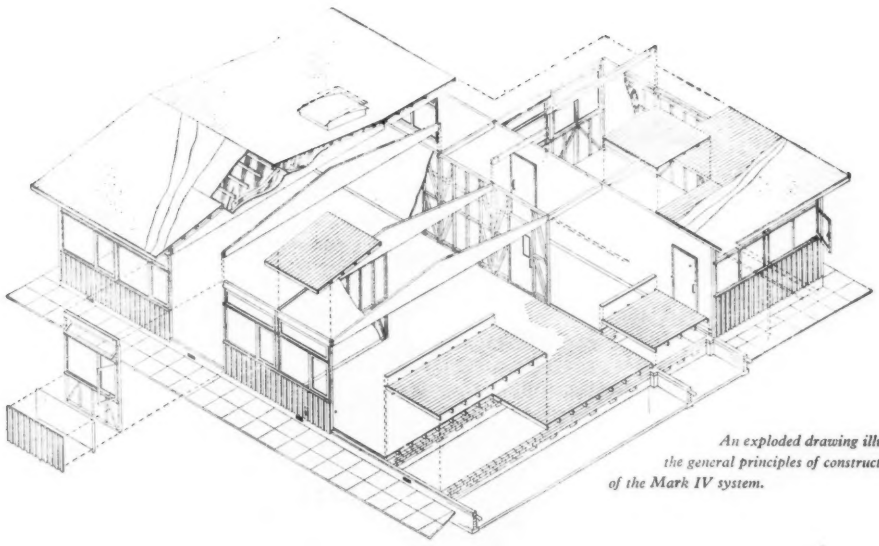
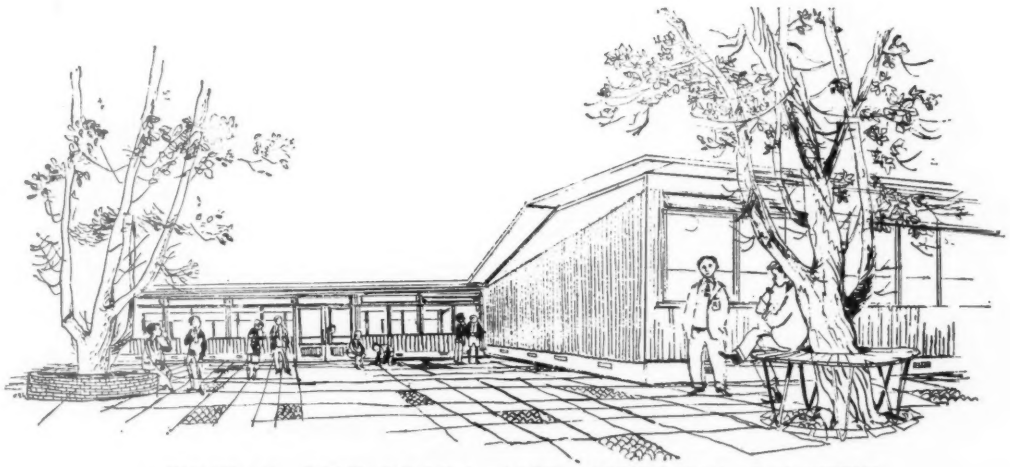
Medway School Buildings



An exploded drawing illustrating the general principles of construction of the Mark IV system.

Development Experience gained during post-war years in the design and construction of Medway School Buildings has led to the development of an improved system of permanent school construction. The Medway Mark IV design is announced in the knowledge that it will provide modern, attractive and efficient permanent schools at a cost appreciably lower than is possible by *any* other building method. ***Design*** The system is based on the use of wall, floor, roof and partition units prefabricated from imported softwood. Most attractive windows have been designed and curved 'Perspex' roof lights open to provide cross ventilation. There are flat roof areas as well as low pitched roofs carried on plywood boxed beams. The Mark IV system is extremely flexible and offers almost unlimited scope in planning to suit individual sites and particular requirements. ***Economy*** Despite the flexibility of the system and the improved standard of finish, the cost of a school building under the Mark IV system is much lower than other methods of permanent construction. The low cost has been achieved entirely by advanced designs and a better technique resulting in improved production methods and appreciably lower site-work expenditure. ***Service*** The Medway technical staff are freely available for consultation with Local Education Authorities during planning. Supply and erection of shell buildings can be undertaken anywhere in the United Kingdom.



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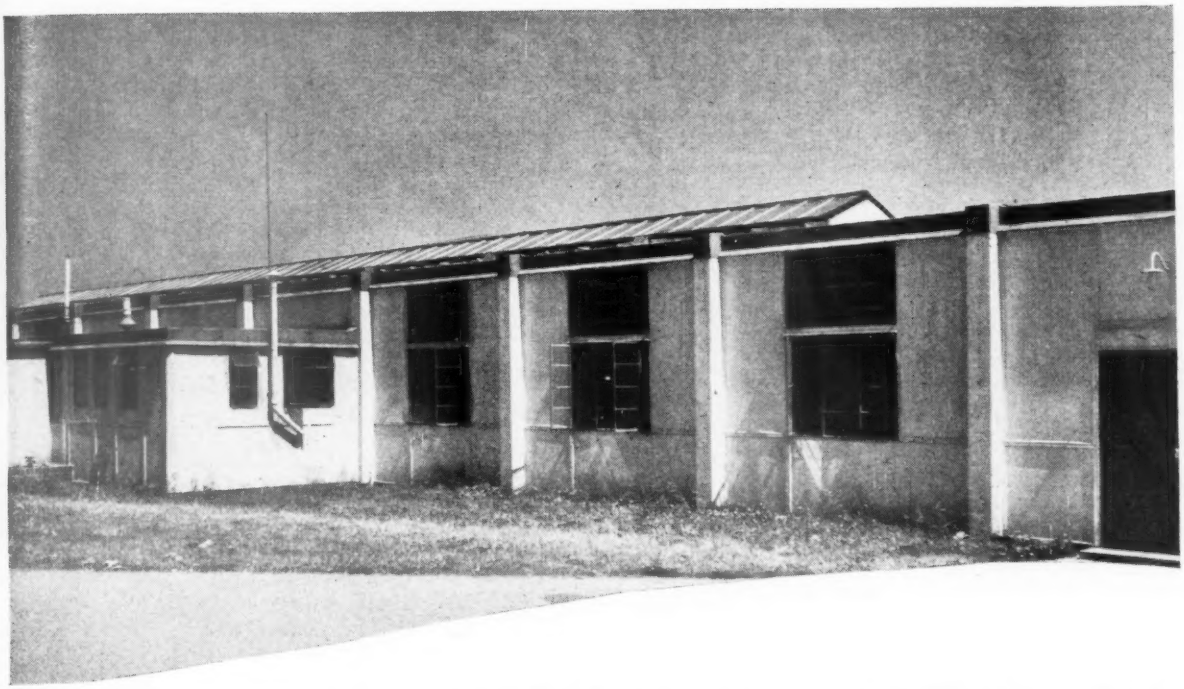

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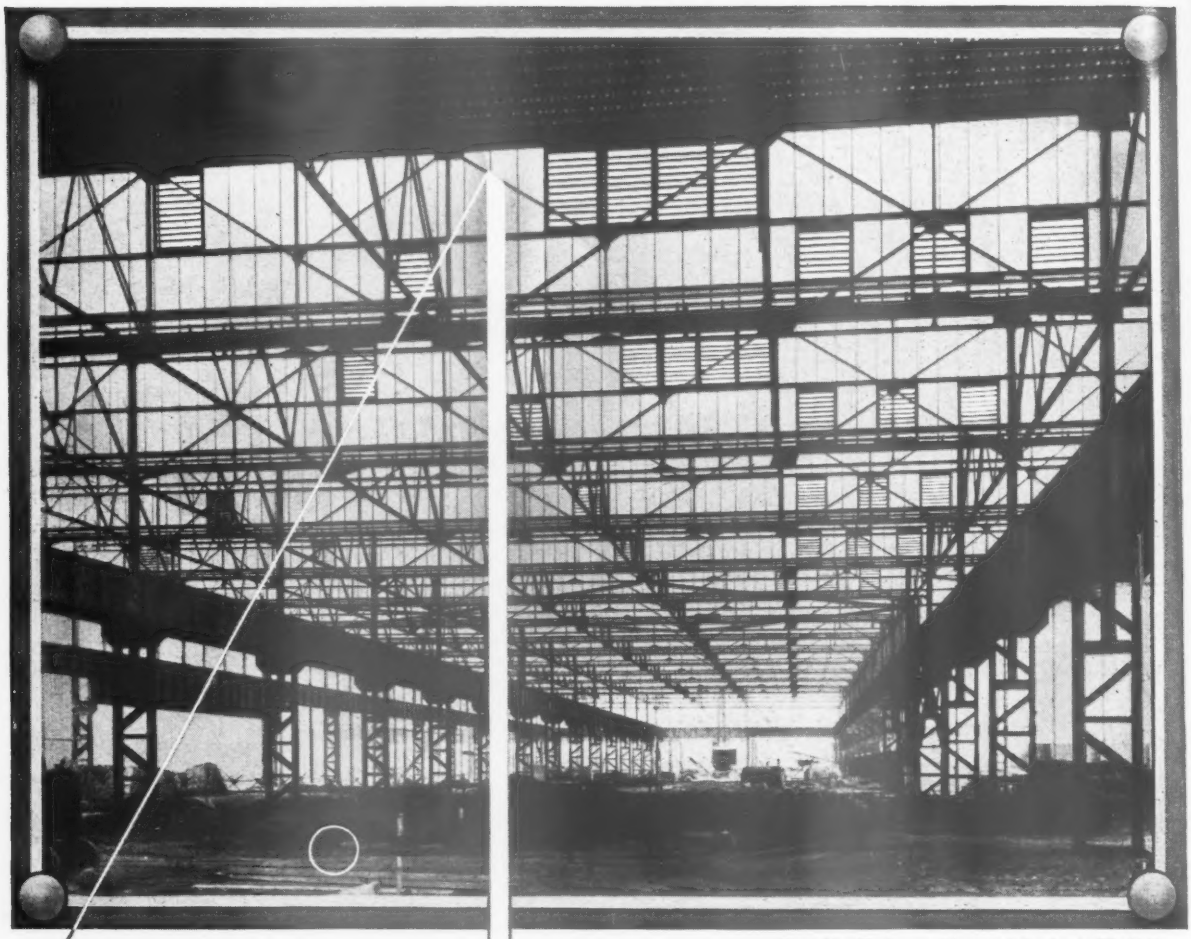

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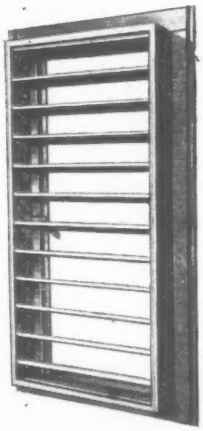

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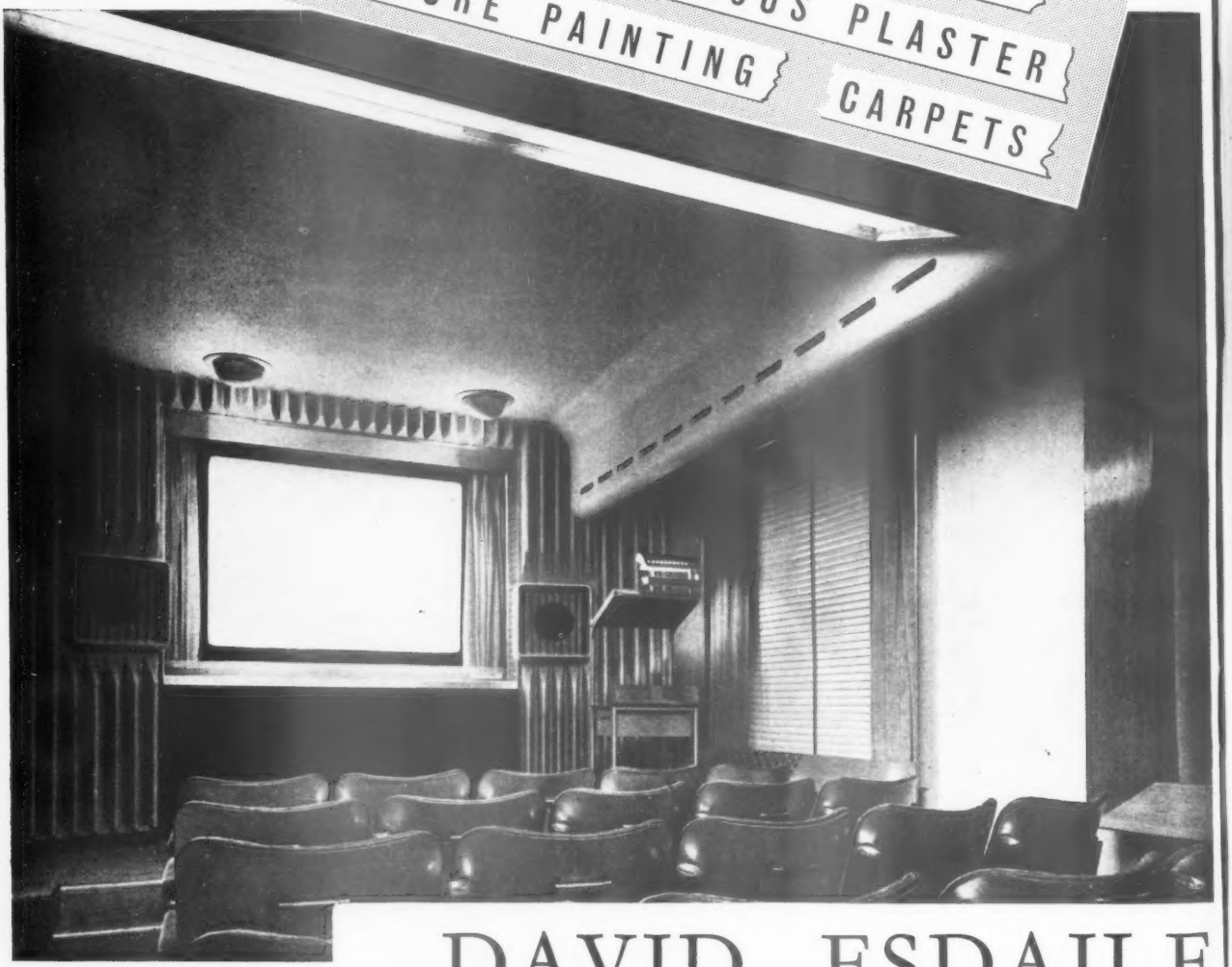

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THE ARCHITECTS' JOURNAL

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No. 3008 October 23, 1952 VOL 116

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ONE STEP NEARER HOME

There's many a slip . . . etc., but let us now hope that the teething troubles of the UNESCO project are over and building can take the place of arguing. If all goes smoothly henceforward, Paris will be the possessor of one of the most splendid modern buildings in Europe, judging by the preliminary designs that Marcel Breuer and his colleagues have produced—incidentally in a remarkably short time since they were appointed.

*

These designs will be fully illustrated in the JOURNAL shortly, so I won't attempt to describe them. A picture overleaf shows Breuer and UNESCO officials looking at the model. The 16-storey slab block you see in the model is the office building, one of three sections into which the scheme is divided rather after the fashion of the UN headquarters in New York, with this office block playing the same rôle as the UN secretariat building.

*

It should have a fine effect, rising against the leafy background of the Bois de Boulogne. The other two sections, the conference hall and the library-restaurant-administration block, are planned in a straight line behind it, at right angles to the main monumental axis of Paris which the UNESCO side touches at its northern end, near the Porte Maillot.

*

This site presents far greater opportunities than the first site UNESCO was offered, behind the Ecole Militaire; the architects are obviously intent on making the most of it.

RADIANT CITY

So one "about-to-be-famous" building starts its journey with our best wishes, just as another finishes. Last week, after five years of mixed enthusiasm and abuse, and relevant and irrelevant controversy, what *The Times* calls "The Radiant City" has been officially opened at Marseilles. The campaign by Corb's colleagues to have the whole building demolished as being, in effect, thoroughly un-French, has failed. The "*piloti*" would, in any case, have needed quite a lot of dynamite. And Corb has been made a Commander of the Legion d'Honneur (he already held a lower rank in this Order and was, so far as ASTRAGAL knows, the only man who wore two ribbons—one on his jacket and one on his overcoat). The opening ceremony took place in the gymnasium, that charming *jeu d'esprit* on the roof, when one of the tenants stepped forward and made an oration in defence of life as it has to be lived in L'Unit.

*

Le Corbusier's most enthusiastic disciples would not claim that he exerts himself to make himself clear to the architectural canaille. ASTRAGAL is, therefore, prepared to believe the quite unsubstantiated rumour that Sir Patrick Abercrombie has been invited to visit Bogota with the sole object of explaining to the city authorities the precise meaning of Le Corbusier's city plan, since they themselves cannot make head—let alone tail—of it.

WALTER GROPIUS

One day we may have a good Corb exhibition. Meanwhile there is a Gropius one on the stocks, and it would be a pity if it slipped through our fingers as—rather scandalously—the Lloyd Wright exhibition did. That was a matter of lack of co-operation between a number of bodies each of whom might have helped, but none of whom could bear the whole expense of transport, display, etc. The Gropius exhibition cannot be quite so massive as the FLW one—which, you remember, occupied a floor of the Strozzi—and it should not be difficult for, say, the RIBA, the AA, RCA and various architectural schools to get together on the matter. Above all, surely the Arts Council should—in a practical manner—give rather greater recognition to architecture than they have done so far. Nothing, however, will happen unless

one or other of these bodies takes the initiative now.

*

It would also be appropriate if the exhibition in this country could coincide with the award to Walter Gropius of the Royal Gold Medal. It is a "foreigner's" turn; moreover the orthodox ten-year time-lag between achievement and award has more than lapsed. Gropius's services to art—in the widest sense—have been substantial and international; his retirement from Harvard and an exhibition here should surely be crowned in this way.

DESIGN COPYRIGHT

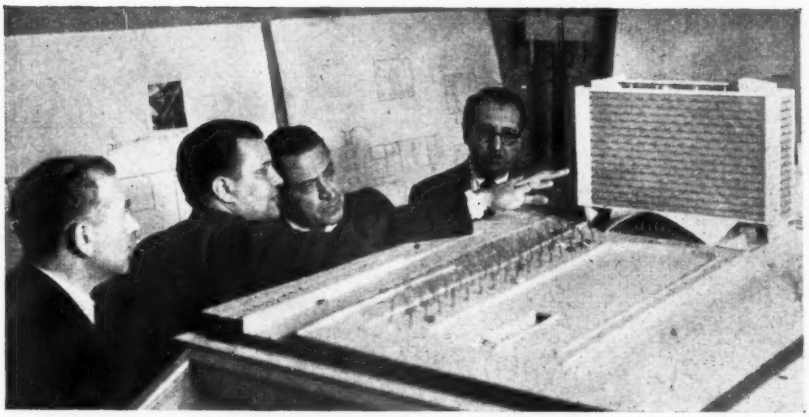
Changes in copyright law are perhaps of more immediate interest to publishers and authors than to architects and industrial designers, but one or two suggestions are made in last week's White Paper (Cmd. 8662) which are worth noticing. For architects the only item of major importance is the suggestion that they should not be allowed to invoke the Copyright Act to prevent the reconstruction of a damaged or destroyed building. This, in itself, seems not unreasonable, but one might justifiably expect fees if the supervision had to be carried out all over again.

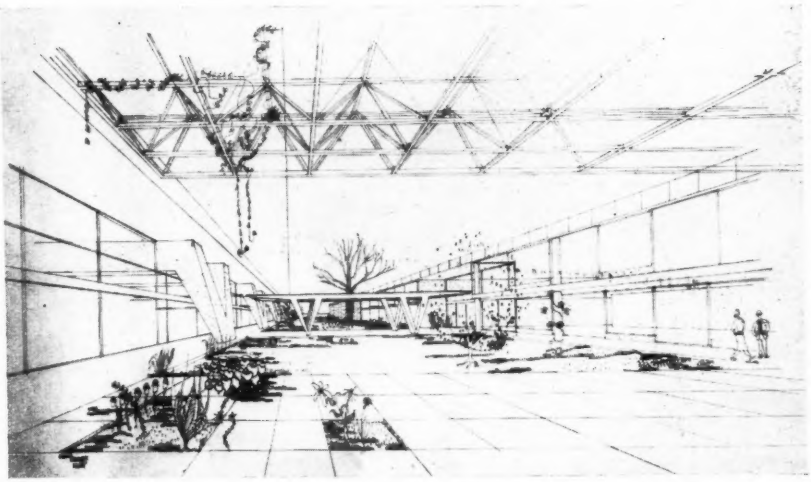
*

On this point the White Paper says nothing. Industrial designers, on the other hand, seem likely to remain rather inadequately protected; for, as they all know, while "registered design" may prevent *exact* copying, only the slightest of alterations is necessary for the most barefaced imitation to become a "new" design and get round the original registration. In any event, none of the White Paper recommendations is yet law, so there remains time for more argument.

DUTIFUL BOUQUET . . .

At the Scarborough conference Mr. Macmillan seemed to be very pleased with his housing progress and quite enthusiastic about his "people's houses." Did you notice his acknowledgment to Mr. Dalton, who, he said, started the people's house plans and left the scheme ready for his successor to put into operation? A good piece of honest modesty, and, if you prefer the cynical view, probably good political strategy as well, for there has been quite a lot of criticism about the Tories building the "slums of tomorrow."





Top: a model of the proposed UNESCO building in Paris, designed by Marcel Breuer (left), B. H. Zehrfuss (second from left), and Prof. Pier Nervi. Also in the picture, Benjamin Wermiel, UNESCO officer (right) and Jaime Torres-Bodet, Director General, UNESCO. Above, the central patio. (*See* ASTRAGAL'S *first note.*)

. . . AND FLYING BRICKBATS

Letters of complaint about the proposed extension of Gatwick airport have also been fluttering in the slipstream of *The Times* correspondence columns. On the face of it—reputedly a poorly drained and foggy face too—it does seem a mistake—or at least an extravagance.

*

Admittedly it was originally built (complete with its own railway station) as an alternative to the old Croydon airport, but it never seems to have been popular, partly perhaps because the terminal building, being circular in shape, is virtually impossible to add to. With the extension scheme we shall lose something like seven hundred acres of agricultural land and the Brighton road will have to be diverted round three sides of a square. If, as seems likely, we are to have a helicopter service from outlying airports to the South Bank there seems to be little need for a railway station, and the residents in Crawley New Town will have some genuine cause for complaint. Most of us like watching aircraft and we can all admire them as beautifully designed mechanisms. But they are less interesting if you live at the windward end of the main runway and have to listen to full-power take-offs, wondering all the time if a sudden splutter means an undercarriage and several hundred gallons of petrol through your bedroom ceiling. No doubt some of the firms toying with the idea of a move to a new town will think twice or more about choosing Crawley.

*

The Ministry of Civil Aviation has probably had quite a time finding somewhere to relieve pressure on London Airport, and if you are one of those architects always flying to Singapore or Accra no doubt you will be comforted

London's First Health Centre

Although the National Health Service Act of 1946 calls for a large number of health centres, few have so far been built. Woodberry Down Health Centre (above)—London's first and the country's largest—was opened last week at Stoke Newington. Whether the standards that have been adopted are ideal, or will become accepted for the design of future health centres is yet to be seen. The building was planned in 1948, under the direction of Robert Matthew, architect to the LCC, by W. J. Durnford and A. E. Miller. The centre will serve an area in northern Stoke Newington which will ultimately have a population of 23,500 people, of which 6,500 will be living on the adjacent LCC estate. It contains accommodation for six doctors and two dentists, in addition to units for school health, child welfare, antenatal, remedial exercise and child guidance. The building stands on 1½ acres of ground and cost £155,000. A full description will appear in a later issue of the JOURNAL.

to know as you fly home into the permanent fog-bank over England that Gatwick is clear and the landing will at least be only purblind.

IRISH ARCHITECTURE

The decision of the RIBA exhibitions committee to concentrate its energies for a time on sending exhibitions outside London was generally welcomed. There will, therefore, be no complaint if the next few exhibitions at headquarters are on a modest scale. The exhibition of Irish architecture which opened last week is very modest indeed, but well worth a visit, ASTRAGAL thought; good photographs, well chosen to give an idea of Ireland's Georgian riches and at the same time an indication of what contemporary architects are doing.

*

They're doing work of great variety; most of it not very spectacular (except for Michael Scott's central 'bus terminus, now nearly finished); much of it well considered in a somewhat conservative way; some of it pretty undistinguished—especially the housing. The buildings shown are almost all by private architects. Whether the average standard would have been higher if plenty of official work had been included too, seems rather doubtful, in spite of Raymond McGrath's efforts. This is, in my opinion, Irish architecture's particular handicap, as it was England's until a few years ago. In fact, if ASTRAGAL were asked to sum up in one sentence the progress that architecture has made in England since the war, he would say that it lies in the fact that official architecture in many places is now setting a lead instead of always lagging behind.

R.I.P.-ORTLAND PLACE

On page 486 is a RIBA "hand-out" on the "difficulties and anomalies" now governing "Associateship and the Examination in Professional Practice and Practical Experience." It states—rather prematurely in view of its last paragraph—that "these difficulties have been dealt with as they arose." They have indeed!

*

If this little document, so masterly in its own way, is a propitiatory wreath laid by the Officers of the Board upon their own tomb, ASTRAGAL is content to regard it as such. *Post hoc, ergo propter hoc.*

ASTRAGAL

POINTS FROM THIS ISSUE

The Editors

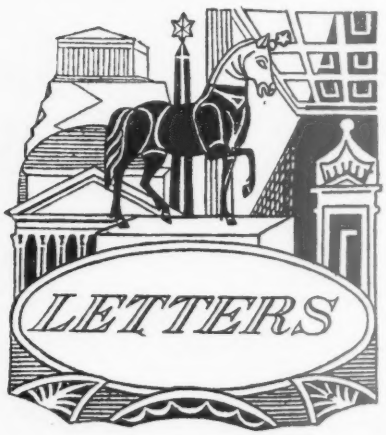
BRITISH STANDARDS

AN addendum to the 1950 edition of the British Standards handbook has just been published. It includes all the amendments which have been made to earlier Standards. This is excellent. Whether we like them or not British Standards have come to stay. And now that we have them in a compact form we can no longer criticize them as useless for office reference. Nevertheless, three complaints can still be justly made about them.

The first complaint is of the possible influence they may have on standardization of design. The BSI is certainly aware of this danger and does now attempt to give standards in terms of performance, but there are still some standards in existence which do not avoid this danger. A second complaint is that a widely accepted standardization of quality must mean that standards will be scaled down to meet the minimum quality suitable for low cost building. There were numerous special cases of this kind of thing happening during the war when war-time economy standards were, quite rightly, prepared. It should be pointed out, however, that some of the standards cover several qualities of the same material and if used properly these standards do give considerable latitude in specification. If architects really feel, as they may still do, that some of the existing standards are pitched at too low a level of quality then they should say so—they have ample opportunity to do this through the normal organization, for the user interest is always present on Standards Committees and the RIBA has the necessary organization to put forward any useful suggestions on points of this kind. A third objection sometimes made to Standards is that once one Standard exists it may prevent manufacturers from bothering about new developments. It is questionable whether there is much truth in this. Those manufacturers who are really alive will go on producing new ideas—the others will continue to circulate catalogues showing obsolete designs and products regardless of the existence of any standards.

The BSI ought to be one of the ways of helping to bring the results of research and development into quick general usage. Whether the period for revision of standards and the machinery for preparing them is geared to the best possible speed for doing this is open to question, and one may feel that a greater effort in speeding up important items would be more useful than the work done on some apparently rather trivial things. In particular, many people would like to see a really vigorous attempt made to co-ordinate dimensional standards.

design of future health centres is yet to be seen. The building was planned in 1948, under the direction of Robert Matthew, architect to the LCC, by W. J. Durnford natal, remedial exercise and child guidance. The building stands on 1¼ acres of ground and cost £155,000. A full description will appear in a later issue of the JOURNAL.



Michael Secrett, F.R.I.B.A.

D. Lambert,
Secretary of Leighton Buzzard Tiles Ltd.

RIBA or ARCUK ?

SIR,—Mr. Ward, the Secretary of the IRA, would like to see registration made the only condition for admission to the RIBA. If he were to have his way the affix "ARIBA" would cease to have any significance as a professional qualification. Let us have the matter in its true perspective.

Since 1882 the RIBA has made the passing of an examination an essential condition for associate membership. Certain other Institutions have held examinations of varying standards, but I believe the RIBA is the only one which has reserved a class of membership entirely for those who pass an examination constituting a proper test of competence.

From 1882 onwards the RIBA has steadily advanced the standard of its examinations, obviously as part of its policy of improving the standard of competence in the profession. In 1931 the Registration Act made the passing of an examination obligatory for all future entrants to the profession. It did not set up a new examination, but adopted the examination required at the time for Associateship RIBA, nominating the RIBA as the examining body. The RIBA cannot, therefore, in any way alter the standard of the examination for registration without parliamentary sanction, but it is absurd to suggest that it should abandon its long established policy of increasing the stringency of tests for the admission of registered architects to its own associate membership.

Registration denotes a minimum standard of competence. The acceptance of a minimum standard as the only standard signifies decay. It is devoutly to be hoped, therefore, that the RIBA—for no one else will do this—will continue to set a higher and ever advancing standard for the benefit of those who wish to obtain a higher qualification than a mere "pass degree."

MICHAEL SECRETT.

Ealing.

"The Truth About Roof Tiles"

SIR,—A whole page advertisement appeared in the issue of the JOURNAL dated September 11, 1952, where, under the above heading, it is stated that only the concrete roofing tiles manufactured by the advertiser are guaranteed for 50 years against lamination and decay, and furthermore only that concern has sufficient confidence in its products to give such guarantee.

These statements are the opposite of the truth. To my knowledge, all the leading producers of concrete roofing tiles have for many years guaranteed their tiles for 50 years against lamination and decay, and the confidence of these manufacturers in their products cannot be open to doubt. Publicised statements which imply to the contrary, if permitted to remain uncorrected, will be most damaging to the interests of the industry as a whole, and I shall be grateful therefore, if you will afford this letter the courtesy of your columns.

D. LAMBERT.

London.

COMPETITION

Office Building for Uganda

Architects practising, or entitled to practise, in the United Kingdom and all British Commonwealth Nations, Colonies and Dependencies are invited to submit designs in competition for the new Head Office Building in Kampala for the Uganda Electricity Board and other bodies. The amount to be spent on the new building is approximately £350,000.

An application for the conditions of competition must be accompanied by a deposit of three guineas.

Intending competitors should submit their names and addresses to the promoters by December 23. The closing date for the submission of designs is July 25, 1953.

Premiums of £1,000, £750, £500 and £250 are offered.

The assessor for the competition is N. L. Hanson, A.R.I.B.A., M.I.A., of Johannesburg, South Africa.

All communications in connection with the competition are to be addressed to: The Secretary, Uganda Electricity Board, PO Box 559, Kampala, Uganda.

RIBA

Statement on Student Controversy

The following statement, issued by the RIBA last week, is discussed by ASTRAGAL on page 485:—

The regulations for the examinations qualifying for the Associateship RIBA and for registration under the Architects (Registration) Acts 1931 and 1938 were amended in 1949 as a result of strong feeling, not only in the RIBA Council and on the Board of Architectural Education, but in the profession generally, that the qualifications of the young architect should be raised by requiring a period of practical experience before the granting of qualified status.

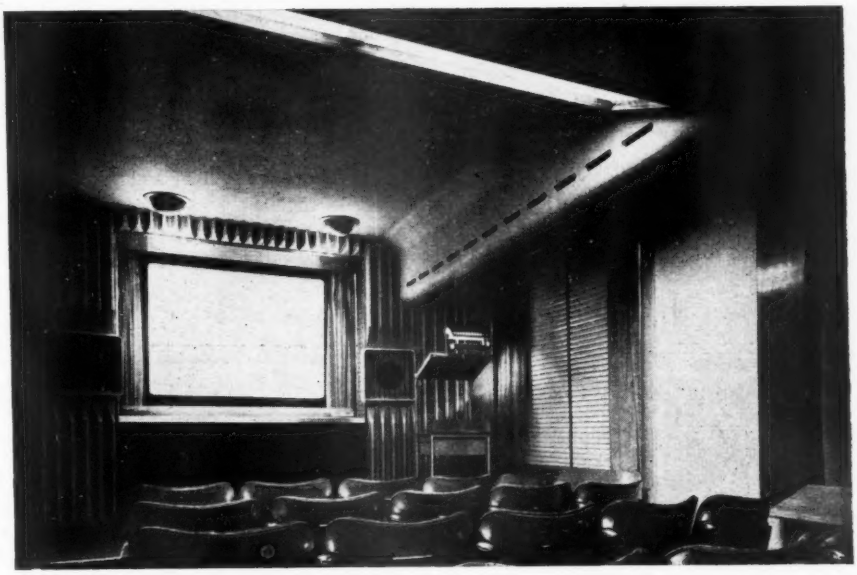
It was considered desirable that the new regulations should come into force as soon as possible, but in order to avoid inconvenience to those about to take the Final qualifying examination the date fixed for the purpose of Associateship RIBA was January 1, 1951. A complication was introduced by the delay necessary in obtaining legal sanction to bring the regulations into force for registration under the Architects (Registration) Acts, the date fixed for this purpose being September 18, 1951.

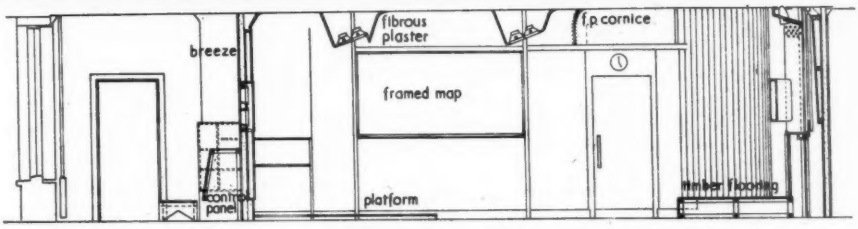
It was inevitable that the operation of the new regulations would reveal difficulties and anomalies. It was also perhaps inevitable that students who had hitherto anticipated the granting of qualified status immediately on passing the Final Examination would, in some cases, regard the delay due to the

The first post-war permanent building for the University of Manchester (for the Schools of Architecture and Town Planning) was opened last Friday by Dr. Howard Robertsen, P.R.I.B.A. The floor area is 25,000 sq. ft. and the cost is £162,500. The view above, looking north, is from Higher Cambridge Street. The architects are Thomas Worthington and Sons. The consulting engineers are C. S. Allott and Son; heating, lighting and ventilating consultants, Hoare, Lea and Partners. The general contractors are Robert Carlyle & Co., Ltd.

PRIVATE CINEMA AT 31 GREAT ST. HELEN'S, LONDON, E.C.3

The private cinema for the Shell Petroleum Co., Ltd., illustrated on this page is designed by L. Gregory. The room in which the cinema has been formed, seen below before conversion, was of uneven layout and contained three chimney breasts, a sloping floor and exposed waste piping that had to remain accessible. The photograph right shows the screen, set in a reeded fibrous plaster proscenium surround for acoustic purposes. Below right is seen one of the two speakers, which flank the proscenium opening. Internal telephone and buzzer communication is provided between the auditorium and the sound-proofed room, which contains the 16-mm. projection equipment. The cinema is also used as a lecture theatre and between the beaded screen and the curtains is a sash-type blackboard, raised by chain and pulley, below which are cupboards for charts. The seats are of latex foam and armpads covered in mohair velvet. Non-fume ashtrays are provided and knee-rest supports for writing notes. The last three rows of seats are raised on a platform. The ventilating system provides six air changes per hour. The general contractors were David Esdaile & Co., Ltd. For sub-contractors, see page 510.





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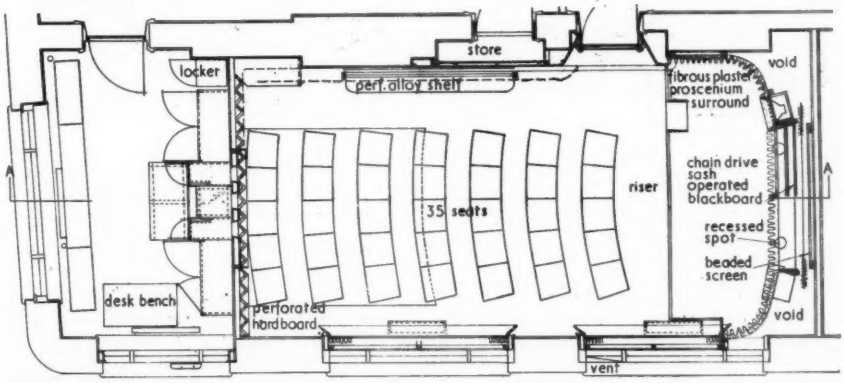
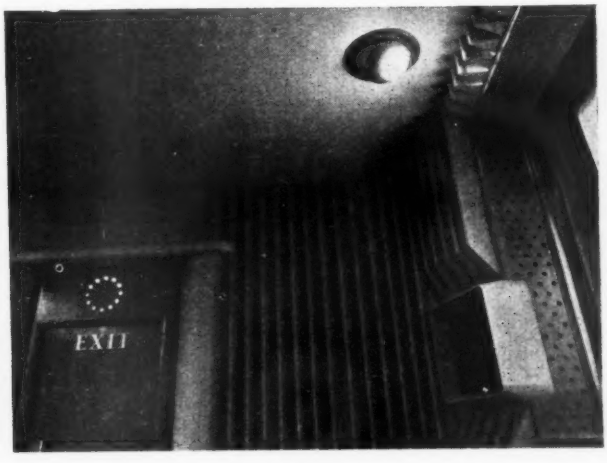


Plan [Scale : ¼" = 1' 0"]



requirement of practical experience as a hardship or injustice, regardless of the prime intention of the new regulation, which was to raise the standard of qualification.

These difficulties have been dealt with as they arose, and their gravity assessed in relation to the intention of the new regulation. The whole position has been the subject of careful investigation, which has unavoidably taken considerable time.

As already announced, the Board decided, in July, 1952, that candidates who had started their architectural training before November 1, 1949, should be allowed to take the Examination in Professional Practice and Practical Experience next following their passing the Final, Special Final or Final exempting examinations, provided that some evidence of practical experience could be shown. Students were then advised that while a minimum period of twelve months' post-graduate practical experience was normally essential, in these particular cases a period of at least two months' post-graduate or alternatively four months' earlier experience was desirable.

In accordance with the decision of the Admission Committee of the ARCUK, candidates who passed the greater part of their Recognized School examinations before September 18, 1951, leaving not more than two subjects to be taken, were allowed to qualify for registration if they finally completed their examination, including the subject of Professional Practice, before July 31, 1952. In September, 1952, it was announced that such candidates would also be eligible to apply for election as Associates.

It has been decided that the following categories shall also be eligible to apply for election to the Associateship:—Any candidate who qualified by examination for registration before September 18, 1951, the date on which the Privy Council amended the ARCUK Regulations. Any registered architect who has passed or shall pass the Final or Special Final Examination. (Such candidate will not be required to take the section of the examination covering Professional Practice and Practical Experience.) Any candidate who passed in the subject of Professional Practice in the Final or Special Final Examination and has passed or subsequently passes the remaining subjects of the syllabus which was in force at the time when he first sat for such examination. The Council have considered the question of ante-dating the membership of any candidates so elected and have decided that membership shall not be ante-dated.

In this, the second article on building controls, the JOURNAL'S *Guest Editors criticize strongly the cost of the present system of local authority building controls which, at a time when high building productivity is urgently needed, are disgracefully wasteful in time and manpower.*

The Guest Editors

BUILDING CONTROLS AND PUBLIC ARCHITECTURE (2)

LOCAL Authority controls grew up with the Local Authority system, and are therefore strongly influenced by the idea of local, as against central government responsibility. The local authority is responsible for the safety of its citizens, and therefore for seeing that the structural stability, sanitary condition, and fireproof qualities of all types of shelter reach what it considers to be a minimum standard. Although the central government department concerned (*e.g.*, Ministry of Housing and Local Government) has a set of model bye-laws,* each Local Authority is empowered to make its own bye-laws. It is only fair to point out here that the Ministry has been trying for years to have their standard set accepted *in toto* throughout the country, and now that an Advisory Committee is at work reforming the model bye-laws, we hope that more strenuous efforts will be made to achieve universal adoption.

WHO SHOULD ADMINISTER CONTROL?

As we mentioned in our introductory articles, because the technical duties of local authorities first began with the provision of sewage disposal and highways, the surveyor or engineer was nearly always the first technical officer in the field, and so in nearly all cases the technical duties of administering the bye-laws, and similar controls which affect building, and advising the council accordingly, are in his hands. The question arises as to who is the appropriately qualified expert to administer these controls.

Building is the acknowledged province of the architect, and it is therefore obvious that the local authority architect should be responsible for building controls.

However, to return to the bye-laws themselves—private and public architects, in their efforts to experiment and reduce housing costs, have over and over again found themselves defeated by bye-laws which are unnecessarily restrictive, and they are often simply out-of-date in the light of building science.

For example, bye-laws which are particularly exasperating to an architect who is trying to achieve interest, as well as economy, in housing layouts are: *minimum road widths,* which are often based on two cars passing at speed rather than twice-a-day delivery by tradesmen's vans; and the rule of: *70 feet between fronts of houses,* which is quite arbitrary and has no connection with privacy, daylight or sunlight.

It is typical of our present muddled state that such controls which are concerned with the spaces about buildings, including neighbourhood roads, are part of *Building* Byelaws. They should obviously be part of *Planning,* instead of building controls. Due to the gradual development of municipal regulations they have been lumped together with the latter, but their transfer is long overdue.

TWO MEANS TO AN END

We feel strongly that the whole bye-law system urgently requires reviewing. This is due because of the enormous number of man-hours spent in the negative function of examining plans and in the inspection of other peoples' work. During our discussions on the subject we have found that two points of view

* If these new Bye-laws could be printed in sections with loose leaves it would facilitate quick and practical revisions.

emerged, for although all four Guest Editors are broadly agreed as to ends, sufficiently varied opinions on *means* were expressed as to amount to separate proposals.

The first is as follows: A new system of bye-law control is needed as a matter of urgency, and it should be put into operation simultaneously. Basically, it is that bye-laws should be concerned with principles and not with details, that these principles should be set out simply and clearly, and that every architect should have to sign a declaration that his building is designed in accordance with these principles.

If the responsibility for all aspects of a building were laid fairly and squarely at the door of the qualified architect, private or public, in charge of the project, he would then have to face the consequences of any subsequent failings. This approach, which would involve a clearly set out building code dealing with principles rather than details of practice, would mean that only occasional checks would be required.

The other point of view would consider that this was the right principle to work on, but would recognize that it was bound to be in the nature of a long-term reform. A first step should be one that has already been mentioned, the assumption of responsibility for administering and advising on local authority building controls by the public architect. This is an obvious and immediate reform and could take place without undue disturbance of the present universal but antiquated system. We would expect the public architect to carry the responsibility for ensuring the safety of the public on the one hand, and on the other to cut to a minimum the man-hours spent on negative work. Periodically he would be expected to review all the bye-laws to see that they were up to date, suggesting to the central authority modifications to the national bye-laws in the light of his experience.

LOCAL AUTHORITY ARCHITECT A STATUTORY OBLIGATION

We are assuming, of course, that all local authorities have architects, but unfortunately this is not yet universal. The architect in the local authority is not a statutory officer, like the clerk or the medical officer.

If we are to make a major advance in the devolution of responsibility, the appointment of a qualified architect by the local authority should become a statutory obligation.

In that case, and if all building work was under the control of architects, the proposal put forward first could come into operation at once.

Let us, however, recognize the present difficulty: a large amount of building work in this country at the present time is not carried out under the supervision of qualified architects. Much is done without any architectural supervision at all—by local builders, for instance. We might, for this purpose, qualify buildings in the following way:

1. A vast amount of small work-additions, reconstructions, etc., carried out by builders. This may or may not be capably carried out, but is carried out for building owners.

2. Speculative building work, where the prime motive is profit for the builder.

3. All classes of work supervised by architects, and built by traditional, or well-tried methods, in accordance with the best known practice.

4. "Advanced," or experimental building, where new methods or materials are used.

Can one method of building control reasonably be devised to cover the whole range of this work? It is submitted that it cannot, under present circumstances. If one accepts the above categories, the following two methods of public safeguard could be used:—

1. A complete system of "rule-of-thumb" regulations, covering well-tried, traditional methods, allowing for a wide variety of materials and building practice. This is wasteful, no doubt, but essential if building is to go on and the regulating machinery is not to be intolerably clogged.

2. A parallel flexible system, based on principle, to apply when "rule-of-thumb" is not applicable or where it it is not desired by the building owner.

There may, of course, be a combination of these two methods. Both the "rule-of-thumb" and the flexible systems of control would be subject to continuous review.

The type of "controlling agent" will obviously be difficult as between these two systems, and this would obviously be connected to the present units of local government. For instance, the smallest authority might well be capable of supporting an officer of sufficient knowledge to operate the first method, but not the second, and this might necessitate reservation of control on 2 to the larger authorities (compare "delegation" of planning control between the counties and the county districts).

Competent and enterprising architects are naturally frustrated when new methods and techniques come under the rule-of-thumb regulations—generally the only form of control in existence. Of course, as we have said, the ideal would be to have all building controlled by architects, but we are dealing with facts, not fancies. Dual systems are subject to many disadvantages, but at least the common builder would be catered for, and at the same time the experimental, the scientific, builder would have equal opportunity to have his work properly assessed before being allowed to proceed—no one would object to that.

The essential for the second, or flexible method, would be, of course, top-line "controlling agents." Comparatively few of these would be required. They would have to be closely linked up with the central research organization, and include first-class structural, heating, electrical and sound engineers; the method of control would also have to be linked with special testing machinery, and site control.

CONCLUSIONS

To sum up, building controls of a kind are a recognized and necessary part of the building process today. When building materials are scarce it is obviously sensible that they should be distributed nationally on a priority basis, and in any case public safety demands a guarantee that all structures should have a minimum standard of reliability. In the actual control procedure, however, there is room for considerable improvement, in both local and central authorities, particularly in controls concerned with economy and safety, with production, and with the appearance of the finished product.

We are most concerned about the high cost of the present system of local authority building controls, which we consider to be wasteful both in time and manpower. A new and more economical system is required, the keynote of which should be broad principles and sample checking rather than detailed examinations of every drawing.

While we were all agreed on these ends, we differed on the means of achieving them, so we have set out two alternative proposals.

The first suggests that a new system of bye-laws should be brought into operation at one step, whereby they would be concerned with principles and not with details, and that every architect would have to sign a declaration that his building was designed in accordance with these principles.

The second says that there are a number of factors which make it necessary to achieve the new system in stages, and that only when all Local Authorities have architects, when the job of Local Authority architect is made a statutory appointment, and also when all building is controlled by architects, can it be fully implemented. As a first stage, a dual system is proposed consisting of a rule-of-thumb method together with an alternative flexible one which would develop into the new system over a period.

In addition to the above, a full scale review is required throughout the field of building regulations, in the light of historical development and experience, of present necessity, and of future needs. At the same time, the underlying reasons for their existence should be examined, their broad principles restated, and the procedure for their operation should be generally agreed. The RIBA should start campaigning for this right away.

RESIDENTIAL DENSITY

MOHLG HANDBOOK REVIEWED

Following is a critical appreciation of the MOHLG handbook "The Density of Residential Areas." A formal summary of the contents of the various chapters was printed in the* JOURNAL *on October 9, and we commented editorially on October 16 that much of the value of the report has been lost because its preparation and publication has been allowed to drag on for five years.*

The main thesis of the handbook is that large parts of our towns could be developed at higher densities than those existing before the war, without extra cost or loss of amenity, and with a resultant considerable saving in land. It also contains many useful statistical tables and diagrams of interest to housing architects and planners. The chief argument put forward to support the thesis is that agricultural land should be saved, but there are also strong economic and architectural arguments advanced for an increase in urban densities.

It is a great pity that the handbook pays no regard either to the pilot survey of the 1951 Census returns or to the Ministry bulletin "Houses, 1952." (The reason, presumably, is that the handbook has taken five years to produce.) Thus, for example, the handbook assumes an average occupancy rate of 0.89 persons per habitable room. The pilot survey of Census returns for England and Wales reveals, however, an average occupancy of only 0.73 persons per habitable room. Again, "Houses, 1952" and ministerial statements over the last two years strongly advocate the building by local authorities of a considerably greater proportion of smaller (three-room) dwellings. Yet, in the examples shown in the handbook of comparative layouts for a given 20-acre site, no dwellings (either flats or houses) are included with fewer than five rooms (except for old people's dwellings and, in one layout only, an odd ten four-room flats). The room average in these layouts is in fact between five and six rooms per dwelling. Both these facts must tend to invalidate the conclusions of the report—they tend, in fact, towards fewer persons living in smaller dwellings and this must to some extent weaken the agricultural case.

A MAJOR DEFECT

Again, a major defect in the handbook is the failure to take into consideration any proper sociological basis for determining the sizes of houses and flats, and the desirable ratio between the numbers of houses and flats on any given site. It is rather blandly stated, as a result of the comparative layouts illustrated in the handbook, and from certain statistical tables, that "there should normally be no difficulty in ultimately securing a satisfactory proportion of houses and flats within an average net density range up to about seventy rooms per acre" (with flats at 20 per cent.), but this is not of real use to the architect who is seriously concerned to provide the most suitable accommodation for a variety of family units of differing social needs.

Throughout the handbook a brave attempt has been made to disassociate architectural and design problems from the purely statistical and functional. The authors disclaim any concern with architectural design and layout, and emphasize that they are primarily concerned with the planning of land use. Yet the minute one studies an illustrative layout it is clear that one is concerned with both functional requirements and architectural ideas—the two cannot be separated. In spite of the official disclaimer nothing is so certain as that many borough surveyors (and even a few backwoods architects) will take some of these diagrammatic layouts and submit them "cold." Either the words "Not to be used—diagram only" should have been stamped large across every layout in the book—or better, the book should have combined both statistical tables and photographs (with analyses) of some of the best post-war layouts to date. In any case such extreme cases as are shown below should surely not have been published, even if momentarily conceived as hypothetical possibilities.

DIAGRAMMATIC APPROACH A MISTAKE

But was it not a howling mistake ever to have published these layouts at all? Surely it should not be suggested to anyone concerned with housing that it is reasonable to take a preconceived and symmetrical road pattern and apply five alternative densities of housing to it. The flat or house grouping should surely suggest the road pattern. Again it would have been much better to make the point by showing photographs of existing schemes.

A weakness of such a diagrammatic approach to layout as has been attempted in this handbook is that it is concerned only with flat rectangular sites, without trees. This may be necessary, theoretically, but when these diagrams are presented to local authorities in printed form, is there not a big danger that they may confirm them, subconsciously or otherwise, in continuing to develop for housing just such land as this, usually the best farm land, which is to be found always on the outskirts of the town?

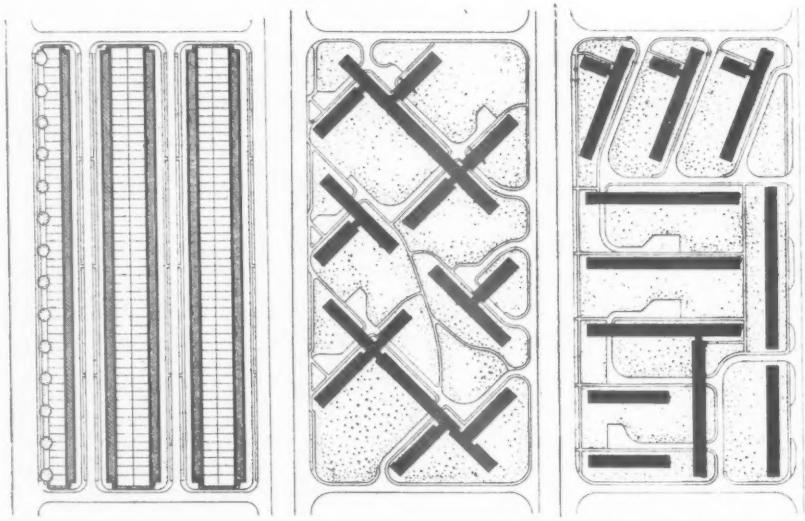
Again the Ministry would have done better to show how problems have been solved by particular local authorities on difficult, tree-covered and sloping sites. The net densities would probably have been reduced somewhat, but the schemes would have been interesting architecturally. And from the point of view of agriculture, food production (in gardens) would have been encouraged on land probably not previously cultivated for food.

A good new phrase, coined by the handbook is "incidental open space"—"space required amongst the houses for tree planting, small greens, etc." This is surely something very much to be encouraged. And the suggested minimum is one acre per thousand rooms, "irrespective of any other provision for public open space or playing fields." Garden sizes are recommended to be from $\frac{1}{10}$ to $\frac{1}{16}$ acres for terrace houses and many architects will prefer to use a greater proportion of smaller gardens than sacrifice this element of "pleasantness and variety of scene."

The handbook correlates a mass of statistical information, most of it previously available to architects and planners in diverse forms, on the classification of land uses and the areas required for these at various densities, on open space recommendations, on daylight and sunlight codes and space around blocks, on minimum recommended street widths and definitions of terms. For the planner who has worked out his own terms of reference, and for the housing architect, there is the main thesis—more compact residential areas at no greater cost, with no loss of amenity, to be considered afresh.

LACK OF HUMAN FEELING

Compared with the Dudley Committee Report or the Housing Manual, this handbook is over-theoretical and lacks any warm human feeling. We understand that a further report on design aspects of residential areas is in preparation (heaven forbid it should take another five years to produce). If this could possibly be correlated with a revised version of this densities handbook (bringing it also into line with "Houses



These diagrams appear in the MOHLG's handbook. Left: 105 *rooms per acre; centre,* 275 *rooms per acre, all rooms in* 10*-storey flats; right,* 155 *rooms per acre, all rooms in* 6*-storey flats.*

* HMSO, 5s. (*not* one shilling, as stated in AJ Summary of October 9).

1952" and with the 1951 Census returns)—with illustrations and analyses of good architectural solutions actually under construction, or built since the war—a really valuable manual could be produced. One would not then be worried if schemes were taken "cold" by borough surveyors and others. The copying of good designs from a government report, such as the Housing Manual (though not officially intended and indeed disclaimed) has, in fact, contributed to a marked improvement in housing design throughout the country.

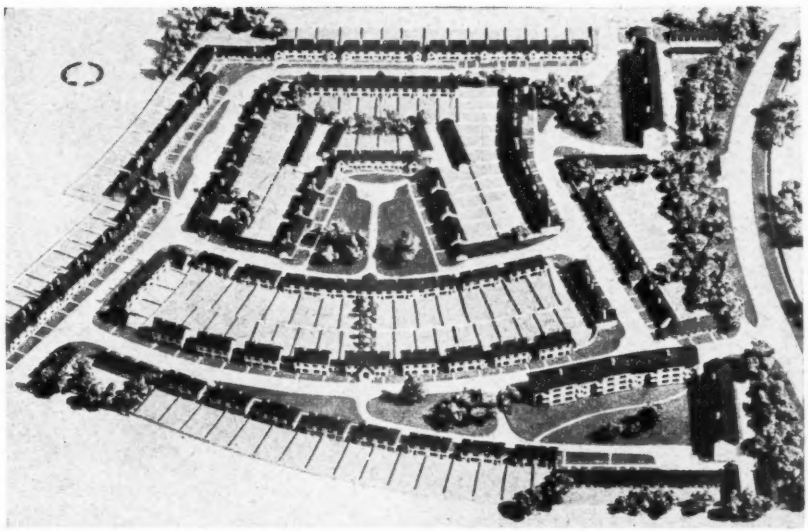
An amusing instance of the highly theoretical or abstract nature of some of the diagrams is a graph showing the relationship between density and numbers of storeys for parallel blocks of flats. This includes curve A for "blocks of unlimited length."

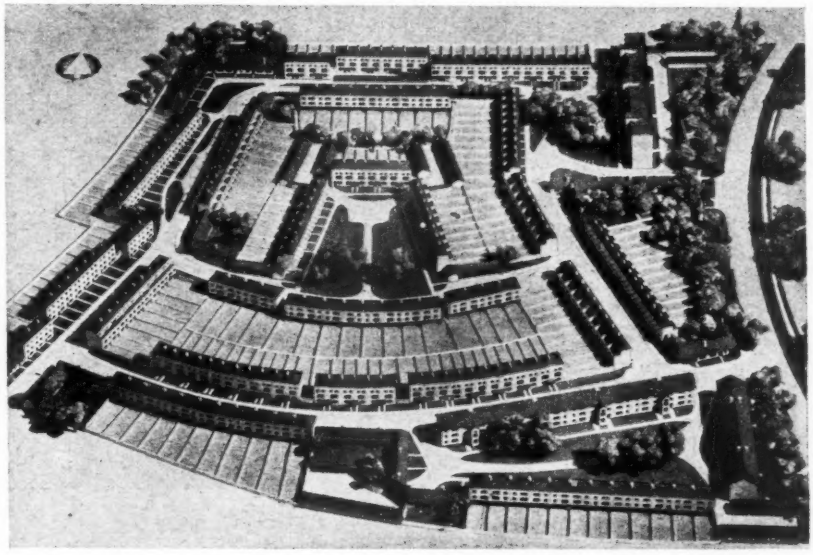
To return to the main thesis of the handbook—the case for compactness—it is stated that many thousands of acres of land are taken from agriculture every year by new housing, but that from now on "no more land should be used for urban purposes than is absolutely necessary." The recommendations of the handbook—which include a greater proportion of terrace housing (two- and three-storey), and a proportion of low flats, with net densities ranging from fifty-five to ninety dwellings per acre—will, if adopted by local authorities, mean a saving of some twenty to twenty-five per cent. of land used by housing for agriculture. There will also be a noticeable shrinkage in the suburban fringes of our new town maps in the revised development plans. The argument is not applicable to *re-development* within towns, for this is already generally acceptable at higher densities. Surprisingly, perhaps, it is not proposed also in relation to the new towns (which are considered rather special, and obviously controversial cases). Yet if Stevenage density were increased by thirteen to sixteen persons per acre (up to date a net density of around sixty persons per acre) the land saving would be about 880 acres—or one third of the total acreage of the residential areas.

Type of Structure	Cost Factor
Houses, semi-detached	1·0
Houses, terrace, 2-storey ..	1·0
Houses, terrace, 3-storey ..	1·1
Flats, 3-storey	1·2
Flats, 5-6 storey, with load bearing walls	1·5
Flats, 6–10 storey, with framed structure	1·7

Examples of the Kind of Development Possible in Houses or Flats at Various Average Densities

Rooms per Acre	Houses	Flats
20–30	Detached	—
30–50	Semi-detached and 2-storey terrace	—
50–80	2-storey terrace	—
80–100	3-storey terrace	3 or 4-storey blocks generous spacing
100–120	—	4 to 7-storey blocks generous spacing
120–160	—	As above, but minimum spacing for daylight
180	—	10-storey blocks parallel layout
200–240	—	10-storey blocks in broken cruciform layout





The table, left, (Table 16 in the book) shows cost factors for a dwelling of fixed size in various structure forms. The factors in this table relate to the basic cost of the structure only with an allowance for lifts. This has been taken as the fairest unit for comparison. The table beneath it is self-explanatory. Above, two photographs from a section on "Comparative Layout of Model Development on a twenty-acre site. Top: a layout at 50 rooms per acre; beneath it, a layout at 70 rooms per acre. In each case the proportion of houses to flats is the same.

From a point of view of economics the handbook unfortunately does not go far enough. We reproduce table 16 and Figure 25 (the only economic analyses attempted by the handbook) which show that "cost tends to fall with increase of density until it becomes necessary to use flats. The high structural cost of flats then causes a sharp rise in total cost . . . which only falls again significantly with further increases in density, when land costs (and densities) are very high." The "economic" net density range from this graph is the recommended range of fifty-five to ninety dwellings per acre. We should, however, have liked to see a more detailed analysis of both the cost of "structure per room" and "roads, services and site preparation." The former may be capable of reduction in the case of flats, since the cost factor is based on dwellings "of *fixed* size in various forms of structure." As has already been pointed out, the flat, if used properly in mixed development schemes, is likely to meet the needs of families requiring only two, three or four room dwellings. Larger families will have houses with gardens. It would be unfair, therefore, not to take account of the reduced size (and therefore reduced cost factor) of flat dwellings in comparison with houses, and this allowance might well extend the upper "economic" net density range.

COMPACTNESS OF APPEARANCE

As far as compactness of appearance goes the handbook has some excellent things to say. "The paradox of the inter-war development" (to quote one example) "is that whereas it produced better dwellings it also produced, in many respects, worse towns, and low density lay close to the root of the trouble. It is significant that the universally admired charm and character of so many old towns is frequently associated with medium or high densities." If one accepts for a moment the comparative layouts, which show the same site developed at fifty, sixty, seventy, eighty and ninety rooms per acre, one can notice in the photographs the increased feeling of urbanity in the higher density schemes compared with that at fifty rooms per acre.

On the following pages is shown a sketch plan for Lynmouth, the Devon village which suffered so severely from flood on the night of August 15-16. It should be emphasized that the plan, which has been prepared and illustrated by Donald Dewar Mills, with advice from D. A. C. A. Boyne, is only tentative. It is based on material gleaned as a result of a three-day visit to the village and without the assistance of any official surveys of accommodation required or of the anti-flood precautions necessary to prevent a repetition of the disaster. Nevertheless, the scheme is illustrated because it shows a simple and straightforward way of tackling the problem of flood while indicating a treatment for the centre of the village which will increase, rather than detract from, Lynmouth's charms.

LYNMOUTH

BEFORE AND AFTER

On the opposite page is an aerial view of Lynmouth, taken soon after the flood, from the north, or seaward side, of the village. It is low tide, and the river, the combined flow of the East and West Lyn whose junction can be seen on the left of the photograph, is running in spate over the exposed shingle and newly-deposited debris. Just discernible in the foreground are the remains of the Rhenish Tower and the sea wall and, to the right, is the start of the esplanade—which wanders at the foot of the cliffs for about a quarter of a mile to the west before coming to a dead end. At the extreme right edge of the photograph is the cliff railway, which runs to the town of Lynton, four hundred feet above, at the top of the hill in the background. The poor quality, architecturally, of the few buildings which line the first part of the esplanade can be seen in the photograph. In the left foreground is a low-lying spit of land—no doubt the result of the accumulation of centuries of flood deposits in the distant past—which runs between the main part of the village and the sea. On the extreme left is the coast road from Porlock running down the steep Countisbury hill, over the river, and, before flood obliterated all traces of the junction, branching left to Barnstaple and right, up the curving bastioned wall, to Lynton. On this page, right, are three post-card views of pre-flood Lynmouth, for comparison with the photograph opposite. Top, looking east up the valley of the East Lyn. On the left is the low spit of land, shown foreground, opposite page, tree-edged and with a steep river wall, both features which have now largely disappeared. The steepness of the surrounding tree-covered hills and the density of the housing on the narrow strip of level land on the edge of the river is emphasised. On the left, background, is the gabled bulk of the Tors Hotel, nearly at the top of Tors Hill, which is typical of the coarser late-Victorian development which contrasts so unfavourably with the more domestic-scale, early-Victorian "honeymoon gothic" of so much of the village. Centre, Mars hill, a row of cottages, and beyond, the old Rhenish tower. These cottages, the oldest in the village, which can be seen more clearly, bottom, are largely above flood and high-tide level. Thatched or pantiled, and covered with honeysuckle, fuchsia and rambler roses, they form a romantic focal point at the seaward end of this linear village.

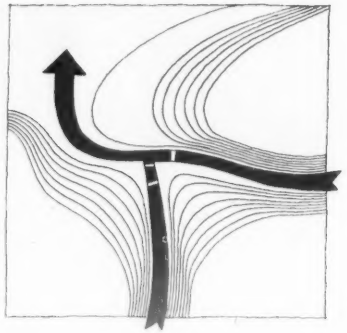


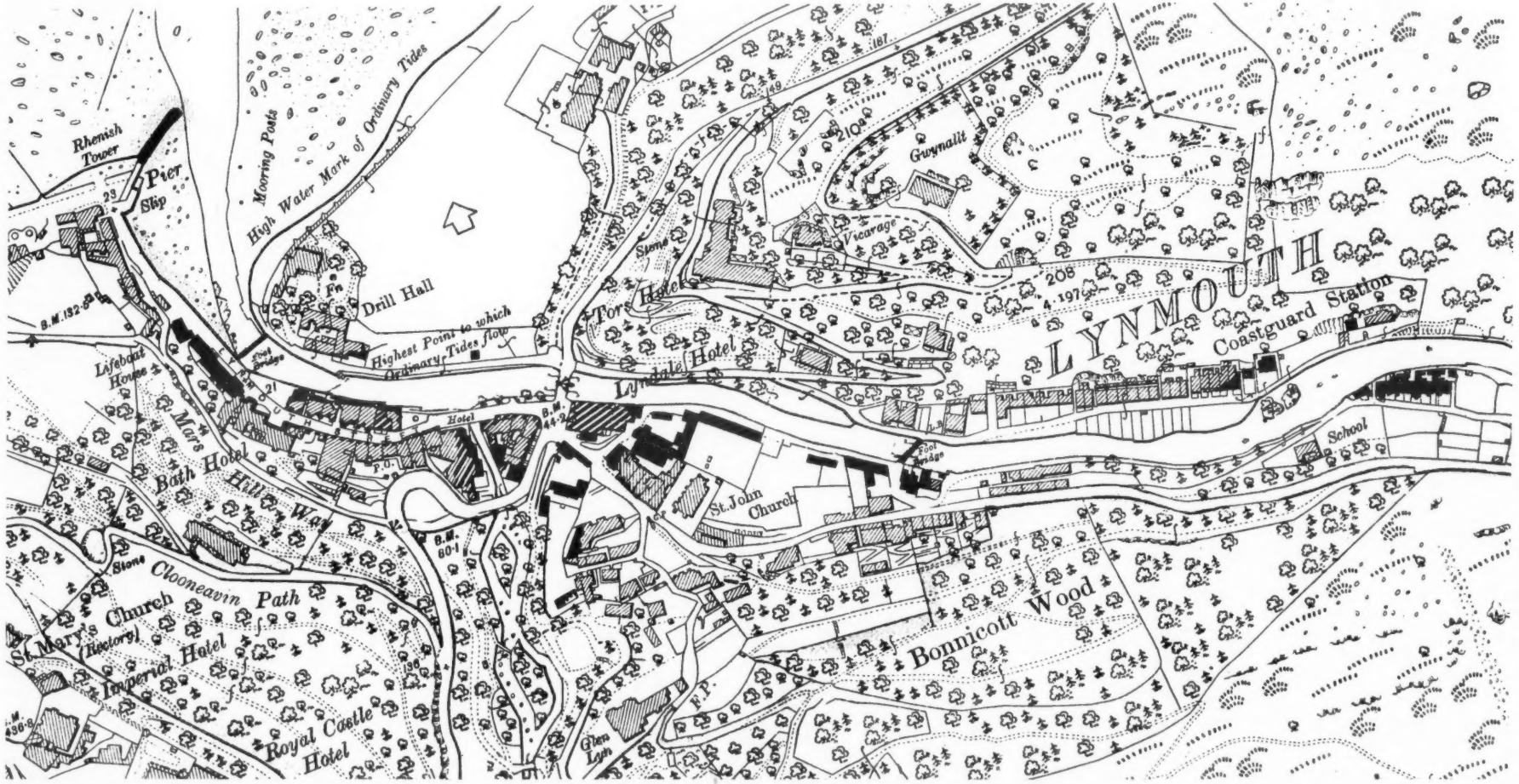
Diagram of forces of destruction within the surrounding hills

THE PROBLEM

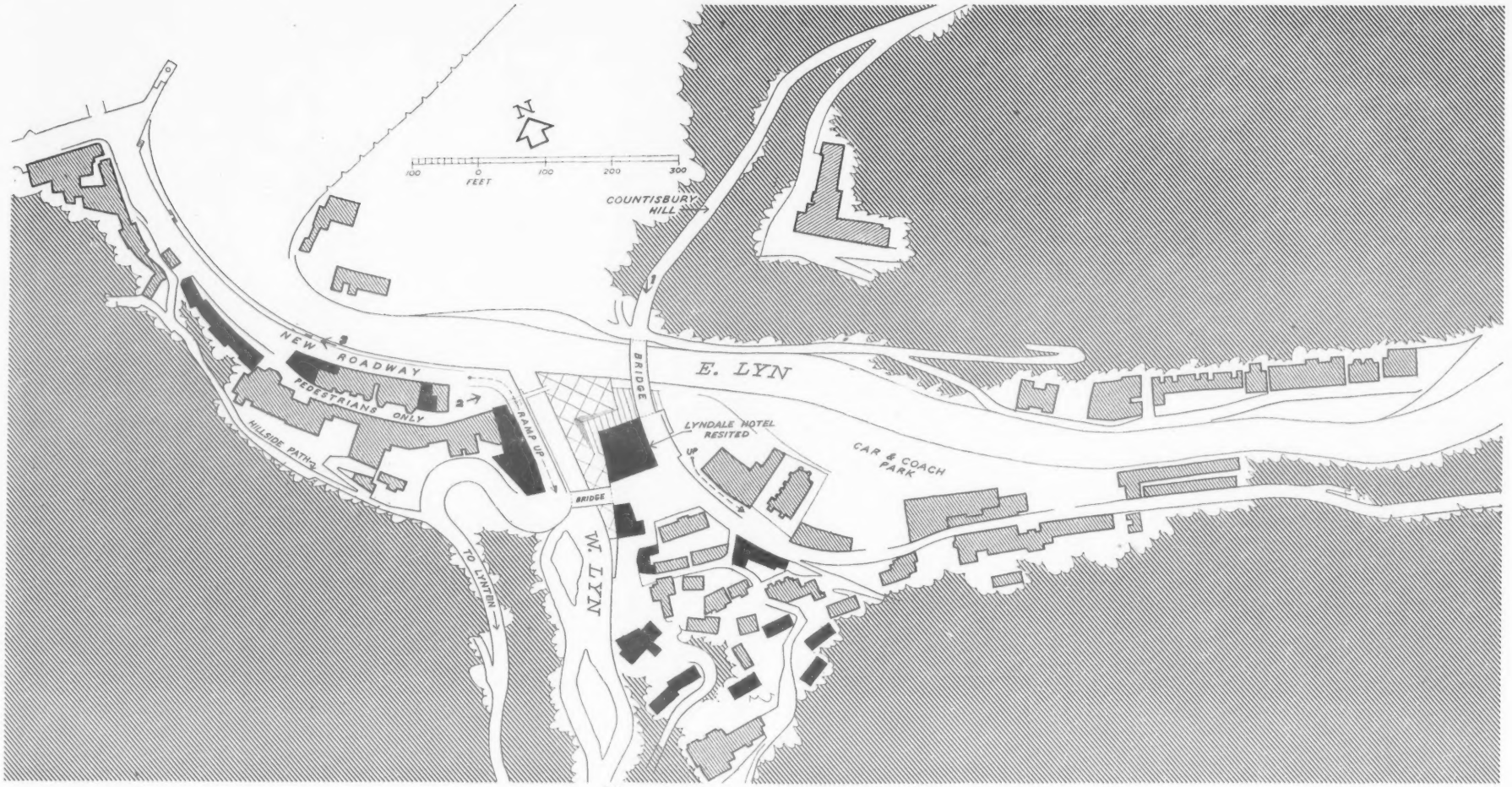
Everyone knows that the cause of the damage was flood, but it was not just the volume of the water which destroyed buildings and ended lives. It was a flood of water in conjunction with an unusual topography. The accounts given in the newspapers have done little to present the problem clearly or even to show the full extent of the damage. On the opposite page is a plan which indicates in solid black those buildings which have been obliterated, and, in a heavy hatch, those buildings which have been damaged—some of them severely—by the flood. Running horizontally across the plan is the heavier-flowing East Lyn. Entering it, almost at right angles, from the south, is the smaller, but very much quicker-flowing West Lyn. Just prior to the junction, the West Lyn runs under a road bridge and into a narrowed bed between two blocks of buildings. This artificial constriction of the river by a small, round-arched bridge and by closely-sited hotels, was the cause of the destruction of the buildings on the east bank of the West Lyn and of the severe damage to the hotels themselves, including the Lyndale Hotel, which, in addition to withstanding the rising flow of the East Lyn, had about 30,000 tons of boulders deposited against its south side by the West Lyn. The diagram on this page, together with the photograph, show the main forces of destruction. The nine inches of rain which fell in twenty-four hours caused these two small streams to become raging torrents, sweeping everything before them. They scoured their banks causing trees and boulders to be loosened and swept away, they rolled twenty-ton boulders along their beds, and brought down stone retaining walls. This water-borne debris of intertwined trees, rocks and silt formed into natural dams, which, on bursting, tore yet more material edge of the plan and sweeping away every sign and vestige of them, so

rain which fell in twenty-four hours caused these two small streams to

rolled twenty-ton boulders along their beds, and brought down stone retaining walls. This water-borne debris of intertwined trees, rocks and silt formed into natural dams, which, on bursting, tore yet more material from the banks to be carried down into the ever-narrowing gorge in which lies the village of Lynmouth. It was this onrush of bursting, dammed-up water which blocked the bridge and caused the West Lyn to overflow its banks and run on a more easterly course (see photograph) smashing the houses which were in its way. It was a similar flood which came down the East Lyn, pouring over the terrace of houses shown on the right-hand edge of the plan and sweeping away every sign and vestige of them, so that only the rounded boulders of the river bed now remain. These two floods combined were too great for the existing river channel below their confluence, and the water rose above the banks, rushing three feet deep down the High Street and beating with the full force of their combined flow against the cottages which stood in line with the river at the west end of the village. These five cottages were also swept away.



Plan of Lynmouth, showing destroyed buildings in solid black and damaged buildings hatched heavily



PROPOSED PLAN FOR LYNMOUTH

Lynmouth can never be made free from floods, but it can be made safe. Short of moving all the buildings above the highest flood line—a virtually impossible task without fantastic hill-cutting operations to provide level sites—the only alternative is to ensure that both rivers have a free flow to the sea. In the new plan, therefore, shown above, new buildings near the confluence of the rivers have been kept well away from the banks so that there is little possibility of their helping to form a dam. At the same time, the clearance of the road bridges over the rivers has been raised and the bridges made of greater span. In each case they are now more than twice the previous spans and are sufficiently wide to allow trees to flow through sideways-on without danger of jamming. Both bridges span from the Lynmouth and Countisbury hills to an extended portion of a spur of the south-east hill which runs within the angle of the two rivers. This raised portion forms a bastion at the junction of the rivers and is the

the confluence of the rivers have been kept well away from the banks so

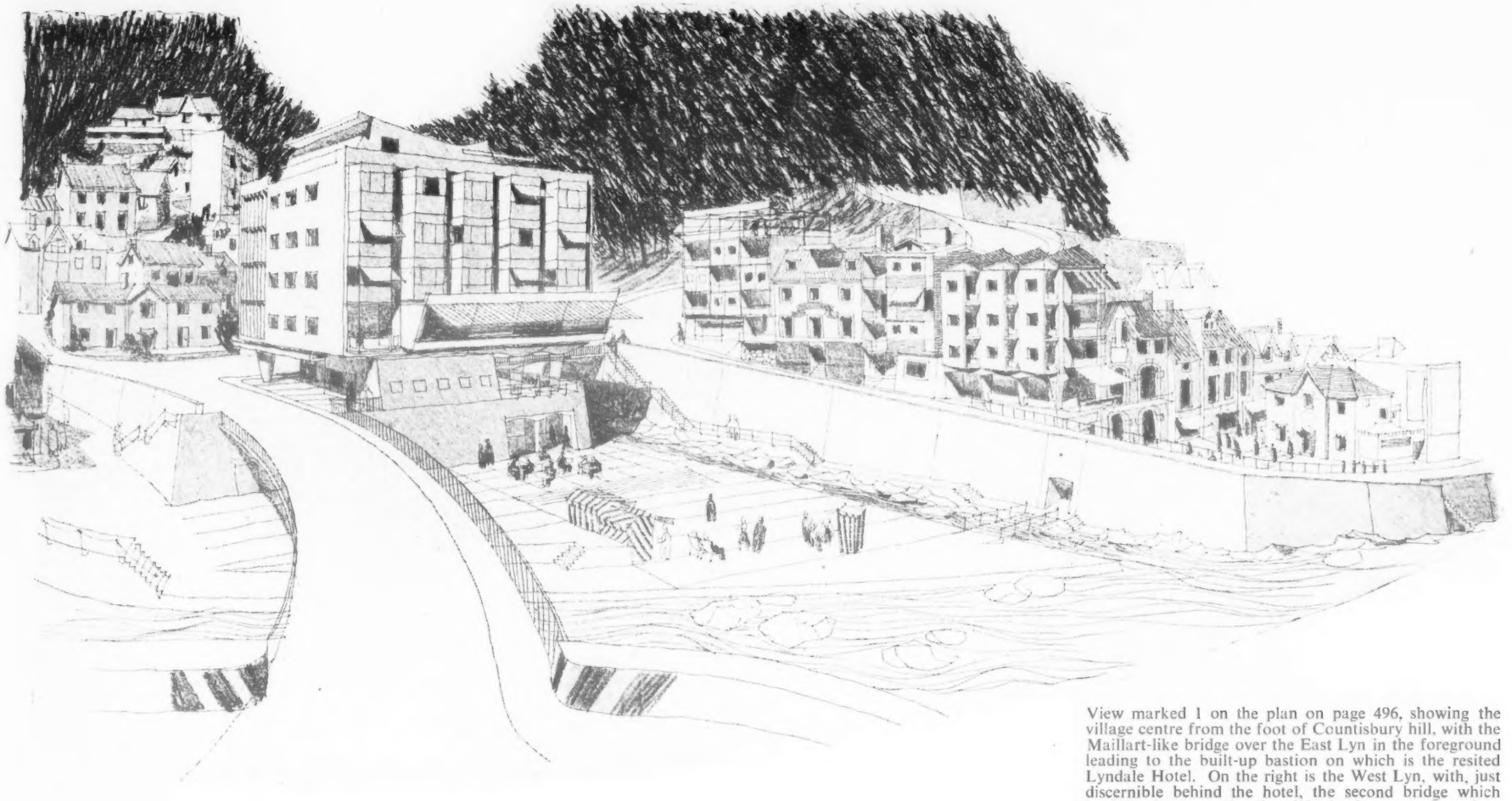
span from the Lynmouth and Countisbury hills to an extended portion of a spur of the south-east hill which runs within the angle of the two rivers.

Above and right, two views of the shopping street or High Street, after the flood

This raised portion forms a bastion at the junction of the rivers and is the base for the resited Lyndale Hotel. The rivers remain in virtually their existing beds but an open place *has been formed which could, in time of flood, take the overflow from each stream. As well as a plan for the flow of rivers, there must also be a plan for the flow of traffic. There is, during the summer months, heavy tourist traffic. Coaches come along the coast road and enter the village from the north, down Countisbury Hill. The Lynton hill is too steep, and with two many hair-pin bends for these large vehicles, which therefore usually leave the village by the south-east road up the lovely East Lyn valley. These three roads are quite a distance from the sea, so a fourth road is necessary which will take coaches and cars down to the Esplanade. This fourth road has been designed to run parallel with the existing High Street on the river side of the houses. It therefore forms a barrier to protect the houses in time of flood and relieves the High Street of vehicular traffic. The High Street is extremely narrow and becomes very congested in the summer. Relieved of traffic it could be an attractive pedestrian shopping centre with access allowed to it only for servicing vans. The photographs on this page show the battered but potentially pleasing shopping street.*

The junction of the four roads is the crucial problem. As the main traffic is on the north and south-east roads, the line of traffic has been kept clear of intersections, except for access to car and coach parks. The route to the sea is by a bridge over the West Lyn and down a fairly steep ramp to the new riverside road.

A turn at the bottom gives a length of ramp sufficient to ensure gradients of less than 1 in 7. This ramp is the sloped top of a massive river wall designed to contain the waters of the West Lyn. In time of flood it would have to withstand the full force of the East Lyn and guide the combined flow of water and debris from both rivers away from the high street and down to the sea. Clearing the land of buildings to free the flow of both rivers has led to the sterilization, as far as building is concerned, of a relatively large and flat area of the village. The new site for the Lyndale Hotel is large enough to provide accommodation equivalent to the



View marked 1 on the plan on page 496, showing the village centre from the foot of Countisbury hill, with the Maillart-like bridge over the East Lyn in the foreground leading to the built-up bastion on which is the resited Lyndale Hotel. On the right is the West Lyn, with, just discernible behind the hotel, the second bridge which leads to Lynton. On the right is the ramped road to the sea front and the shops

old three-storeyed hotel. It would, however, be an improvement, visually, if this building went up to six or even more storeys, so as to act as a focal point at this key position in the town. Not only would it tie together the two halves of the town which are inevitably separated by the north-south-east road, but it would partially close the too long vista of the East Lyn valley. (*See top photograph on page* 493.) *Sites for the other hotels are given on the west of the ramp, on the west end of the island site between the pedestrian shopping area and the new river road, and on the east bank of the West Lyn. Sites for some of the houses which cannot be re-erected near the rivers are shown to the south of the Lyndale Hotel.*

THE VILLAGE CENTRE

THE SEA FRONT

south-east road, but it would partially close the too long vista of the East

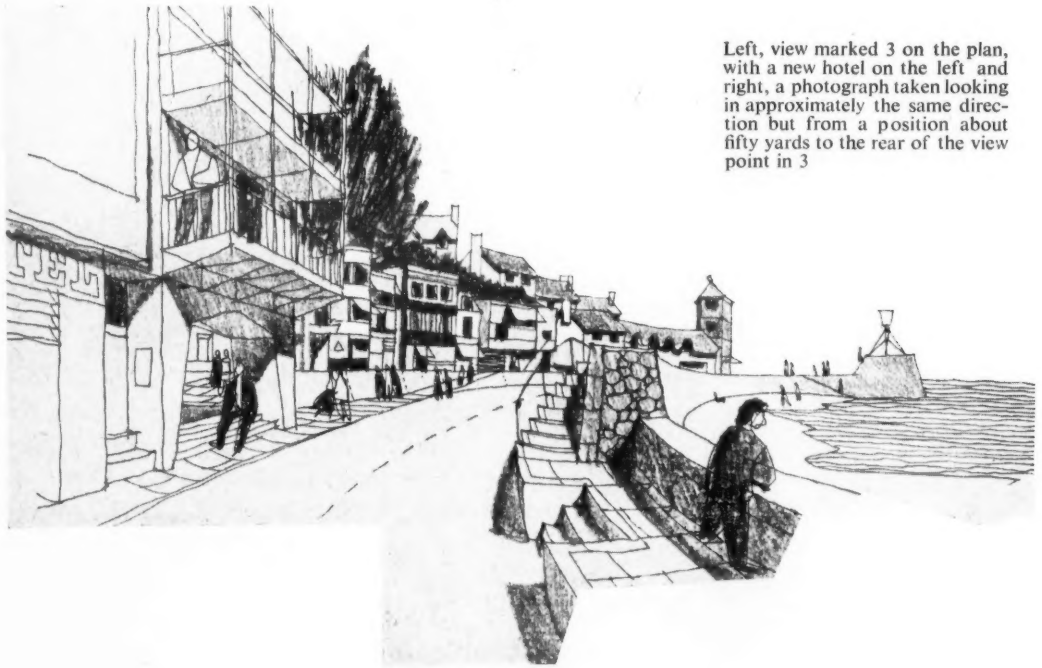
erected near the rivers are shown to the south of the Lyndale Hotel.

THE VILLAGE CENTRE

The treatment of the place (*opposite page*) *needs careful consideration. Any permanent structure is liable to be washed away. However, such extreme floods are rare occurrences so that it is reasonable to suppose that use could be made of the site during the summer months for stalls and kiosks. These would have to be carefully designed so as to avoid any suggestion of shack stores or hutted shops. They should preferably be on wheels so that they can be quickly moved out of the danger zone. This* place *is linked by a light bridge (expendable in time of flood) and a tunnel under the ramp (closed by water gates in time of flood) to the shopping street, so that it forms, in effect, an extension of the shopping area, or a market place, if needed, with open-air cafes, which are close to the car park and to service roads.*

THE SEA FRONT

The combined Lyn rivers turn almost through a right angle just before discharging into the sea. The embankment at this corner, sufficient for controlling normal flow, failed utterly to protect the cottages from the flood, which smashed over the wall to sweep away a row of five, standing close against the sheer hillside. The photograph below shows this corner and the flood-cleared site. This will always be a vulnerable point, so, as shown in the sketch, it is proposed to heighten the embankment at this point, and, in order to preserve the view for pedestrians, to have a raised pavement beside it. In addition, the houses have been raised four or five feet on to a platform with ramp access. It might be argued that it would be easier not to rebuild in such a potentially dangerous place, but, as can be seen in the photograph, it is essential to continue the line of the cottages so as to provide a visual link between the riverside town of shops, boarding houses and hotels and the seaside "fisherman's cottages" by the pier. The harbour presents a difficult problem. Over the years it has become so silted up that it is virtually useless save at high tide.



Left, view marked 3 on the plan, with a new hotel on the left and right, a photograph taken looking in approximately the same direction but from a position about fifty yards to the rear of the view point in 3

Thus boats are used for pleasure as much as they are for fishing. Low tide leaves a quarter-mile stretch of beach. There seems to be no easy solution for this stoney no-man's-land.

THE RAMP

There is space for eating out within the bent arm of the protective ramp which leads from the shopping precinct to the road to Lynton. The sketch shows the new high level bridge spanning the East Lyn and also a corner of the new Lyndale Hotel. Right foreground are new hotels with, beyond, the pedestrian tunnel to the place.

This ramp, the heightened river wall and the bastion astride the spur between the rivers, will not be cheap—but neither are human lives. Fortunately there is more than enough local stone on the site, or poised dangerously upstream, with which to build them. All the new walls should be faced with the local stone which may well also act as concrete aggregate. The new buildings, here only tentatively indicated, should be in sympathy with what is already there, but contemporary in design, without being in any way "modernistic." Lynmouth has received, through the bitter tragedy of flood, what other English towns have received through the tragedy of war—the opportunity to start again. Not starting from scratch, for plenty of the town remains intact, but from a state of slightly faded charm to attain a goal of fresh delight.

View 2, the ramp, with the bridge over the East Lyn beyond

TECHNICAL SECTION

In this week's article " The Industry " (page 509), reference is made to a heating appliance which uses the thermal storage system. (This is the system of using electricity at off-peak periods to heat a medium which will store the heat. The heat may then be withdrawn during peak periods without any load being imposed on the power station.) Although large-scale thermal storage installations have been in use for many years (there is one at the RIBA's headquarters), the idea of using thermal storage for small one- or two-kilowatt appliances is new.

Thermal storage saves not only the consumers' money (off peak electricity can be obtained cheaply by special arrangement with the local supply authority), but also the nation's resources. If there were more thermal storage installations, power cuts might never be needed. It is a pity, therefore, that the Board of Trade has not yet thought fit to exempt thermal-storage equipment from purchase tax. The present cost of thermal-storage equipment for an average living room or office is nearly £50, almost half of which is purchase tax. While this cost is not excessive for a new building, it may be sufficient to deter many people in existing houses or offices from purchasing the equipment, in spite of the saving they will make in running costs.

Some local authorities contribute towards the cost of replacing old and inefficient open grates with efficient solid fuel appliances. They recognize that public money should be used to help the householder to save fuel. The government might well apply this principle to thermal-storage appliances, by exempting them from purchase tax.

This week's special feature

8 ESTIMATING
materials' prices

Current prices for measured work will appear next week. Prices of materials and measured work last appeared in the JOURNAL on July 24 and July 31 respectively.

Current rates of wages and market prices of materials prepared by Davis Belfield and Everest, Chartered Quantity Surveyors.

Rates of Wages last rose on February 4, 1952, and are now as follows:—

LONDON DISTRICT	*Craftsmen*	*Labourers.*
Within 12 miles radius	3s. 6d.	3s. 0½d.
From 12-15 „ „	3s. 5½d.	3s. 0d.
LIVERPOOL and DISTRICT	3s. 6d.	3s. 0½d.

GRADE CLASSIFICATIONS	A	A¹	A²	A³
Craftsmen ..	3s. 4½d.	3s. 4d.	3s. 3½d.	3s. 3d.
Labourers ..	2s. 11d.	2s. 10½d.	2s. 10d.	2s. 9½d.

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

CONCRETOR

Cements

		6 tons and over
Portland to B.S. 12	per ton	91/–
Rapid hardening to B.S. 12	,,	99/–
Aquacrete water repellant	,,	123/6

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

Snowcrete (minimum 1-ton lots), per ton, 251/6 (including bags).

Aggregate and Sands, etc. (Full Loads)

¾″ (Down) Washed, crushed and graded shingle to B.S. 882, Table 2	per yard cube	18/3
1½″ Ditto	per yard cube	17/3
3/16″ Sharp washed sand to B.S. 882, Table 3	per yard cube	20/10
Brick hardcore	per yard cube	9/–

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

Floor Blocks

		4″	6″	7″
Floor blocks, 12″ × 12″	per 1,000	673/–	909/–	1,050/–

Reinforcement

Home trade maximum basis price for mild steel rods to B.S. 785, ⅝″ diameter and upwards, ex mills delivered to station or siding	per ton	£31 19 0
Extras for :—		
Under ⅝″ to 7/16″ diameter	per ton	£1 7 0
Ditto 7/16″ and over ⅜″ diameter	per ton	£1 14 6
⅜″ and over 11/32″ diameter	per ton	£2 2 0
11/32″ and over 5/16″ diameter	per ton	£2 9 6
5/16″ and over 9/32″ diameter	per ton	£2 17 0
9/32″ and over ¼″ diameter	per ton	£3 4 6
¼″ diameter	per ton	£3 12 0
Under ¼″ to 3/16″ diameter	per ton	£5 2 0

Fabric Reinforcement

	16.35 lb.	9.32 lb.	4.71 lb.	1.83 lb
Steel wire mesh fabric to B.S. 1221, Part A, per yd. super	7/8⅜	4/5⅝	2/3⅜	1/5⅞

BRICKLAYER

Common Bricks

Third stocks	per 1,000 121/10
Rough stocks	per 1,000 157/10
Mild stocks	per 1,000 202/4
Sand limes	per 1,000 106/–
Phorpres pressed Flettons	per 1,000 108/–

Facing Bricks

Hand-selected sand limes	per 1,000 141/3
Phorpres rustic Flettons	per 1,000 133/–
Stocks, first hard	per 1,000 249/4
Stocks, second hard	per 1,000 233/4
Southwater pressed sandfaced reds	per 1,000 277/–
Dorking pressed sandfaced multicoloured facings	per 1,000 231/6

Engineering Bricks

Lingfield engineering wirecuts. Grade 'B'	per 1,000 211/–
Southwater engineering No. 2 (second quality red pressed)	per 1,000 274/6
*Blue pressed bricks to B.S. 1301	per 1,000 362/–

* Haulage extra

Glazed Bricks

		Best quality £ s. d.	Seconds £ s. d.
White, Ivory or Brown, 9″ × 2⅞″ × 4½″			
Headers	per 1,000	39 10 0	37 10 0
Stretchers	per 1,000	40 0 0	38 0 0

Prices for glazed bricks +50%, seconds. +60%, bests.

Plus delivery charge in London area of 30/– per 1,000

BRICKLAYER (*continued*)

Limes and Sands

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

* Including paper bags.

† Hire of jute sacks charged at 1/6 and credited at 1/6. If left, charged at 1/9.

Sundries

10 s.w. gauge galvanized butterfly type wall ties to B.S. 1243		per 1,000	110/–
Wall ties, galvanized, 8″ × ¾″ × ⅛″, to B.S. 1243		per cwt.	111/9
Damp proof course slates :		Imported	Welsh
Size 14″ × 9″	per 100	43/6	72/–
,, 14″ × 4½″	per 100	21/–	33/9
Hessian base bitumen damp course to B.S. 743	per yard super	5/6	
		9″ × 3″ 9″ × 6″ 9″ × 9″	
Terra-cotta airbricks	each	1/3 2/6 6/–	
Galvanized cast-iron airbricks	each	3/8 6/1 9/6	
Galvanized cast-iron hit-and-miss ventilators	each	3/7 6/10 8/11	
Wall reinforcement supplied in standard rolls containing 25 yards lineal			
‡ 2″ wide black japanned		per roll	3/4
‡2½″ wide black japanned		per roll	4/2

‡ Greater widths pro rata 2½″ price, carriage paid on orders of £7. Discount for quantities.

Partitions, etc.

		2″	2½″	3″	4½″	
Breeze to B.S. 492	per yard super	3/10½	4/5	4/11½	6/5	
Hollow clay to B.S. 1190 (keyed)	per yard super	4/2	4/5	4/11		
Moler (keyed)	per yard super	10/–	12/7	14/–	15/8	(4″)
Building blocks (keyed) :—						4″
6 cavity	per yard super					6/5

PAVIOR

2″ coarse gravel for paths	per yard cube 21/3
¾″ fine ditto	per yard cube 22/9
Clean granite chippings to B.S. 1201, Table 4 (in 5-ton loads)	per ton 44/9
Red quarry tiles 6″ × 6″ × 7/8″, to B.S. 1286	per yard super 12/9
Ditto 6″ × 6″ × ⅝″, to B.S. 1286	per yard super 10/9
Buff quarry tiles, 6″ × 6″ × 7/8″, to B.S. 1286	per yard super 15/3
Ditto 6″ × 6″ × ⅝″, to B.S. 1286	per yard super 13/–
Hard red paving bricks, 2″	per 1,000 429/–
Ditto 1½″	per 1,000 404/6

DRAINLAYER

Clay Land Drain Pipes to B.S. 1196

		3″	4″	6″
Pipes in 12″ lengths	per 1,000	195/–	255/6	529/–

Salt Glazed Stoneware Pipes and Fittings

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

	Orders for 2 tons and over	Orders under 2 tons 100 pieces upwards	Orders under 2 tons less than 100 pieces
Seconds Quality	67½% less 15%	87½% less 15%	97½% less 15%
Best Quality	67½%	87½%	97½%
British Standard Quality	67½% + 10%	87½% + 10%	97½% + 10%
Tested Quality	67½% + 37½%	87½% + 37½%	97½% + 37½%
British Standard Tested	67½% + 47½%	87½% + 47½%	97½% + 47½%

Cast Iron Drain Pipes and Fittings

Socket and spigot pipes to B.S. 437 :—

Weight per 9 ft.			Size	9 ft. high each	6 ft. high each	4 ft. high each	3 ft. high each	2 ft. high each
1	1	17	4″	56/6	41/4	32/7	24/11	20/–
2	0	1	6″	84/3	65/4	51/9	41/3	31/–
3	3	21	9″	153/6	130/4	110/6	84/8	

DRAINLAYER (*continued*)

Tonnage Allowances :—

Orders up to 2 tons nett.

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

* These prices are subject to 108½% plusage.

Channels in Brown Glazed Ware.

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

White Glazed Channels

Orders under 20 pieces. Standard list + 20%.

Manhole covers and frames

		Size of load	Unit price
C.I. coated double triangular manhole cover and frame, 22″ dia. clear opening to B.S. 497, Grade A	each	35 tons	154/–
C.I. coated circular manhole cover and frame, 22″ dia. clear opening to B.S. 497, Grade B.	each	5 tons	84/–

		Size of load	Single seal Flat type	Double seal Flat type
Coated manhole cover and frame to B.S. 497, Grade C, 24″ × 18″	each	1 ton	39/10	66/5
Galvanised ditto, 24″ × 18″	each	1 ton	70/4	100/6
Coated manhole cover and frame, to B.S. 497, Grade C, 24″ × 24″	each	1 ton	56/9	86/4
Galvanised ditto, 24″ × 24″	each	1 ton	103/10	150/–

MASON

Yorkstone

Building quality Robin Hood and Woodkirk Blue Stone.

Blocks scrappled, random sizes	per foot cube	11/4
Add for blocks to dimension sizes	per foot cube	1/4 (each dimension)
Templates with sawn beds, edges rough (up to 4 ft. super and not over 2′ 6″ long)	per foot cube	12/8
Templates with sawn beds, sawn one edge,	per foot cube	14/8
Price f.o.r. Yorkshire, railway rate to London Station per ton. (Minimum 4-ton loads)		54/5

Bath stone in random blocks

Monk's Park	per foot cube	6/7
St. Aldhelm Box Ground	per foot cube	7/7

Delivered on rail at South Lambeth station.

Portland stone in random blocks, average 20 feet

Whitbed	per foot cube	7/4

Delivered on rail at Nine Elms Station.

Artificial Stone to B.S. 1217

4½″ × 4″ Sill, sunk, weathered, throated and grooved	per foot run	3/6
9″ × 3″ Ditto	per foot run	4/9
2″ × 12″ Coping, weathered and twice throated	per foot run	4/3
3″ × 12″ Ditto	per foot run	6/3
5″ × 12″ Saddleback coping, twice throated	per foot run	9/6
6″ × 12″ Ditto	per foot run	11/9

SLATER, TILER AND ROOFER

Slates

		£ s. d.
16″ × 10″ Best Bangor Slates to B.S. 680	per 1,000 actual	49 14 6
20″ × 10″ Ditto	per 1,000 actual	74 0 6

SLATER, TILER AND ROOFER (*continued*)

Tiles

Hand-made sandfaced 10½″ × 6½″ red roofing tiles	per 1,000	325/9
Machine-made sandfaced best red tiles with continuous nibs, 10½″ × 6½″	per 1,000	294/6
Berkshire hand-made red Pantiles, 14½″ × 10″	per 100	119/9
Bridgwater hand made red sandfaced pantiles, in 6 ton loads	per 1,000	799/6
Bridgwater hand made red sandfaced Double Roman tiles, in 6 ton loads	per 1,000	1075/5
Concrete plain tiles, 10½″ × 6½″	per 1,000	160/9
Ditto interlocking tiles, 15″ × 9″	per 1,000	490/–
Ditto Double Roman Tiles	per 1,000	800/–

Asbestos-cement

*6″ corrugated sheets, grey	per yard super	5/11

*Prices are for minimum two-ton loads, and are subject to 2½% discount.

Felt

Reinforced roofing felt to B.S. 747	per yard sup.	1/10
Roofing felt (1-ply bitumen) to B.S. 747, Part I	per yard sup.	1/6
Bituminous hair felt to B.S. 747, Part II	per yard sup.	3/–

CARPENTER AND JOINER

Wall boards

½″ Imported Fibre board (per 100 sq. ft.)	5,000 to 15,000 sq. ft. 41/–
⅛″ Imported Hardboard (per 100 sq. ft.)	42/–
3/16″ Imported Hardboard (per 100 sq. ft.)	60/–
* 3/16″ Semi compressed asbestos cement flat building sheets, grey	per yard super 2/6
* ¼″ Ditto	per yard super 3/6

*Prices are for orders of 2 tons and over. Subject to 5% trade discount.

Sundries

"Sisalkraft" standard grade	per yard sup.	–/11½
"Sisalkraft" subsoil grade	per yard sup.	–/7½
"Sisalation" single sided	per yard sup.	2/1½
"Sisalation" double sided	per yard sup.	3/1
* Fibre glass Bitumen-bonded	per yard sup.	1/11½

* Price is for orders value £5 and over.

Timber

Softwood for Carpentry (average price)	per std.	£95
Softwood for Joinery (ditto)	per std.	£105
Tongued and Grooved Softwood Flooring (ditto)	per std.	£105
First Quality European Oak (ditto)	per ft. cube	26/–
Teak (ditto)	per ft. cube	59/–

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

Type 4	size 2′ 6″ × 6′ 6″ × 1½″	each	34/3
Type 2 × G	size 2′ 6″ × 6′ 6″ × 2″	each	44/7
Type 4 × G	size 2′ 6″ × 6′ 6″ × 2″	each	51/2

In lots of from 1 to 11 inclusive.

Wood Windows

N 26 V	size 1′ 5¼″ × 2′ 6¼″	each	29/1
2 26 V	size 4′ 0¼″ × 2′ 6¼″	each	51/2
N 40 V	size 1′ 5¼″ × 4′ 0¼″	each	33/5
3 40 V	size 5′ 11¼″ × 4′ 0¼″	each	89/4
4 40 V	size 7′ 10¼″ × 4′ 0¼″	each	116/–

In lots of from 1 to 20 inclusive

Kitchen Units

No. 1	size 3′ 6″ × 2′ 8″ × 1′ 7″	each	194/7
No. 2	size 3′ 6″ × 2′ 8″ × 1′ 7″	each	137/–
No. 4	size 2′ 8″ × 1′ 9″ × 1′ 7″	each	119/4
No. 5	size 3′ 10″ × 1′ 9″ × 1′ 7″	each	100/2
No. 7	size 6′ 6″ × 1′ 9″ × 1′ 7″	each	155/4

Prices include for tops and plinths.

In lots of from 1 to 15 inclusive.

STEEL AND IRONWORKER

		£	s.	d
Basis price for rolled steel joist sections, in 10 ft. to 50 ft. lengths	ex mills per ton	28	8	0
Extra for sizes :—				
9″ × 7″	Add per ton		5	0
3½″ × 3½″, 5″ × 4½″, 6″ × 4½″, 10″ × 8″, 12″ × 8″, 14″ × 8″, 16″ × 8″, 18″ × 6″, 18″ × 7″, 18″ × 8″, 20″ × 6½″, 20″ × 7½″	„ „		10	0
10″ × 4½″, 12″ × 5″	„ „		15	0
4″ × 2½″, 5″ × 3″, 22″ × 7″, 4½″ × 4½″	„ „	1	0	0
3″ × 3″, 4″ × 3″, 5″ × 2½″	„ „	1	5	0
4″ × 4″, 6″ × 3″	„ „	1	10	0
4¾″ × 1¾″, 24″ × 7½″	„ „	2	0	0
4″ × 1¾″	„ „	3	0	0
3″ × 1½″	„ „	3	10	0
Basis price for angles	ex mills per ton	28	7	0
„ „ „ tees	„ „	28	7	0
„ „ „ solid steel columns	„ „	30	7	0

All delivered Station or Siding.

PLASTERER

Plaster and Cement

		1-ton loads	6-ton loads
Thistle (browning) to B.S.1191, Class B	per ton	151/6	127/9
Gypstone to B.S.1191, Class B	per ton	101/–	
Paristone (haired) to B.S.1191, Class B	per ton	103/6	ex Works,
Ditto (unhaired)	per ton	101/–	Kent.
Sirapite (coarse) to B.S.1191, Class C	per ton	148/–	124/3
Ditto (fine) to B.S.1191, Class C	per ton	156/–	132/3
Keene's Pink to B.S.1191, Class D	per ton	194/3	
Keene's White to B.S.1191, Class D	per ton	199/6	
Cullamix (Tyrolean Finish), 1-ton lots and upwards	per ton from	178/9 to	212/3

Sundries

Sharp washed sand to B.S.1198	per yard cube			20/10
Cow Hair	per cwt			97/6
Expanded metal lathing, 9′ 0″ × 2′ 0″ × ⅜″ mesh × 24 gauge	per sheet			6/11
	25 to 149 yards	150–299 yards	300–599 yards	Over 600 yards
⅜″ Plasterboard (base board) per yard super	2/10	2/6	2/5	2/4
Galvanized lath nails 14 G	per cwt.			118/2
Hessian Scrim cloth in 100-yard rolls, 3½″ wide	per roll			7/9

Wall Tiles

The following prices are subject to 17½ per cent. addition :—		
Standard quality white glazed 6″ × 6″ × ⅜″	per yard super	18/6
Cream glazed 6″ × 6″ × ⅜″	per yard super	20/6
Eggshell or glossy glazed 6″ × 6″ × ⅜″	per yard super	26/3

PLUMBER

Lead and Copper

		£	s.	d.
3½ lb. and upwards milled sheet lead in quantities of 5 cwts. to 1 ton in sheets to B.S.1178	per cwt.		155/3	
Hot rolled copper sheeting in 1-ton lots (4′ × 2′ sheets), to B.S.899	23 wire gauge, per ton	365	10	0
Ditto	24 wire gauge, per ton	368	15	0
Zinc sheeting in 1-ton lots	14 gauge per ton	147	0	0

Cast Iron Goods

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

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

Mild Steel Rainwater Goods

		Standard List
Gutters	(under 100 lengths)	Less 17½% and 5%
Pipes and Fittings	(„ „)	Less 17½% and 5%

Asbestos-Cement Rainwater Goods

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

Rainwater Pipes.

	Diameter 2″	2½″	3″	4″	6″	
2′ 0″ lengths	3/2	3/7	4/3	5/10	12/–	each
3′ 0″ „	4/3	4/10	5/8	7/11	16/2	„
4′ 0″ „	5/5	5/11	6/10	9/7	19/11	„
6′ 0″ „	6/3	7/1	8/5	11/8	24/–	„
8′ 0″ „	8/4	9/5	11/3	15/7	32/–	„
10′ 0″ „	10/6	11/10	14/–	19/4	40/–	„

PLUMBER *(continued)*

Gutters.

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

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

INTERNAL PLUMBER

Lead pipe in coils 5 cwts. and upwards, to B.S.602	per cwt.				156/6
Lead soil pipe	per cwt.				158/–
Drawn lead traps with brass screw eye, to B.S.504		1″-6 lb.	1¼″-6 lb.	1½″-6 lb.	2″-7 lb.
S. trap 1½″ seal	each	6/9	7/5	8/11	15/1
P. trap 1½″ seal	each	5/3	5/9	7/2	12/–
Extra for 3″ deep seal " S " trap	each	1/5	1/5	1/8	2/2
Extra for 3″ deep seal " P " trap	each	–/9	–/9	1/3	1/3

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

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

Tubes :	½″ to 4″	Fittings :	
Class B	15½%	Lightweight	plus 3¾%
„ C	2½%	Heavyweight	plus 11¼%
Galvanized Class B	plus 9%	Galvanized :	
„ „ C	plus 25¾%	Lightweight	plus 18%
Galvanized malleable fittings		Heavyweight	plus 25½%
Less 49% plus 40%			
Copper tubing to B.S. 659 and 1386.	Basic price per lb.		2/8¾

GLAZIER

Sheet Glass, cut to size (ordinary glazing quality), to B.S.952, Section A
For quantities exceeding 500 ft. super.

18 oz.	per foot super	4½d.
24 oz.	per foot super	6d.
32 oz.	per foot super	10½d.

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

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

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

⅛″ figured rolled and cathedral, to B.S.952, Section B—standard patterns, white	per foot super	7½d.
3/16″ or ¼″ rolled plate, patterns, white	per foot super	9d.
3/16″ or ¼″ rough cast, patterns, white	per foot super	9d.
¼″ Georgian wired cast, patterns, white, Section D	per foot super	10½d.
¼″ Georgian wired polished plate, Section D	per foot super	4/10d.
¼″ wired cast polished plate	per foot super	10½d.

PAINTER

White ceiling distemper	per cwt.	29/–
Washable distemper	per cwt. from	112/–
Ready mixed white lead paint (best), semi-gloss, per 32 lb.	per gallon	62/6
Ready mixed oil paint :		
Undercoat	per gallon	46/–
Finishing coat	per gallon	57/–
Aluminium paint (best quality)	per gallon	42/–
White enamel paint	per gallon	57/–
Oil stain (scumble)	per lb.	4/3
Varnish (outside quality), copal oak	per gallon	38/–
„ „ „ general oak	per gallon	36/–

W. A. Davis

F.R.I.C.S., F.I.Arb.

n 2′ 0″

8″
5/8

156/6
158/-

2″-7 lb.
15/1
12/-
2/2
1/3

r and

bject to

3¼%
11¼%

18%
25½%

2/8¾

ection A

4⅝d.
6d.
10½d.

″, to

Silvering
quality
5/1
6/2
6/11
8/10

wide, or

per 7⅞d.
per 9d.
per 9d.

per 10½d.
per 4/10d.
per 10½d.

29/-
om 112/-

62/6

46/-
57/-
42/-
57/-
4/3
38/-
36/-

Arb.

WORKING DETAIL

SHOWCASE: SOCIETY HEADQUARTERS, LONDON, N.W.1.

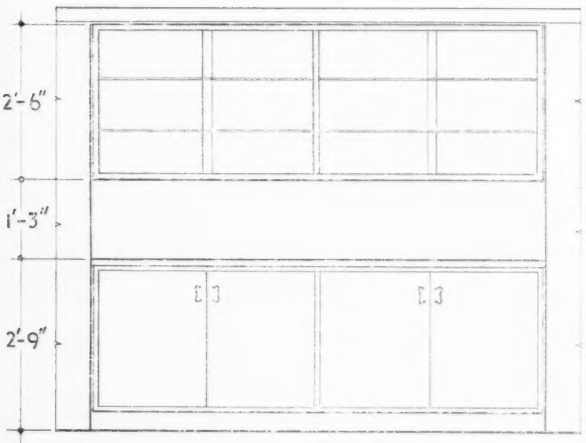
John and Elizabeth Eastwick-Field in collaboration with Hugh Pite, architects.

The showcase has glass shelves and sliding doors and is fitted into a recess lined with hardwood : the cupboard doors are of painted blockboard.

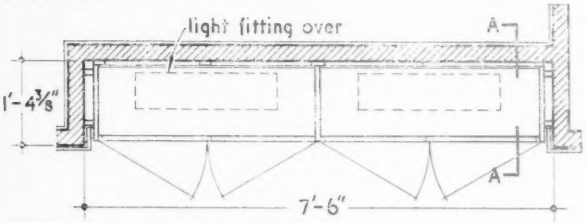
WORKING DETAIL

SHOWCASE: SOCIETY HEADQUARTERS, LONDON, N.W.1.

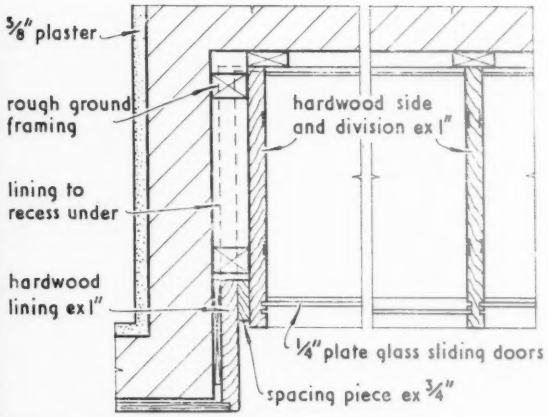
John and Elizabeth Eastwick-Field in collaboration with Hugh Pite, architects.



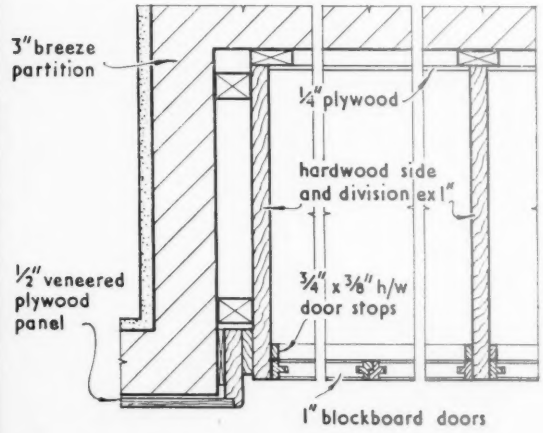
ELEVATION.



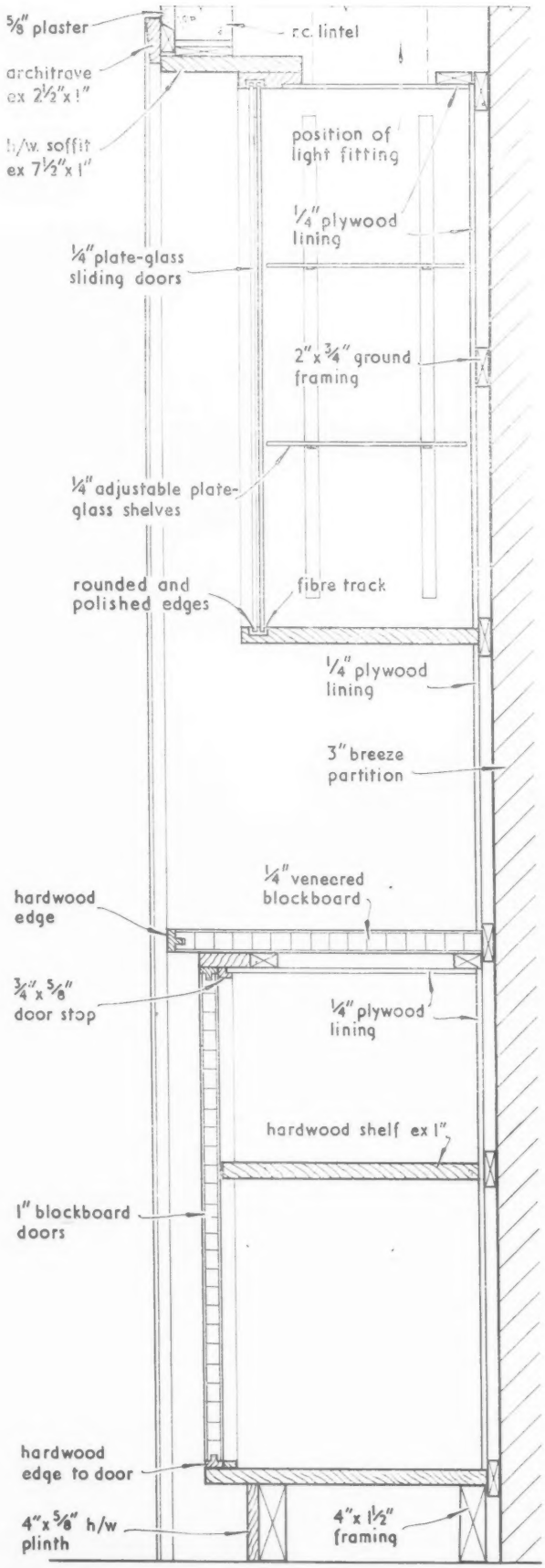
KEY PLAN OF FITMENT. scale ⅜"=1'-0"



PLAN OF SHOWCASES. scale 1½"=1'-0"



PLAN OF CUPBOARDS. scale 1½"=1'-0"



SECTION THRO' FITMENT AT A-A. scale 1½"=1'-0"

WORKING DETAIL **WINDOWS: 16**

WINDOW WALL IN DINING RECESS: HOUSE AT COVENTRY

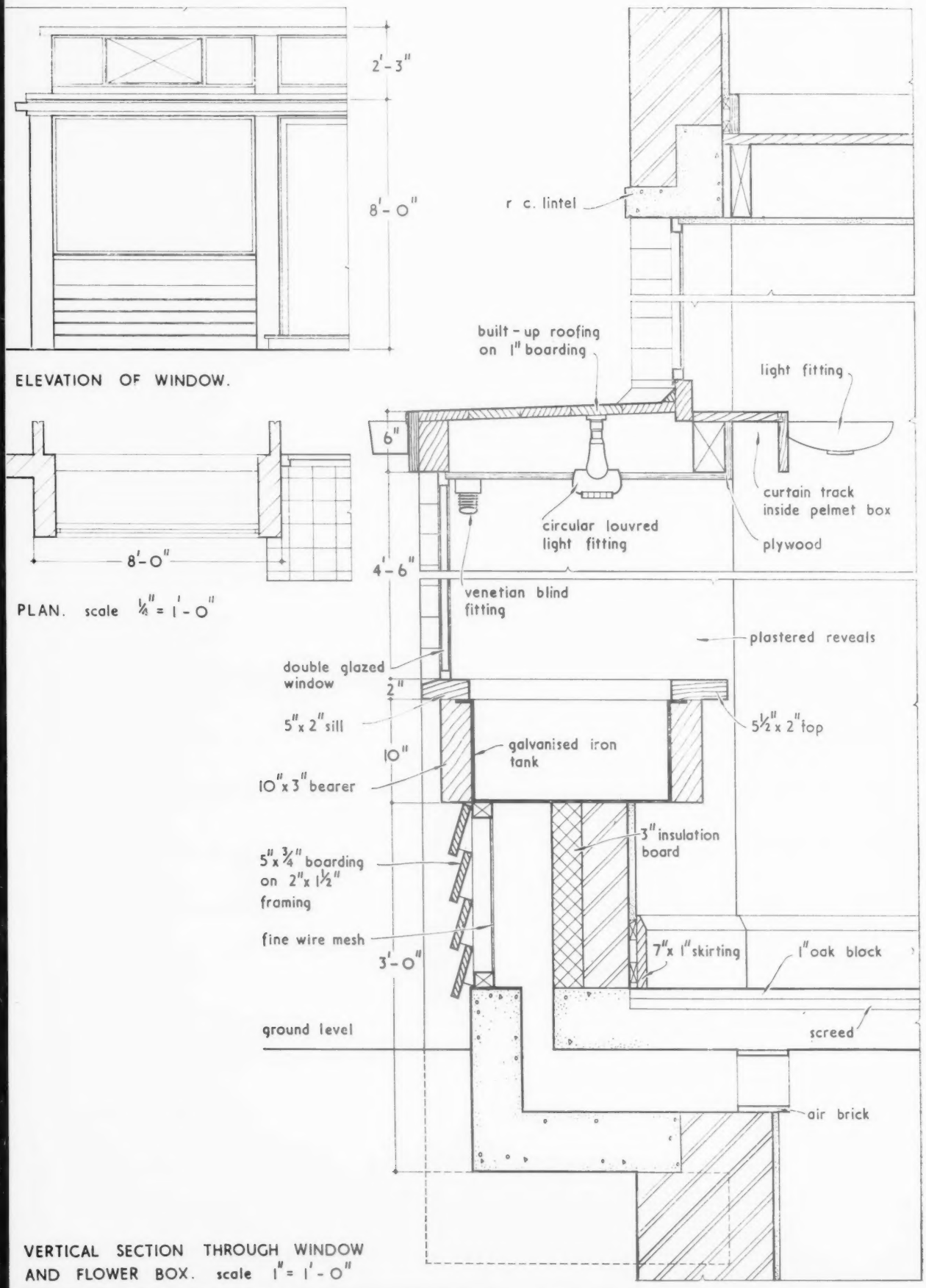
Rolf Hellberg, architect.

The window is double-glazed and a ventilating duct to the basement is contained in the wall beneath the flower box.

WORKING DETAIL **WINDOWS: 16**

WINDOW WALL IN DINING RECESS: HOUSE AT COVENTRY

Rolf Hellberg, architect.

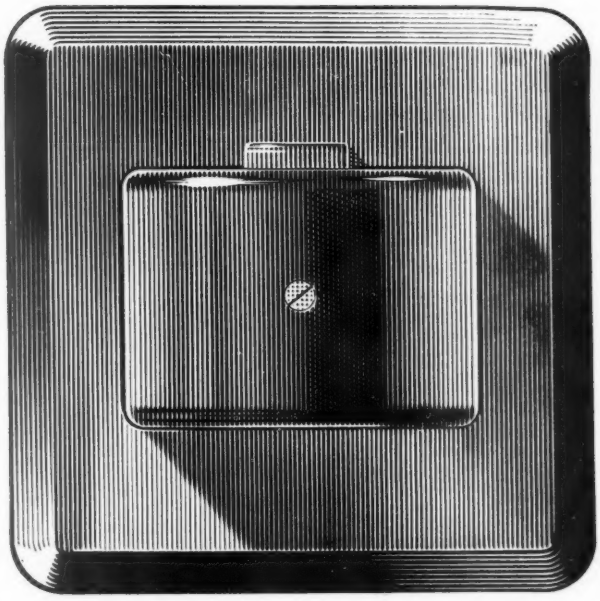


ELEVATION OF WINDOW.

PLAN. scale ⅛" = 1'-0"

VERTICAL SECTION THROUGH WINDOW AND FLOWER BOX. scale 1" = 1'-0"

Add a touch of distinction



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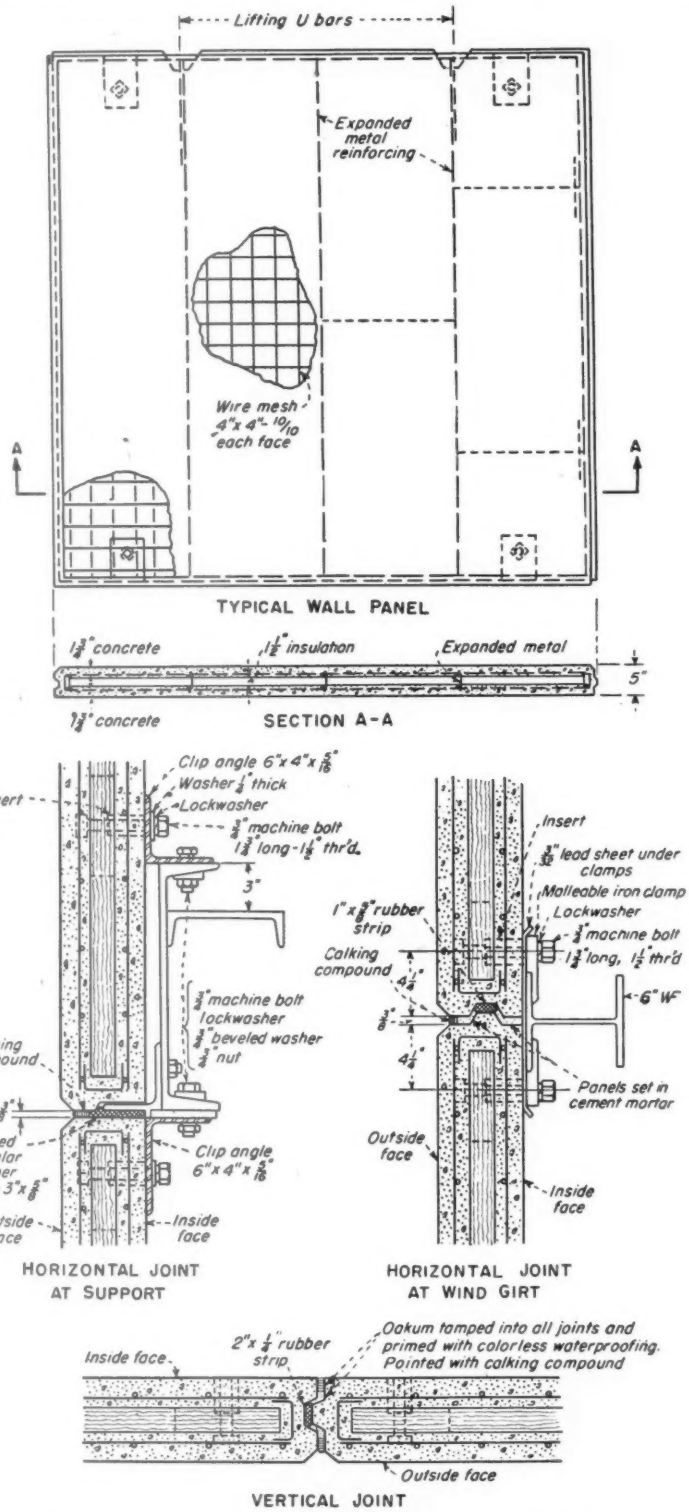
E.10

PRECAST CONCRETE CLADDING PANELS



The use of precast concrete wall panels cut by two-thirds the cost of cladding industrial buildings at Marietta, Ohio; (the comparison is made with 12-in. brickwork). The panels are 5 in. thick and are composed of a 1½-in. layer of insulation material, sandwiched between two 1¾-in. skins of high-grade concrete. To increase durability, an air-entraining agent was added to the concrete. Each layer of concrete was

INFORMATION CENTRE

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

14.54 materials: concrete

CONCRETE FAILURE

Reactions between Aggregates and Cement. Part 1. F. E. Jones. National Building Studies Research Paper No. 14. (HMSO, 1952. 1s. 3d.)

Paper describing the failure of concrete through chemical action, interesting to all concerned with structural concrete.

British Standards are available covering the quality of various aggregates and cements, but chemical analysis of the aggregate is rarely considered and experience of previous use is usually accepted as a guarantee. There is, however, the possibility of chemical reactions which can cause breakdown in concrete structures. One of the most important of these reactions is that of siliceous aggregates with the sodium and potassium hydroxides released during the hydration of the cement. The alkali silicate-gel formed in this way can be sufficient to crack the concrete.

No large scale failures have taken place in this country, but in America and Australia there have been many failures and consequently there has been considerable research into the problem. The present publication is the first of a series of papers which will deal with alkali aggregate problems and it describes investigations in America and theories on the subject. Test methods are described and recommendations given for the prevention of expansion due to chemical reaction. Later papers will deal with British cements and aggregates and with the further investigations of test methods.

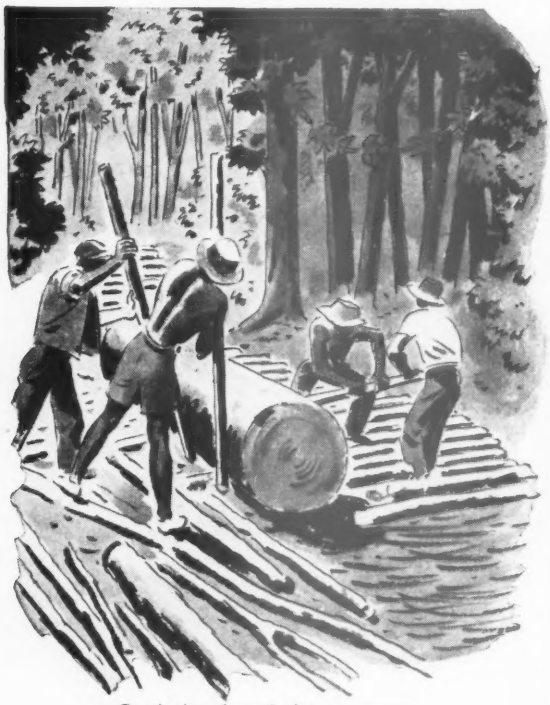
18.111 construction: theory

REINFORCED CONCRETE DESIGN

Examples of the Design of Reinforced Concrete Buildings. C. E. Reynolds. (Concrete Publications Ltd. 1952. 10s.)

Successor to author's well-known work "Practical Examples of R.C. Design" but so completely re-written as to become a new book rather than a revised edition.

Mr. Reynolds' books have always been popular with the budding draughtsman



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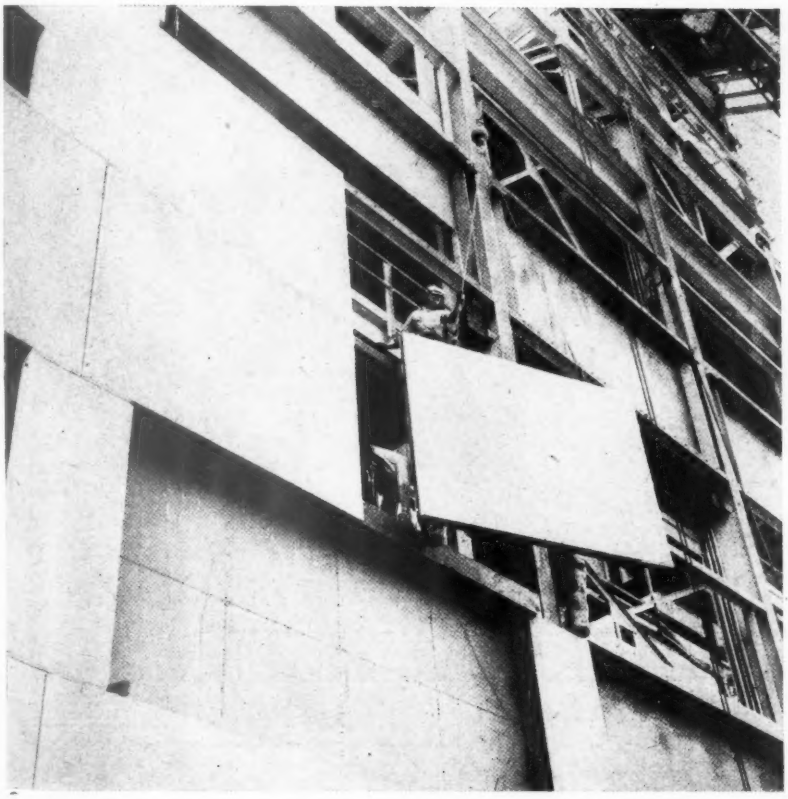
PRECAST CONCRETE CLADDING (continued)

reinforced with 4-in. square wire mesh; cover on the outer face is 1 in. To facilitate handling and erection, two U-shaped bars were embedded in recesses in the top edge of each panel, and threaded metal tubes were cast into the top and bottom edges of each panel into which connecting bolts were screwed. Two sizes of panel were used—10 ft. by 8 ft. and 8 ft. square, with a tolerance of plus or minus $\frac{1}{16}$ in. Four types of insulation material were used—wood-chip aggregate concrete, wood-fibre aggregate concrete, cellular glass slabs and glass-fibre insulation board—and the "U value" of the panels is approximately 0·36. The panels are supported at every third course on the steel frame, as shown in the diagram on p. 505, and, no doubt, a connection to a concrete frame could be devised. Under normal conditions, a team of 10 men can erect 2,000 sq. ft. of these panels in an 8-hr. day. The photograph below shows a panel being hoisted into position by crane. (For further details, see Engineering News Record *[USA], January 24, 1952, pp. 34-39, from which the illustrations above and on p. 505 are reproduced.)*



designer on account of the way he combines theory and practice, the wealth of tabular and graphical information in his books and his interpretation of Codes and byelaws. The proposed London byelaws are now almost identical with BS C of P 114 and it has not been necessary for the author to distinguish between the two as in the previous edition. The loading has been based on the latest revision of Chapter V of CP3, and graphs and tables are given to supplement the various rulings and present the author's interpretation of them. BS C of P 114 and its sub-codes are dealt with in similar manner.

The sections on foundations and the design of basement retaining walls remain substantially as in the previous edition. Every portion of the chosen building is again designed with alternative types of floor slabs, columns, etc.

18.112 construction : theory
STEELWORK DESIGN

Structural Steelwork for Buildings. H. P. Smith (Crosby Lockwood. 3rd Edition. Revised. 1952. 7s. 6d.)

This publication is intended for students of the early part of a college course and for artisans who wish to embellish their practical work with private study. It is not a text book on structures or steelwork, but serves as an introduction to the subject by presenting a mixture of theory and practice, with examples from the author's experience.

Simple beams, crane girders, columns and trusses are described and a chapter is devoted to welded construction. References are generally to BS 449 for structural steelwork and to BS C of P 113:102 for welded work.

18.113 construction: theory
PRESTRESSED CONCRETE DESIGN

Principles & Practice of Prestressed Concrete. Vol. I. P. W. Abeles. (Crosby Lockwood & Son Ltd. 2nd Edition. 1952. 21s.)

The rate of progress in a comparatively new technique must soon outdate any reference work written in the early stages of development. Thus Dr. Abeles' excellent book, one of the first written in the English language, in 1949, has been revised in the light of three years' further research and experience.

The chapters and sections follow the same pattern as the 1949 version and the descriptive part of the book remains substantially the same, as a further book (Vol. II) is to be published in 1953 to cover the new developments. Considerable revision to detail has, however, been necessary and nomenclature now corresponds to that of the "First Report on Prestressed Concrete" prepared by the Institution of Structural Engineers. Losses due to shrinkage and creep, formerly given on general lines, are now interpreted on the basis of the report, failure conditions are described in more

This Specialized Age..

The Astronomer

It is within the bounds of possibility that man will soon conquer space and explore the secrets of other planets. Thanks to the astronomers' specialized study of the planets, scientists can estimate the conditions likely to be encountered by the first space travellers.

★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★ ★

This is the age of specialization. With the advance of modern knowledge, no one man is able to excel in everything and in the field of human endeavour the final product is inevitably the result of co-operation by specialists. So it is with architectural planning. Working under the captaincy of the architect, the team of specialists all play their part and take responsibility for different sections of the project. Over the years, Lockhart Equipment Ltd., have gained a reputation as specialists in the planning and equipping of Industrial Canteens, Hotels and Restaurants. Experienced technicians are at all time available to provide specialist service to the architects, which includes the preparation of layout plans and the submission of appropriate quotations, whether it be for a completely new installation or the reorganisation of existing facilities. Lockhart Equipment Ltd., offer a fully comprehensive service whereby every item of catering equipment from the largest refrigerator down to the smallest piece of crockery, cutlery, furniture, linen, etc., is planned for and supplied so that the whole unit can be handed over complete and ready for operation.

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detail, and principal stresses are discussed on a more general basis. The economy of prestressed concrete is revised on the basis of January, 1952, prices. Reference is made both to the German draft regulations and the "First Report"; some extracts from these documents are included as appendices.

18.114 construction: theory
STRUCTURAL DESIGN

Forces in Framed Structures. T. Lyle Morgan. (Eyre & Spottiswoode Ltd. 1952. 25s.)

Statically determinate frames only. Written for students preparing for various examinations up to Higher National or the early stages of a University course. 215 pages, 220 figs., and many test papers with answers.

The methods of solution employed include the method of equilibrium of the joints, the method of sections, the stress diagram method and the method of tension coefficients, which is extended to deal with space frames. Having introduced the drawing board in the stress diagram solution, the author might have described the Williot-Mohr diagram for the calculation of deflections, but instead he uses the principle of virtual work. By adding a chapter on influence lines, the author has covered almost every aspect of a large variety of trusses and frames and the many worked examples will appeal to students. The book would, however, have had a wider appeal if a little of the space had been devoted to redundant structures.

19.155 construction : details
CONCRETE FLOORS

Granular Steel Finish Improves Wear Resistance of Concrete. (Civil Engineering [USA], May, 1952. Page 82.)

Tests conducted at University of California show that resistance to abrasive wear of concrete is greatly improved by applying a finish of granular steel particles mixed with equal volumes of cement on to the surface to a depth of 0·02 in. Other finishes tested involved calcium chloride, a chemical hardener, a surface sealer and fine steel dust. The accelerated test consisted of rolling a freely rotating and weighted grinding wheel over the specimens for 8 hr. and showed the granular steel to suffer abrasions only ¼ to ⅓ the depth of that suffered by other finishes.

19.156 construction : details
CONCRETE WALLS

Wall Slabs Cast Horizontally. (Concrete and Constructional Engineering. August, 1952, p. 251.)

Wall slabs 6 in. thick for Seattle warehouse cast in wooden moulds 21 or 24 ft. square on floor of warehouse. Slabs raised to position by crane 14 days after casting. Projecting ends of slab reinforcement tied into *in-situ* columns. Cost of walls 17 per cent. less than estimated cost of *in-situ* construction.

23.161 heating and ventilation
DOMESTIC APPLIANCES

Recommended Domestic Solid Fuel Appliances. List No 5. (Coal Utilisation Council. July, 1952. 6d.)

This cancels List No. 4 of December, 1951. It is an essential reference for anyone installing appliances in houses and flats. The large number of appliances now included in the list indicates widespread improvement in the performance of domestic heating and hot-water apparatus. It might be suggested, however, that concentration on a smaller number of types would lead to economy in production. Although such a step could hardly be taken without some interference with the private initiative of individual firms, it will be remembered that the motor car industry voluntarily took a similar step a few years ago.

24.158 lighting
STREET LIGHTING

Street Lighting. J. M. Waldram. (Vol. 12, The Roadmakers' Library. Edward Arnold & Co. 65s.)

Likely to become a standard reference on theory, layout, installation and equipment of street lighting. Unsuitable for the architect's library, but should be consulted whenever street lighting or the lighting of outdoor areas comes within his province.

24.159 lighting
OFFICE LIGHTING

The Lighting of Office Buildings (Post-war Building Study No. 30.) The Lighting Committee of the Building Research Board of DSIR. (HMSO, 1952. 3s. 6d.)

General survey and report on natural and artificial lighting.

This publication is in 5 parts. Part 1 consists of a historical survey of office buildings. Parts 2 and 3 deal with the main problems of natural and artificial lighting. Evidence was obtained from architects and surveyors, staff associations, ministries, and a survey of existing office conditions and workers' opinions of them which was carried out by the Social Survey Division of the CIO. In Part 4 there are explicit suggestions for improving the daylighting of existing buildings by the use of external reflectors, diffusing glass and colour treatments, by the re-arrangement of furniture and the use of supplementary artificial lighting. Part 5 is devoted to legislative aspects of the subject. The committee supports the Gowers Committee recommendation that some of the sections of the Factories Act, 1937, and the Shops Act, 1934, should be extended to cover offices.

More than half the report is devoted to appendices: the results of the survey mentioned above, a summary of evidence from other sources, and short notes by experts on illumination values, visual tasks and fluorescent lamps.

Specific illumination levels are recommended: For general offices, a 1 per cent. sky factor at a depth of 12 ft. penetration; for drawing offices, a 5 per cent. sky factor minimum. Artificial lighting: general office work, 20 L/sq. ft.; drawing offices, 30 L/sq. ft.; private offices, 15 L/sq. ft.

The importance of good lighting is emphasized in the report, and the suggestion is made that the use of artificial light to supplement daylight can have a considerable effect on the economy of office buildings by increasing their practical depth. Recent evidence from the USA supports this view.

THE INDUSTRY

From the industry this week, Brian Grant reports on an independent research organization, efforts being made to make masonry cheaper, and a domestic-scale thermal storage heater (see comment on page 501).

RESEARCH TO ORDER

These notes have never been intended to act as an obituary column, but the recent unveiling of a memorial tablet to the late Colonel Wallace Devereux at the Fulmer Research Institute should not go unrecorded. Colonel Devereux was, perhaps, best known in the light alloy industry, and he formed the Almin group immediately after the war. He was largely responsible for the export of light-alloy framed and roofed houses to India and elsewhere, and his group was also responsible for the fabrication of the roof members of the Dome of Discovery.

The Fulmer Research Institute was founded by Colonel Devereux as an entirely independent freelance research organisation, on much the same lines as the Battelle Institute in America. The Institute carries out specific work either for firms that cannot conveniently fit extra research work into an existing programme, or for firms that are too small to maintain any whole-time research staff or laboratories. There are, of course, the usual guarantees of secrecy, and any patents which may be granted as a result of research are the property of the firm sponsoring it. So far, most of the work done at Fulmer has, as one might expect, been metallurgical, but it is most useful to have available a well-staffed and well-equipped independent laboratory, with services available to any firm for a simple fee. At a time when BRS staff is being reduced, there should be an increasing amount of work suitable for organisations of this kind. *(Fulmer Research Institute, Stoke Poges, Bucks.)*

BUILDING WITH STONE

Architects who still find it difficult to build in stone, in spite of the increased subsidy, may be interested to know that considerable efforts are being made to cheapen stone extraction and cutting by the use of portable chain saws driven either electrically or by small petrol motors. One firm (Siskol Machines Ltd.) makes a two-man model for quarry use (see illustration below), a three-bladed table saw for cutting moderately sized stones into blocks suitable for building, and a one-man model for use on the site or in the mason's yard. This is an industry in which small jobs have not, in the past, been mechanised to any great extent; equipment of this kind may help to bring the cost of stone building down to a reasonable level. *(Siskol Machines Ltd., Siskol Works, Penistone Road, Sheffield, 6.).*

FUSED LAMPS

Few readers probably know that the majority of the G.E.C. range of "Osram" tungsten lamps now have small fuses inside the bulb. The fuses consists of short lengths of wire sealed in small glass tubes and incorporated in the lead-in wires which take the current to the filament. They are very small, and are scarcely visible from outside, even with a clear lamp. The object of the individual fuse is to prevent circuit fuses blowing when a lamp fails. These fuses are fitted in single coil lamps from 40 to 300 watts, and in coiled coil lamps from 40 to 100 watts. *(The General Electric Co. Ltd., Magnet House, Kingsway, London, W.C.2.)*

SMALL SCALE THERMAL STORAGE

Most architects are familiar with the thermal-storage system of heating, in which current is taken from the power station during the off-peak hours of between, say, 1 a.m. and 7 a.m., and is used to heat up a large volume of water which is used for heating purposes during the day. Heating systems of this kind are normally used only in large buildings, but the same principle has now been applied in the "Thermodare" heater, available in 1 kW. and 1½ kW. sizes. Installation is simple; price about £23, inc. p.t.

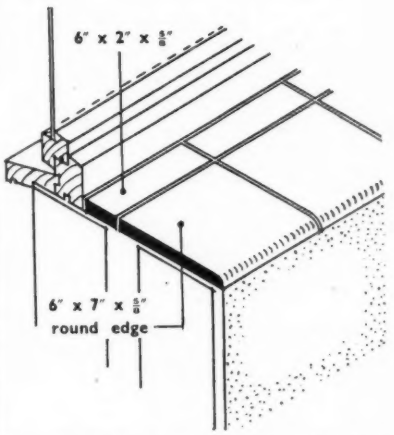
The photograph shows the 1 kW. model, which is 21 in. high, and takes up a floor space 21 in. by 11 in. It is connected to the supply through a time switch and meter (these can, as a rule, be hired at an annual charge of about £2). Current is used only during off-peak hours, and the heat is stored in a large block of solid refractory material through which the heating elements are threaded. Approximately one-third of the heat is radiated during the off-peak period and the remaining two-thirds are stored for radiation during the day, between 8 a.m. and midnight. In the early morning the average surface temperature of the heater is 160° F.; this figure falling to about 100° F. by midnight.

A 1½-kW. model it suitable for a space of a thousand cubic feet and for larger rooms two or more units can be connected together. If a complete house or a range of offices were to be heated in this way, the heaters could, of course, all be controlled through the same time switch. *(Aberdare Electric Co. Ltd., Aberdare Works, Finglas, Dublin.)*

TILES FOR INTERNAL SILLS

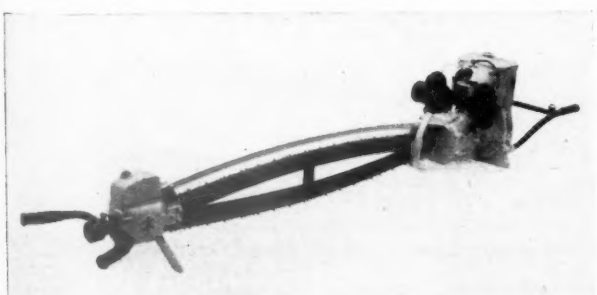
Wheatley & Co. Ltd has recently issued a leaflet showing how its stock patterns of tiles and fittings can be used to form internal sills both for timber and metal windows, with and without frames. The tiles are in a range of sizes from 4 in. by 4 in. to 8 in. by 8 in. The 4 in. by 4 in. tiles are ¾ in. thick, but above this size the thicknesses are ⅝ in. and ⅞ in., while the 8 in. by 8 in. tiles are 1¼ in. thick. The sketches (one of which is reproduced above), show over twenty alternative solutions. If intermediate sizes are required, the tiles should be cut on the site; it is often possible to tuck the cut edge of the tile under the casement. Red, russet, brown, blue and buff tiles are obtainable, but all patterns are not available in every colour. *(Wheatley & Co. Ltd., Springfield Tileries, Trent Vale, Stoke-on-Trent.)*

BRIAN GRANT



An illustration from the leaflet issued by Wheatley & Co. Ltd., showing the application of tiles for window sills with EJMA windows.

"Thermodare" thermal storage heater.



"PPK 100" petrol driven two-man portable stone-cutting saw.

Announcements

The formation of a new association is announced by the owners of the various systems for fixing insulating linings in buildings with metal components. The new body—to be called the Metal Fixing Association—includes in its objects the defining of minimum standards of materials and workmanship. The first Code of Practice on this subject is expected to be published shortly. In addition, the new association will be concerned with the promotion of the industry; the collation and dissemination of statistical and other information; legislation; and negotiations with other recognised bodies in the architectural, building, engineering and allied professions and with Government and local

authorities. The association has no intention of being concerned with price maintenance, but will confine its activities to the objects outlined above. Its founder members are Anderson Construction Co. Ltd., Bowaters Building Boards Ltd., Celotex Ltd., W. H. Heywood & Co. Ltd., Sundeala Board Co. Ltd., Tentest Fibre Board Co. Ltd., The Merchant Trading Co. Ltd. Membership will be open to all firms which maintain a full-time metal fixing department including the direct employment of labour. Mr. H. F. Payne, F.C.A., has been appointed Secretary of the new association which has its headquarters at 32, Queen Anne Street, Cavendish Square, W.1 (Langham 7616).

Mr. Basil I. Briggs, A.R.I.B.A., has now opened a branch office at 7, Station Chambers, Station Parade, High Street North, East Ham, E.6, and would be pleased to receive trade journals, catalogues, etc. His original practice is still being carried on at the Old Town Hall, Great Dunmow, Essex.

Mr. Cyril Sweett, F.R.I.C.S., has taken into partnership Mr. S. Douglas Mattock, F.R.I.C.S. The practice will continue at 48, Bedford Row, W.C.1, under the style of Cyril Sweett & Partner, Chartered Quantity Surveyors. Mr. Mattock will continue for the time being to be responsible for the offices at Wimborne, Dorset and Bristol.

Mr. Gerald Nodes, A.R.I.B.A., has recently taken up the appointment of staff architect to Messrs. John Mowlem & Co. Ltd., 91, Ebury Bridge Road, London, S.W.1, and would be pleased to receive trade catalogues, etc., at that address.

Associated Lead Manufacturers Ltd. have produced two films dealing with the manufacture and application of white lead paint. The first film, in monochrome, deals with the various stages in the manufacture of white lead from the raw material to the finished product. The second one, in colour, shows, in addition, the part white lead paint plays in the protection of the exterior surfaces of buildings. Both films have a high interest value to architects and others concerned with the decoration or maintenance of widely varying types of structure. They are available on loan by application to the manufacturers (Associated Lead Manufacturers Limited, Ibex House, Minories, E.C.3.).

Under existing arrangements, joinery manufacturers are dependent for their supplies of softwood on timber licences surrendered to them by their customers. For some time, however, a scheme known as the timber bank has been operated by the MOW. Members of the Timber Bank are able to send the small timber licences they receive from customers to the MOW, who credit their accounts and issue bulk licences for softwood at convenient intervals. In order to enable them to buy their softwood well in advance of requirement, and to permit them to manufacture standard joinery in convenient production runs, it has now been decided to offer to all manufacturers of joinery who are members of the Timber Bank immediate overdraft facilities under which they will be allowed to anticipate their softwood requirements by up to six months. Membership of the Bank is open to all joinery manufacturers, and the new facilities will be available to new members immediately on joining, as well as to existing members. As at present, joinery manufacturers will need to sell their product only against timber licences and, if they are Bank members, will be required to remit these licences to the Timber Bank. An overdraft must be redeemed within twelve months of the date of its advance. Full details of the new arrangements can be obtained from the MOW, Room 605, Lambeth Bridge House, S.E.1, to which address any interested joinery manufacturers should apply.

Buildings Illustrated

Cinema and Lecture Theatre at 31, *Great St. Helens, London, E.C.*3. (Page 487*l*) For the Shell Petroleum Co. Ltd. Designer: L. Gregory, M.S.I.A. General contractors: David Esdaile & Co. Ltd., who were also responsible for fibrous plaster, joinery and texture painting. Sub-contractors, electrical and ventilation, W. H. Smith; seating, H. Lazarus & Son Ltd.; blackboards and display board, Compactom Ltd.; screen curtains and projection parts, G. B. Kalee Ltd.; venetian blinds, V. Avery & Co.; louvred vent, James Clark & Eaton Ltd.

Corrections

The name of Thermacoust Ltd. was not included in the list of sub-contractors for Cavendish Primary School, Edensor Road, Chiswick, in the JOURNAL for September 18. The firm was responsible for roof slabs for this building.

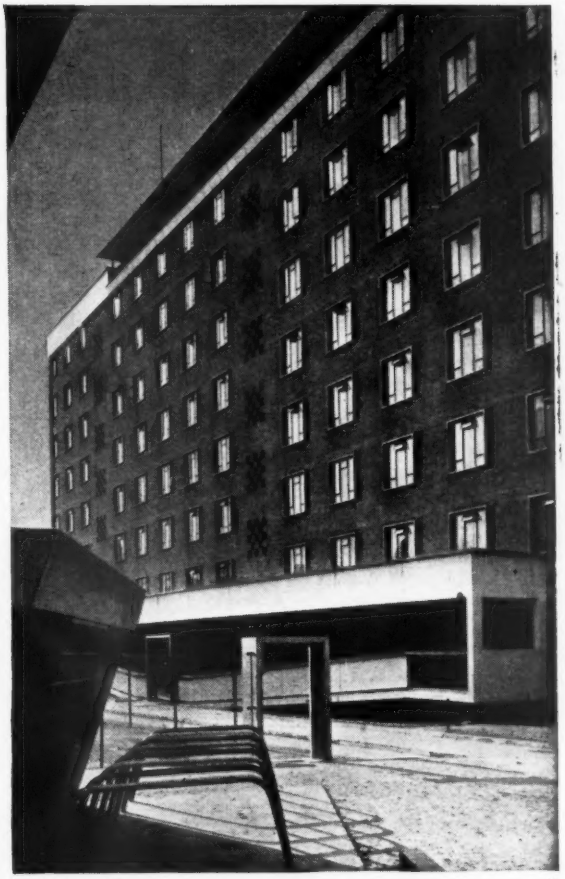
In "The Industry" (AJ, October 9) Brian Grant referred to a booklet published recently by the National Asphalte Mine-Owners and Manufacturers Council. This should have read the *Natural* Asphalte Mine-Owners and Manufacturers Council.

LONDON LOOKS UP

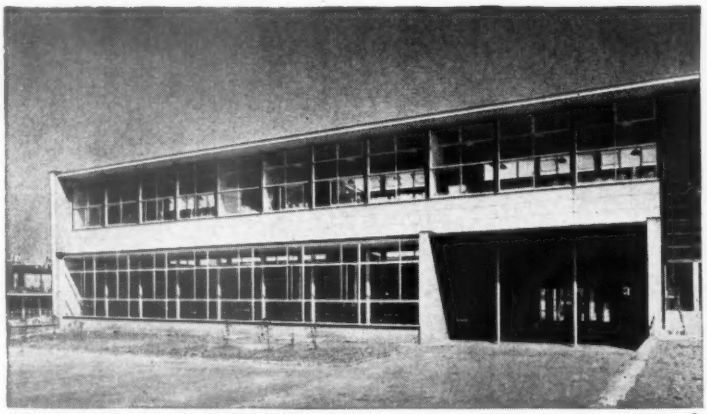
The new housing estates in the capital are keeping Londoners in London—which is where sparrows, Dr. Johnson and Londoners prefer to live. New houses and flats, taking the place of dismal bomb sites and scarecrow slum tenements, are beginning to take the edge off London's housing problem.

Compared with the "buildings" and "dwellings" of a past era, it is noticeable that the new architecture is ablaze with windows—many of which were produced by Williams & Williams of Chester. Working with architects of vivid imagination (and bringing to the problem all the vigour and enthusiasm of crusaders) Williams & Williams are producing windows and glazing that fulfil the high standards of contemporary design. In the housing estates shown, and many others across the face of Britain, Williams & Williams are doing a good job—as indeed they are in buildings and factories, art galleries and aeroplane hangars all over the world.

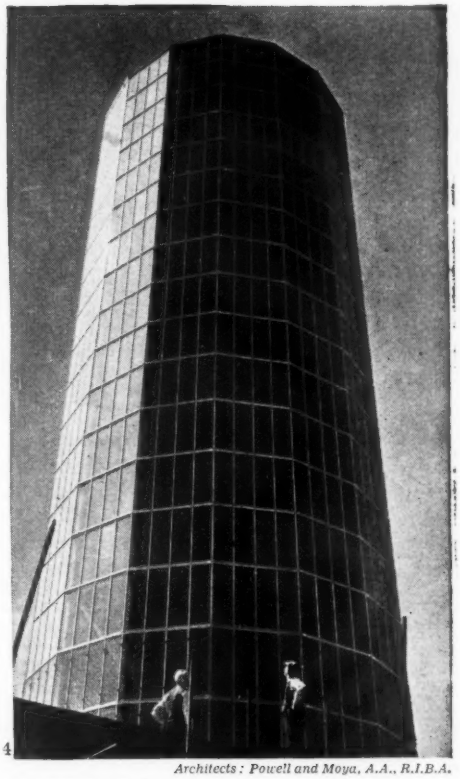
Architects: Powell and Moya, A.A., R.I.B.A. 1



Architects: Tecton. 2



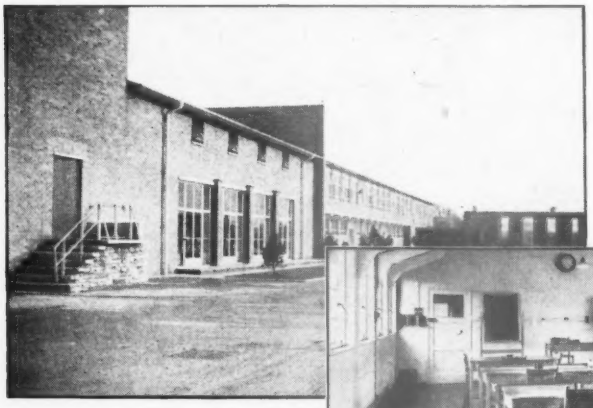
Architects: Yorke, Rosenberg and Mardall, F.F./A.R.I.B.A. 3



Architects: Powell and Moya, A.A., R.I.B.A. 4

1. These flats at Pimlico are part of the Westminster City Council's housing plan that will eventually cover 30 acres. Williams & Williams supplied metal windows, metal doors, and Aluminex Patent Glazing for this enormous project. 2. Expert use of standard metal windows helped produce the striking effect shown in this elevation of the flats at Finsbury. 3. New houses mean new schools. At this school in Lansbury, Williams & Williams produced all the doors and windows. Williams & Williams have put windows and walls of glass into 128 schools all over the country. 4. The Pimlico Polygon, a new landmark in hot water tank cladding—and indeed a new landmark on London's river—is covered with Aluminex Patent Glazing. The all aluminium glazing bar is used in reverse so that broken glass can be replaced from the galleries inside the glass surround eliminating need for scaffolding. Aluminex, together with metal windows and doors, is produced by Williams & Williams of Chester.

Williams & Williams Ltd., Reliance Works, Chester



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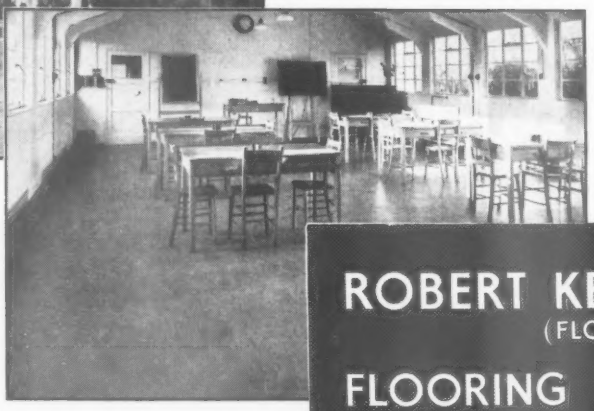

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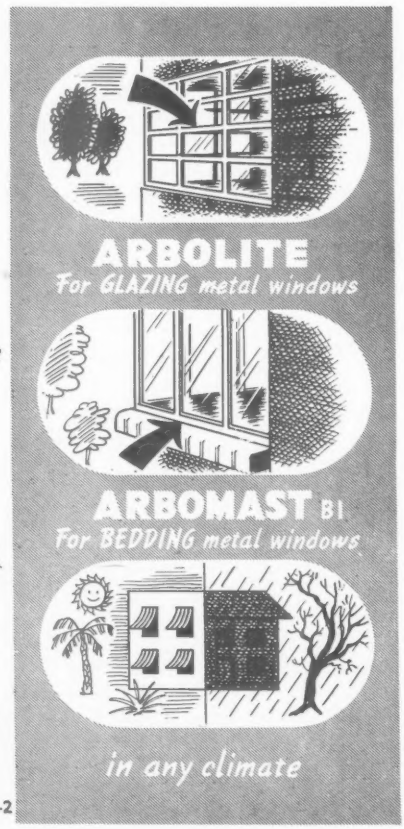

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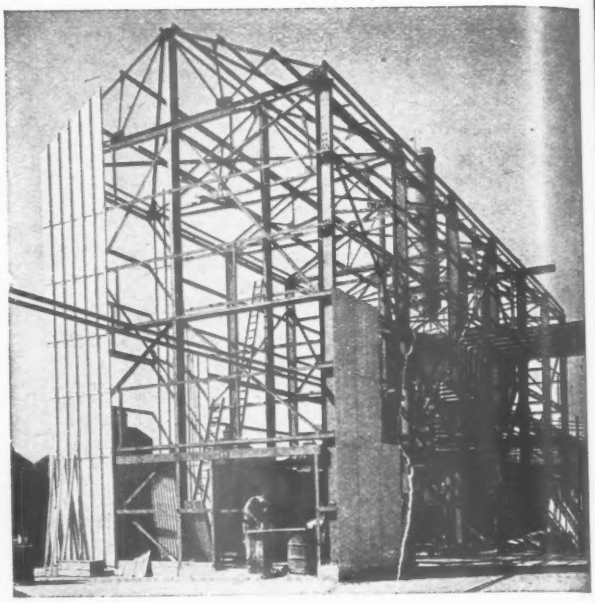

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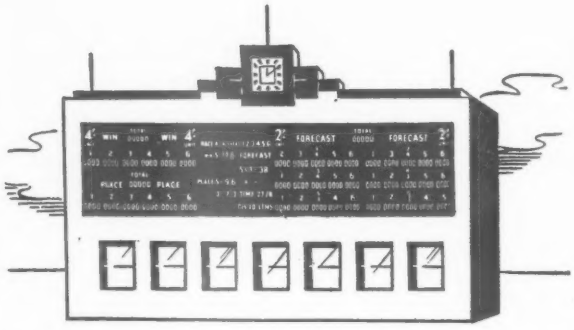

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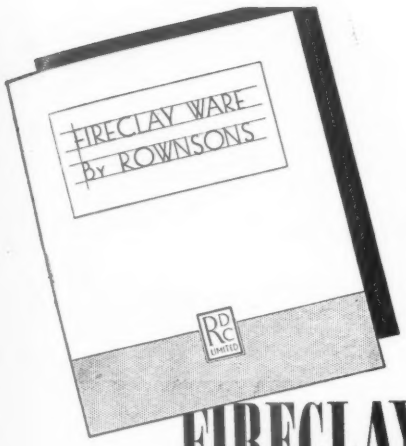

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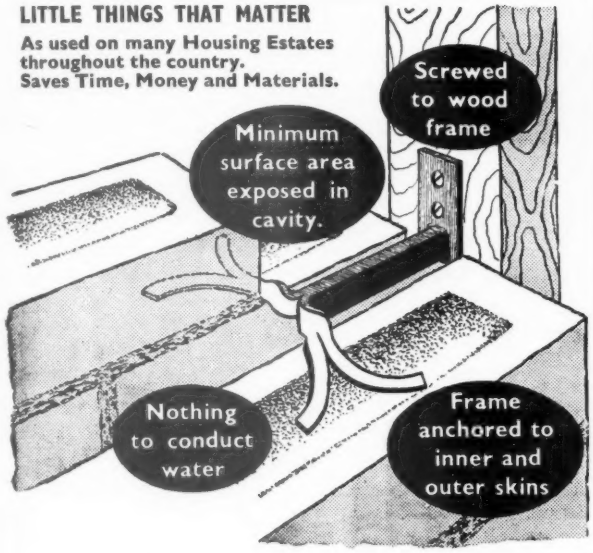

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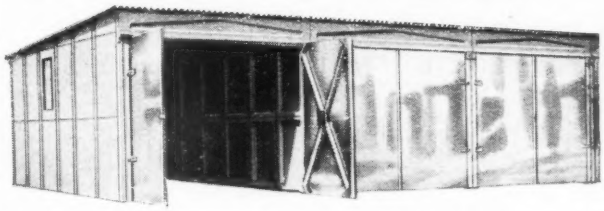

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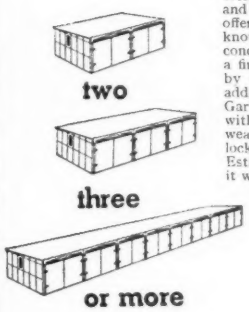

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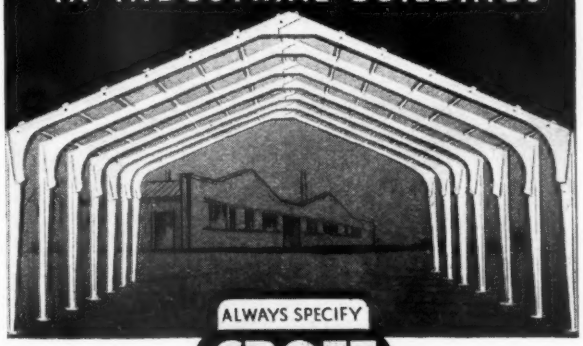

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Advertisements should be addressed to the Advt. Manager, "The Architects' Journal," 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, and should reach there by first post on Friday morning for inclusion in the following Thursday's paper.

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

Public and Official Announcements

25s. per inch; each additional line, 2s.

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

HOLLAND COUNTY COUNCIL.
COUNTY PLANNING DEPARTMENT.

Application is invited for the appointment of PLANNING ASSISTANT at the Boston office Salary is on A.P.T., Grade IV (£555 × £15—£600).

Applicants for post should have had good experience in planning, survey and research work under current legislation, and should have passed the Intermediate Examination of the Town Planning Institute; further qualifications will be an advantage.

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

Applications, stating age, education, qualifications and experience, accompanied by two recent testimonials and the name of one person to whom reference may be made, should be sent to the undersigned to arrive not later than 14 days after the publication of this notice. Canvassing, either directly or indirectly, will be a disqualification.

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Applications, stating age, education, training, qualifications, experience, past and present appointments and salaries, together with the names of two persons who can speak from recent personal knowledge of the applicants and to whom the Corporation can refer, must be received by the undersigned not later than 31st October, 1952. Envelopes should be endorsed "Quantity Surveyor."

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JUNIOR ARCHITECTURAL ASSISTANT required in the Department of the Architect to the Council. Salary in accordance with A.P.T., Grade I (£465 × £15—£510). Forms of application may be obtained from Mr. J. H. Parker, A.R.I.B.A., 82, Great North Road, Hatfield, to whom they should be returned not later than Wednesday, 12th November, 1952.

E. F. CULL,
Clerk to the Council.

16, St. Albans Road, Hatfield, Herts.
9th October, 1952. 7545

ARGYLL COUNTY COUNCIL.
COUNTY ARCHITECT'S DEPARTMENT.

Applications are invited for the post of ARCHITECTURAL ASSISTANT in the County Architect's Department, Dunoon. The salary scale will be A.P.T. Grade IV-V (£550—£650 per annum), with placing according to qualifications and experience.

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

The Council will give sympathetic consideration to the question of housing accommodation for the successful applicant.

Applications, stating age, experience and qualifications, together with copies of two recent testimonials, must be lodged with the County Architect, County Offices, Dunoon, within ten days of the appearance of this advertisement.

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7581

WARWICKSHIRE COUNTY COUNCIL.

ASSISTANT ARCHITECT wanted for six months, with subsequent possibility of permanent appointment. Salary according to experience, but between £525 and £595. No assistance can be given regarding housing. Forms of application may be obtained from: County Architect, Shire Hall, Warwick. 7572

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APPOINTMENT OF ARCHITECTURAL ASSISTANT.

Applications are invited from suitably qualified and experienced persons for the appointment of Architectural Assistant, in the Engineer and Surveyor's department, at a salary in accordance with Grade A.P.T., V, of the National Scale (£595 to £645 per annum).

Applicants must have passed the Final Examination of the R.I.B.A. or be Registered Architects, and be capable of preparing designs, working and detailed drawings and specifications for housing work, shops and general building works executed by the contractor or Direct Labour.

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

The Council will give all possible assistance towards the provision of housing accommodation for the successful candidate.

Application should be made on forms to be obtained from the Engineer and Surveyor, Mr. J. B. Wikeley, M.Eng., A.M.I.C.E., M.I.Mun.E., Barrister-at-Law, Rural Council House, Saltergate, Chesterfield, and must be returned to the undersigned by not later than Friday, 31st October, 1952, in an envelope endorsed "Architectural Assistant."

Canvassing, directly or indirectly, will disqualify.

H. O. HAWKINS,
Clerk to the Council.

Rural Council House, Saltergate,
Chesterfield. 7570

LONDON COUNTY COUNCIL.

ARCHITECTS and SURVEYORS required for safety regs. of Theatres and Special Buildings and for general building reg. work. Sals. up to £696 accord. to expce. A.R.I.B.A. or A.R.I.C.S. essential. Partics. and appl. form from Architect, County Hall, S.E.1 quoting AR/EK/TBR/3 (10/5). 7569

NORTHERN IRELAND HOUSING TRUST.
ARCHITECTS AND ENGINEERS.

Applications are invited for the following appointments:

(i) ASSISTANT ARCHITECT, GRADE I—(£725 by £25 to £800).

Applicants must be corporate members of the R.I.B.A. and should have considerable experience in the design, construction and supervision of housing projects.

(ii) ASSISTANT ARCHITECT, GRADE III—£550 by £25 to £650).

Applicants must be corporate members of the R.I.B.A. and should have good experience of general architectural works.

(iii) ARCHITECTURAL ASSISTANT, GRADE IV—(£300 by £15 to £375).

Applicants must have passed the Intermediate Examination of the R.I.B.A. and have some office experience.

(iv) ASSISTANT ENGINEER, GRADE III—(£550 by £25 to £650).

Applicants must be corporate members of the Institution of Civil Engineers or the Institution of Municipal Engineers.

The persons appointed will be required to participate in a Contributory Superannuation scheme which allows for reciprocal transfer of benefits in Local Government Superannuation schemes in suitable cases.

Preference will be given to Ex-service Candidates.

Assistance in obtaining housing accommodation may be given to successful candidates.

Forms of application, which should be returned not later than 11th November, 1952, may be obtained from the General Manager, Northern Ireland Housing Trust, 12, Hope Street, Belfast. 7582

METROPOLITAN BOROUGH OF WANDSWORTH.
ASSISTANT QUANTITY SURVEYOR.

Established Appointment. Salary £630—£740. Applicants should be Chartered Quantity Surveyors of prospective and be experienced in the preparation of quantities and site measuring.

Application Forms from the Borough Engineer at the undermentioned address, returnable to me by 5 November, 1952.

R. H. JERMAN,
Town Clerk.

Municipal Buildings,
Wandsworth, S.W.18. 7579

MIDDLESEX COUNTY COUNCIL—COUNTY ARCHITECT'S DEPARTMENT.

ASSISTANT ARCHITECT, Registered, A.P.T. V (£625—£675 p.a. incl. £10 less if under 26 years). Appt. in Minor Works Section at grade minimum. Exper. of minor works educational projects an advantage. Established, subject to medical assessment and prescribed conditions. Application forms from County Architect, 1, Queen Anne's Gate Buildings, Dartmouth Street, S.W.1 (stmpd. add. f'cap. env.) to be returned by 3rd November (quoting L.314 A.J.). Canvassing disqualifies. 7563

CITY OF LEEDS.
CITY ARCHITECT'S DEPARTMENT.

Applications are invited for the following appointments:—

ASSISTANT QUANTITY SURVEYORS, A.P.T. VII, £710—£785. Candidates must be experienced surveyors capable of dealing with large contracts including site measurement.

ASSISTANT ARCHITECTS, A.P.T. VI, £670—£705. Candidates must be Registered Architects.

ARCHITECTURAL ASSISTANTS, A.P.T. IV, £555—£600.

The payment of salary increments will be subject to satisfactory service and will be granted normally with effect from the 1st April following the completion of 6 months' service.

The appointment is subject to the Local Government Superannuation Act, 1937, and the successful applicant will be required to pass a medical examination.

Application forms may be obtained from the City Architect, Priestley House, Quarry Hill, Leeds, 9, to whom they should be returned together with copies of three recent testimonials, by 10 a.m. Saturday, 1st November, 1952.

Canvassing in any form, either directly or indirectly, will be a disqualification.

R. A. H. LIVETT, A.R.I.B.A.,
City Architect.

Priestley House,
Quarry Hill, Leeds, 9.
4th October, 1952. 7562

BIRMINGHAM REGIONAL HOSPITAL BOARD invite applications for appointment of an ASSISTANT in the Architect's Department. Salary scale £480—£525 p.a. Candidates must be students of R.I.B.A. Superannuable appointment terminable by one month's notice. Applications with names and addresses of two referees to Secretary, 10, Augustus Road, Birmingham, 15, by 30th October. 7578

BOROUGH OF WEDNESBURY.
APPOINTMENT OF QUANTITY SURVEYOR.

Applications are invited for the appointment of a Quantity Surveyor in the Borough Engineer and Surveyor's Department at a salary in accordance with Grade VII of the National Scales (£710 to £780 per annum).

Applicants must be experienced in preparing bills of quantities for housing and other building works, measuring works in progress for interim certificates and final accounts. Preference will be given to members of the R.I.C.S. (Quantities Section).

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

Provision of housing accommodation for the successful candidate will be favourably considered if required.

Applications, stating age, qualifications, and experience, and enclosing copies of two recent testimonials, are to be received by the Borough Engineer and Surveyor, Town Hall, Wednesbury, not later than Saturday, 8th November, 1952.

G. F. THOMPSON,
Town Clerk.

Town Hall, Wednesbury.
23rd October, 1952. 7564

CITY ARCHITECT'S DEPARTMENT,
MANCHESTER.

Applications are invited for the appointment of a SENIOR ASSISTANT ARCHITECT. Salary A.P.T. Grade VII, £710 to £785 per annum.

Candidates must be registered architects, have high ability in design, be capable of taking charge of large contracts and of controlling a group of assistant architects. Experience in the designing of new schools would be an advantage. Preference will be given to candidates who are Associates R.I.B.A. and/or who hold a degree or diploma in Architecture.

Further particulars and forms of application may be obtained from the City Architect, Town Hall, Manchester, 2, the forms to be returned to the same address by 4th November, 1952. Canvassing is prohibited. 7571

BOROUGH OF CALNE.
APPOINTMENT OF ARCHITECTURAL AND SURVEYING ASSISTANT.

Applications are invited for the above post, in the office of the Borough Surveyor, at a salary in accordance with Grade III (A.P.T.) of the National Scale of Salaries and Conditions of Service.

Candidates must be well experienced in the preparation of plans, specifications, estimates, etc., for Housing Schemes (including surveys and layout plans) and other building work, and in supervision of such work. A knowledge of road and sewer construction and the ability to prepare Bills of Quantities will be an advantage. Preference will be given to candidates who have passed the Intermediate Examination of the R.I.B.A.

The Council will give consideration to the provision of housing accommodation, if necessary.

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

Applications, stating age, qualifications, experience, etc., accompanied by copies of three recent testimonials and endorsed "Architectural Assistant," must reach the undersigned not later than noon on Saturday, the 1st November, 1952.

Canvassing will disqualify.

C. O. GOUGH,
Town Clerk.

28, Church Street, Calne, Wilts. 7589

AYCLIFFE DEVELOPMENT CORPORATION.
QUANTITY SURVEYING AND ARCHITECTURAL STAFF.

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

(1) ASSISTANT QUANTITY SURVEYOR. Salary: £710×£25—£785 p.a. (Grade A.P.T., VII). Applicants should be Associate Members of the Royal Institute of Chartered Surveyors, or approaching that standard. Must be capable of taking office quantities, preparing bills of quantities, completing measurements, and preparing final accounts.

(2) JUNIOR QUANTITY SURVEYING ASSISTANT. Salary: £495×£15—£540 p.a. (Grade A.P.T., II). Applicants should be students of the R.I.C.S., and be capable of squaring dimensions, abstracting and billing and measuring works on site.

(3) ARCHITECTURAL ASSISTANT. Salary: £595×£15(2)×£20—£645 p.a. (Grade A.P.T., V). Applicants should have had at least three years' experience on housing and miscellaneous work in an Architects' Department, including sound practical experience on the outside administration of building contracts.

The appointments will be subject to (i) the National Joint Council's Conditions of Service for local authorities' staffs; (ii) the provisions of the Local Government Superannuation Act, 1937; (iii) a satisfactory medical examination; and (iv) one month's notice in writing on either side.

Housing accommodation will be provided if necessary.

Applications, stating post applied for, age, qualifications and experience, together with the names and addresses of two persons to whom reference can be made as to character and ability, should be sent to the undersigned to arrive not later than 3rd November, 1952.

A. W. THOMAS,
General Manager.

Newton Aycliffe, Co. Durham. 7594

CITY OF OXFORD EDUCATION COMMITTEE.
SCHOOLS OF TECHNOLOGY, ART AND COMMERCE.
SCHOOL OF ARCHITECTURE AND BUILDING.

Applications are invited for the post of FULL-TIME LECTURER IN CONSTRUCTION.

Applicants must be well qualified professionally, with ability and experience to lecture in Construction and to assist with studio work to R.I.B.A. Final standard.

The salary is in accordance with the Burnham Technical Scale for Lecturers: Men, £940×£25—£1,040.

Forms of application and further particulars may be obtained, on receipt of a stamped addressed foolscap envelope, from the Chief Education Officer, City Education Office, 77, George Street, Oxford, to whom completed forms should be returned not later than two weeks from the date of appearance of this advertisement.

C. F. L. PIGGOTT,
Chief Education Officer.

October, 1952. 7593

Competition

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

UGANDA ELECTRICITY BOARD.
COMPETITION FOR NEW HEAD OFFICE BUILDING, KAMPALA.

Architects practising, or entitled to practise, in the United Kingdom and all British Commonwealth Nations, Colonies and Dependencies, are invited to submit designs in competition for the new Head Office Building in Kampala for the Uganda Electricity Board and other bodies. The amount proposed to be expended on the new building is approximately £350,000.

Intending competitors are required to submit their names and addresses to the Promoters at their Kampala address by 23rd December, 1952.

An application for the Conditions of Competition must be accompanied by a deposit of three guineas, which deposit will be returned to the applicant on the receipt of a *bona fide* design or, in the event of the applicant declining to compete, on the return of the competition documents at least four weeks before the date for submitting designs.

The closing date for the submission of designs is 25th July, 1953.

Premiums of £1,000, £750, £500 and £250 are offered by the Promoters.

The Assessor for the competition is Mr. N. L. Hanson, A.R.I.B.A., M.I.A., of Johannesburg, South Africa.

All communications in connection with the competition are to be addressed to:

THE SECRETARY,
Uganda Electricity Board,
P.O. Box 559, Kampala, Uganda. 7580

Architectural Appointments Vacant

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

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

ARCHITECTURAL ASSISTANTS, with 3 to 8 years' experience, required immediately. Good salary and prospects. 5-day week. Write to Messrs. J. M. Sheppard & Partners, 38, Bedford Place, W.C.1, giving particulars of age, qualifications, experience, and salary required. 7504

D. C. DENTON-SMITH & PARTNERS, Chartered Architects, Surveyors, of 40, Regent Street, Cambridge, will shortly have vacancies for ARCHITECTURAL ASSISTANTS, qualified by examination or experience, in connection with local authority and other housing, ecclesiastical, agricultural and industrial buildings, etc. Applicants must be sufficiently competent to handle projects throughout with minimum supervision. Salaries up to £500, depending upon capabilities. Written applications, giving particulars, are invited. 7541

ARCHITECT'S ASSISTANT required. Intermediate standard—office trained, general practice. Salary £30-£35 per month, according to experience. Apply in writing, giving full details, to E. William Palmer & Partners, 8, The Town, Enfield, Middx. 7590

SENIOR ARCHITECT.—The Riley-Newsum Housing Department of H. Newsum, Sons & Co., Ltd., of Lincoln, have a vacancy for a Senior Architect. This executive position is open to qualified Architects, preferably with experience in prefabrication in timber, and above all with ability to shoulder administrative responsibility. Applications should be made in writing marked "Confidential." 7577

ARCHITECTURAL ASSISTANT required by Vacuum Oil Co., Ltd., for its Head Office in London. A.R.I.B.A. essential. Age 28 to 37. Must have contemporary outlook. The work involved will be mainly the design of modern service stations and the remodelling of existing premises. It is desirable that applicants should have had some experience in this sphere. Salary according to age and qualifications. Pension. Life assurance. Sickness benefits. Please write to Industrial Relations Department, Vacuum Oil Co., Ltd., Caxton House East, Westminster, S.W.1, marking letter "Architectural." 7566

QUALIFIED ARCHITECTURAL ASSISTANT required for Tripoli Office of Architects and Surveyors in connection with Government work; to take full charge of small office, with share of profits and suitable allowances for living and leave costs. Full particulars, including salary required and giving full details of qualifications and previous appointments to Box 7576.

SURVEYOR & VALUER, E.C.3, needing periodic but continual architectural services, would like to meet qualified architect able to give such assistance as required; but with the ultimate view of discussing mutual problems and the possibility of giving mutual help, either by joint assistance, partnership basis or some other tie-up. Box 7586.

Architectural Appointments Wanted

ARCHITECTURAL ASSISTANT (31) married. Requires suitable position on surveying and maintenance staff of large firm. Seven years' experience, including domestic conversions and levelling. Energetic and keen. Box 577.

A.R.I.B.A., A.M.T.P.I. (Dipl. Arch. S.P.Dip.), single (31), seeks interesting post with responsibility and prospects. Any locality considered. Box 585.

ARCHITECTURAL DRAUGHTSMAN (AII); 24; ex Sergeant R.E.; seeks responsible position from mid-November; Civilian and Military references. Box 589.

ASSOCIATE (32), school and office trained, wide experience of general practice, seeks senior position with full responsibility and scope for ability and initiative, in country practice, with prospects. Write Box 587.

HONS. Degree (L'pool), just released H.M. Forces, desires position in office with contemporary outlook. Available immediately. Box 591.

CAPABLE young A.R.I.B.A., with 6 years' experience (office and site) of industrial and domestic buildings, requires responsible job in Newbury, Oxford, Reading district. Box 590.

EXPERIENCED ARCHITECTURAL ASSISTANT seeks position in London office engaged on work of varied nature. Box 7592.

A.R.I.B.A. (34) requires responsible position, London or Hertford. 11 years' office experience, mainly industrial. Box 7591.

EXPERIENCED ASSISTANT, with over 10 years' successful achievement, requires progressive appointment in London. Accustomed to assuming full responsibility and using initiative both in office and on site. Box 588.

ARCHITECT, F.R.I.B.A., several years' practice in London, experienced industrial and housing work, office management, seeks senior position Architects' office or Industrial Firm. Box 592.

Other Appointments Vacant

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

The engagement of persons answering these advertisements must be made through a Local Office of the Ministry of Labour or a Scheduled Employment Agency if the applicant is a man aged 18-64 inclusive or a woman aged 18-59 inclusive unless he or she, or the employment, is excepted from the provisions of the Notification of Vacancies Order, 1952.

REQUIRED immediately, JUNIOR DRAUGHTSMAN/WOMAN, with general knowledge of construction and details, in market town 11 miles from Oxford. Apply Box 7584.

CLERK OF WORKS for Building Maintenance Department of large food factory. Must be good draughtsman, able to prepare schemes, details and estimates. Approximate age, 25 to 35 years. Salary up to £625, with biennial increments subject to satisfactory service. Five-day week. Apply to the Clerical Manager, Huntley & Palmers, Ltd., Reading. 7583

WELL-KNOWN Midlands Firm require for their London branch an ENGINEER, to take charge of and control drawing office. Applicants must have knowledge of R.C. frames and steelwork and various forms of floor, roof, and staircase construction; be familiar with drawing office practice (including relevant correspondence) and sitework, and possess experience in the preparation of designs, calculations, and detailing, and have complete knowledge of codes of practice and building regulations. Write fully, experience, technical qualifications and salary required, Box No. AC76348, Samson Clark, 57/61, Mortimer Street, London, W.1. 7587

BUILDING AND ARCHITECTURAL SURVEYOR required by Bedfordshire Land Agents to take complete charge of busy survey department. Applicant must have comprehensive knowledge of land surveying, residential and industrial building construction, and be able to prepare plans and give full architectural supervision. Progressive and permanent post to right man. Box 7565.

AREA CONTRACT MANAGERS wanted by a large building and pre-cast concrete manufacturing organisation. Sound knowledge of building practice essential. Good salary and prospects for properly qualified applicant. Superannuation, Pension and Bonus Scheme in operation. Apply, giving full details of experience, qualifications, etc., to Box 1453, R. & W. Advertising, 40, Queen Street, Edinburgh. 7573

JUNIOR DRAUGHTSMAN required by Maintenance Department of Multiple Retailers. Some knowledge of building construction and shop fitting an advantage. Apply by letter in first instances to: Estate Department, Marshall & Knight, Ltd., 117, Middlesex Street, E.1. 7574

Services Offered

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

A.R.I.B.A., with good all round experience, requires part-time or free lance work to help his growing practice. MUSeum 9106. 7205

TYPEWRITING, DUPLICATING.—Bills of Quantity, Specifications, etc., expertly typed/duplicated. Express service. Work collected/delivered. JOSEPHINE HALL & PARTNERS, 501/2, GRAND BUILDINGS, TRAFALGAR SQUARE, W.C.2. WHI. 6411/2, and 87, High Street, Tunbridge Wells. Telephone: 1255. 7005

SPECIFICATIONS, B./Quantities, Estimates, etc. Typewritten or duplicated by qualified experts. Reasonable terms. Miss Stone, 447, Strand, W.C.2. REM. 5984. 7543

SURVEYING and Levelling of Building Sites and Measured Drawings undertaken by experienced Surveyor at moderate charges. Box 6583.

SURVEYING and Levelling of Buildings and Sites, Sketch Plans, Working Drawings, Perspectives, Details, Specifications, etc., carried out for Architectural firms in South Wales area at moderate charges. Ring Llanishen 44. 7567

PHOTO COPYING.—Rapid service—moderate charges. 36, Brook Road, Eastdene, Rotherham. 7568

A.R.I.B.A., Dip. Arch., with own practice, is in position to render part-time or free-lance help to Architects. District centred in Bristol, Somerset, Gloucestershire. Box 7588.

For Sale or Wanted

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

RECONDITIONED EX-ARMY HUTS, and manufactured buildings. Timber, Asbestos, Nissen type, Hall type, etc. All sizes and prices. Write, call, or telephone, Universal Supplies (Belvedere), Ltd., Dept. 25, Crabtree Manorway, Belvedere, Kent. Tel.: Erith 2948. 6803

ARCHITECT, wishing to retire, would sell well-established Provincial Practice, together with living accommodation, if required. Please reply in the first instance to Box 7470.

FOR SALE.—CHUBB Fire and Thief Resisting Strong Room Door and Frame. Opens 180 deg. 6 ft. 6 in. by 2 ft. 7 in., 5½ in. thick. 3 in. thick fire resisting chambers filled steam generating composition of ¼ in. plate of tough Siemen's steel. ¾ in. reinforced edges fitted locking 5 ft. 1¼ in. round steel bolts at front. Brass handle. Secured 6-lever lock, duplicating key, protected by drill-proof guard plate, continuous dog-bolt at back. Purchaser to remove.—Enquiries to Branch Manager, N.F.U. Mutual Insurance Society, Ltd., 17, Ashford Road, Maidstone, Kent. 7575

FOR SALE.—Old-established Architect and Surveyor's Practice in the West Riding of Yorkshire. For full particulars write Box 7585.

HARLOW NEW TOWN MASTER PLAN. Map amended for population 80,000, with revised Report by Frederick Gibberd, F.R.I.B.A., M.T.P.I. Published August, 1952, and now on sale; 5s., plus 4d. postage, from:—
Harlow Development Corporation,
Harlow, Essex.
ALSO ON SALE:—
(1) Harlow New Town Mark Hall/Netteswell Neighbourhoods. Progress Review, with pictures. Price 1s., plus 2½d. postage.
(2) Harlow New Town Industrial Estate. Progress Review, with pictures. Price 6d., plus 2½d. postage. 7561

Miscellaneous

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

A. J. BINNS, LTD., Specialists in the supply and fixing of all types of Fencing, Gates and Cloakroom Equipment. Harvest Works, 96/107, St. Paul's Road, N.1. Canonbury 2061.

Educational Announcements

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

R.I.C.S., I.A.A.S., and I.Q.S. Exams.—Postal Courses conducted by the Ellis School (Principal: A. B. Waters, M.B.E., G.M., F.R.I.B.A.), 103B, Old Brompton Road, S.W.7. KEN. 4477/8/9. Descriptive Booklet on request. 7020

R.I.B.A. and T.P.I. EXAMS.—Stuart Stanley (Tuton Sch. of Arch., Lon. Univ.) and G. A. Crockett, M.A./B.A., F./A.R.I.B.A., M./A.M.T.P.I. (Prof. Sir Patrick Abercrombie in assn.), prepare Students by correspondence tuition. 10, Adelaide Street, Strand, W.C.2. TEM. 1603/4.

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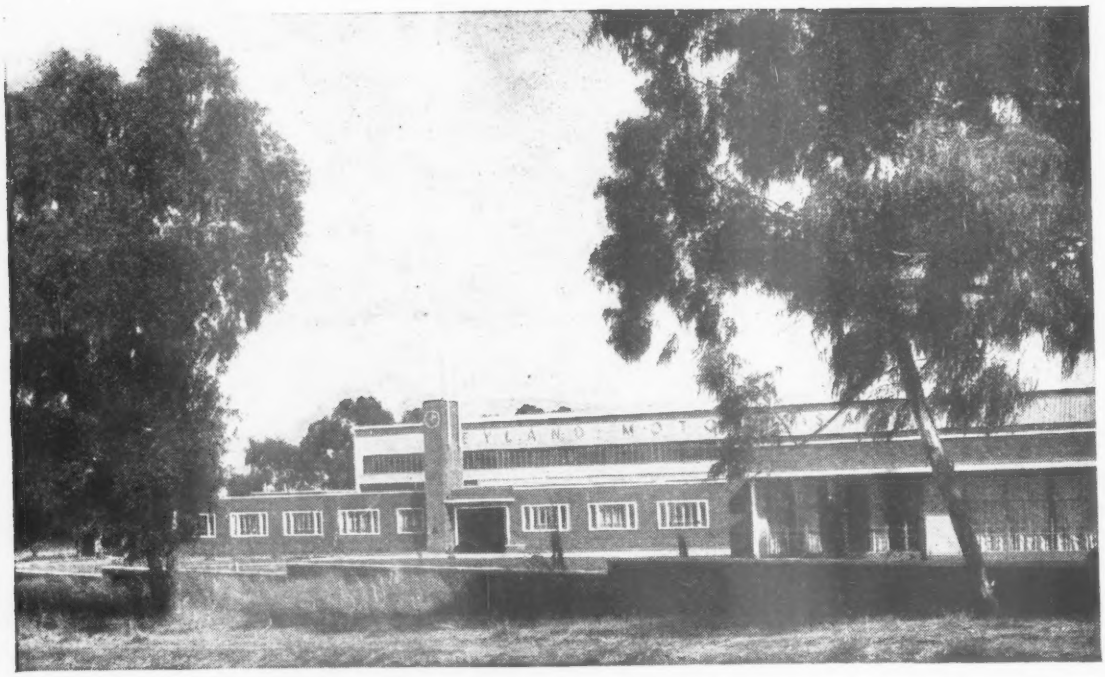

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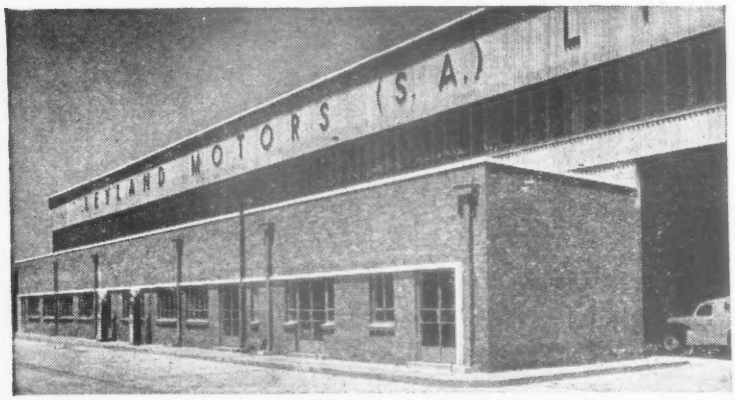
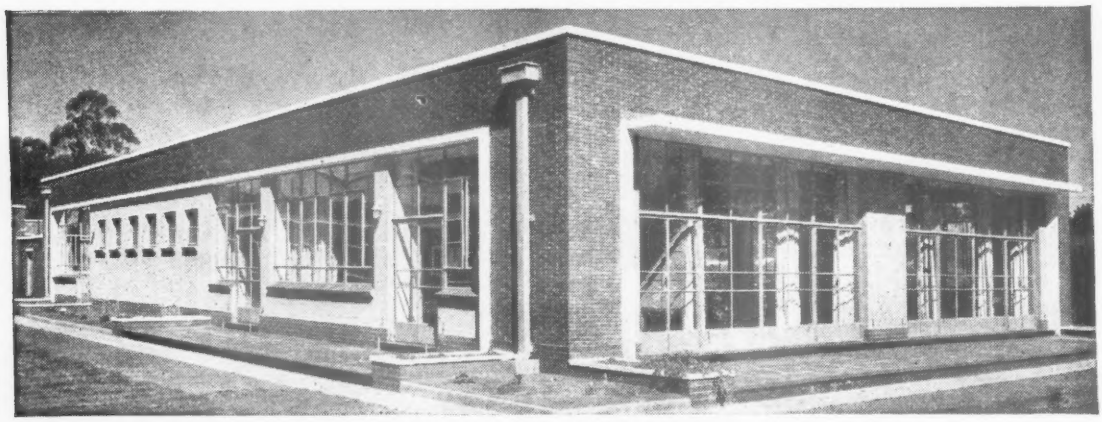
LEYLAND MOTORS (S.A.) LTD., *at Elandsfontein, in South Africa*





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