The Architects' JOURNAL for March 22 and 29, 1956

THE ARCHITECTS' JOURNAL

standard contents

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

No. 3186/7 [VOL. 123

THE ARCHITECTURAL PRESS

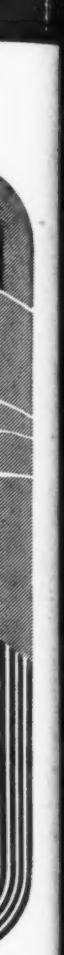
9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1. *'Phone: Whitehall 0611*

Price 1s. 0d.

Registered as a Newspaper.

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

AA	Architectural Association, 34/6, Bedford Square, W.C.1.	Museum 0974
AAI	Association of Art Institutions. Secy.: W. Marlborough Whitehead, "Dyneley," Castle Hill Avenue, Berkhampstead, Herts.	
ABS	Architects' Benevolent Society. 66, Portland Place, W.1.	Langham 5721
ABT	Association of Building Technicians. 1, Ashley Place, S.W.1.	Victoria 0447–8
ACGB	Arts Council of Great Britain. 4, St. James' Square, S.W.1.	Whitehall 9737
ADA	Aluminium Development Association. 33, Grosvenor Street, W.1.	Mayfair 7501/8
ArchSA	Architectural Students' Association. 34/36, Bedford Square, W.C.1.	
ARCUK	Architects' Registration Council. 68, Portland Place, W.1.	Langham 8738
BAE	Board of Architectural Education. 66, Portland Place, W.1.	Langham 5721
BATC	Building Apprenticeship and Training Council. Lambeth Bridge House, S.E.1.	Reliance 7611, Ext. 1706
BC	Building Centre. 26, Store Street, Tottenham Court Road, W.C.1.	Museum 5400
BCC	British Colour Council. 13, Portman Square, W.1.	Welbeck 4185
BCCF	British Cast Concrete Federation. 105, Uxbridge Road, Ealing, W.5.	Ealing 9621
BCIRA	British Cast Iron Research Association. Alvechurch, Birmingham.	Redditch 716
BDA	British Door Association. 10, The Boltons, S.W.10.	Fremantle 8494
BEDA	British Electrical Development Association. 2, Savoy Hill, W.C.2.	Temple Bar 9434
BIA	British Ironfounders' Association. 145, Vincent Street, Glasgow, C.2.	Glasgow Central 2891
BID	Building Industries Distributors. 52, High Holborn, W.C.1.	Chancery 7772
BINC	Building Industries National Council. 11, Weymouth Street, W.1.	Langham 2785
BOT	Board of Trade. Whitehall Gardens, Horseguards Avenue, Whitehall, S.W.1.	Trafalgar 8855
BRS	Building Research Station. Bucknalls Lane, Watford	Garston 2246
BSA	Building Societies Association. 14, Park Street, W.1.	Mayfair 0515
BSI	British Standards Institution. British Standards House, 2, Park St., W.1.	Mayfair 9000
BTE	Building Trades Exhibition. 32, Millbank, S.W.1.	Tate Gallery 8134
CABAS	City and Borough Architects Society. C/o Johnson Blackett, F.R.I.B.A., Civic Centre, Newport, Mon.	Newport 65491
CAS	County Architects' Society. C/o F. R. Steele, F.R.I.B.A., County Hall, Chichester.	Chichester 3001
CCA	Cement and Concrete Association. 52, Grosvenor Gardens, S.W.1.	Sloane 5255
CCP	Council for Codes of Practice. Lambeth Bridge House, S.E.1.	Reliance 7611 Ext. 1284
CDA	Copper Development Association. Kendals Hall, Radlett, Herts.	Radlett 5616
CIAM	Congrès Internationaux d'Architecture Moderne. Doldertal, 7, Zurich, Switzerland.	
COID	Council of Industrial Design. 28, Haymarket, S.W.1.	Trafalgar 8000
CPRE	Council for the Preservation of Rural England. 4, Hobart Place, S.W.1.	Sloane 4280
CUC	Coal Utilization Council. 3, Upper Belgrave Street, S.W.1.	Sloane 9116
CVE	Council for Visual Education. 13, Suffolk Street, Haymarket, S.W.1.	Reading 72255
DGW	Directorate General of Works, Ministry of Works, Lambeth Bridge House, S.E.1.	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. 68, Gloucester Place, W.1.	Welbeck 9966
FASS	Federation of Association of Specialists and Sub-Contractors, Artillery House, Artillery Row, S.W.1.	Abbey 7232
FBBDO	Fibre Building Board Development Organization, Ltd. 47, Princes Gate, Kensington, S.W.7.	Kensington 4577
FBI	Federation of British Industries. 21, Tothill Street, S.W.1.	Whitehall 6711
FC	Forestry Commission. 25, Savile Row, W.1.	Regent 0221
FCMI	Federation of Coated Macadam Industries. 37, Chester Square, S.W.1.	Sloane 1002
FDMA	The Flush Door Manufacturers Association Ltd., Trowell, Nottingham.	Ilkeston 623
FLD	Friends of the Lake District. Pennington House, nr. Ulverston, Lancs.	Ulverston 201
FMB	Federation of Master Builders. 26, Great Ormond Street, Holborn, W.C.1.	Chancery 7583
FPC	The Federation of Painting Contractors, St. Stephen's House, S.W.1.	Whitehall 3902
FRHB	Federation of Registered House Builders. 82, New Cavendish Street, W.1.	Langham 4341
GBPA	Gypsum Building Products Association, 11, Ironmonger Lane, E.C.2.	Monarch 8888
GC	Gas Council. 1, Grosvenor Place, S.W.1.	Sloane 4554
GG	Georgian Group. 16, Hanover Square, W.1.	Mayfair 5454
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. 1, Great George Street, S.W.1.	Whitehall 4577
IEE	Institution of Electrical Engineers. Savoy Place, Victoria Embankment, W.C.2.	Temple Bar 7676
IES	Illuminating Engineering Society. 32, Victoria Street, S.W.1.	Abbey 5215
IGE	Institution of Gas Engineers. 17, Grosvenor Crescent, S.W.1.	Sloane 8266

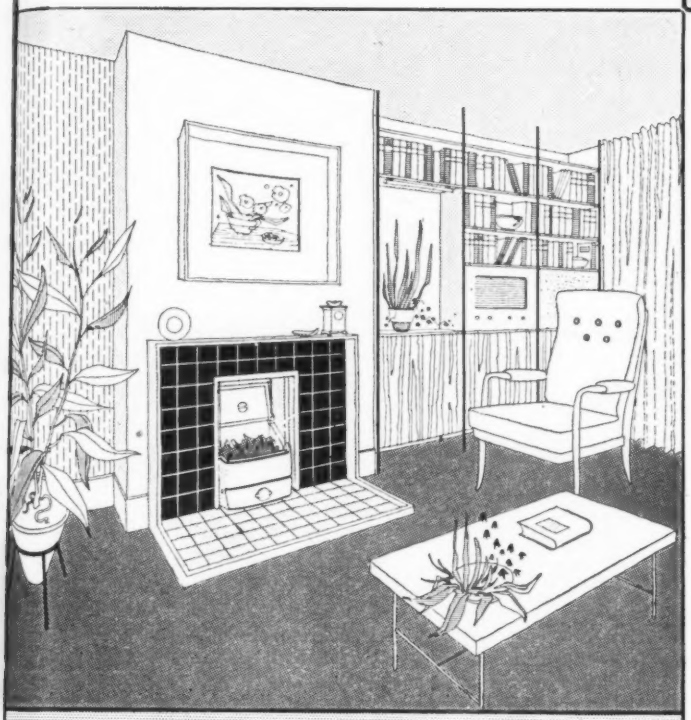


HIGGS AND HILL
LIMITED

LONDON

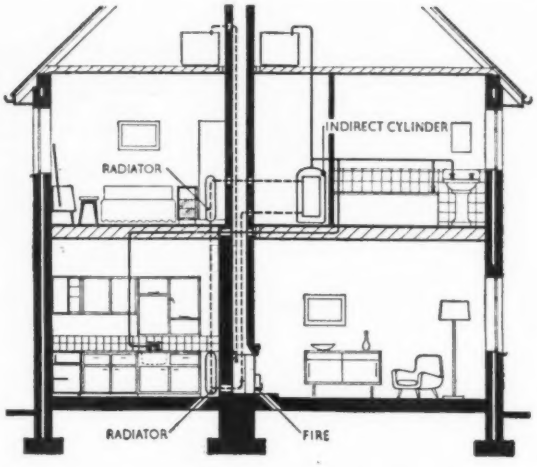
LEEDS COVENTRY

JAMAICA, B.W.I.



The No. 3 BROOK Fire

Continuous-burning fire with unusually high-powered boiler: a lot of heat for a moderate cost



THE BROOK FIRE DOES THREE THINGS AT ONCE

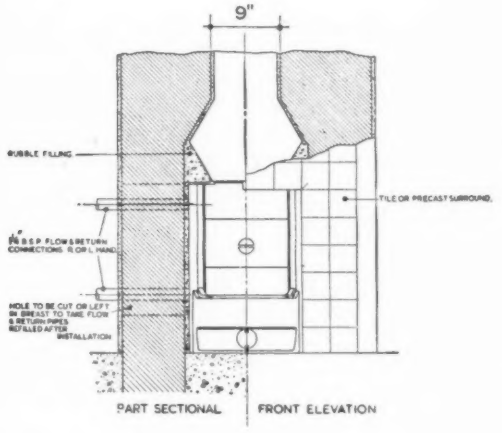
1. It's a cheerful open fire.
2. It supplies plenty of domestic hot water.
3. Provides background warmth by radiators, if required.

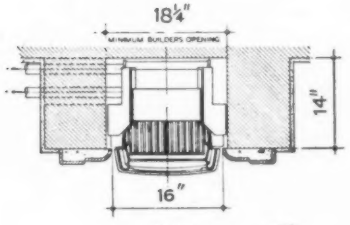
NOTES

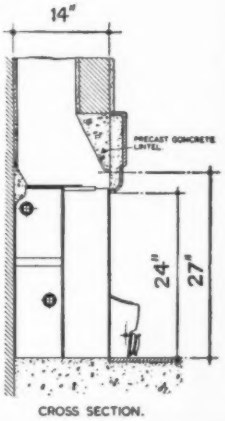
This continuous-burning fire is not expensive, and it does a lot of work for a minimum of fuel. The room in which it is installed can be as large as 1,500 cu. ft. and the back boiler is decidedly more powerful than the usual boiler of this type: it heats 40 sq. ft. of radiation surface and a towel rail. Installation costs are moderate.

GOOD LOOKS

The Brook is a very simply-designed fire which looks well in almost any setting. Note the attractive neat front in vitreous enamel cast iron—which is easy to clean and very hard-wearing.







COLOURS

Cream Mottle or Black vitreous enamel, Alisheen Black, Bramble, Bronze or Copper.

STRUCTURAL OPENING (Minimum Dimensions)

Width	18¼ ins.
Depth	14 ins.

For further details of the No. 3 Brook Fire write to the Housing Division of:

ALLIED IRONFOUNDERS LTD

Makers of cookers, boilers, fires and baths

28 Brook Street, London, W.1.

Architects: Max Lock & Partners.
Partner-in-charge: G. J. Easton, A.R.I.B.A.
Consulting Engineer: F. J. Samuely, B.Sc.(Eng.), A.M.I.C.E., M.I.Struct.E.
Quantity Surveyors: Cyril Sweett & Partners.
General Contractors: F. G. Minter Ltd.

ASHBURNHAM COURT

ASHBURNHAM ROAD · BEDFORD

Used in the construction of these flats were:

220,000 'Phorpres' Sandfaced Facings.

630,000 'Phorpres' Common Bricks.

PHORPRES

LONDON BRICK COMPANY LIMITED

Head Office: Africa House, Kingsway, London, W.C.2. Telephone: Holborn 8282
Midland District Office: Prudential Buildings, St. Philip's Place, Birmingham, 3. Telephone: Colmore 4141
South-Western District Office: 11 Orchard St., Bristol, 1. Telephone: Bristol 23004/5
Northern District Office: St. Paul's House, 20-22 St. Paul's Street, Leeds. Telephone: Leeds 20771
LB47

NEPENTHES—Pitcher Plant. Evergreen perennials. Insectivorous. These plants are aptly named Pitcher Plants, as they have oblong or lance shaped leaves terminating with hollow, cup-like vessels provided with a cap, and containing water. Insects, attracted by the nectar near the rim of the pitcher, wander with fatal ease into the cup, from which there is no escape.

anticipation

In nature the ability to anticipate a future event may mean survival. Anticipation, however, largely depends on previous experience and this the Pitcher plant cruelly denies its unsuspecting victims, who are immediately trapped, should they make the fatal mistake of entering the inviting cup at the end of its leaves.

In industry previous experience and anticipation of the future is also vital. Anticipation of future needs presents a particular problem in the planning of internal layouts for industrial buildings; the allocation of space for individual offices and departments can only be ideal while needs remain unchanged. But business requirements do inevitably change, which means re-allocation of working space, if maximum efficiency is to be maintained.

Conventional walls make re-arrangement a costly and inconvenient affair. The complete answer to this problem lies in the use of pre-fabricated movable walls which can be quickly erected, dismantled and re-erected to any required plan.

Rowe Bros. are specialists in this field of prefabricated movable walls, which in appearance are most attractive and incorporate doors and other accessories. Every assistance is given to Architects who wish to advise their clients on the advantages of movable walls. Full details are available on request.

ROWE BROS. & COMPANY LTD.
PALL MALL LIVERPOOL, 3 CENTRAL 5401

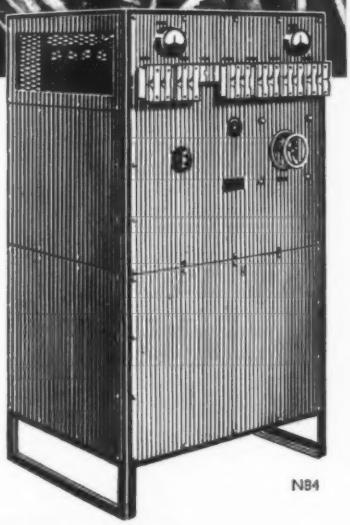
Also at Birmingham, Blackpool, Bristol, Bridgend,
Exeter, Glasgow, London and Vancouver and Toronto, Canada.
Factory at Kirkby, Nr. Liverpool.

A Product of the Rowe Manufacturing Division.

They never let you down

THE FIRE BRIGADES

No one who lived in a blitzed town or city during the war needs reminding of the sterling deeds performed by the N.F.S. and A.F.S. The latest figures show that the Fire Brigades answer, on an average, over 390 calls a week in the London area alone. They turn out at all hours of the day and night to deal with every emergency from chimney fires to blazing factories. Anyone unfortunate enough to need their help can rest assured that the Fire Brigades will be on the spot as soon as humanly possible. They never let you down.



N84

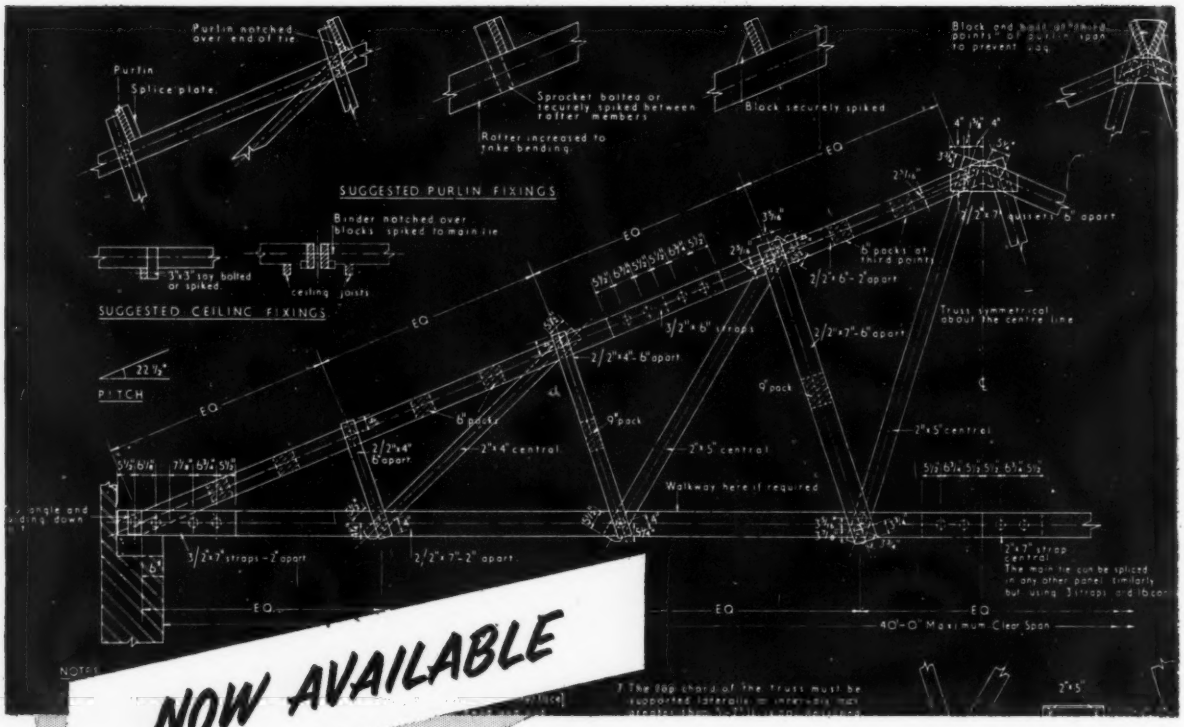
YOU CAN BE CERTAIN TOO that Nife-Neverfayle Emergency Lighting Equipment will never let you down. *Whenever needed*, these reliable units will instantly, automatically, spring into action. That is the special advantage of the Nife Steel Alkaline Battery—it never deteriorates, even after long periods of inactivity.

Nife-Neverfayle units occupy only one-third of the space required by conventional equipment and, as they can be installed adjacent to other equipment, a separate battery room is not needed—a point worth remembering when planning new buildings. Maintenance costs are negligible—after years of trouble-free service you will realise just how economical your Nife-Neverfayle equipment has been.

NIFE-NEVERFAYLE

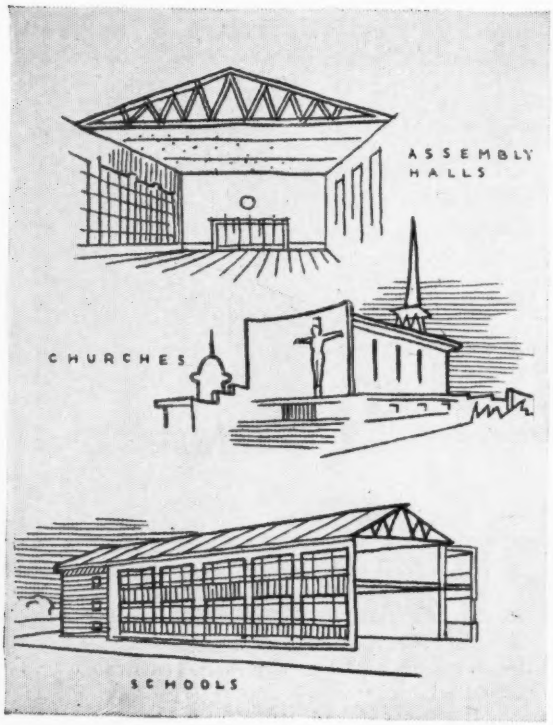
THE EMERGENCY LIGHTING EQUIPMENT WITH THE **STEEL** ALKALINE BATTERY

NIFE BATTERIES · REDDITCH · WORCESTERSHIRE



NOW AVAILABLE

T.D.A. STANDARD TRUSSES FOR PUBLIC AND COMMERCIAL BUILDINGS



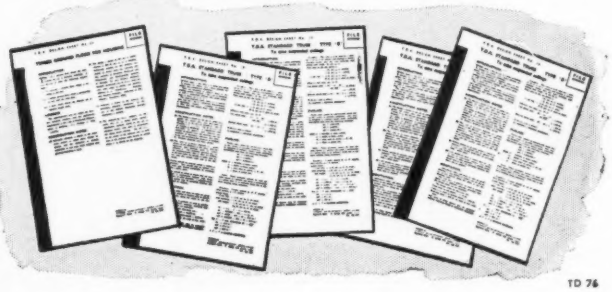
for HOSPITALS · SCHOOLS · CHURCHES
ASSEMBLY HALLS · OFFICES · FLATS
and other buildings

- *Designed to carry suspended ceilings and walkways*
- *Suitable for covering with various roofing materials*
- *Spans of 25, 30, 35, 40, or 45 feet* • *Pitch — 22½°*

Write for T.D.A. STANDARD DESIGN SHEETS NOS. 15 - 19

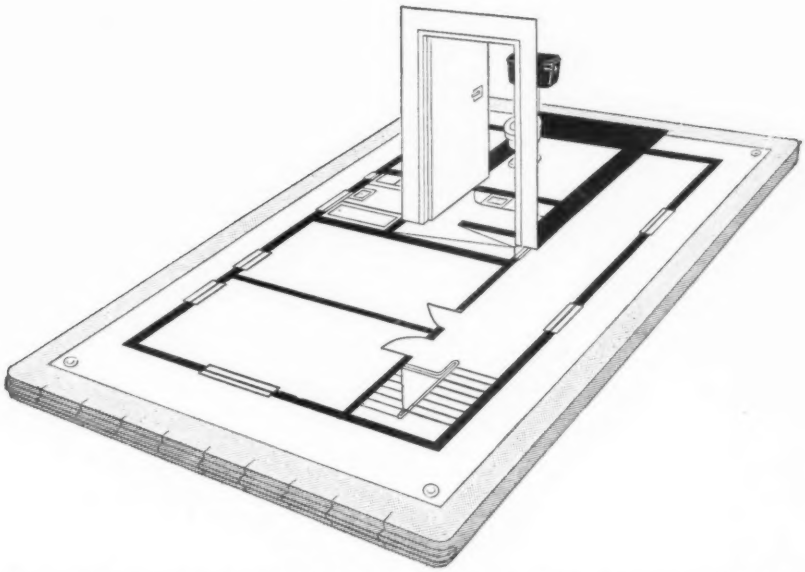
There's nothing like **WOOD**

Issued by the
TIMBER DEVELOPMENT ASSOCIATION LIMITED
21 College Hill, London, E.C.4, and branches throughout the country.



TD 76

Planned for convenience



The toilet is one of the most important rooms in the house—its fittings are entitled to the same careful specification which is applied to the rest of the building. The smoothly-streamlined Lawley 'Britannia' plastic cistern lends itself admirably to today's demand for contemporary design and functional efficiency. Pleasing in appearance, easy-to-clean, ultra-hygienic, Lawley plastic flushing cisterns can be relied on for smooth, silent action and trouble-free service at all times. They are made in a range of four models, the 'streamlined' model in three patterns—front and side action low level, and high level. These are in 2, 2½ and 3 gallon capacities to BSS 1125, to meet all water regulations. The well-bottom pattern, 2 gallon capacity only, is designed primarily as a replacement for existing installations.

Lawley

BRITANNIA

ONE OF THE OLDEST AND LARGEST CISTERN MAKERS IN THE WORLD

W. & J. LAWLEY LTD., BRITANNIA WORKS, SAMS LANE, WEST BROMWICH

M-W.71

Reproduced by permission of Josiah Wedgwood & Sons Ltd.

The firm of Josiah Wedgwood & Sons Ltd. was founded in 1759. 'Sherwood', a design produced in the Wedgwood Studios, is on Queenware traditional shapes which were first made by Josiah Wedgwood F.R.S. in the 18th Century.

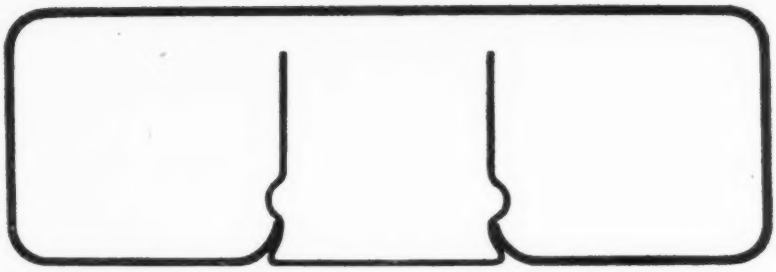
Products of Integrity

In this age of synthetics and substitutes
the authentic production still commands the
respect and favour of the discriminating.

Specify—

CLAY ROOFING TILES

Issued by the National Federation of Clay Industries, Drayton House, London, W.C.1 — *'The Clay Tile Bulletin', post free on request.*



FULL SIZE SECTION
(In Steel)
Can be supplied in extruded aluminium in slightly thicker section.

SHALLOW *lighting trunking*

Leading Contractors enthusiastically endorse the superiority of Ediswan shallow lighting trunking. In addition to the facilities commonly offered by trunking systems it has several unique features including an unobtrusive appearance which allows its use in decorated interiors. And the cost is low.

FOR FACTORIES OFFICES AND STORES

For all standard Lighting Fittings. Ediswan trunking is robust, easy to handle and to install. It consists of 4½" wide by 1½" deep 18 swg. "Bonderised" and enamelled steel channel in 13ft. lengths. These are coupled together by junction pieces to form a continuous run along which any standard type of lighting fittings (tungsten, fluorescent or mercury discharge) can be positioned as required. Snap-in cover strips are used to seal the trunking between fittings.

For the support of the lighting fittings there is a carrier plate of unique design, which is secured in any desired position by two bonding screws (these also ensure the low resistance earthing essential for instant start circuits), providing female entry for ¾" conduit.

For other power operated equipment. Lighting fittings, all types of light duty power operated equipment, or socket or conduit outlets from which such equipment can be fed, can be directly attached by use of the carrier plate and standard conduit accessories.

Large enclosed cable ducts—conduit outlets in any direction. The whole of the interior is available for cable, the two large outer ducts taking principal circuits and the middle, the inter-connections between fittings. The dimensions of the trunking also allow for conduit outlets in any direction. The provision of connector blocks makes it simple to alter the layout of lighting or other equipment. A 4-way 2-pole connector block (patent applied for) specially designed for use in trunking can be supplied if required. A unique feature of Ediswan trunking is the space available for handling wiring after the original installation has been completed because the interior walls which create the three separate ducts are part of the cover strip. They are therefore withdrawn when the cover strip is removed and there is ample space for manipulation.

Suspension, Surface Mounting, Recessing. Ediswan shallow trunking is suitable for all normal methods of suspension; for new buildings it may be incorporated in concrete to form a flush surface, or recessed in plaster or acoustic tile ceilings. Because of its smooth, unobtrusive appearance it is particularly suitable for use in Departmental Stores or Offices.

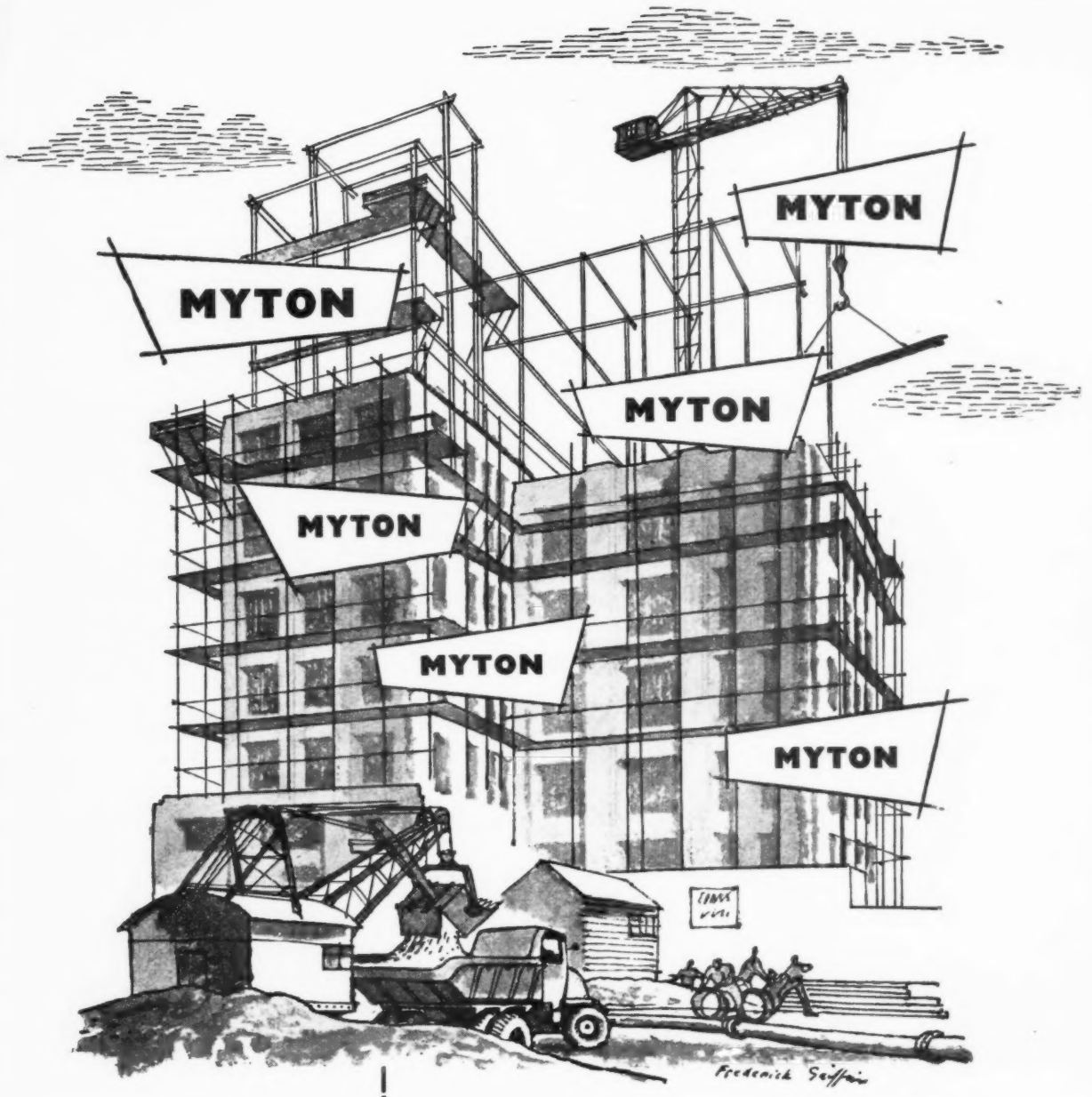
Cut Costs *Trunking systems of any type normally show substantial savings due to lower labour costs, fewer suspension points, and the elimination of multiple conduit runs. Ediswan shallow trunking gives additional valuable savings because it is designed for use with standard conduit accessories and suits standard lighting fittings—and the cost of the trunking itself (in steel) is only 3/1d. per foot approx. (in 0.1" extruded aluminium approx. 5/5d. per foot) plus accessories.*

Covered by Patent Applications Nos. 20825/54 30248/54

EDISWAN

THE EDISON SWAN ELECTRIC CO LTD
155 Charing Cross Road, W.C.2
MEMBER OF THE A.E.I. GROUP OF COMPANIES
Telephone: Gerrard 8660. Telegrams: Ediswan, Westcent, London

LE 203 A



You'll be seeing more and more of

MYTON

It is of considerable interest and significance that MYTON LIMITED are now a part of the TAYLOR WOODROW GROUP OF COMPANIES, with all the valuable advantages which automatically spring from membership of that vast organisation

MYTON LIMITED ***Building and Civil Engineering Contractors***

Now a member of the **TAYLOR WOODROW GROUP**

HEAD OFFICE: NEWLAND, HULL

AJ

THE ARCHITECTS' JOURNAL

9, 11 & 13 Queen Anne's Gate, Westminster, London, S.W.1 Whitehall 0611

No. 3186/7 March 22 & 29, 1956 VOL. 123

Subscription rates: by post in the U.K. or abroad, £2 10s. 0d. per annum. Single copies, 1s.; post free, 1s. 3d. Special numbers are included in Subscriptions; single copies, 2s.; post free, 2s. 3d. Back numbers more than 12 months old (when available), double price. Half-yearly volumes can be bound complete with index in cloth cases for 30s.; carriage, 1s. extra.

ST.PAUL'S PRECINCT

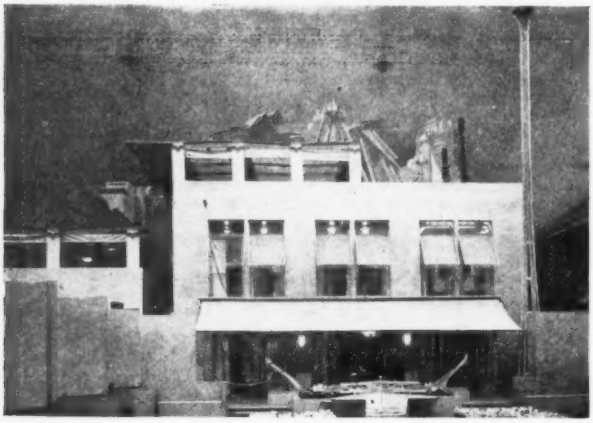
In ASTRAGAL's opinion Gordon Cullen's article in the JOURNAL of August 18, 1955, on the planning of a precinct for St.Paul's was masterly. Sir William Holford, whose job it was to submit proposals to the City's Court of Common Council, has produced an answer every bit as good as Cullen's and even more comprehensive. Naturally, he has been able to go into the problem very much more thoroughly, and his proposals are sensitive in detail, visually interesting and carefully arranged for carrying out in three successive stages - an important practical point. While keeping very much in the character of the City he has been able to achieve a varying and attractive variety of detail. For instance, there is formal axial symmetry at the west end; intimate enclosure on the north side, through Temple Bar, into a form of lapidarium by the Chapter House, and with a row of shops beyond which are connected by narrow, partly-covered passage-ways (very much in the City tradition) to the shopping precinct behind and to the north.

*

The pointless curve of the Bank of England building to the east is masked by the new choir school, small in scale to give contrast to St.Paul's, and, to the south-east there is one opportunity for the popular long-distance diagonal view of St.Paul's. There is a pedestrian way running obliquely on the axis of the south portico, with a view the other way to the river, and finally, there is an excellent office and commercial precinct to the north-west, grouped round a terrace which can be used - by means of a neat removable space-roof - for trade exhibitions and other special occasions. There are many other pleasant details too numerous to mention here.

*

Holford has had a number of eminent consultants on this task; nevertheless the palm must go to him. In masterly fashion he has enthused a team of consultants, which is the vital stage in making the opportunities for a worthwhile proposal to develop with the strength necessary to ensure completion. Holford, although his fame is deservedly international, has not had many comparable schemes to design to such detail, and everyone will admit that he has risen to the occasion admirably. No site is more important, and few could have done as well. The Minister of Housing and Local Government, Duncan Sandys, who so sensibly decided to have the problem of St.Paul's studied afresh, should feel singularly satisfied with the proposals for new London which, by his actions, he has caused to be designed. Let us hope the Minister's now notable



The House of the Future at this year's Ideal Home Exhibition is not the Daily Mail's first venture into design-prophecy: they chanced their arm in 1928 with the house shown on the left, designed by R.A. Duncan and sponsored by Bovis. The resemblances and contrasts between the prophecy of 1928, and that of 1956, are thought-provoking. Both designs call for a plastic structure, abundant electrical power, built-in storage units and revolutionary furniture. Their technical aspects are surprisingly similar in spite of the lapse of twenty-eight years. But planwise and aesthetically the differences strike the eye. The house of 1928, trapped in the social and aesthetic prejudices of its day, and lagging behind the Modern Movement's leaders is a facade with boxy rooms behind an exterior. The Smithsons' design, on the right, well up with the ideas of the international avant-garde is conceived entirely as an interior. It is, in fact, one single, house-sized room of which part is garden, part living room, part kitchen and so forth, as was shown in the JOURNAL for March 1.

ability to make people think again and reshape ill-considered parts of London will have results elsewhere.

THE IMPERIAL INSTITUTE

The Government proposal to demolish the Imperial Institute, South Kensington, to make way for an expansion of the Imperial College of Science has met with strong public disapproval on three grounds:- that the Colcutt building is too good a piece of architecture wantonly to destroy; that it's retention is desirable in order to preserve the historical continuity of the college area of Kensington, and that it is improper, however expedient, to demolish a building paid for, as this was, by public subscription as a memorial to Queen Victoria's jubilee.

*

As this column goes to press, unexpectedly early, ASTRAGAL learns that the whole question of the development of this site is liable to be re-opened. It seems clear that the architects cannot get the necessary accommodation on the site, while retaining the Institute buildings, without very severe loss of light. An alternative might be found if the LCC agreed to the removing of the designation of the areas around as residential, thus allowing the expansion of the university east, over Exhibition Road, into Princes Gardens, or west over Queen's Gate. Some of the essentially precinctual quality of the present layout would, of course, be lost by this, and areas suitable for hostel accommodation would disappear too.

*

If there is no alternative site for the Imperial College of Science (and one would have thought there must be plenty of area ripe for redevelopment, including, if London fails, even Brighton, the town selected by the Observer as in need of a university), then it would seem that romantic preservationists must reconcile themselves to its loss. We can compensate ourselves by realising that Dawbarn's new building promises to be a very effective substitute.

DESIGN AT CAMBRIDGE

ASTRAGAL congratulates the undergraduates of Cambridge on the foundation of a Cambridge Design Society - a most promising idea, since the formation of knowledgeable public opinion is the best way of getting better design and fighting Subtopia.

*

The society is specially concerned with the design of mass-produced products. It has already organized (and held) four lectures: on furniture by David Pye, on "Outrage" by Sir Hugh Casson, on motor-cars by Brian Adcock (of Vauxhall Motors) and on "Design in the Home" by Robin Day. An excellent start, and better still is the principal item in the summer-term programme: an exhibition on street furniture. May the society go from strength to strength. ASTRAGAL

The Editors

UNNECESSARY CRITICISM OF THE RIBA

The letter from the Coventry office printed in this week's correspondence column is indicative of the depth of feeling felt by many over the problems being studied by Richard Sheppard's ad hoc committee. The many can be construed as being a majority of the profession, as far as can be judged from the 1954 questionnaire of the RIBA. One should not forget, however, that 37% of those who answered the questionnaire were against a trade union. Here is an issue over which hot-headed action could divide the profession in two and make it appear ludicrous before the general public. A part of the profession, judging by the Coventry letter, want a trade union here and now. They assume that this is the only way in which the RIBA can negotiate on behalf of its members. It is one way, certainly, and we do not deny for a moment that registration as a trade union may be technically necessary, on legal grounds, for an allied body of the RIBA. But many are not convinced that this, by itself, solves very much. Recognition, as BAG has found, has still to be obtained in the teeth of rivalry from the IPCS and NALGO, indifference on the part of employers, and intense opposition from those architects opposed to trade unions. Not least, funds are needed for offices, records, negotiating officers, clerical staff and, presumably, a strike fund. For, if you form a union - a weapon to fight with - you have got to pay for the defences. There are two ways of making a man agree with you: by force and by persuasion. The trade union method, which was formed as an answer to exploitation by short-sighted, unintelligent employers is based on the first. Force - the strike - is a painful double-edged weapon not always used now, but even without it the employer-employee relationship goes through a rigid machinery of negotiation - often a battle of entrenched, unreasoning formality. No one, looking at the world of trade union disputes today would wish the architectural profession to join in if any other course is possible.

Now the JOURNAL has rather prided itself on speaking up on behalf of the inadequately paid. We are not proposing to stop doing so. All we ask is that the RIBA be allowed time to work things out. The ad hoc committee is giving a lead, and the leaders of the profession can clearly see for themselves, from examples outside the profession, what could happen if the members compel the formation of an ordinary trade union. What are the chances of forming an association - or union - on more progressive lines ? One equipped to deal with establishment and responsibilities, for instance, as well as remuneration ? Finding the answer to this is a task being ably carried out by the ad hoc committee. But finding the answer should also be exercising the minds of those who form the Practice Committee of the RIBA, and who rejected the proposal of the Howitt Committee to devise a scheme of "minimum conditions of service" for assistants. If the profession won't unite to solve its own problems it will be forced to divide, with the possibility of disastrous consequences.

As we go to press we learn that the London printers have returned to work. This is too late to affect this issue, but next week and subsequently the *Journal* should be able to resume its normal appearance.

AJ RESEARCH FELLOWSHIP
information for the architect

On February 13 the Board of the AJ Research Fellowship met to consider the draft programme put forward by Michael Ventris, the Board's first Fellow (see AJ January 5, 1956), for his year's study of information for the architect. In his programme, which was generally agreeable to the Board, Michael Ventris proposed to divide his time between architects' offices and the producers of information, and to spend the first six months on an exploratory study, the remainder of the time on a more detailed study of certain chosen aspects. As an essential part of his work he proposed to make a series of visits to architects' offices. Opposite we publish a request to those of our readers who would be prepared to receive a visit from him in their office or who would like to discuss the problem of information with him, to make themselves known to him. In order to explain the bearing of his investigations Michael Ventris set down in his programme a series of hypothetical reasons why present methods of handling information may prove ineffectual and some possible remedies for each. So that our readers may appreciate the turn his investigation is taking and - we hope - may be encouraged to come forward with offers of assistance, we print these reasons here.

Reasons for the failure in handling information	Possible remedies
The architect has a question, but does not know where best to go for the answer.	Publishing of more detailed lists of sources and suppliers of information. Publication of a suggested minimum office library and subscription list. Provision of more useful directories giving the suppliers of particular products and services. More realistic use of information sources in schools. etc.
The architect knows where he should go to find the information but cannot afford it/ is prevented from obtaining it by distance / has no time to absorb it.	Cheaper publications. More condensed publications. Decentralisation of services. Better digests of new information. More economical reading habits. etc.
The architect has reason to believe the information can be found inside his office, but its organisation makes it difficult for him to turn it up.	A report on methods successfully followed in offices for: (a) Filing "outside" information. (b) Retrieving "inside" information incorporated in the drawings and files of previous jobs, and ensuring "feed-back" of experience gained on them. etc.
The architect's current information from outside sources is incomplete/inaccurate/incomprehensible/ difficult to apply/out-of-date/difficult to file/not in a standard form. Possible secondary reasons: a) The supplier does not properly appreciate the architect's needs. b) The supplier does not think the architect's needs are important enough to justify special treatment.	Formulation of desirable standards, and the holding up of good examples. More effective imposition of existing standards. More money and space for the publication of necessary information without obvious news value. The provision of new forms of information service. etc.

Reasons for the failure in handling information (cont.)	Possible remedies (cont.)
c) The supplier does not consider the full information necessary or newsy enough to publish. d) The supplier wishes to conceal or distort some of the information, or to force the architect to come for it in another form. e) The supplier dare not publish the information needed. f) The supplier cannot afford to publish the full information. g) The immediate supplier of the information is not the originator, and is not technically qualified to transmit it. h) The information describes misleading conclusions from an argument or experiment wrongly conceived. i) The economics of publishing do not justify a revision when the useful life of the information has expired. j) Different sources are publishing the same information in an incomplete but overlapping form.	
The architect has the information, but in the existing set-up there is no call to make effective use of it.	Better understanding by the builder of new techniques. More initiative left to architects by their clients (especially LAs). Better engineers and heating consultants to work with. etc.
The architect is presented with inconclusive or contradictory information on problems of building technique, and no independent authority is prepared to give guidance on the relative merits of alternative products and systems.	More fundamental research by the bodies best suited to undertake it. Fuller publication of research already done. More explicit indications of specific products to which theoretical conclusions may be taken to apply. A wider application of official seals of approval on products and systems. Some way of getting round the law of libel to provide consumer assessment of products. More and better "synthetic" books and articles covering particular forms of building technique. More detailed and critical evaluation of technical details of buildings, published in the press, including a study of how they wear. etc.
The architect's brief (and the existing buildings known to him) are not enough for him to decide whether a proposed design will be the most satisfactory in use for the user of the building.	More fundamental research on the user requirements of particular building types. Fuller publication of inaccessible research on these. More and better "synthetic" books and articles covering particular building types. More detailed and more critical evaluation of user factors in publishing individual buildings in the press. etc.

INFORMATION FOR THE ARCHITECT

AJ RESEARCH FELLOWSHIP

The holder of the Fellowship for 1956, Michael Ventris, is now based at the Architectural Association, 34-36 Bedford Sq., W.C.1., where he can be reached by anyone interested in suggesting views about the problem.

In order to study the practising architect's methods of obtaining and filing information, and to take note of his complaints and difficulties in using it, he would like to visit a variety of architects' offices and have an opportunity for discussion with different members of the staff.

Under the heading "information" it is proposed to include not only printed and verbal matter from outside firms and organizations, but also data derived from the files and drawings of previous jobs within the office.

Later in the year a written questionnaire may be sent out to a small sample of offices in order to deal with some questions where an accurate statistical answer is desirable.

But at the present stage he would like to get in touch with those offices which have particular problems, strong opinions or their own special methods in dealing with the subject of information, and which would be prepared to discuss them verbally; and among these he would like to include, for instance, some of the smaller country practices whose problems might be overlooked from a viewpoint centred on London.

To be useful, a visit is likely to take 3 hours or so; but within that time part of the discussion might be with one of the heads of the office, part with assistants and part with the "librarian" (if he or she exists).

If you are ready to discuss the problem in your office (at a time during 1956 to be fixed by appointment) it would be a great help if you would tick the first box below and send the cut out form to Michael Ventris, The Architectural Association, 34-36 Bedford Square, London, W.C.1. Alternatively, if you are not responsible for the office in which you work, but would nevertheless welcome an opportunity of expressing your views on the subject in private, please tick the second box.

☐ I am willing to discuss "information" in my office.

☐ I have views on "information" which I should like to discuss privately.

Name: .....

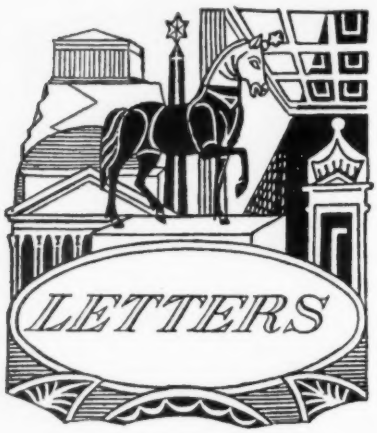
(Private address:) .....

Name and address of office: .....

.....

Tel. no. .....

Number of registered architects in office: .....



WHO PAYS FOR SITE SURVEYS ?

SIR: May I clarify one point in the letter by W.Keith Thomson (February 16, 1956)? He suggests the architect bears the cost of preparing a site survey. In my opinion the client is obliged, on presentation of an account, to reimburse his architect for such a survey, and to pay a reasonable fee for the skill and responsibility involved.

GERARD COLLINS,A.R.I.B.A.

Middlesex.

RIBA "PARTICIPATES" AGAIN

SIR: It has happened again ! The Midland Regional Board for Industry, significantly headed by the chairman of a firm making prefabricated building parts, has announced recently a two year's research programme into factory design. The RIBA, among others, have been "invited" to participate.

When will the RIBA realise it is they who should initiate this type of action and not be merely asked to join in ?

The architect is the only man who, by his training and approach, can see the whole of the picture, and he and he alone should be the person to deal with this sort of research.

I presume that many of your readers have had to deal, in the last few years, with factory clients who have been approached direct by firms making prefabricated factory buildings and offering a complete service from planning to completion.

We all know what this entails and the fallacies that exist in such propositions but I suppose that, when this report is published, it will be even more difficult to combat this insidious evil.

Personally, I boycott any firm offering this sort of "service" and all other architects should do the same.

FREDERICK HILL,F.R.I.B.A.

Birmingham.

HOW TO FIND THE POACHERS

SIR: The contents of Mr.Parson's letter (A.J.February 16) are in accordance with other practitioners' experiences. One should add to his last paragraph "certain official architects and students signing the plans and forms as agents."

Two categories of architects used to practice, the official and the private practitioner. Now there is a third, the "shadow architect and agent."

The latter category make no secret of their activities; they are well-known to the general public and the contractors, and their employers do not appear to restrain them.

If the profession as a whole, employer and employee alike, are seriously concerned in matters which are the subject of the editorial "Making a Start" (A.J. February 9), they should not ignore the menace from within their ranks, and also those who stand outside.

The records of each area planning office would show the exact proportion of plans prepared by official and private architects in the proper manner and those prepared by the others. It would be possible also to see the type and size of the projects planned by those referred to.

In these archives the proof of the controversy can be found, not requiring the evidence of members so rarely and reluctantly given.

LLEWELLYN MOORHOUSE
Registered Architect.

Harrogate.

MR.KEEBLE PROLONGS THE JOKE

SIR: It was with great pleasure that Edwin Robinson and I saw that we had achieved the distinction of mention in your columns ("Keeping the Specialist in His Place", page 115, January 19, 1956), and that we had even succeeded in astonishing ASTRAGAL. The astonishment is reciprocated.

We had thought that by taking architectural advice on every item in our brief discussion of the external appearances of buildings we were acting with reasonable caution; but we ought, I suppose, to have remembered that the architectural profession exists mainly in order to afford architects the pleasure of criticizing each other's designs destructively and that no one else is supposed to express any interest in architecture, so that probably even pointing out the desirability of employing architects (see pages 118 and 119 of our book) constitutes failure to stay in one's proper place.

The two larger photographs published by you are, of course, attempts to illustrate the obviously undesirable, so that it is an almost unavoidable deduction from ASTRAGAL'S comments that he likes pyramidical roofs and almost symmetrical elevations. This also surprises us.

As to the housing estate, our photograph of which you inadequately reproduce, it indubitably has an urban character whether one likes it or not, and to achieve this was certainly the aim of the reputable architect who designed it.

L. B. KEEBLE,F.R.I.C.S.

London.

THE HOWITT REPORT

SIR: The following is a copy of a letter which has been sent to the honorary secretary of the ad hoc committee set up by the RIBA:

Now that the RIBA JOURNAL has published the interim report of your committee, we, the undersigned members of the staff of a local authority architect's department, are very keen that the committee should know our reactions and we set them out below.

First of all we wish to congratulate the committee on the publication of their report and also that of the Howitt committee. We also wish to congratulate them on their recommendation that an investigating team be set up within the RIBA to enquire into the problems of the responsibility, status and establishment affecting salaried architects.

We agree that these problems will remain until someone has

got down and assembled some facts, and that this is a full time job. We disagree, however, in the emphasis that has been given to this recommendation.

Now that we know the contents of the Howitt report we can name three occasions when the view has been expressed within the profession that a trade union be set up or an existing one supported by the RIBA. They are: (a) The referendum. (b) The Howitt report. (c) The resolution at the 1955 AGM.

There is clearly a strong current of feeling within the profession on this issue, and yet your committee has apparently dismissed it with the same offhandedness as did the Council on another occasion.

It has been firmly established by the Howitt report that the RIBA can in no way attempt to negotiate on behalf of its salaried members. What then will happen when the full time research officer produces his findings ? The RIBA will be in no better position then to implement whatever measures it considers necessary as a result of his report than it is now. We therefore urge that your committee reconsider its terms of reference. You will remember that the first of these said that the Committee should "make recommendation to the Council as to the immediate action to be taken in the light of that resolution." (The AGM resolution).

Coventry. 44 ARCHITECTS (names supplied)

RIBA

Symposium on Office Buildings

A symposium on office buildings will be held on April 12 at the RIBA, 66, Portland Place, W.1. The RIBA Science Committee, which is organising the symposium, has invited the following architects and engineers to speak: J.B.Bickerdike, Hope Bagenal, J.R. Kell, H. Fitzroy Robinson and F.J. Samuely. Professor Sir William Holford, who will be in the chair, will read a paper on the "setting" of the office building. All papers will be read at the afternoon session, beginning at 2.30 p.m. Discussion will begin at 6.30 p.m. Admission tickets, price £1, will include a buffet meal, a report of the symposium and entry to an exhibition on office building. Applications should be made to the Secretary, RIBA, in envelopes marked "office buildings" in the top left-hand corner.

LCC

Changes in Planning Division

There are to be changes, which will save about £28,000 a year, in the Planning Division of the LCC's Architects' Department. County planning policy, which has hitherto been handled by two groups, will be dealt with by a Policy and General Group. It will be responsible for the programme and co-ordination of work related to reviews and amendments of the Administrative County of London Plan. And it will include teams of specialists who will be concerned with housing, community and social services, industry, decentralisation, statistical information and planning standards. The Group will also be responsible for planning surveys, maps and ordnance sheets.

Three area groups will be responsible for metropolitan boroughs in north-west, north-east and south London. They will give advice on development control and will work on the implementation and review of the Development Plan, as well as the design of redevelopment areas. Arrangements will be made for these groups to deal with development applications more quickly than is usual. Each group will be under the control of a planning officer, who will have two assistant officers "of high status" - one to supervise applications and Development Plan review and the other to deal with questions of civic design.

CIAM

Conference in Jugoslavia

This year's CIAM conference will be held, from August 3 to 16, at Budva, Jugoslavia - a town on the Adriatic Sea. Delegates will meet in Venice during the afternoon of August 3 and will go on board a Jugoslav steamer, which will arrive in Budva the next day. Expenses, including the boat trip and hotel accommodation during the ten days of the congress will be 110 dollars. Expenses will naturally be smaller for those who do not want a cabin on the boat or hotel accommodation in Budva. (It is said that there are excellent camping facilities).

GOLD COAST

New Public Works Architect

Kenneth Twist, assistant architect to Herts CC, has been appointed superintending architect to the Public Works Department of the Gold Coast Government. Though his post is not nominally associated with any particular class of work, Mr.Twist's first duty will be to initiate a school building programme on the lines of that of Herts CC. He takes up his new appointment on April 21.

CUMBERNAULD

Chief Architect for New Town Wanted

Whoever obtains the post of chief architect to Cumbernauld New Town, a position which is now being advertised, will have the opportunity of designing the town at very much higher densities than any of the existing New Towns.

APPOINTMENT VACANT

Draughtsman for AJ

THE ARCHITECTS' JOURNAL requires a full-time DRAUGHTSMAN to assist in the preparation of Information Sheets and Working Details. First class draughtsmanship, knowledge of building construction and a keen interest in the compilation of technical information are required. Write to the Editor (Information Sheets), 9, Queen Anne's Gate, S.W.1., stating age, architectural training and experience.

BRITISH FURNITURE EXHIBITION 1956

It is some years since we have reviewed the Furniture Exhibition at Earl's Court in these columns. This year's Exhibition was more interesting than usual, and we asked David Medd, ARIBA, of MOE, who has devoted much time recently to the design of school furniture (see his articles in the AJ, November 3, 1955 and January 12, 1956) to report on it for us.

I suppose the Earl's Court Furniture Exhibition is a fair reflection of the furniture industry, and for that reason a visit to it, though not necessarily stimulating, is interesting. The growth of the "contemporary" style has been so rapid in recent years that it now qualifies as a serious competitor to "suburbethan" in the battle of styles in the arena at Earl's Court. Meanwhile a few firms who are seriously concerned with design problems look down from the gallery. The training colleges seem to have withdrawn from the battle, which is a pity, for I remember that in the first years of the Exhibition after the war their contributions, even if very susceptible to fashion, were a portent. But at opposite ends of the ground floor this year were two exhibitors who can do a great deal to establish sound principles and guidance for designers - the Furniture Development Council and the British Standards Institution.

The FDC had a sensitive and rather timid exhibit - the sort of stand at which one has to work quite hard to get anything from. The FDC stands for something the industry really needs: an independent and objective centre for research. The need, however, is out of all proportion to its influence, and one would like to see more power to its elbow. My view is that the situation will not improve while the FDC's programme is limited to research. Until research is presented in applied form through development, its effect on the industry will be comparatively small. A very notable contribution, however, is the joint work with the BSI on performance tests for domestic furniture.

In contrast to the timid FDC the BSI really had their sleeves rolled up, and by means of loudspeakers and posters all round the exhibition they attracted the public to their stand, where tests on domestic furniture were being demonstrated. The purpose of the tests was put across in vivid and convincing terms, which were intended to send the public away determined to look for the kite mark before buying their next piece of furniture. The exhibit which showed the entrails of a mattress not complying with the standard almost turned my stomach. It is interesting to note that over 300 firms are using the domestic furniture standards, and that this represents over half the output of the industry.

During a tour of the exhibition the following were exhibits that interested me:

1. Rubber webbing. (a) A subsidiary of the Chiswell Wire Co. Ltd., (Resilience [London] Ltd.) of Sandown Road, Watford, showed the rubber webbing - "Rotex" - which they are now making under licence from Denmark for upholstery purposes. This gives wonderful resilience, and in conjunction with foamed latex cushions or mattresses is really comfortable. (b) Pirelli, of Burton-on-Trent, showed the Italian cotton-reinforced rubber upholstery webbing which is cheaper and has a lighter stretch. It can be supplied with formed metal end clips ready for clipping over grooves in seat or back frames. This should make a useful saving in labour costs, and it was interesting to note that Furniture Industries Ltd. are now using it in their well-known Ercolion range.

My impression was that this type of webbing, and the development of foamed plastic upholstery will make a big impact on the upholstery trade and design.

2. Vitafoam Ltd., of Glen Mill, Oldham, showed their "Vitalay" foamed under-carpet at 18s.9d. per yard (54 in. wide).

3. Green Brothers, of Hailsham, Sussex, showed a very neat and comfortable small folding garden or picnic chair for £2.1s.

4. Beaver and Tapley Ltd., of Scotts Road, Southall, Middlesex, are making the Penguin bookshelf, which can be used as a wall fixture or a floor model. Much careful thought has gone into its design, and the result is elegant and simple. But dovetails, if they are to show, should be better proportioned and accurately fitted. The design is by Frank Height, who is head of the team in the LCC's Furniture and Design Section, which does such excellent work on furniture design and decoration schemes.

5. One is so used to seeing the more familiar examples of Ernest Race's furniture as properties on other people's stands that it was refreshing to see here his less well-known chair designs. I was interested that a new (to me) aluminium leg incorporates as an integral part of the design the Armstrong Cork Co's load spreader.

6. An interesting display in the gallery, where most of the good design was to be found, was that of Furniture Industries Ltd., whose famous Ercolion range seems to be ever-increasing. By means of antique wax finish and period linen covers they convert the "contemporary" into the "old colonial." To be able to meet the demands of both markets with the same design must be a real sales hit. The full "contemporary" range is well worth studying, as some of the seats are quite elegant, and some very comfortable now that they are equipped with rubber webbing and foam latex cushions. In my opinion the best chairs in the Exhibition, when one considers value for money, were to be found on this stand.

7. The D. Group. Also in the gallery was a group of twelve firms who had collaborated in the display of their furniture, and who were making a special claim to be seriously concerned with good design; a trend that deserves encouragement. However, only the work of two firms really interested me: Gordon Russell Ltd. and W.G. Evans and Sons Ltd.

Everything was well-mannered on Gordon Russell's stand, down to details of pictures, flower arrangements and lettering. The workmanship and finish of Gordon Russell furniture were as usual of a very high standard. What a relief to rest one's eyes on a soft finish instead of being dazzled by the hard superficial shine of most factory-produced furniture. Gordon Russell design, however, disappoints me. Before the war I paid regular visits to the Wigmore Street showrooms, but the furniture even of those days was disappointing compared with that of the pioneering days of the twenties.

THE BEST CHAIR IN THE EXHIBITION

W.G. Evans and Sons Ltd., of Sunbeam Road, Park Royal, N.W.10, showed their range of Vanson dining room furniture which I thought was well above the average; particularly good were the

hand-made brass drawer handles, and the dining chair (No.6251), with latex foam seat and back. This was the best chair of its kind in the Exhibition, I thought. These designs are by Peter Hayward, who also designed the most excellent bookcase, cupboard and shelf units supported on pairs of steel legs at 2 ft. 3 in. centres. These units can be arranged at will and extended either vertically or horizontally. This is by far the most satisfactory fitting of its kind that I have seen, because it has a domestic, rather than a show-room character common to so many of this type of unit.

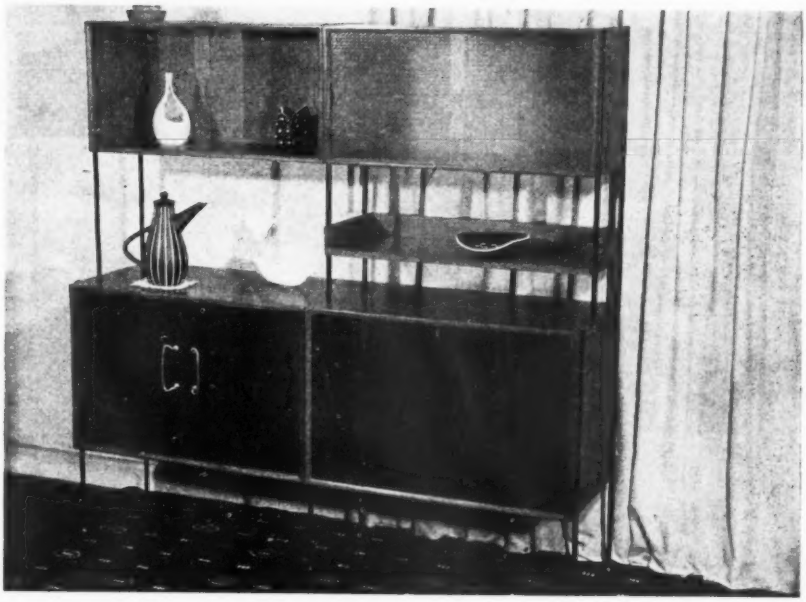
UGLY VARIATIONS ON THE SAME THEME

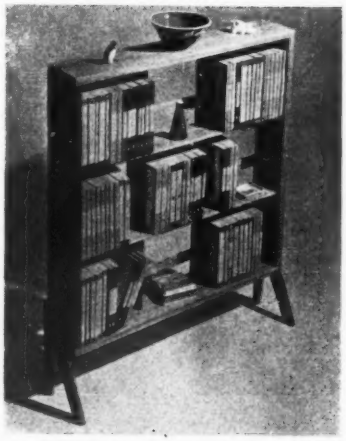
To sum up, therefore, there are high spots, but very few. Chairs of all types seem to be the main problem. One would not believe it possible to think of so many ugly variations on the same theme. Comfort would appear to be achieved by softness rather than by shape. One is still waiting for the designer to come forward who will combine a knowledge of anatomy and posture with a sensitive eye. Chairs, being required in such large numbers, lend themselves most favourably to mass production, and it seems that there is a real need for more intelligent and sensitive design.

The office and school sections of the Furniture industry were not represented. In post-war years there has been such a concentration of design effort on school furniture, much of which overlaps into the domestic field, that the presence of the school furniture manufacturers would have noticeably raised the level of design.

THE NEED FOR A CRITICAL PUBLIC

In the long run the general level of design is affected by the standards demanded by the customer. Nowadays the effective customer is the general public and not the intelligent individual, as in the golden age of furniture making, and the encouragement of a critical public with an awareness of design is thus all-important. (In this connection might not the Council of Industrial Design have played a part in the Exhibition?). It is in these days, when one is concerned with a large public, that independent bodies, such as the FDC, the BSI and COID have such important responsibilities.

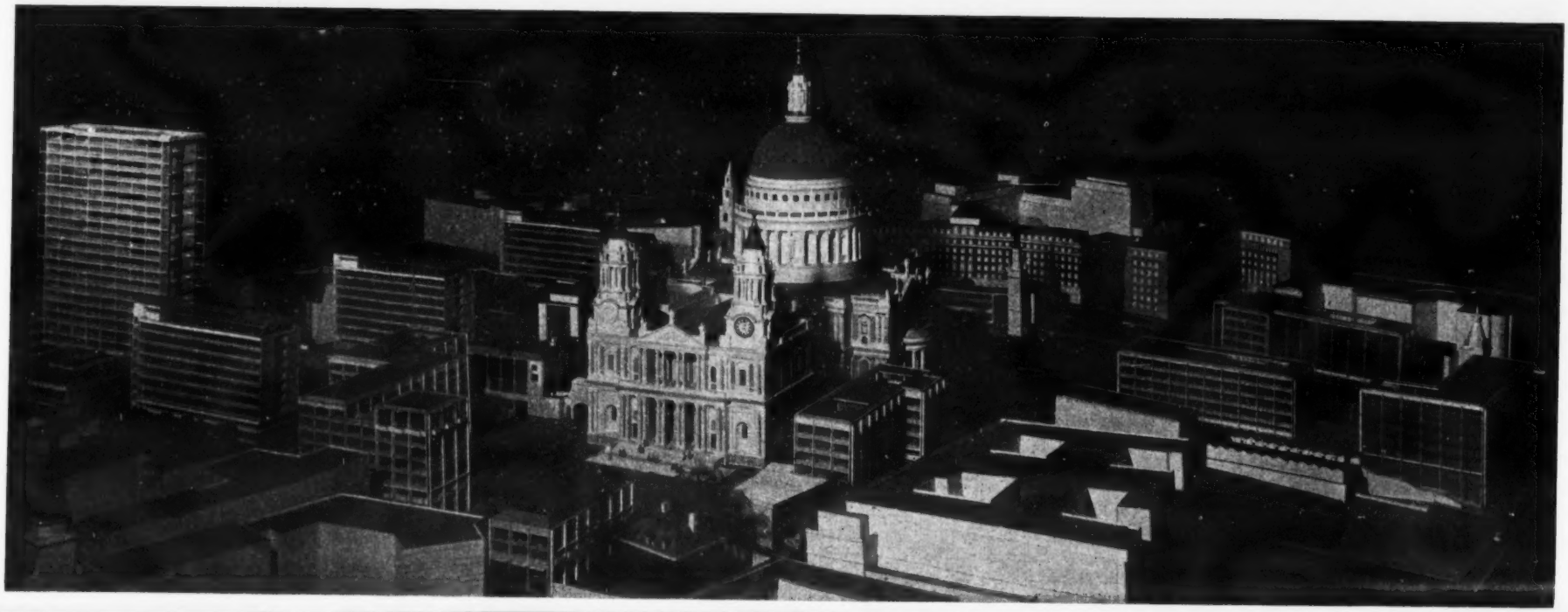




Furniture referred to in David Medd's article. Top: left, folding chair by Green Brothers, Hailsham, Suffolk; right, a dining chair by W.G. Evans. Centre: some of the shelf units by the same firm. Bottom: left, "Penguin" bookshelf by Beaver and Tapley Ltd.; right, Ernest Race's "Heron" chair.

THE HOLFORD SCHEME FOR ST. PAUL'S PRECINCT

Professor Sir William Holford has created a setting for St.Paul's which goes far towards answering the many problems posed. The JOURNAL, whose interest in the problems resulted in the commissioning of Gordon Cullen to prepare a scheme for St.Paul's which was illustrated in the issue of August 18, 1955, unhesitatingly commends this design by Sir William Holford as an example of sound layout, with buildings most sensitively deployed. The surrounding buildings have not, of course, been designed in detail, but the visual interest which has been created by their intricate arrangement, and by the use of a number of different levels, promises to create a setting which, while in keeping with the City traditions, is unashamedly and suitably contemporary in feeling. Everyone familiar with the present surroundings to St.Paul's, shown right, will realise that Sir William Holford's proposals present a splendid opportunity to form a more appropriate setting and precinct.



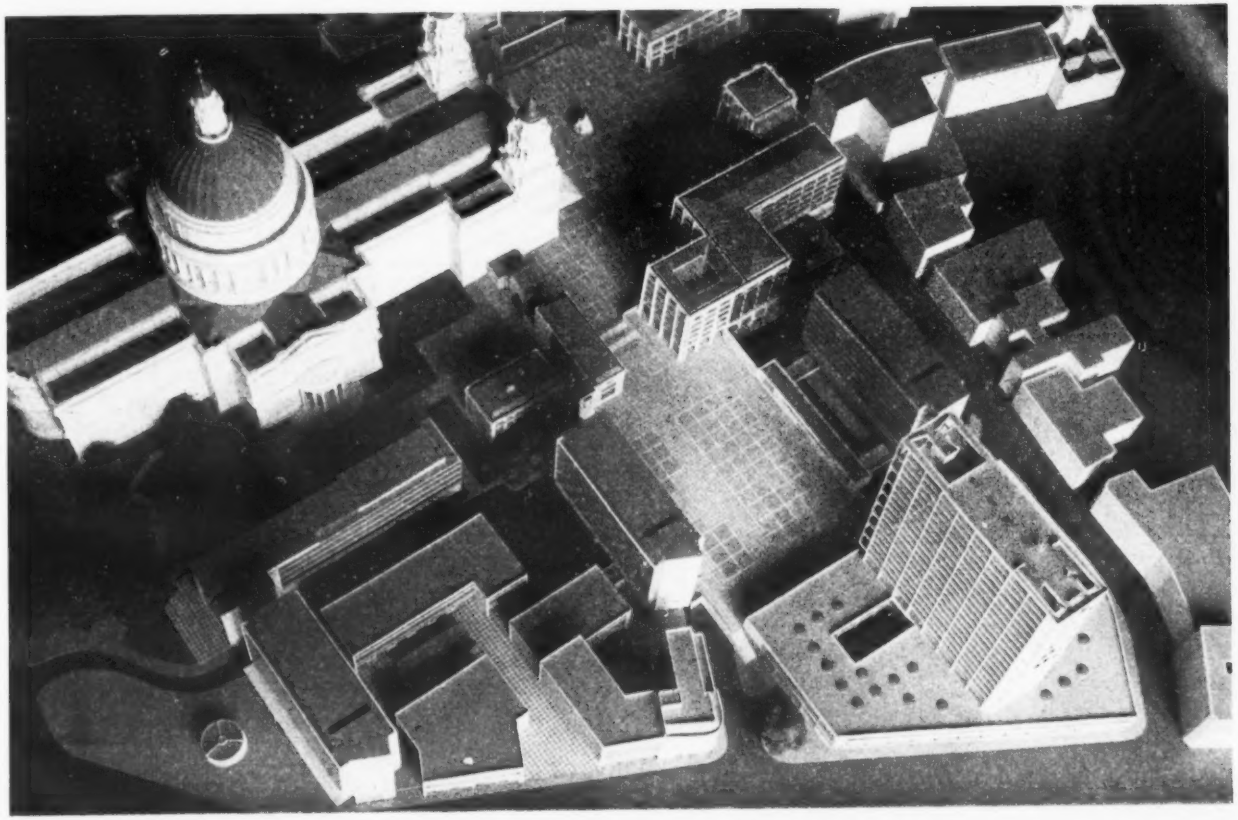
On the opposite page, above, is a general view of Sir William

pilotti. To the left of St.Paul's can be seen the re-sited Temple

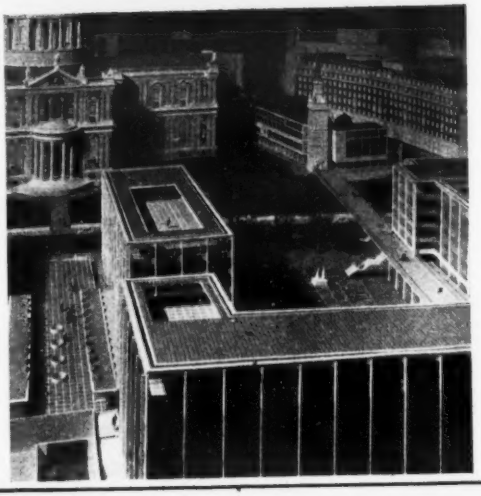
of car parking space and it is proposed to use the terrace it-

proposed to use the terrace it-

On the opposite page, above, is a general view of Sir William Holford's proposals for the St. Paul's precinct. Sir William Holford was appointed in April 1955 by the City Corporation to prepare a report on the environment of St.Paul's. This area is one which the Minister of Housing and Local Government, in his review of London's Development Plan, decided should be studied afresh with a view to providing a worthy setting for the Cathedral. In the foreground of the model can be seen the Deanery. Beyond is the paved pedestrian forecourt, flanked by public and commercial buildings, part of which are on pilotti. To the left of St.Paul's can be seen the re-sited Temple Bar and steps rising up to a terrace (flanked by commercial buildings) at the far end of which is a 20-storey office block. To the right of St.Paul's can be seen a large area of level lawn, the tower of St.Augustine's Church with the choir school beyond, and, on the extreme right, another group of office and commercial buildings. Below, this page, is a high level view of the terrace with, to the left of it, a new shopping centre consisting of buildings three storeys high, on the average. Below the terrace are two floors of car parking space and it is proposed to use the terrace itself as the floor for temporary exhibition buildings and for commercial and special occasions. The roof will be a demountable aluminium space-frame which will be jacked up into position from four supports. A pedestrian walk, at first floor level, leads from this terrace along the Cathedral front of the buildings which flank the west forecourt, and a public staircase leads from this pedestrian way to the ground level at the top of Ludgate Hill. Another view of the terrace, beyond the 20-storey office block, is shown right.



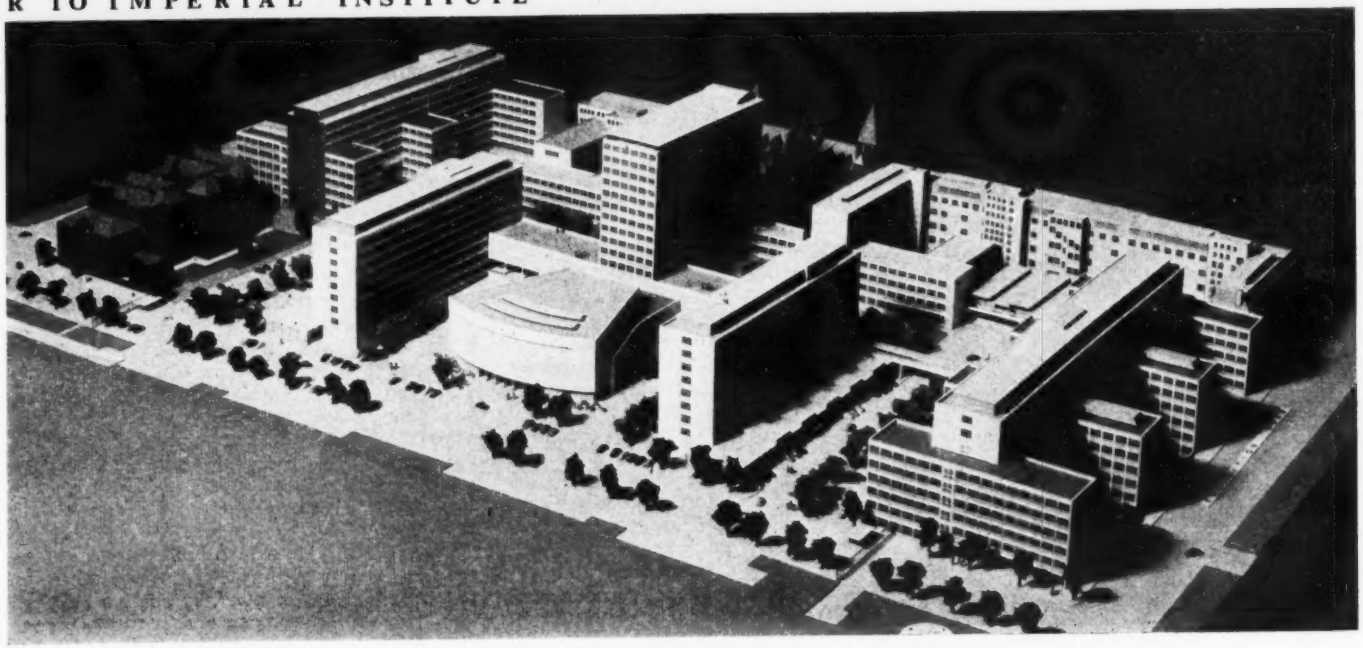
ST. PAUL'S PRECINCT (continued)



Extreme left, St.Paul's from the east. On the right, foreground, are offices around the shopping precinct and beyond is the 20-storey office block. In the centre is the re-sited Temple Bar and the old Chapter House which is being retained. Left, the new square which is proposed for the south side of the widened Cannon Street. Beneath Cannon Street are car parks reached by a ramp; left foreground. Above the ramp is a pedestrian way lined with small lock-up shops. A bridge for pedestrians crosses Cannon Street on the right.

PROPOSED SUCCESSOR TO IMPERIAL INSTITUTE

Right, Messrs. Norman & Dawbarn's proposals for the Imperial College of Science and Technology which has been designed to replace the Imperial Institute in South Kensington, and the clutter of buildings which now exist in the centre of the site. In the foreground is the Imperial Institute Road, which is closed to form a university precinct. The only existing buildings retained are on the extreme left and at the rear of the model. The tall central block stands on the axis of the Albert Hall and will be 200 feet high. See ASTRAGAL's comments on page 282.



AUSTRALIAN ARCHITECTURE AT THE RIBA

Below are some of the buildings shown at the interesting pictorial exhibition prepared by the Royal Australian Institute of Architects with the co-operation of the Australian Government

71

Classrooms, Melbourne Grammar School, Victoria (1954) 71
Mockridge, Stahle & Mitchell

Encased steel frame, faced with grey silica-lime bricks. The blue-stone of the stair walling relates this building to the blue stone collegiate buildings of the old school.

Boat House for Melbourne Grammar School, Victoria (1953) 75
Mockridge, Stahle & Mitchell

Steel frame with lattice beams, the building floats on a riverside concrete raft. Walling is of quartz-faced pre-cast slabs clipped to the frame.

Hospital, Beulah, Victoria (1955) 80
Peter & Dione McIntyre

A six-bed hospital. A circular plan hung from a central tank-stand and providing unusual protection against the intense sunshine of the inland.

75

House, Broadbeach, Queensland (1953) 90
E. J. Hayes & C. R. Scott

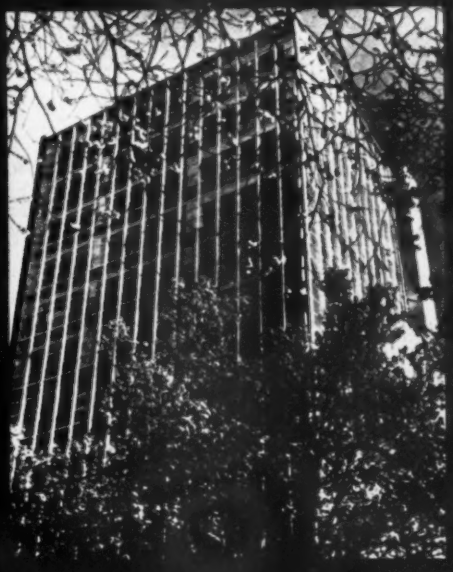
A timber dwelling which received an Award for Meritorious Architecture of the Queensland Chapter, R.A.I.A., in 1954.

Office building, Melbourne, Victoria (1955) 123
John Le Gerche

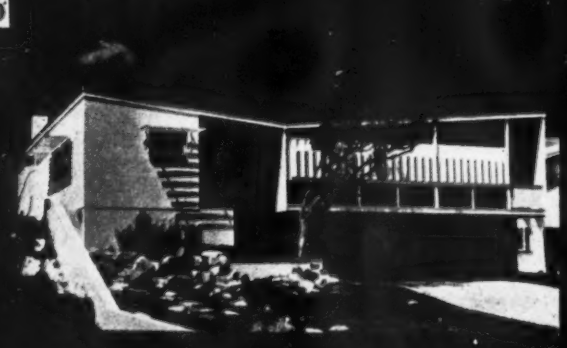
A twelve-storey office block with steel frame and aluminium curtain-wall with heat-resisting glass. Typical of large commercial projects now planning or building.

80

123



90



TECHNICAL SECTION

22 SOUND INSULATION AND ACOUSTICS
noise reduction by acoustic tile ceilings

Architects in this country do not use acoustic tile ceilings as frequently as circumstances require. One reason for this is uncertainty about what proportion of the ceiling should be tiled to obtain a worthwhile difference in acoustics. This week our Specialist Editor No.14 gives noise reduction coefficients for all the more common types of acoustic tile and relates these to a scale of sound reductions which can be appreciated by people in a room. He also discusses the value of fixing acoustic tiles alongside untreated areas of ceiling and describes the steps to be taken to prevent sound from by-passing sound-proofed partitions by filtering above suspended ceilings.

The benefits to be gained by the use of highly sound absorbing ceilings in a wide range of buildings are slowly becoming appreciated by architects and their clients. At the same time, an increasing number of proprietary acoustic tiles and systems of application are being offered by various firms, so that architects now have a considerably wider choice when specifying a ceiling than was the case a few years ago. Apart from economics there are three main factors which may influence the choice of an acoustic ceiling, namely:-

(a) acoustic efficiency

(b) appearance

(c) subsidiary requirements, such as heating, fire protection of structure, top lighting, etc.

The acoustic efficiency of a sound absorbing ceiling as a noise reducing device is dependent on the sound absorption coefficients. These values are usually quoted for a number of sound frequencies, such as 125 c/s, 250 c/s, 500 c/s, etc. etc., and it becomes necessary to decide what significance to attribute to these figures which vary considerably with the nature of the tile design and method of fixing. In an attempt to overcome this difficulty it is common in the U.S.A. to quote a single figure called a "noise reduction coefficient." This is the average of the sound absorption coefficients for four frequencies - 250, 500, 1,000 and 2,000 c/s, on the assumption that average "noise" generally has its energy concentrated mainly in these frequencies. Table 1, gives calculated noise reduction coefficients for a number of different types of acoustic absorbents and it should be noted that these values are almost independent of method of fixing. Variations in absorption coefficient with different methods of fixing of a given material are usually confined to the lower sound octaves up to 250 c/s and although these variations will be important when designing rooms for audition they have little significance in noise reduction :-

TABLE OF NOISE REDUCTION COEFFICIENTS

CEILING TYPE	COEFFICIENT
Insulation (soft wood fibre) board, decorated	.1
Insulation (soft wood fibre) board, undecorated	.19
Acoustic Plaster	.25
3% perforated $\frac{3}{8}$" fibrous plaster tile with glass silk tissue stuck to back	.45
3% perforated metal tray with 1" rock wool	.47
Slotted $\frac{1}{2}$" plaster board with 1" glass wool	.52
1" wood wool slabs - unplastered	.55
12% perforated $\frac{3}{8}$" plaster board, with porous tissue paper stuck to back	.55
5% perforated $\frac{1}{8}$" hardboard with 1" glass wool	.59
12% perforated $\frac{3}{8}$" plaster board with 1" rock wool	.69
Perforated $\frac{3}{4}$" wood fibre acoustic tile	.7
Cross slotted $\frac{3}{4}$" " " " "	.7
10% perforated $\frac{1}{8}$" hardboard with 1" glass wool	.8
20% perforated metal tile with 1" rock wool	.85

HOW MUCH NOISE REDUCTION IS NEEDED TO MAKE A DIFFERENCE ?

It is also useful to be able to rate the performance of noise reducing treatments in significant steps. For example, would a treatment having a noise reduction coefficient of 0.65 be appreciably better than one with a coefficient of 0.6 ? Theory predicts that sound levels will be reduced by 3 db every time the total absorption in a room is doubled. In most rooms where a sound absorbent ceiling treatment is installed, the major part of the total absorption will be provided by the ceiling and, therefore, it is reasonable to anticipate approximately 3 db reductions in noise levels when the noise reduction coefficient is doubled. A 3 db reduction is very readily appreciated and even a 2 db reduction is regarded as valuable. This step will theoretically be achieved by an increase in noise reduction coefficient of about one-and-a-half times. Taking a basic coefficient of 0.1, which represents an average value for a "non-acoustic" ceiling, a scale of significant steps in improvement can be formed as follows:-

Noise Reduction Coefficients in significant steps	0.1
	0.15
	0.22
	0.34
	0.5
	0.76

From the above it is seen that while a material with a coefficient of 0.8 should be significantly more efficient that one with a coefficient of 0.52, an increase in coefficient from 0.6 to 0.65 is unlikely to provide any notable improvement.

VALUE OF JUXTAPOSITIONING HIGHLY ABSORBING AND NON-ABSORBENT SURFACES

Since the total absorbing units are the product of the absorption

coefficient and the area, it also follows that a certain reduction in the area of treatment can be made before a significant loss in quietening occurs. Applying the theoretical reasoning given above it would appear that as much as one third of the absorbent part of a ceiling could be changed to a non-absorbent material before any significant increase in noise level would be obtained. It is also known that, when highly absorbing surfaces occur next to non-absorbent ones, the efficiency of the absorbent is increased due to diffraction effects which occur at these boundaries. Some measurements have shown an average increase in efficiency of 25%. It may therefore be assumed that provided the absorbent material is well mixed with non-absorbent material, so as to provide a maximum amount of "edge", the least reduction in area of absorbent which will cause a noticeable decrease in quietening is about 40 to 45%. Put another way, it is probably safe to reduce the absorbent area by 33% without affecting noise reduction at all or, alternatively, if the area is reduced by 45% then the effectiveness of the treatment will be one significant step down the scale below the noise-reduction coefficient value of the material used.

These suggestions for economising in acoustic treatment are put forward with some reservation. It would be unfortunate if attempts to pare down quantities resulted in inadequate noise reduction, and it is strongly urged that a maximum of treatment be used if it is economically feasible. There is very little, if any, danger of using too much absorbent for noise reduction problems. The intention is to encourage architects to consider the use of noise reduction treatment much more widely and to offer as an incentive suggestions for effective treatment at lowest cost. It is hoped thus to get some treatment specified, rather than to have it dismissed out of hand as too expensive when the economics are marginal.

NOISE LEVELS IN A CANTEEN

The genuine value of absorbent treatments in many kinds of room is very evident to anyone who has personal experience of the subject. Theory clearly shows the need also. In fig. 1 the measured noise levels in octave bands in a typical canteen with no absorbent treatment are shown. In the same graph the speech interference level for normal speech at 3 ft. and raised voice

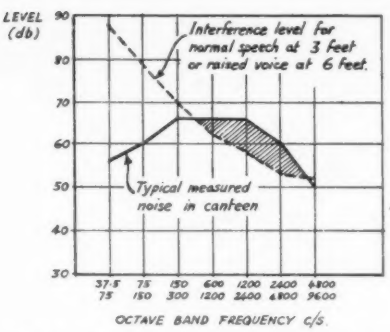


Fig.1. Noise levels in a canteen compared with a speech interference level.

at 6 ft. is given. This line represents the maximum noise-level which can be tolerated to allow reasonable communication in the conditions, and at the distances, stated above, and is derived from very valuable American research on this subject.* It will be seen that in the untreated canteen the noise levels exceed these permissible values, particularly over the defined noise frequency regions given above and shown shaded. The installation of an efficient acoustic absorbent ceiling would bring the canteen noise-level down below the speech interference level and thus allow normal communication. The same kind of result is found with a number of other noisy environments such as typists' pools and mechanical accounting machine rooms.

* "Speech Interference Level Criteria". Beranek & Newman. Journal of the Acoustical Society of America, Vol. 22, p. 671.

In practice, it is consistently found that, although the overall noise reduction achieved by sound-absorbing ceilings may only amount to a few decibels, particularly as measured on an overall noise-level meter, the subjective improvement is very great, and much appreciated by the occupants of the room. A practical point to observe in designing ceilings is that, generally speaking, the lower the final room height the better the performance. This is partly because the room volume, and hence the reverberation time, is reduced, and partly because with low absorbent ceilings noise is more rapidly attenuated in its journey from one part of the room to another.

OTHER CONSIDERATIONS BEARING ON THE USE OF TILES

The appearance of perforated acoustic tiles is now extremely well-known; indeed, in the opinion of some, all too familiar. The introduction of some alternatives using slots or slits enables designers to achieve new appearances. The photographs shown (figs. 2 and 3) indicate a few of the many possible variations which can be devised. It is also of interest to note that the slotted types of material are less objectionable optically when used on walls at or about eye level. Normal perforated material, especially if finished in a light colour, causes severe 'dazzle' due to the extreme brightness contrast between the dark holes and the light surface of the material. This is to some extent obviated by slot designs, an example of which is shown in fig. 4.

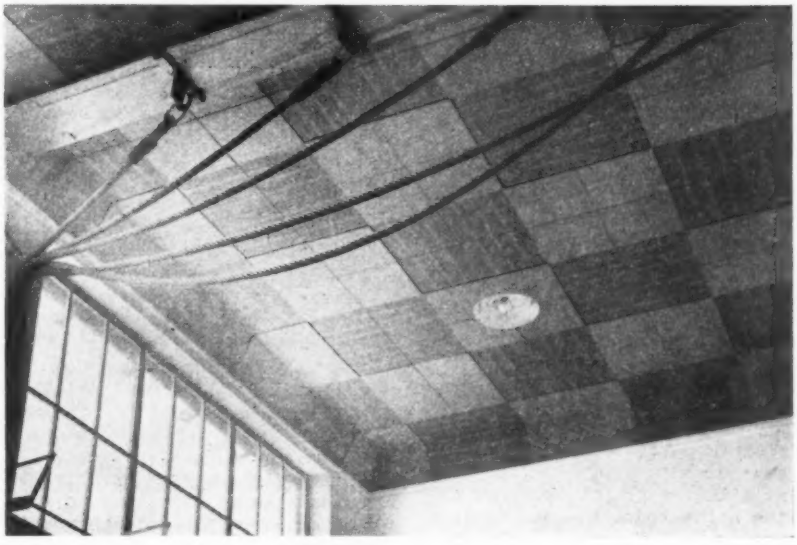


Fig.2. Slotted and perforated tile ceiling in a gymnasium.

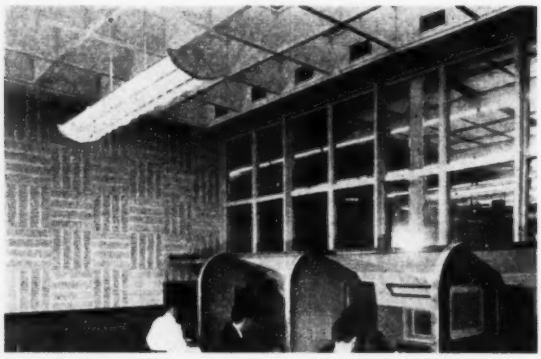
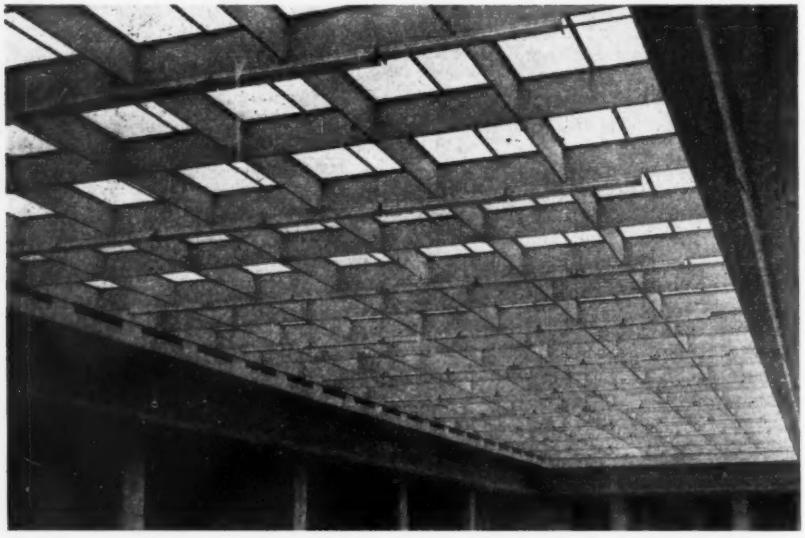


Fig.3 (above left). Slotted tile ceiling in offices. Fig.4 (above right). The use of slotted acoustic tiles on walls, and "egg-crate" sound-absorbent baffles to a lay light. Fig.5 (below). Sound-absorbent "egg-crate" baffles in a large top-lit room. Note the integrated fluorescent tube lighting.



The subsidiary uses of acoustic tile ceilings may include fire protection of structure, heating, formation of service or ventilation ducts, and light baffling. On the subject of fire protection there are two considerations to be observed. The requirement may be for a surface of low flame spread, or for a structure which provides complete fire protection of one, two or more hours to the structural members of the floor above the ceiling. On the first score - surfaces of low flame spread - proprietary wood-fibre acoustic tiles are, of course, inadequate, unless the tiles are treated with some fire-retardant coating. Even then the perforations or slits in the surface may nullify the flame-spread resistance of the coating to some extent. It is also possible that a slight decrease in the noise-reduction coefficient will result from the application of fire-retardant coatings, although this should not be substantial, provided that the holes are not filled. Incombustible materials, such as metal, asbestos wall-board, plasterboard or asbestos compositions can be used where low flame-spread danger is sought.

Where the ceiling has to provide fire protection of the structure it is not solely necessary to install a tile of the incombustible type. It is also essential that the whole ceiling structure should be fireproof against collapse for the specified time of the fire test. For example, if a perforated plaster board tile is suspended in steel or aluminium tee members with the bottom flanges of the metal exposed under the ceiling, the fact that all the material of the ceiling is incombustible does not prevent the danger of the whole structure collapsing under a fire test in quite a short time, due to the softening of the metal supports.

SOUNDPROOFING ABOVE PARTITIONS

Acoustic ceilings incorporating heating systems are becoming increasingly popular. These can be very effective as noise reducers, but one acoustical aspect of their employment should be noted. When a large continuous area of such a ceiling is installed and the area is subsequently sub-divided by partitioning there is a danger of low sound insulation between the divided rooms due to sound by-passing the partition through the ceiling over the partition, and so down through the ceiling into the adjoining room. Tests have shown that the sound insulation of a partition which, in normal circumstances, gives an average value of 27 db can be reduced to as little as 18 db. This effect can, of course, also occur in a non-heated acoustic ceiling of similar general type, but the danger is perhaps greater with heated ceilings because of the practical need to cover large areas with a single uninterrupted ceiling. The solution to this problem is to provide baffles having a sound insulation value of perhaps slightly less than that of the proposed partitioning to close the space between the upper side of the ceiling and the underside of the structural floor, over all partitions.

EFFECTIVENESS OF EGG-CRATE LIGHT BAFFLES

Where top-lit rooms require noise-reducing treatment, an excellent solution to the problem is to provide an "egg-crate" type light-baffle system formed of sound-absorbent panels. Such systems are very frequently seen in Holland, and figs. 4 and 5 show typical examples. These baffles are between 12 in. and 18 in. deep and the squares are of approximately 4 ft. The panels consist of perforated hardboard fixed to both sides of a timber frame with a porous absorbent such as glass wool or rock wool in the cavity. The noise reduction value of such a ceiling is very high because not only is the total surface area of absorbent equal to the area of the ceiling, but also there is a considerable increase in efficiency due to "edges". The absorption of the treatment is improved at lower frequencies due to the great average depth of the treatment. For design purposes it would probably be justifiable to multiply the noise-reduction coefficient of the material used by a factor of about 1.5 to obtain the actual noise-reduction value for a ceiling with this type of construction.

Architects' Journal 22/29.3.56

WORKING DETAIL **HEATING: 16**

FIREPLACE: HOUSE AT LOWESTOFT

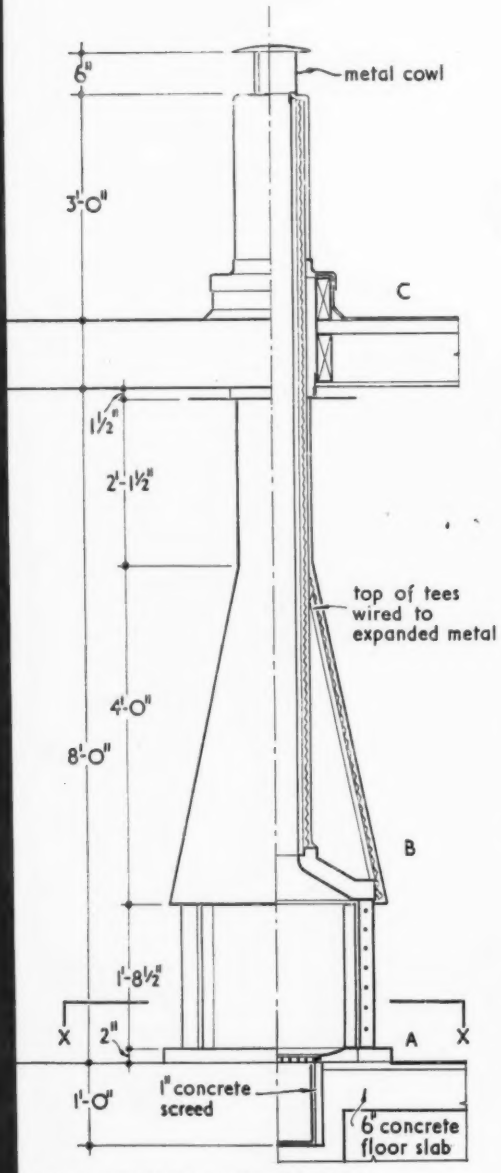
John and Sylvia Reid, architects

The draught for the fire is obtained through an under-floor duct leading from an air-brick to the ash pit. The fire brick lining and fireback and the circular concrete throat were cast in-situ. The circular m.s. plate close to ceiling level was inserted to conceal the changeover from the circular chimney to the square timber framing above and to forestall the crack which would have been likely to form in a plaster angle at this point. Though the fire draws adequately the architects consider the design would have been improved if the stack had been taller.

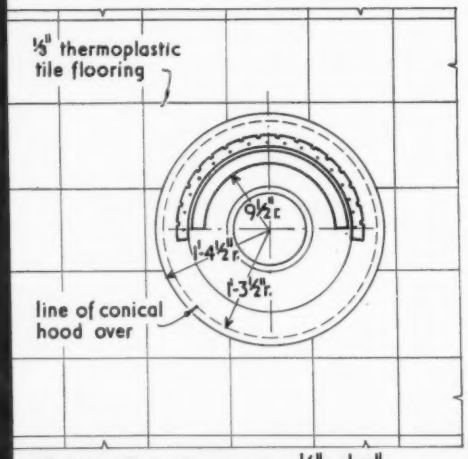
WORKING DETAIL

FIREPLACE: HOUSE AT LOWESTOFT

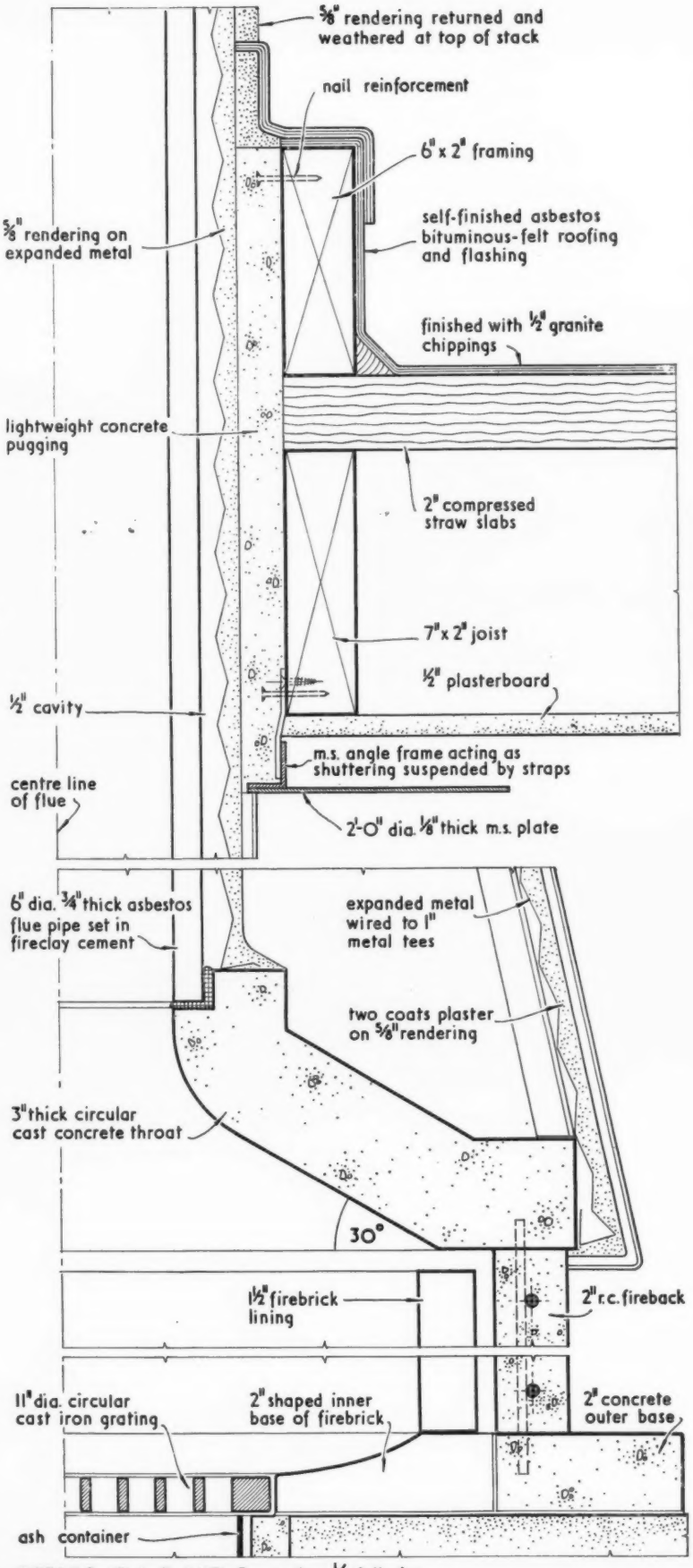
John and Sylvia Reid, architects



PART ELEVATION AND SECTION.



PLAN AT X-X. scale ½" = 1'-0"

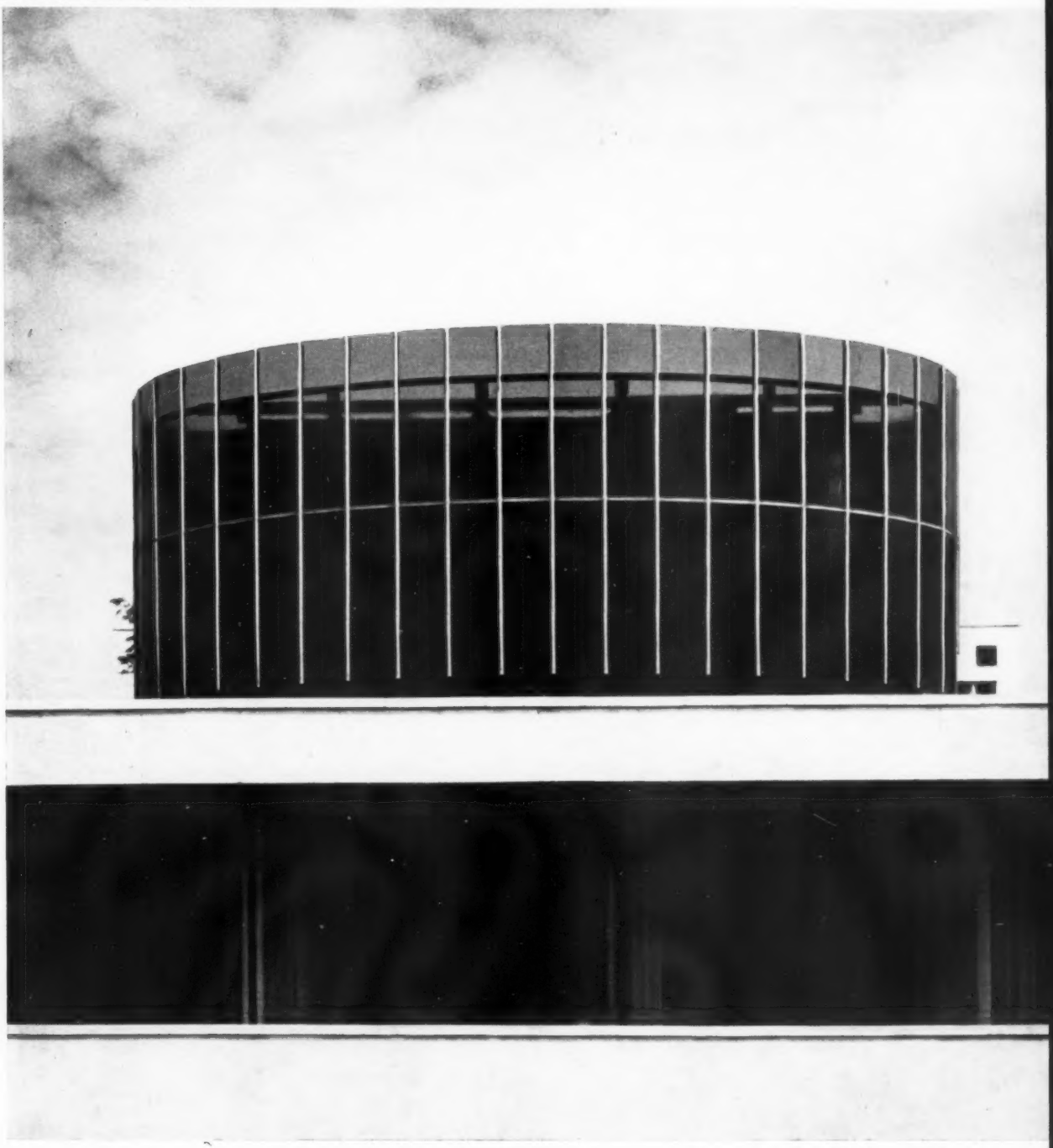


DETAILS AT A, B AND C. scale ¼ full size.

WORKING DETAIL **WATER SUPPLY AND SANITATION: 4**

TANK COVER AND SCREEN: SCHOOL IN LONDON W.1

Drake and Lasdun, architects

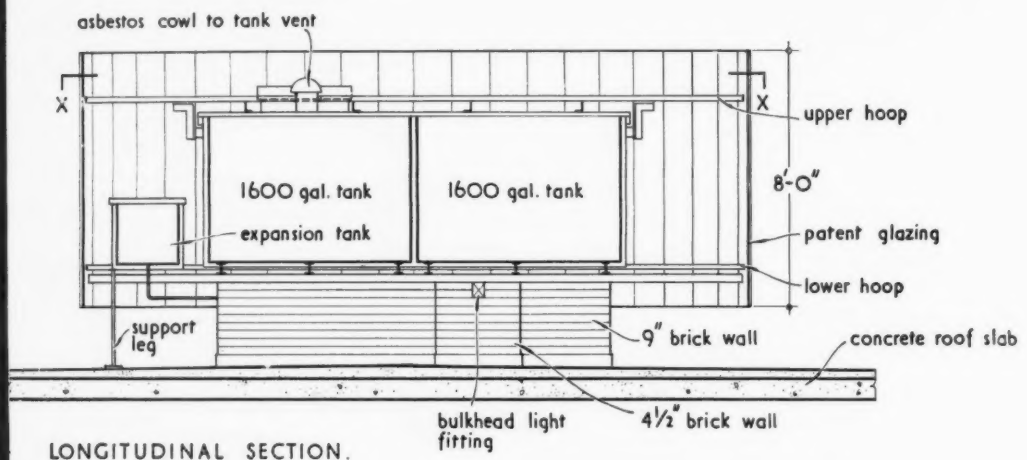


The main tanks rest on r.s.j's. and are enclosed with 2-in. cork slab glued direct to the metal. Two layers of roofing felt were applied to the sides and top of the tanks and the sides were further secured with chicken wire netting. The aluminium glazing bars holding the tinted glass of the screen were screwed top and bottom to 2-in. by ½-in. m.s. hoops which were in turn cleated to a framework of 3-in. m.s. angles. The angles in the bottom framework were bolted to the r.s.j's. supporting the tanks; the top framework rests on pressure-creosoted deal pads laid on the felt-covered tank tops. L-shaped "stabilisers" bolted to the framework and wedged to the sides of the tank further discourage movement. The steelwork was painted with four coats of bituminous paint.

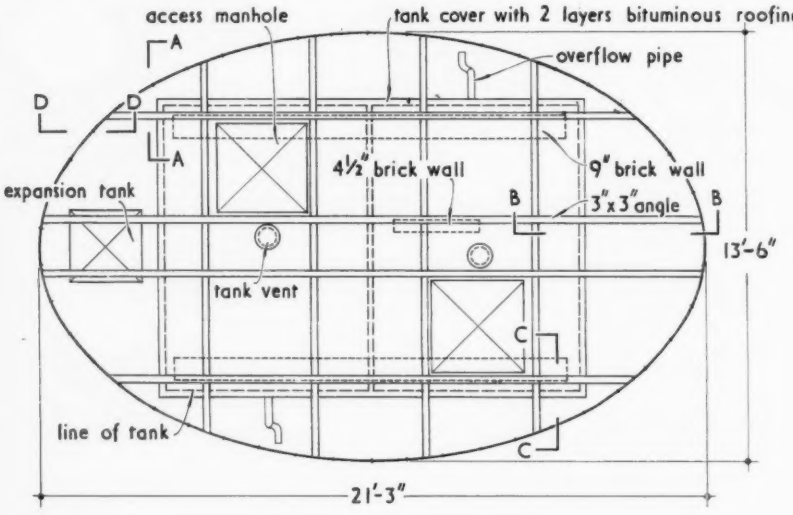
WORKING DETAIL — WATER SUPPLY AND SANITATION: 4

TANK COVER AND SCREEN: SCHOOL IN LONDON W.1

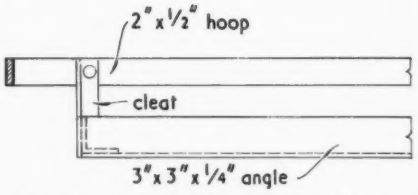
Drake and Lasdun, architects



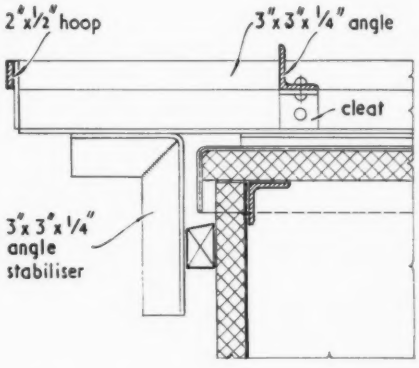
LONGITUDINAL SECTION.



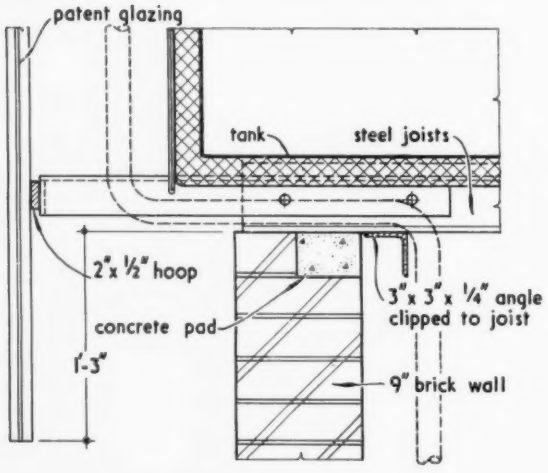
PLAN AT X-X. scale 3/16" = 1'-0"



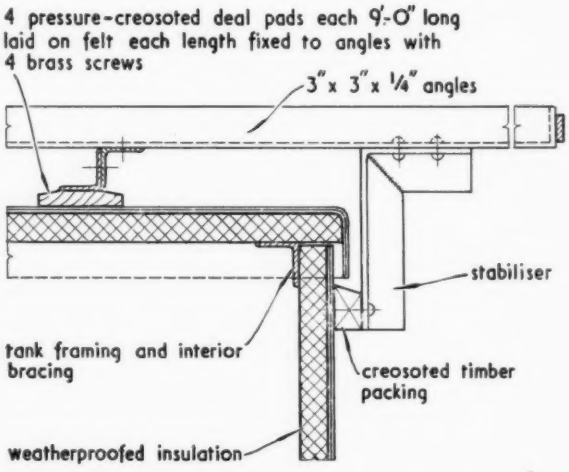
SECTION THRO' UPPER HOOP AT D-D.



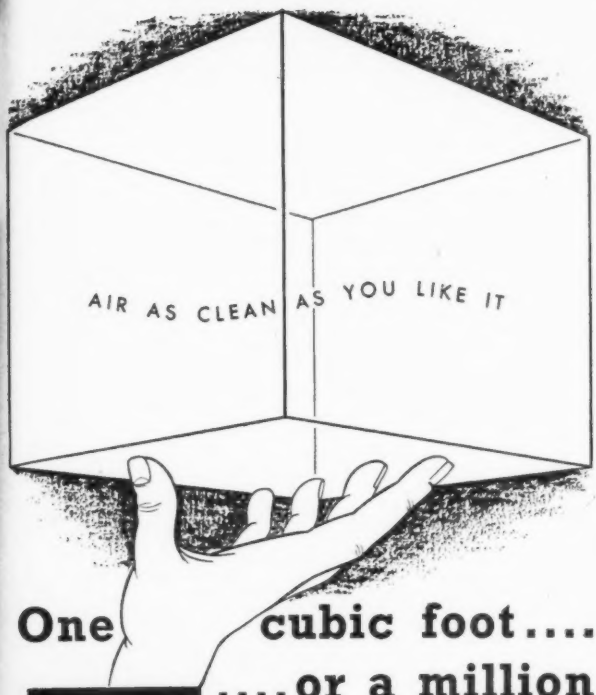
SECTION THRO' UPPER HOOP AT C-C.



SECTION THRO' LOWER HOOP AT A-A.



SECTION THRO' UPPER HOOP AT B-B. scale 1"=1'-0"



One cubic foot.... ....or a million

AAF

Exclusive Manufacturing Licence
AMERICAN AIR FILTER CO., INC.

We can supply air filters to fit into every type and size of scheme—industrial, commercial or domestic. Our range is the most comprehensive available from one single manufacturer—and each filter is the leader in its particular field.

Below are brief details of the range. Why not write to us TODAY for fuller information?

PL-24
A dry filter employing an inexpensive throw-away medium. Compact; easy to maintain.

Electro-PL
A dry type electronic precipitator of similar constructional design to the PL-24.

Electro-Klean
A compact electronic filter for the smaller installation.

Multi-Duty
A positive self-cleaning viscous impingement filter with very high efficiency.

Airmat
A pocket type industrial filter employing various types of filtering media to suit conditions.

Dustrap
A complete range of throw-away and cleanable filters in standard size frames employing glass wool, wire wool and synthetic fibres as filtering media.

LFO
A viscous impingement type filter for manual cleaning.

AIR CONTROL INSTALLATIONS LTD

RUISLIP
MIDDLESEX
Ruislip 4066
(8 lines)

ACI LTD

London
Welbeck 1306 & 1307
Birmingham
Midland 1165 & 1367
Manchester
Central 0679 & 0670
Newcastle-on-Tyne
Whitley Bay 23046
Glasgow
Central 2923

Quicker Work with the FINEST VENEER

Flexwood

Available in 20 Timbers.
Guaranteed fully seasoned.

Flexwood in office at a foreign Embassy Panelling in Flexwood French Oak.

It goes direct on the plaster and bends —where wanted—to the smallest radius.

We quote for complete installations.
Send your DRAWINGS to

ALEXANDRIA TRADING CORPN. LTD., 121, LONDON WALL, LONDON, E.C.2.

Tel : MONarch 2272 (6 lines)

Lansdowne Court, Calcutta

Talking of Snowcem

. . . the whole of the exterior walls of this ultra-modern block of residential flats in Calcutta were painted with pale-grey Snowcem. Naturally, such a building requires a protective coating which will stand up to burning sunshine and torrential rains, so the designers and builders, Messrs. Britannia Building and Iron Co. Ltd., chose Snowcem.

For decoration and protection, Snowcem is the wisest choice—anywhere in the world.

Snowcem is easily applied to concrete, cement rendering or suitable brickwork by brush or spray. Available in seven colours : White, Cream, Mid Cream, Buff, Pink, Silver Grey and Pale Green.

SNOWCEM
WATERPROOF CEMENT PAINT
A BLUE CIRCLE CMC PRODUCT
Decoration PLUS protection at *LOW* cost

BRITISH CEMENT IS THE CHEAPEST IN THE WORLD

The Cement Marketing Company Ltd., Portland House, Tothill Street, London, S.W.1
or G. & T. Earle Ltd., Hull

(T1756

The South Wales Portland Cement & Lime Co. Ltd., Penarth, Glam.

Meet Ethel Mary Sprott

It's mid-winter and she's sniffing because she's cold. She's fumbling because her fingers are frozen, she's fed up with the factory because it's like an ice-well. No heaters? Plenty! Trouble is, the building leaks heat like a sieve—especially through the roof! What's the answer? *

Meet Ethel Mary Sprott

It's mid-summer and she's sweating and swearing because she's hot. She's getting careless because she's drowsy. She's fed up because the factory's like an oven. What's the trouble? No windows or fans? Not on your life! Feel that roof. It's *baking* hot. No wonder production is slacking off. So what? So . . . *

* *wrap her in*

Factory-warming and fuel-saving in winter, cool-keeping in summer, peace and quiet-making all the year round—that's Fibreglass . . . rot-proof, everlasting, inexpensive, easily-installed Fibreglass insulation.

FIBREGLASS TRADE MARK

FIBREGLASS LIMITED, RAVENHEAD, ST. HELENS, LANCS. (ST. HELENS 4224). FACTORIES AT ST. HELENS, LANCS. AND POSSILPARK, GLASGOW

★望着飛機行過.....

CHINESE STEWARDESSES, training with B.O.A.C., found the roof of the Passenger Building, London Airport Central, an ideal place to spend their lunch break.

This roof-garden will be very popular with visitors, and the "**Permatile**" Coloured Concrete Tile Roofing system provides an attractive and durable roof surface capable of taking this continuous foot traffic.

★Watching the planes go by

Permanite Limited

Birmingham
London
Manchester

LIGHTWEIGHT **incombustible ceilings**

Modern methods, modern structures, demand lightness, and that is where ASBESTOLUX comes in. Lessening weight, lending itself to prefabrication, reducing costs by eliminating wet work . . . these are its strong points.

Lightness, strength and inertness are important: ASBESTOLUX has all these properties and — most important of all — incombustibility.

These ASBESTOLUX ceiling panels, screwed up to suspended tee sections, provide this big store with a strikingly accurate ceiling.

ASBESTOLUX ceiling panels screwed to suspended tee sections at the Lewisham branch of British Home Stores.

Ceiling contractors:
Tentest Fibre Board Company Limited

dry construction *needs* **ASBESTOLUX**

INCOMBUSTIBLE ASBESTOS INSULATION BOARD

THE CAPE ASBESTOS COMPANY LIMITED

114-116 PARK STREET · LONDON · W1 · Telephone: GROsvenor 6022

and at Blackfriars House, Parsonage, MANCHESTER 3 · *Tel: Blackfriars 9355/6* · Eagle Buildings, 217 Bothwell Street, GLASGOW C2 · *Tel: Central 2175* · 246a Corporation Street, BIRMINGHAM 4 · *Tel: Central 8168*

Presenting

- The Black and Cream enamel gives a pleasing finish to the jacket, which is easily cleanable.
- The Smokehood Damper is operated by a convenient Knob on the left-hand side of the boiler.
- Fitted with easily operated rocking grate and a device (*Patent pending No. 7124/54*) for dumping incombustible material from the fire-box into the ashpan.
- A graduated Control Knob, for the concealed Thermostat, is conveniently positioned at the front of the boiler.
- Totally enclosed in a most attractive jacket, this boiler is as clean in operation as it is efficient.
- Ash Guides ensure that the ash is deposited into a serviceable ashpan, designed to prevent any ash escaping into the kitchen during the rocking grate operation.

the **NEW** *Thermostatically Controlled*

Ideal NEO-CLASSIC Boiler

The new Ideal No. 1 Neo-Classic Boiler, made in four sizes for Central Heating and Indirect Hot Water Supply, has been designed with thermostatic draught control. A graduated Control Knob is conveniently positioned at the front of the boiler, at the top of the right-hand side panel.

If thermostatic control is not required, a model with a hand draught control is available. For oil-burning, the boiler will be supplied with a blank plate to facilitate the fitting of an oil-burner, in place of the ashpit door.

A special fitting, which carries a dial-type thermometer, is provided as standard and is complete with a short length of pipe to provide the necessary space for the top portion of the jacket to be lifted to give access to the thermostat bottle, positioned directly under the top of the jacket, whenever necessary.

The door of the jacket can be reversed for either left-hand or right-hand opening.

Provision is made for the insertion of a gas-poker to facilitate lighting.

The new Ideal No. 1 Neo-Classic Boiler is available in four sizes, with ratings from 35,000 to 65,000 B.T.U.'s per hour for Heating and Indirect Hot Water Supply.

This boiler will be available as from 3rd April, 1956

IDEAL BOILERS & RADIATORS LIMITED · IDEAL WORKS · HULL

IDEAL-Standard

340

A

"

Printed in Great Britain for the Proprietors of "THE ARCHITECTS' JOURNAL" (The Architectural Press Ltd.), 9, 11 and 13, Queen Anne's Gate, Westminster, S.W.1, by HARRISON & SONS LTD., by Appointment to Her Majesty The Queen, Printers, London, Hayes (Middx.), and High Wycombe.
Editorial illustrations engraved by THE ENGRAVERS' GUILD LTD., Windsor House, 23/26, Cursitor Street, London, E.C.4.